

5663

Columbia County Building Permit Application

787.24

For Office Use Only Application # 0801-01 Date Received 1/2/08 By LF Permit # 26668
Application Approved by - Zoning Official BLK Date 01/01/08 Plans Examiner OKTH Date 1-15-
Flood Zone AE Development Permit YES Zoning ESA-2 Land Use Plan Map Category ESA
Comments Floodway, Parcel # 0255, Santa Fe River, O'Rice Letter # 35' MFE 36'

☒ NOC ☒ EH ☐ Deed or PA ☐ Site Plan ☐ State Road Info ☐ Parent Parcel # ☐ Development Per

Name Authorized Person Signing Permit Hugo Escalante Fax 1800 886 9563
Address P.O. BOX 280, Fort White, FL 32038 Phone 386 2888666

Owners Name Jackie Moore Phone 404-406-3760
911 Address 1374 S.W. Santa Fe, Fort White, FL 32038

Contractors Name Hugo Escalante Phone 386 2888666
Address PO BOX 280, Fort White, FL

Fee Simple Owner Name & Address N/A
Bonding Co. Name & Address N/A

Architect/Engineer Name & Address _____
Mortgage Lenders Name & Address _____

Circle the correct power company - FL Power & Light - Clay Elec. - Suwannee Valley Elec. - Progressive En

Property ID Number 26-65-15-00641-003 Estimated Cost of Construction \$250,000.00

Subdivision Name Three River Estates Lot 3/4 Block _____ Unit 6 Phase _____

Driving Directions South 47, T/R 27 to Three River Estates, T/L, T/L and Utah, T/R
at Washington Ave, T/L at Santa Fe DR, house on right after 1/2 mile

Type of Construction New Single Family Number of Existing Dwellings on Property _____

Total Acreage 1.0 Lot Size 1.0 Do you need a - Culvert Permit or Culvert Waiver or Have an Existing I

Actual Distance of Structure from Property Lines - Front 20' Side 50' Side 50' Rear 200'
Total Building Height 32'-0" Number of Stories 2 Heated Floor Area 2220 S.F. Roof Pitch 8-12
TOTAL 2223

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards all laws regulating construction in this jurisdiction.

OWNERS AFFIDAVIT: I hereby certify that all the foregoing information is accurate and all work will be done in compliance with all applicable laws and regulating construction and zoning.

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

Owner Builder or Authorized Person by Notarized Letter _____ Contractor Signature _____

STATE OF FLORIDA
COUNTY OF COLUMBIA



Sworn to (or affirmed) and subscribed before me this 2nd day of JANUARY 2008.

Personally known ☒ or Produced Identification _____

Contractors License Number CRC1326967
Competency Card Number _____
NOTARY STAMP/SEAL

Notary Signature _____
1/17/08 (Revised Sept. 2)

26668

Add 13033

Notice of Treatment**Applicator:** Florida Pest Control & Chemical Co. (www.flapest.com)Address: 536 SE Baya DrCity Lake City Phone 952-1703**Site Location:** Subdivision _____

Lot # _____ Block# _____ Permit # _____

Address 1374 SW Santa Fe River Dr**Product used****Active Ingredient****% Concentration**

- ☒ Premise Imidacloprid 0.1%
- ☐ Termidor Fipronil 0.12%
- ☐ Bora-Care Disodium Octaborate Tetrahydrate 23.0%

Type treatment:☒ Soil☐ Wood**Area Treated****Square feet****Linear feet****Gallons Applied**

MB-Floor Rd 2650 _____ 200

As per Florida Building Code 104.2.6 – If soil chemical barrier method for termite prevention is used, final exterior treatment shall be completed prior to final building approval.

If this notice is for the final exterior treatment, initial this line _____.

5/13/08

Date

11:20

Time

Guy

Print Technician's Name

Remarks: _____

Applicator - White

Permit File - Canary

Permit Holder - Pink

10/05



District No. 1 - Ronald Williams
District No. 2 - Dewey Weaver
District No. 3 - Jody DuPree
District No. 4 - Stephen E. Bailey
District No. 5 - Scarlet P. Frisina

BOARD OF COUNTY COMMISSIONERS • COLUMBIA COUNTY



26668

MEMO OF REVIEW FOR CORRECTNESS AND COMPLETION

In accordance with participation in the NFIP/CRS program, all elevation certificates are required to be reviewed for correctness and completion prior to acceptance by the community. This completed form shall be attached to all elevation certificates maintained on file and provided with requested copies of elevation certificates.

- ☐ The attached elevation certificate requires corrections by the surveyor of section(s) _____ prior to acceptance by the community.
- ☒ The attached elevation certificated is complete and correct.
- ☐ Minor corrections have been made in the below marked sections by the authorized Community Official.

SECTION A - PROPERTY INFORMATION

A1. Building Owner's Name <u>John Moore</u>	For Insurance Company Use:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.	Policy Number
City _____ State _____ ZIP Code _____	Company NAIC Number
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) <u>26-65-17-00641-002</u>	
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) _____	
A5. Latitude/Longitude: Lat. _____ Long. _____ Horizontal Datum: ☐ NAD 1927 ☐ NAD 1983	
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.	
A7. Building Diagram Number _____	
A8. For a building with a crawl space or enclosure(s), provide: a) Square footage of crawl space or enclosure(s) _____ sq ft b) No. of permanent flood openings in the crawl space or enclosure(s) walls within 1.0 foot above adjacent grade _____ c) Total net area of flood openings in A8.b _____ sq in	A9. For a building with an attached garage, provide: a) Square footage of attached garage _____ sq ft b) No. of permanent flood openings in the attached garage walls within 1.0 foot above adjacent grade _____ c) Total net area of flood openings in A9.b _____ sq in

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number		B2. County Name		B3. State	
B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use base flood depth)
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9. ☐ FIS Profile ☐ FIRM ☐ Community Determined ☐ Other (Describe) _____					
B11. Indicate elevation datum used for BFE in Item B9: ☐ NGVD 1929 ☐ NAVD 1988 ☐ Other (Describe) _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? Designation Date _____ ☐ CBRS ☐ OPA ☐ Yes ☐ No					

COMMENTS: _____

Date of Review: 11-17-08

BOARD MEETS FIRST THURSDAY AT 7 00 P.M.
AND THE COMMUNITY OFFICIAL

Z. J. H.

All elevation certificates shall be maintained by the community and copies with the attached memo made available upon request.
P.O. BOX 1529 LAKE CITY, FLORIDA 32056-1529 PHONE (386) 733-4100

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expires February 28, 2009

Important: Read the instructions on pages 1-8.

SECTION A - PROPERTY INFORMATION

A1. Building Owner's Name John Moore	For Insurance Company Use:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. SW Santa Fe Drive	Policy Number
City Ft White State FL ZIP Code	Company NAIC Number

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
Lots 3 & 5, Unit 6 - Three Rivers Estates

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) Residential

A5. Latitude/Longitude: Lat. 29-55.856N Long. 082-46.933W

Horizontal Datum: ☐ NAD 1927 ☒ NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number 5

A8. For a building with a crawl space or enclosure(s), provide

- a) Square footage of crawl space or enclosure(s) N/A sq ft
b) No. of permanent flood openings in the crawl space or enclosure(s) walls within 1.0 foot above adjacent grade N/A
c) Total net area of flood openings in A8.b N/A sq in

A9. For a building with an attached garage, provide:

- a) Square footage of attached garage N/A sq ft
b) No. of permanent flood openings in the attached garage walls within 1.0 foot above adjacent grade N/A
c) Total net area of flood openings in A9.b N/A sq in

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number Columbia Co. 120070		B2. County Name Columbia		B3. State Florida	
B4. Map/Panel Number 120070 0255	B5. Suffix B	B6. FIRM Index Date 1/6/88	B7. FIRM Panel Effective/Revised Date 1/6/88	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use base flood depth) 34

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9.

☐ FIS Profile ☐ FIRM ☐ Community Determined ☒ Other (Describe) Suwannee River Water Management District

B11. Indicate elevation datum used for BFE in Item B9: ☒ NGVD 1929 ☐ NAVD 1988 ☐ Other (Describe) _____

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No
Designation Date _____ ☐ CBRS ☐ OPA

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

- C1. Building elevations are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☒ Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.
- C2. Elevations - Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO. Complete Items C2.a-g below according to the building diagram specified in Item A7.
Benchmark Utilized Local Vertical Datum NGVD1929
Conversion/Comments _____

Check the measurement used.

- a) Top of bottom floor (including basement, crawl space, or enclosure floor) 41.33 ☒ feet ☐ meters (Puerto Rico only)
b) Top of the next higher floor N/A ☐ feet ☐ meters (Puerto Rico only)
c) Bottom of the lowest horizontal structural member (V Zones only) N/A ☐ feet ☐ meters (Puerto Rico only)
d) Attached garage (top of slab) N/A ☐ feet ☐ meters (Puerto Rico only)
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment in Comments) 41.15 ☐ feet ☐ meters (Puerto Rico only)
f) Lowest adjacent (finished) grade (LAG) 23.0 ☒ feet ☐ meters (Puerto Rico only)
g) Highest adjacent (finished) grade (HAG) 28.4 ☒ feet ☐ meters (Puerto Rico only)

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

☐ Check here if comments are provided on back of form.

Certifier's Name Timothy A. Delbene, P.L.S. License Number LS# 5594

Title Land Surveyor Company Name Donald F. Lee & Associates, Inc.

Address 140 NW Ridgewood Ave. City Lake City State FL ZIP Code 32055

Signature Timothy A. Delbene Date 11/7/2008 Telephone 386-755-6166



IMPORTANT: Fill in these spaces, copy the corresponding information from Section A.	For Insurance Company Use:
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. SW Santa Fe Drive - Lots 3 & 4, Unit 6 - Three Rivers Estates	Policy Number
City Ft White State FL ZIP Code	Company NAIC Number

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)

Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments Elevation for Zone AE (100 year flood plain) is taken from Suwannee River Water Management District's website (River Mile 8). This elevation agrees with FIRM map. Mechanical equipment is elevated air-conditioning unit.

Signature  Date 11/7/2008 ☐ Check here if attachments

SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1-E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1-E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

- E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
- a) Top of bottom floor (including basement, crawl space, or enclosure) is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.
- b) Top of bottom floor (including basement, crawl space, or enclosure) is _____ ☐ feet ☐ meters ☐ above or ☐ below the LAG.
- E2. For Building Diagrams 6-8 with permanent flood openings provided in Section A Items 8 and/or 9 (see page 8 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.
- E3. Attached garage (top of slab) is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.
- E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown. The local official must certify this information in Section G.

SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner's or Owner's Authorized Representative's Name

Tim Delbene - Donald F. Lee & Associates, Inc.

Address 140 NW Ridgewood Ave.

City Lake City

State FL

ZIP Code 32055

Signature

Date 11/7/2008

Telephone 386-755-6166

Comments Land Surveyors

☐ Check here if attachments

SECTION G - COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8. and G9.

- G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)
- G2. ☐ A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3. ☐ The following information (Items G4.-G9.) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate Of Compliance/Occupancy Issued
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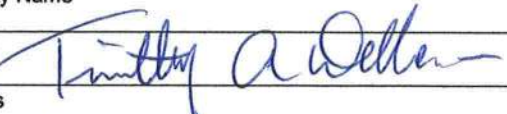
G7. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: _____ ☐ feet ☐ meters (PR) Datum _____

G9. BFE or (in Zone AO) depth of flooding at the building site: _____ ☐ feet ☐ meters (PR) Datum _____

Local Official's Name _____ Title _____

Community Name _____ Telephone _____

Signature  Date _____

Comments _____

Building Photographs

See Instructions for Item A6.

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. SW Santa Fe Drive- Lots 3 & 4, Unit 6 Three Rivers Estates		For Insurance Company Use:
City Ft White State FL ZIP Code		Policy Number
		Company NAIC Number
If using the Elevation Certificate to obtain NFIP flood insurance, affix at least two building photographs below according to the instructions for Item A6. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." If submitting more photographs than will fit on this page, use the Continuation Page, following.		



FRONT VIEW OF HOUSE



REAR VIEW OF HOUSE

DIAGRAM 5

All buildings elevated on piers, posts, piles, columns, or parallel shear walls. No obstructions below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is open, with no obstruction to flow of flood waters (open lattice work and/or readily removable insect screening is permissible).

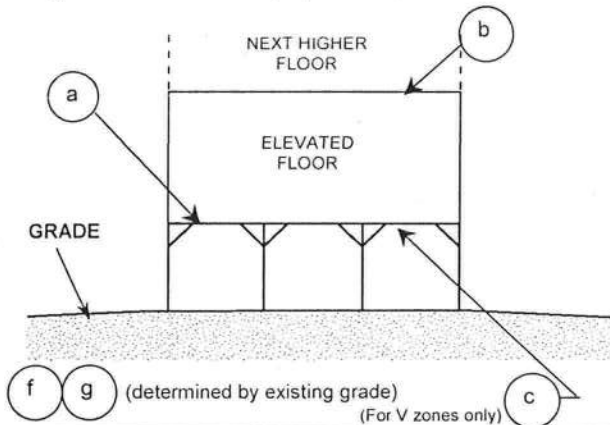


DIAGRAM 6

All buildings elevated on piers, posts, piles, columns, or parallel shear walls with full or partial enclosure below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about openings in Section C, Building Elevation Information (Survey Required).

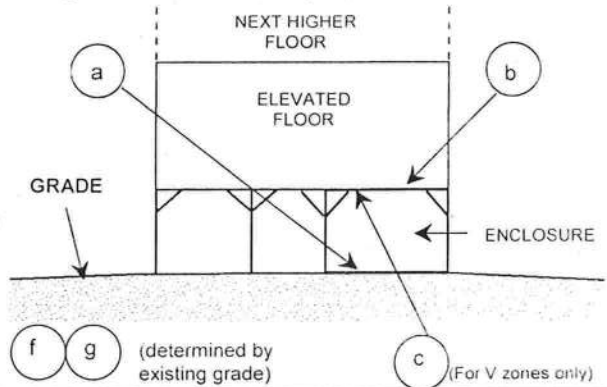


DIAGRAM 7

All buildings elevated on full-story foundation walls with a partially or fully enclosed area below the elevated floor. This includes walkout levels, where at least one side is at or above grade. The principal use of this building is located in the elevated floors of the building.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about openings in Section C, Building Elevation Information (Survey Required).

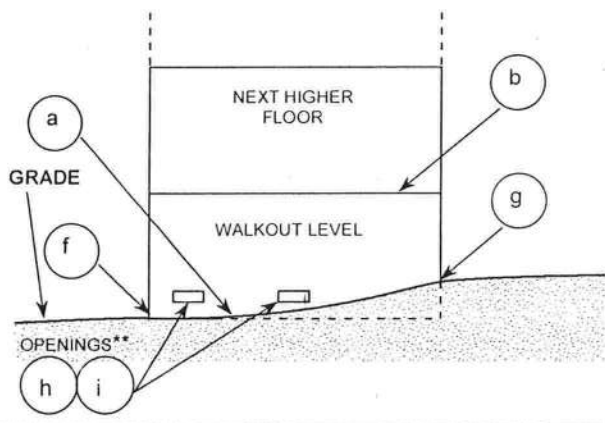
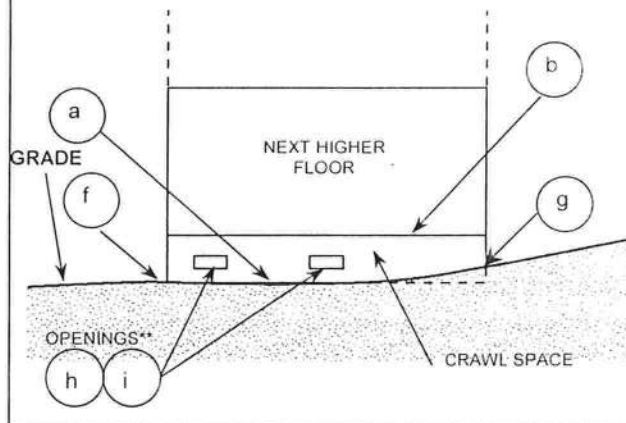


DIAGRAM 8

All buildings elevated on a crawl space with the floor of the crawl space at or above grade on at least one side, with or without an attached garage.

Distinguishing Feature – For all zones, the area below the first floor is enclosed by solid or partial perimeter walls. In all A zones, the crawl space is with or without openings** present in the walls of the crawl space. Indicate information about the openings in Section C, Building Elevation Information (Survey Required).



** An "opening" (flood vent) is defined as a permanent opening in a wall that allows for the free passage of water automatically in both directions without human intervention. Under the NFIP, a minimum of two openings is required for enclosures or crawl spaces with a total net area of not less than one square inch for every square foot of area enclosed. Each opening must be on different sides of the enclosed area. If a building has more than one enclosed area, each area must have openings on exterior walls to allow floodwater to directly enter. The bottom of the openings must be no higher than one foot above the grade underneath the flood vents. Alternatively, you may submit a certification by a registered professional engineer or architect that the design will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening.

Zero Rise Floodway Study

Moore Property
Lots 3 and 4 of "Three Rivers Estates Unit 6" Subdivision
Columbia County

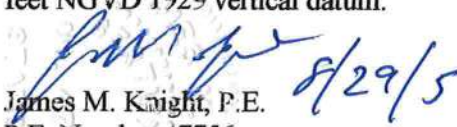
The Moore's property is located on the north side of the Santa Fe River at River Mile 8.4. The property is located in the 100-year floodway of the River. A HEC-RAS analysis has been performed based on the HEC-2 deck obtained from the Suwannee River Water Management District. Duplicate and Proposed models depict the floodplain and floodway analyses and compare the stages for each condition. The Duplicate model is a replication of the HEC-2 deck.

The proposed model blocks all of the flow area in the vicinity of the proposed home and carport; as well as the flow area below elevation 25.0 feet (NGVD 1929 vertical datum) between the carport and the right top of bank of the river. For modeling purposes it was assumed that the home and boardwalk would block the cross section for a length of 70'. The cross section at River Mile 8.43 was used as the Approach Section and was copied downstream 150 feet (XS 8.42 Upstream Face), copied downstream 220 feet (XS 8.41 Downstream Face), and copied downstream 370 feet (XS 8.40 Exit Section). Cross Sections 8.41 and 8.42 were modified by blocking all flow area between Ground Stations 13101 and 13230 (carport and home) and all area below elevation 25.0 between Ground Stations 12897 and 13100 (boardwalk to river). The right top of bank in the model is at Ground Station 12896. Cross section plots are attached.

Comparison of the floodway elevations at the cross sections near the proposed fill indicates that the fill will not increase the floodway elevations (all elevation differences are less than 0.05 feet and round to 0.0 feet when considered to the nearest tenth of a foot). The fill placed on the property will cause zero rise in the floodway. Elevations from the duplicate and the proposed floodway models are summarized below.

Cross Section	Duplicate Floodway Elevation	Proposed Floodway Elevation
7.64	34.8	34.8
8.40 Exit	NA	35.0
8.41 Face	NA	35.0
8.42 Face	NA	35.0
8.43 Approach	35.1	35.1
10.06	35.5	35.5
11.30	35.9	35.9
13.03	36.2	36.2

The proposed minimum finished floor elevation is elevation 36.1 feet NGVD 1929 vertical datum. The proposed minimum low member elevation for the home and carport is elevation 34.3 feet NGVD 1929 vertical datum.


James M. Knight, P.E.
P.E. Number 47756

8725 - 288th Street
Branford, FL 32008
Phone 386-961-6595

**Columbia County Building Department
Flood Development Permit**

**Development Permit
F 023- 08-002**

DATE 01/25/2008 BUILDING PERMIT NUMBER 000026668
APPLICANT HUGO ESCALANTE PHONE 386.288.8666
ADDRESS POB 280 FT. WHITE FL 32038
OWNER JACKIE MOORE PHONE 404.406.3760
ADDRESS 1374 SW SANTA FE DRIVE FT. WHITE FL 32038
CONTRACTOR HUGO ESCALANTE PHONE 386.288.8666
ADDRESS POB 280 FT. WHITE FL 32038
SUBDIVISION 3 RIVERS ESTATES Lot 3/4 Block Unit 6 Phase
TYPE OF DEVELOPMENT SFD/UTILITY PARCEL ID NO. 26-6S-15-00641-003

FLOOD ZONE AE BY BLK 1-6-88 FIRM COMMUNITY #. 120070 - PANEL # 0255B
FIRM 100 YEAR ELEVATION 35.0' PLAN INCLUDED YES or NO
REQUIRED LOWEST HABITABLE FLOOR ELEVATION 36.0'
IN THE REGULATORY FLOODWAY YES or NO RIVER SANTA FE
SURVEYOR / ENGINEER NAME JAMES M. KNIGHT, F.E. LICENSE NUMBER 47756

 ONE FOOT RISE CERTIFICATION INCLUDED

✓ ZERO RISE CERTIFICATION INCLUDED

✓ SRWMD PERMIT NUMBER LRP05-0455
(INCLUDING THE ONE FOOT RISE CERTIFICATION)

DATE THE FINISHED FLOOR ELEVATION CERTIFICATE WAS PROVIDED

INSPECTED DATE BY

COMMENTS

135 NE Hernando Ave., Suite B-21
Lake City, Florida 32055
Phone: 386-758-1008
Fax: 386-758-2160



Zero Rise Floodway Study

Moore Property
Lots 3 and 4 of "Three Rivers Estates Unit 6" Subdivision
Columbia County

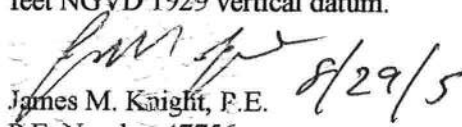
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The proposed model blocks all of the flow area in the vicinity of the proposed home and carport; as well as the flow area below elevation 25.0 feet (NGVD 1929 vertical datum) between the carport and the right top of bank of the river. For modeling purposes it was assumed that the home and boardwalk would block the cross section for a length of 70'. The cross section at River Mile 8.43 was used as the Approach Section and was copied downstream 150 feet (XS 8.42 Upstream Face), copied downstream 220 feet (XS 8.41 Downstream Face), and copied downstream 370 feet (XS 8.40 Exit Section). Cross Sections 8.41 and 8.42 were modified by blocking all flow area between Ground Stations 13101 and 13230 (carport and home) and all area below elevation 25.0 between Ground Stations 12897 and 13100 (boardwalk to river). The right top of bank in the model is at Ground Station 12896. Cross section plots are attached.

