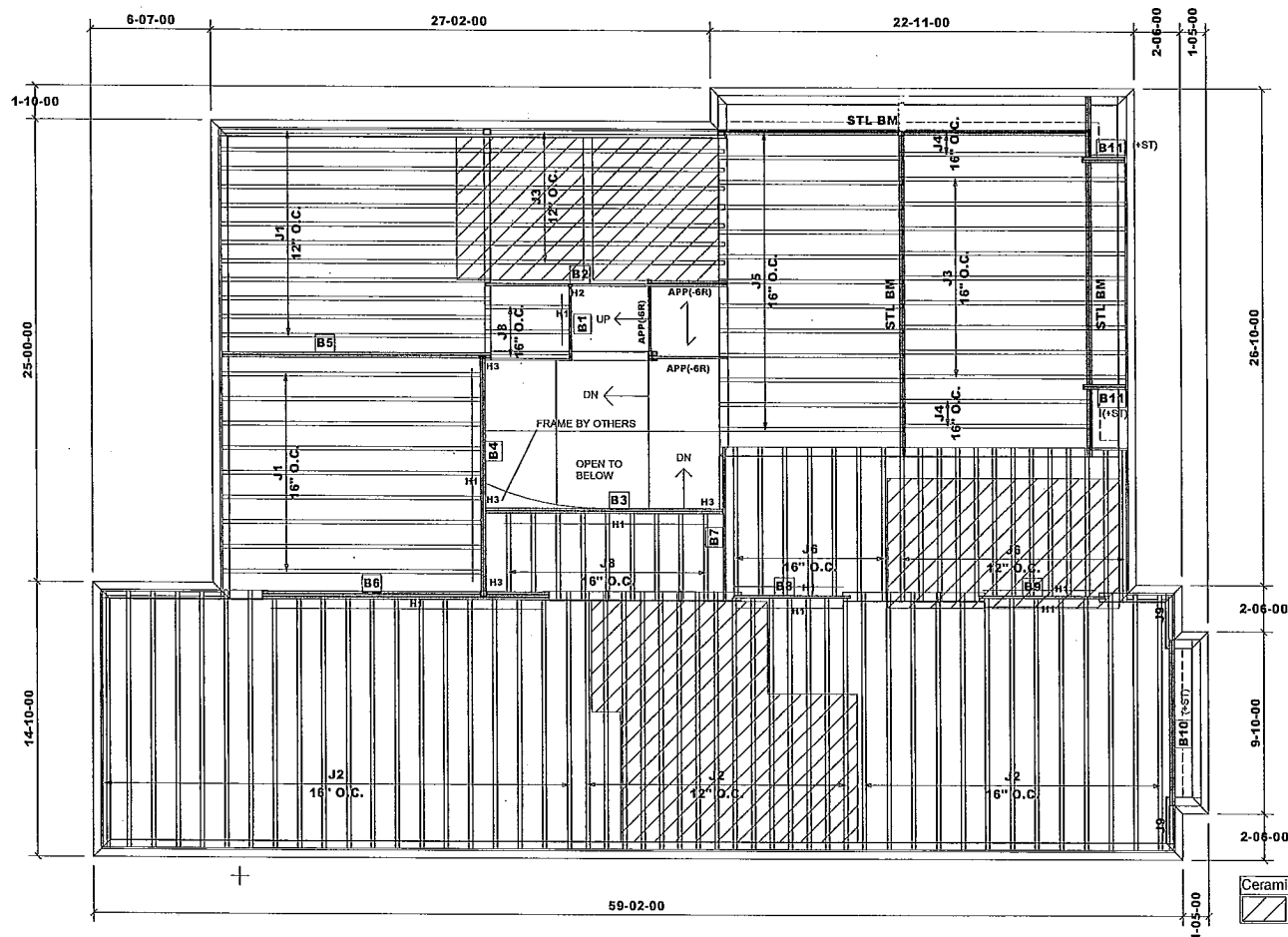




Products				
PlotID	Length	Product	Plies	Net Qty
J1	15-00-00	11 7/8" NI-20	1	21
J2	14-00-00	11 7/8" NI-20	1	48
J3	13-00-00	11 7/8" NI-20	1	17
J4	11-00-00	11 7/8" NI-20	1	4
J5	10-00-00	11 7/8" NI-20	1	13
J6	9-00-00	11 7/8" NI-20	1	20
J8	5-00-00	11 7/8" NI-20	1	12
J9	3-00-00	11 7/8" NI-20	1	2
B6	16-00-00	VERSALAM-12 2.0E	3	3
B5	15-00-00	VERSALAM-12 2.0E	2	2
B2	14-00-00	VERSALAM-12 2.0E	1	1
B3	13-00-00	VERSALAM-12 2.0E	2	2
B4	13-00-00	VERSALAM-12 2.0E	2	2
B7	9-00-00	VERSALAM-12 2.0E	1	1
B10	9-00-00	VERSALAM-12 2.0E	2	2
B8	7-00-00	VERSALAM-12 2.0E	1	1
B9	7-00-00	VERSALAM-12 2.0E	1	1
B1	5-00-00	VERSALAM-12 2.0E	1	1
B11	3-00-00	VERSALAM-12 2.0E	2	4

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H3-----HGUS410(FM)

NOTE:

TM-----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" NAILED & GLUED
APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

