

CITY OF NEW YORK
DEPARTMENT OF BUILDINGS

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use in accordance with the Report of Materials and Equipment Acceptance (MEA) Division.

Patricia J. Lancaster, A.I.A., Commissioner
MEA 141-03-E

Report of Material and Equipment Acceptance Division

Manufacturer – TrimJoist Corp., P.O. Box Drawer 2286, Columbus, MS MS39704.

Trade Name(s) – TrimJoist.

Product – TrimJoist.

Pertinent Code Section(s) – 27-617 through 27-624, Reference Standard RS 10.

Test(s) – ANSI/TPI 2-1995 Standard for Testing Metal Plate connected wood trusses.

Laboratory – PFS Corporatio. 2402 Daniels Street, Madison, WI 53718. In plant qualification testing is conducted by TrimJoist Corp., and witnessed by PFS Corp. Design properties and Allowable Floor Spans were certified by Jieming Wang P.E., New York State License Number 074354-1.

Test Report(s) – PFS test report No. 02-106 dated November 15, 2002, addendum dated March 28, 2003.

Description –

TrimJoist Corporation manufactures one type of product that is a wooden, open-web, parallel chord, steel plated floor joist with trimmable, I-shaped sections at both ends. The manufacturing facility is located in Columbus, Mississippi.

The chords are high quality (Grade 1 or better) Southern Pine. The trimmable end sections consist of nominally 23/32 inch thick Oriented Strand Board (OSB) held between the top and bottom chord by a structural adhesive. The diagonal webs are Southern Pine and are held in place with metal connector plates. There is also a vertical Southern Pine post at the inboard margin of each trimmable end section to mark the extent to which the joist may be trimmed and to allow the joist to function as would an ordinary custom built floor truss in the event that both ends were trimmed to the maximum allowed.

The solid outboard end sections of the TrimJoist product may be trimmed to a required length on a jobsite to fit the requirements of a given application unlike custom floor trusses that are built to a specific length. This allows the TrimJoist product to be mass produced by an assembly line process subject to elevated Quality Assurance methods thereby making product performance more reliable and predictable.

The TrimJoist product is made in four depths, being 11 ¼, 14, 16, and 18 inches. The maximum length for the 11 ¼ inch deep joist is 24 feet. The maximum length for the 14 inch deep joist is 26 feet. The maximum length for the 16 inch deep joist is 28 feet. And the maximum length for the 18 inch depth is 30 feet.

Manufactures the following model numbers:

J1204, J1206, J1208, J1210, J1212, J1214, J1216, J1218, J1220, J1222, J1224, and

J1404, J1406, J1408, J1410, J1412, J1414, J1416, J1418, J1420, J1422, J1424, J1426, and

J1604, J1606, J1608, J1610, J1612, J1614, J1616, J1618, J1620, J1622, J1624, J1626, J1628, and

J1804, J1806, J1808, J1810, J1812, J1814, J1816, J1818, J1820, J1822, J1824, J1826, J1828, J1830.

The "J" that commences each model number is merely an identifier. The next two numbers indicate the depth of the TrimJoist in inches (the J12 TrimJoists are actually 11 ¼" deep such that they are architecturally compatible with 2 x 12 sawn boards). The last two numbers in the model number indicate the untrimmed length of the TrimJoist in feet. By way of an example, a "J1420" is fourteen inches deep and twenty feet long when it leaves the plant.

The TrimJoist products are made to inventory and then used as floor, ceiling or roof joists. The products are used in projects in accordance with the TrimJoist Project Design System (TPDS) which is a software program developed specifically for the analysis of the TrimJoist product under specific conditions of span and load.

In regards to the TrimJoist product, and its compliance with governing building codes, all TrimJoist have been designed in accordance with the recommendations of the **Truss Plate Institute (TPI)**. Since all model building codes reference TPI in the area of metal-plate-connected wood trusses, we are by implication approved under these codes.

