U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
ASSISTANT SECRETARY FOR HOUSING-FEDERAL HOUSING COMMISSIONER

Series and Series Number:

TO: DIRECTORS, HOUSING DIVISION
DIRECTORS, MULTIFAMILY DIVISION
DIRECTORS, SINGLE FAMILY DIVISION

MATERIALS RELEASE NO. 1274

ISSUE DATE: June 17, 1996

REVIEW DATE: June 17, 1999

SUBJECT: 1. Product G-P LAM® Laminated Veneer Lumber

2. Name and Address of Manufacturer Georgia-Pacific Corporation
P. O. Box 3190
Roxboro, NC 27573

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Urban Development and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement, approval or acceptance by HUD of the described product, and any statement or representation, however made, indicating such approval, endorsement or acceptance by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

USE: General framing lumber.

DESCRIPTION:

G-P Lam Laminated Veneer Lumber (LVL) is manufactured from Southern Pine and Yellow Poplar veneers in a hot press with veneers having grain oriented parallel to the billet length. Each veneer is end-jointed during assembly of the billet. Veneers are bonded with an exterior-type phenolic adhesive complying with ASTM D-2559. Lay-up patterns of various veneer quantities, grades and thicknesses are compressed to the required billet thickness and glue lines cured with heat. Veneers are graded by an ultrasonic and/or visual grading process as described in the G-P Lam LVL manufacturing standards.

G-P Lam LVL is available in 2.2E, 2.0E and 1.8E grades, thicknesses of 3/4-inch to 5-1/4-inches, widths of 1-1/2 inches to 48 inches and lengths up to 80 feet.

REQUIREMENTS:

G-P Lam LVL shall meet all requirements of this Materials Release (MR).

1. Manufacturing Tolerance

A manufacturing tolerance of plus or minus 1/4" shall be allowed for specified length, plus 0" or minus 1/16" for specified width 12 inches or less and plus 0" or minus 1/8" for widths greater than 12 inches and plus or minus 0.050" for specified thickness.

2. Adhesive

Adhesive shall be an exterior type complying with ASTM D 2559. Each manufacturer's adhesive complying with G-P Lam LVL Manufacturing standard shall be certified to meet product standards PS 1-83.

3. Veneer

Each veneer sheet shall be ultrasonic and/or visually graded. Dry veneer bundles should be identified indicating species, and veneer thickness in accordance with the G-P Lam LVL Quality Control Manual.

DESIGN AND ALLOWABLE STRESSES:

The structural performance of the finished product is assured by sampling and testing in accordance with the quality control program procedures. The design practices for solid sawn lumber apply to G-P Lam laminated veneer lumber. The design stresses of Table 1 are for dry conditions of use (applications where moisture contents do not exceed 16%), in members where loads are of "normal" duration. Adjustments specified by NDS are applicable.

Lateral nail holding and withdrawal values shall be as provided in the National Design Specification for Wood Construction (NDS) for Douglas Fir-Larch sawn lumber. Holding power of bolts shall be as provided in the NDS for Douglas Fir-Larch. These design values are subject to adjustment for duration of load.

Table 1 - G-P Lam® LVL Allowable Design Stresses
(pounds per square inch, psi)[1]

		AXIAL		JOIST/BEAM			
PRODUCT THICKNESS	GRADE[2] SPECIE	F_t (4)	F_c	F_b (3)(5)	F_v	MOE (x 10^6)	$F_{c\perp}$
3/4-inch to 5 1/4-inch	1.8-YP	1900	2325	2750	285	1.8	750
	2.0-YP	2125	2750	3150	285	2.0	750
	2.0-SP	1825	2750	2950	285	2.0	750
	2.2-SP	2050	3310	3250	285	2.2	750
	2.0-ES	1825	2750	2950	285	2.0	750

Table 1 Notes:

1. Allowable design stress adjustment shall be in accordance with the HUD Minimum Property Standards. Design stress adjustments to E and $F_{c\perp}$ are not allowed.

2. Yellow Poplar - YP, Southern Pine - SP and mixed Yellow Poplar and Southern Pine - ES.

3. F_b allowable design values are for 12 -inch depths. For other depths, multiply by the factor below or $(12/d)^{1/9}$. For depths less than 3.5-inches, use the factor for the 3.5 inch depth.