MODEL: UNIT 5003 - EL.A
+ OPT. LOGGIA

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

S.152547-S.152577

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290683

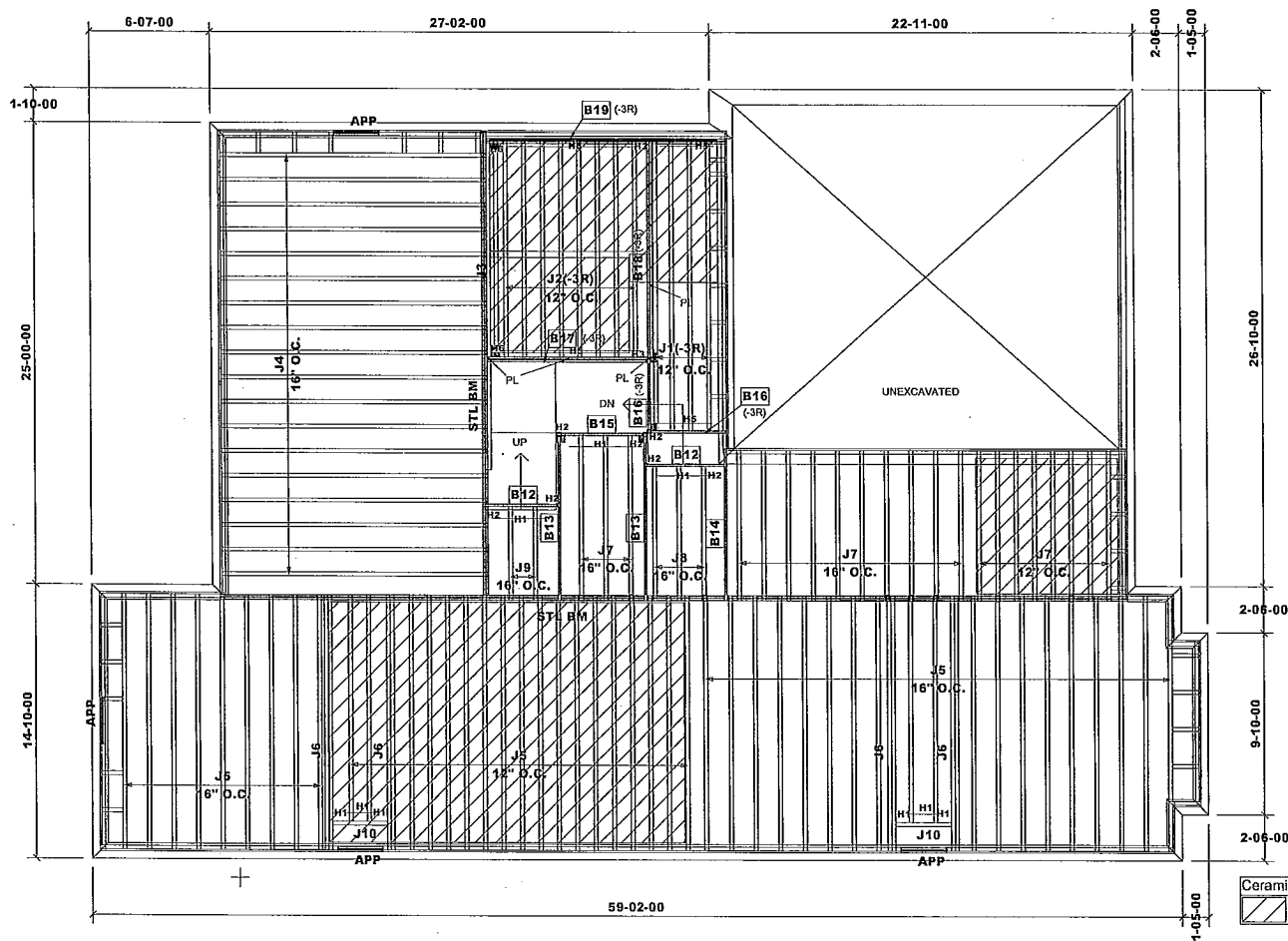
Project: Pine Valley

Date: November 26, 2017

Sheet: 1 of 15

Maple, Ontario

Home Lumber



MODEL: UNIT 5003 - EL.A
+ OPT. LOGGIA

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 38'

Products				
PlotID	Length	Product	Piles	Net Qty
J1	16-00-00	9 1/2" NI-20	1	4
J2	12-00-00	9 1/2" NI-20	1	8
J3	12-00-00	9 1/2" NI-20	2	2
J4	15-00-00	11 7/8" NI-20	1	18
J5	14-00-00	11 7/8" NI-20	1	46
J6	14-00-00	11 7/8" NI-20	2	8
J7	9-00-00	11 7/8" NI-20	1	21
J8	8-00-00	11 7/8" NI-20	1	3
J9	6-00-00	11 7/8" NI-20	1	2
J10	3-00-00	11 7/8" NI-20	1	2
B19	13-00-00	VERSALAM-10 2.0E	2	2
B18	12-00-00	VERSALAM-10 2.0E	2	2
B13	10-00-00	VERSALAM-12 2.0E	1	2
B14	9-00-00	VERSALAM-12 2.0E	1	1
B17	9-00-00	VERSALAM-10 2.0E	2	2
B16	5-00-00	VERSALAM-10 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	2
B15	5-00-00	VERSALAM-12 2.0E	1	1

HANGER SCHEDULE

H1 ———— LT251188 (TM)
H2 ———— HUS1.51/10(FM)
H3 ———— HOU541Q(FM)
H5 ———— LT259(TM)
H6 ———— MIT39.5-2(TM)

NOTE:

TM ———— TOP MOUNT HANGERS
FM ———— FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.

SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290683

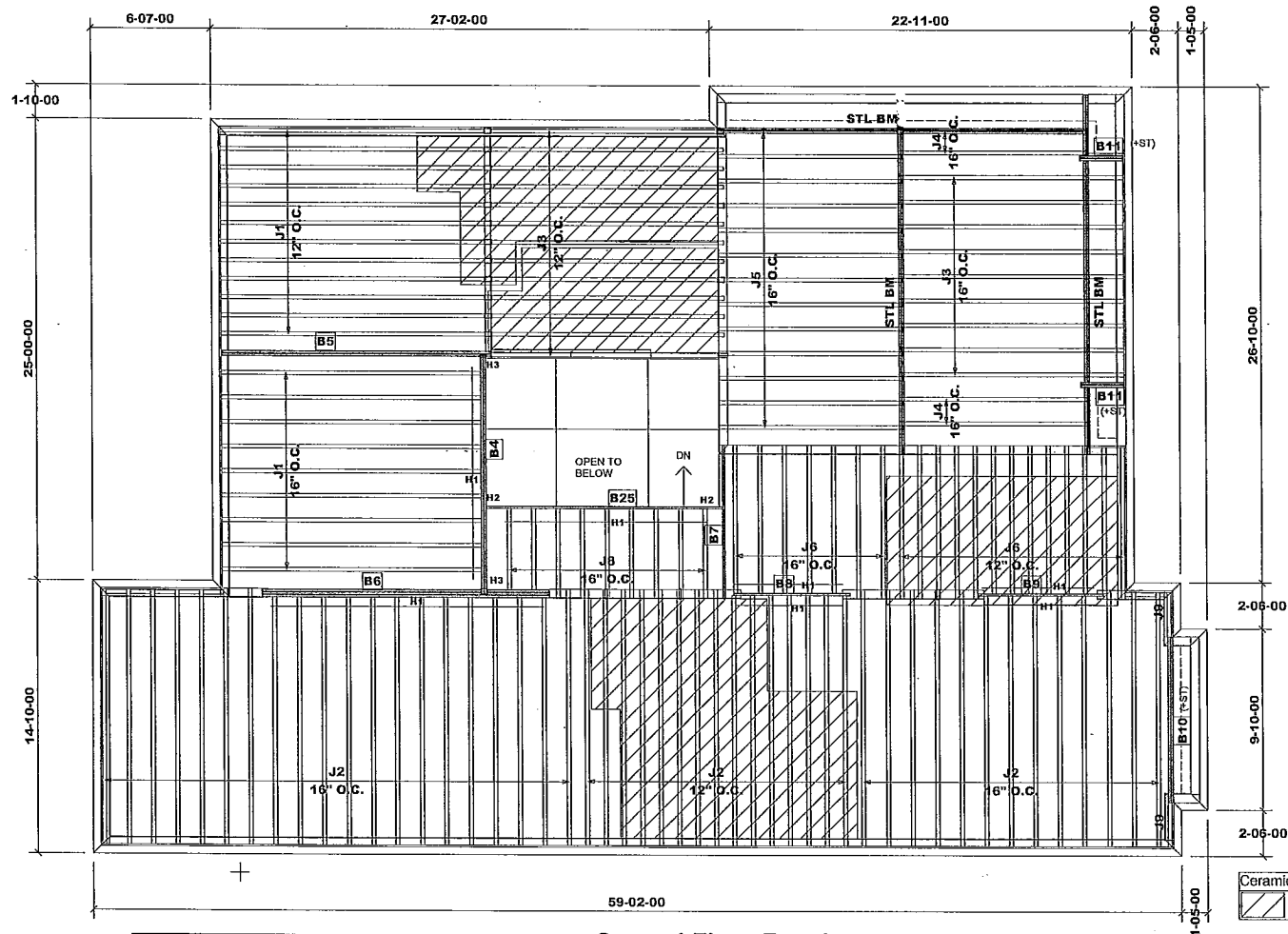
Project: Pine Valley

Date: November 26, 2017

Sheet: 2 of 15

Maple, Ontario

Home Lumber



MODEL: UNIT 5003 - EL.A
W/OPT. 2ND FLOOR

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

Products				
PlotID	Length	Product	Plies	Net Qty
J1	15'-00"-00	11 7/8" NI-20	1	21
J2	14'-00"-00	11 7/8" NI-20	1	48
J3	13'-00"-00	11 7/8" NI-20	1	22
J4	11'-00"-00	11 7/8" NI-20	1	4
J5	10'-00"-00	11 7/8" NI-20	1	13
J6	9'-00"-00	11 7/8" NI-20	1	20
J8	5'-00"-00	11 7/8" NI-20	1	9
J9	3'-00"-00	11 7/8" NI-20	1	2
B6	16'-00"-00	VERSALAM-12 2.0E	3	3
B5	15'-00"-00	VERSALAM-12 2.0E	2	2
B25	13'-00"-00	VERSALAM-12 2.0E	1	1
B4	13'-00"-00	VERSALAM-12 2.0E	2	2
B7	9'-00"-00	VERSALAM-12 2.0E	1	1
B10	9'-00"-00	VERSALAM-12 2.0E	2	2
B8	7'-00"-00	VERSALAM-12 2.0E	1	1
B9	7'-00"-00	VERSALAM-12 2.0E	1	1
B11	3'-00"-00	VERSALAM-12 2.0E	2	4

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H3-----HGUS410(FM)

NOTE:

TM-----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 11 7/8" O.S.B.

SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290683

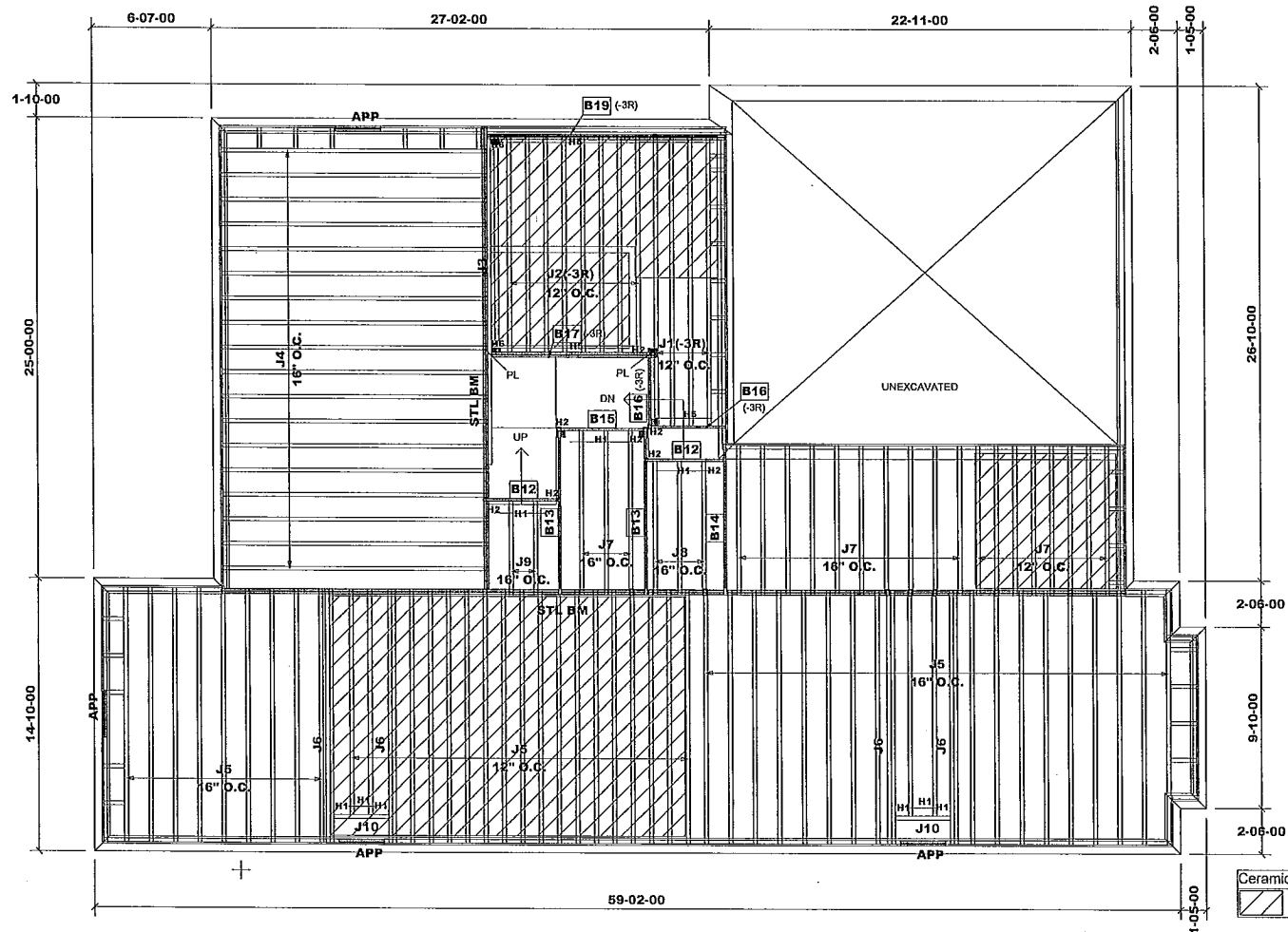
Project: Pine Valley

Date: November 26, 2017

Sheet: 3 of 15

Maple, Ontario

Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	16-00-00	9 1/2" NI-20	1	4
J2	12-00-00	9 1/2" NI-20	1	8
J3	12-00-00	9 1/2" NI-20	2	2
J4	15-00-00	11 7/8" NI-20	1	18
J5	14-00-00	11 7/8" NI-20	1	46
J6	14-00-00	11 7/8" NI-20	2	8
J7	9-00-00	11 7/8" NI-20	1	21
J8	8-00-00	11 7/8" NI-20	1	3
J9	6-00-00	11 7/8" NI-20	1	2
J10	3-00-00	11 7/8" NI-20	1	2
B19	13-00-00	VERSALAM-10 2.0E	2	2
B13	10-00-00	VERSALAM-12 2.0E	1	2
B14	9-00-00	VERSALAM-12 2.0E	1	1
B17	9-00-00	VERSALAM-10 2.0E	2	2
B16	5-00-00	VERSALAM-10 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	2
B15	5-00-00	VERSALAM-12 2.0E	1	1