The raw material components in a TrimJoist are all structurally rated by various independent agencies such as the **Southern Pine Inspection Bureau, American Plywood Association, and the American Society for Testing and Materials.**

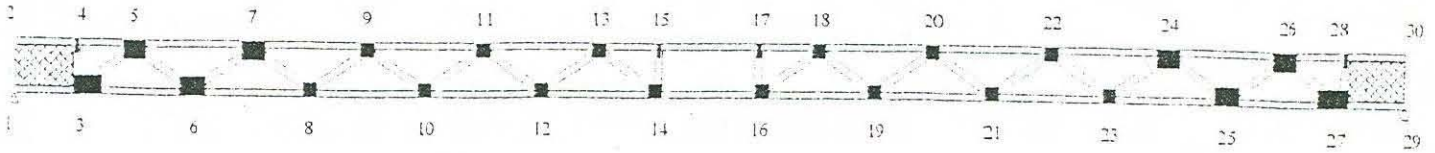
Additional measures for in-house Quality Assurance such as 3rd party monitoring help assure the materials used in a TrimJoist are meeting the criteria under which they were designed. **PFS Corporation** of Madison, Wisconsin provides the periodic auditing of the Quality Assurance program.

Since TrimJoist is manufactured in Mississippi and sold nationally we have met compliance with various building code regulations, departments and officials from all types of municipalities throughout the country.

For additional information, visit the TrimJoist Corporation website:

www.trimjoist.com

and/or review the contents of the TrimJoist Corporation publication **Floor Application Guide**.



TrimJoist Project Design System

version 4.0

Geometric Data

Span: 24'0.000"
 Trim(L): 0'0.000"
 Trim(R): 0'0.000"
 Depth: 11.25"

Design Considerations

- No Cantilever(s) have been considered
- No Concentrated Loads have been considered
- Product design conforms to NDS 1991
- Plating conforms to ICBO #5243
- and ANSI/TPI-1995 (Truss Plate Institute)
- Deflections assume no composite action

Value Adjustment Factors

Lumber/Plate Duration: 1.00
 Repetitive Member: 1.15

Uniform Loading

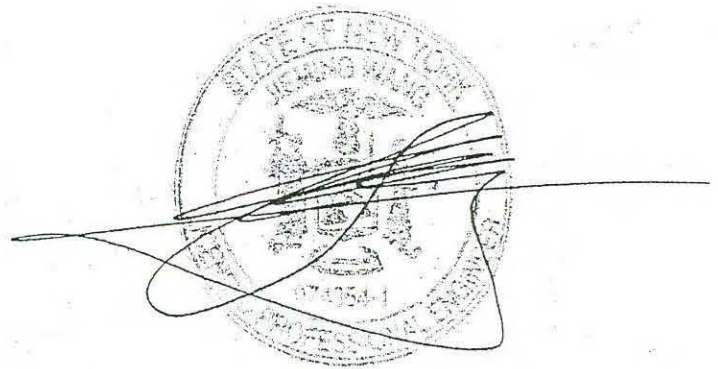
Spacing: 12.00"
 TC Live: 40 psf
 Dead: 10 psf
 BC Dead: 5 psf

Maximum Axial Forces, CSIs & Deflections

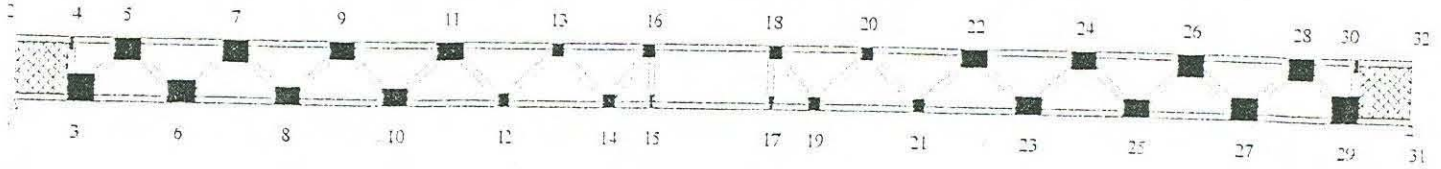
Def Dead : 0.28 L/1019
 Def Live : 0.75 L/ 382
 Def Total : 1.04 L/ 278
 P Top: 4821 Lbs C CSI=0.35
 P Bottom: 4821 Lbs T CSI=0.62
 P Webs: 997 Lbs C CSI=0.32

Reactions (Min Brng Width)

Total Node: 1 659.89 Lbs (1.50")
 Total Node: 29 659.83 Lbs (1.50")



This design is for an individual component only and is based on information provided to TrimJoist Corporation by other parties. TrimJoist Corporation disclaims any and all responsibility for damages as a result of faulty, incorrect, or incomplete information, specifications, or designs supplied by other parties. The loads shown herein, and other design assumptions, must be verified by the building owner or his agent. Trusses are to be handled and erected in accordance with the "HIB-91" document as published by the Truss Plate Institute (TPI). Contractor must prevent excessive loads during construction. All temporary and permanent bracing that may be required must be specified and installed by others. All Chord material is 2x4 #1SP grade or better. All web material is 2x4 #3SP grade or better. Any design considerations marked "U:" were inserted by the user of the TrimJoist Project Design System, and not by TrimJoist Corporation. Any impression, seal, or original stamp affixed hereto by any Registered Engineer or Architect indicates this design was made under the oversight of said Engineer or Architect.