Depth (inches)	3.50	5.50	7.25	9.25	11.25	12.00	16.00	20.00	24.00
Factor	1.15	1.09	1.06	1.03	1.01	1.00	0.97	0.94	0.93

4. Allowable tension design values (F_t) in the table reflect a volume effect correction. Therefore, when G-P Lam LVL is used as a component of engineered lumber products manufactured by Georgia-Pacific Corporation, F_t should not be used as a limit for allowable design stress.

5. A G-P Lam LVL joist which qualifies as a repetitive member may have F_b increased in accordance with the NDS.

INSTALLATION AND LIMITATIONS:

Installation shall be in strict accordance with HUD Minimum Property Standards as set forth in 24 CFR 200.929, and local codes for solid lumber construction, with the following limitations:

1. Nails installed parallel to glue lines in the narrow face of southern pine, yellow poplar or eastern species G-P Lam LVL 3/4 inch or thicker and 3-1/2 inches or wider shall be spaced a minimum of 6 inches on center for 10d and 12d common nails or No. 14 gauge staples. Nail spacing on yellow poplar G-P Lam LVL 1-3/4 inches or thicker and 3-1/2 inches or wider may be nailed not less than 4 inches on center for 10d and 12d common nails or No. 14 gauge staples. Southern pine or eastern species G-P Lam LVL 1-3/4 inches or thicker and 3-1/2 inches or wider may be nailed not less than 6 inches on center for 10d and 12d common nails or No. 14 gauge staples. A 16d common nail may be installed at a minimum 8 inches on center spacing parallel to the glue lines in the narrow face of southern pine, yellow poplar or eastern species G-P Lam LVL 1-3/4 inches or thicker and 5-1/4 inches or wider.

2. G-P Lam LVL shall be stored and handled in accordance with the specifications contained in the manufacturer's literature.

CERTIFICATION AND IDENTIFICATION

Georgia-Pacific Corporation shall certify that the G-P Lam LVL conforms to the requirements of this MR. PFS Corporation shall validate the manufacturer's certification that the G-P Lam LVL meets the requirements of the MR. The quality control test records shall be made available for inspection by HUD upon request.

Each member certified as conforming to this MR shall be marked with the following information:

a. G-P Lam® LVL.

b. Manufacturer's name or logo.

c. Registered logo of PFS.

d. Species or species group.

e. HUD MR 1274.

f. Mill number 498.

SAMPLE STAMP

Georgia-Pacific S. PINE 2.0E G-P LAM® LVL PFS

#498

WARRANTY:

Georgia-Pacific Corporation warrants G-P Lam laminated veneer lumber to be free of any defects due to faulty materials and workmanship in the manufacturing process for a period of 20 years from the date of installation. The liability of Georgia-Pacific Corporation under this warranty shall be limited to replacement of defective materials and the cost of installation or at the option of Georgia-Pacific Corporation payment in lieu thereof.

This warranty applies to any material failure due to manufacturing only and does not cover nor will the manufacturer be liable for any defects or damages due to misuse, improper installation, or damage resulting from fire, lightning or other causes beyond the manufacturer's control.

This manufacturer's warranty does not relive the builder, in any way, of his responsibility under the terms of the Builder's Warranty required by the National Housing Act or under any provisions applicable to any other housing programs. A copy of the manufacturer's warranty shall be furnished by the builder to the homeowner.

MANUFACTURER'S RESPONSIBILITIES:

Issuance of this Materials Release (MR) commits the manufacturer to fulfill, as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.

2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.

3. When requested, provide the Office of Consumer and Regulatory Affairs, Manufactured Housing and Standards Division, HUD Headquarters, with a representative list of properties in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.

4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

EVALUATION:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to HUD Headquarters. Appropriate User Fees shall be sent to:

U. S. Department of Housing and Urban Development
Technical Suitability of Products Fees
P. O. Box 954199
St. Louis, MO 63195-4199

The holder of this MR may apply for revision at any time prior to the Review Date. The revision may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of the MR. HUD will notify the manufacturer or producer that the MR may be canceled when:

1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,

2. the manufacturer has changed its organizational form without notifying HUD, or

3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made on a cancelled document.

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This Materials Release is issued solely for the captioned firm, and is not transferable to any person or successor entity.
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