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James M. Knight, P.E.
P.E. Number 47756

8725 - 288th Street
Branford, FL 32008
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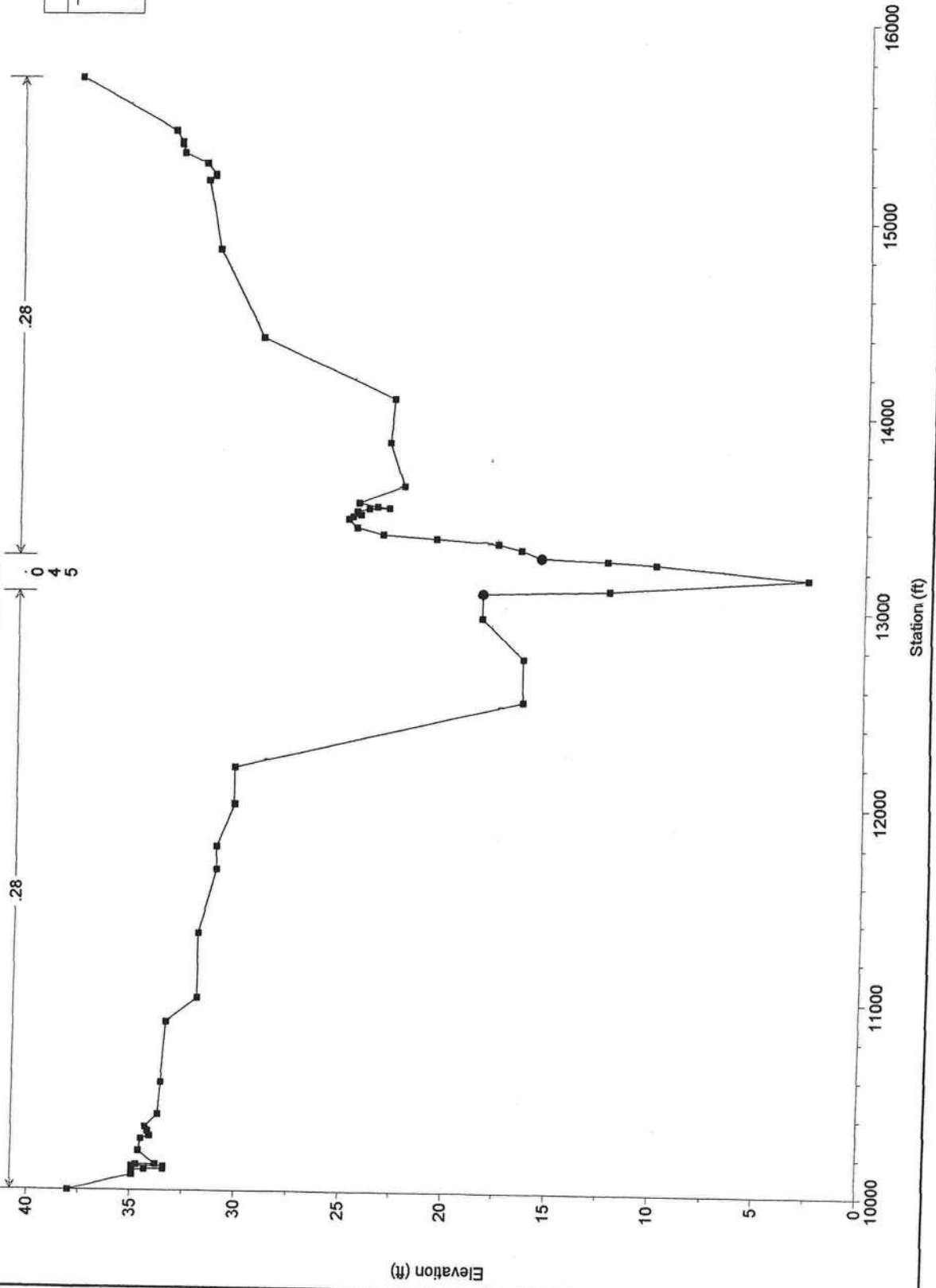
Duplicate

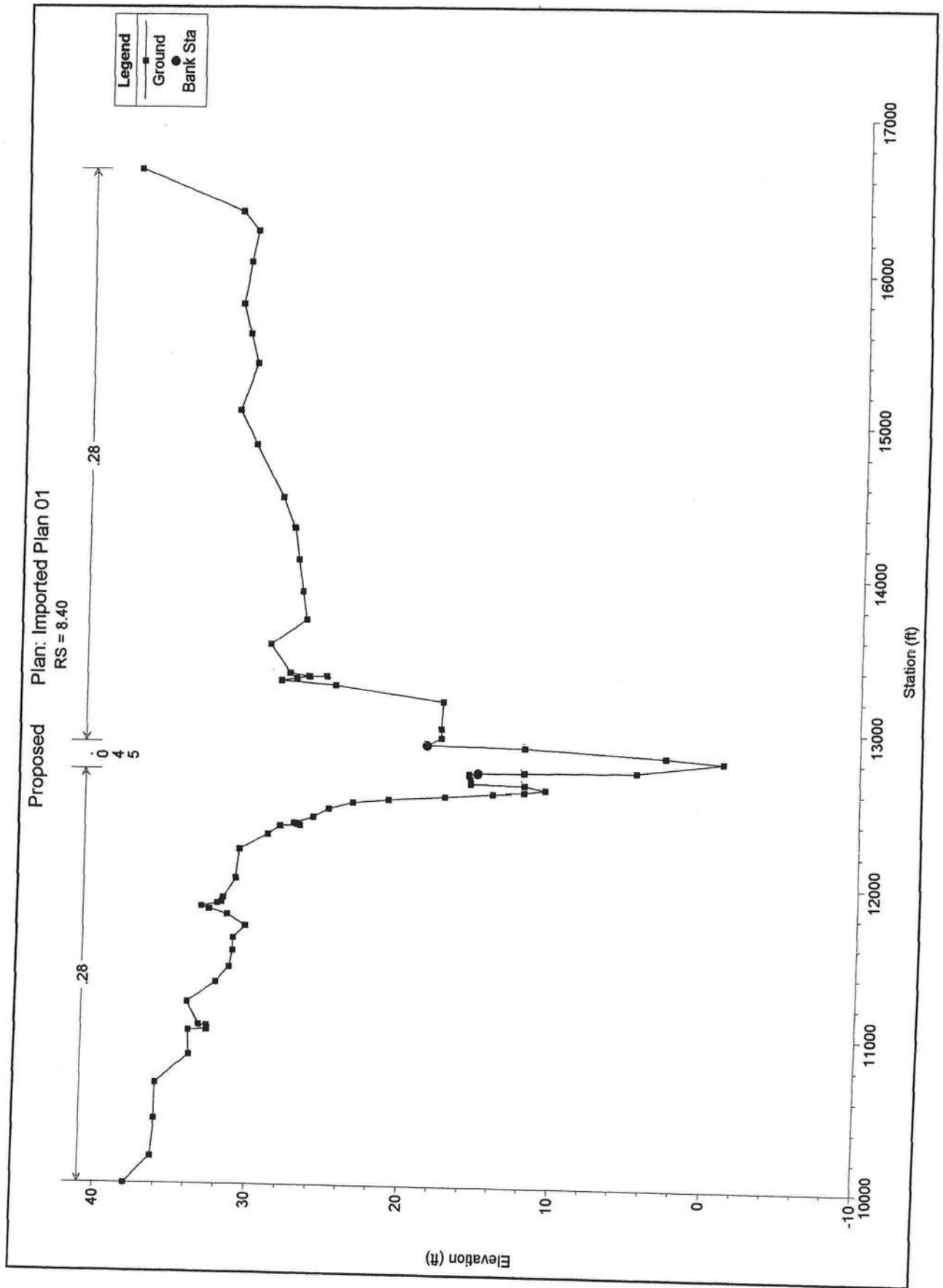
HEC-RAS Plan: Imported Pla River: RIVER-1 Reach: Reach-1

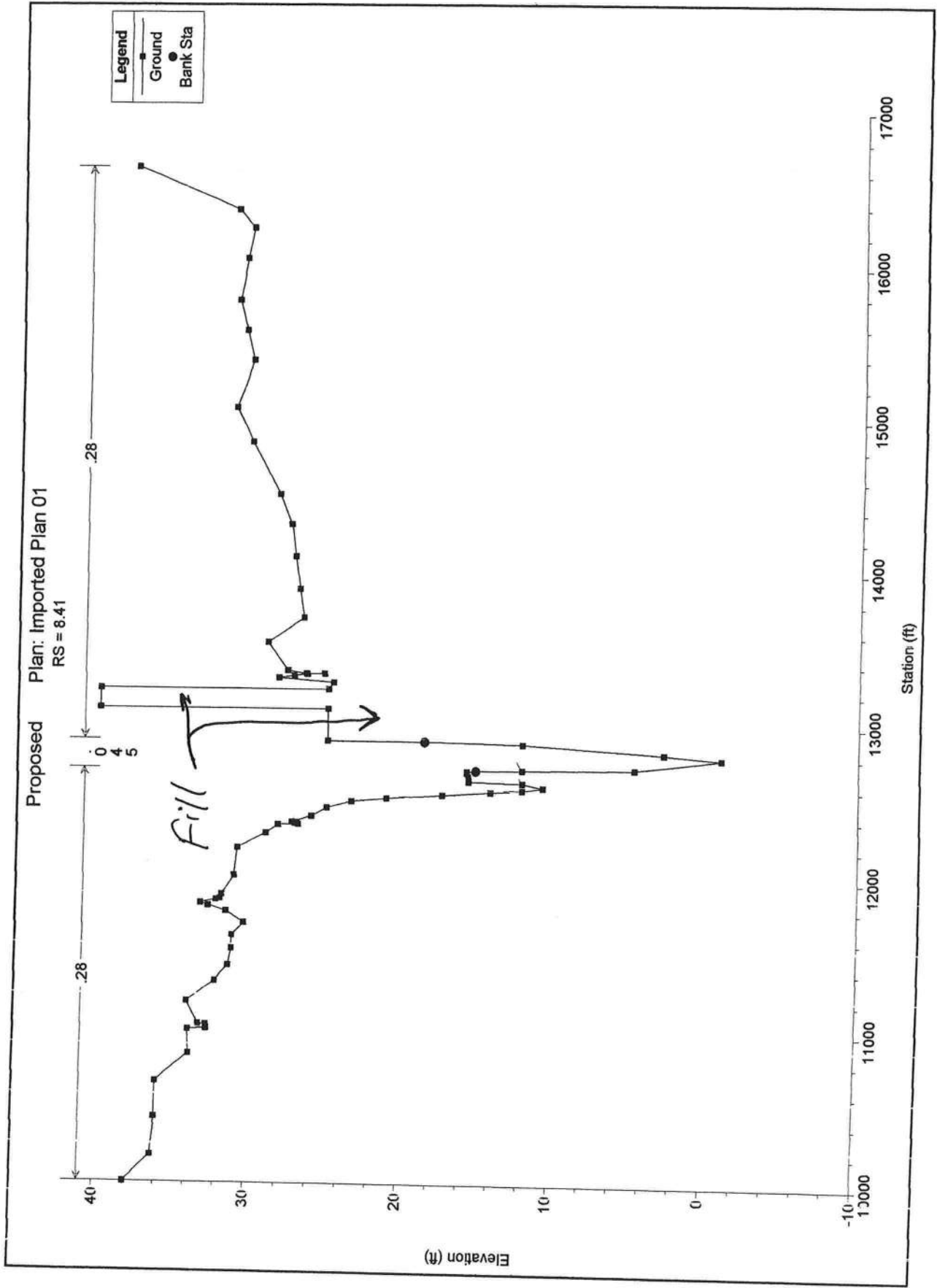
Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	15.66	16359.00	10.22	36.46		36.51	0.000071	2.23	36827.11	4939.44	0.08
Reach-1	15.66	16359.00	10.22	37.16		37.23	0.000080	2.41	22401.29	1743.00	0.09
Reach-1	15.08	16359.00	6.52	36.22		36.28	0.000078	2.28	26457.61	2538.06	0.09
Reach-1	15.08	16359.00	6.52	36.93		36.99	0.000074	2.24	22525.98	1643.00	0.08
Reach-1	14.08	16359.00	10.50	35.75		35.82	0.000096	2.51	28533.02	3172.50	0.09
Reach-1	14.08	16359.00	10.50	36.52		36.58	0.000080	2.35	25630.53	1883.00	0.09
Reach-1	13.03	16359.00	-5.45	35.43		35.47	0.000046	2.08	40415.37	3897.86	0.07
Reach-1	13.03	16359.00	-5.45	36.20		36.25	0.000051	2.23	28306.75	1832.00	0.07
Reach-1	11.3	16359.00	7.00	35.10		35.14	0.000035	1.71	33321.55	2515.89	0.06
Reach-1	11.3	16359.00	7.00	35.87		35.90	0.000034	1.72	28624.53	1615.00	0.06
Reach-1	10.06	16359.00	1.81	34.76		34.83	0.000070	2.44	21699.93	2585.04	0.08
Reach-1	10.06	16359.00	1.81	35.54		35.61	0.000064	2.38	17981.17	1217.00	0.08
Reach-1	8.43	16359.00	-1.00	34.25		34.31	0.000059	2.35	35529.14	5680.49	0.08
Reach-1	8.43	16359.00	-1.00	35.07		35.13	0.000055	2.32	25212.38	2099.00	0.07
Reach-1	7.64	16359.00	2.75	33.98		34.04	0.000076	2.46	36023.53	5156.06	0.09
Reach-1	7.64	16359.00	2.75	34.81		34.87	0.000072	2.45	23999.78	1694.00	0.08
Reach-1	6.46	16359.00	2.53	33.66		33.70	0.000046	1.98	37779.13	3867.31	0.07
Reach-1	6.46	16359.00	2.53	34.53		34.56	0.000039	1.86	30071.99	1601.00	0.06

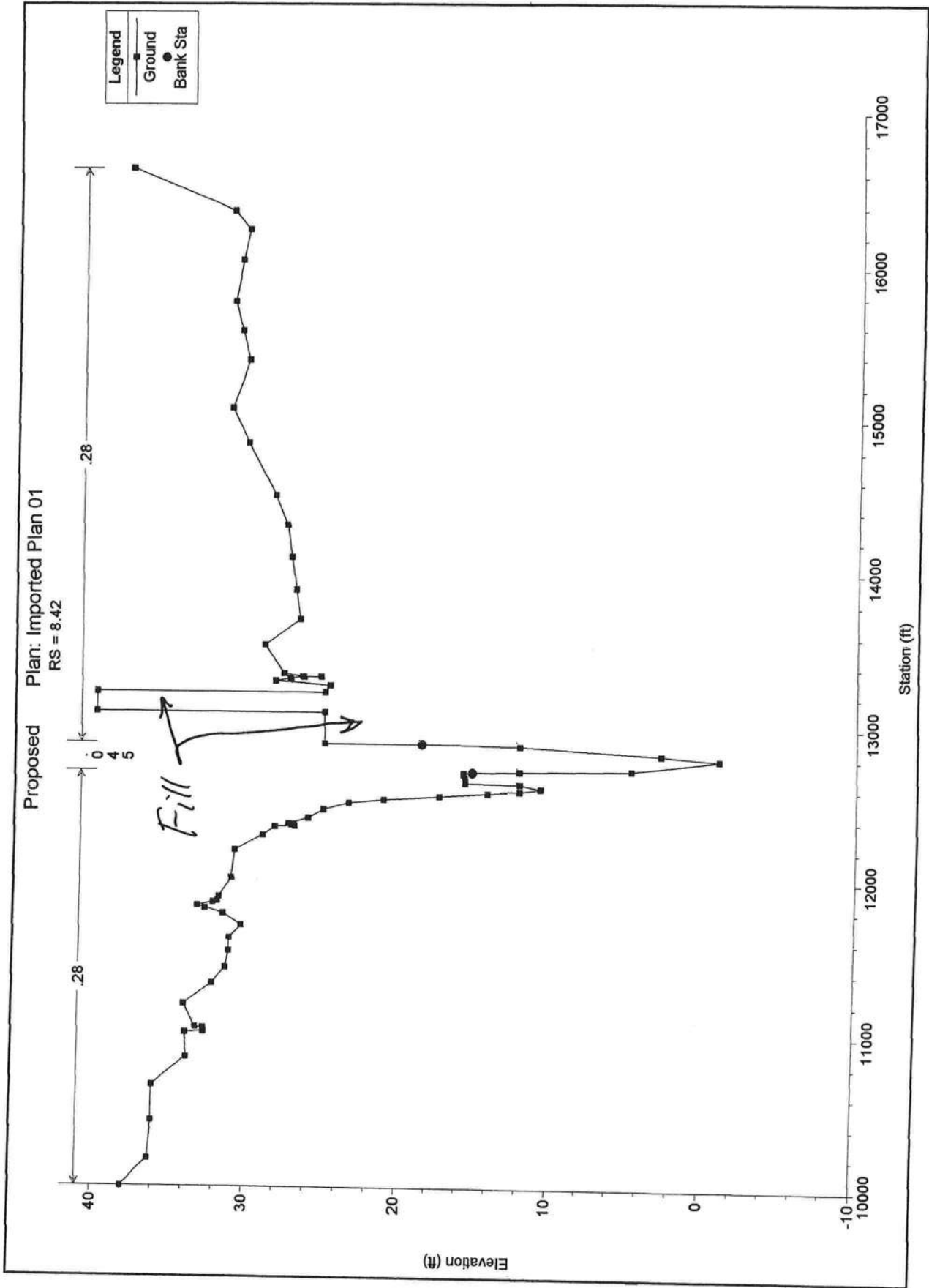
Proposed Plan: Imported Plan 01

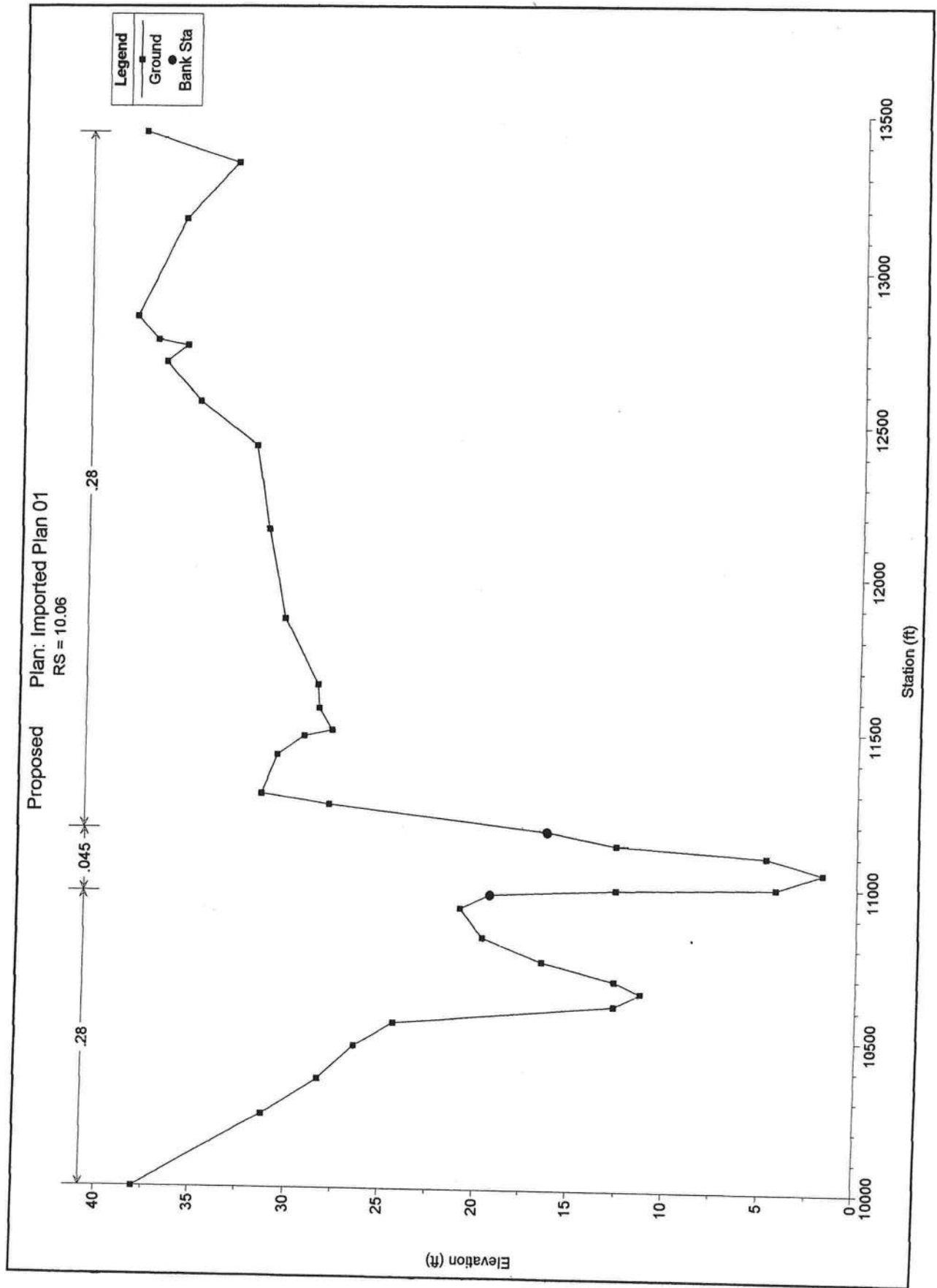
RS = 7.64



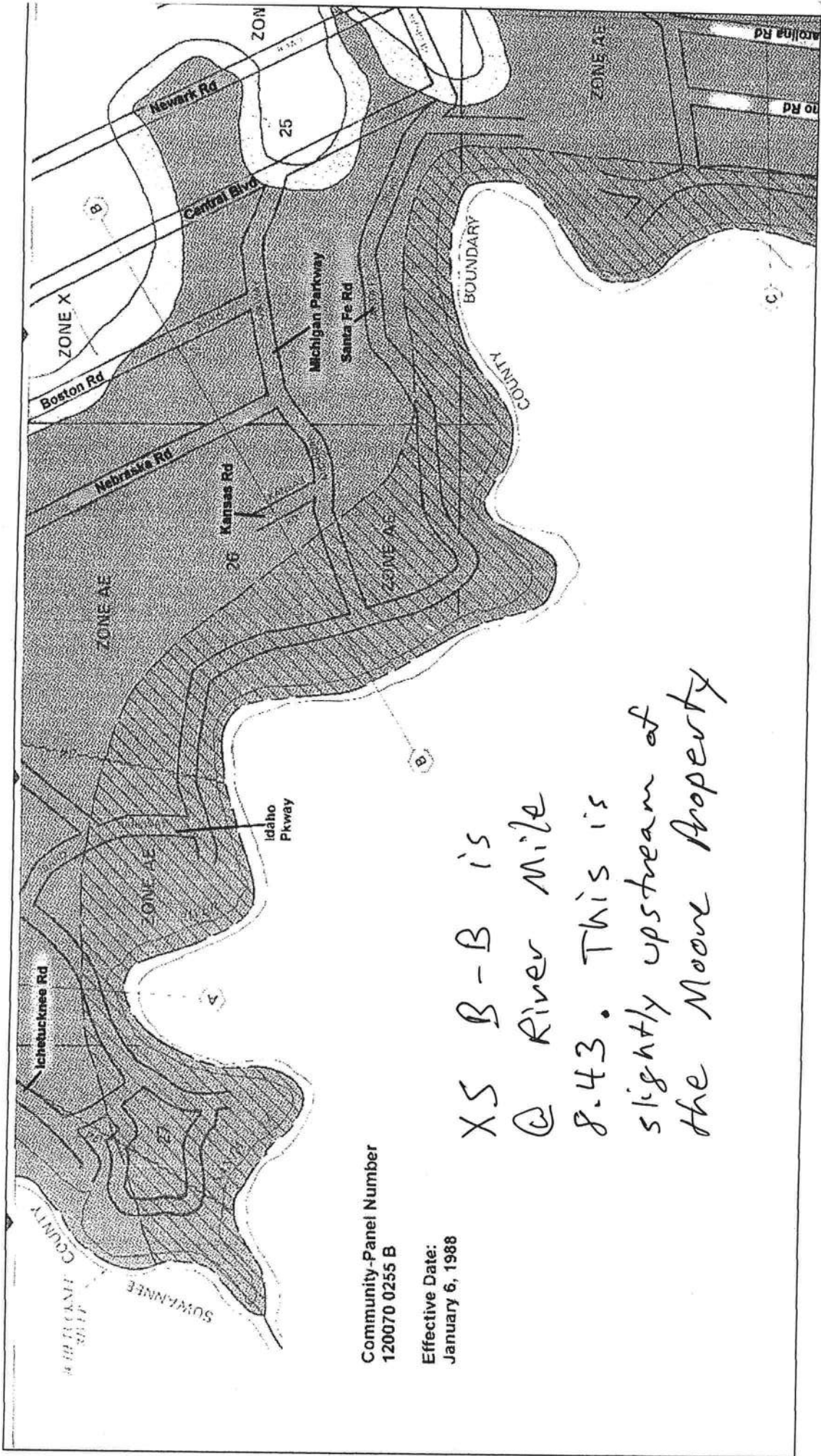








FEMA FIRM



Community-Panel Number
120070 0255 B

Effective Date:
January 6, 1988

XS B-B is
@ River Mile
8.43. This is
slightly upstream of
the Moore Property

NOTICE OF COMMENCEMENT FORM
COLUMBIA COUNTY, FLORIDA

Moore

THE UNDERSIGNED hereby gives notice that improvement will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

Tax Parcel ID Number 26-65-15-00641-003

1. Description of property: (legal description of the property and street address or 911 address)

Lot 384 Unit 6 Three Rivers Estates, ORB 770-2321,
812-1132, WD 1038-911

Inst: 200812001565 Date: 1/25/2008 Time: 10:28 AM
19 DC, P. DeWitt Cason, Columbia County Page 1 of 1

2. General description of improvement: New Single Family Dwelling

3. Owner Name & Address Jackie Moore 4054 Brenteresa Court,
Snellville, GA 30039 Interest in Property 100%

4. Name & Address of Fee Simple Owner (if other than owner): N/A

5. Contractor Name Hugo Escalante (EWPL INC) Phone Number 386 2888666
Address _____

6. Surety Holders Name None Phone Number _____
Address _____

Amount of Bond None

7. Lender Name None Phone Number _____
Address _____

8. Persons within the State of Florida designated by the Owner upon whom notices or other documents may be served as provided by section 718.13 (1)(a) 7; Florida Statutes:

Name Hugo Escalante Phone Number 386 2888666
Address P.O. BOX 280, Fort White, FL 32038

9. In addition to himself/herself the owner designates Hugo Escalante of
Fort White, FL to receive a copy of the Lienor's Notice as provided in Section 713.13 (1) -
(a) 7. Phone Number of the designee 386 2888666

10. Expiration date of the Notice of Commencement (the expiration date is 1 (one) year from the date of recording,
(Unless a different date is specified) _____

NOTICE AS PER CHAPTER 713, Florida Statutes:

The owner must sign the notice of commencement and no one else may be permitted to sign in his/her stead.

