



VERSION 2024-08-01

Engineered Wood Products

CONSTRUCTION DETAILS NORDIC JOIST











ABOUT NORDIC

NORDIC STRUCTURES

Nordic Structures is the leading innovator in engineered wood products. Its resource comes from responsibly managed lands within the regional boreal forest. Vertical integration, from forest to structure, bolstered by Nordic's experienced design and development team, ensures consistent quality and unparalleled level of service.

514-871-8526

1 866 817-3418

HEAD OFFICE

Nordic Structures 100-1100 Canadiens-de-Montréal Avenue Montréal, Québec H3B 2S2

www.nordic.ca

GENERAL INFORMATION info@nordic.ca

TECHNICAL SUPPORT tech@nordic.ca

TABLE OF CONTENTS

- ii General Notes
- iii List of Details
- vi Nordic I-joists
- vii I-joist Marking
- viii Fasteners and Hangers
- ix Nail Spacing

TYPICAL FLOOR FRAMING AND CONSTRUCTION DETAILS

WEB STIFFENERS AND CANTILEVERS

OPENINGS AND RIM BOARDS

VARIOUS INSTALLATIONS FOR I-JOISTS

TYPICAL ROOF FRAMING AND CONSTRUCTION DETAILS

nordic.ca



2

3

5

GENERAL NOTES

1.0 General

- 1.1 This document supersedes all previous versions. For the latest version, consult <u>nordic.ca</u> or contact Nordic Structures.
- 1.2 While this guide emphasizes residential construction, much of the basic design information can be used for other construction applications. Review by a design professional is required for applications beyond the scope of this document.
- 1.3 Refer to the <u>Nordic Joist Technical Guide (NS-GT3)</u> for the allowable spans, or to the floor or roof layout provided by your distributor.
- 1.4 For more information, consult <u>nordic.ca</u> or contact Nordic Structures.

2.0 Structure

- 2.1 Table 4 of <u>APA Product Report PR-L274</u> shows the allowable lateral shear capacities of Nordic Joist Series I-joists in diaphragm applications.
- 2.2 For APA Rim Board Plus specifications, see <u>ANSI/APA PRR 410</u>, Standard for Performance-rated Engineered Wood Rim Boards.

3.0 Fire Safety

- 3.1 Numerous fire-rated assemblies incorporate I-joists and wood structural panels. These floor-ceiling and roof-ceiling assemblies, recognized as fire-rated constructions by building codes, are illustrated in the <u>APA Product Report PR-</u>S274, Fire-Rated Assemblies.
- 3.2 A rim board can also serve as a fire barrier when it is installed in a continuous assembly on top of a wall, parallel or perpendicular to the joists. Fire-resistant rim board assemblies are shown in the <u>APA Data File: APA Rim Board in Fire-Rated</u> <u>Assemblies, Form D350</u> and the <u>AWC DCA3, Fire-Resistance-Rated Wood-Frame</u> Wall and Floor/Ceiling Assemblies.
- 3.3 I-joists are often used in conjunction with both steel and chlorinated polyvinyl chloride (CPVC) sprinkler systems. Details 9 provide some basic guidance on appropriate methods of attachment of steel and CPVC sprinkler systems to I-joists. All designs should be checked by a design professional to assure the adequacy of not only the hangers and fasteners used but the capacity of the I-joists themselves. For more information, refer to <u>APA J745</u>, Sprinkler Pipe Installation for APA Performance Rated I-Joists.
- 3.4 The International Residential Codes (Section R302.13) require fire protection of floor assemblies. <u>APA System Report SR-405</u>, Fire Protection of Floors <u>Constructed with Prefabricated Wood I-Joists for Compliance with the</u> <u>International Residential Code</u>, offers options for fire protection of floors constructed with Nordic I-joists.
- 3.5 For more information, refer to Chapter 4 of the <u>Nordic Joist Technical Guide</u> (NS-GT3).

NORDIC



LIST OF DETAILS

1

Typical Floor Framing and Construction Details

Title	Drawing	Page
Typical Floor Framing and Construction Details		
Installation Notes - Floor Systems		1.i
Typical Floor Framing	1	1.1
I-joist Blocking Panel	1a	1.2
Rim Board	1b	1.3
Rim Board and Rim Joist	1b-1	1.4
Double Rim Board - Option 1	1b-2	1.5
Double Rim Board - Option 2	1b-3	1.6
Rim Joist	1c	1.7
Squash Blocks	1 d	1.8
Squash Blocks under a Post	1e	1.9
Starter Joist		
Starter Joist - Single I-joist	1f-1	1.10
Starter Joist - Double I-joist	1f-2	1.11
Starter Joist - I-joist and Rim Board	1f-3	1.12
Starter Joist - Rim Board	1f-4	1.13
Starter Joist - Double Rim Board	1f-5	1.14
Starter Joist - Knee Wall	1f-6	1.15
Blocking Panels at Interior Supports	1g	1.16
Continuous Joists	1g-1	1.17
Continuous Joists with Blocking Panels	1g-2	1.18
Non-continuous Joists	1g-3	1.19
Staggered Non-continuous Joists	1g-4	1.20
Squash Blocks	1g-5	1.21
Squash Blocks and Flat Blocking	1g-6	1.22
Squash Blocks and Flat Blocking – Staggered Joists	1g-7	1.23
Backer Block	1h	1.24
Backer Block – Alternative Detail	1h-1	1.25
Backer Block - Alternative Detail with Additional Nails	1h-2	1.26
Nordic Lam or SCL Beam - Top- or Face-mount Hangers	1j	1.27
Nordic Lam or SCL Beam - Long Strap Hangers	1j-1	1.28

Title	Drawing	Page
Steel Beam - Top-mount Hangers	1 k	1.29
Steel Beam - Face-mount Hangers	1k-1	1.30
Steel Beam - Support on a Plate	1k-2	1.31
Steel Beam - Support on the Bottom Flange	1k-3	1.32
Steel Beam - Flush	1k-4	1.33
Framing Anchor to Backer Block	1m	1.34
Bevel-cut I-joist	1n	1.35
Bevel-cut I-joist for a Fire Wall	1n-1	1.36
Reinforced Bevel-cut I-joist	1n-2	1.37
Double I-joist - Filler Block	1p	1.38
Top-loaded Double I-joist	1p-1	1.39
Mid-span Blocking Panels		
Mid-span Blocking Panels	1r-1	1.40
Mid-span Blocking Panels with Strapping	1r-2	1.41
Mid-span Blocking Panels with Ceiling	1r-3	1.42
Double Mid-span Blocking Panels	1r-4	1.43
Blocking Panels for Starter Joists	1s-1	1.44
Non-load-bearing Partitions		
Non-load-bearing Partitions - Sheathing without Blocking	1t-1	1.45
Non-load-bearing Partitions - Sheathing with Blocking	1t-2	1.46
Non-load-bearing Partitions - Sheathing with Blocking Panel	1t-3	1.47





LIST OF DETAILS (CONTINUED)

2

Web Stiffeners and Cantilevers

Title	Drawing	Page
I-joist Web Stiffeners	2	2.1
Cantilever Details for Balconies		
I-joist Cantilever Detail for Interior Balconies	За	2.2
Lumber Cantilever Detail for Balconies	Зb	2.3
Cantilever Details for Vertical Building Offset		
Cantilever – No Sheathing Reinforcement	4a	2.4
Cantilever – Sheathing Reinforcement, One Side	4a-1	2.5
Cantilever – Sheathing Reinforcement, Two Sides	4a-2	2.6
Cantilever - Double I-joists	4b	2.7
Cantilever - Without Blocking (No Wall Load)	4c	2.8
Short Cantilever Details for Vertical Building Offset		
Short Cantilever - No Sheathing Reinforcement	5a	2.9
Short Cantilever - Sheathing Reinforcement, One Side	5a-1	2.10
Short Cantilever - Sheathing Reinforcement, Two Sides	5a-2	2.11
Short Cantilever - Double I-joists	5b	2.12
Short Cantilever - 2x8 Blocking	5c	2.13
Short Cantilever - Set-back Detail, I-joist	5d-1	2.14
Short Cantilever - Set-back Detail, Beam	5d-2	2.15
Short Cantilever - Set-back Detail, Hangers	5d-3	2.16
Short Cantilever - Corner Detail	5e-1	2.17

Openings and Rim Boards

3

Title	Drawing	Page
Openings for Horizontal Elements		
Web Hole Specifications		
I-joist Typical Holes	6a	3.1
Location of Web Holes	6-1	3.2
Duct Chase Opening Specifications		
I-joist Typical Duct Chase Openings	6b	3.3
Location of Duct Chase Openings	6-2	3.4
Holes in Lateral-restraint-only Blocking Panels	6c	3.5
Openings for Vertical Elements		
Stairwell Openings in I-joist Floors		
Stairwells Parallel to I-joist Span	7a-1	3.6
Stairwells Perpendicular to I-joist Span	7a-2	3.7
Floor Openings for Mechanics		
Floor Openings for Mechanics – Perpendicular to Joists	7b-1	3.8
Floor Openings for Mechanics – Parallel to Joists	7b-2	3.9
Allowance for Piping	7c	3.10
Floor Openings for Piping - Perpendicular to Joists - Option 1	7c-1	3.11
Floor Openings for Piping - Perpendicular to Joists - Option 2	7c-2	3.12
Notch in I-joist for Heat Register	7d	3.13
Details for Rim Boards		
Rim Board Installation Details		
Attachment Details Where Rim Boards Abut	8a	3.14
Toe-nail Connection at Rim Board	8b	3.15
2x Ledger to Rim Board Attachment Detail	8c	3.16
Fastener Spacing for Deck Ledger	8d	3.17
Framing Details for Decks		
Decks - Hold-down Device Parallel to I-joists	8e-1	3.18
Decks - Hold-down Device Perpendicular to I-joists	8e-2	3.19
Rim Board Hole Specifications	8	3.20
Rim Board Installed Over an Opening	8f	3.21
Holes in Rim Boards and Concentrated Loads	8g	3.22
Multiple Holes in Rim Board	8h	3.23





LIST OF DETAILS (CONTINUED)

4

Various Installations for I-joists

Title	Drawing	Page
Various Installations for I-joists		
Sprinkler Pipe - Ceiling Flange Hanger	9a	4.1
Sprinkler Pipe – Joist Clamp Hanger	9b	4.2
Sprinkler Pipe – Angle Bracket Hanger	9c	4.3
Sprinkler Pipe - NFPA 13 Steel Angle Trapeze with Hanger	9d	4.4
Sprinkler Pipe - CPVC Hanger - Double Offset	9e	4.5
Sprinkler Pipe - CPVC Hanger - Surface Mount	9f	4.6
Dropped Ceiling - Filler Block - One Side Attachment	9g-1	4.7
Dropped Ceiling - Filler Block - Joist Clamp Hanger	9g-2	4.8

