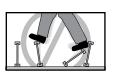
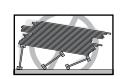


## **SAFETY AND CONSTRUCTION PRECAUTIONS**



Do not walk on I-joists until fully fastened and braced, or serious injuries can result.



Never stack building materials over unsheathed Ligists Once sheathed, do not over-stress I-joist with oncentrated loads from building materials.

-joists are not stable until completely installed, and will not carry any load until fully braced and sheathed. Avoid Accidents by Following these Important Guidelines

1. Brace and nail each I-joist as it is installed, using hangers, blocking panels, rim board, and/or cross-bridging at joist ends. When I-joists are applied continuous over interior supports and a load-bearing wall is planned at that location, blocking will be required at the interior support.

2. When the building is completed, the floor sheathing will provide lateral support for the top flanges of the I-joists. Until this sheathing is applied, temporary bracing, often called struts, or temporary sheathing must be applied to prevent I-joist rollover or buckling.

■ Temporary bracing or struts must be 1x4 inch minimum, at least 8 feet long and spaced no more than 8 feet on center, and must be secured with a minimum of two 8d nails fastened to the top surface of each I-joist. Nail the bracing to a lateral restraint at the end of each bay. Lap ends of adjoining bracina over at least two I-ioists.

Or, sheathing (temporary or permanent) can be nailed to the top flange of the first 4 feet of I-joists at the end of the bay.

3. For cantilevered I-joists, brace top and bottom flanges, and brace ends with closure panels, rim board, or cross-bridging.

4. Install and fully nail permanent sheathing to each I-joist before placing loads on the floor system. Then, stack building materials over beams or walls only. 5. Never install a damaged I-joist.

Improper storage or installation, failure to follow applicable building codes, failure to follow span ratings for Nordic I-joists, failure to follow allowable hole sizes and locations, or failure to use web stiffeners when required can result in serious accidents. Follow these installation guidelines carefully.

### **ALLOWABLE SPANS**

- . Allowable spans are based on uniform loads. For application with non-uniform loads, an engineering analysis may be required using the design properties found in the Nordic
- 2. The allowable spans in the table indicate the allowable **clear** span for various joist spacings under typical residentia uniform floor loads (40 psf live load and 10 psf dead load) for alued-nailed systems
- 3. The live load deflection is limited to L/480.
- 4. Minimum bearing length shall be 1-3/4 inches for the end bearings, and 3-1/2 inches for the intermediate bearings
- 5. For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
- 6. Spans are based on a composite floor with glued-nailed sheathing meeting the requirements for APA Rated Sheathing or APA Rated STURD-I-FLOOR conforming to PRP-108, PS 1, or PS 2 with a minimum thickness of 19/32 inch (40/20 or 20 oc) for a joist spacing of 19.2 inches or less, or 23/32 inch (48/24 or 24 oc) for a joist spacing of 24 inches. Adhesive shall meet APA Specification AFG-01 or ASTM D3498.

7. Bearing stiffeners are **not** required when I-joists are used

with the spans and spacing given in this table, except as required for hangers. 8. SI units conversion: 1 inch = 25.4 mm

1 foot = 0.305 m

## **ALLOWABLE SPANS FOR NORDIC I-JOISTS**

SIMPLE AND MULTIPLE SPANS

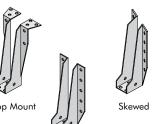
Depth	Series		On cente	rspacing		On center spacing					
Берііі	501103	12"	16"	19.2	24"	12"	16"	19.2"	24"		
	NI-20	16'-7"	15'-3"	14'-5"	13'-6"	18'-1"	16'-7"	15'-8"	14'-2"		
	NI-40x	18'-8"	17'-0"	16'-1"	15'-0"	20'-4"	18'-5"	16'-10"	15'-0"		
9-1/2"	NI-60	18'-11"	17'-4"	16'-4"	15'-3"	20'-8"	18'-10"	17'-9"	16'-7"		
	NI-70	20'-6"	18'-9"	17'-8"	16'-5"	22'-4"	20'-4"	19'-2"	17'-10"		
	NI-80	20'-11"	19'-1"	18'-0"	16'-9"	22'-9"	20'-9"	19'-6"	18'-2"		
	NI-20	19'-11"	18'-3"	17'-3"	16'-1"	21'-8"	19'-10"	17'-9"	16'-2"		
	NI-40x	22'-2"	20'-3"	19'-2"	17'-2"	24'-2"	21'-0"	19'-2"	17'-1"		
11-7/8"	NI-60	22'-8"	20'-8"	19'-6"	18'-2"	24'-8"	22'-6"	21'-2"	19'-8"		
	NI-70	24'-5"	22'-3"	21'-0"	19'-7"	26'-8"	24'-3"	22'-10"	21'-3"		
	NI-80	24'-11"	22'-8"	21'-4"	19'-11"	27'-1"	24'-8"	23'-3"	21'-7"		
	NI-90	25'-7"	23'-3"	21'-11"	20'-5"	27'-10"	25'-4"	23'-10"	22'-2"		
	NI-90x	25'-9"	23'-6"	22'-1"	20'-7"	28'-1"	25'-6"	24'-1"	22'-4"		
	NI-40x	25'-2"	22'-11"	21'-2"	18'-11"	26'-8"	23'-1"	21'-1"	18'-10"		
	NI-60	25'-9"	23'-6"	22'-2"	20'-8"	28'-0"	25'-7"	24'-1"	21'-7"		
14"	NI-70	27'-8"	25'-3"	23'-9"	22'-2"	30'-2"	27'-6"	25'-10"	24'-1"		
14	NI-80	28'-3"	25'-9"	24'-3"	22'-7"	30'-10"	28'-0"	26'-5"	24'-6"		
	NI-90	29'-0"	26'-5"	24'-10"	23'-1"	31'-7"	28'-9"	27'-1"	25'-2"		
	NI-90x	29'-4"	26'-9"	25'-2"	23'-5"	32'-0"	29'-1"	27'-5"	25'-5"		
	NI-60	28'-6"	26'-0"	24'-7"	22'-10"	31'-1"	28'-4"	26'-0"	23'-3"		
	NI-70	30'-8"	27'-11"	26'-4"	24'-6"	33'-5"	30'-5"	27'-3"	26'-7"		
16"	NI-80	31'-4"	28'-6"	26'-10"	25'-0"	34'-2"	31'-1"	29'-3"	27'-2"		
	NI-90	32'-1"	29'-2"	27'-6"	25'-7"	35'-0"	31'-10"	29'-11"	27'-10"		
	NI-90x	32'-7"	29'-8"	27'-11"	26'-0"	35'-6"	32'-3"	30'-5"	28'-3"		

ICC-ES EVALUATION REPORT ESR-1742

# **I-JOIST HANGERS**

- 1. Hangers shown illustrate the three most commonly used metal hangers to support I-joists.
- 2. All nailing must meet the hanger
- 3. Hangers should be selected based on the joist depth, flange width and load capacity based on the allowable spans.
- 4. Web stiffeners are required when the sides of the hangers do not laterally

brace the top flange of the I-joist.