Jackie Moore
Signature of Owner

Sworn to (or affirmed) and subscribed before
day of January 9th, 2008

NOTARY STAMP/SEAL

Izesa Houston
Signature of Notary



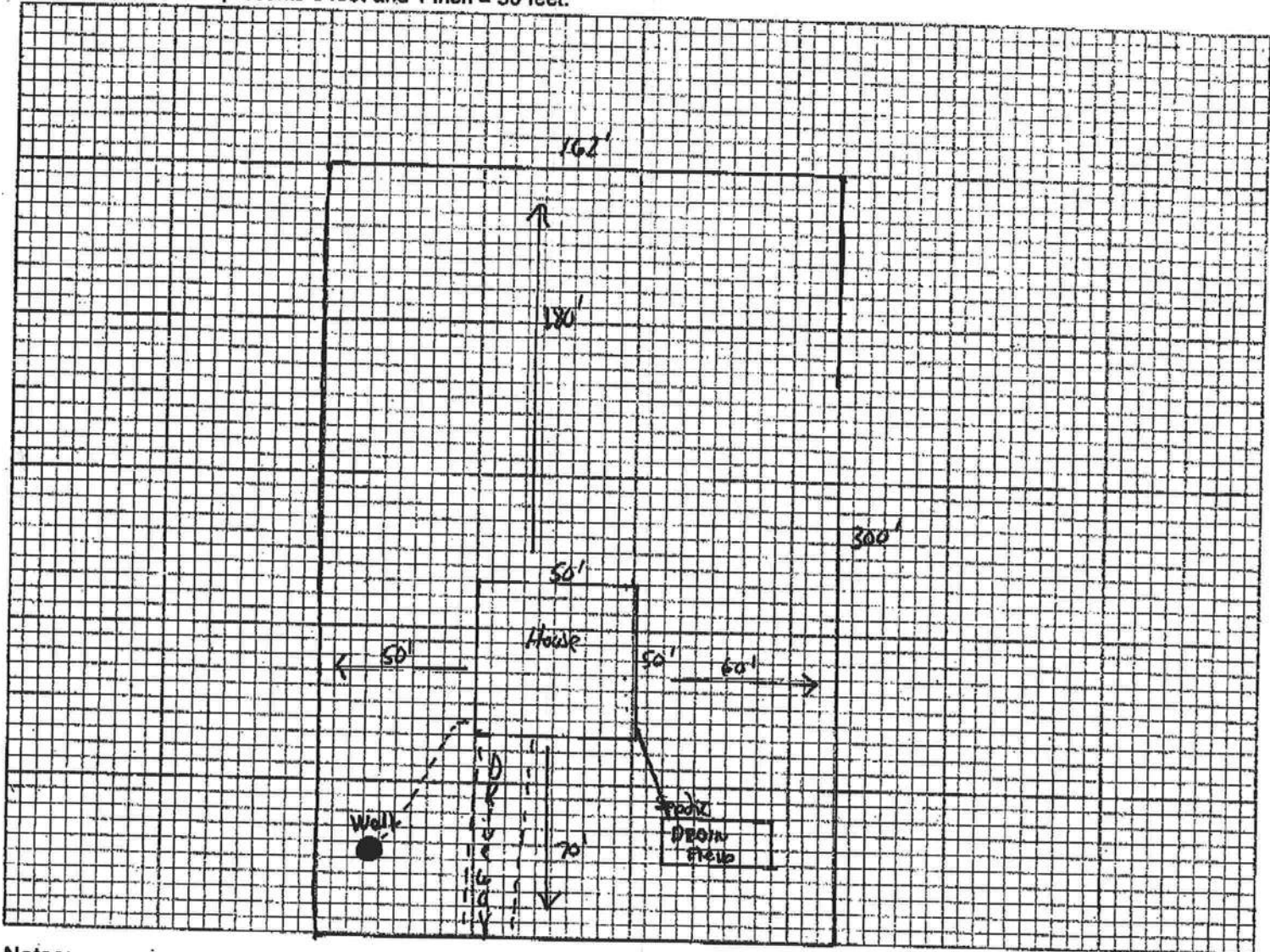
STATE OF FLORIDA
DEPARTMENT OF HEALTH

APPLICATION FOR ONSITE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permit Application Number _____

PART II - SITE PLAN -

Scale: Each block represents 5 feet and 1 inch = 50 feet.



Notes: _____

Site Plan submitted by: _____

Plan Approved _____

By _____

Signature _____

Not Approved _____

Title _____

Date 1/22/08
1/25/08

County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT



**SUWANNEE
RIVER
WATER
MANAGEMENT
DISTRICT**

9225 CR 49
LIVE OAK, FLORIDA 32060
TELEPHONE: (386) 362-1001
TELEPHONE: 800-226-1066
FAX (386) 362-1056

GENERAL PERMIT

PERMITTEE:
JACKIE MOORE
4054 BRENTERESA COURT
SNELLVILLE, GA 30039

PERMIT NUMBER: ERP05-0455
DATE ISSUED: 10/07/2005
DATE EXPIRES: 10/07/2008
COUNTY: COLUMBIA
TRS: S26/T6S/R15E

PROJECT: JACKIE MOORE WOD PROJECT

Approved entity to whom operation and maintenance may be transferred pursuant to rule 40B-4.1130, Florida Administrative Code (F.A.C.):

JACKIE MOORE
4054 BRENTERESA COURT
SNELLVILLE, GA 30039

Based on information provided, the Suwannee River Water Management District's (District) rules have been adhered to and an environmental resource general permit is in effect for the permitted activity description below:

Construction of an elevated residential structure on Lot 3 and 4 of Unit 6 in Three Rivers Estates Subdivision in Columbia County. The structure shall be elevated on piles without the use of fill such that the lowest structural member of the first floor is at least one foot above the one hundred year flood elevation for this specific site. The area below the first floor shall remain open and unobstructed except for piles and stairways. Also included is the construction of an elevated walkway, dock and the filling in of a hole to grade. All work will be completed pursuant to District Rule 40B-4.3030 Florida Administrative Code and in a manner consistent with the application package submitted by Jackie Moore on September 12, 2005.



SUWANNEE RIVER WATER MANAGEMENT DISTRICT

August 21, 2007

Jackie Moore
4054 Brenteresa Court
Snellville, GA 30039

Subject: Conditions for Issuance, Works of the District (WOD),
ERP05-0455, Columbia County

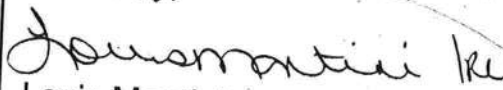
Dear Ms. Moore:

Pursuant to Suwannee River Water Management District (District) rule 40B-4.3030 (7) and (11) (a), Florida Administrative Code (F.A.C.), you are not required to obtain a modification of your WOD permit from the District for introduction of fill less than or equal to 100 square-feet of the cross-sectional area of the floodway; or for tree removal outside of wetlands and the 75-foot setback from the top-of-riverbank.

A copy of the rule is enclosed. Per our site visit, you proposed a retaining wall with associated backfill that will result in less than 100 square-feet of cross-sectional area of the floodway. Tree removal will be necessary for such activity and consistent with the previously-mentioned rule.

Please contact me if you need further assistance. I can be reached at 386.362.1001 or 800.226.1066 (Florida only).

Sincerely,


Louis Mantini
Professional Wetland Scientist

LM/rl

Enclosure

DAVID POPE
Chairman
Alachua, Florida

SYLVIA J. TATUM
Vice Chairman
Lawtey, Florida

C. LINDEN DAVIDSON
Secretary/Treasurer
Lamont, Florida

KELBY ANDREWS
Chiefland, Florida

DON R. EVERETT, JR.
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Madison, Florida

LOUIS SHIVER
Mayo, Florida

JERRY A. SCARBOROUGH
Executive Director
Live Oak, Florida



SUWANNEE RIVER WATER MANAGEMENT DISTRICT

September 12, 2005

Jackie Moore
4054 Brenteresa Court
Snellville, Georgia 30039

Subject: Receipt of Environmental Resource Permit Application for
Jackie Moore WOD Project - ERP05-0455 - Columbia County

Dear Ms. Moore:

The Suwannee River Water Management District (SRWMD) received your application package on September 12, 2005, for Jackie Moore WOD Project. Your proposed project has been assigned permit number ERP05-0455, and is currently under review by Resource Management staff. You will receive a response from staff within 30 days after receipt of the application package. This is pursuant to Chapter 120.60(1), Florida Statutes.

Please be advised that it is a violation of SRWMD rules to begin any work on the project before this permit is issued. Your submitted application package does not alleviate you from having to obtain all other clearances, permits, or authorization required by any other unit of local, state, or federal government.

Florida Statutes 373.419 states, "Within 30 days after the completion of construction or alteration of any stormwater management system, dam, impoundment, reservoir, appurtenant work, or works, the permittee shall file a written statement of completion with the governing board..." We will enclose the appropriate forms upon issuance of the permit to satisfy the requirement.

If you have any further questions, please contact Elliott Bronson at 386/362-1001, or toll free at 800/226-1066. In order to better serve you, please include the permit number in all correspondence.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Dinges".

Jon Dinges
Director, Resource Management

A handwritten signature in black ink, appearing to read "Robin".

DAVID POPE
Chairman
Alachua, Florida

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Vice Chairman
Perry, Florida

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COLUMBIA COUNTY 9-1-1 ADDRESSING

P. O. Box 1787, Lake City, FL 32056-1787

PHONE: (386) 758-1125 * FAX: (386) 758-1365 * Email: ron_croft@columbiacountyfla.com

Addressing Maintenance

To maintain the Countywide Addressing Policy you must make application for a 9-1-1 Address at the time you apply for a building permit. The established standards for assigning and posting numbers to all principal buildings, dwellings, businesses and industries are contained in Columbia County Ordinance 2001-9. The addressing system is to enable Emergency Service Agencies to locate you in an emergency, and to assist the United States Postal Service and the public in the timely and efficient provision of services to residents and businesses of Columbia County.

DATE REQUESTED: 4/6/2006 DATE ISSUED: 4/11/2006

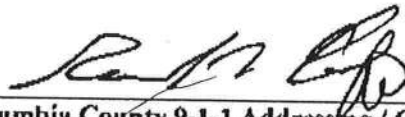
ENHANCED 9-1-1 ADDRESS:

1374 SW SANTA FE DR
FORT WHITE FL 32038
PROPERTY APPRAISER PARCEL NUMBER:
26-6S-15-00641-003

Remarks:

CORRECTION, LOTS 3 & 4 UNIT 6 THREE RIVERS ESTATES S/D

Address Issued By:


Columbia County 9-1-1 Addressing / GIS Department

NOTICE: THIS ADDRESS WAS ISSUED BASED ON LOCATION INFORMATION RECEIVED FROM THE REQUESTER. SHOULD, AT A LATER DATE, THE LOCATION INFORMATION BE FOUND TO BE IN ERROR, THIS ADDRESS IS SUBJECT TO CHANGE.

COLUMBIA COUNTY
9-1-1
APR 11 2006



SUWANNEE RIVER WATER MANAGEMENT DISTRICT

August 21, 2007

Jackie Moore
4054 Brenteresa Court
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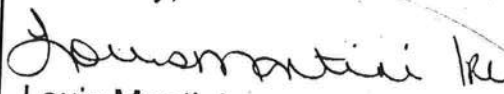
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SUWANNEE RIVER WATER MANAGEMENT DISTRICT

September 12, 2005

Jackie Moore
4054 Brenteresa Court
Snellville, Georgia 30039

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Jackie Moore WOD Project - ERP05-0455 - Columbia County

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Jon Dinges
Director, Resource Management

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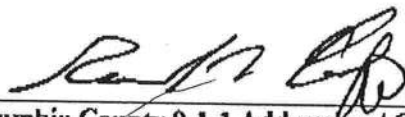
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COLUMBIA COUNTY
9-1-1
APR 11 2006



**SUWANNEE
RIVER
WATER
MANAGEMENT
DISTRICT**

9225 CR 49
LIVE OAK, FLORIDA 32060
TELEPHONE: (386) 362-1001
TELEPHONE: 800-226-1066
FAX (386) 362-1056

GENERAL PERMIT

PERMITTEE:
JACKIE MOORE
4054 BRENTERESA COURT
SNELLVILLE, GA 30039

PERMIT NUMBER: ERP05-0455
DATE ISSUED: 10/07/2005
DATE EXPIRES: 10/07/2008
COUNTY: COLUMBIA
TRS: S26/T6S/R15E

PROJECT: JACKIE MOORE WOD PROJECT

Approved entity to whom operation and maintenance may be transferred pursuant to rule 40B-4.1130, Florida Administrative Code (F.A.C.):

JACKIE MOORE
4054 BRENTERESA COURT
SNELLVILLE, GA 30039

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FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs
Residential Whole Building Performance Method A

Project Name: **Derek & Jackie Moore**
Address: **Lot: 4 & 5, Sub: 3 Rivers Estate, Plat:**
City, State: **Columbia County, FL 32024-**
Owner: **Moore Residence**
Climate Zone: **North**

Builder:
Permitting Office: **COLUMBIA**
Permit Number: **26668**
Jurisdiction Number: **22000**

1. New construction or existing	New	___	12. Cooling systems		
2. Single family or multi-family	Single family	___	a. Central Unit	Cap: 44.0 kBtu/hr	___
3. Number of units, if multi-family	1	___		SEER: 13.00	___
4. Number of Bedrooms	3	___	b. N/A		___
5. Is this a worst case?	No	___	c. N/A		___
6. Conditioned floor area (ft ²)	2220 ft ²	___	13. Heating systems		
7. Glass type ¹ and area: (Label reqd. by 13-104.4.5 if not default)			a. Electric Heat Pump	Cap: 44.0 kBtu/hr	___
a. U-factor:	Description Area			HSPF: 7.70	___
(or Single or Double DEFAULT) 7a. (Dble Default)	343.2 ft ²	___	b. N/A		___
b. SHGC:			c. N/A		___
(or Clear or Tint DEFAULT) 7b. (Clear)	343.2 ft ²	___	14. Hot water systems		
8. Floor types			a. Electric Resistance	Cap: 80.0 gallons	___
a. Slab-On-Grade Edge Insulation	R=5.0, 203.0(p) ft	___		EF: 0.90	___
b. N/A		___	b. N/A		___
c. N/A		___	c. Conservation credits		___
9. Wall types			(HR-Heat recovery, Solar		
a. Frame, Wood, Exterior	R=19.0, 1474.8 ft ²	___	DHP-Dedicated heat pump)		
b. N/A		___	15. HVAC credits	PT, ___	
c. N/A		___	(CF-Ceiling fan, CV-Cross ventilation,		
d. N/A		___	HF-Whole house fan,		
e. N/A		___	PT-Programmable Thermostat,		
10. Ceiling types			MZ-C-Multizone cooling,		
a. Under Attic	R=30.0, 2500.0 ft ²	___	MZ-H-Multizone heating)		
b. N/A		___			
c. N/A		___			
11. Ducts(Leak Free)					
a. Sup: Unc. Ret: Unc. AH: Interior	Sup. R=6.0, 50.0 ft	___			
b. N/A		___			

Glass/Floor Area: 0.15

Total as-built points: 22365

Total base points: 27593

PASS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: [Signature]

DATE: 8.2.07

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: _____

DATE: _____

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.



BUILDING OFFICIAL: _____

DATE: _____

¹ Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

SUMMER CALCULATIONS**Residential Whole Building Performance Method A - Details**

ADDRESS: Lot: 4 & 5, Sub: 3 Rivers Estate, Plat: , Columbia County, FL, 32024 PERMIT #:

BASE				AS-BUILT							
GLASS TYPES											
.18 X Conditioned X BSPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt		Area X SPM X SOF = Points				
.18	2220.0	18.59	7429.0	1.Double, Clear	W	1.5	9.0	40.0	38.52	0.97	1495.0
				2.Double, Clear	W	6.5	9.0	106.7	38.52	0.61	2518.0
				3.Double, Clear	NW	13.7	9.0	20.0	25.97	0.57	298.0
				4.Double, Clear	N	1.5	9.0	6.0	19.20	0.98	112.0
				5.Double, Clear	N	1.5	9.0	30.0	19.20	0.98	561.0
				6.Double, Clear	E	1.5	9.0	30.0	42.06	0.97	1223.0
				7.Double, Clear	E	1.5	9.0	12.0	42.06	0.97	489.0
				8.Double, Clear	E	1.5	9.0	16.0	42.06	0.97	652.0
				9.Double, Clear	E	1.5	9.0	40.0	42.06	0.97	1631.0
				10.Double, Clear	S	1.5	9.0	13.5	35.87	0.94	457.0
				11.Double, Clear	S	1.5	9.0	9.0	35.87	0.94	304.0
				12.Double, Clear	S	1.5	9.0	20.0	35.87	0.94	677.0
				As-Built Total:							343.2
WALL TYPES Area X BSPM = Points				Type	R-Value		Area X SPM = Points				
Adjacent	0.0	0.00	0.0	1. Frame, Wood, Exterior	19.0	1474.8	0.90			1327.3	
Exterior	1474.8	1.70	2507.2								
Base Total: 1474.8 2507.2				As-Built Total:			1474.8	1327.3			
DOOR TYPES Area X BSPM = Points				Type	Area X SPM = Points						
Adjacent	0.0	0.00	0.0								
Exterior	0.0	0.00	0.0								
Base Total: 0.0 0.0				As-Built Total:			0.0	0.0			
CEILING TYPES Area X BSPM = Points				Type	R-Value		Area X SPM X SCM = Points				
Under Attic	2220.0	1.73	3840.6	1. Under Attic	30.0	2500.0	1.73 X 1.00		4325.0		
Base Total: 2220.0 3840.6				As-Built Total:			2500.0	4325.0			
FLOOR TYPES Area X BSPM = Points				Type	R-Value		Area X SPM = Points				
Slab	203.0(p)	-37.0	-7511.0	1. Slab-On-Grade Edge Insulation	5.0	203.0(p)	-36.20		-7348.6		
Raised	0.0	0.00	0.0								
Base Total: -7511.0				As-Built Total:			203.0	-7348.6			

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 4 & 5, Sub: 3 Rivers Estate, Plat: , Columbia County, FL, 32024 PERMIT #:

BASE				AS-BUILT			
INFILTRATION Area X BSPM = Points				Area X SPM = Points			
2220.0	10.21	22666.2		2220.0	10.21	22666.2	
Summer Base Points: 28932.0				Summer As-Built Points: 31386.9			
Total Summer Points	X	System Multiplier	= Cooling Points	Total Component (System - Points)	X	Cap Ratio (DM x DSM x AHU)	X Duct Multiplier X System Multiplier X Credit Multiplier = Cooling Points
28932.0		0.3250	9402.9	31387	1.00	(1.09 x 1.000 x 0.91)	0.260 0.950 7689.8
				31386.9	1.00	0.992	0.260 0.950 7689.8

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 4 & 5, Sub: 3 Rivers Estate, Plat: , Columbia County, FL, 32024 PERMIT #:

BASE				AS-BUILT							
GLASS TYPES											
.18 X Conditioned X BWPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt			Area X WPM X WOF = Points			
.18	2220.0	20.17	8060.0	1.Double, Clear	W	1.5	9.0	40.0	20.73	1.01	835.0
				2.Double, Clear	W	6.5	9.0	106.7	20.73	1.13	2499.0
				3.Double, Clear	NW	13.7	9.0	20.0	24.30	1.03	500.0
				4.Double, Clear	N	1.5	9.0	6.0	24.58	1.00	147.0
				5.Double, Clear	N	1.5	9.0	30.0	24.58	1.00	737.0
				6.Double, Clear	E	1.5	9.0	30.0	18.79	1.02	572.0
				7.Double, Clear	E	1.5	9.0	12.0	18.79	1.02	229.0
				8.Double, Clear	E	1.5	9.0	16.0	18.79	1.02	305.0
				9.Double, Clear	E	1.5	9.0	40.0	18.79	1.02	763.0
				10.Double, Clear	S	1.5	9.0	13.5	13.30	1.02	183.0
				11.Double, Clear	S	1.5	9.0	9.0	13.30	1.02	122.0
				12.Double, Clear	S	1.5	9.0	20.0	13.30	1.02	272.0
				As-Built Total:			343.2			7164.0	
WALL TYPES Area X BWPM = Points				Type	R-Value			Area X WPM = Points			
Adjacent	0.0	0.00	0.0	1. Frame, Wood, Exterior	19.0			1474.8	2.20	3244.6	
Exterior	1474.8	3.70	5456.8								
Base Total: 1474.8 5456.8				As-Built Total:			1474.8			3244.6	
DOOR TYPES Area X BWPM = Points				Type	Area X WPM = Points						
Adjacent	0.0	0.00	0.0								
Exterior	0.0	0.00	0.0								
Base Total: 0.0 0.0				As-Built Total:			0.0			0.0	
CEILING TYPES Area X BWPM = Points				Type	R-Value			Area X WPM X WCM = Points			
Under Attic	2220.0	2.05	4551.0	1. Under Attic	30.0			2500.0	2.05 X 1.00	5125.0	
Base Total: 2220.0 4551.0				As-Built Total:			2500.0			5125.0	
FLOOR TYPES Area X BWPM = Points				Type	R-Value			Area X WPM = Points			
Slab	203.0(p)	8.9	1806.7	1. Slab-On-Grade Edge Insulation	5.0			203.0(p)	7.60	1542.8	
Raised	0.0	0.00	0.0								
Base Total: 1806.7				As-Built Total:			203.0			1542.8	

WINTER CALCULATIONS**Residential Whole Building Performance Method A - Details**

ADDRESS: Lot: 4 & 5, Sub: 3 Rivers Estate, Plat: , Columbia County, FL, 32024 PERMIT #:

BASE				AS-BUILT			
INFILTRATION Area X BWPM = Points				Area X WPM = Points			
2220.0 -0.59 -1309.8				2220.0 -0.59 -1309.8			
Winter Base Points: 18564.7				Winter As-Built Points: 15766.6			
Total Winter X System = Heating Points Multiplier Points				Total X Cap X Duct X System X Credit = Heating Component Ratio Multiplier Multiplier Multiplier Points (System - Points) (DM x DSM x AHU)			
18564.7	0.5540	10284.8		(sys 1: Electric Heat Pump 44000 btuh ,EFF(7.7) Ducts:Unc(S),Unc(R),Int(AH),R6.0 15766.6 1.000 (1.069 x 1.000 x 0.93) 0.443 0.950 6594.5 15766.6 1.00 0.994 0.443 0.950 6594.5			

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 4 & 5, Sub: 3 Rivers Estate, Plat: , Columbia County, FL, 32024 PERMIT #:

BASE				AS-BUILT					
WATER HEATING				Tank	EF	Number of	X	Tank	X
Number of	X	Multiplier	=	Volume		Bedrooms		Ratio	Multiplier
Bedrooms			Total						Credit = Total
3		2635.00	7905.0	80.0	0.90	3		1.00	2693.56
									1.00
									8080.7
				As-Built Total:					8080.7

CODE COMPLIANCE STATUS							
BASE				AS-BUILT			
Cooling	+	Heating	+	Cooling	+	Heating	+
Points		Points		Points		Points	
			Hot Water				Hot Water
			Points				Points
			=				=
			Total				Total
			Points				Points
9403		10285		7690		6595	
			7905				8081
			27593				22365

PASS



Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 4 & 5, Sub: 3 Rivers Estate, Plat: , Columbia County, FL, 32024 PERMIT #:

6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	606.1.ABC.1.1	Maximum: 3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	606.1.ABC.1.2.1	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	606.1.ABC.1.2.2	Penetrations/openings >1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	606.1.ABC.1.2.3	Between walls & ceilings; penetrations of ceiling plane of top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	606.1.ABC.1.2.4	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC rated with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	606.1.ABC.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	606.1.ABC.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

6A-22 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	612.1	Comply with efficiency requirements in Table 612.1.ABC.3.2. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	612.1	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%.	
Shower heads	612.1	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	604.1, 602.1	Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

Tested sealed ducts must be certified in this house.