Typical Roof Framing and Construction Details

5

Title	Drawing	Page
Typical Roof Framing and Construction Details		
Installation Notes - Roof Systems		5.i
Typical Roof Framing	10	5.1
Upper End – Bearing on Wall	10a	5.2
Peak Connection	10b	5.3
I-joist to Ridge Beam Connection	10c	5.4
I-joist Connection with Wood Structural Panel Gussets	10d	5.5
I-joist Connection with Tie Strap	10e	5.6
Roof Opening - Top-mount Hangers	10f	5.7
Roof Opening – Face-mount Hangers	10g	5.8
Birdsmouth Cut and Bevel Cut Bearing Stiffeners	10h	5.9
Birdsmouth Cut with Overhang	1 Oj	5.10
I-joist Overhang for Fascia Support with Birdsmouth Cut	10k	5.11
Blocking Panel at Beveled Plate	10m	5.12
I-joist with Bevel-cut End	10n	5.13
Outrigger - Option 1	10p	5.14
Outrigger - Option 2	10p-1	5.15
I-joist Overhang with Beveled Plate	10q	5.16
Lumber Overhang with Beveled Plate	10r	5.17
I-joist Overhang for Fascia Support with Birdsmouth Cut	10s	5.18
I-joist Overhang for Fascia Support with Beveled Plate	10t	5.19
Birdsmouth Cut	10u	5.20
Ventilation Holes in Blocking Panels	10v	5.21
Ventilation Holes in I-joist Web	10w	5.22





JOIST

NORDIC I-JOISTS

Nordic I-joists are composed of sawn lumber flanges connected by a structural oriented strand board and bonded together with exterior-grade adhesives. NI-40x

2×3 1950f MSR, 3/8 in. web **Depths** 9-1/2, 11-7/8 and 14 in.

NI-60

2×3 2100f MSR, 3/8 in. web **Depths** 9-1/2, 11-7/8, 14 and 16 in.

NI-80

2×4 2100f MSR, 3/8 in. web **Depths** 9-1/2, 11-7/8, 14 and 16 in.

NI-90

2×4 2400f MSR, 7/16 in. web Depths 11-7/8, 14 and 16 in. RESIDENTIAL SERIES

NI-80x

2×4 2100f MSR, 7/16 in. web **Depths** 18, 20, 22 and 24 in.



COMMERCIAL SERIES

Check availability of products with your local distributor.

NORDIC STRUCTURES





- Nordic I-joists are listed in the <u>APA Product Report PR-L274</u> and the <u>ICC-ES-APA Joint Evaluation Report ESR-1742</u>.
 For APA Rim Board Plus specifications, see <u>ANSI/APA PRR 410</u>, Standard for Performance-rated Engineered Wood Rim Boards.

NORDIC STRUCTURES





1. 10d box nails (0.128 x 3 inches) may be substituted for 8d common nails shown in details.

HANGERS



Face mount



Top mount



Slopeable & skewable

45° skew

Notes:

- 1. Hangers shown illustrate the four most commonly used metal hangers to support I-joists.
- 2. All nailing must meet the manufacturer's recommendations.
- 3. Hangers should be selected based on the joist depth, flange width and load capacity.
- 4. Web stiffeners are required when the sides of the hangers do not laterally brace the top flange of the l-joist.
- 5. For the selection tables, consult the technical guide NS-GT3. For further information, refer to the manufacturer's literature. Check with your local distributor.





Nailed to Only One Flange Edge (Top View)



Nailed to Both Flange Edges (Top View)





Recommended Closest Nail Spacing for Fastening Sheathing to I-joist Flanges to Minimize Splitting

	Flange face nailing ^(a) Flange edge nailir		ng ^(b)		
-				Nail spacing (in.)	
Fastener size (diameter x length)	End distance (in.)	End distance Nail spacing E (in.) (in.)		Nailed to only one flange edge	Nailed to both flange edges
0.128" or smaller in diameter, and 3-1/4" or shorter in length (8d box or sinker, 10d box or sinker, or 12d box)	2	2	2	2	4
Greater than 0.128" up to 0.148" in diameter, and 3-1/4" or shorter in length (8d common, 10d common, 12d sinker or common, or 16d sinker)	2	3	2	3	6

 (a) If more than one row is required, offset rows a minimum of 1/2 inch and stagger.
 (b) Closest nail spacing measured from one flange edge. Nails on opposite flange edge must be offset one-half the minimum spacing.





NORDIC



VERSION 2024-08-01

TYPICAL FLOOR FRAMING AND CONSTRUCTION DETAILS



INSTALLATION NOTES

Floor Systems

- 1. Installation of Nordic I-joists shall be as shown in details 1.
- 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. Concentrated loads should only be applied to the top surface of the top flange. Concentrated loads should not be suspended from the bottom flange with the exception of light loads, such as ceiling fans or light fixtures.
- 5. I-joists must be protected from the weather prior to installation.
- 6. I-joists must not be used in applications where they will be permanently exposed to weather, or will reach a moisture content of 16 percent or greater, such as in swimming pool or hot tub areas. They must not be installed where they will remain in direct contact with concrete or masonry.
- 7. End bearing length must be at least 1-3/4 inch. For multiple-span joists, intermediate bearing length must be at least 3-1/2 inches.
- 8. Ends of floor joists shall be restrained to prevent rollover. Use rim board or I-joist blocking panels.
- 9. I-joists installed beneath bearing walls perpendicular to the joists shall have full-depth blocking panels, rim board, or squash blocks (cripple blocks) to transfer gravity loads from above the floor system to the wall or foundation below.

- For I-joists installed directly beneath bearing walls parallel to the joists or used as rim board or blocking panels, the maximum allowable vertical load using a single I-joist is 2,000 plf, and 4,000 plf if double I-joists are used.
- 11. Continuous lateral support of the I-joist's compression flange is required to prevent rotation and buckling. In simple span uses, lateral support of the top flange is normally supplied by the floor sheathing. In multiple-span or cantilever applications, bracing of the I-joist's bottom flange is also required at interior supports of multiple-span joists, and at the end support next to the cantilever extension. The ends of all cantilever extensions must be laterally braced as shown in details 3, 4, or 5.
- 12. Nails installed in flange face or edge shall be spaced in accordance with the applicable building code requirements or approved building plans, but should not be closer than those specified on page viii.
- 13. Details 1 on the following pages show only I-joist-specific fastener requirements. For other fastener requirements, see the applicable building code.
- 14. For proper temporary bracing of wood I-joists and placement of temporary construction loads, see <u>APA Technical Note: Temporary Construction Loads over I-Joist Roofs and Floors, Form</u> <u>J735</u>.









I he uniform vertical load transfer capacity is limited to a depth of 16 inches or less and shall not be increased for any load duration shorter than the normal (10-year) 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.

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

	TITLE Ligist Blocking Papel		DRAWING	
NS-DC3	CATEGORY Typical Floor Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 1.2

nordic.ca

NORDIC STRUCTURES



1. To avoid splitting flange, start nails at least 1-1/2 inch from end of I-joist. Nails may be driven at an angle to avoid splitting of bearing plate.

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

		TITLE		DRAWING	
NOPDIC		Rim Board		1b	
STRUCTURES	NS-DC3				
	DETAILS	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.3
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.3

rafter. For concentrated vertical load transfer capacity, see detail 1d.



NORDIC STRUCTURES

nordic.ca

1. To avoid splitting flange, start nails at least 1-1/2 inch from end of I-joist. Nails may be driven at an angle to avoid splitting of bearing plate.

(a) The uniform vertical load transfer capacity is limited to a depth of 16 inches or less and shall not be increased for any load duration shorter than the normal (10-year) 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.

	TITLE		DRAWING	
	Rim Board and Rim Joist		1b-1	
NS-DC3				
DETAILS	CATEGORY	SCALE	DATE	PAGE
NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.4



1. To avoid splitting flange, start nails at least 1-1/2 inch from end of I-joist. Nails may be driven at an angle to avoid splitting of bearing plate.

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

	TITLE		DRAWING	
	Double Rim Board - Option 1		1b-2	
NS-DC3	•			
DETAILS	CATEGORY	SCALE	DATE	PAGE
NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.5

rafter. For concentrated vertical load transfer capacity, see detail 1d.

STRUCTURES

NORDIC



 and/or rim joist
 transfer capacity (plf) ^(a)

 2 x 1-1/8" APA Rim Board Plus
 9,700

 (a) The uniform vertical load transfer capacity is limited to a depth of 16 inches or less and shall not be increased for any load duration shorter than the normal (10-year) 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.

Uniform vertical load

Note:

1. To avoid splitting flange, start nails at least 1-1/2 inch from end of I-joist. Nails may be driven at an angle to avoid splitting of bearing plate.

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

	TITLE Double Rim Board - Option 2		drawing 1b-3	
NS-DC3 DETAILS Nordic Joist	category Typical Floor Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 1.6

STRUCTURES

NORDIC



Nordic I-joists 2,000
 The uniform vertical load transfer capacity is limited to a depth of 16 inches or less and shall not be increased for any load duration shorter than the normal (10-year) 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.

Note:

NORDI STRUCTURES nordic.ca

1. To avoid splitting flange, start nails at least 1-1/2 inch from end of I-joist. Nails may be driven at an angle to avoid splitting of bearing plate.

	common nano ameso otnerwise no				
		TITLE		DRAWING	
r		Rim Joist		1c	
0	NS-DC3				
		CATEGORY	SCALE	DATE	PAGE
	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.7

1d

NORDIC STRUCTURES

nordic.ca





Pair of squash blocks $^{(a)}$	Vertical load transfer capacity (lbf)			
	3-1/2" wide	5-1/2" wide		
2x lumber	3,800	5,900		
1-1/8" APA Rim Board Plus	2,800	4,400		

(a) The squash blocks are assumed to be in full bearing on the plate below.

	TITLE Squash Blocks		drawing 1d		
NS-DC3	CATEGORY Typical Floor Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE	



Transfer load from above to bearing below. Install squash blocks per detail 1d. Match bearing area of blocks below to post above. Stagger nails to avoid splitting.



NORDIC		TITLE Squash Blocks under a Post		 drawing 1e	
STRUCTURES	NS-DC3	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.9



	transfer subusity (pil)
Nordic I-joists	2,000

(a) The uniform vertical load transfer capacity is limited to a depth of 16 inches or less and shall not be increased for any load duration shorter than the normal (10-year) 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.

Notes:

NORDIC STRUCTURES

- 1. Rim board may be used in lieu of I-joists. Backer is not required when rim board is used.
- 2. Notches of up to 3/4 inch in the I-joist bottom flange are permitted for fastening the sill plate to the foundation, with a spacing of 4 feet and more.