Face Mount

# STORAGE AND HANDLING GUIDELINES

- 1. Bundle wrap can be slippery when wet. Avoid walking on wrapped
- 2. Store, stack, and handle I-joists vertically and level only.
- 3. Always stack and handle I-joists in the upright position only. 4. Do not store I-joists in direct contact with the ground and/or flatwise.
- 5. Protect I-joists from weather, and use spacers to separate bundles. —
- 6. Bundled units should be kept intact until time of installation
- 7. When handling I-joists with a crane on the job site, take a few simple precautions to prevent damage to the I-joists and injury to your
- Pick I-joists in bundles as shipped by the supplier.
- Orient the bundles so that the webs of the I-joists are vertical.
- Pick the bundles at the 5th points, using a spreader bar if necessary.
- 8. Do not handle I-joists in a horizontal orientation
- 9. NEVER USE OR TRY TO REPAIR A DAMAGED I-JOIST.

FSC www.fsc.org

Attach rim board to top

plate using 8d common

or box toe-nails at 6" o.c.

To avoid splitting flange

start nails at least 1-1/2"

m end of I-ioist. Nails may

splitting of bearing plate

Minimum bearing length

nediate bearings when

applicable

bearings, and 3-1/2" for the

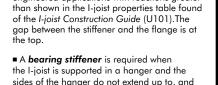
Uniform Vertical Load

Transfer Capacity\* (plf)

4.850

e driven at an angle to avoic

## **RECOMMENDATIONS:** ■ A **bearing stiffener** is required in all engineered applications with reactions areate



**WEB STIFFENERS** 

support, the top flange. The gap between the stiffener and flange is at the top. ■ A load stiffener is required at locations where a concentrated load greater than 1.500 lbs is applied to the top flange between supports, or in the case of a cantilever anywhere between the cantilever tip and the support. These values are for normal duratio

of load, and may be adjusted for other load

durations as permitted by the code. The gap

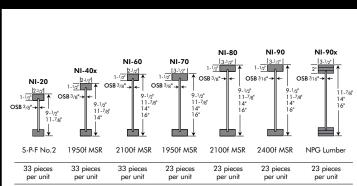
between the stiffener and the flange is at

SI units conversion: 1 inch = 25.4 mm

#### **WEB STIFFENER INSTALLATION DETAILS** CONCENTRATED LOAD (Load stiffener) Tight Joint -1/8"-1/4" Gap Approx. 2" (4) 8d nails, 10d nails required -Gap for I-joists with 3-1/2" flange width END BEARING (Bearing stiffener) See table below for web stiffener size requirements - Gap STIFFENER SIZE REQUIREMENTS Flange Width Web Stiffener Size Each Side of Web 2-1/2" 1" x 2-5/16" minimum width

1-1/2" x 2-5/16" minimum width

## **NORDIC I-JOIST SERIES**



Chantiers Chibougamau Ltd. harvests its own trees, which enables Nordic products to adhere to strict quality control procedures throughout the manufacturing process. Every phase of the operation, from forest to the finished product, reflects our commitment to quality.

Nordic Engineered Wood I-joists use only finger-jointed black spruce lumber in their flanges, ensuring consistent quality, superior strength, and longer span carrying capacity.

Backer block (use if hanger load exceeds 250 lbs)

capacity for hanger for this detail = 1,280 lbs.

Double I-joist header

Top- or face-mount

per detail 1p

nailing without splitting)

Flanae Width

2-1/2"

3-1/2"

Before installing a backer block to a double I-joist, drive three

additional 10d nails through the webs and filler block where

flange. Use twelve 10d nails, clinched when possible. Maximum

Note: Unless hanger sides

laterally support the top

flange, bearing stiffeners

Backer block required

Minimum Depth\*

5-1/2"

7-1/4"

both sides for face-moun

shall be used.

the backer block will fit. Clinch. Install backer tight to top

For hanger capacity see hanger manufacturer's recommendations.

BACKER BLOCKS (Blocks must be long enough to permit required

Material Thickness

Minimum grade for backer block material shall be Utility

eathing grade for wood structural panels.

grade S-P-F (south) or better for solid sawn lumber and Rated

For face-mount hangers use net joist depth minus 3-1/4" for

Verify double I-joist capacity to support concentrated loads

### INSTALLING NORDIC I-JOISTS

- 1. Before laying out floor system components, verify that I-joist flange widths match hanger widths. If not, contact your
- 2. Except for cutting to length, I-joist flanges should **never** be cut, drilled, or notched.

3. Install I-joists so that top and bottom flanges are within 1/2 inch of true vertical alignment.

- 4. I-joists must be anchored securely to supports before floor sheathing is attached, and supports for multiple-span joists must
- 5. Minimum bearing lengths: 1-3/4 inches for end bearings and 3-1/2 inches for intermediate bearings.
- 6. When using hangers, seat I-joists firmly in hanger bottoms to minimize settlement.
- 7. Leave a 1/16-inch gap between the I-joist end and a header.

NI blocking

\*The uniform vertical load capacity is limited to a joist

depth of 16 inches or less and shall not be increased for

any load duration shorter than the normal (10-yr) load

duration. It shall not be used in the design of a bending

member, such as joist, header, or rafter. For concentrated

vertical load transfer capacity, see detail 1d.

panel -

(1a)

to top plate

Blockina Pane

NI Joists

- 8. Concentrated loads greater than those that can normally be expected in residential construction should only be applied to the top surface of the top flange. Normal concentrated loads include track lighting fixtures, audio equipment and security cameras. Never suspend unusual or heavy loads from the I-joist's bottom flange. Whenever possible, suspend all concentrated loads from the top of the Lioist. Or, attach the load to blocking that has been securely fastened to the
- 9. Never install I-joists where they will be permanently exposed to weather, or where they will remain in direct contact with
- 10. Restrain ends of floor joists to prevent rollover. Use rim board, rim joists or I-joist blocking panels.

8d nails at 6" o.c

to top plate (when

shear transfer, nail

used for lateral

to bearing plate

with same nailing

as required fo

Uniform Vertical Load

Transfer Capacity\* (plf)

2,000

deckina)

- 11. For I-joists installed over and beneath bearing walls, use full depth blocking panels, rim board, or squash blocks (cripple nembers) to transfer gravity loads through the floor system to the wall or foundation below.
- 12. Due to shrinkage, common framing lumber set on edge may never be used as blocking or rim boards. I-joist blocking panels or other engineered wood products – such as rim board – must be cut to fit between the I-joists, and an I-joist-compatible depth selected.
- support the bottom flange of all cantilevered I-joists at the end support next to the cantilever extension. In the completed structure, the gypsum wallboard ceiling provides this lateral support. Until the final finished ceiling is applied, temporary
- 14. If square-edge panels are used, edges must be supported between I-joists with 2x4 blocking. Glue panels to blocking to minimize squeaks. Blocking is not required under structural finish flooring, such as wood strip flooring, or if a separate
- 15. Nail spacing: Space nails installed to the flange's top face in accordance with the applicable building code requirements or approved building plans.