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 88.0

The higher the score, the more efficient the home.

Moore Residence, Lot: 4 & 5, Sub: 3 Rivers Estate, Plat: , Columbia County, FL, 32024-

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 44.0 kBtu/hr
3. Number of units, if multi-family	1		SEER: 13.00
4. Number of Bedrooms	3	b. N/A	
5. Is this a worst case?	No	c. N/A	
6. Conditioned floor area (ft ²)	2220 ft ²		
7. Glass type ¹ and area: (Label reqd. by 13-104.4.5 if not default)		13. Heating systems	
a. U-factor:	Description Area	a. Electric Heat Pump	Cap: 44.0 kBtu/hr
(or Single or Double DEFAULT)	7a. (Dble Default) 343.2 ft ²		HSPF: 7.70
b. SHGC:		b. N/A	
(or Clear or Tint DEFAULT)	7b. (Clear) 343.2 ft ²	c. N/A	
8. Floor types			
a. Slab-On-Grade Edge Insulation	R=5.0, 203.0(p) ft	14. Hot water systems	
b. N/A		a. Electric Resistance	Cap: 80.0 gallons
c. N/A			EF: 0.90
9. Wall types		b. N/A	
a. Frame, Wood, Exterior	R=19.0, 1474.8 ft ²	c. Conservation credits	
b. N/A		(HR-Heat recovery, Solar	
c. N/A		DHP-Dedicated heat pump)	
d. N/A		15. HVAC credits	PT,
e. N/A		(CF-Ceiling fan, CV-Cross ventilation,	
10. Ceiling types		HF-Whole house fan,	
a. Under Attic	R=30.0, 2500.0 ft ²	PT-Programmable Thermostat,	
b. N/A		MZ-C-Multizone cooling,	
c. N/A		MZ-H-Multizone heating)	
11. Ducts(Leak Free)			
a. Sup: Unc. Ret: Unc. AH: Interior	Sup. R=6.0, 50.0 ft		
b. N/A			

I certify that this home has complied with the Florida Energy Efficiency Code For Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: _____

Address of New Home: _____ City/FL Zip: _____



**NOTE: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStarTM designation), your home may qualify for energy efficiency mortgage (EEM) incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at 321/638-1492 or see the Energy Gauge web site at www.fsec.ucf.edu for information and a list of certified Raters. For information about Florida's Energy Efficiency Code For Building Construction, contact the Department of Community Affairs at 850/487-1824.*

¹ Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.
EnergyGauge® (Version: FLRCPB v4.5.2)

Energy Code Compliance

Duct System Performance Report

Project Name:	Derek & Jackie Moore	Builder:	
Address:		Permitting Office:	
City, State:	Columbia County, FL 32024-	Permit Number:	
Owner:	Moore Residence	Jurisdiction Number:	
Climate Zone:	North		

Total Duct System Leakage Test Results

CFM25 Total Duct Leakage Test Values			
Line	System	Duct Leakage Total	Duct Leakage to Outdoors
1	System1	_____ cfm25(tot)	_____ cfm25(out)
2	System2	_____ cfm25(tot)	_____ cfm25(out)
3	System3	_____ cfm25(tot)	_____ cfm25(out)
4	System4	_____ cfm25(tot)	_____ cfm25(out)
5	Total House Duct System Leakage	Sum lines 1-4 _____ Divide by _____ (Total Conditioned Floor Area) = _____ ($Q_{n,tot}$) ☐ Receive credit if $Q_{n,tot} \leq 0.03$	Sum lines 1-4 _____ Divide by _____ (Total Conditioned Floor Area) = _____ ($Q_{n,out}$) ☐ Receive credit if $Q_{n,out} \leq 0.03$ AND $Q_{n,tot} \leq 0.09$

I hereby certify that the above duct testing performance results demonstrate compliance with the Florida Energy Code requirements in accordance with Section 610.1.A.1, Florida Building Code, Building Volume, Chapter 13 for leak free duct system credit.

Signature: _____

Printed Name: _____

Florida Rater Certification #: _____

DATE: _____

Florida Building Code requires that testing to confirm leak free duct systems be performed by a Class 1 Florida Energy Gauge Certified Energy Rater. Certified Florida Class 1 raters can be found at: <http://energygauge.com/search.htm>



BUILDING OFFICIAL: _____

DATE: _____

Zero Rise Floodway Study

Moore Property
Lots 3 and 4 of "Three Rivers Estates Unit 6" Subdivision
Columbia County

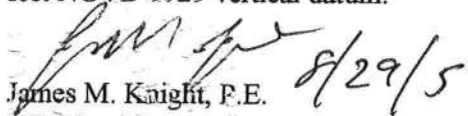
The Moore's property is located on the north side of the Santa Fe River at River Mile 8.4. The property is located in the 100-year floodway of the River. A HEC-RAS analysis has been performed based on the HEC-2 deck obtained from the Suwannee River Water Management District. Duplicate and Proposed models depict the floodplain and floodway analyses and compare the stages for each condition. The Duplicate model is a replication of the HEC-2 deck.

The proposed model blocks all of the flow area in the vicinity of the proposed home and carport; as well as the flow area below elevation 25.0 feet (NGVD 1929 vertical datum) between the carport and the right top of bank of the river. For modeling purposes it was assumed that the home and boardwalk would block the cross section for a length of 70'. The cross section at River Mile 8.43 was used as the Approach Section and was copied downstream 150 feet (XS 8.42 Upstream Face), copied downstream 220 feet (XS 8.41 Downstream Face), and copied downstream 370 feet (XS 8.40 Exit Section). Cross Sections 8.41 and 8.42 were modified by blocking all flow area between Ground Stations 13101 and 13230 (carport and home) and all area below elevation 25.0 between Ground Stations 12897 and 13100 (boardwalk to river). The right top of bank in the model is at Ground Station 12896. Cross section plots are attached.

Comparison of the floodway elevations at the cross sections near the proposed fill indicates that the fill will not increase the floodway elevations (all elevation differences area less than 0.05 feet and round to 0.0 feet when considered to the nearest tenth of a foot). The fill placed on the property will cause zero rise in the floodway. Elevations from the duplicate and the proposed floodway models are summarized below.

Cross Section	Duplicate Floodway Elevation	Proposed Floodway Elevation
7.64	34.8	34.8
8.40 Exit	NA	35.0
8.41 Face	NA	35.0
8.42 Face	NA	35.0
8.43 Approach	35.1	35.1
10.06	35.5	35.5
11.30	35.9	35.9
13.03	36.2	36.2

The proposed minimum finished floor elevation is elevation 36.1 feet NGVD 1929 vertical datum. The proposed minimum low member elevation for the home and carport is elevation 34.3 feet NGVD 1929 vertical datum.


James M. Knight, P.E.
P.E. Number 47756

8725 - 288th Street
Branford, FL 32008
Phone 386-961-6595

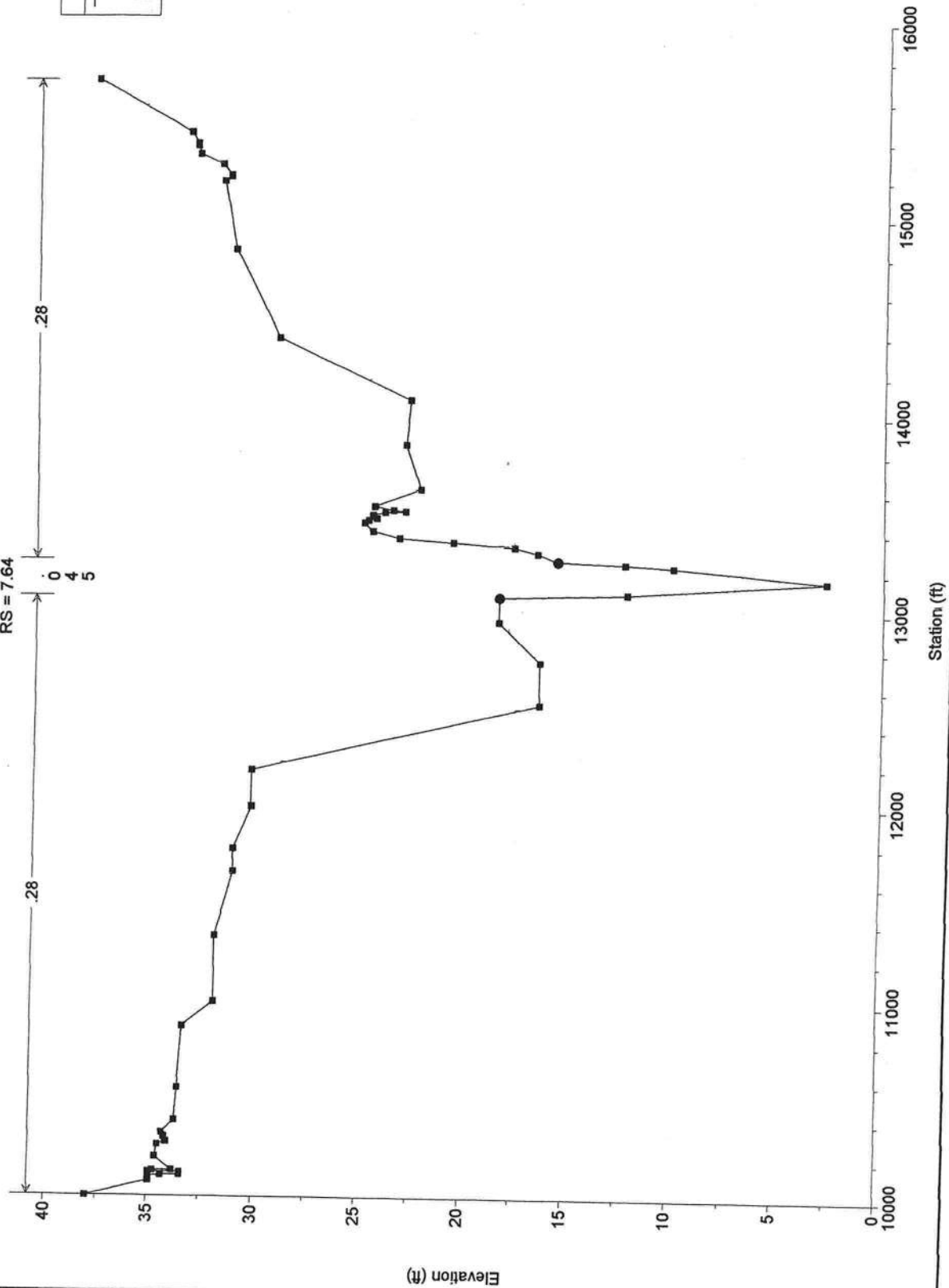
Duplicate

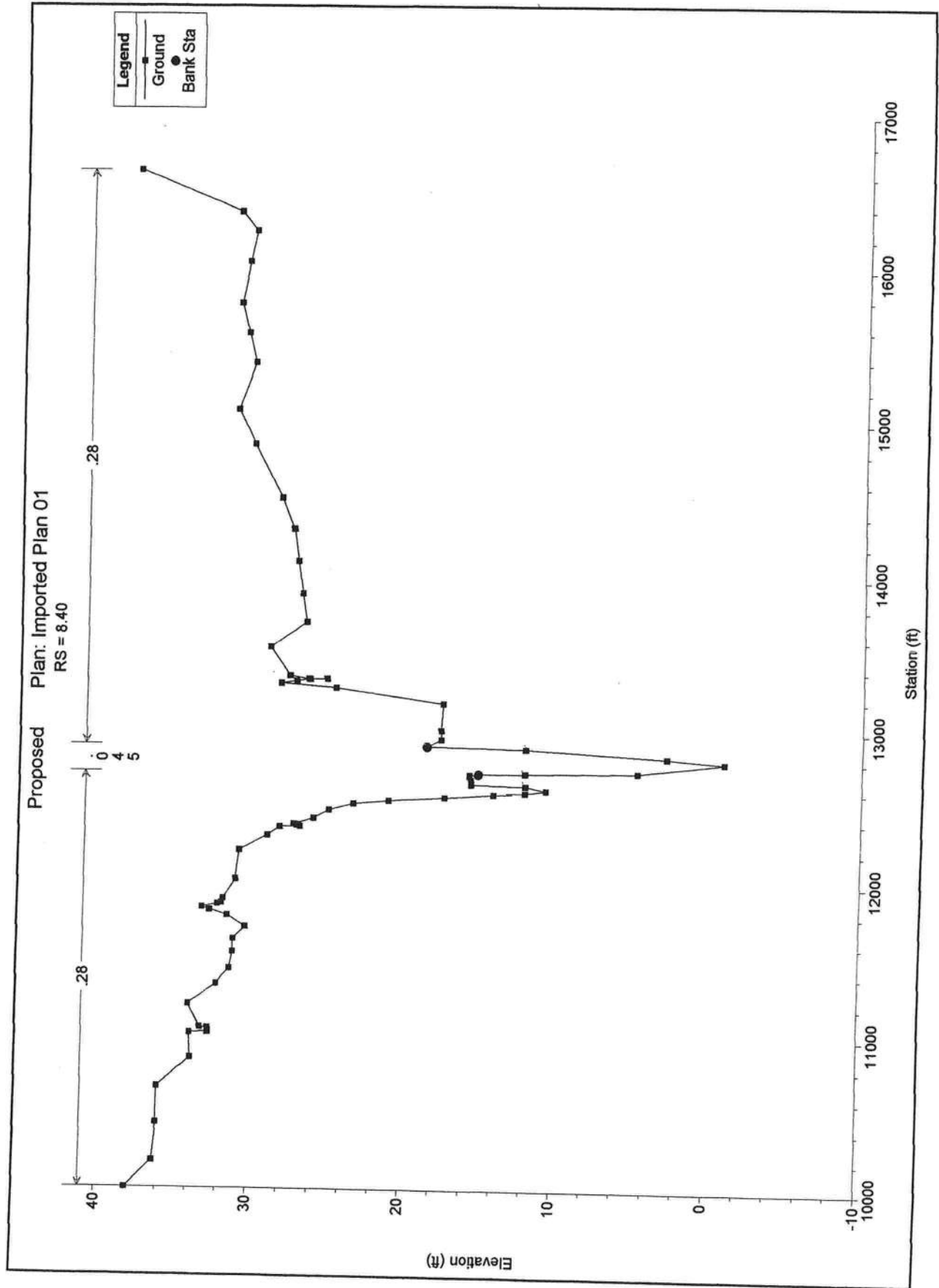
HEC-RAS Plan: Imported Pla River: RIVER-1 Reach: Reach-1

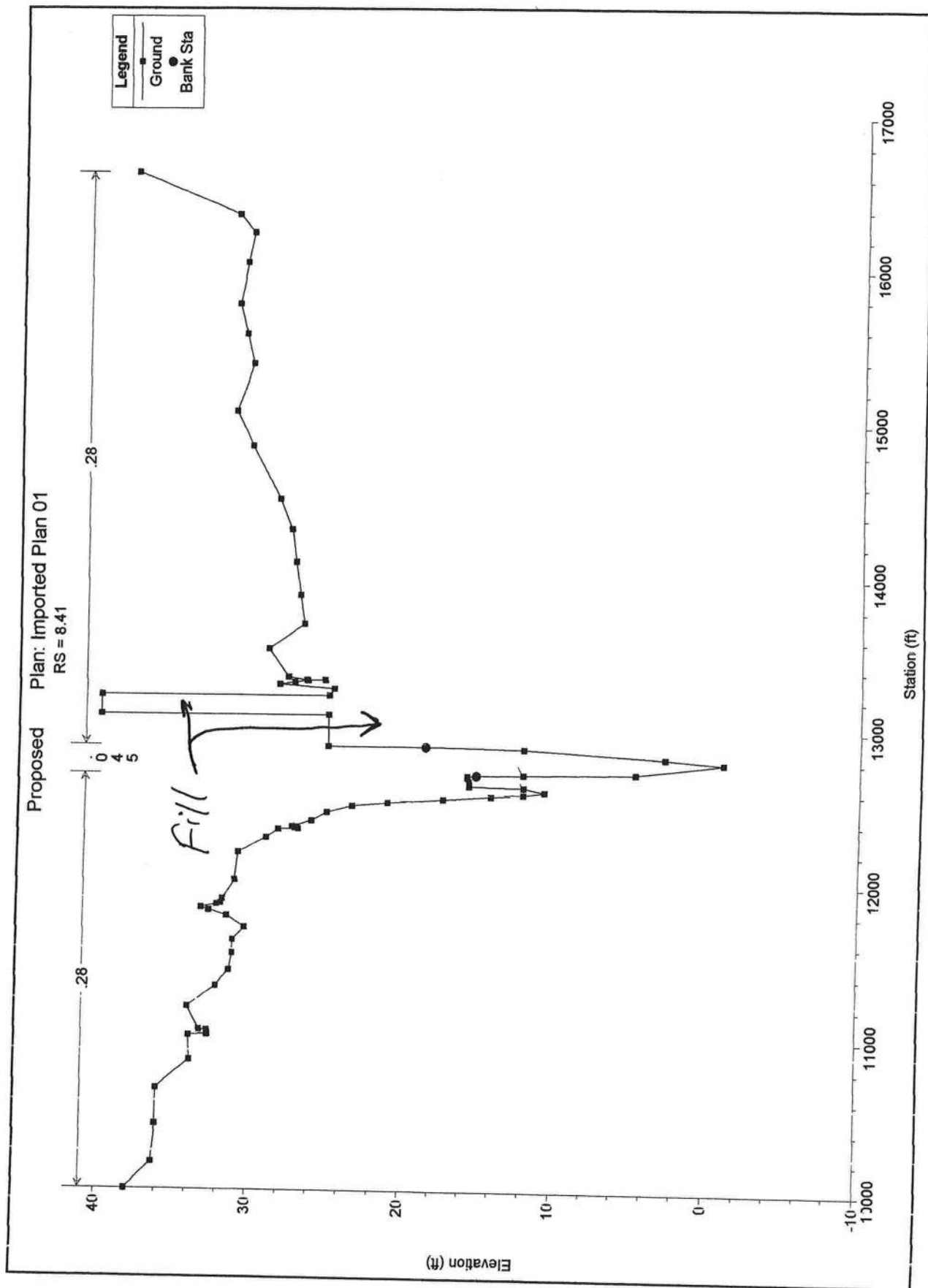
Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	15.66	16359.00	10.22	36.46		36.51	0.000071	2.23	36827.11	4939.44	0.08
Reach-1	15.66	16359.00	10.22	37.16		37.23	0.000080	2.41	22401.29	1743.00	0.09
Reach-1	15.08	16359.00	6.52	36.22		36.28	0.000078	2.26	26457.61	2538.06	0.09
Reach-1	15.08	16359.00	6.52	36.93		36.99	0.000074	2.24	22525.98	1643.00	0.08
Reach-1	14.08	16359.00	10.50	35.75		35.82	0.000096	2.51	28533.02	3172.50	0.09
Reach-1	14.08	16359.00	10.50	36.52		36.58	0.000080	2.35	25630.53	1883.00	0.09
Reach-1	13.03	16359.00	-5.45	35.43		35.47	0.000046	2.08	40415.37	3897.86	0.07
Reach-1	13.03	16359.00	-5.45	36.20		36.25	0.000051	2.23	28306.75	1832.00	0.07
Reach-1	11.3	16359.00	7.00	35.10		35.14	0.000035	1.71	33321.55	2515.89	0.06
Reach-1	11.3	16359.00	7.00	35.87		35.90	0.000034	1.72	28624.53	1615.00	0.06
Reach-1	10.06	16359.00	1.81	34.76		34.83	0.000070	2.44	21699.93	2585.04	0.08
Reach-1	10.06	16359.00	1.81	35.54		35.61	0.000064	2.38	17981.17	1217.00	0.08
Reach-1	8.43	16359.00	-1.00	34.25		34.31	0.000059	2.35	35529.14	5680.49	0.08
Reach-1	8.43	16359.00	-1.00	35.07		35.13	0.000055	2.32	25212.38	2099.00	0.07
Reach-1	7.64	16359.00	2.75	33.98		34.04	0.000076	2.46	36023.53	5156.06	0.09
Reach-1	7.64	16359.00	2.75	34.81		34.87	0.000072	2.45	23999.78	1694.00	0.08
Reach-1	6.46	16359.00	2.53	33.66		33.70	0.000046	1.98	37779.13	3867.31	0.07
Reach-1	6.46	16359.00	2.53	34.53		34.56	0.000039	1.86	30071.99	1601.00	0.06