	TITLE DR Starter Joist - Single I-joist 1		DRAWING 1f-1	
NS-DL3	CATEGORY S Typical Floor Framing and Construction Details	CALE	DATE 2024-08-01	PAGE 1.10



NORDIC STRUCTURES

- 1. Rim board may be used in lieu of I-joists. Backer is not required when rim board is used.
- 2. Notches of up to 3/4 inch in the I-joist bottom flange are permitted for fastening the sill plate to the foundation, with a spacing of 4 feet and more.

shall not be increased for any load duration shorter than the normal (10-year) 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.

	TITLE Starter Joist - Double I-joist		DRAWING 1f-2		
NS-DC3	CATEGORY Typical Floor Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 1.11	



1. Notches of up to 3/4 inch in the I-joist bottom flange are permitted for fastening the sill plate to the foundation, with a spacing of 4 feet and more.



Blocking panel and/or rim joist	Uniform vertical load transfer capacity (plf) ^(a)
1-1/8" APA Rim Board Plus	4,850
Nordic I-joists	2,000
Both products	6,850

(a) The uniform vertical load transfer capacity is limited to a depth of 16 inches or less and shall not be increased for any load duration shorter than the normal (10-year) 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.

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

N	0	R	D	I	С	
ST	RUC	сти	RE	S		

NS-DC3 📕	
DETAILS	
NORDIC JOIST	

TITLE		DRAWING		
Starter Joist - I-joist and Rim Board		1f-3		
CATEGORY	SCALE	DATE	PAGE	
Typical Floor Framing and Construction Details	-	2024-08-01	1.12	



Blocking panel and/or rim joist	Uniform vertical load transfer capacity (plf) ^(a)
1-1/8" APA Rim Board Plus	4.850

(a) The uniform vertical load transfer capacity is limited to a depth of 16 inches or less and shall not be increased for any load duration shorter than the normal (10-year) 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.

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

NORDIC

STRUCTURES





Blocking panel and/or rim joist	Uniform vertical load transfer capacity (plf) ^(a)
2 x 1-1/8" APA Rim Board Plus	9,700

(a) The uniform vertical load transfer capacity is limited to a depth of 16 inches or less and shall not be increased for any load duration shorter than the normal (10-year) 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.

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.



NS-DC3 📕	
DETAILS	
NORDIC JOIST	

TITLE Starter Joist - Double Rim Board		drawing 1f-5	
CATEGORY	SCALE	DATE	PAGE
Typical Floor Framing and Construction Details	-	2024-08-01	1.14



All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

NORDIC STRUCTURES

uc pco 💻	TITLE Starter Joist - Knee Wall		drawing 1f-6	
NS-DC3	CATEGORY Typical Floor Framing and Construction Details	SCALE	^{DATE} 2024-08-01	PAGE 1.15





- 1. An occasional blocking panel (one per line of blocking) may be left out for the passage of plumbing or ventilation ducts. For other applications, contact Nordic Structures.
- 2. For other options, see details 1g-1 to 1g-7.

NORDIC	_	TITLE Blocking Panels at Interior Supports		drawing 1g	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.16





- 1. This detail only applies to continuous I-joists without load-bearing wall above.
- 2. In high seismic areas (SDC, D0, D1 and D2), the IRC requires blocking per detail 1g at all intermediate supports. The IBC requires blocking per detail 1g at all supports for all seismic design categories.

NORDIC		TITLE Continuous Joists		drawing 1g-1	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.17





NORDI STRUCTURES

nordic.ca

1. An occasional blocking panel (one per line of blocking) may be left out for the passage of plumbing or ventilation ducts. For other applications, contact Nordic Structures.

		TITLE		DRAWING	
ſ		Continuous Joists with Blocking Panels		1g-2	
0	NS-DC3	-			
	DETAILS	CATEGORY	SCALE	DATE	PAGE
	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.18





1. An occasional blocking panel (one per line of blocking) may be left out for the passage of plumbing or ventilation ducts. For other applications, contact Nordic Structures.

		TITLE		DRAWING	
NORDIC		Non-continuous Joists		1g-3	
STRUCTURES	NS-DC3				
STRUCTURES	DETAILS	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.19





NORDIC STRUCTURES

- 1. An occasional blocking panel (one per line of blocking) may be left out for the passage of plumbing or ventilation ducts. For other applications, contact Nordic Structures.
- 2. Joist spacing may vary from one side to the other. If the space between the joists is less than 3 inches, the blocking panel may be omitted.

	TITLE Staggered Non-continuous Joists		DRAWING 1g-4	
NS-DC3	CATEGORY	SCALE	 DATE	PAGE
NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.20





1. In high seismic areas (SDC, D0, D1 and D2), the IRC requires blocking per detail 1g at all intermediate supports. The IBC requires blocking per detail 1g at all supports for all seismic design categories.

NORDIC		TITLE Squash Blocks		Drawing 1g-5	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.21





NORDIC STRUCTURES

nordic.ca

- 1. In high seismic areas (SDC, D0, D1 and D2), the IRC requires blocking per detail 1g at all intermediate supports. The IBC requires blocking per detail 1g at all supports for all seismic design categories.
- 2. An occasional 2x4 blocking (one per line of blocking) may be left out for the passage of plumbing or ventilation ducts. For other applications, contact Nordic Structures.

No 500 =	TITLE Squash Blocks and Flat Blocking		drawing 1g-6	
NS-DC3	CATEGORY Typical Floor Framing and Construction Details	SCALE	date 2024-08-01	PAGE 1.22





NORDIC STRUCTURES

nordic.ca

- 1. In high seismic areas (SDC, D0, D1 and D2), the IRC requires blocking per detail 1g at all intermediate supports. The IBC requires blocking per detail 1g at all supports for all seismic design categories.
- An occasional 2x4 blocking (one per line of blocking) may be left out for the passage of plumbing or ventilation ducts. For other applications, contact Nordic Structures.
- 3. Joist spacing may vary from one side to the other.

	TITLE Squash Blocks and Flat Blocking - Staggered Joists		drawing 1g-7	
NS-DC3	CATEGORY Typical Floor Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 1.23


- 1. Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.
- 2. For hanger capacity, see manufacturer's recommendations.
- 3. Verify double I-joist capacity to support concentrated loads.
- 4. Backer blocks must be long enough to permit required nailing without splitting.
- 5. For other options, see details 1h-1 and 1h-2.



Flange width (in.)	Material thickness required (in.) ^(a)	Minimum depth (in.) ^(b)		
2-1/2	1	5-1/2		
3-1/2	1-1/2	7-1/4		

(a) Minimum grade for backer block material shall be Utility grade S-P-F (south) or better for solid sawn lumber and Rated Sheathing grade for wood structural panels.

(b) For face-mount hangers use net joist depth minus 3-1/4 inches.

		TITLE Backer Block		drawing 1h	
STRUCTURES	NS-DC3	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.24





	Filler block				Backer block			
Joist depth	10d nails on 4'-0", on both sides			10d na	10d nails on 2'-0", on one side			
(IN.)	Number of rows	Spacing (in.)	Total quantity	Number of rows	Spacing (in.)	Total quantity	- IOad (IDT)	
9-1/2	2	12	16	2	3	16	1,120	
11-7/8	2	12	16	2	3	16	1,120	
14	3	12	24	3	3	24	1,680	
16	4	12	32	4	3	32	2,240	

1. Minimum grade for backer block and filler block materials shall be No. 2 grade S-P-F or better for solid sawn lumber and Rated Sheathing grade for wood structural panels.

 Minimum distances: Spacing parallel to grain of 3 inches; end distance parallel to grain of 2 inches; spacing between rows of 1-1/2 inch; and edge distance of 3/4 inch. As seen above, offset nails in backer block, relatively to those in filler block.

- 3. For filler block, alternate nails on opposite side.
- 4. Number of rows and spacings may vary, as long as the total quantity of nails and the minimum distances are respected.

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

	TITLE		DRAWING	
	Backer Block - Alternative Detail		1h-1	
NS-DC3	CATEGORY	SCALE	DATE	PAGE
NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.25

Notes:

- 1. Support back of I-joist web during nailing to prevent damage to web/flange connection.
- 2. Leave a 1/8-inch- to 1/4-inch-gap between top of filler block and bottom of top I-joist flange.
- 3. For face-mount hangers, use joist depth minus 3-1/4 inches.
- 4. Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.
- For hanger resistance, see manufacturer's recommendations.
 Verify double I-joist resistance to support concentrated load.

NORDIC STRUCTURES

nordic.ca





		Filler block			Backer block			
Joist depth	10d nails on 4'-0", on both sides			10d na	10d nails on 2'-0", on one side			
(IN.) -	Number of rows	Spacing (in.)	Total quantity	Number of rows	Spacing (in.)	Total quantity	 load (lbf) 	
9-1/2	3	12	24	3	3	24	1,680	
11-7/8	4	12	32	4	3	32	2,240	
14	5	12	40	5	3	40	2,800	
16	6	12	48	6	3	48	3,360	

1. Minimum grade for backer block and filler block materials shall be No. 2 grade S-P-F or better for solid sawn lumber and Rated Sheathing grade for wood structural panels.

 Minimum distances: Spacing parallel to grain of 3 inches; end distance parallel to grain of 2 inches; spacing between rows of 1-1/2 inch; and edge distance of 3/4 inch. As seen above, offset nails in backer block, relatively to those in filler block.

- 3. For filler block, alternate nails on opposite side.
- 4. Number of rows and spacings may vary, as long as the total quantity of nails and the minimum distances are respected.

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

	TITLE		DRAWING	
	Backer Block - Alternative Detail with Additional Nails		1h-2	
NS-DL3	CATEGORY	SCALE	DATE	PAGE
NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.26

Notes:

nordic.ca

- 1. Support back of I-joist web during nailing to prevent damage to web/flange connection.
- 2. Leave a 1/8-inch- to 1/4-inch-gap between top of filler block and bottom of top l-joist flange.
- 3. For face-mount hangers, use joist depth minus 3-1/4 inches.
- 4. Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.
- For hanger resistance, see manufacturer's recommendations.
 Verify double I-joist resistance to support concentrated load.

NORDIC STRUCTURES 1j





Notes:

- Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.
 For nailing schedules for multiple Nordic Lam or SCL beams, see the manufacturer's recommendations.