**1b** 

One 8d face nail at —

1-1/8" Rim Board Plus

each side at bearing

One 8d nail at

top and bottom

The uniform vertical load capacity is limited to a rim board depth

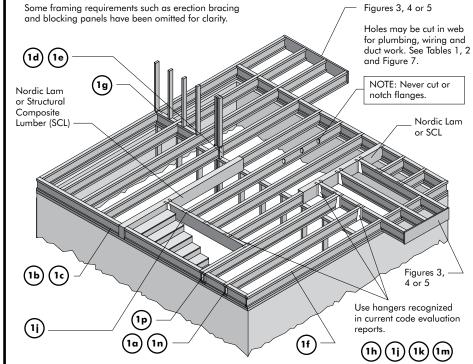
of 16 inches or less and shall not be increased for any load duration

shorter than the normal (10-yr) load duration. It shall not be used in

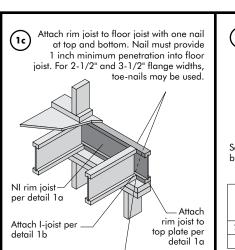
the design of a bending member, such as joist, header, or rafter. For

concentrated vertical load transfer capacity, see detail 1d.

## TYPICAL NORDIC I-JOIST FLOOR FRAMING AND CONSTRUCTION DETAILS Some framing requirements such as erection bracing

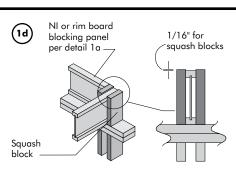


All nails shown in the above details are assumed to be common nails unless otherwise noted. 10d box nails (0.128 x 3 in.) may be substituted for 8d common nails (0.131 x 2-1/2 in.) shown in details. Framing lumber assumed to be Utility grade S-P-F (south) or stronger species. Individual components not shown to scale for clarity

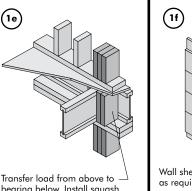


Minimum 1-3/4"

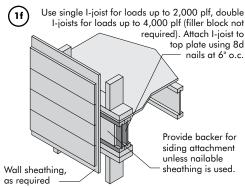
bearing required



air of Squash Blocks	Vertical Load Tro per Pair of Squ	ansfer Capacity ash Blocks (lbs)							
,	3-1/2" wide	5-1/2" wide							
Lumber	3,800	5,900							
1/8" Rim Board Plus	2,600	4,000							
1-1/8" Rim Board Plus   2,600   4,000   Provide lateral bracing per detail 1a, 1b, or 1c									

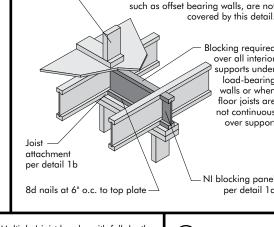


pearing below. Install squash blocks per detail 1d. Match bearing area of blocks belov to post above



3-1/2"

Rim board may be used in lieu of I-joists. Backer is not required when rim board is used. Bracing per code shall be carried to the foundation.



Tight Joint

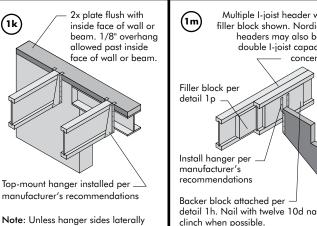
Load bearing wall above shall align vertically

with the bearing below. Other conditions,

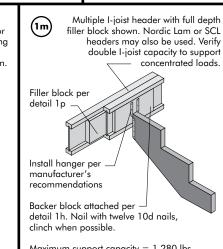
Nordic Lam or SCL Top- or face-mount hanger installed per manufacturer's

For nailing schedules for multiple beams, see the manufacturer's recommendations.

Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.



support the top flange, bearing stiffeners shall be used.



Maximum support capacity = 1,280 lbs.

3" x 6"

3" x 8"

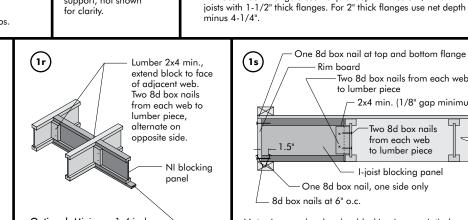
3" x 10"

3" x 12"

3" x 7"

3" x 9"

3" x 11"



Note: Blocking required

at bearing for lateral

support, not shown

Do not bevel-cut

face of wall -

Attach-

detail 1b

joist beyond inside

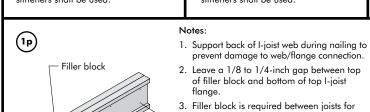
Optional: Minimum 1x4 inch strap applied to underside of joist at blocking

ne or 1/2 inch minimum gypsum ceiling

attached to underside of joists

- One 8d box nail at top and bottom flange — Rim board Two 8d box nails from each web to lumber piece — 2x4 min. (1/8" gap minimum Two 8d box nails from each web \_ 1.5" to lumber piece I-joist blocking panel -One 8d box nail, one side only 8d box nails at 6" o.c

Note: In some local codes, blocking is prescriptively required in the first joist space (or first and second joist space) next to the starter joist. Where required, see local code requirements for spacing of the blocking.



flange and filler block

flange. 3. Filler block is required between joists for full length of span. 4. Nail joists together with two rows of 10d nails at 12 inches o.c. (clinched when Offset nails from opposite face by 6" are required.

5. The maximum load that may be applied to one side of the double joist using 1/8" to 1/4" gap between top this detail is 620 lbf/ft. Verify double I-joist capacity.

#### FILLER BLOCK REQUIREMENTS FOR DOUBLE I-JOIST CONSTRUCTION prevent damage to web/flange connection. Depth Block Size 9-1/2" 2-1/8" x 6" 2-1/2" x 11-7/8" 2-1/8" x 8" 1-1/2" 16" 2-1/8" x 12"

9-1/2"

11-7/8"

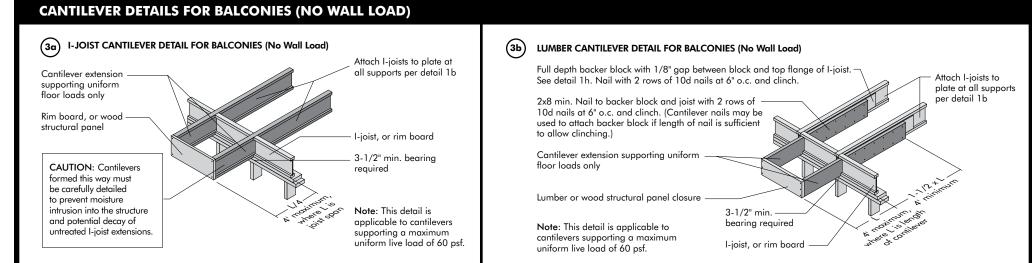
11-7/8"