HANGER SCHEDULE	
H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H5	LT259(1M)
H6	MIT39.5-2(TM)
NOTE:	
TM	TOP MOUNT HANGERS
FM	FACE MOUNT HANGERS

RIMBOARD	
1-	1/8" X 9 1/2" O.S.B.
1-	1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" NAILED & GLUED	
APP	AS PER PLAN
BBO	BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

MODEL: UNIT 5003 - EL.A
WOPT. 2ND FLOOR

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 38'

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290683

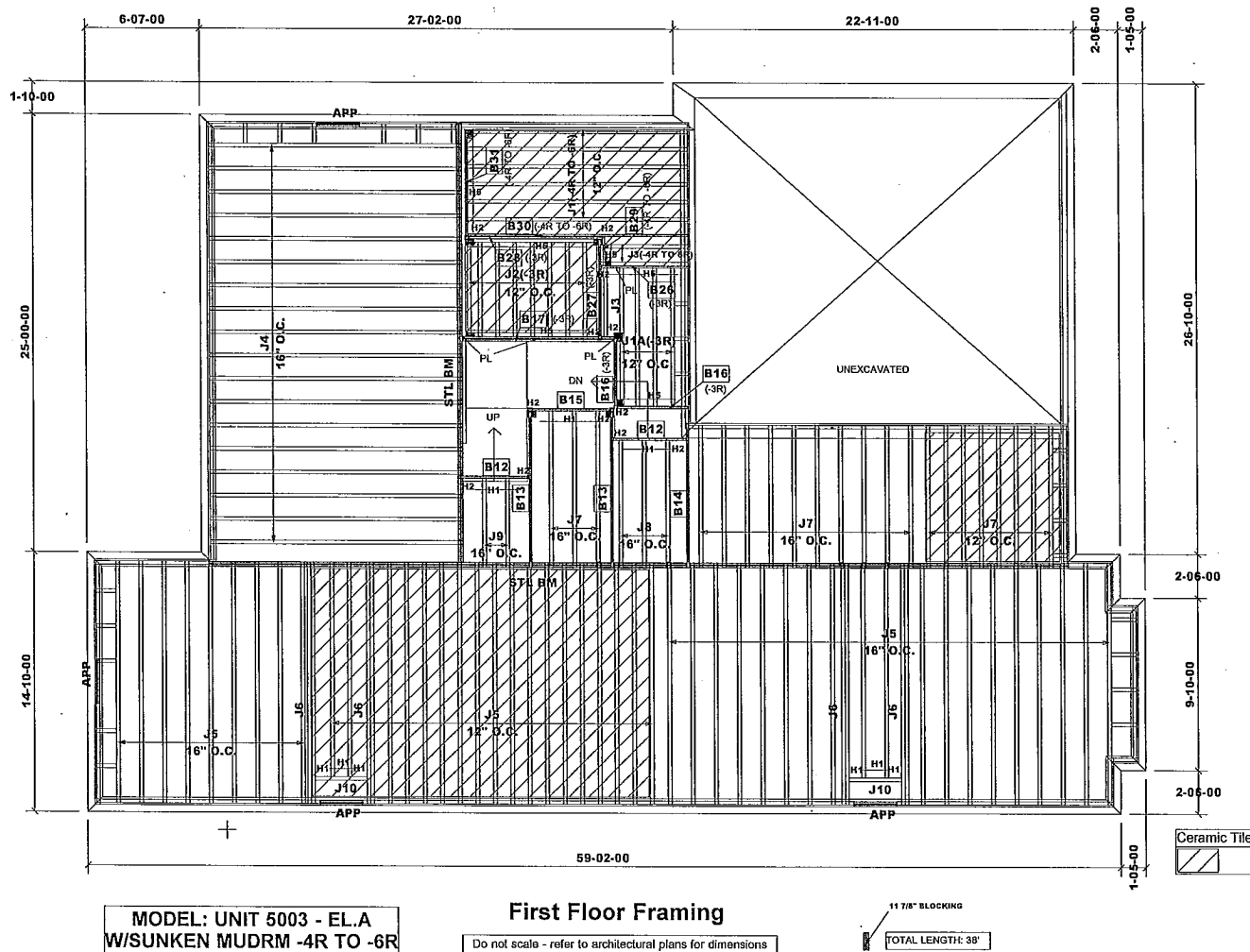
Project: Pine Valley

Date: November 26, 2017

Sheet: 4 of 15

Maple, Ontario

Home Lumber



Products				
PlotID	Length	Product	Piles	Net Qty
J1	13-00-00	9 1/2" NI-20	1	6
J1A	8-00-00	9 1/2" NI-20	1	4
J2	6-00-00	9 1/2" NI-20	1	8
J3	5-00-00	9 1/2" NI-20	1	3
J4	15-00-00	11 7/8" NI-20	1	18
J5	14-00-00	11 7/8" NI-20	1	46
J6	14-00-00	11 7/8" NI-20	2	8
J7	9-00-00	11 7/8" NI-20	1	21
J8	8-00-00	11 7/8" NI-20	1	3
J9	6-00-00	11 7/8" NI-20	1	2
J10	3-00-00	11 7/8" NI-20	1	2
B30	13-00-00	VERSALAM-10 2.0E	1	1
B13	10-00-00	VERSALAM-12 2.0E	1	2
B14	9-00-00	VERSALAM-12 2.0E	1	1
B17	9-00-00	VERSALAM-10 2.0E	2	2
B28	8-00-00	VERSALAM-10 2.0E	1	1
B31	7-00-00	VERSALAM-10 2.0E	1	1
B26	6-00-00	VERSALAM-10 2.0E	1	1
B27	6-00-00	VERSALAM-10 2.0E	1	1
B16	5-00-00	VERSALAM-10 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	2
B15	5-00-00	VERSALAM-12 2.0E	1	1
B29	2-00-00	VERSALAM-10 2.0E	1	1

HANGER SCHEDULE	
H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H5	LT255(TM)

NOTE:
TM — TOP MOUNT HANGERS
FM — FACE MOUNT HANGERS

RIMBOARD	
1 - 1/8" X 9 1/2" O.S.B.	
1 - 1/8" X 11 7/8" O.S.B.	