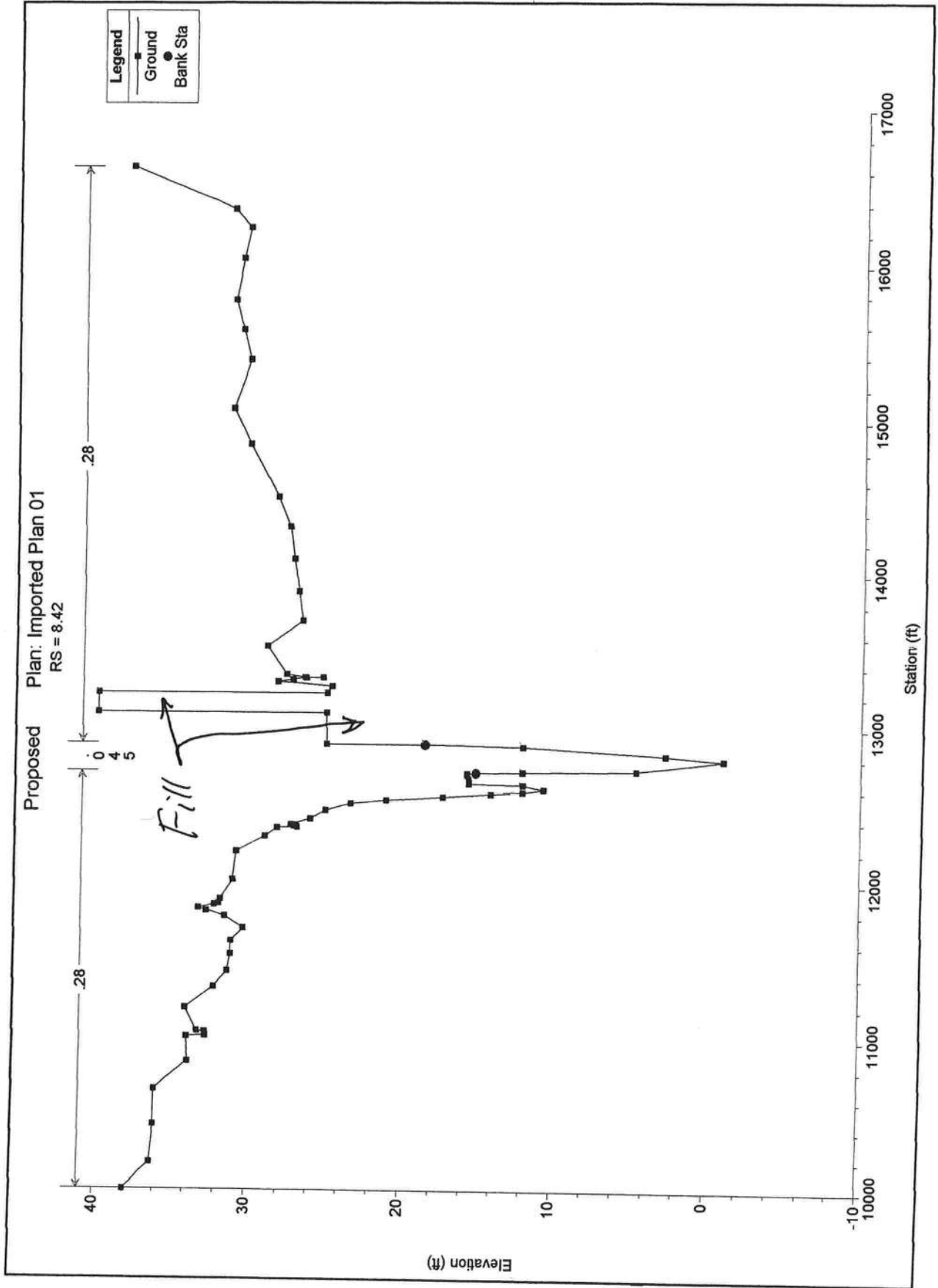
Proposed Plan: Imported Plan 01

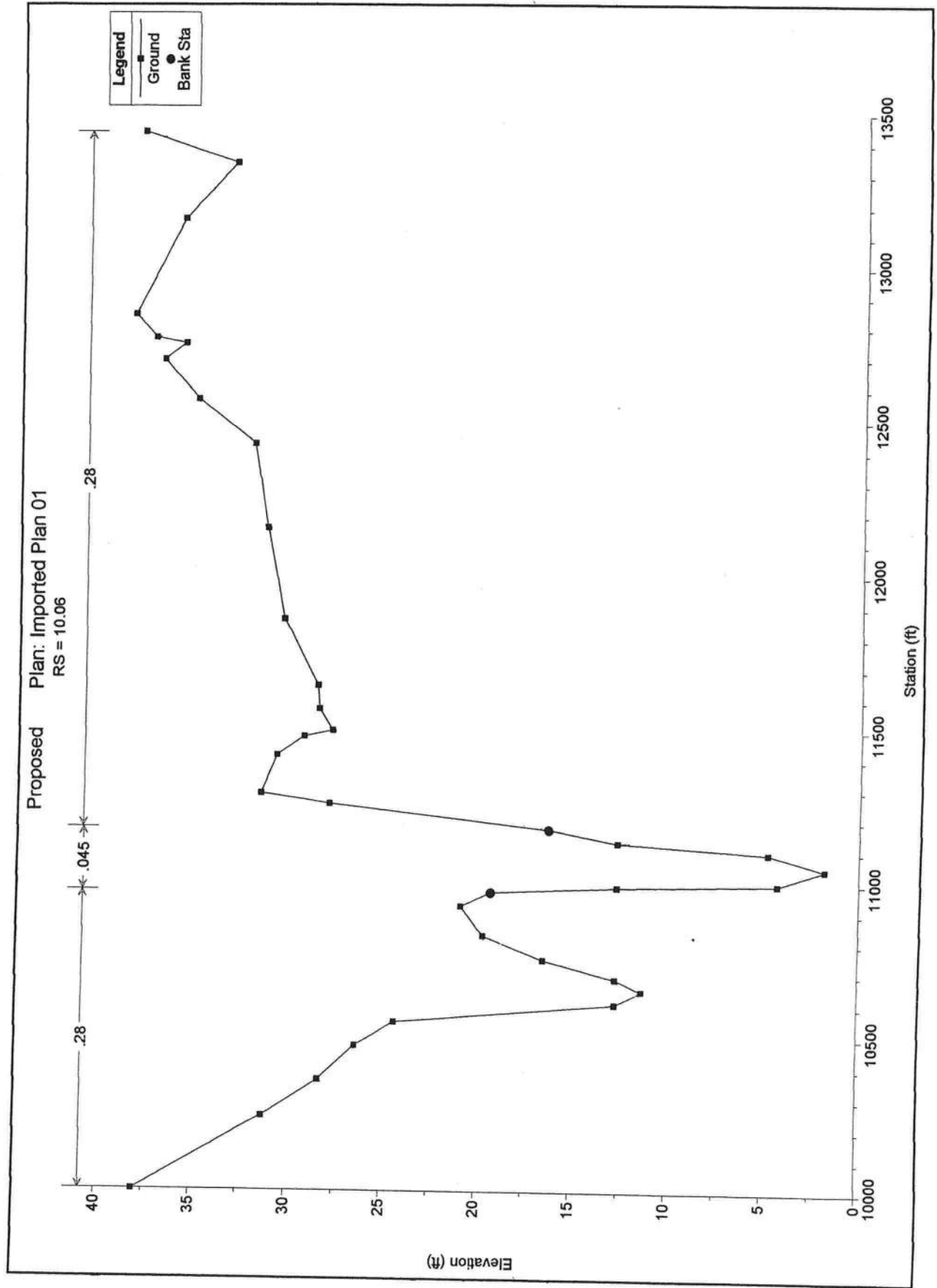
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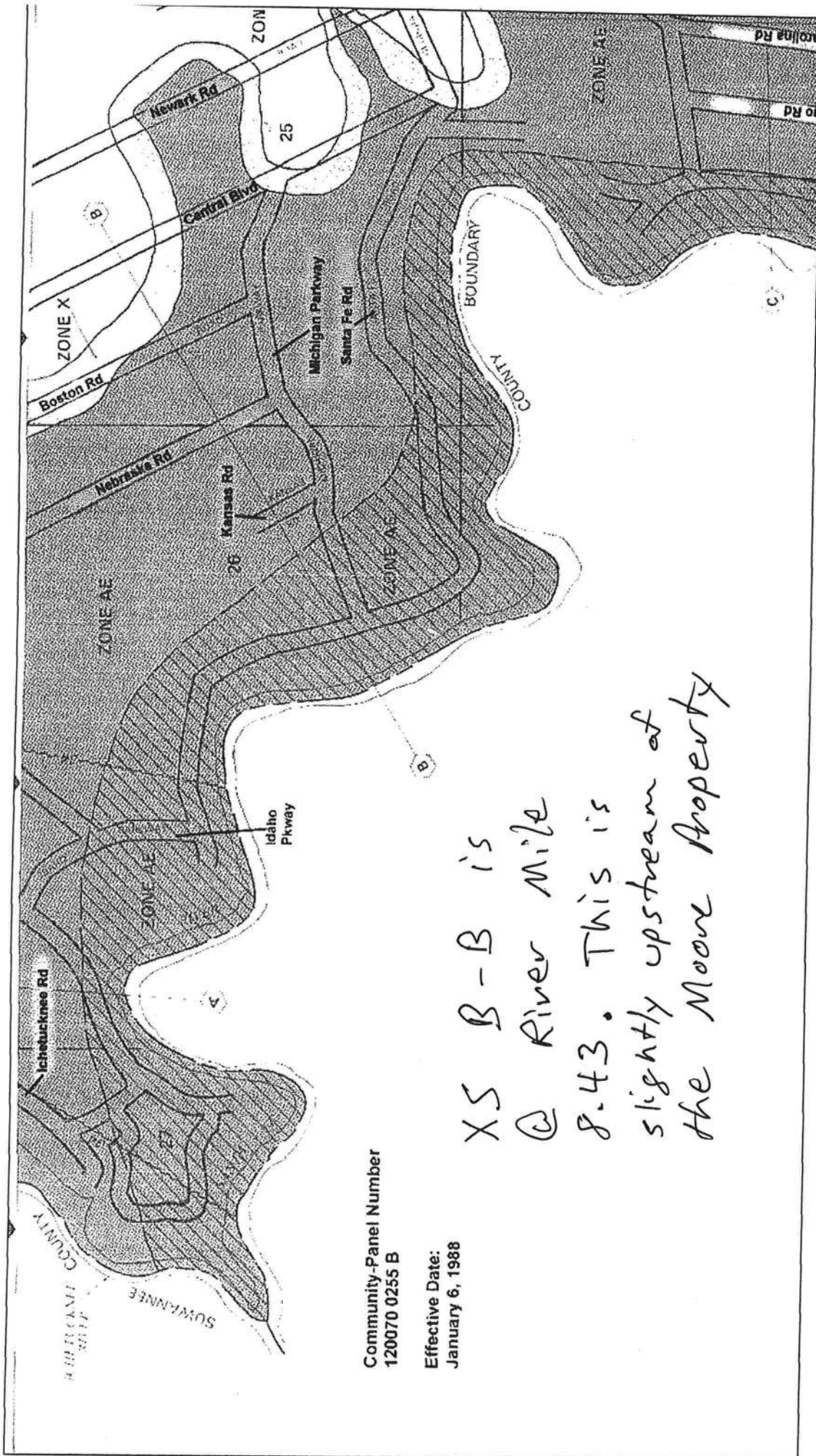








FEMA



XS B-B is @ River Mile 8.43. This is slightly upstream of the Moore Property

Community-Panel Number
120070 0255 B

Effective Date:
January 6, 1988

MASONITE INTERNATIONAL CORP.
7300 REAMES RD.
CHARLOTTE, NC 28216

PRODUCT:
"EXTERIOR DOOR PRODUCT"
6"-8" WOOD-DOOR STEEL OPaque
DOUBLE DOOR UNIT
PART OR ASSEMBLY:
ANCHORING LOCATIONS
& DETAILS

REVISIONS

DATE

NO.

DATE

NO.

DATE

NO.

DATE

NO.

DATE

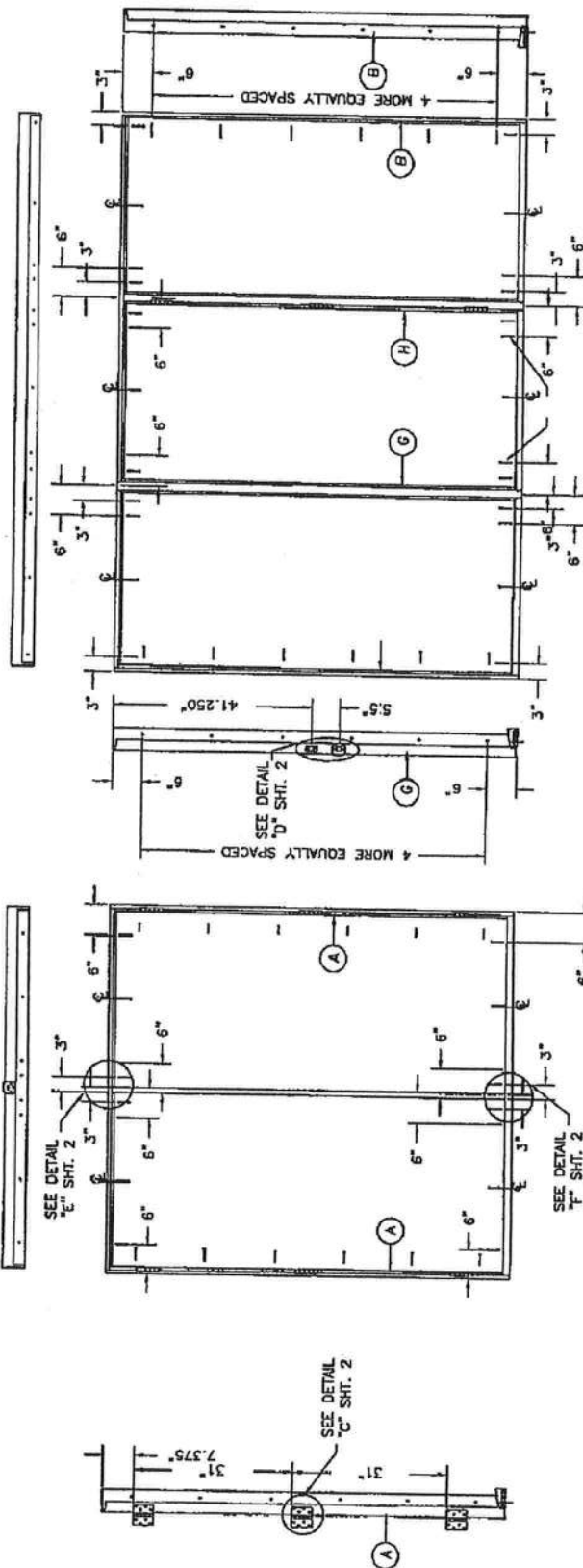
NO.

DATE

NO.

DATE

NO.



ATTACHMENT DETAIL

1. ANCHOR ANALYSIS FOR LOADING CONDITIONS PREPARED, SIGNED AND SEALED BY HAROLD E. RUPP, PE (FLORIDA #19935) WITH THE LOWEST (LEAST) FASTENER RATING FROM THE DIFFERENT FASTENERS BEING CONSIDERED FOR USE. JAMB, HEAD, AND THRESHOLD FASTENERS ANALYZED FOR THIS UNIT INCLUDE #10 WOOD SCREWS OR 3/16" TAPCONS. A PHYSICAL SHIM MUST BE PLACED IN SHIM SPACE AT EACH ANCHOR LOCATION.

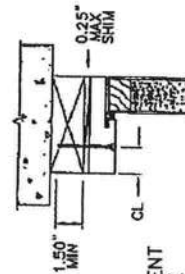
2. THE WOOD SCREW SINGLE SHEAR DESIGN VALUES COME FROM ANSI/AF&PA NDA FOR SOUTHERN PINE LUMBER AND ACHIEVEMENT OF 1-1/2" MINIMUM EMBEDMENT. THE TAPCON MUST ACHIEVE MINIMUM EMBEDMENT OF 1-1/4".

3. WOOD BUCKS BY OTHERS MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO STRUCTURE.

4. MINIMUM DESIGN VALUE STRENGTH OF ANCHORS 171 LBS.

HARDWARE SCHEDULE

1. KWIKSET OR SCHLEGE ANSI/BHMA GRADE 3 OR BETTER CYLINDRICAL AND DEADLOCK HARDWARE TO BE INSTALLED AT 5-1/2" CENTERLINE.
2. 4" X 4" FULL MORTISE BUTT HINGES



TYPICAL
ANCHOR INSTALLATION

Assembled by MML

Cardinal No. NT000110
Revised By [Signature]
Date Revised 8/10/05

DATE: 7/11/05
SCALE: N.T.S.
DWG. BY: SWS
CHK. BY:
DRAWING NO.:
DWG-MX-F0128-05
SHEET 3 OF 3

Masonite®

**SIDE-HINGED WOOD-EDGE STEEL DOOR UNIT
6'-8" GLAZED DOUBLE DOOR WITH / WITHOUT SIDELITES**

GENERAL NOTES

1. EVALUATED FOR USE IN LOCATIONS ADHERING TO THE FLORIDA BUILDING CODE AND WHERE PRESSURE REQUIREMENTS AS DETERMINED BY ASCE 7, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, DO NOT EXCEED THE DESIGN PRESSURES LISTED
2. HURRICANE PROTECTED SYSTEM (SHUTTERS) IS REQUIRED
3. POLYURETHANE CORE FLAME SPREAD INDEX OF 50 AND SMOKE DEVELOPED INDEX OF 60 PER ASTM E84
4. PLASTICS TESTING OF LITE FRAME MATERIAL*

TEST DESCRIPTION	DESIGNATION	RESULT
SELF IGNITION TEMP	ASTM D1329	680 °F > 650 °F
RATE OF BURNING	ASTM D635	1.10 IN/MIN
SMOKE DENSITY	ASTM D2843	60.6%
TENSILE STRENGTH*	ASTM D638	-7.48% DIFF

* COMPARATIVE TENSILE STRENGTH AFTER WEATHERING
4500 HOURS XENON ARC METHOD 1

DOUBLE INSWING UNIT W/SIDELITES

According to the

Certification No.: NT006110
Reviewed By: [Signature]
Date Reviewed: 8/10/05

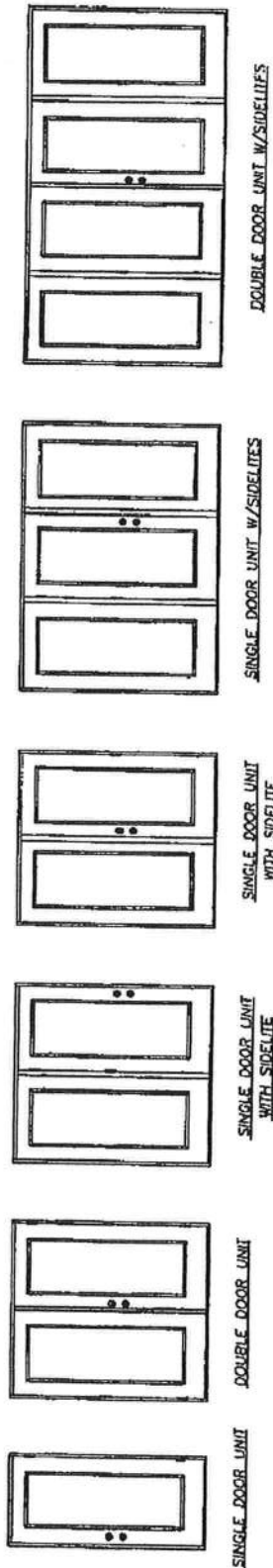
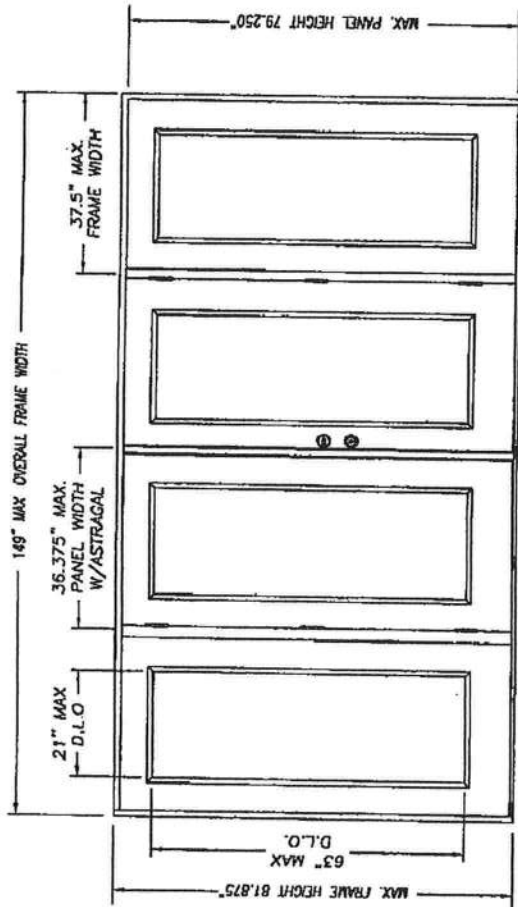


TABLE OF CONTENTS	
SHEET #	DESCRIPTION
1	TYPICAL ELEVATIONS & GENERAL NOTES
2	ANCHORING LOCATIONS & DETAILS
3	ANCHORING LOCATIONS & DETAILS

CONFIG	MAX WIDTH	DESIGN PRESSURE RATING		WHERE WATER INFILTRATION PERFORMANCE IS REQUIRED TO BE 15% OF DESIGN PRESSURE	
		INSWING	OUTSWING	INSWING	OUTSWING
X	37.5"	+50.5 / -50.5	+50.5 / -50.5	+19.0 / -19.0	+50.5 / -50.5
XX	74"	+50.5 / -50.5	+50.5 / -50.5	+19.0 / -19.0	+50.5 / -50.5
OX or XO	75"	+50.5 / -50.5	+50.5 / -50.5	+19.0 / -19.0	+50.5 / -50.5
OXO	112.5"	+50.5 / -50.5	+50.5 / -50.5	+19.0 / -19.0	+50.5 / -50.5
OXOX	149"	+50.5 / -50.5	+50.5 / -50.5	+19.0 / -19.0	+50.5 / -50.5