14"

16"

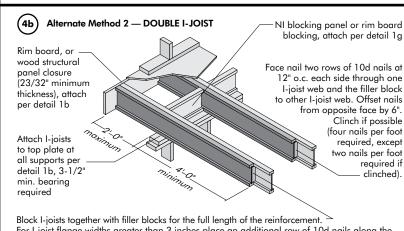
3-1/2" x possible) on each side of the double I-joist. 1-1/2" Total of four nails per foot required. If nails can be clinched, only two nails per foot 3-1/2" x

of filler block and bottom of top I-joist



### CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET (CONCENTRATED WALL LOAD) Rim board or wood structural NI blocking pane panel closure (23/32" minimum or rim board blocking, thickness), attach per detail 1b attach per detail 1g Attach I-joist to plate 8d nails-3-1/2" min bearing required Method 2 — SHEATHING REINFORCEMENT TWO SIDES Use same installation as Method 1 but reinforce both sides of I-joist with sheathing. Use nailing pattern shown for Method 1 with opposite face nailina offset by 3".

Note: APA RATED SHEATHING 48/24 or APA RATED STURD-I-FLOOR 24 oc (minimum thickness 23/32") required on sides of joist. Depth shall match the full height of the joist. Nail with 8d nails at 6" o.c., top and bottom flange. Install with face grain horizontal. Attach I-joist to plate at all supports per detail 1b. Verify reinforced I-joist capacity.



For I-joist flange widths greater than 3 inches place an additional row of 10d nails along the enterline of the reinforcing panel from each side. Clinch when possible.

#### Roof trusses Roof trusses T Jack trusses \_\_\_ 13'\_0" maximum For hip roofs with the jack trusses running parallel to the cantilevered floor joists below for NI \_ Roof truss \_ 2'-0" the I-joist reinforcement reinforcemen span span ements for a span of requirements for a span of 26 ft. shall be permitted to 2'-0" requirements maximum

	ROOF	ROOF LOADING													
JOIST DEPTH (in.)	TRUSS	LL = 20 psf, DL = 15 psf				LL = 30 psf, DL = 15 psf				LL = 40 psf, DL = 15 psf					
	SPAN	J	OIST SPA	CING (in	.)	J	JOIST SPACING (in.)				JOIST SPACING (in.)				
(111.)	(ft)	12	16	19.2	24	12	16	19.2	24	12	16	19.2	24		
	26	N	N	N	1	N	N	1	2	N	1	2	Х		
	28	N	Ν	Ν	1	N	Ν	1	2	Ν	1	2	Χ		
9-1/2"	30	N	Ν	Ν	1	N	Ν	1	2	Ν	1	2	Χ		
9-1/2"	32	N	Ν	1	2	N	1	1	Χ	Ν	1	2	Χ		
	34	N	Ν	1	2	N	1	2	Χ	Ν	2	Χ	Χ		
	36	N	Ν	1	2	Ν	1	2	Χ	Ν	2	Χ	Χ		
	26	N	Ν	Ν	Ν	N	Ν	Ν	1	Ν	Ν	Ν	1		
	28	N	Ν	Ν	Ν	N	Ν	Ν	1	Ν	Ν	1	2		
11-7/8"	30	N	Ν	Ν	Ν	N	Ν	Ν	1	Ν	Ν	1	2		
	32	N	Ν	Ν	Ν	N	Ν	Ν	1	Ν	Ν	1	2		
	34	N	Ν	Ν	1	N	Ν	1	2	N	1	1	2		
	36	N	Ν	Ν	1	N	Ν	1	2	N	1	1	Χ		
	38	N	N	N	1	N	N	1	2	N	1	2	Х		
	26	N	Ν	N	Ν	N	Ν	Ν	Ν	N	Ν	Ν	1		
	28	N	N	N	N	N	N	N	N	N	N	N	1		
	30	N	N	N	N	N	N	N	N	N	N	N	1		
14"	32	N	N	N	N	N	N	N	N	N	N	N	!		
	34	N	N	N	N	N	N	N	!	N	N	N	1		
	36	N	N	N	N	N	N	N	1	N	N	!	1		
	38 40	N	N	N	N	N	N	N	1	N	N	!	2		
	26	N	N	N	N	N	N	N	1	N	N	I	2		
	28	N	N	N	N	N	N	N	N	N	N	N	N		
	30	N	N N	N	N	N N	N	N N	N	N N	N	N	N		
	32	N N	N N	N N	N N	l N	N N	N N	N N	N	N N	N N	N		
16"	34	l N	N	N	N	N	N	N	N	N	N	N	1		
10	36	N N	N N	N N	N N	N	N	N N	N	N N	N	N N	1		
	36	l N	N N	N N	N N	N	N	N N	N	N	N	N	1		
	38 40	l N	N	N N	N N	N	N	N N	1	N	N	N N	1		
	40	l N	N	N	N	N	N	N	1	N	N	1	1		

- 1 = NI reinforced with 23/32" wood structural
- panel on one side only. 2 = NI reinforced with 23/32" wood structural
- panel on both sides, or double I-joist. X = Try a deeper joist or closer spacing.

IGURE 5 (continued)

See table

pelow for NI

einforcemen

requirements a

num load shall be: 15 psf roof dead load 50 psf floor total load, and 80 plf wall load. Wall load is based on 3'-0" maximum width

Roof truss

span

**BRICK CANTILEVER REINFORCEMENT METHODS ALLOWED** 

cantileve

ndow or door openings. For larger openings, or multiple 3'-0" width openings spaced less than 6'-0" o.c., additional joists beneath the

Girder Jack trusses

— Roof truss —

span

\_\_\_ 13'-0" maximum

- Table applies to joists 12" to 24" o.c. that mee auirements for a desian live load of 40 psf and dead load of 10 psf, and a live load deflection limit of L/480. Use 12" o.c. requirements for lesser spacing
- beam, the Roof Truss Span column above is equivalent to the distance between the supporting all and the ridge beam. When the roof is framed using a ridge board, the Roof Truss Span is equivalent to the distance between the supporting walls as if a truss is used.