TrimJoist Project Design System

version 4.0

Geometric Data

Span: 26'0.000"
 Trim(L): 0'0.000"
 Trim(R): 0'0.000"
 Depth: 14.00"

Design Considerations

- No Cantilever(s) have been considered
- No Concentrated Loads have been considered
- Product design conforms to NDS 1991
- Plating conforms to ICBO #5243 and ANSI/TPI-1995 (Truss Plate Institute)
- Deflections assume no composite action

Value Adjustment Factors

Lumber/Plate Duration: 1.00
 Repetitive Member: 1.15

Uniform Loading

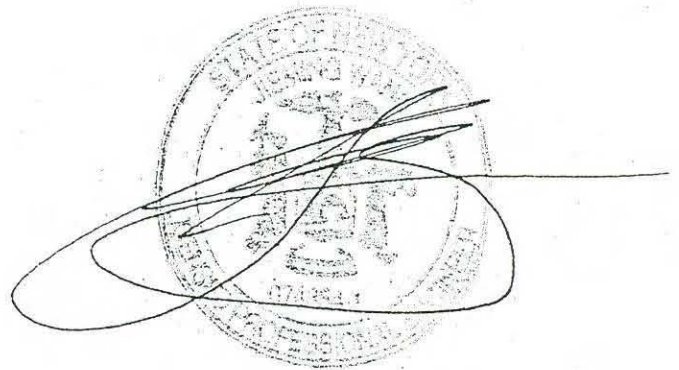
Spacing: 12.00"
 TC Live: 40 psf
 Dead: 10 psf
 BC Dead: 5 psf

Maximum Axial Forces, CSIs & Deflections

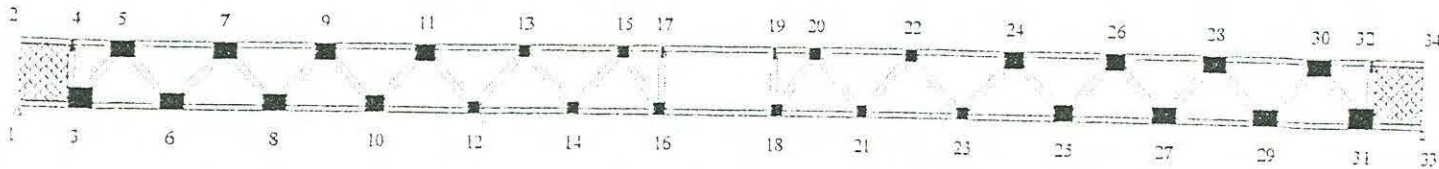
Def Dead : 0.24 L/1304
 Def Live : 0.64 L/ 488
 Def Total : 0.88 L/ 355
 P Top: 4426 Lbs C CSI=0.30
 P Bottom: 4426 Lbs T CSI=0.56
 P Webs: 952 Lbs C CSI=0.31

Reactions (Min Brng Width)

Total Node: 1 714.99 Lbs (1.50")
 Total Node: 31 714.96 Lbs (1.50")



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TrimJoist Project Design System

version 4.0

Geometric Data

Span: 28'0.000"
 Trim(L): 0'0.000"
 Trim(R): 0'0.000"
 Depth: 15.00"

Design Considerations

- No Cantilever(s) have been considered
- No Concentrated Loads have been considered
- Product design conforms to NDS 1991
- Plating conforms to ICBO #5243
- and ANSI/TPI-1995 (Truss Plate Institute)
- Deflections assume no composite action