SUBFLOOR - 3/4" NAILED & GLUED
APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6
1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

JT/PL: 45147/94992
LI: 290683

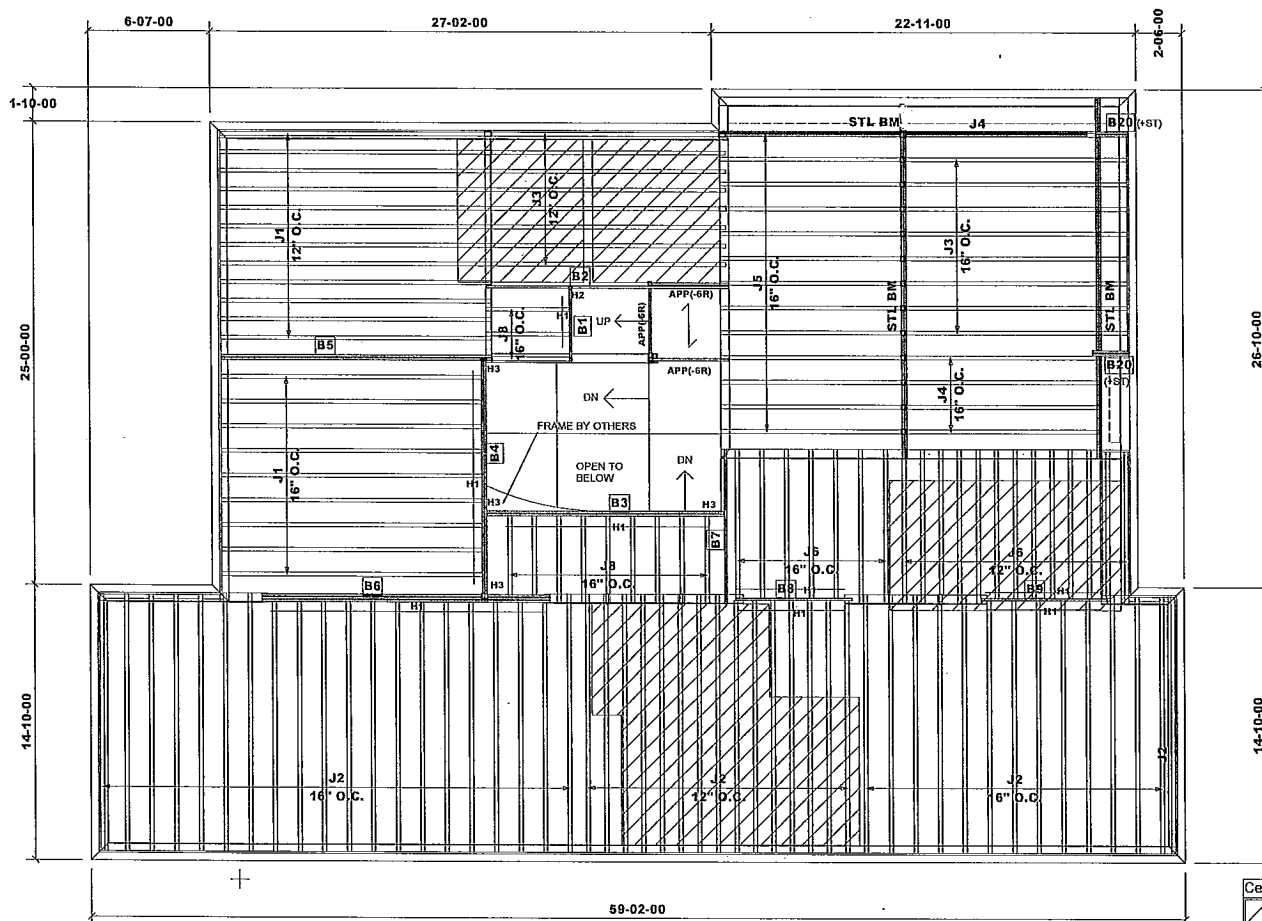
Builder: Gold Park
Project: Pine Valley

Location: Vaughan
Date: November 26, 2017

Designer: NL
Sheet: 5 of 15

Alpa Roof Trusses Inc.
Maple, Ontario

Salesperson: Derek
Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	15-00-00	11 7/8" NI-20	1	21
J2	14-00-00	11 7/8" NI-20	1	49
J3	13-00-00	11 7/8" NI-20	1	16
J4	11-00-00	11 7/8" NI-20	1	5
J5	10-00-00	11 7/8" NI-20	1	13
J6	9-00-00	11 7/8" NI-20	1	20
J8	5-00-00	11 7/8" NI-20	1	12
B6	16-00-00	VERSALAM-12 2.0E	3	3
B5	15-00-00	VERSALAM-12 2.0E	2	2
B2	14-00-00	VERSALAM-12 2.0E	1	1
B3	13-00-00	VERSALAM-12 2.0E	2	2
B4	13-00-00	VERSALAM-12 2.0E	2	2
B7	9-00-00	VERSALAM-12 2.0E	1	1
B8	7-00-00	VERSALAM-12 2.0E	1	1
B9	7-00-00	VERSALAM-12 2.0E	1	1
B1	5-00-00	VERSALAM-12 2.0E	1	1
B20	2-00-00	VERSALAM-12 2.0E	2	4

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H3-----HGUS410(FM)

NOTE:
TM-----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

1- 1/8" X 11 7/8" O.S.B.