For hip roofs with the jack

trusses running parallel to the cantilevered floor joists,

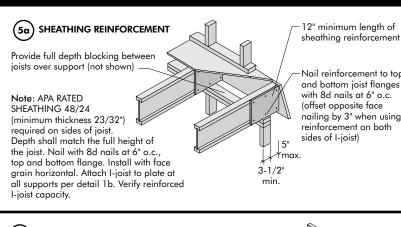
requirements for a span of

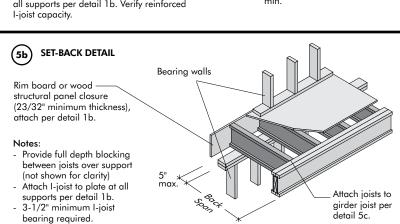
26 ft. shall be permitted to

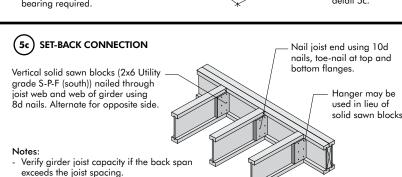
the I-joist reinforcer

Cantilevered joists supporting girder trusses or roof beams may require additional reinforcing

## BRICK CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET (CONCENTRATED WALL LOAD)







Attach double I-joist per detail 1p, if required

19.2 24 12 16 19.2 24 9-1/2" 11-7/8

1 = NI reinforced with 23/32" wood structural

- panel on one side only.
  2 = NI reinforced with 23/32" wood structural
- panel on both sides, or double I-joist. X = Try a deeper joist or closer spacing.Maximum load shall be: 15 psf roof dead load,

50 psf floor total load, and 80 plf wall load

Wall load is based on 3'-0" maximum width

than 6'-0" o.c., additional joists beneath the Table applies to joists 12" to 24" o.c. that meet ne floor span requirements for a design live bad of 40 psf and dead load of 10 psf, and a

equirements for lesser spacing.

rindow or door openings. For larger openings,

or multiple 3'-0" width openings spaced less

equivalent to the distance between the supporting wall and the ridge beam. When the roof is framed using a ridge board, the Roof Truss Span is equivalent to the distance between the supporting walls as if a truss is used. 5. Cantilevered joists supporting girder trusses or

beam, the Roof Truss Span column above is

live load deflection limit of L/480. Use 12" o.c. roof beams may require additional reinforcing

#### **WEB HOLES**

#### **RULES FOR CUTTING HOLES AND DUCT CHASE OPENINGS:**

- . The distance between the inside edge of the support and the centerline of any hole or duct chase opening shall be in compliance with the requirements of Table 1 or 2,
- 2. I-joist top and bottom flanges must NEVER be cut, notched, or otherwise modified.
- 3. Whenever possible, field-cut holes should be centered on the middle of the web. 4. The maximum size hole or the maximum depth of a duct chase opening that can be cut into an I-joist web shall equal the clear distance between the flanges of the I-joist minus 1/4 inch. A minimum of 1/8 inch should always be maintained between the
- . The sides of square holes or longest sides of rectangular holes should not exceed 3/4 of the diameter of the maximum round hole permitted at that location

top or bottom of the hole or opening and the adjacent I-joist flange.

- Where more than one hole is necessary, the distance between adjacent hole edges shall exceed twice the diameter of the largest round hole or twice the size of the largest square hole (or twice the length of the longest side of the longest rectangular hole or duct chase opening) and each hole and duct chase opening shall be sized and located in compliance with the requirements of Tables 1 and 2, respectively.
- 7. A knockout is **not** considered a hole, may be utilized anywhere it occurs, and may be ignored for purposes of calculating minimum distances between holes and/or duct chase openings.
- 8. Holes measuring 1-1/2 inches or smaller shall be permitted anywhere in a cantilevered
- 9. A 1-1/2 inch hole or smaller can be placed anywhere in the web provided that it meets the requirements of rule number 6 above.
- 10. All holes and duct chase openings shall be cut in a workman-like manner in

section of a joist. Holes of greater size may be permitted subject to verification.

- accordance with the restrictions listed above and as illustrated in Figure 7. 11. Limit three maximum size holes per span, of which one may be a duct chase
- 12. A group of round holes at approximately the same location shall be permitted if they eet the requirements for a single round hole circumscribed around them

LOCATION OF CIRCUI AR HOLES IN JOIST WERS Simple or Multiple Span for Dead Loads up to 10 psf and Live Loads up to 40psf

Joist Series NI-20 NI-40x NI-60 NI-70 NI-80	2 0'-7" 0'-7" 1'-0"	3 1'-4" 1'-4" 2'-4"	2'-8" 2'-8"	5 4'-0"	<b>6</b> 5'-5"	6-1/4	nd ho	le dia 8	meter ( 8-5/8	in.) 9	10	10.2/4	11	12	10 2/4	adjustment Factor
NI-20 NI-40x NI-60 NI-70	0'-7" 0'-7" 1'-0"	1'-4" 1'-4"	2'-8"	4'-0"			7	Ω	0 5/0	0	10	10.2/4	11	10	10 2/4	Eactor
NI-40x NI-60 NI-70	0'-7" 1'-0"	1'-4"			51 511				0-5/0	7	10	10-3/4	11	14	12-3/4	rucior
NI-60 NI-70	1'-0"		2'-8"			5'-9"										13'-6"
NI-70		O1 411		4'-2"	5'-8"	6'-2"										15'-0"
			3'-9"	5'-3"	6'-10"	7'-3"										15'-3"
NII QO I	1'-10"	3'-3"	4'-8"	6'-2"	7'-9"	8'-3"										16'-5"
	2'-0"	3'-5"	4'-10"	6'-4"	8'-0"	8'-5"										16'-9"
NI-20																16'-1"
NI-40x																17'-2"
																18'-2"
																19'-7"
																19'-11"
								8'-6"	9'-11"							20'-5"
																20'-7"
																18'-11"
																20'-8"
																22'-2"
																22'-7" 23'-1"
																23'-5"
																22'-10"
																24'-6"
NI-80																25'-0"
																25'-7"
NI-90x															13-3	26'-0"
	II-20 II-40x II-60 II-70 II-80 II-90x III-90x I	1-20   0.7"   1-40   0.7"   1-40   1-2"   1-80   1-4"   1-90   0.7"	1-20	1-20				$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$

- Above table may be used for I-joist spacing of 24 inches on center or less. Hole location distance is measured from inside face of supports to center of hole.
- 3. Distances in this chart are based on uniformly loaded joists.

The above table is based on the I-joists used at their maximum span. If the I-joists are placed at less than their full allowable span (see Allowable Floor Spans), the minimum distance from the centerline of the hole to the face of any support (D) as given above may be reduced as follows:

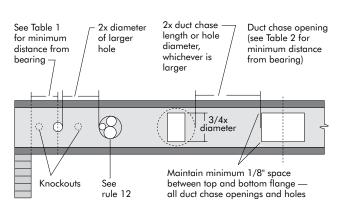
 $D_{reduced} = \frac{L_{actual}}{SAF} \times D$  $D_{reduced}$ 

SAF

- Distance from the inside face of any support to center of hole, reduced for less-than-maximum span applications (ft). The reduced distance shall not be less than 6 inches from the face of the support to edge of the hole.
- = The actual measured span distance between the inside faces of supports (ft).

- Span Adjustment Factor given in this table. = The minimum distance from the inside face of any support to center of hole from this table.
- If Lactual is greater than 1, use 1 in the above calculation for Lactual.