Value Adjustment Factors

Lumber/Plate Duration: 1.00
 Repetitive Member: 1.15

Uniform Loading

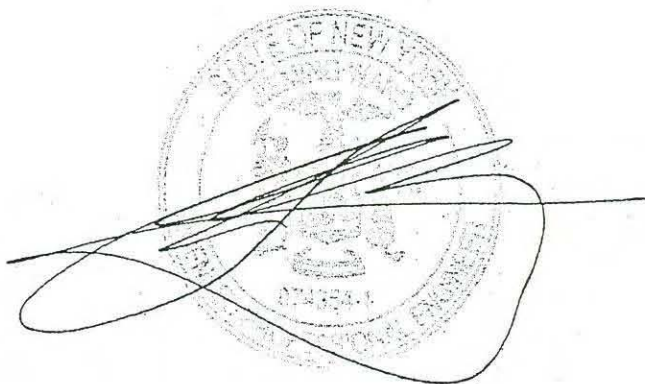
Spacing: 12.00"
 TC Live: 40 psf
 Dead: 10 psf
 BC Dead: 5 psf

Maximum Axial Forces, CSIs & Deflections

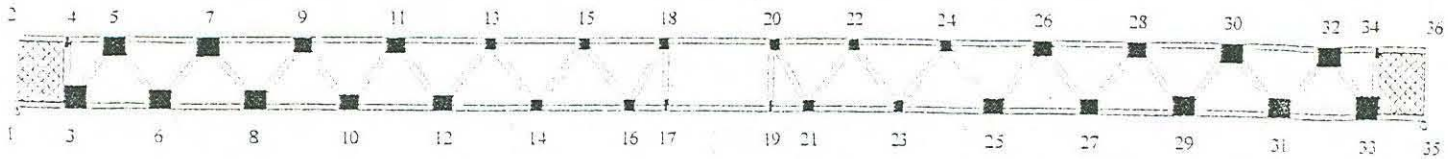
Def Dead : .024 L/1398
 Def Live : 0.64 L/ 523
 Def Total : 0.88 L/ 380
 P Top: 4431 Lbs C CSI=0.30
 P Bottom: 4430 Lbs T CSI=0.56
 P Webs: 962 Lbs C CSI=0.32

Reactions (Min Brng Width)

Total Node: 1 769.95 Lbs (1.50")
 Total Node: 33 769.95 Lbs (1.50")



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TrimJoist Project Design System version 4.0

Geometric Data

Span: 30'0.000"
 Trim(L): 0'0.000"
 Trim(R): 0'0.000"
 Depth: 18.00"

Design Considerations

- No Cantilever(s) have been considered
- No Concentrated Loads have been considered
- Product design conforms to NDS 1991
- Plating conforms to ICBO #5243 and ANSI/TPI-1395 (Truss Plate Institute)
- Deflections assume no composite action

Value Adjustment Factors

Lumber/Plate Duration: 1.00
 Repetitive Member: 1.15

Uniform Loading

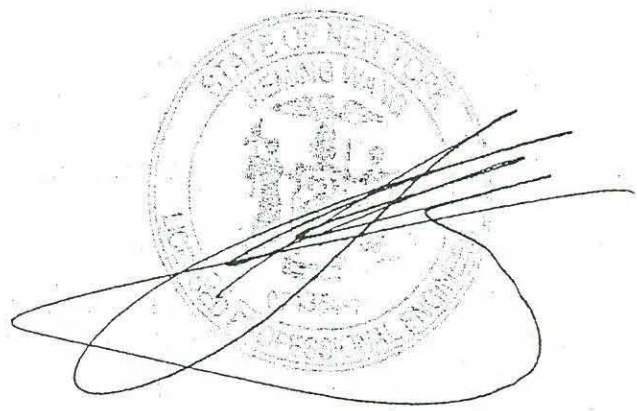
Spacing: 12.00"
 TC Live: 40 psf
 Dead: 10 psf
 BC Dead: 5 psf

Maximum Axial Forces, CSIs & Deflections

Def Dead : 0.25 L/1468
 Def Live : 0.66 L/ 549
 Def Total : 0.90 L/ 400
 P Top: 4477 Lbs C CSI=0.30
 P Bottom: 4477 Lbs T CSI=0.56
 P Webs: 984 Lbs C CSI=0.33

Reactions (Min Brng Width)

Total Node: 1 825.06 Lbs (1.50")
 Total Node: 35 825.03 Lbs (1.50")



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Recommendation – That the above TrimJoists be accepted on condition that all uses, locations and installations shall comply with the applicable requirements of the New York City Building Code and Technical Policy and Procedure Notice #8, 1992, dated August 19, 1992 (attached), TPPN #2, 2000 dated July 24, 2000 (attached) and on further condition that:

1. All provisions of TPPN #8, 1992 and TPPN #2, 2000 for TRIM Joists that are applicable shall be complied with.
2. Structure designs using the TrimJoists shall conform to the manufacturer's specifications except that appropriate design load(s), deflection, limitation(s) and other performance standards of the New York City Building Code shall apply.
3. The glue used shall not delaminate during a fire.
4. TrimJoists shall be used indoors.
5. When stored out-of-doors, or exposed to wet weather conditions, during construction TrimJoists shall be inspected by the user for flange-web separation, swelling or warping and replaced if so damaged.
6. The size and location of any cutouts in the web of the joist shall not exceed the manufacturer's recommendations and shall be subject to controlled inspection.
7. TrimJoist flanges may not be cut, notched or bored.
8. Firestopping shall be provided between the ceiling and the floor or roof above and shall be divided into approximately equal areas not greater than 500 square feet.
9. The building permit applicant shall notify the Fire Department of the proposed installation of TrimJoists prior to the Building Department issuance of a construction permit. Evidence of such notification shall be a certifying statement submitted on Form TR-1, Technical Report, reading as follows:

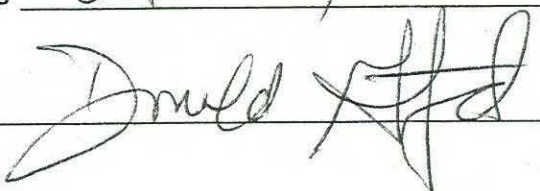
I hereby state that I have mailed a copy of the statement to the Fire Department, Bureau of Fire, Technology Management Unit, as notification of the proposed installation of Wood I Beams at this location.

This statement shall be placed on the reverse side of the form in the lower right-hand box.

The copy of the completed form TR-1 shall be mailed to the new address at:

Chief-In-Charge of the Bureau of Fire Prevention
Fire Department
Bureau of Fire Prevention
Technology Management Unit
9 MetroTech Center
Brooklyn, New York 11201-3857

All shipments and deliveries of TrimJoists shall be provided with a permanent marking suitably placed, certifying that the materials shipped or delivered is equivalent to those tested and accepted for use, as provided for in Section 27-131 of the Building Code.

Final Acceptance October 9, 2003
Examined by 



ISSUANCE # 367

DEPARTMENT OF BUILDINGS

EXECUTIVE OFFICES

60 HUDSON STREET, NEW YORK, N.Y. 10013

RUDOLPH E. RINALDI, Commissioner

312-8100

RICHARD C. VISCONTI, A.I.A.

Assistant Commissioner
Technical Affairs

TECHNICAL
POLICY AND PROCEDURE NOTICE # 8/92

TO: Distribution

FROM: Richard C. Visconti, A.I.A. *Richard Visconti*

DATE: August 19, 1992

SUBJECT: Laminated Wood "I" Beams

PURPOSE: To interpret the requirements of the Administrative Code, Sections 27-617 and 27-620, pertaining to firestopping requirements per RS 10-8 and Inspection of Methods of Construction per Table 10-2 for laminated wood "I" beams used in fire resistance rated floor/roof-ceiling assemblies.

To establish a new administrative procedure for applicant notification to the Fire Department of proposed use of laminated wood "I" beams.

SPECIFICS:

1. Firestopping

Reference Standard RS 10-8, Section 9.2.1 - General Requirements for Firestopping states that, "the space between the ceiling and the floor or roof above shall be divided by providing firestopping where ceilings are suspended below solid joists or suspended from or attached directly to the bottom of open wood floor trusses in buildings of combustible construction."

The Department now interprets the requirement to comply with the firestopping provisions of Section 9.2.1 et seq. to include laminated wood "I" beam assemblies. Therefore, the space between the ceiling and the floor or roof above shall be divided into approximately equal areas not greater than 500 square feet.

Firestopping is subject to controlled inspection pursuant to Section 27-345.

2. Inspection of Methods of Construction

Table 10-2 - Operations on Structural Elements that shall be Subject to Controlled Inspection, lists the "Fabrication of glue-laminated assemblies and of plywood components."

The Department now interprets the requirement to comply with the controlled inspection provision of Table 10-2 to include laminated wood "I" beams. Therefore, the cutting of openings for ducts, pipes, conduit, etc. in laminated wood "I" beams shall be considered fabrication and, therefore, subject to controlled inspection.