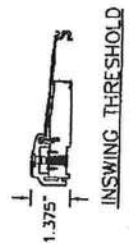
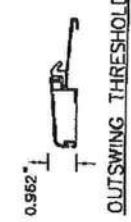
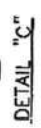
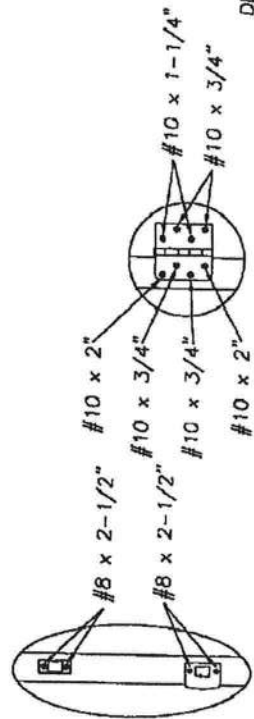
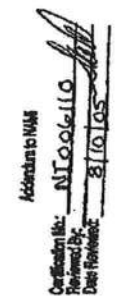
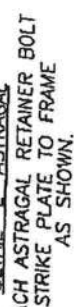
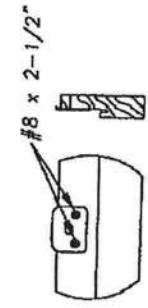
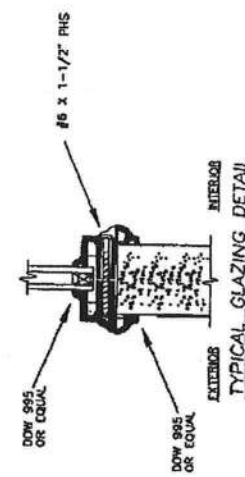
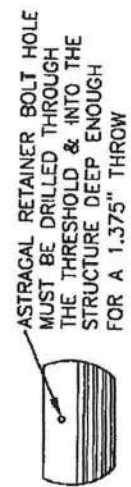
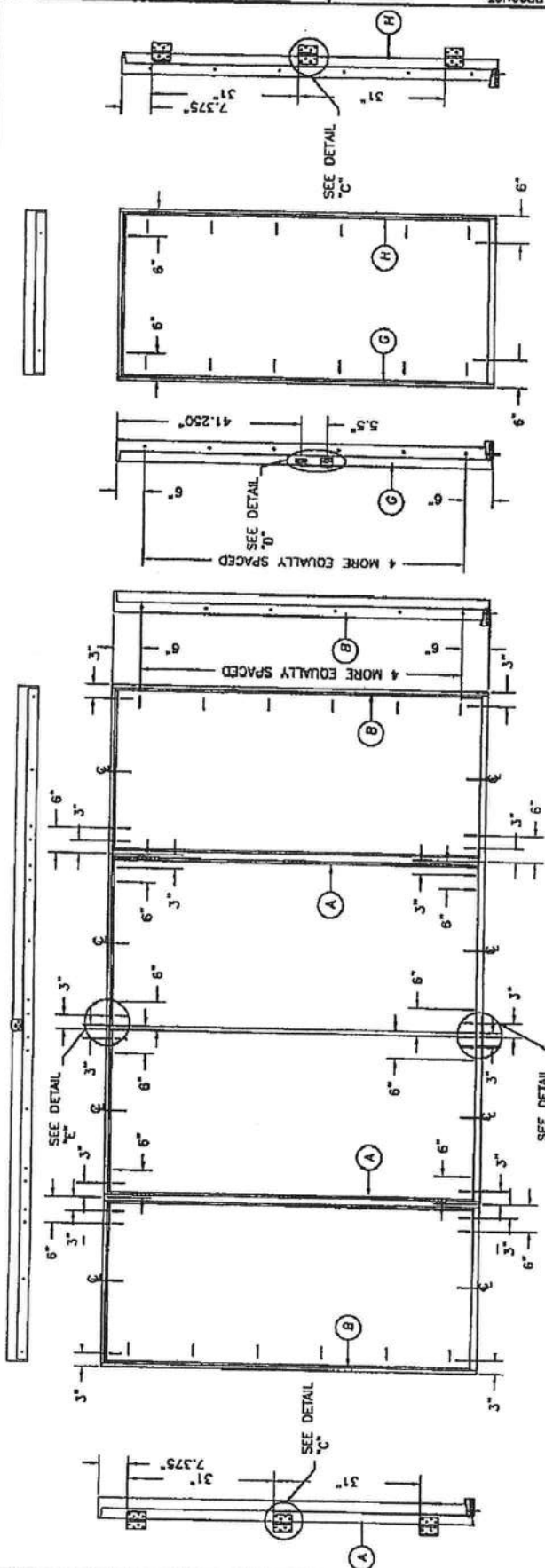
DATE: 7/11/05
SCALE: N.T.S.
DWG. BY: SWS
CHECK BY:
DRAWING NO.
DWG - MA - FLO130-05
SHEET 1 OF 3

MASONITE INTERNATIONAL CORP.
7300 REAMES RD.
CHARLOTTE, NC 28216

PRODUCT:
EXTerior DOOR PRODUCT
DOUBLE 6'-8" GLAZED
WOOD-FRAME STEEL DOOR
PART OR ASSEMBLY:
ANCHORING LOCATIONS &
DETAILS

REVISIONS	
BY	

DATE	7/11/05
SCALE	N.T.S.
ONG. BY	SW/S
CHECK BY	
DRAWING NO.	
ONGC-WA	FL0130-05
SHEET	2 OF 3



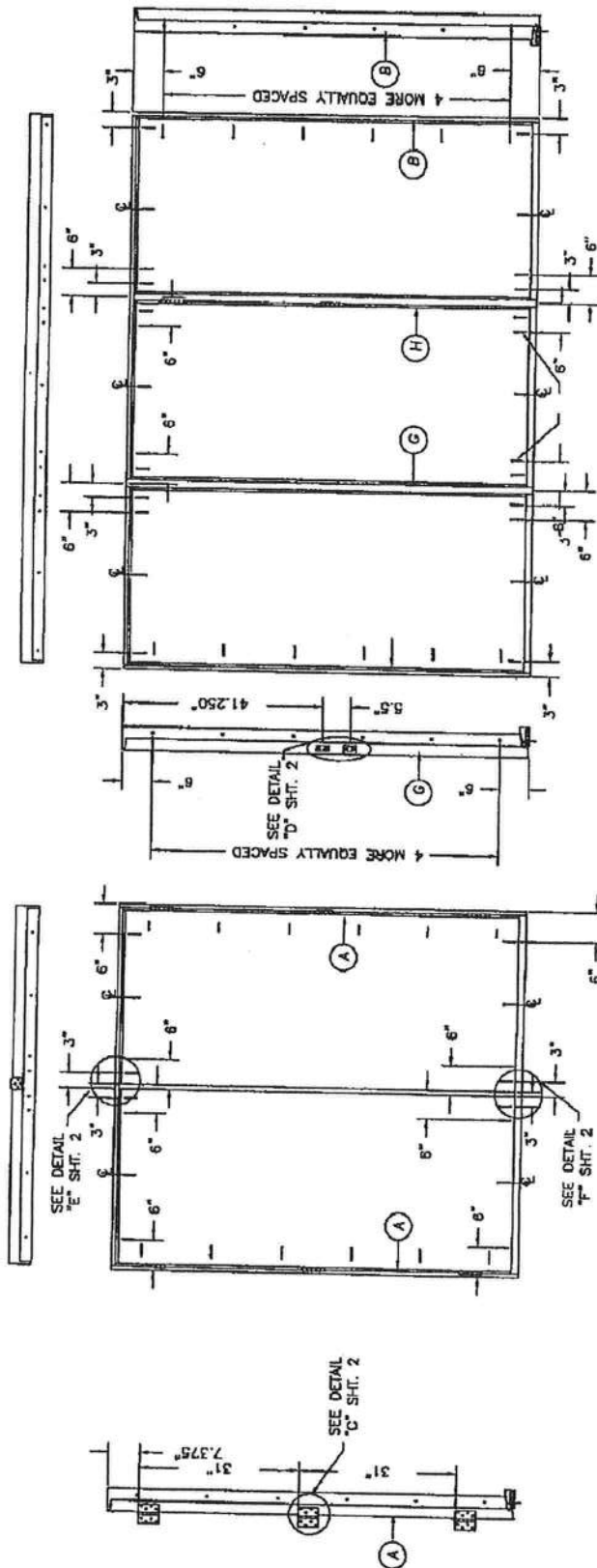
MASONITE INTERNATIONAL CORP.
7300 REAMES RD.
CHARLOTTE, NC 28216

PRODUCT: "EXTERIOR DOOR PRODUCT"
6" WOOD-EDGE STEEL GLAZED
DOUBLE DOOR UNIT
PART OR ASSEMBLY:
ANCHORING LOCATIONS
& DETAILS

REVISIONS

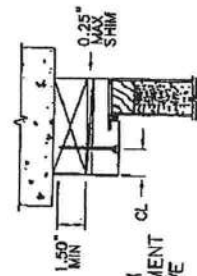
NO.	DATE	BY

DATE: 7/11/05
SCALE: N.T.S.
DWG. BY: SWS
CHK. BY:
DRAWING NO.:
DWG. NO.: F-0130-05
SHEET 3 OF 3



ATTACHMENT DETAIL

1. ANCHOR ANALYSIS FOR LOADING CONDITIONS PREPARED, SIGNED AND SEALED BY HAROLD E. RUPP, PE (FLORIDA #15935) WITH THE LOWEST (LEAST) FASTENER RATING FROM THE DIFFERENT FASTENERS BEING CONSIDERED FOR USE. JAMB, HEAD, AND THRESHOLD FASTENERS ANALYZED FOR THIS UNIT INCLUDE #10 WOOD SCREWS OR 3/16" TAPCONS. A PHYSICAL SHIM MUST BE PLACED IN SHIM SPACE AT EACH ANCHOR LOCATION.
2. THE WOOD SCREW SINGLE SHEAR DESIGN VALUES COME FROM ANSI/AF&PA NDA FOR SOUTHERN PINE LUMBER AND ACHIEVEMENT OF 1-1/2" MINIMUM EMBEDMENT. THE TAPCON MUST ACHIEVE MINIMUM EMBEDMENT OF 1-1/4".
3. WOOD BUCKS BY OTHERS MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO STRUCTURE.
4. MINIMUM DESIGN VALUE STRENGTH OF ANCHORS 171 LBS.



TYPICAL
ANCHOR INSTALLATION

HARDWARE SCHEDULE

1. KWIKSET OR SCHLEGE ANSI/BHMA GRADE 3 OR BETTER CYLINDRICAL AND DEADLOCK HARDWARE TO BE INSTALLED AT 5-1/2" CENTERLINE.
2. 4" X 4" FULL MORTISE BUTT HINGES

According to BHMA

Certification: N1006-110
Reviewed By: [Signature]
Date Released: 8/10/05



**ANSI/AAMA/NWDA 101/I.S.2-97
TEST REPORT**

Rendered to:

MI WINDOWS AND DOORS, INC.

**SERIES/MODEL: 3540
PRODUCT TYPE: PVC Triple Single Hung**

Title	Summary of Results
Rating	H-R30* 108 x 74
Operating Force	17 lbf max.
Air Infiltration	0.11 cfm/ft ²
Water Resistance Test Pressure	4.50 psf
Uniform Load Deflection Test Pressure	±47.2 psf
Uniform Load Structural Test Pressure	+52.5 psf, -70.8 psf
Forced Entry Resistance	Grade 10

Reference should be made to ATI Report No. 50172.01-122-47 for complete test specimen description and data.

130 Derry Court
York, PA 17402-9405
phone: 717-764-7700
fax: 717-764-4129
www.archtest.com



ANSI/AAMA/NWDA 101/LS-2-97 TEST REPORT

Rendered to:

MI WINDOWS AND DOORS, INC.
P.O. Box 370
Gratz, Pennsylvania 17030-0370

Report No.: 50172.01-122-47
Revision 1: 08/30/04
Test Dates: 06/11/04
Through: 07/07/04
Report Date: 07/27/04
Expiration Date: 07/07/08

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Windows and Doors, Inc. to witness testing on a Series/Model 3540, triple single hung window at MI Windows and Doors, Inc. test facility in Elizabethville, Pennsylvania. The sample tested successfully met the performance requirements for a H-R30* 108 x 74 rating. Reference should be made to Report No. 01-45617.02 for Gateway Performance results. Test specimen description and results are reported herein.

General Note: An asterisk (*) next to the performance grade indicates that the size tested for optional performance was smaller than the Gateway test size for the product type and class.

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

Test Specimen Description:

Series/Model: 3540

Product Type: PVC Triple Single Hung

Overall Size: 8' 11-5/8" wide by 6' 1-3/4" high

Interior Sash Size (3): 2' 9-3/4" wide by 3' 0-1/8" high

Fixed Daylight Opening Size (3): 2' 7-3/4" wide by 2' 9-3/16" high

Screen Size: 2' 9" wide by 2' 11-1/4" high

Overall Area: 55.1 ft²

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Test Specimen Description: (Continued)

Finish: All PVC was white.

Glazing Details: All glazing consisted of 7/8" thick sealed insulating glass units that were comprised of two sheets of 3/32" thick clear annealed glass and a metal reinforced butyl spacer system. The glass was interior glazed against a double-sided adhesive glazing tape and secured with vinyl glazing beads.

Weatherstripping:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.187" backed by 0.250" high polypile	1 Row	Meeting rail, stiles
0.187" backed by 0.250" high polypile	1 Row	Sill leg
0.187" backed by 0.310" high polypile	1 Row	Stiles
0.187" backed, 1/4 foam filled single leaf vinyl bulb gasket	1 Row	Bottom rail
0.187" backed, 1/8 foam filled vinyl bulb gasket	1 Row	Fixed meeting rail

Frame Construction: The frame was constructed of extruded PVC members. Corners were mitered and welded. End caps were utilized on the ends of the meeting rail and secured with three #6 by 5/8" screws per cap. The fixed meeting rail was then secured to the frame utilizing three #6 by 5/8" screws.

Sash Construction: The sash was constructed of extruded PVC members. Corners were mitered and welded.

Screen Construction: The screen was constructed of roll-formed aluminum. Corners were square-cut and secured with vinyl corner keys. The mesh was secured with a flexible vinyl spline.

Test Specimen Description: (Continued)

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Constant force balances	6	One per jamb
Metal cam locks with adjacent keepers	6	Meeting rail, 7" from each end
Plastic tilt latches	6	Each end of the interior meeting rail
Metal pivot pins	6	Each end of the bottom rail

Drainage:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
3/32" by 1/2" weepslot	12	Bottom rail, 2 at each end
1/8" by 1" weepslot	2	Sill, 3" from each end
3/16" by 1/2" weepslot	2	Screen track, 2-1/2" from each end

Reinforcement: The interior meeting rail and bottom rail utilized a roll-formed "I beam" steel reinforcement (Drawing #GVL-451-020). The fixed meeting rail utilized a steel reinforcement (Drawing #RF-104S-020). The intermediate frame rails utilized a steel reinforcement (Drawing #2.75x.125 steel plate).

Installation: The unit was installed into a wood test buck. The nail fin was set against a silicone bedding and fastened to the buck with #6 by 1-5/8" screws, 2" from corners and 8" on center. 3/4" washers were utilized along the entire length of the sill, at midspan of the head and jambs, and at all corners.

Test Results: The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.6.1.1	Operating Force	17 lbf	30 lbf max.
2.1.2	Air Infiltration per ASTM E 283 1.57 psf (25 mph)	0.11 cfm/ft ²	0.3 cfm/ft ² max.

Note #1: The tested specimen meets (or exceeds) the performance levels specified in ANSI/AAMA/NWDA 101/LS-2-97 for air infiltration.

Test Results: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.1.3	Water Resistance per ASTM E 547 (with and without screen)		See Note #2
<i>Note #2: The client opted to start at a pressure higher than the minimum required. Those results are listed under "Optional Performance".</i>			
2.1.4.1	Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the mullion) (Loads were held for 52 seconds)		
	35.0 psf (positive)	0.39"	See Note #3
	35.0 psf (negative)	0.54"	See Note #3
<i>Note #3: The Uniform Load Deflection test is not a requirement of ANSI/AAMA/NWDA 101/I.S.2-97 for this product designation. The deflection data is recorded in this report for special code compliance and information only.</i>			
2.1.4.2	Uniform Load Structural per ASTM E 330 (Permanent sets reported were taken on the mullion) (Loads were held for 10 seconds)		
	52.5 psf (positive)	<0.01"	0.27" max.
	52.5 psf (negative)	0.07"	0.27" max.
2.2.6.1.2	Deglazing Test per ASTM E 987 In operating direction - 70 lbs		
	Interior meeting rail	0.13"/26%	0.50"/100%
	Bottom rail	0.11"/22%	0.50"/100%
	In remaining direction - 50 lbs		
	Left stile	0.09"/18%	0.50"/100%
	Right stile	0.10"/20%	0.50"/100%
2.1.7	Welded Corner Test	Meets as stated	Meets as stated

Test Results: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.1.8	Forced Entry Resistance per ASTM F 588		
	Type: A	Grade: 10	
	Lock Manipulation Test	No entry	No entry
	Test A1	No entry	No entry
	Test A2	No entry	No entry
	Test A3	No entry	No entry
	Test A4	No entry	No entry
	Test A5	No entry	No entry
	Test A7	No entry	No entry
	Lock Manipulation Test	No entry	No entry
<u>Optional Performance</u>			
4.3	Water Resistance per ASTM E 547 (with and without screen)		
	4.50 psf	No leakage	No leakage
4.4.1	Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the mullion) (Loads were held for 52 seconds)		
	47.2 psf (positive)	0.73"	See Note #3
	47.2 psf (negative)	0.92"	See Note #3
4.4.2	Uniform Load Structural per ASTM E 330 (Permanent sets reported were taken on the mullion) (Loads were held for 10 seconds)		
	52.5 psf (positive)	<0.01"	0.27" max.
	70.8 psf (negative)	0.21"	0.27" 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 from the original test date. 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. This report may not be reproduced, except in full, without the approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC:

Digitally Signed by: Jeramie D. Grabosch

Jeramie D. Grabosch
Technician

JDG:vlm

Digitally Signed by: Steven M. Urich

Steven. M. Urich, P.E.
Senior Project Engineer



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

Rendered to:

MI WINDOWS AND DOORS, INC.

**SERIES/MODEL: 3500/3540
PRODUCT TYPE: PVC Fixed Window**

Title	Summary of Results
Rating	F-LC25 72 x 96
Air Infiltration	<0.01 cfm/ft ²
Water Resistance Test Pressure	12.0 psf
Uniform Load Deflection Test Pressure	±25.0 psf
Uniform Load Structural Test Pressure	±37.5 psf
Forced Entry Resistance	Grade 10

Reference should be made to ATI Report No. 56538.01-122-47 for complete test specimen description and data.

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

Rendered to:

MI WINDOWS AND DOORS, INC.
P.O. Box 370
Gratz, Pennsylvania 17030-0370

Report No.: 56538.01-122-47
Test Dates: 03/29/05
Through: 03/31/05
Report Date: 08/25/05
Expiration Date: 03/29/09

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Windows and Doors, Inc. to witness testing on a Series/Model 3500/3540, PVC fixed window at MI Windows and Doors, Inc. test facility in Elizabethtown, Pennsylvania. The sample tested successfully met the performance requirements for an F-LC25 72 x 96 rating. Test specimen description and results are reported herein.

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

Test Specimen Description:

Series/Model: 3500/3540

Product Type: PVC Fixed Window

Overall Size: 6' 0" wide by 8' 0" high

Daylight Opening Size: 5' 7-7/8" wide by 7' 8" high

Overall Area: 48.0 ft²

Finish: All PVC was white.

Glazing Details: The window utilized 7/8" thick, sealed insulating glass constructed from two sheets of 1/8" thick, clear annealed glass and a metal reinforced butyl spacer system. The windows were interior glazed onto double-sided adhesive foam tape and secured with PVC snap-in glazing beads.

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Test Specimen Description: (Continued)

Frame Construction: The frame was constructed from extruded vinyl with mitered and welded corners. The interior perimeter utilized a snap-in frame insert.

Drainage:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
1/8" wide by 1" long weephole	2	3" from sill ends on sill face

Reinforcement: No reinforcement was utilized.

Installation: The windows were installed into a #2 Spruce-Pine-Fir wood buck. The nail fin was back bedded in silicone and secured with #6 x 1-5/8" drywall screws located 2" from ends and 10" on center, washers were used on the screws at the midspan of all members.

Test Results:

The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.1.2	Air Infiltration per ASTM E 283 1.57 psf (25 mph)	<0.01 cfm/ft ²	0.30 cfm/ft ² max.
<i>Note #1: The tested specimen meets (or exceeds) the performance levels specified in ANSI/AAMA/NWDA 101/I.S.2-97 for air infiltration.</i>			
2.1.3	Water Resistance per ASTM E 547 (with and without screen) 3.75 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the jamb) (Loads were held for 52 seconds) 15.0 psf (positive) 15.0 psf (negative)	0.03" 0.02"	See Note #2 See Note #2
2.1.4.2	Uniform Load Structural per ASTM E 330 (Permanent sets reported were taken on the jamb) (Loads were held for 10 seconds) 22.5 psf (positive) 22.5 psf (negative)	<0.01" <0.01"	0.37" max. 0.37" max.

Note #2: The Uniform Load Deflection test is not a requirement of ANSI/AAMA/NWDA 101/I.S.2-97 for this product designation. The deflection data is recorded in this report for special code compliance and information only.

Test Results: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.1.7	Welded Corner Test	Meets as stated	Meets as stated
2.1.8	Forced Entry Resistance per ASTM F 588		
	Type: D	Grade: 10	
	Hand and Tool Manipulation Test	No entry	No entry
	<u>Optional Performance</u>		
4.3	Water Resistance per ASTM E 547 (with and without screen) 12.0 psf	No leakage	No leakage
4.4.1	Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the jamb) (Loads were held for 52 seconds) 25.0 psf (positive) 25.0 psf (negative)	0.06" 0.04"	See Note #2 See Note #2
4.4.2	Uniform Load Structural per ASTM E 330 (Permanent sets reported were taken on the jamb) (Loads were held for 10 seconds) 37.5 psf (positive) 37.5 psf (negative)	0.01" 0.02"	0.37" max. 0.37" 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 from the original test date. 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. This report may not be reproduced, except in full, without the approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC:



Digitally Signed by: Mark A. Hess

Mark A. Hess
Technician

MAH:jld



Digitally Signed by: Steven M. Urich

Steven M. Urich, P.E.
Senior Project Engineer

Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	08/25/05	N/A	Original report issue



Appendix A



INSTALLATION INSTRUCTIONS FOR NEW CONSTRUCTION VINYL FIN WINDOWS

READ THESE INSTRUCTIONS COMPLETELY BEFORE BEGINNING. Please inspect your MI Windows and Doors, Inc. product thoroughly before beginning installation. Inspect the opening and the product and do not install it there is any observable damage or other irregularity. The product specification sheet and warranty include important information regarding your product and may include product-specific installation requirements (for example, types of fasteners to be used with impact resistant windows and limitations on the height at which the product may be installed); if you did not obtain copies please contact MI Windows and Doors, Inc. Local building codes may impose additional requirements, and those codes supercede these instructions.

FAILURE TO FOLLOW THESE INSTRUCTIONS, AND BUILDING CODE REQUIREMENTS, MAY AFFECT THE REMEDIES AVAILABLE UNDER YOUR WARRANTY.