NORDIC		Nordic Lam or SCL Beam - Top- or Face-mount Hangers			drawing 1j	
STRUCTURES	NS-DC3	CATEGORY	SCALE	DATE	PAGE	
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.27	





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

NORDIC		TITLE Nordic Lam or SCL Beam - Long Strap Hangers		drawing 1j-1	
STRUCTURES	DETAILS	CATEGORY	CALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details -		2024-08-01	1.28





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

	TITLE		DRAWING	
NORDIC	Steel Beam - Top-mount Hangers		1k	
STRUCTURES NS-DC3				
DETAILS	CATEGORY	SCALE	DATE	PAGE
nordic.ca Nordic Joist	Typical Floor Framing and Construction Details	-	2024-08-01	1.29





NORDIC STRUCTURES

nordic.ca

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

	TITLE		DRAWING		
	Steel Beam - Face-mount Hangers 1k-			1k-1	
NS-DC3					
	CATEGORY	SCALE	DATE	PAGE	
NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.30	





1. End of floor joists shall be restrained using blocking panels installed at a maximum of 6 inches from end of I-joists. Attach with one 8d toe-nail on each side of top and bottom flanges.

		TITLE		DRAWING	
NORDIC		Steel Beam - Support on a Plate		1k-2	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.31





1. End of floor joists shall be restrained using blocking panels installed at a maximum of 6 inches from end of I-joists. Attach with one 8d toe-nail on each side of top and bottom flanges.

				-	
		TITLE		DRAWING	
NORDIC		Steel Beam - Support on the Bottom Flange		1k-3	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.32





NORDIC STRUCTURES

nordic.ca

1. End of floor joists shall be restrained using blocking panels installed at a maximum of 6 inches from end of I-joists. Attach with one 8d toe-nail on each side of top and bottom flanges.

		drawing 1k-4		
DETAILS NORDIC JOIST	CATEGORY Typical Floor Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 1.33



NORDIC STRUCTURES

nordic.ca

1. See detail 1h for maximum support capacity.

	TITLE Framing Anchor to Backer Block		drawing 1m	
NS-JU3	CATEGORY Typical Floor Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 1.34





1n

1. Blocking required at bearing for lateral support, not shown for clarity.

		TITLE		DRAWING	
NOPDIC		Bevel-cut I-joist		1n	
STRUCTURES	NS-DC3 📕				
OTROOTOREO	DETAILS	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.35
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.35



1. End of floor joists shall be restrained using blocking panels installed at a maximum of 6 inches from end of I-joists. Attach with one 8d toe-nail on each side of top and bottom flanges.

NORDIC		Bevel-cut I-joist for a Fire Wall		1n-1	
STRUCTURES	NS-DC3	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.36



- 1. Blocking required at bearing for lateral support, not shown for clarity.
- 2. This detail applies to roofs with a slope of 6:12 or greater. For a roof slope less than 6:12, contact Nordic Structures.
- This detail is intended to reinforce the I-joist end and not to transfer thrust loads at the rafter heel. The applicability of this detail is based on the joist reaction at the support.

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

	TITLE DI Reinforced Bevel-cut I-joist 1			DRAWING		
				1n-2		
NS-DC3						
DETAILS	CATEGORY	SCALE	DATE	PAGE		
NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.37		

2.0" minimum

nordic.ca

NORDIC STRUCTURES



Filler Block Requirements for Double I-joist Construction

Flange width (in.)	Net depth (in.)	Filler block size (in.)	Example		
	9-1/2	2-1/8 to 2-1/4 x 6	2x6 + 5/8" or 3/4" sheathing		
2-1/2	11-7/8	2-1/8 to 2-1/4 x 8	2x8 + 5/8" or 3/4" sheathing		
	14	2-1/8 to 2-1/4 x 10	2x10 + 5/8" or 3/4" sheathing		
	16	2-1/8 to 2-1/4 x 12	2x12 + 5/8" or 3/4" sheathing		
3-1/2	9-1/2	3 x 6	2 x 2x6		
	11-7/8	3 x 8	2 x 2x8		
	14	3 x 10	2 x 2x10		
	16	3 x 12	2 x 2x12		

Note:

1. The height of the filler block may be different from that specified in the table, as long as it allows nailing and respects the required gap.

Notes:

NORDIC STRUCTURES

- 1. Support back of I-joist web during nailing to prevent damage to web/flange connection.
- 2. Leave a 1/8-inch to 1/4-inch gap between top of filler block and bottom of top I-joist flange.
- 3. Filler block is required between joists for full length of span.
- 4. For flange width of 2-1/2 inches, nail joists together with two rows of 10d nails at 12 inches o.c. (clinched when possible) on each side of the double I-joist (total of four nails per foot). For flange width of 3-1/2 inches, use two rows of 10d nails at 6 inches o.c. on each side of the double I-joist (total of eight nails per foot).
- 5. The maximum load that may be applied to one side of the double I-joist using this detail is 620 lbf/ft.

	TITLE Double I-joist - Filler Block		DRAWING 1p	
NS-DL3	CATEGORY Typical Floor Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 1.38



NORDIC STRUCTURES

- This detail only applies to double I-joists uniformly loaded on top and equally on both joists, and when the top flanges of both I-joists are continuously laterally supported by connection to the sheathing. For other conditions, such as side-loaded I-joists, refer to detail 1p.
- 2. Attach floor sheathing to each joist. No filler block is required.

	Top-loaded Double I-joist		Drawing 1p-1	
NS-DL3	CATEGORY Typical Floor Framing and Construction Details	SCALE	date 2024-08-01	PAGE 1.39





NORDIC STRUCTURES

nordic.ca

- This detail may be used to reduce floor vibration.
 Blocking panels may be of any I-joist series. Box nails attaching lumber piece to I-joist web should be driven from the web side and clinched on the lumber side.
- 3. One occasional blocking panel may be left out for the passage of ventilation ducts. Otherwise, a hole of not more than 2/3 of the lesser dimension of the blocking depth or length may be drilled in the blocking panel.

	TITLE Mid-span Blocking Panels		drawing 1r-1	
DETAILS NORDIC JOIST	CATEGORY Typical Floor Framing and Construction Details	SCALE	date 2024-08-01	PAGE 1.40





- 1. This detail may be used to reduce floor vibration.
- 2. Blocking panels may be of any I-joist series. Box nails attaching lumber piece to I-joist web should be driven from the web side and clinched on the lumber side.
- 3. One occasional blocking panel may be left out for the passage of ventilation ducts. Otherwise, a hole of not more than 2/3 of the lesser dimension of the blocking's depth or length may be drilled in the blocking panel.
- 4. For better performance, glue strapping to blocking panels and I-joists with construction adhesive.

		TITLE		DRAWING	
NORDIC	NS-DC3	Mid-span Blocking Panels with Strapping		1r-2	
STRUCTURES	DETAILS	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.41





- 1. This detail may be used to reduce floor vibration.
- 2. Blocking panels may be of any I-joist series. Box nails attaching lumber piece to I-joist web should be driven from the web side and clinched on the lumber side.
- 3. One occasional blocking panel may be left out for the passage of ventilation ducts. Otherwise, a hole of not more than 2/3 of the lesser dimension of the blocking's depth or length may be drilled in the blocking panel.

NORDIC	Mid-span Blocking Panels with Ceiling		DRAWING 1r-3		
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Floor Framing and Construction Details	-	2024-08-01	1.42





- 1. This detail may be used to reduce floor vibration. Blocking panels must be installed at joist mid-span.
- 2. Blocking panels may be of any I-joist series. Box nails attaching lumber piece to I-joist web should be driven from the web side and clinched on the lumber side.
- 3. For better performance, glue strappings to blocking panels and I-joists with construction adhesive.
- 4. A gypsum ceiling directly attached to I-joists can replace strappings.

	TITLE		DRAWING	
NORDIC	Double Mid-span Blocking Panels		1r-4	
STRUCTURES NS-DC3				
DETAILS	CATEGORY	SCALE	DATE	PAGE
nordic.ca Nordic Joist	Typical Floor Framing and Construction Details	-	2024-08-01	1.43



- In some local codes, blocking panels are prescriptively required in the first joist space (or first and second joist spaces) next to the starter joist. Where required, see local code requirements for spacing of the blocking panels. As a minimum, it is recommended to use blocking panels spaced at 4 feet on center.
- 2. Details shown are for minimum blocking attachment. Transfer of lateral loads may require additional fasteners. In such cases, nail size, spacing and specific design detailing shall be provided by the building designer.
- 3. Common nails of the same pennyweight may be substituted for the box nails shown above.
- 4. Where blocking panels are required between adjacent joists, the blocking panels may be staggered by approximatively 3 inches, and end-nailed as shown.
- 5. Box nails attaching lumber piece to I-joist web should be driven from the web side and clinched on the lumber side.







NORDIC STRUCTURES

- 1. Non-load-bearing partitions may be parallel or perpendicular to joists and positioned anywhere on the structural panel floor. Check the validity of this detail with the applicable building code.
- 2. The effect of the additional load on joist spans must be checked. Unless joists are already over-designed, additional joists may be required.
- 3. See APA Technical Note B429H for maximum allowable partition load based on the sheathing thickness and joist spacing.
- 4. The sheathing panel shall be oriented so that its strength axis runs perpendicular to the joists.
- 5. For best performance, glue the bottom plate to wood structural panel with construction adhesive.

	TITLE DI		DRAWING 1t-1	
NS-DC3	CATEGORY Typical Floor Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 1.45

1t-2



Notes:

NORDIC STRUCTURES

- 1. Non-load-bearing partitions may be parallel or perpendicular to joists and positioned anywhere on the structural panel floor.
- 2. The effect of the additional load on joist spans must be checked. Unless joists are already over-designed, additional joists may be required.
- 3. The sheathing panel shall be oriented so that its strength axis runs perpendicular to the joists.
- 4. For best performance, glue the bottom plate to wood structural panel with construction adhesive.

	TITLE D Non-load-bearing Partitions - Sheathing with Blocking 1		DRAWING 1t-2	
DETAILS NORDIC JOIST	CATEGORY Typical Floor Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 1.46





NORDIC STRUCTURES

nordic.ca

- 1. Non-load-bearing partitions may be parallel or perpendicular to joists and positioned anywhere on the structural panel floor.
- 2. The effect of the additional load on joist spans must be checked. Unless joists are already over-designed, additional joists may be required.
- 3. Blocking panels may be of any I-joist series. Nails attaching lumber piece to I-joist web should be driven from the web side and clinched on the lumber side.

	Non-load-bearing Partitions - Sheathing with Blocking Panel		drawing 1t-3	
DETAILS	CATEGORY Typical Floor Framing and Construction Details	SCALE	DATE	PAGE
NORDIC JOIST		-	2024-08-01	1.47

NORDIC



VERSION 2024-08-01

WEB STIFFENERS AND CANTILEVERS

2







Stiffener Size Requirements

Flange width (in.)	Web stiffener size each side of web (in.)
2-1/2	1 x 2-5/16 Minimum width
3-1/2	1-1/2 x 2-5/16 Minimum width

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

NORDI STRUCTURES

nordic.ca

C NS-DC3		TITLE I-joist Web Stiffeners		DRAWING 2	
NS-DL3 DETAILS NORDIC JOIST	CATEGORY I-joist Web Stiffeners	SCALE	^{DATE} 2024-08-01	PAGE 2.1	







All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

NORDIC		I-joist Cantilever Detail for Interior Balconies	Cantilever Detail for Interior Balconies 3a			
STRUCTURES		CATEGORY	SCALE	DATE	PAGE	
nordic.ca	NORDIC JOIST	Cantilever Details for Balconies	-	2024-08-01	2.2	



- 1. The balcony shall be constructed in accordance with 2021 IBC Sections 2304.12.2.4 and 2304.12.2.5.
- 2. Impervious moisture barrier systems, if required, shall be detailed, installed, and inspected in accordance with 2021 IBC Sections 107.2.5 and 110.3.7.
- 3. See APA document TT-125 for more information.