# FIELD-CUT HOLE LOCATOR



A knockout is **NOT** considered a hole, may be utilized wherever it occurs and may be ignored for purposes of calculating minimum distances

Knockouts are prescored holes provided for the contractor's convenience to install electrical or small plumbing lines. They are 1-1/2 inches in diameter, and are spaced 15 inches on center along the length of the I-joist. Where possible, it is preferable to use knockouts instead of field-cut holes.



Never drill, cut or notch the flange, or over-cut the web Holes in webs

should be cut with a sharp saw.

For rectangular holes, avoid over-cutting the corners, as this can cause unnecessary stress concentrations. Slightly rounding the corners is recommended. Starting the rectangular hole by drilling a 1-inch diameter hole in each of the four corners and then making the cuts between the holes is another good method to minimize damage to the I-joist

**DUCT CHASE OPENING SIZES AND LOCATIONS — Simple Span Only** 

Duct chase length (in.)	Lates	1-1-4	William	III disidir	ce ii oiii ii	iside ide	or uniy a	oppoir it	Cerner	n obenni	9 (11-111.)				
9-1/2" NI-20				Duct chase length (in.)											
9-1/2" NI-40x 5:-2" 5:-7" 6:-0" 6:-4" 6:-8" 7:-2" 7:-7" 8:-1" 8:-8" 8:-10" NI-60 5:-3" 5:-8" 6:-0" 6:-6" 7:-0" 7:-3" 7:-9" 8:-3" 8:-10" NI-70 5:-1" 5:-4" 6:-0" 6:-4" 6:-8" 7:-2" 7:-7" 7:-4" 8:-0" 8:-3" 8:-10" NI-70 5:-2" 5:-7" 6:-0" 6:-4" 6:-8" 7:-2" 7:-7" 7:-7" 8:-1" 8:-6" 8:-6" NI-40x 6:-7" 7:-1" 7:-6" 8:-1" 8:-6" 8:-6" 9:-1" 9:-7" 10:-2" 10:-9" NI-40x 6:-7" 7:-1" 7:-6" 8:-1" 8:-6" 9:-1" 9:-7" 10:-2" 10:-9" 11:-7/8" NI-70 7:-0" 7:-3" 7:-9" 8:-1" 8:-6" 9:-1" 9:-7" 10:-2" 10:-9" 11:-7/8" NI-70 7:-0" 7:-3" 7:-9" 8:-1" 8:-6" 9:-1" 9:-8" 10:-2" 10:-5" NI-80 7:-1" 7:-5" 8:-0" 8:-4" 8:-10" 9:-2" 9:-8" 10:-2" 10:-5" NI-90 4:-3" 4:-10" 5:-4" 8:-11" 8:-4" 8:-0" 9:-2" 9:-8" 10:-2" 10:-8" 11:-2" 11:-8" 12:-9" NI-60 8:-8" 9:-2" 9:-8" 10:-2" 10:-	Берііі	301103	8	10	12	14	16	18	20	22	24				
9-1/2" NI-60 5:-3" 5:-8" 6:-0" 6:-6" 7:-0" 7:-3" 7:-9" 8:-3" 8:-10" NI-70 5:-1" 5:-4" 5:-9" 6:-1" 6:-1" 7:-5" 7:-1" 7:-4" 8:-0" 8:-3" 8:-10" NI-80 5:-2" 5:-7" 6:-0" 6:-4" 6:-8" 7:-1" 7:-4" 8:-0" 8:-3" 8:-1" 8:-6" NI-80 5:-2" 5:-7" 6:-0" 6:-4" 6:-8" 7:-1" 7:-5" 8:-0" 8:-4" 9:-0" 9:-5" 10:-2" 10:-2" 10:-9" NI-60 7:-1" 7:-7" 8:-0" 8:-4" 8:-0" 9:-1" 9:-7" 10:-2" 10:-2" 10:-9" NI-60 7:-1" 7:-7" 8:-0" 8:-4" 8:-0" 9:-1" 9:-7" 10:-2" 10:-2" 10:-9" NI-80 7:-1" 7:-5" 8:-0" 8:-4" 8:-0" 9:-1" 9:-6" 10:-0" 10:-5" NI-80 7:-1" 7:-5" 8:-0" 8:-4" 8:-10" 9:-1" 9:-6" 10:-0" 10:-5" NI-80 7:-1" 7:-5" 8:-0" 8:-4" 8:-10" 9:-2" 9:-8" 10:-2" 10:-8" NI-90 4:-3" 4:-10" 5:-4" 5:-11" 6:-6" 7:-1" 7:-8" 8:-3" 8:-11" 11:-2"								6'-2"			7'-6"				
NI-70   Si-1"   Si-4"   Si-9"   Si-1"   Si-4"   Si-9"   Si-1"   Si-4"   Si-9"   Si-1"   Si-4"   Si-9"   Si-7"   Si-1"   Si-4"   Si-8"   Si-8								7'-2"			8'-8"				
NI-80   5:-2"   5:-7"   6:-0"   6:-4"   6:-8"   7:-2"   7:-7"   8:-1"   8:-6"     NI-20   5:-9"   6:-2"   6:-8"   7:-1"   7:-5"   8:-0"   8:-4"   9:-0"   9:-5"     NI-40x   6:-7"   7:-7"   8:-0"   8:-4"   8:-6"   9:-1"   9:-7"   10:-2"   10:-9"     NI-60   7:-1"   7:-7"   8:-0"   8:-4"   8:-6"   9:-1"   9:-7"   10:-2"   10:-9"     NI-70   7:-0"   7:-3"   7:-9"   8:-4"   8:-6"   9:-1"   9:-6"   10:-0"   10:-5"     NI-80   7:-1"   7:-5"   8:-0"   8:-4"   8:-10"   9:-2"   9:-8"   10:-2"   10:-8"     NI-90   4:-3"   4:-10"   5:-4"   5:-11"   6:-6"   7:-1"   7:-8"   8:-3"   8:-11"     NI-40x   7:-9"   8:-3"   8:-10"   9:-5"   10:-1"   10:-7"   11:-3"   12:-1"     NI-60   8:-8"   9:-2"   9:-6"   10:-1"   10:-6"   11:-1"   11:-6"   12:-1"   12:-8"     NI-70   8:-6"   9:-1"   9:-4"   10:-1"   10:-6"   11:-1"   11:-6"   12:-1"   12:-8"     NI-90x   9:-3"   9:-8"   10:-2"   10:-7"   11:-6"   12:-1"   12:-8"     NI-90x   9:-3"   9:-8"   10:-2"   11:-6"   12:-1"   12:-8"     NI-90x   9:-3"   9:-8"   10:-2"   11:-6"   12:-1"   12:-8"     NI-80   10:-3"   10:-9"   11:-2"   11:-8"   13:-3"   14:-0"   14:-7"   13:-6"     NI-80   10:-3"   10:-9"   11:-2"   11:-8"   13:-3"   14:-0"   14:-7"   13:-4"   14:-6"     NI-80   10:-3"   10:-9"   11:-2"   11:-8"   13:-3"   14:-0"   14:-7"   13:-9"   13:-4"   14:-6"     NI-80   10:-3"   10:-9"   11:-2"   11:-8"   12:-9"   13:-4"   14:-0"   14:-6"     NI-90x   11:-1"   11:-4"   11:-4"   11:-1"   12:-3"   12:-8"   13:-3"   14:-0"   14:-7"   13:-4"   14:-6"	9-1/2"														
NI-20								7'-1"			8'-3"				
NI-40x															
NI-60				6'-2"		7'-1"	7'-5"	8'-0"	8'-4"	9'-0"	9'-5"				
11-7/8" NI-70 7'-0" 7'-3" 7'-9" 8'-1" 8'-6" 9'-1" 9'-6" 10'-0" 10'-5"				7'-1"											
NI-80				7'-7"											
NI-90	11-7/8"			7'-3"				9'-1"		10'-0"					