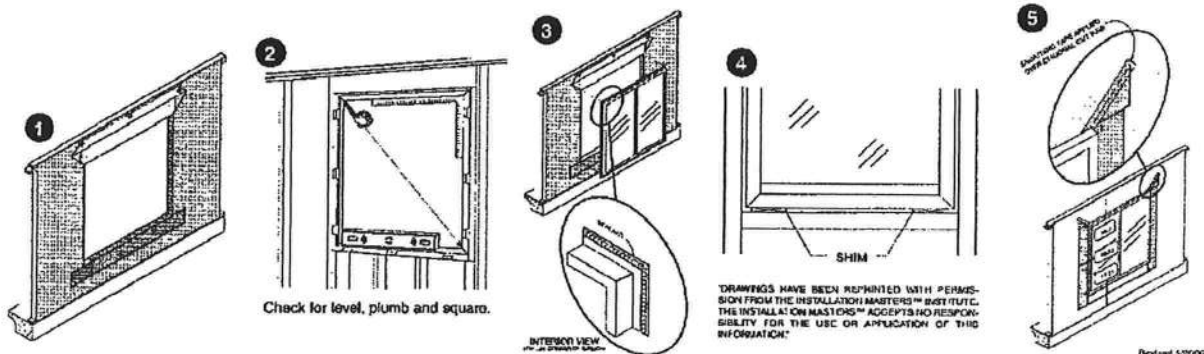
1. IF THE BUILDING HAS A WEATHER RESISTANT BARRIER (WRB) I.E. HOUSE WRAP, PREPARE THE OPENING ACCORDING TO WRB MANUFACTURER'S INSTRUCTIONS. AT EACH TOP CORNER MAKE A 45° CUT IN THE WRB. FOLD UP THE WRB SO THAT THE TOP NAIL FIN OF THE UNIT CAN BE INSTALLED UNDERNEATH IT. (See Figure 1 below) FLASHING OF THE WINDOW OPENING IS RECOMMENDED AND MAY BE REQUIRED BY SOME BUILDING CODES.
2. MAKE SURE THE ROUGH OPENING IS PLUMB, SQUARE AND THE SILL PLATE IS LEVEL. ROUGH OPENINGS SHOULD BE 1/2" LARGER THAN WINDOW FRAME IN WIDTH & HEIGHT. (See Figure 2 below)
3. CLOSE & LOCK THE SASH THROUGHOUT INSTALLATION. KEEP THE SIDE JAMBS PLUMB & SQUARE WITH HEAD AND SILL. BE CAREFUL NOT TO "CROWN UP" OR "BOW DOWN" THE SILL OR HEAD. CONSTANTLY CHECK WIDTH AT THE MEETING RAILS OF SINGLE AND DOUBLE HUNG (CENTER POINT ON CASEMENTS) TO AVOID A "BOWED OUT" INSTALLATION. WHEN USING FLASHING APPLY THE BOTTOM PIECE BEFORE INSTALLING THE WINDOW. (See Figure 1 below) FLASHING MUST BE RATED TO MEET ASTM D-779, 24 HOUR WATER RESISTANCE TEST.
4. APPLY A CONTINUOUS 3/8" BEAD OF PREMIUM GRADE, COMPATIBLE EXTERIOR SEALANT TO THE INTERIOR (BACKSIDE) OF THE NAIL FIN NEAR THE OUTSIDE EDGE IN LINE WITH THE PRE-PUNCHED HOLES ON ALL SIDES PRIOR TO SETTING THE WINDOW INTO THE ROUGH OPENING. (See Figure 3 below)
5. PLACE 1/4" FLAT SHIMS ON THE ROUGH OPENING SILL PLATE UNDER THE BOTTOM CORNERS OF THE WINDOW (See Figure 4 below). THESE SHIMS SHOULD BE REMOVED WHEN INSTALLATION IS COMPLETE. DO NOT PLACE SHIMS OR BLOCKS UNDER THE SILL EXCEPT AT THE FRAME CORNERS. SET THE WINDOW ONTO THE SHIMS CENTERING THE WINDOW IN THE OPENING ALLOWING EQUAL SPACE ON EITHER SIDE. FOR WINDOWS WITH INTERMEDIATE JAMBS AND ALL SLIDER WINDOWS, CONTINUOUS SHIM OR HORIZONTAL SHIMS ARE RECOMMENDED UNDER EACH INTERMEDIATE JAMB AND MEETING RAIL TO ENSURE SILL IS LEVEL. THESE SILL SHIMS SHOULD REMAIN AFTER INSTALLATION IS COMPLETE. APPLY ADDITIONAL SHIMS AS NECESSARY TO MAINTAIN A LEVEL SILL THROUGHOUT INSTALLATION.
6. PLACE A TEMPORARY FASTENER IN THE SLOT PROVIDED IN THE NAIL FIN ON EACH TOP CORNER, CHECK LEVEL AND SQUARE OF THE WINDOW BY MEASURING THE DIAGONALS. OPEN BOTTOM SASH, CHECK THE "REVEAL" (SPACE) BETWEEN THE BOTTOM OF THE SASH AND THE WINDOW SILL. CLOSE AND RELOCK THE SASH, ADJUST IF NECESSARY. PLACE ADDITIONAL FASTENERS IN THE BOTTOM CORNERS CHECKING WINDOW AGAIN FOR LEVEL, PLUMB AND SQUARE.
7. SECURE THE WINDOW WITH FASTENERS THAT PENETRATE THE FRAMING BY A MINIMUM OF 1". CARE SHOULD BE TAKEN TO INSTALL FASTENERS STRAIGHT, NOT ANGLED. KEEP THE SASH LOCKED UNTIL ALL SIDES ARE SECURE. PRIOR TO FASTENING THE SILL AND HEAD BE SURE THEY ARE STRAIGHT AND LEVEL. FASTENERS SHOULD BE APPLIED SECURELY INTO EVERY OTHER SLOT ON ALL SIDES, DO NOT DISTORT THE NAIL FIN WITH THE FASTENERS.
8. APPLY SEALANT OVER EXPOSED FASTENER HEADS, ANY UNUSED SLOTS AND THE OUTSIDE EDGE OF THE NAIL FIN WHERE IT COMES IN CONTACT WITH THE WRB/SHEATHING. OR IF FLASHING (WINDOW TAPE) IS BEING USED - NOTE: SILL FLASHING SHOULD HAVE BEEN APPLIED PRIOR TO INSTALLING THE WINDOW. APPLY THE SIDE FLASHING ON TOP OF THE NAIL FIN, OVERLAPPING THE SILL FLASHING AND EXTENDING UP PAST THE TOP NAIL FIN APPROXIMATELY 2". THEN APPLY THE TOP FLASHING ALSO OVER THE NAIL FIN, OVERLAPPING THE SIDE PIECES AND EXTENDING PAST THE SIDE FLASHING BY APPROXIMATELY 1". LASTLY FOLD DOWN THE WRB FLAP OVER THE FLASHING, TAPE THE DIAGONAL CUTS ABOVE EACH CORNER. (SEE FIGURE #5 BELOW)
9. PLACE SHIMS AT THE MEETING RAIL/CHECK RAIL ON THE SIDE JAMBS TO PREVENT BOWING, THESE SHIMS SHOULD REMAIN AFTER INSTALLATION. CAUTION SHOULD BE TAKEN AS TO NOT OVER SHIM, CAUSING DEFLECTION OF THE FRAME AND HINDER SASH OPERATION. CHECK THE FRAME WIDTH AT TOP, MIDDLE AND BOTTOM. IF NOT THE SAME, SHIM ACCORDINGLY. UNLOCK AND OPERATE THE SASH(S). VISUALLY INSPECT ALL SIGHT LINES. ADJUST OR SHIM AS REQUIRED TO ASSURE CONSISTENT SASH REVEAL AND EASE OF OPERATION.
10. INSULATE BETWEEN THE WINDOW FRAME & ROUGH OPENING WITH FIBERGLASS INSULATION OR EQUAL. THE SPACE MAY BE EFFECTIVELY FILLED WITH MEASURED USE OF LOW EXPANSION FOAM BUT ONLY AFTER DETERMINING THAT FOAM WILL NOT EXERT PRESSURE AGAINST THE FRAME, WHICH CAN IMPAIR OPERATION. DISTORTION OF THE FRAME WILL AFFECT THE USER'S RIGHTS UNDER THE WARRANTY.
11. ALLOW A 1/4" GAP BETWEEN THE EXTERIOR CLADDING, SIDING, BRICK, STUCCO OR STONE AND THE WINDOW FRAME ON ALL SIDES (EXCEPT VINYL J CHANNEL). THE GAP (EXPANSION JOINT) SHOULD BE FILLED WITH CORRECT SIZE BACKER ROD, THEN SEALED WITH A HIGH GRADE EXTERIOR SEALANT AND WILL NEED TO BE MAINTAINED.

CAUTION:

- USE OF SOLVENTS OR ACIDS WILL DAMAGE COMPONENTS OF THIS PRODUCT AND WILL LIMIT RIGHTS UNDER THE WARRANTY
- VINYL WINDOWS HAVE PRE-PUNCHED SLOTS FOR INSTALLATION - FASTENING IN ANY OTHER PORTION MAY PERMANENTLY DAMAGE UNIT WHICH WILL LIMIT RIGHTS UNDER THE WARRANTY.
- IT IS THE SOLE RESPONSIBILITY OF THE OWNER, ARCHITECT, AND/OR BUILDER TO SELECT CORRECT PRODUCTS TO BE IN COMPLIANCE WITH APPLICABLE LAWS. SITE REQUIREMENTS AND BUILDING CODES AND TO ENSURE THAT INSTALLATION IS IN COMPLIANCE WITH APPLICABLE LAWS, SITE REQUIREMENTS AND BUILDING CODES.
- DO NOT STORE IN THE SUN OR LAY FLAT BEFORE OR DURING INSTALLATION.
- ANY PENETRATIONS (e.g. ALARM SENSORS) MADE THROUGH ANY PORTION OF ANY M.I., BETTERBILT OR CAPITOL PRODUCT MAY AFFECT RIGHTS UNDER THE MANUFACTURER'S WARRANTY.
- SOME LAWS AND BUILDING CODES REQUIRE SAFETY GLASS. THE ORDERING PARTY IS RESPONSIBLE TO SPECIFY SAFETY GLASS AND ENSURE COMPLIANCE WITH LOCAL LAWS AND BUILDING CODES.

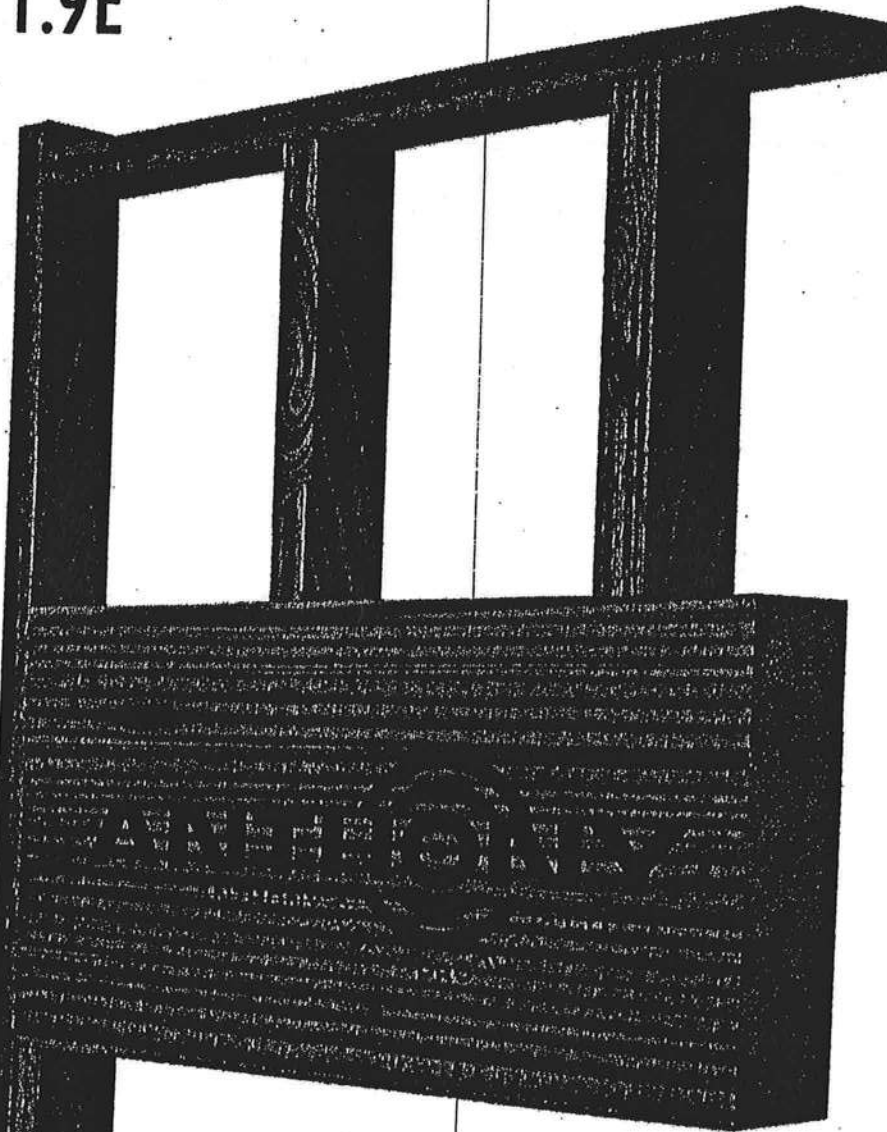
THESE INSTRUCTIONS ARE MINIMUM REQUIREMENTS ONLY. CHECK STATE AND LOCAL CODE RESTRICTIONS FOR ADDITIONAL COMPLIANCE ON INSTALLATION AND/OR FASTENING. IF UNIT HAS EXTERIOR TRIM (BRICKMOULD/ CHANNEL, ETC.) THE UNIT MUST BE SEALED BEHIND THE NAIL FIN. THE TRIM IS PROVIDED FOR AESTHETIC PURPOSES ONLY, AND NOT DESIGNED TO BE WATER TIGHT. INSTALLATION INTO MASONRY OR REPLACEMENT OPENINGS MUST BE SEALED TO THE OPENINGS USING AN APPROVED, PROPER METHOD. REFER TO AAMA 2400 AND/OR ASTM 2112 STANDARDS.

These installation instructions are provided for information only; no representation and warranty is made that these instructions set forth all of the information necessary for proper installation of the product. Given the variety of field conditions, primary responsibility for product installation rests with the installer. Do not proceed unless you have addressed the factors necessary to achieve weather-tight installation of a properly functioning product. MI Windows and Doors, Inc. assumes no liability for any personal injury or property damage incurred in installation. These instructions, together with the product specifications and warranty set forth the entire liability of MI Windows and Doors, Inc. with regard to the product.



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.

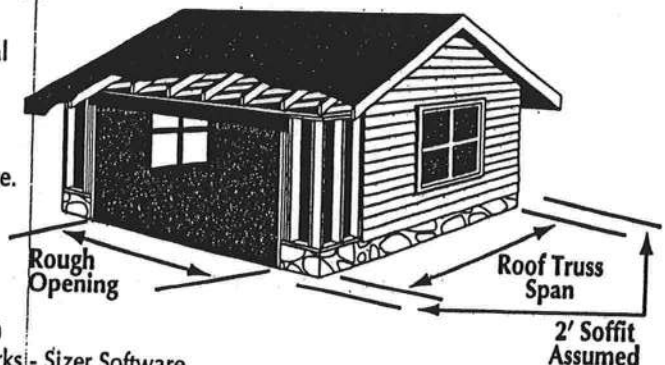
3-1/2" WIDTH GARAGE HEADER APPLICATION - SINGLE STORY HEADER SUPPORTING: 1/2 ROOF SPAN

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	12-5/8	15-3/8	8-3/8	14	15-3/8	8-3/8	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	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.



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

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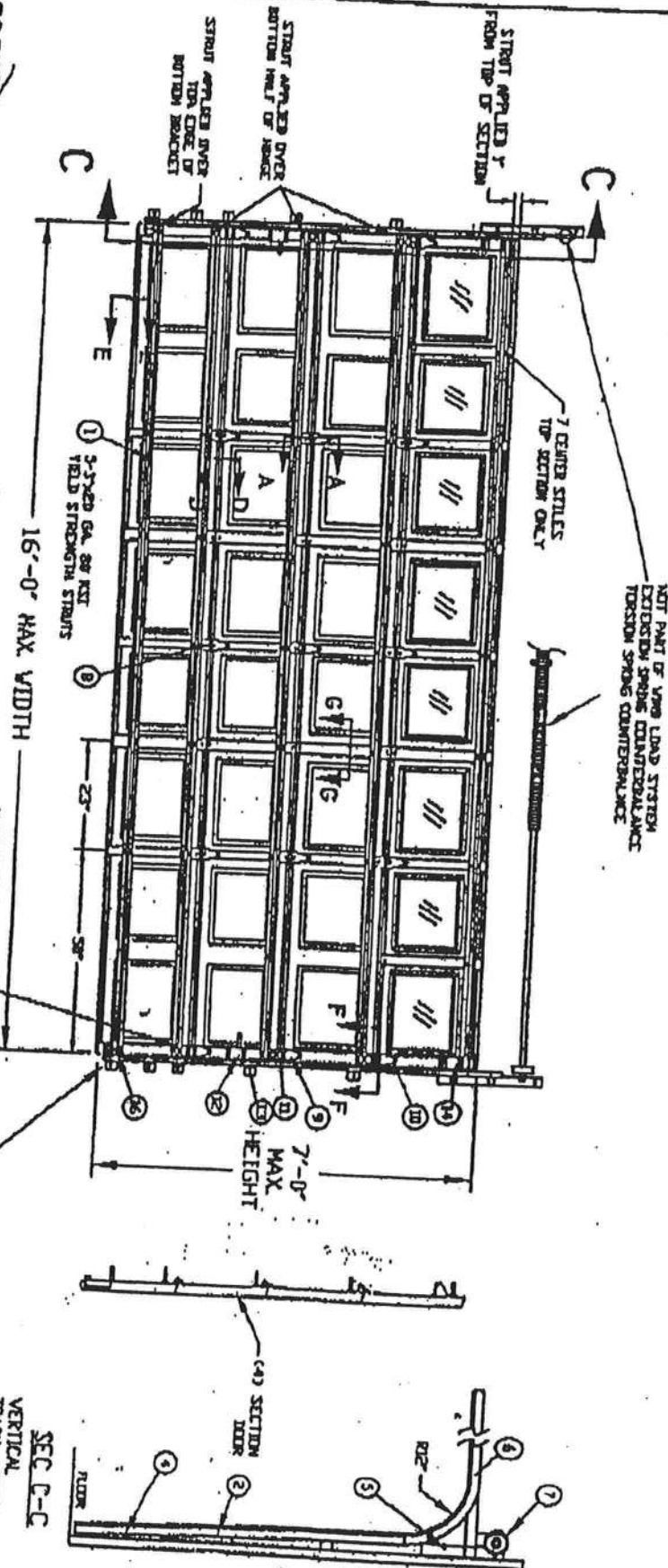
Internet address: [http:// www.anthonyforest.com](http://www.anthonyforest.com)

e-mail: info@anthonyforest.com

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Distributed by:

1. TESTED TO POSITIVE AND NEGATIVE 24 PSF TESTED AND POSITIVE AND NEGATIVE 24 PSF TEST PRESSURES PER ASTM E-330
2. MAXIMUM SECTION HEIGHT - 27
3. SECTION HEIGHTS OF 24" AND 30" ARE AVAILABLE AND MAY BE USED BY ANY CONSTRUCTION TO VARIOUS TYPES OF DOOR HEADS
4. VARIOUS TYPES OF DOOR HEADS MAY BE USED BY ANY CONSTRUCTION TO VARIOUS TYPES OF DOOR HEADS
5. MAXIMUM LENGTH OF ROLLER STUD IS 5' 0" AS TESTED
6. ROLLER STUD PLACEMENT ON DOOR MUST BE CONSISTENT WITH THE ROLLER STUD
7. STUDS SECURED AT ALL LOCATIONS WITH THE STUDS
8. QUANTITY OF STUDS LOCATED ON EACH SIDE OF DOOR AS TESTED
9. DROP IN TYPE OF ISOLATION IS OPTIONAL



The seal on this drawing only represents the configuration and dimensions of the product as installed. The seal on this drawing only represents the configuration and dimensions of the product as installed.



SECTION	SECTION	SECTION	SECTION	SECTION	SECTION
16'	7'	23"	3"	5	2 IN.
SECTION	SECTION	SECTION	SECTION	SECTION	SECTION
SECTION	SECTION	SECTION	SECTION	SECTION	SECTION

TEST REPORTS IN FILE VIDEO 10/19/98 402930

12 GA. JAMB BRACKET'S MAXIMUM SPACING = 19-1/2" WITH LATEST BRACKET APPROX. 3" FROM FLOOR AND BRACKET NEAR THE HORIZONTAL E OF THE BOTTOM SECTION AND 3RD BRACKET NEAR THE TOP OF THE BOTTOM SECTION

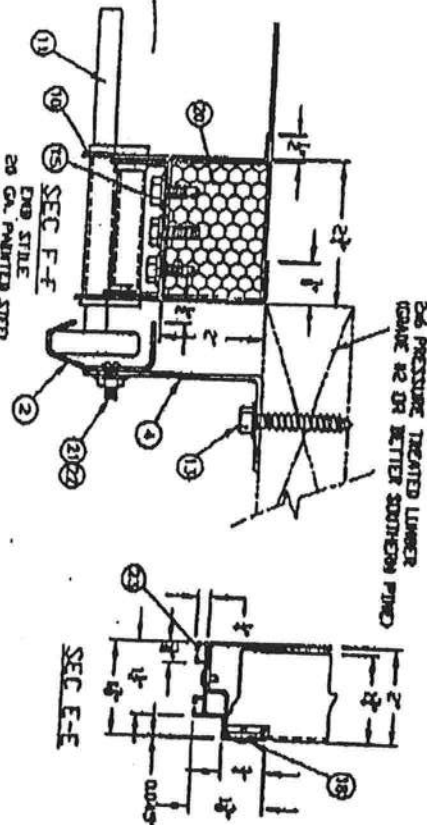
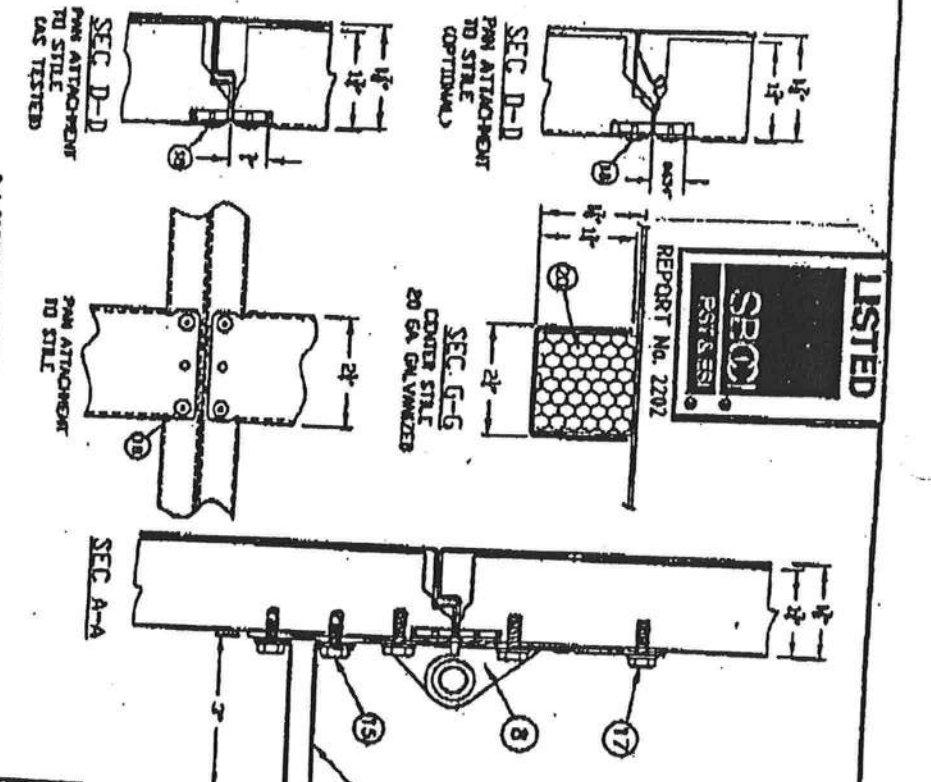
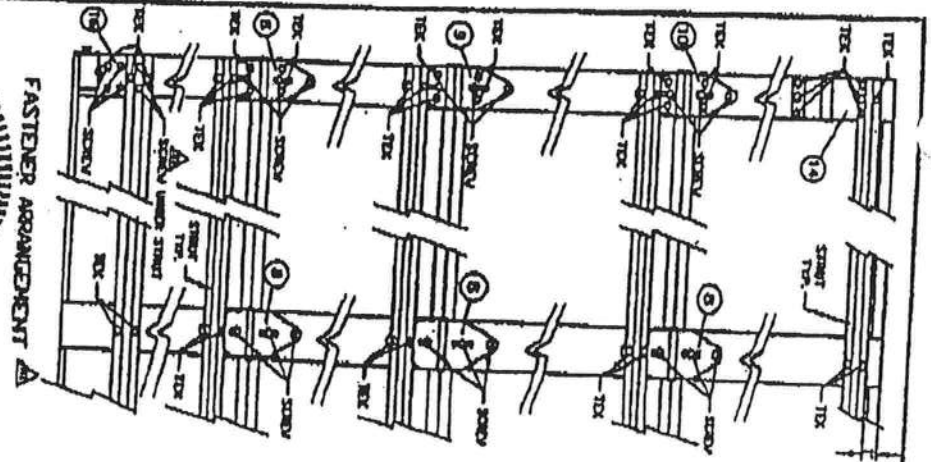
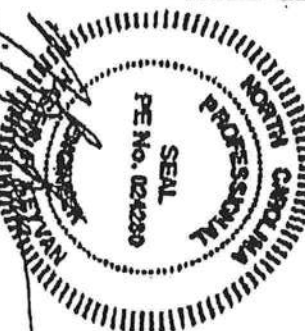
SEC C-C
VERTICAL
TRACK, 06 GA

DESIGN LOAD +200 PSF & -200 PSF
TEST LOAD +300 PSF & -300 PSF

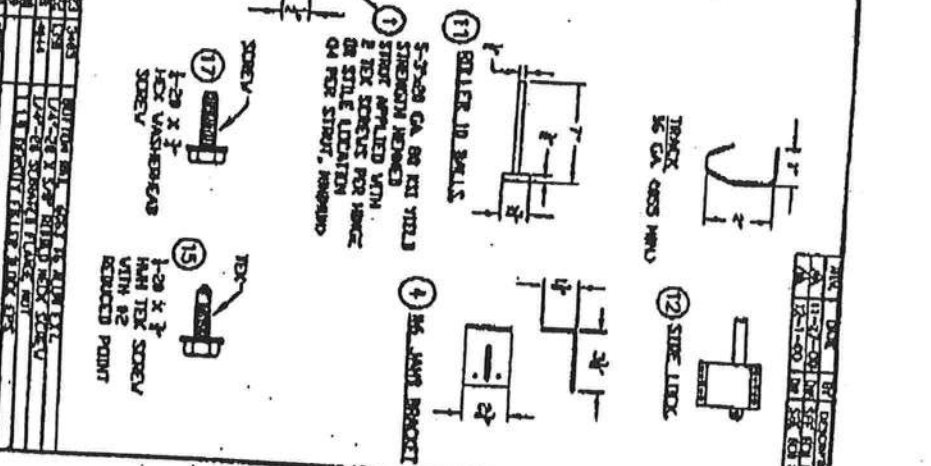
GENERAL AMERICAN DOOR COMPANY
SINCE BASELINE ROAD
HUNTERDON, NJ 08838

SCALE 1/8" = 1'-0"
DATE 11-20-03
DRAWN BY J. W. HARRIS
CHECKED BY J. W. HARRIS
PAGE 1 OF 2
Drawing Number V13220-1

The seal on this drawing, only
intended that the product(s)
represented and described herein
comply with the applicable
specifications and
requirements of
the door as tested.