3. Notification

The applicant shall be required to notify the Fire Department of the proposed installation of laminated wood "I" beams prior to the Department issuing a construction permit. Evidence of such notification shall be a certifying statement submitted on Form TR-1, Technical Report, reading as follows:

I hereby state that I have mailed a copy of this statement to the Fire Department, Bureau of Fire Prevention, Technology Management Unit, as notification of the proposed installation of laminated wood "I" beams at this location.

This statement shall be placed on the reverse side of the form in the lower right-hand box.

The copy of the completed Form TR-1 shall be mailed to:

Chief-in-Charge of the Bureau of Fire Prevention
Fire Department
Bureau of Fire Prevention
Technology Management Unit
250 Livingston Street
Brooklyn, NY 11201-5884

cc: Chief John Hodgins



ISSUANCE #586


DEPARTMENT OF BUILDINGS

EXECUTIVE OFFICES
60 HUDSON STREET, NEW YORK, N.Y. 10013-3304
RICHARD C. VISCONTI, R.A., Acting Commissioner
Website: nyclink.org/buildings
(212) 312-8000
TTY (212) 312-8188

SATISH K. BABBAR, R.A.
Acting Deputy Commissioner
Technical Affairs
(212) 312-8324
Fax (212) 312-8319

TECHNICAL
POLICY AND PROCEDURE NOTICE #2/00

TO: Distribution

FROM: Satish K. Babbar, R.A. 

DATE: July 24, 2000

SUBJECT: Semi-Controlled Inspection for Structural Light Gage Cold-Formed Steel, Plate Connected Wood Floor Trusses and Laminated Wood "I" Beams

EFFECTIVE: Immediately

SUPERCEDES: Brooklyn Borough Memorandum by Borough Superintendent George E. Berger dated August 11, 1983.

BACKGROUND: There have been several structural failures involving lightweight floor construction. Professional inspection is needed during construction of buildings and other structures utilizing it in order to insure that the delivered members are not damaged or defective, the installation is proper and safeguards are taken to prevent failure.

PURPOSE: To set forth the requirements for the semi-controlled inspection of the construction, including size, quality, framing, erection and both temporary and permanent bracing of light gage cold-formed steel structural members, plate connected wood floor trusses and laminated wood "I" beams.

REFERENCE: Section 27-132(b) of the Administrative Code.

SPECIFICS:

REQUIREMENTS: The plans submitted for approval/acceptance/professional certification showing these members shall be complete including member sizes, positions, locations, permanent and temporary bracing, fasteners (location, type and spacing), stiffeners, connections, etc., as needed for the proper erection of the structure.

The construction of all light gage cold-formed steel structural members, plate connected wood floor trusses and laminated wood "I" beams shall be subject to semi-controlled inspection for size, quality, framing, erection and both temporary and permanent bracing, as set forth below.

Size Profiles used structurally shall conform to the specified dimension. Care shall be taken not to stretch, bend, or otherwise distort parts of the sections unless such forming is in the integral part of the design.

Quality All materials shall be clean, straight, and undamaged. Damaged members shall be discarded. Only BSA/MEA approved laminated wood "I" beams shall be used. Glue shall completely bond all laminated wood "I" beam surfaces being joined. Quality Control for the erection of all members shall be under the supervision of the professional designated to perform the semi-controlled inspection.

Framing Components may be cut by slitting, shearing, sawing, or flame cutting, as appropriate, in accordance with manufacturers' instructions and the design drawings. All punched holes and sheared or flame cut edges of material in members subject to calculated stress shall be clean and free from notches and burred edges. The approved/accepted/professionally certified drawings shall be adhered to regarding member dimensions, locations, positions, beam separators, bearing surfaces and fasteners, including shear connectors, plate connectors, screws, bolts and welds, as applicable.

Erection Care shall be taken to avoid damage to members when erecting, loading, unloading and otherwise handling them.

Bracing Temporary bracing, shoring, jacks, etc. shall not be removed until the registered architect or professional engineer determines that they are no longer needed. Permanent bracing, web stiffeners, bridging, wind bracing, etc. shall be installed according to the approved/accepted/professionally certified drawings.

INSPECTIONS AND REPORT TO BE SUBMITTED: These inspections are to be performed by, or under the direct supervision of, licensed professional engineers or registered architects, who shall submit form(s) TR-1 indicating the following: "Semi-controlled inspection of light gauge cold-formed steel structural members, plate connected wood floor trusses or laminated wood "I" beams (as applicable) per TPPN #2/00".

SKB:NJG:ng