NI-90x   7'.6"   8'.1"   8'.4"   8'.9"   9'.5"   9'.8"   10'.1"   10'.7"   11'.2"     NI-40x   7'.9"   8'.3"   8'.10"   9'.5"   10-1"   10'.7"   11'.3"   12'.1"   12'.9"     NI-60   8'.8"   9'.2"   9'.6"   10'.1"   10'.6"   11'.1"   11'.7"   12'.4"   13'.2"     14"   NI-70   8'.6"   9'.1"   9'.4"   9'.10"   10'.2"   10'.8"   11'.2"   11'.8"   12'.4"   13'.2"     NI-80   8'.9"   9'.2"   9'.8"   10'.1"   10'.6"   11'.1"   11'.6"   12'.1"   12'.8"     NI-90   5'.10"   6'.5"   7'.0"   7'.6"   8'.2"   8'.9"   9'.4"   9'.11"   10'.8"     NI-90x   9'.3"   9'.8"   10'.2"   10'.7"   11'.1"   11'.6"   12'.1"   12'.8"   13'.3"     NI-60   10'.1"   10'.4"   11'.6"   12'.1"   12'.7"   13'.4"   14'.2"   15'.0"     NI-70   10'.1"   10'.4"   10'.10"   11'.4"   11'.8"   12'.2"   12'.9"   13'.4"   14'.0"     NI-80   10'.3"   10'.9"   11'.2"   11'.7"   12'.1"   12'.7"   13'.2"   13'.9"   14'.6"     NI-90x   11'.1"   11'.4"   11'.10"   12'.3"   12'.8"   13'.3"   14'.0"   14'.7"   15'.4"				7'-5"					9'-8"	10'-2"	10'-8"				
NI-40x															
NI-60															
14" NI-70 8-6" 9-1" 9'-4" 9'-10" 10'-2" 10'-8" 11'-2" 11'-8" 12'-4" NI-80 8'-9" 9'-2" 9'-8" 10'-1" 10'-6" 11'-1" 11'-6" 12'-1" 12'-8" NI-90 5'-10" 6'-5" 7'-0" 7'-6" 8'-2" 8'-9" 9'-4" 9'-11" 10'-8" NI-90x 9'-3" 9'-8" 10'-2" 10'-7" 11'-1" 11'-6" 12'-1" 12'-8" 13'-3" NI-60 10'-1" 10'-7" 11'-0" 11'-6" 12'-1" 12'-7" 13'-4" 14'-2" 15'-0" NI-70 10'-1" 10'-4" 10'-10" 11'-4" 11'-8" 12'-2" 12'-9" 13'-4" 14'-0" 14'-6" NI-80 10'-3" 10'-9" 11'-2" 11'-7" 12'-1" 12'-7" 13'-2" 13'-9" 14'-6" NI-90 7'-4" 7'-11" 8'-6" 9'-1" 9'-8" 10'-3" 13'-0" 11'-7" 12'-3" NI-90x 11'-1" 11'-4" 11'-4" 11'-8" 12'-8" 13'-3" 14'-0" 14'-7" 15'-4"				8'-3"											
14"   NI-80   8".9"   9".2"   9".8"   10".1"   10".2"   11".1"   11".6"   12".1"   12".8"     NI-90   5".10"   6".5"   7".0"   7".6"   8".2"   8".9"   9".4"   9".11"   10".8"     NI-90x   9".3"   9".8"   10".2"   10".7"   11".1"   11".6"   12".1"   12".8"   13".3"     NI-60   10"-1"   10".7"   11".0"   11".6"   12".1"   12".7"   13".4"   14".2"   15".0"     NI-70   10".1"   10".4"   10".1"   11".4"   11".8"   12".2"   12".9"   13".4"   14".2"     16"   NI-80   10".3"   10".9"   11".2"   11".7"   12".1"   12".7"   13".2"   13".9"   14".6"     NI-90   7".4"   7".11"   8".6"   9".1"   9".8"   10".3"   13".0"   11".7"   12".3"     NI-90x   11".1"   11".4"   11".10"   12".3"   12".8"   13".3"   14".0"   14".7"   15".4"				9'-2"											
NI-80 8-9" 9-2" 9-8" 10-1" 10-6" 11-1" 11-6" 12-1" 12-8" NI-90 5-10" 6-5" 9" 9-4" 9-11" 10-8" NI-90 9-3" 9-8" 10-2" 10-2" 11-1" 11-4" 11-4" 12-1" 12-8" 13-3" 12-8" 13-3" 13-3" 14-0" 13-4" 14-2" 13-3" 14-6" 12-1" 12-7" 13-4" 14-0" 13-4" 14-0" 14-6" NI-80 10-3" 10-9" 11-2" 11-2" 12-1" 12-7" 13-2" 13-9" 13-4" 14-6" NI-90 7'-4" 7'-11" 8-6" 9-1" 9-8" 10-3" 13-0" 11-7" 12-3" NI-90x 11-1" 11-4" 11-10" 12-3" 12-8" 13-3" 14-0" 14-7" 15-4"	14"		8'-6"	9'-1"	9'-4"			10'-8"	11'-2"		12'-4"				
NI-60   10-1"   10-7"   11-6"   11-6"   12-1"   12-7"   13-4"   14-2"   15-0"   16"   NI-70   10-1"   10'-4"   10-10"   11-4"   11-8"   12-2"   13-2"   13-4"   14-0"   14-0"   16"   NI-80   10-3"   10-9"   11-2"   11-7"   12-1"   12-7"   13-2"   13-9"   14-6"   NI-90   7-4"   7-11"   8-6"   9-1"   9-8"   10-3"   13-0"   11-7"   12-3"   NI-90x   11-1"   11-4"   11-10"   12-3"   12-8"   13-3"   14-0"   14-7"   15-4"				9'-2"			10'-6"								
NI-60   10-1"   10-7"   11-6"   11-6"   12-1"   12-7"   13-4"   14-2"   15-0"   16"   NI-70   10-1"   10'-4"   10-10"   11-4"   11-8"   12-2"   13-2"   13-4"   14-0"   14-0"   16"   NI-80   10-3"   10-9"   11-2"   11-7"   12-1"   12-7"   13-2"   13-9"   14-6"   NI-90   7-4"   7-11"   8-6"   9-1"   9-8"   10-3"   13-0"   11-7"   12-3"   NI-90x   11-1"   11-4"   11-10"   12-3"   12-8"   13-3"   14-0"   14-7"   15-4"				6'-5"	7'-0"	7'-6"_	8'-2"		9'-4"		10'-8"				
16" NI-70 10-1" 10-4" 10-10" 11-4" 11-8" 12-2" 12-9" 13-4" 14-0" NI-80 10-3" 10-9" 11-2" 11-7" 12-1" 12-7" 13-2" 13-2" 13-9" 14-10" NI-90 7'-4" 7'-11" 8'-6" 9-1" 9-8" 10-3" 13-0" 11-7" 12-3" NI-90x 11-1" 11-4" 11-10" 12-3" 12-8" 13-3" 14-0" 14-7" 15-4"							11'-1"								
16" NI-80 10'-3" 10'-9" 11'-2" 11'-7" 12'-1" 12'-7" 13'-2" 13'-9" 14'-6" NI-90 7'-4" 7'-11" 8'-6" 9'-1" 9'-8" 10'-3" 13'-0" 11'-7" 12'-3" NI-90x 11'-1" 11'-4" 11'-10" 12'-3" 12'-8" 13'-3" 14'-0" 14'-7" 15'-4"															
NI-90 7'-4" 7'-11" 8'-6" 9'-1" 9'-8" 10'-3" 13'-0" 11'-7" 12'-3" NI-90x 11'-1" 11'-4" 11'-10" 12'-3" 12'-8" 13'-3" 14'-0" 14'-7" 15'-4"	1 / 11							12'-2"							
NI-90x   11'-1"   11'-4"   11'-10"   12'-3"   12'-8"   13'-3"   14'-0"   14'-7"   15'-4"	10														
											12'-3"				
ALCOHOL IN THE STATE OF THE STA		NI-90x	'-   "	11'-4"		12'-3"	12'-8"	13'-3"	14'-0"	14'-/"	15'-4"				
. Above table may be used for I-joist spacing of 24 inches on center or less.	1. Above tak	ole may be us	ed for I-jois	st spacing o	of 24 inches	on center	or less.								