APP - AS PER PLAN
BBO - BEAM BY OTHERS

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

**MODEL: UNIT 5003 - EL.B
+ OPT. LOGGIA**

Do not scale - refer to architectural plans for dimensions

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290683

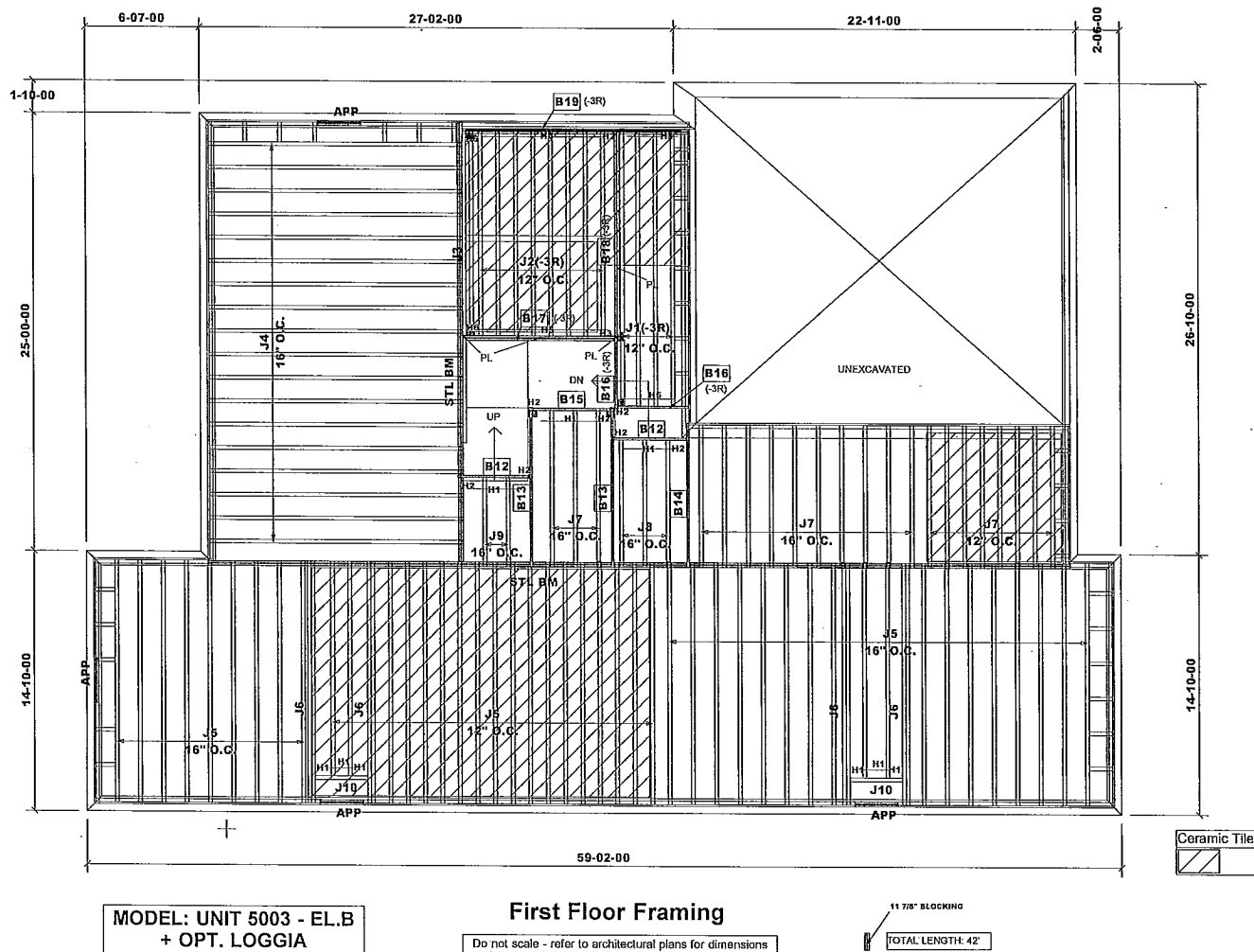
Project: Pine Valley

Date: November 26, 2017

Sheet: 6 of 15

Maple, Ontario

Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	16-00-00	9 1/2" NI-20	1	4
J2	12-00-00	9 1/2" NI-20	1	8
J3	12-00-00	9 1/2" NI-20	2	2
J4	15-00-00	11 7/8" NI-20	1	18
J5	14-00-00	11 7/8" NI-20	1	45
J6	14-00-00	11 7/8" NI-20	2	8
J7	9-00-00	11 7/8" NI-20	1	21
J8	8-00-00	11 7/8" NI-20	1	3
J9	6-00-00	11 7/8" NI-20	1	2
J10	3-00-00	11 7/8" NI-20	1	2
B19	13-00-00	VERSALAM-10 2.0E	2	2
B18	12-00-00	VERSALAM-10 2.0E	2	2
B13	10-00-00	VERSALAM-12 2.0E	1	2
B14	9-00-00	VERSALAM-12 2.0E	1	1
B17	9-00-00	VERSALAM-10 2.0E	2	2
B16	5-00-00	VERSALAM-10 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	2
B15	5-00-00	VERSALAM-12 2.0E	1	1

HANGER SCHEDULE

H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H3	HUS410(FM)
H6	LT2550(TM)
H6	MIT39.5-2(TM)

NOTE:

TM — TOP MOUNT HANGERS
FM — FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.

SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290683

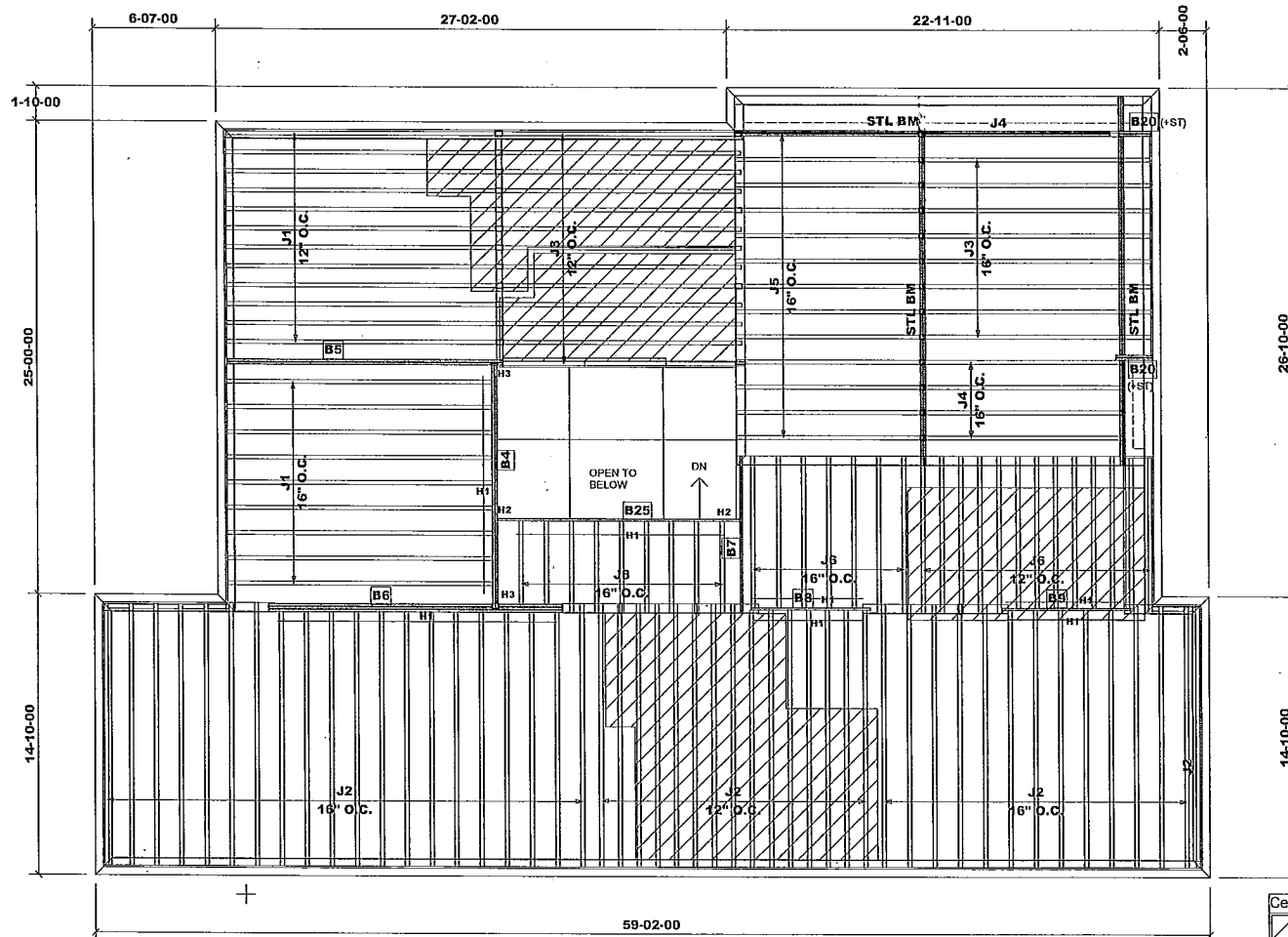
Project: Pine Valley

Date: November 26, 2017

Sheet: 7 of 15

Maple, Ontario

Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	15-00-00	11 7/8" NI-20	1	21
J2	14-00-00	11 7/8" NI-20	1	49
J3	13-00-00	11 7/8" NI-20	1	21
J4	11-00-00	11 7/8" NI-20	1	5
J5	10-00-00	11 7/8" NI-20	1	13
J6	9-00-00	11 7/8" NI-20	1	20
J8	5-00-00	11 7/8" NI-20	1	9
B6	16-00-00	VERSALAM-12 2.0E	3	3
B5	15-00-00	VERSALAM-12 2.0E	2	2
B25	13-00-00	VERSALAM-12 2.0E	1	1
B4	13-00-00	VERSALAM-12 2.0E	2	2
B7	9-00-00	VERSALAM-12 2.0E	1	1
B8	7-00-00	VERSALAM-12 2.0E	1	1
B9	7-00-00	VERSALAM-12 2.0E	1	1
B20	2-00-00	VERSALAM-12 2.0E	2	4

HANGER SCHEDULE	
H1	-----LT251188 (TM)
H2	-----HUS1.81/10(FM)
H3	-----HGUS410(FM)
NOTE:	
TM	-----TOP MOUNT HANGERS
FM	-----FACE MOUNT HANGERS

RIMBOARD	
1	1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" NAILED & GLUED	
APP	- AS PER PLAN
BBO	- BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

MODEL: UNIT 5003 - EL.B
W/OPT. 2ND FLOOR

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290683

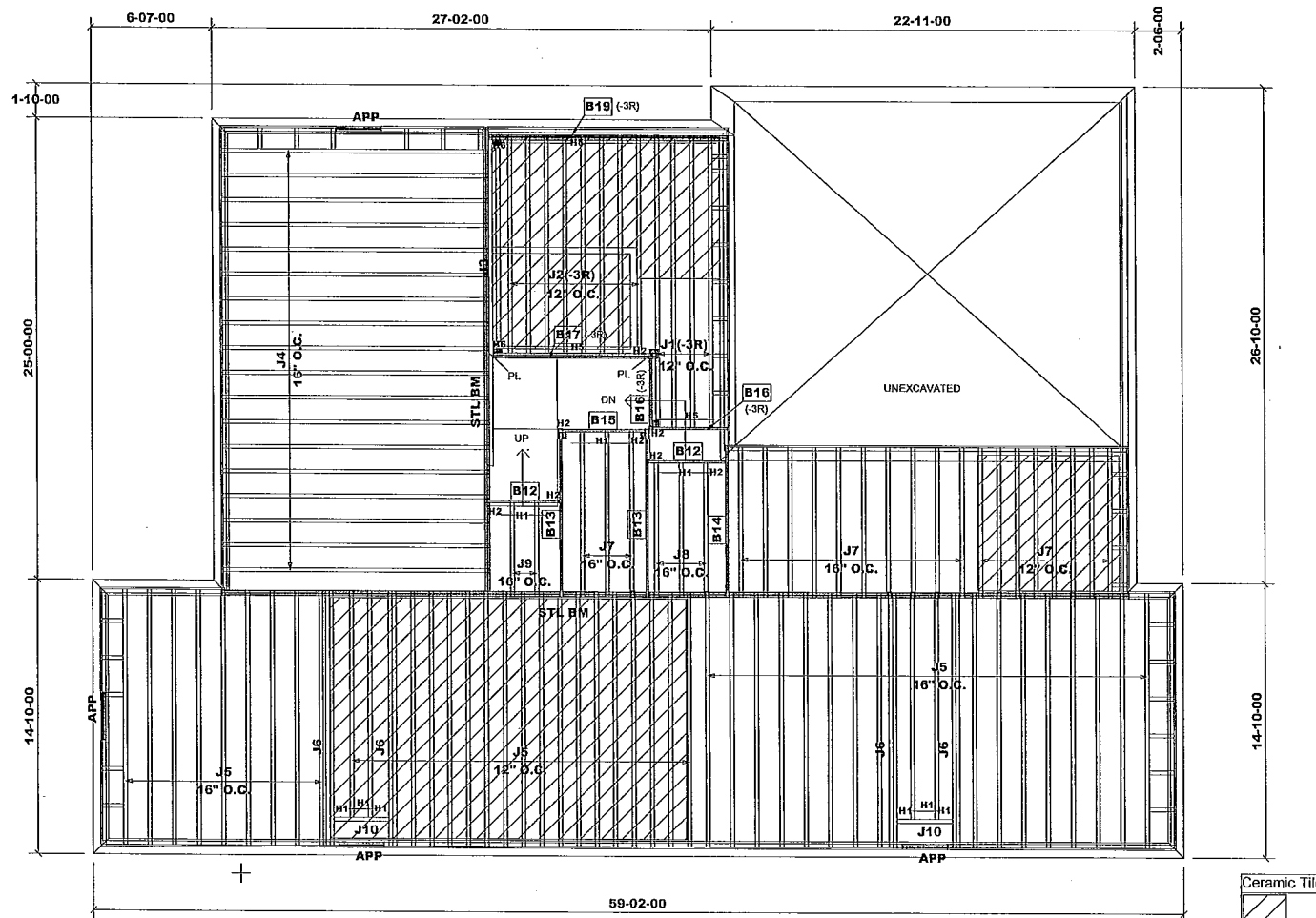
Project: Pine Valley

Date: November 26, 2017

Sheet: 8 of 15

Maple, Ontario

Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	16-00-00	9 1/2" NI-20	1	4
J2	12-00-00	9 1/2" NI-20	1	8
J3	12-00-00	9 1/2" NI-20	2	2
J4	15-00-00	11 7/8" NI-20	1	18
J5	14-00-00	11 7/8" NI-20	1	45
J6	14-00-00	11 7/8" NI-20	2	8
J7	9-00-00	11 7/8" NI-20	1	21
J8	8-00-00	11 7/8" NI-20	1	3
J9	6-00-00	11 7/8" NI-20	1	2
J10	3-00-00	11 7/8" NI-20	1	2
B19	13-00-00	VERSALAM-10 2.0E	2	2
B13	10-00-00	VERSALAM-12 2.0E	1	2
B14	9-00-00	VERSALAM-12 2.0E	1	1
B17	9-00-00	VERSALAM-10 2.0E	2	2
B16	5-00-00	VERSALAM-10 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	2
B15	5-00-00	VERSALAM-12 2.0E	1	1