NORDIC		TITLE Lumber Cantilever Detail for Balconies		drawing 3b	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Cantilever Details for Balconies	-	2024-08-01	2.3



NORDIC STRUCTURES

nordic.ca

- 1. Cantilevered joists must be properly sized to support all design loads. Refer to table 4.1 of the Nordic Joist Technical Guide (NS-GT3).
- 2. Blocking is required along the cantilever support.
- 3. Refer to detail 6c for holes in lateral-restraint-only blocking panels.

	Cantilever - No Sheathing Reinforcement		DRAWING 4a	
NS-DC3	CATEGORY Cantilever Details for Vertical Building Offset	SCALE	DATE 2024-08-01	PAGE 2.4



NORDIC STRUCTURES

- 1. APA Rated Sheathing 48/24 or APA Rated Sturd-I-floor 24 oc (minimum 23/32 Performance Category) required on one side of joist. Depth shall match the full height of the joist. Nail with 8d nails at 6 inches o.c., top and bottom flange. Install with face grain horizontal. Attach I-joist to plate at all supports per detail 1b.
- 2. Cantilevered joists must be properly sized to support all design loads. Refer to table 4.1 of the Nordic Joist Technical Guide (NS-GT3).
- 3. Blocking is required along the cantilever support.
- 4. Refer to detail 6c for holes in lateral-restraint-only blocking panels.

	TITLE Cantilever - Sheathing Reinforcement, One Side		drawing 4a-1	
DETAILS	CATEGORY	SCALE	DATE	PAGE
NORDIC JOIST	Cantilever Details for Vertical Building Offset		2024-08-01	2.5



NORDIC STRUCTURES

- 1. APA Rated Sheathing 48/24 or APA Rated Sturd-I-floor 24 oc (minimum 23/32 Performance Category) required on both sides of joist. Depth shall match the full height of the joist. Nail with 8d nails at 6 inches o.c., top and bottom flange, offset on opposite side. Install with face grain horizontal. Attach I-joist to plate at all supports per detail 1b.
- 2. Cantilevered joists must be properly sized to support all design loads. Refer to table 4.1 of the Nordic Joist Technical Guide (NS-GT3).
- 3. Blocking is required along the cantilever support.
- 4. Refer to detail 6c for holes in lateral-restraint-only blocking panels.

		TITLE		DRAWING		
		Cantilever - Sheathing Reinforcement, Two Sides		4a-2		
NS-DC3					·	
D	ETAILS	CATEGORY	SCALE	DATE	PAGE	
NORDIC	JOIST	Cantilever Details for Vertical Building Offset	-	2024-08-01	2.6	



NORDIC STRUCTURES

nordic.ca

- 1. Cantilevered joists must be properly sized to support all design loads. Refer to table 4.1 of the Nordic Joist Technical Guide (NS-GT3).
- 2. Blocking is required along the cantilever support.
- 3. Refer to detail 6c for holes in lateral-restraint-only blocking panels.

	Cantilever - Double I-joists	DRAWING 4b		
NS-DL3	CATEGORY Cantilever Details for Vertical Building Offset	SCALE	DATE 2024-08-01	PAGE 2.7



NORDIC STRUCTURES

- 1. The above detail is applicable only to single family residential construction, and when the cantilever is loaded by uniform floor loads only (i.e. wall is not load-bearing).
- 2. Cantilevered joists must be properly sized to support design loads.
- 3. Blocking over bearing wall must be provided at all areas of wall bracing (at end of walls and at least every 25'-0" of wall length). See IRC Table R602.10.1 Wall Bracing.
- 4. This detail is adequate for I-joist lateral stability. Additional lateral resistance may be required in high wind and/or seismic load areas. In such cases, specific design detailing shall be provided by the building designer.
- 5. During erection, provide temporary blocking over bearing wall in order to prevent rollover of floor joists.

	TITLE DRAWING Cantilever - Without Blocking (No Wall Load) 4c		drawing 4c	٨G	
DETAILS	CATEGORY	SCALE	date	PAGE	
NORDIC JOIST	Cantilever Details for Vertical Building Offset		2024-08-01	2.8	





- 1. Cantilevered joists must be properly sized to support all design loads. Refer to table 5.1 of the Nordic Joist Technical Guide (NS-GT3).
- 2. Blocking is required along the cantilever support.
- 3. Refer to detail 6c for holes in lateral-restraint-only blocking panels.

	DRAWING		
Short Cantilever - No Sheathing Reinforcement		5a	
	DATE	PAGE	
ver Details for Vertical Building Offset -	2024-08-01	2.9	
	ever - No Sheathing Reinforcement SCALE -	ever - No Sheathing Reinforcement 5a DRAWING 5a DATE 2024-08-01	





- 1. APA Rated Sheathing 48/24 or APA Rated Sturd-I-floor 24 oc (minimum 23/32 Performance Category) required on one side of joist. Depth shall match the full height of the joist. Install with face grain horizontal. Attach I-joist to plate at all supports per detail 1b.
- 2. Cantilevered joists must be properly sized to support all design loads. Refer to table 5.1 of the Nordic Joist Technical Guide (NS-GT3).
- 3. Blocking is required along the cantilever support.
- 4. Refer to detail 6c for holes in lateral-restraint-only blocking panels.

NORDIC STRUCTURES NS-DC3	TITLE Short Cantilever - Sheathing Reinforcement, One Side		DRAWING 5a-1		
		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Short Cantilever Details for Vertical Building Offset	-	2024-08-01	2.10





- 1. APA Rated Sheathing 48/24 or APA Rated Sturd-I-floor 24 oc (minimum 23/32 Performance Category) required on both sides of joist. Depth shall match the full height of the joist. Install with face grain horizontal. Attach I-joist to plate at all supports per detail 1b.
- 2. Cantilevered joists must be properly sized to support all design loads. Refer to table 5.1 of the Nordic Joist Technical Guide (NS-GT3).
- 3. Blocking is required along the cantilever support.
- 4. Refer to detail 6c for holes in lateral-restraint-only blocking panels.

NORDIC STRUCTURES NS-DC3		TITLE Short Cantilever - Sheathing Reinforcement, Two Sides		drawing 5a-2	
		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Short Cantilever Details for Vertical Building Offset	-	2024-08-01	2.11


NORDIC STRUCTURES

nordic.ca

- 1. Cantilevered joists must be properly sized to support all design loads. Refer to table 5.1 of the Nordic Joist Technical Guide (NS-GT3).
- 2. Blocking is required along the cantilever support.
- 3. Refer to detail 6c for holes in lateral-restraint-only blocking panels.

	TITLE	DRAWING		
	Short Cantilever - Double I-joists		5b	
NS-DC3 Details Nordic Joist	CATEGORY Short Cantilever Details for Vertical Building Offset	SCALE	DATE 2024-08-01	PAGE 2.12



- 1. The above detail is appropriate for one- and two-family residential structures constructed in accordance with the 2021 International Residential Code Sections R301.2.2.6 and R602.10, and Table R602.3(1).
- 2. Cantilevered joists must be properly sized and spaced, and may require reinforcements to support vertical wall loads. Note that this detail can only be used when no I-joist reinforcement is required.

		TITLE Short Cantilever - 2x8 Blocking		drawing 5c	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Short Cantilever Details for Vertical Building Offset	-	2024-08-01	2.13



- 1. Verify girder joist capacity if the back span exceeds the joist spacing. Limit the differential deflection between adjacent I-joists.
- 2. Cantilevered joists must be properly sized to support all design loads.
- 3. Blocking is required along the cantilever support.
- 4. Maximum capacity for pair of 2x6 blocks for this detail is 370 lbf (total of four nails). For higher capacities, use hangers in lieu of solid sawn blocks.

		TITLE		DRAWING	
NORDIC		Short Cantilever - Set-back Detail, I-joist		5d-1	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Short Cantilever Details for Vertical Building Offset	-	2024-08-01	2.14



- Verify girder joist capacity if the back span exceeds the joist spacing. Limit the differential deflection between adjacent I-joists.
- 2. Cantilevered joists must be properly sized to support all design loads.
- 3. Blocking is required along the cantilever support.
- 4. Maximum capacity for pair of 2x4 blocks for this detail is 370 lbf (total of four nails). For higher capacities, use hangers in lieu of solid sawn blocks.

NORDIC		TITLE Short Cantilever - Set-back Detail, Beam		drawing 5d-2	
STRUCTURES	NS-DC3	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Short Cantilever Details for Vertical Building Offset	-	2024-08-01	2.15



- 1. Verify girder joist capacity if the back span exceeds the joist spacing. Limit the differential deflection between adjacent I-joists.
- 2. Cantilevered joists must be properly sized to support all design loads.
- 3. Blocking is required along the cantilever support.
- 4. For hanger capacity, see manufacturer's recommendations.

NORDIC		TITLE Short Cantilever - Set-back Detail, Hangers		drawing 5d-3	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Short Cantilever Details for Vertical Building Offset	-	2024-08-01	2.16



NORDIC STRUCTURES

- 1. This detail is limited to a 5-inch brick cantilever on two adjacent sides of the building. Use in conjunction with the short cantilever details for vertical building offset.
- 2. Verify girder joist capacity if the back span exceeds the joist spacing. Limit the differential deflection between adjacent I-joists.
- 3. Cantilevered joists must be properly sized to support all design loads.
- 4. Blocking is required along the cantilever support.

	Short Cantilever - Corner Detail		drawing 5e-1	
NS-DC3	CATEGORY Short Cantilever Details for Vertical Building Offset	SCALE	DATE 2024-08-01	PAGE 2.17





VERSION 2024-08-01



3



Web Hole Specifications

One of the benefits of using I-joists in residential floor construction is that holes may be cut in the joist webs to accommodate electrical wiring, plumbing lines and other mechanical systems, therefore minimizing the depth of the floor system.