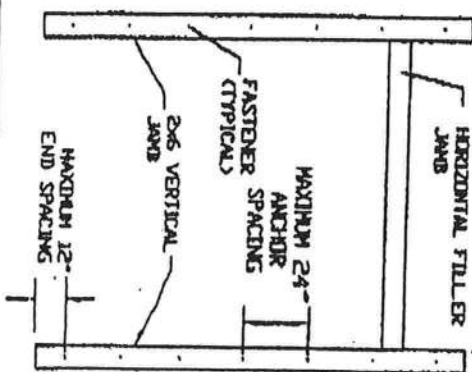
LISTED
SRQ1
PST & ES
REPORT No. 2202



ITEM	DESCRIPTION	QTY	UNIT	PRICE	TOTAL
1	DOOR FRAME	1	EA	100.00	100.00
2	DOOR SLAB	1	EA	200.00	200.00
3	DOOR HANDLE	1	EA	50.00	50.00
4	DOOR LOCK	1	EA	75.00	75.00
5	DOOR HINGE	2	EA	25.00	50.00
6	DOOR STOP	1	EA	30.00	30.00
7	DOOR SEAL	1	EA	40.00	40.00
8	DOOR FASTENER	10	EA	10.00	100.00
9	DOOR SCREW	20	EA	5.00	100.00
10	DOOR BOLT	5	EA	20.00	100.00
11	DOOR PIN	10	EA	10.00	100.00
12	DOOR WEDGE	5	EA	20.00	100.00
13	DOOR LATCH	1	EA	60.00	60.00
14	DOOR KNOB	1	EA	40.00	40.00
15	DOOR PLATE	1	EA	30.00	30.00
16	DOOR STRIKE	1	EA	50.00	50.00
17	DOOR BUSH	10	EA	10.00	100.00
18	DOOR WASHER	20	EA	5.00	100.00
19	DOOR NUT	10	EA	10.00	100.00
20	DOOR WEDGE	5	EA	20.00	100.00
21	DOOR LATCH	1	EA	60.00	60.00
22	DOOR KNOB	1	EA	40.00	40.00
23	DOOR PLATE	1	EA	30.00	30.00
24	DOOR STRIKE	1	EA	50.00	50.00
25	DOOR BUSH	10	EA	10.00	100.00
26	DOOR WASHER	20	EA	5.00	100.00
27	DOOR NUT	10	EA	10.00	100.00
28	DOOR WEDGE	5	EA	20.00	100.00
29	DOOR LATCH	1	EA	60.00	60.00
30	DOOR KNOB	1	EA	40.00	40.00
31	DOOR PLATE	1	EA	30.00	30.00
32	DOOR STRIKE	1	EA	50.00	50.00
33	DOOR BUSH	10	EA	10.00	100.00
34	DOOR WASHER	20	EA	5.00	100.00
35	DOOR NUT	10	EA	10.00	100.00
36	DOOR WEDGE	5	EA	20.00	100.00
37	DOOR LATCH	1	EA	60.00	60.00
38	DOOR KNOB	1	EA	40.00	40.00
39	DOOR PLATE	1	EA	30.00	30.00
40	DOOR STRIKE	1	EA	50.00	50.00
41	DOOR BUSH	10	EA	10.00	100.00
42	DOOR WASHER	20	EA	5.00	100.00
43	DOOR NUT	10	EA	10.00	100.00
44	DOOR WEDGE	5	EA	20.00	100.00
45	DOOR LATCH	1	EA	60.00	60.00
46	DOOR KNOB	1	EA	40.00	40.00


$$\frac{30}{17^2} \times 39 \times 1 \text{ WIDE} \times 8 \text{ FT} \text{ HIGH} = 3940 \text{ LBS}$$

- 12 USE 22" SPACING
 13 USE 21" SPACING
 14 USE 19" SPACING
 15 USE 16" SPACING
 16 USE 10" SPACING
- SEE NOTE 16 FOR ADDITIONAL
REQUIRED EMB VOTER JURY MATERIAL



WOOD JOIST SHALL BE ANCHORED TO BUILDING WOOD FRAME
GRouted AND REINFORCED CONCRETE MASSARY UNIT (CMU) WALLS
OR COLUMNS, OR REINFORCED CONCRETE COLUMNS.

- 1) ALL DOOR OPENING SURROUNDING STRUCTURE TO BE DESIGNED BY REGISTERED ENGINEER OR ARCHITECT WITH DUE CONSIDERATION GIVEN TO INSTALLATIONS USING CARRIER MILDSTEEL POSTS.
- 2) ALL DOOR OPENING STRUCTURE AND FASTENERS TO COMPLY WITH ALL APPLICABLE CODES INCLUDING SPECIALLY STANDARD FOR MILDSTEEL RESISTANT RESIDENTIAL CONSTRUCTION SSTD 10, CURRENT EDITION.
- 3) ALL FASTENERS TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. DISTRIBUTORS AND INSTALLERS TO

AND REPAIRS SPECIFICATIONS, INSTRUCTIONS AND RECOMMENDATIONS.

PROPERLY DESIGNED STUDS AT EACH SIDE OF DOOR OPENING SHALL BE AT THREE (3) LAMINATIONS OF 206 PRESSURE TREATED SOUHTHEAST PINE OR GRADE OR BETTER WALL STUDS CONTINUOUS FROM FLOORING TO ROOFING PLATE.

3. REINFORCED COLL OR CONCRETE) 255 WITH JWS SHALL BE ANCHORED IN SILENTLY GROUTED AND REINFORCED CONCRETE MASTERY UNIT GOLF WALLS OR COLUMNS. DR REINFORCED CONCRETE COLUMNS. ANCHOR SPACING AND EMBEDMENT IS BASED ON CONCRETE MASTERY UNITS OPERATING WITH ASTM C90 WITH A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2000 PSI. GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI. GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI. REINFORCED CONCRETE COLUMNS WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.

7) ANCHORS AND CONCRETE EMBEDMENTS

REINFORCING BARS OR CONCRETE AND CONCRETE MASONRY UNITS JOINED 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.

7) ANALYSES ARE REQUIRED ON ALL FASTIDERS.

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

TO FILL 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.

		GENERAL AMERICAN RUB COMPANY 3500 EASTLINE ROAD MONTICENTRY, IL 60638	
make NAME date 8-30-77	approved by 	make job date	make job date
REORDERED JAGS TO STRUCTURE ATTACHMENT FOR VANS LOADED		ORDER NUMBER 200000 A10550	
SPECIAL INSTRUCTIONS		SPECIAL INSTRUCTIONS	



ELK



**PRESTIQUE®
HIGH DEFINITION®**



RAISED PROFILE™

**Prestique Plus High Definition
and Prestique Gallery Collection™**

Product size ... 13"x 39"
Exposure ... 5"
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 ... 13"x 38"
Exposure ... 5"
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 ... 13"x 39"
Exposure ... 5"
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*.

HIP AND RIDGE SHINGLES

Seal-A-Ridge® w/FLX™

Size: 12"x 12"
Exposure: 6"
Pieces/Bundle: 45
Coverage: 4 Bundles = 100 linear feet

Prestique High Definition

Product size ... 13"x 38"
Exposure ... 5"
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*.

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, Shakeswood, 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

NOTE: 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. Fasten...

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

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs
Residential Whole Building Performance Method A

Project Name:	Derek & Jackie Moore	Builder:	
Address:	Lot: 4 & 5, Sub: 3 Rivers Estate, Plat:	Permitting Office:	
City, State:	Columbia County, FL 32024-	Permit Number:	
Owner:	Moore Residence	Jurisdiction Number:	
Climate Zone:	North		

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 44.0 kBtu/hr
3. Number of units, if multi-family	1		SEER: 13.00
4. Number of Bedrooms	3	b. N/A	
5. Is this a worst case?	No	c. N/A	
6. Conditioned floor area (ft ²)	2220 ft ²		
7. Glass type ¹ and area: (Label reqd. by 13-104.4.5 if not default)		13. Heating systems	
a. U-factor:	Description Area	a. Electric Heat Pump	Cap: 44.0 kBtu/hr
(or Single or Double DEFAULT) 7a. (Dble Default)	343.2 ft ²		HSPF: 7.70
b. SHGC:		b. N/A	
(or Clear or Tint DEFAULT) 7b. (Clear)	343.2 ft ²	c. N/A	
8. Floor types		14. Hot water systems	
a. Slab-On-Grade Edge Insulation	R=5.0, 203.0(p) ft	a. Electric Resistance	Cap: 80.0 gallons
b. N/A			EF: 0.90
c. N/A		b. N/A	
9. Wall types		c. Conservation credits	
a. Frame, Wood, Exterior	R=19.0, 1474.8 ft ²	(HR-Heat recovery, Solar	
b. N/A		DHP-Dedicated heat pump)	
c. N/A		15. HVAC credits	PT,
d. N/A		(CF-Ceiling fan, CV-Cross ventilation,	
e. N/A		HF-Whole house fan,	
10. Ceiling types		PT-Programmable Thermostat,	
a. Under Attic	R=30.0, 2500.0 ft ²	MZ-C-Multizone cooling,	
b. N/A		MZ-H-Multizone heating)	
c. N/A			
11. Ducts(Leak Free)			
a. Sup: Unc. Ret: Unc. AH: Interior	Sup. R=6.0, 50.0 ft		
b. N/A			

Glass/Floor Area: 0.15

Total as-built points: 22365

Total base points: 27593

PASS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: [Signature]

DATE: 8.2.07

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: _____

DATE: _____

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.



BUILDING OFFICIAL: _____

DATE: _____

¹ Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

SUMMER CALCULATIONS**Residential Whole Building Performance Method A - Details**

ADDRESS: Lot: 4 & 5, Sub: 3 Rivers Estate, Plat: , Columbia County, FL, 32024 PERMIT #:

BASE				AS-BUILT							
GLASS TYPES											
.18 X Conditioned X BSPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt		Area X SPM X SOF = Points				
.18	2220.0	18.59	7429.0	1.Double, Clear	W	1.5	9.0	40.0	38.52	0.97	1495.0
				2.Double, Clear	W	6.5	9.0	106.7	38.52	0.61	2518.0
				3.Double, Clear	NW	13.7	9.0	20.0	25.97	0.57	298.0
				4.Double, Clear	N	1.5	9.0	6.0	19.20	0.98	112.0
				5.Double, Clear	N	1.5	9.0	30.0	19.20	0.98	561.0
				6.Double, Clear	E	1.5	9.0	30.0	42.06	0.97	1223.0
				7.Double, Clear	E	1.5	9.0	12.0	42.06	0.97	489.0
				8.Double, Clear	E	1.5	9.0	16.0	42.06	0.97	652.0
				9.Double, Clear	E	1.5	9.0	40.0	42.06	0.97	1631.0
				10.Double, Clear	S	1.5	9.0	13.5	35.87	0.94	457.0
				11.Double, Clear	S	1.5	9.0	9.0	35.87	0.94	304.0
				12.Double, Clear	S	1.5	9.0	20.0	35.87	0.94	677.0
				As-Built Total:				343.2		10417.0	
WALL TYPES				Area X BSPM = Points		Type	R-Value		Area X SPM = Points		
Adjacent	0.0	0.00	0.0	1. Frame, Wood, Exterior		19.0		1474.8	0.90		1327.3
Exterior	1474.8	1.70	2507.2								
Base Total:		1474.8	2507.2	As-Built Total:				1474.8	1327.3		
DOOR TYPES				Area X BSPM = Points		Type	Area X SPM = Points				
Adjacent	0.0	0.00	0.0								
Exterior	0.0	0.00	0.0								
Base Total:		0.0	0.0	As-Built Total:				0.0	0.0		
CEILING TYPES				Area X BSPM = Points		Type	R-Value		Area X SPM X SCM = Points		
Under Attic	2220.0	1.73	3840.6	1. Under Attic		30.0		2500.0	1.73 X 1.00		4325.0
Base Total:		2220.0	3840.6	As-Built Total:				2500.0	4325.0		
FLOOR TYPES				Area X BSPM = Points		Type	R-Value		Area X SPM = Points		
Slab	203.0(p)	-37.0	-7511.0	1. Slab-On-Grade Edge Insulation		5.0		203.0(p)	-36.20		-7348.6
Raised	0.0	0.00	0.0								
Base Total:			-7511.0	As-Built Total:				203.0	-7348.6		

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 4 & 5, Sub: 3 Rivers Estate, Plat: , Columbia County, FL, 32024 PERMIT #:

BASE				AS-BUILT			
INFILTRATION Area X BSPM = Points				Area X SPM = Points			
2220.0	10.21	22666.2		2220.0	10.21	22666.2	
Summer Base Points: 28932.0				Summer As-Built Points: 31386.9			
Total Summer Points	X System Multiplier	= Cooling Points		Total Component (System - Points)	X Cap Ratio (DM x DSM x AHU)	X Duct Multiplier	X System Multiplier X Credit Multiplier = Cooling Points
28932.0	0.3250	9402.9		31386.9	1.00	0.992	0.260 0.950 7689.8

(sys 1: Central Unit 44000btuh ,SEER/EFF(13.0) Ducts:Unc(S),Unc(R),Int(AH),R6.0(INS)

 31387 1.00 (1.09 x 1.000 x 0.91) 0.260 0.950 7689.8
31386.9 1.00 0.992 0.260 0.950 7689.8

WINTER CALCULATIONS**Residential Whole Building Performance Method A - Details**

ADDRESS: Lot: 4 & 5, Sub: 3 Rivers Estate, Plat: , Columbia County, FL, 32024 PERMIT #:

BASE				AS-BUILT							
GLASS TYPES											
.18 X Conditioned X BWPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt		Area X WPM X WOF = Points				
.18	2220.0	20.17	8060.0	1.Double, Clear	W	1.5	9.0	40.0	20.73	1.01	835.0
				2.Double, Clear	W	6.5	9.0	106.7	20.73	1.13	2499.0
				3.Double, Clear	NW	13.7	9.0	20.0	24.30	1.03	500.0
				4.Double, Clear	N	1.5	9.0	6.0	24.58	1.00	147.0
				5.Double, Clear	N	1.5	9.0	30.0	24.58	1.00	737.0
				6.Double, Clear	E	1.5	9.0	30.0	18.79	1.02	572.0
				7.Double, Clear	E	1.5	9.0	12.0	18.79	1.02	229.0
				8.Double, Clear	E	1.5	9.0	16.0	18.79	1.02	305.0
				9.Double, Clear	E	1.5	9.0	40.0	18.79	1.02	763.0
				10.Double, Clear	S	1.5	9.0	13.5	13.30	1.02	183.0
				11.Double, Clear	S	1.5	9.0	9.0	13.30	1.02	122.0
				12.Double, Clear	S	1.5	9.0	20.0	13.30	1.02	272.0
				As-Built Total:		343.2			7164.0		
WALL TYPES Area X BWPM = Points				Type	R-Value		Area X WPM = Points				
Adjacent	0.0	0.00	0.0	1. Frame, Wood, Exterior	19.0		1474.8	2.20		3244.6	
Exterior	1474.8	3.70	5456.8								
Base Total: 1474.8 5456.8				As-Built Total:		1474.8			3244.6		
DOOR TYPES Area X BWPM = Points				Type	Area X WPM = Points						
Adjacent	0.0	0.00	0.0								
Exterior	0.0	0.00	0.0								
Base Total: 0.0 0.0				As-Built Total:		0.0			0.0		
CEILING TYPES Area X BWPM = Points				Type	R-Value		Area X WPM X WCM = Points				
Under Attic	2220.0	2.05	4551.0	1. Under Attic	30.0		2500.0	2.05 X 1.00		5125.0	
Base Total: 2220.0 4551.0				As-Built Total:		2500.0			5125.0		
FLOOR TYPES Area X BWPM = Points				Type	R-Value		Area X WPM = Points				
Slab	203.0(p)	8.9	1806.7	1. Slab-On-Grade Edge Insulation	5.0		203.0(p)	7.60		1542.8	
Raised	0.0	0.00	0.0								
Base Total: 1806.7				As-Built Total:		203.0			1542.8		

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 4 & 5, Sub: 3 Rivers Estate, Plat: , Columbia County, FL, 32024 PERMIT #:

BASE			AS-BUILT		
INFILTRATION Area X BWPM = Points			Area X WPM = Points		
2220.0 -0.59 -1309.8			2220.0 -0.59 -1309.8		
Winter Base Points: 18564.7			Winter As-Built Points: 15766.6		
Total Winter Points	X System Multiplier	= Heating Points	Total Component (System - Points)	X Cap Ratio (DM x DSM x AHU)	X Duct Multiplier X System Multiplier X Credit Multiplier = Heating Points
18564.7	0.5540	10284.8	(sys 1: Electric Heat Pump 44000 btuh ,EFF(7.7) Ducts:Unc(S),Unc(R),Int(AH),R6.0 15766.6 1.000 (1.069 x 1.000 x 0.93) 0.443 0.950 6594.5 15766.6 1.00 0.994 0.443 0.950 6594.5		

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 4 & 5, Sub: 3 Rivers Estate, Plat: , Columbia County, FL, 32024 PERMIT #:

6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	606.1.ABC.1.1	Maximum: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	606.1.ABC.1.2.1	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	606.1.ABC.1.2.2	Penetrations/openings >1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	606.1.ABC.1.2.3	Between walls & ceilings; penetrations of ceiling plane of top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	606.1.ABC.1.2.4	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC rated with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	606.1.ABC.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	606.1.ABC.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

6A-22 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	612.1	Comply with efficiency requirements in Table 612.1.ABC.3.2. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	612.1	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%.	
Shower heads	612.1	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	604.1, 602.1	Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

Tested sealed ducts must be certified in this house.

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 88.0

The higher the score, the more efficient the home.

Moore Residence, Lot: 4 & 5, Sub: 3 Rivers Estate, Plat: , Columbia County, FL, 32024-

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 44.0 kBtu/hr
3. Number of units, if multi-family	1		SEER: 13.00
4. Number of Bedrooms	3	b. N/A	
5. Is this a worst case?	No	c. N/A	
6. Conditioned floor area (ft ²)	2220 ft ²		
7. Glass type ¹ and area: (Label reqd. by 13-104.4.5 if not default)		13. Heating systems	
a. U-factor:	Description Area	a. Electric Heat Pump	Cap: 44.0 kBtu/hr
(or Single or Double DEFAULT)	7a. (Dble Default) 343.2 ft ²		HSPF: 7.70
b. SHGC:		b. N/A	
(or Clear or Tint DEFAULT)	7b. (Clear) 343.2 ft ²	c. N/A	
8. Floor types			
a. Slab-On-Grade Edge Insulation	R=5.0, 203.0(p) ft	14. Hot water systems	
b. N/A		a. Electric Resistance	Cap: 80.0 gallons
c. N/A		b. N/A	EF: 0.90
9. Wall types		c. Conservation credits	
a. Frame, Wood, Exterior	R=19.0, 1474.8 ft ²	(HR-Heat recovery, Solar	
b. N/A		DHP-Dedicated heat pump)	
c. N/A		15. HVAC credits	PT,
d. N/A		(CF-Ceiling fan, CV-Cross ventilation,	
e. N/A		HF-Whole house fan,	
10. Ceiling types		PT-Programmable Thermostat,	
a. Under Attic	R=30.0, 2500.0 ft ²	MZ-C-Multizone cooling,	
b. N/A		MZ-H-Multizone heating)	
c. N/A			
11. Ducts(Leak Free)			
a. Sup: Unc. Ret: Unc. AH: Interior	Sup. R=6.0, 50.0 ft		
b. N/A			

I certify that this home has complied with the Florida Energy Efficiency Code For Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: _____

Address of New Home: _____ City/FL Zip: _____



**NOTE: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStar™ designation), your home may qualify for energy efficiency mortgage (EEM) incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at 321/638-1492 or see the Energy Gauge web site at www.fsec.ucf.edu for information and a list of certified Raters. For information about Florida's Energy Efficiency Code For Building Construction, contact the Department of Community Affairs at 850/487-1824.*

¹ Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.
EnergyGauge® (Version: FLRCPB v4.5.2)

Energy Code Compliance

Duct System Performance Report

Project Name:	Derek & Jackie Moore	Builder:	
Address:		Permitting Office:	
City, State:	Columbia County, FL 32024-	Permit Number:	
Owner:	Moore Residence	Jurisdiction Number:	
Climate Zone:	North		

Total Duct System Leakage Test Results

CFM25 Total Duct Leakage Test Values			
Line	System	Duct Leakage Total	Duct Leakage to Outdoors
1	System1	_____ cfm25(tot)	_____ cfm25(out)
2	System2	_____ cfm25(tot)	_____ cfm25(out)
3	System3	_____ cfm25(tot)	_____ cfm25(out)
4	System4	_____ cfm25(tot)	_____ cfm25(out)
5	Total House Duct System Leakage	Sum lines 1-4 _____ Divide by _____ (Total Conditioned Floor Area) = _____ (Q_{n,tot}) ☐ Receive credit if Q_{n,tot} ≤ 0.03	Sum lines 1-4 _____ Divide by _____ (Total Conditioned Floor Area) = _____ (Q_{n,out}) ☐ Receive credit if Q_{n,out} ≤ 0.03 AND Q_{n,tot} ≤ 0.09

I hereby certify that the above duct testing performance results demonstrate compliance with the Florida Energy Code requirements in accordance with Section 610.1.A.1, Florida Building Code, Building Volume, Chapter 13 for leak free duct system credit.

Signature: _____

Printed Name: _____

Florida Rater Certification #: _____

DATE: _____

Florida Building Code requires that testing to confirm leak free duct systems be performed by a Class 1 Florida Energy Gauge Certified Energy Rater. Certified Florida Class 1 raters can be found at: <http://energygauge.com/search.php>



BUILDING OFFICIAL: _____

DATE: _____