- 2. Duct chase opening location distance is measured from inside face of supports to center of opening
- 3. The above table is based on simple-span joists only. For other applications, contact your local distributor.

  4. Distances are based on uniformly loaded floor joists that meet the span requirements for a design live load of 40 psf and dead load of 10 psf, and a live load deflection limit of L/480. For other applications, contact your local distributor.

## **INSTALLING THE GLUED FLOOR SYSTEM**

- 1. Wipe any mud, dirt, water, or ice from I-joist flanges before gluing.
- 2. Snap a chalk line across the I-joists four feet in from the wall for panel edge alignment and as a ooundary for spreading glue.
- 3. Spread only enough glue to lay one or two panels at a time, or follow specific recommendations from
- 4. Lay the first panel with tonaue side to the wall, and nail in place. This protects the tonaue of the next panel from damage when tapped into place with a block and sledgehamm
- 5. Apply a continuous line of glue (about 1/4-inch diameter) to the top flange of a single I-joist. Apply glue in a winding pattern on wide areas, such as with double I-joists.
- 6. Apply two lines of glue on I-joists where panel ends butt to assure proper gluing of each end. 7. After the first row of panels is in place, spread glue in the groove of one or two panels at a time
- before laying the next row. Glue line may be continuous or spaced, but avoid squeeze-out by applying a thinner line (1/8 inch) than used on I-joist flanges. 8. Tap the second row of panels into place, using a block to protect groove edges.
- 9. Stagger end joints in each succeeding row of panels. A 1/8-inch space between all end joints and
- 1/8-inch at all edges, including T&G edges, is recommended. (Use a spacer tool or an 8d common nail to assure accurate and consistent spacing.)
- 10. Complete all nailing of each panel before glue sets. Check the manufacturer's recommendations for cure time. (Warm weather accelerates glue setting.) Use 6d ring- or screw-shank nails for panels 3/4-inch thick or less, and 8d ring- or screw-shank nails for thicker panels. Space nails per the table below. Closer nail spacing may be required by some codes, or for diaphraam construction. The finished deck can be walked on right away and will carry construction loads without damage to the

### APA RATED STURD-I-FLOOR FASTENER SCHEDULES FOR NI's(1)

Maximum Joist Spacing	Panel Thickness <sup>(2)</sup>	Nail Size	Fastening: Glued-Nailed <sup>(3)</sup> Maximum Spacing (in.)				
(in.)	(in.)	and Type	Supported Panel Edges	Intermediate Supports			
16	23/32 <sup>(5)</sup>	6d ring-or screw-shank <sup>(4)</sup>	12	12			
20	23/32 <sup>(5)</sup>	6d ring-or screw-shank <sup>(4)</sup>	12	12			
24	23/32, 3/4 7/8	6d ring-or screw-shank <sup>(4)</sup> 8d ring-or screw-shank <sup>(4)</sup>	12 6	12 12			

- (1) Special conditions may impose heavy traffic and concentrated loads that require construction in
- (2) Panels in a given thickness may be manufactured in more than one allowable span. Panels with an allowable span greater than the actual joist spacing may be substituted for panels of the same thickness with an allowable span matching the actual joist spacing. For example, 19/32-inch-thick Sturd-I-Floor 20 oc may be substituted for 19/32-inch-thick Sturd-I-Floor 16 oc over joists 16 inches
- (3) Use only adhesives conforming to APA Specification AFG-01, or ASTM D3498 applied in accordance with the manufacturer's recommendations. If OSB panels with sealed surfaces and edges are to be used, use only solvent-based glues; check with panel manufacturer.
- (4) 8d common nails may be substituted if ring- or screw-shank nails are not available.
- (5) Recommended minimum thickness for use with I-joists.

#### IMPORTANT NOTE: Floor sheathing must be field glued to the I-joist flanges in order to achieve the allowable spans shown in this document. If sheathing is nailed only, reduce I-joist spans in the Allowable Spans Table by 1 foot.

## **RIM BOARD INSTALLATION DETAILS** (8a) ATTACHMENT DETAILS WHERE RIM BOARDS ABUT Rim board Joint Between Floor Joists Rim board Joint at Corner 8d nails at 6" o.c. (typical) 1) 8d nail top and oottom (typical) 8d toe-nails at Rim board joint -6" o.c. (typical)