Rules for Cutting Holes in I-joists

- 1. The distance between the inside edge of the support and the centerline of any hole shall be in compliance with the requirements of table 6.1.
- I-joist top and bottom flanges must never be cut, notched or otherwise modified. 2.
- Whenever possible, field-cut holes should be centered on the middle of the web. 3.
- 4. The maximum size hole 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 top or bottom of the hole and the adjacent I-joist flange.
- 5. 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.
- 6. 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 -, and each hole must be sized and located in compliance with the requirements of table 6.1.
- 7. Holes measuring 1-1/2 inch or smaller shall be permitted anywhere in a cantilevered section of a joist. Holes of greater size may be permitted subject to verification.
- 8. 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. For more than three holes per span, refer to rule 11. space holes at minimum 15 inches on center, or contact Nordic Structures.
- All holes shall be cut in accordance with the restrictions listed above and as illustrated in 9. detail 6a.
- 10. Limit three maximum-size holes per span.

11. A group of round holes at approximately the same location shall be permitted if it meets the requirements for a single round hole circumscribed around them. For multiple web holes, consult APA document TT-132.

Minimum distance from face of support to the center of hole. See table 6.1. 2x diameter of 3/4 x diameter larger hole See rule 11

Notes:

- 1. Never drill, cut or notch the flange, or over-cut the web.
- 2. Holes in web should be cut with a sharp saw.
- 3. 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.



		TITLE I-joist Typical Holes		drawing 6a	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Openings for Horizontal Elements	-	2024-08-01	3.1

Table 6.1 – Location of Web Holes

Design Criteria

5	
Span:	Simple or multiple
Joist spacing:	Up to 24 inches
Loads:	Live load = 40 psf and dead load = 10 psf
Deflection limits:	L/480 under live load and L/240 under total load

Minimum distance from inside face of any support to center of hole (ft-in.)

Joist	Joist							Round I	nole diam	eter (in.)							Ι.
depth	series	2	3	4	5	6	6-1/4	7	8	8-5/8	9	10	10-3/4	11	12	12-3/4	∟ref
	NI-40x	0'-7"	1'-4"	2'-8"	4'-2"	5'-8"	6'-2"	-	-	-	-	-	-	-	-	-	15'-0"
9-1/2"	NI-60	1'-0"	2'-4"	3'-9"	5'-3"	6'-10"	7'-3"	-	-	-	-	-	-	-	-	-	15'-3"
	NI-80	2'-0"	3'-5"	4'-10"	6'-4"	8'-0"	8'-5"	-	-	-	-	-	-	-	-	-	16'-9"
	NI-40x	0'-7"	0'-8"	1'-0"	2'-4"	3'-8"	4'-0"	5'-2"	6'-8"	8'-0"	-	-	-	-	-	-	17'-2"
11 7/0"	NI-60	0'-7"	1'-4"	2'-8"	4'-0"	5'-5"	5'-10"	7'-0"	8'-8"	9'-9"	-	-	-	-	-	-	18'-2"
11-7/0	NI-80	1'-4"	2'-8"	4'-0"	5'-4"	6'-10"	7'-3"	8'-5"	10'-2"	11'-3"	-	-	-	-	-	-	19'-11"
	NI-90	0'-7"	0'-8"	1'-3"	2'-11"	4'-8"	5'-2"	6'-6"	8'-6"	9'-11"	-	-	-	-	-	-	20'-5"
	NI-40x	0'-7"	0'-8"	0'-8"	0'-9"	2'-0"	2'-4"	3'-4"	4'-9"	5'-9"	6'-3"	8'-0"	9'-9"	-	-	-	18'-11"
1/1"	NI-60	0'-7"	0'-8"	1'-3"	2'-6"	4'-0"	4'-3"	5'-3"	6'-9"	7'-9"	8'-3"	10'-2"	11'-10"	-	-	-	20'-8"
14	NI-80	0'-8"	1'-10"	3'-2"	4'-6"	6'-0"	6'-3"	7'-4"	8'-10"	9'-10"	10'-6"	12'-3"	13'-8"	-	-	-	22'-7"
	NI-90	0'-7"	0'-8"	0'-9"	2'-3"	3'-10"	4'-3"	5'-6"	7'-3"	8'-5"	9'-2"	11'-2"	12'-9"	-	-	-	23'-1"
	NI-60	0'-7"	0'-8"	0'-8"	1'-2"	2'-5"	2'-9"	3'-9"	5'-0"	6'-0"	6'-6"	8'-0"	9'-2"	9'-8"	11'-9"	13'-9"	22'-10"
16"	NI-80	0'-7"	1'-2"	2'-4"	3'-8"	5'-0"	5'-4"	6'-4"	7'-10"	8'-9"	9'-4"	11'-0"	12'-2"	12'-6"	14'-4"	16'-0"	25'-0"
	NI-90	0'-7"	0'-8"	0'-8"	1'-6"	3'-0"	3'-5"	4'-6"	6'-3"	7'-3"	7'-10"	9'-8"	11'-0"	11'-6"	13'-6"	15'-3"	25'-7"

Notes:

1. Tabulated values are applicable to residential floor construction meeting the above design criteria.

2. If the actual measured span is less than the reference span, L_{ref}, the minimum distance from inside face of any support to center of hole may be reduced as follows:

 $D_{reduced} = (L_{actual} / L_{ref}) \times D$

Where:

D_{reduced} = Reduced distance from inside face of any support to center of hole (ft). The reduced distance shall not be less than 6 inches from the face of the support to edge of the hole.

L_{actual} = Actual measured span distance between the inside face of supports (ft).

L_{ref} = Reference span given in this table (ft).

D = Minimum distance from the inside face of any support to center of hole from this table (ft).

NORDIC STRUCTURES NS-DC3	TITLE Location of Web Holes		DRAWING		
	DETAILS	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Openings for Horizontal Elements	-	2024-08-01	3.2

Duct Chase Opening Specifications

One of the benefits of using I-joists in residential floor construction is that openings may be cut in the joist webs to accommodate a duct chase (supply duct for heating, ventilation or air-conditioning), therefore minimizing the depth of the floor system.

Rules for Cutting Duct Chase Openings in I-joists

- 1. The distance between the inside edge of the support and the centerline of a duct chase opening shall be in compliance with the requirements of table 6.2.
- 2. I-joist top and bottom flanges must never be cut, notched or otherwise modified.
- 3. 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 top or bottom of the opening and the adjacent I-joist flange.
- 4. All openings shall be cut in accordance with the restrictions listed above and as illustrated in detail 6b.
- 5. Limit one maximum-size duct chase opening per span.

n



Notes:

- 1. Never drill, cut or notch the flange, or over-cut the web.
- 2. Holes in web should be cut with a sharp saw.
- 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.

I-joist depth (in.)	Maximum depth of the opening (in.)
9-1/2	6-1/4
11-7/8	8-5/8
14	10-3/4
16	12-3/4

	TITLE I-joist Typical Duct Chase Openings		drawing 6b		
TRUCTURES		CATEGORY	SCALE	DATE	PAGE
ordic.ca	NORDIC JOIST	Openings for Horizontal Elements	-	2024-08-01	3.3

6b

Table 6.2 – Location of Duct Chase Openings

Design Criteria

-	
Span:	Simple
Joist spacing:	Up to 24 inches
Loads:	Live load = 40 psf and dead load = 10 psf
Deflection limits:	L/480 under live load and L/240 under total load

Minimum distance from inside face of any support to center of opening (ft-in.)

Joist	Joist				Due	ct chase length	(in.)			
depth	series	8	10	12	14	16	18	20	22	24
	NI-40x	5'-2"	5'-7"	6'-0"	6'-4"	6'-8"	7'-2"	7'-7"	-	-
9-1/2"	NI-60	5'-3"	5'-8"	6'-0"	6'-6"	7'-0"	7'-3"	7'-9"	-	-
	NI-80	5'-2"	5'-7"	6'-0"	6'-4"	6'-8"	7'-2"	7'-7"	8'-1"	8'-6"
	NI-40x	6'-7"	7'-1"	7'-6"	8'-1"	8'-6"	9'-1"	9'-7"	-	-
11 7/0"	NI-60	7'-1"	7'-7"	8'-0"	8'-4"	8'-10"	9'-3"	9'-9"	-	-
11-770	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"	-	-
1/1"	NI-60	8'-8"	9'-2"	9'-6"	10'-1"	10'-6"	11'-1"	11'-7"	-	-
14	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-60	10'-1"	10'-7"	11'-0"	11'-6"	12'-1"	12'-7"	13'-4"	-	-
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"

Note:

1. Tabulated values are applicable to residential floor construction meeting the above design criteria.

NORDIC		TITLE Location of Duct Chase Openings		DRAWING	
STRUCTURES	DETAILS	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Openings for Horizontal Elements	-	2024-08-01	3.4

Holes in Lateral-restraint-only Blocking Panels

This detail concerns the placement of holes in the web of I-joists or rim board used as blocking for lateral restraint of floor and roof joists. Blocking for lateral restraint are those members used between floor joists, ceiling joists or rafters to prevent them from rolling over. As a rule of thumb, any blocking that is not supporting a load-bearing wall (vertical or lateral load) or part of an engineered diaphragm perimeter load path can be considered a lateral-restraint-only blocking panel.

Maximum Allowable Hole Size

NORDIC STRUCTURES

- 1. The maximum allowable hole size for a lateral-restraint-only blocking panel is 2/3 of the lesser dimension of the blocking's depth or length. Assuming the blocking panel is longer than its height (or depth), the table aside applies. For other applications, contact Nordic Structures.
- 2. Holes cut into the blocking panels are subject to the following limitations:
 - The top and bottom flanges of an I-joist blocking panel must never be cut, notched or otherwise modified.
 - Field-cut holes must be centered in the blocking horizontally.
 - While round holes are preferred, rectangle holes may be used provided the corners are not over cut. Slightly rounding corners or pre-drilling corners with a 1-inch-diameter bit is recommended.
 - All holes must be cut in a workman-like manner in accordance with the limitations listed above.



I-joist or rim board blocking depth (in.)	Maximum allowable hole diameter (in.) $^{(a)}$
9-1/2	6-1/4
11-7/8	7-3/4
14	9-1/4
16	10-1/2

^(a) Maximum allowable hole diameter in blocking panel, where the blocking panel is longer than its height.

	TITLE		DRAWING	
	Holes in Lateral-restraint-only Blocking Panels	6c		
NS-DC3	· · ·			
	CATEGORY	SCALE	DATE	PAGE
NORDIC JOIST	Openings for Horizontal Elements	-	2024-08-01	3.5





NORDIC		TITLE Stairwells Parallel to I-joist Span			
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Openings for Vertical Elements	-	2024-08-01	3.6



All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

	TITLE		DRAWING	
	Stairwells Perpendicular to I-joist Span		7a-2	
NS-DC3	· · · ·			
DETAILS	CATEGORY	SCALE	DATE	PAGE
NORDIC JOIST	Openings for Vertical Elements	-	2024-08-01	3.7

nordic.ca

NORDIC STRUCTURES



- 1. The above detail represents a basement window framing. Verify rim board capacity to support loads. If needed, use multiple pieces or a Nordic Lam or SCL beam.
- 2. Verify double I-joist capacity to support concentrated loads.

NORDIC	NS-DC3	TITLE Floor Openings for Mechanics - Perpendicular to Joists		DRAWING 7b-1	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Openings for Vertical Elements	-	2024-08-01	3.8



- 1. The above detail represents a basement window framing. Verify rim board capacity to support loads. If needed, use multiple pieces or a Nordic Lam or SCL beam.
- 2. Verify double I-joist capacity to support concentrated loads.

NORDIC	NS-DC3	TITLE Floor Openings for Mechanics - Parallel to Joists			DRAWING 7b-2	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE	
nordic.ca	NORDIC JOIST	Openings for Vertical Elements	-	2024-08-01	3.9	





NORDIC STRUCTURES

nordic.ca

- 1. To prevent interference with plumbing, a joist may be shifted up to 3 inches if the edge of the floor panel is supported and the span rating is not exceeded.
- 2. In all other cases, an additional joist is required.

	Allowance for Piping		drawing 7c	
NS-DL3	CATEGORY Openings for Vertical Elements	SCALE	DATE 2024-08-01	PAGE 3.10



1. Verify trimmers capacity to support concentrated loads.

		TITLE		DRAWING	
NORDIC		Floor Openings for Piping - Perpendicular to Joists - Option 1		7c-1	
STRUCTURES NS-		CATEGORY	SCALE	DATE	PAGE
nordic.ca No	RDIC JOIST	Openings for Vertical Elements	-	2024-08-01	3.11



1. Verify trimmers capacity to support concentrated loads.

2. Verify headers capacity to support loads. If required, use a Nordic Lam or SCL beam.

NORDIC		TITLE Floor Openings for Piping - Perpendicular to Joists - Option 2		drawing 7c-2	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Openings for Vertical Elements	-	2024-08-01	3.12



- 1. Blocking required at bearing for lateral support, not shown for clarity.
- 2. The maximum dimensions for a notch on the side of the top flange are 4-inch length by 1/2-inch depth for flange width of 2-1/2 inches, and 4-inch length by 1-inch depth for flange width of 3-1/2 inches.
- 3. This detail applies to simple-span joists and multiple-span joists where the notch is located at the end half-span.
- 4. For other applications, contact Nordic Structures.

NORDIC	NS-DC3	Notch in I-joist for Heat Register		drawing 7d	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Openings for Vertical Elements	-	2024-08-01	3.13





8a

- 1. Floor sheathing to rim board Use 8d nails (box or common) at 6 inches o.c. Caution: The horizontal load capacity is not necessarily increased with a decreased nail spacing. Under no circumstances should the nail spacing be less than 3 inches. The 16d nails (box or common) used to connect the bottom plate of a wall to the rim board through the sheathing do not reduce the horizontal load capacity of the rim board provided that the 8d nail spacing (sheathing-rim board) is 6 inches o.c. and the 16d nail spacing (bottom plate-sheathing-rim board) is in accordance with the prescriptive requirements of the applicable code. APA recommends a minimum 3/8-inch panel edge distance be maintained when nailing. Calculations show that the tongue does not need to be removed for floor sheathing 7/8-inch thick or less when used in conjunction with rim boards of 1-1/8 inch. Some local code jurisdictions, however, may require removal of the tongue at the edge of floor framing when nailing it to rim board.
- 2. Rim board to I-joist Use two 8d nails (box or common), one each into the top and bottom flanges.

		TITLE Attachment Details Where Rim Boards Abut		drawing 8a	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Details for Rim Boards	-	2024-08-01	3.14

8b



Note:

1. Rim board to sill plate - Toe-nail using 8d nails (box or common) at 6 inches o.c.

NORDIC		TITLE Toe-nail Connection at Rim Board		drawing 8b	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Details for Rim Boards	-	2024-08-01	3.15

8c



Notes:

NORDIC STRUCTURES

- Attachment of 2x lumber ledgers to rim board Use 1/2-inch-diameter lag screws (minimum nominal length of 4 inches) or 1/2-inch-diameter through-bolts with washers and nuts. In both cases, use a design value of 350 lbf per fastener (see detail 8d). *Caution:* The lag screw should be inserted in a lead hole by turning with a wrench, not by driving with a hammer. Over-torquing can significantly reduce the lateral capacity of the lag screw and should therefore be avoided. See the National Design Specification (NDS) for Wood Construction published by the American Forest & Paper Association for the appropriate size of clearance and lead holes.
- 2. Positively anchoring decks to the primary structure is advised and may be required by the applicable building code. The lateral connection may be in accordance with detail 8e-1 or 8e-2, as appropriate.

	2x Ledger to Rim Board Attachment Detail	l Attachment Detail		
DETAILS	CATEGORY	SCALE	DATE	PAGE
Nordic Joist	Details for Rim Boards		2024-08-01	3.16





Fastener Spacing for Deck Ledger and Rim Boards using 1/2-inch-diameter Lag Screws or Thru-bolts with 15/32-inch Maximum Sheathing ^(a)

Deck live load of 40 psf, deck dead load of 10 psf

		Joist s	pan (L)	
Rim boards	10' < L ≤ 12'	12' < L ≤ 14'	14' < L ≤ 16'	16' < L ≤ 18'
	On-center spacing of fasteners (b)			
1-1/8" or thicke	r 14"	12"	10"	9"

(a) See detail 8c for attachment details. Ledger shall be S-P-F or other wood species with a specific gravity of 0.42 or greater.

(b) Lag screws and thru-bolts shall be staggered in accordance with the detail on the left.

Notes:

NORDIC STRUCTURES

1. See notes in detail 8c.

2. Lateral resistance of nails applied to the faces of rim board – Calculate the lateral nail resistance based on the procedures given in the NDS, using the dowel bearing strength equivalent to Douglas-fir-Larch.

	TITLE		DRAWING	
	Fastener Spacing for Deck Ledger 80			
NS-DC3				
DETAILS	CATEGORY	SCALE	DATE	PAGE
NORDIC JOIST	Details for Rim Boards	-	2024-08-01	3.17



- 1. Decks shall be positively anchored to the primary structure, as per 2018 IRC Section R507.1.
- 2. Hold-down tension devices shall be provided in not less than two locations within two feet of the edge of the deck, and shall have an allowable stress design capacity of not less than 1,500 lbf, as per 2018 IRC Section R507.2.4.
- 3. For more details, refer to the AWC Prescriptive Residential Wood Deck Construction Guide.

		TITLE Decks - Hold-down Device Parallel to I-joists		DRAWING 8e-1	
STRUCTURES	NS-DC3	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Details for Rim Boards	-	2024-08-01	3.18





NORDIC STRUCTURES

- 1. Decks shall be positively anchored to the primary structure, as per 2018 IRC Section R507.1.
- 2. Hold-down tension devices shall be provided in not less than two locations within two feet of the edge of the deck, and shall have an allowable stress design capacity of not less than 1,500 lbf, as per 2018 IRC Section R507.2.4.
- 3. For more details, refer to the AWC Prescriptive Residential Wood Deck Construction Guide.

	TITLE Decks - Hold-down Device Perpendicular to I-joists		DRAWING 8e-2		
NS-DL3	category Details for Rim Boards	SCALE	date 2024-08-01	PAGE 3.19	

Rim Board Hole Specifications

The maximum allowable hole size for a rim board shall be 2/3 of the rim board depth, as shown in the table aside. The length of the rim board segment containing a hole shall be at least eight times the hole size.

Application Notes

- 1. Do not cut holes in rim board installed over openings, such as doors or windows, where the rim board is not fully supported, except that holes of 1-1/2 inch or less in size are permitted provided they are positioned at the mid-depth and in the middle one-third of the span (see note 5 for minimum hole spacing).
- 2. Field-cut holes should be vertically centered in the rim board and at least one hole diameter or 6 inches, whichever is less, clear distance away from the end of the wall line. Holes should never be placed such that they interfere with the attachment of the rim board to the ends of the floor joist, or any other code-required nailing.
- 3. While round holes are preferred, rectangle holes may be used providing the corners are not over-cut. Slightly rounding corners by pre-drilling with a 1-inch-diameter bit is recommended.
- 4. When concentrated loads are present on the rim board (loads not supported by any other vertical-load-carrying members such as squash blocks), holes should not be placed in the rim board within a distance equal to the depth of the rim board from the area of loading.
- 5. For multiple holes, the clear spacing between holes shall be at least two times the diameter of the larger hole, or twice the length of the longest side of the longest rectangular hole. This minimum hole spacing does not apply to holes of 1-1/2 inch or less in diameter, which can be placed anywhere in the rim board (see note 1 for holes over opening) except that the clear distance to the adjacent hole shall be 3 inches minimum.
- All holes shall be cut in accordance with the limitations listed above. See the information 6. for cutting holes under details 6a and 6b.

Rim board depth (in.)	Maximum allowable hole size (in.) ^(b)	Minimum length of rim board segment for the maximum allowable hole size (in.) ^(c)
9-1/2	6-1/4	50
11-7/8	7-3/4	62
14	9-1/4	74
16	10-1/2	84

(a) These hole provisions do not apply to rim board installed over openings, such as doors or windows.

(b) The diameter of a round hole or the longer dimension of a rectangular hole.

Rim Board Hole Sizes and Minimum Lengths (a)

(c) The length of rim board segment per wall line. For multiple holes, the minimum length of rim board segment shall be eight times the sum of all hole sizes.

		TITLE		DRAWING	
NOPDIC		Rim Board Hole Specifications		_	
STRUCTURES	NS-DC3				
DETAILS	DETAILS	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Details for Rim Boards	-	2024-08-01	3.20
nordic.ca	NORDIC JOIST	Details for Rim Boards	-	2024-08-01	3.20



1. Do not cut holes in rim board over opening except for holes of 1-1/2" or less in size (see application note 1).

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

		TITLE Rim Board Installed Over an Opening		DRAWING 8f	
N U R DI L STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Details for Rim Boards	-	2024-08-01	3.21

8f



All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

	TITLE Holes in Rim Boards and Concentrated Loads		drawing 8g	
NS-DC3	CATEGORY Details for Rim Boards	SCALE	date 2024-08-01	PAGE 3.22

8g

NORDIC STRUCTURES

nordic.ca



All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

NS-DC3	Multiple Holes in Rim Board		drawing 8h	
NS-DC3	CATEGORY Details for Rim Boards	SCALE	DATE 2024-08-01	PAGE 3.23

8h

NORDIC STRUCTURES

nordic.ca

NORDIC



VERSION 2024-08-01

VARIOUS INSTALLATIONS FOR I-JOISTS

4





1/2" maximum, fastener centerline from web face

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

	ππLE Sprinkler Pipe - Ceiling Flange Hanger		drawing 9a	
DETAILS NORDIC JOIST	CATEGORY Various Installations for I-joists	SCALE	DATE 2024-08-01	PAGE 4.1

9a

NORDI STRUCTURES

nordic.ca





All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

	TITLE Sprinkler Pipe - Joist Clamp Hanger		drawing 9b		
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Various Installations for I-joists	-	2024-08-01	4.2

9b



NORDIC STRUCTURES

nordic.ca



Two sheet metal screws #10 x 1-1/2" Option: Two clinched 8d nails

NS-DC3	TITLE Sprinkler Pipe - Angle Bracket Hanger		DRAWING 9c	
NS-DC3 Details Nordic Joist	CATEGORY Various Installations for I-joists	SCALE	DATE 2024-08-01	PAGE 4.3

Option 1

Option 2

Install per NFPA 13. CPVC sprinkler system pipe 2-1/2" maximum diameter = 290 lb maximum point load (145 lb per joist) Install per NFPA 13. Steel sprinkler system pipe 4" maximum diameter = 500 lb maximum point load (250 lb per joist)



All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

NORDI STRUCTURES nordic.ca

С		TITLE Sprinkler Pipe - NFPA 13 Steel Angle Trapeze with Hanger		drawing 9d	
	DETAILS NORDIC JOIST	CATEGORY Various Installations for I-joists	SCALE	DATE 2024-08-01	PAGE 4.4



		TITLE		DRAWING	
NORDIC		Sprinkler Pipe - CPVC Hanger - Double Offset		9e	
STRUCTURES	NS-DC3				
	DETAILS	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Various Installations for I-joists	-	2024-08-01	4.5


NORDIC		Sprinkler Pipe - CPVC Hanger - Surface Mount		drawing 9f	
STRUCTURES	NS-DC3	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Various Installations for I-joists	-	2024-08-01	4.6





9g-1

1. Structure of dropped ceiling construction by others.

NORDIC		TITLE Dropped Ceiling - Filler Block - One Side Attachment		drawing 9g-1	
STRUCTURES	NS-DC3	CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Various Installations for I-joists	-	2024-08-01	4.7



9g-2

1. Structure of dropped ceiling construction by others.

NORDIC	No 200 🗨	TITLE Dropped Ceiling - Joist Clamp Hanger		drawing 9g-2	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Various Installations for I-joists	-	2024-08-01	4.8



TYPICAL ROOF FRAMING AND CONSTRUCTION DETAILS

5

NORDIC



VERSION 2024-08-01

INSTALLATION NOTES

Roof Systems

- 1. Installation of Nordic I-joists shall be as shown in details 10.
- 2. Except for cutting to length, or for providing birdsmouth bearings, I-joist flanges should never be cut, drilled, or notched.
- 3. I-joists are permitted to be birdsmouth cut at the lower end of the joist only. The birdsmouth cut must have full bearing and not overhang the inside face of the plate. Bearing stiffeners are required at the birdsmouth cut on both sides of the web.
- 4. When beveled bearing plates are used at I-joists supports, I-joist attachment to the bevel plate must be designed to transfer lateral thrust.
- 5. End bearing length must be at least 1-3/4 inch. For continuous framing and roof framing with cantilevers, the intermediate support and end bearing adjacent to the cantilever must be at least 3-1/2 inches.
- 6. Ends of roof joists must be restrained at the bearing to prevent rollover. Rim board or I-joist blocking panels are preferred. Cantilever-end blocking must be placed at the support adjacent to the cantilever, and ends of all cantilever extensions must be laterally braced by a fascia board or other similar methods.

- 7. Continuous lateral support of the I-joist's compression flange is required to prevent rotation and buckling. In simple span roof applications, lateral support of the top flange is normally supplied by the roof sheathing. Bracing of the I-joist's bottom flange is also required at interior supports of multiple-span joists and at the end support next to an overhang. Lateral support of the entire bottom flange may be required in cases of load reversal such as those caused by high wind.
- 8. Details 10 show only I-joist specific fastener requirements. For other fastener requirements, such as wind uplift requirements or other member attachment details, see the applicable building code.
- 9. All roof details are valid up to a 12:12 slope unless otherwise noted.
- 10. Provide adequate ventilation at each joist bay as per detail 10v. Verify roof ventilation and insulation requirements with applicable building code.
- 11. Refer to typical floor framing installation notes for additional information.





nordic.ca





NORDIC STRUCTURES

1. Additional connection may be required for wind uplift.

	ਸਸਾ⊾ Upper End - Bearing on Wall		drawing 10a	
NS-DL3	CATEGORY Typical Roof Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 5.2



1. Additional connection may be required for wind uplift.

NORDIC	NS-DC3	TITLE Peak Connection		drawing 10b	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Roof Framing and Construction Details	-	2024-08-01	5.3



1. Additional connection may be required for wind uplift.

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

	TITLE I-joist to Ridge Beam Connection		drawing 10c	
DETAILS NORDIC JOIST	CATEGORY Typical Roof Framing and Construction Details	SCALE	date 2024-08-01	PAGE 5.4

nordic.ca

NORDIC STRUCTURES





1. Additional connection may be required for wind uplift.

	I-joist Connection with Wood Structural Panel Gussets		DRAWING 10d		
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Roof Framing and Construction Details	-	2024-08-01	5.5



All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

NORDIC		TITLE I-joist Connection with Tie Strap		drawing 10e	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Roof Framing and Construction Details	-	2024-08-01	5.6



NORDIC STRUCTURES

nordic.ca

1. Application limited to 4:12 roof slope or less.

	TITLE Roof Opening - Top-mount Hangers		drawing 10f	
DETAILS NORDIC JOIST	CATEGORY Typical Roof Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 5.7



All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

NORDIC STRUCTURES

nordic.ca

	TITLE Roof Opening - Face-mount Hangers		drawing 10g	
DETAILS NORDIC JOIST	CATEGORY Typical Roof Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 5.8





NORDIC STRUCTURES

nordic.ca

- 1. Additional connection may be required for wind uplift.
- 2. Permitted on low end of I-joist only.

No 2000 .	TITLE Birdsmouth Cut and Bevel-cut Bearing Stiffeners		drawing 10h	
NS-DC3	CATEGORY Typical Roof Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 5.9



NORDIC STRUCTURES

nordic.ca

- 1. Additional connector is required for wind uplift.
- Outside corner of blocking panel may be trimmed if it interferes with roof sheathing. In such cases, position blocking panel on top plate to minimize trimming and still allow required nailing into top plate.
 Permitted on low end of I-joist only.

	TITLE Birdsmouth Cut with Overhang		drawing 10j	
NS-DC3	CATEGORY Typical Roof Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 5.10



All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

NORDIC STRUCTURES

nordic.ca

ΠΤLE I-joist Overhang for Fascia Support with Birdsmouth Cut			drawing 10k	
NS-DC3	CATEGORY	SCALE	DATE	PAGE



NORDIC STRUCTURES

nordic.ca

1. Additional connection may be required for wind uplift.

	TITLE Blocking Panel at Beveled Plate		drawing 10m	
NS-DC3	CATEGORY Typical Roof Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 5.12

10n



Notes:

- 1. Additional connection may be required for wind uplift.
- 2. Blocking panel required at bearing for lateral support.

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

	I-joist with Bevel-cut End		DRAWING 10n	
DETAILS Nordic Joist	CATEGORY Typical Roof Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 5.13

nordic.ca

NORDIC STRUCTURES



NORDIC STRUCTURES

1. Additional connection may be required for wind uplift.

NS-DC3	TITLE Outrigger - Option 1		drawing 10p	
	CATEGORY Typical Roof Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 5.14



1. Additional connection may be required for wind uplift.

2. For outrigger nailing, refer to the applicable building code.

All nails shown in the details are assumed to be common nails unless otherwise noted. Refer to page viii for diameters. Individual components not shown to scale for clarity.

	TITLE		drawing	drawing	
	Outrigger - Option 2		10p-1	10p-1	
DETAILS NORDIC JOIST	CATEGORY Typical Roof Framing and Construction Details	SCALE -	DATE 2024-08-01	PAGE 5.15	

nordic.ca

NORDIC STRUCTURES



NORDIC STRUCTURES

nordic.ca

1. Additional connection may be required for wind uplift.

	TITLE I-joist Overhang with Beveled Plate		drawing 10q	
DETAILS NORDIC JOIST	CATEGORY STATES	SCALE	DATE 2024-08-01	PAGE 5.16



- 1. Additional connection may be required for wind uplift.
- 2. Lumber overhang shall be 2x4 S-P-F No. 2 or better.
- 3. Blocking panels not shown for clarity.

NORDIC		TITLE Lumber Overhang with Beveled Plate		drawing 10r	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Roof Framing and Construction Details	-	2024-08-01	5.17



1. Additional connection may be required for wind uplift.

NORDIC		I-joist Overhang for Fascia Support with Birdsmouth Cut		drawing 10s	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Roof Framing and Construction Details	-	2024-08-01	5.18



1. Additional connection may be required for wind uplift.

NORDIC	NG-DC3	TITLE I-joist Overhang for Fascia Support with Beveled Plate		drawing 10t	
STRUCTURES		CATEGORY	SCALE	DATE	PAGE
nordic.ca	NORDIC JOIST	Typical Roof Framing and Construction Details	-	2024-08-01	5.19



NORDIC STRUCTURES

nordic.ca

1. Allowed at low end of I-joist only.

2. Corrosion-resistant wire cloth screening, hardware cloth, perforated vinyl or similar material shall cover the ventilation holes per code.

	TITLE Birdsmouth Cut		drawing 10u	
DETAILS NORDIC JOIST	CATEGORY Typical Roof Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 5.20



NORDIC STRUCTURES

nordic.ca

- 1. Corrosion-resistant wire cloth screening, hardware cloth, perforated vinyl or similar material shall cover the ventilation holes per code.
- 2. The maximum allowable round hole diameter for a lateral restraint-only blocking panel shall be 2/3 of the lesser dimension of blocking panel depth or length.
- 3. Whenever possible, field-cut holes should be centered in the blocking panel both vertically and horizontally.

	TITLE Ventilation Holes in Blocking Panels		drawing 10v	
NS-DC3	CATEGORY Typical Roof Framing and Construction Details	SCALE	DATE 2024-08-01	PAGE 5.21



NORDIC STRUCTURES

nordic.ca

1. A minimum of 1/8 inch should always be maintained between the top of the hole and the I-joist flange.

	TITLE Ventilation Holes in I-joist Web		drawing 10w	
DETAILS	CATEGORY	SCALE	date	PAGE
NORDIC JOIST	Typical Roof Framing and Construction Details		2024-08-01	5.22

nordic.ca