HANGER SCHEDULE	
H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H5	LT259(TM)
H6	MIT39.5-2(TM)

NOTE:
 TM — TOP MOUNT HANGERS
 FM — FACE MOUNT HANGERS

RIMBOARD	
1-	1/8" X 9 1/2" O.S.B.
1-	1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" NAILED & GLUED	
APP -	AS PER PLAN
BBO -	BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

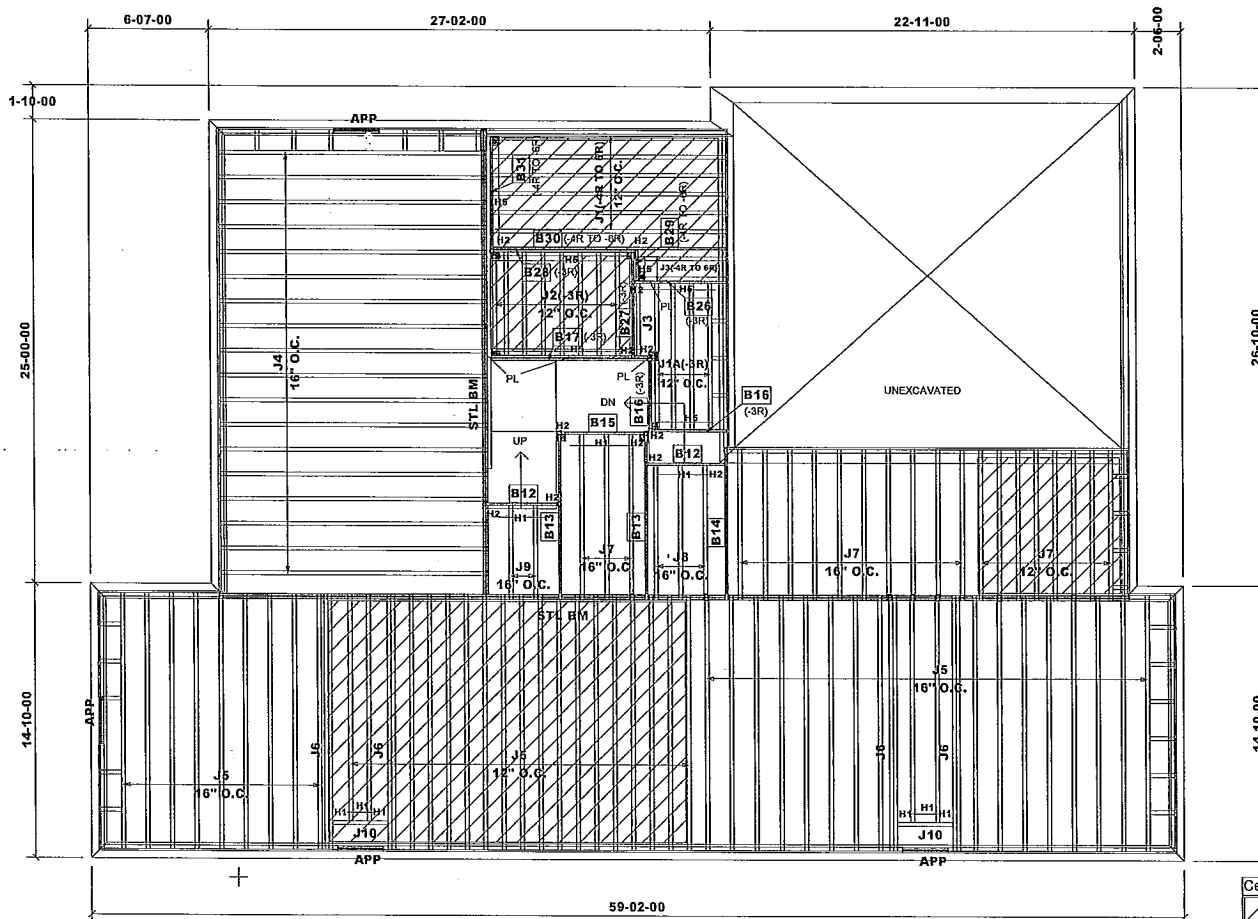
MODEL: UNIT 5003 - EL.B
 W/OPT. 2ND FLOOR

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
 TOTAL LENGTH: 42'

JT/PL: 45147/94992	Builder: Gold Park	Location: Vaughan	Designer: NL	Alpa Roof Trusses Inc.	Salesperson: Derek
LI: 290683	Project: Pine Valley	Date: November 26, 2017	Sheet: 9 of 15	Maple, Ontario	Home Lumber



MODEL: UNIT 5003 - EL.B
W/SUNKEN MUDRM -4R TO -6R

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8\"/>

TOTAL LENGTH: 42'

Products				
PlotID	Length	Product	Piles	Net Qty
J1	13-00-00	9 1/2" NI-20	1	6
J1A	8-00-00	9 1/2" NI-20	1	4
J2	6-00-00	9 1/2" NI-20	1	8
J3	5-00-00	9 1/2" NI-20	1	3
J4	15-00-00	11 7/8" NI-20	1	18
J5	14-00-00	11 7/8" NI-20	1	45
J6	14-00-00	11 7/8" NI-20	2	8
J7	9-00-00	11 7/8" NI-20	1	21
J8	8-00-00	11 7/8" NI-20	1	3
J9	6-00-00	11 7/8" NI-20	1	2
J10	3-00-00	11 7/8" NI-20	1	2
B30	13-00-00	VERSALAM-10 2.0E	1	1
B13	10-00-00	VERSALAM-12 2.0E	1	2
B14	9-00-00	VERSALAM-12 2.0E	1	1
B17	9-00-00	VERSALAM-10 2.0E	2	2
B28	8-00-00	VERSALAM-10 2.0E	1	1
B31	7-00-00	VERSALAM-10 2.0E	1	1
B27	6-00-00	VERSALAM-10 2.0E	1	1
B26	6-00-00	VERSALAM-10 2.0E	1	1
B16	5-00-00	VERSALAM-10 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	2
B15	5-00-00	VERSALAM-12 2.0E	1	1
B29	2-00-00	VERSALAM-10 2.0E	1	1

HANGER SCHEDULE

H1 ——— LT251188 (TM)
H2 ——— HUS1.81/10(FM)
H5 ——— LT259(TM)

NOTE:

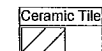
TM ——— TOP MOUNT HANGERS
FM ——— FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.

SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS



Ceramic tile application as per O.B.C. 9.30.6

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290683

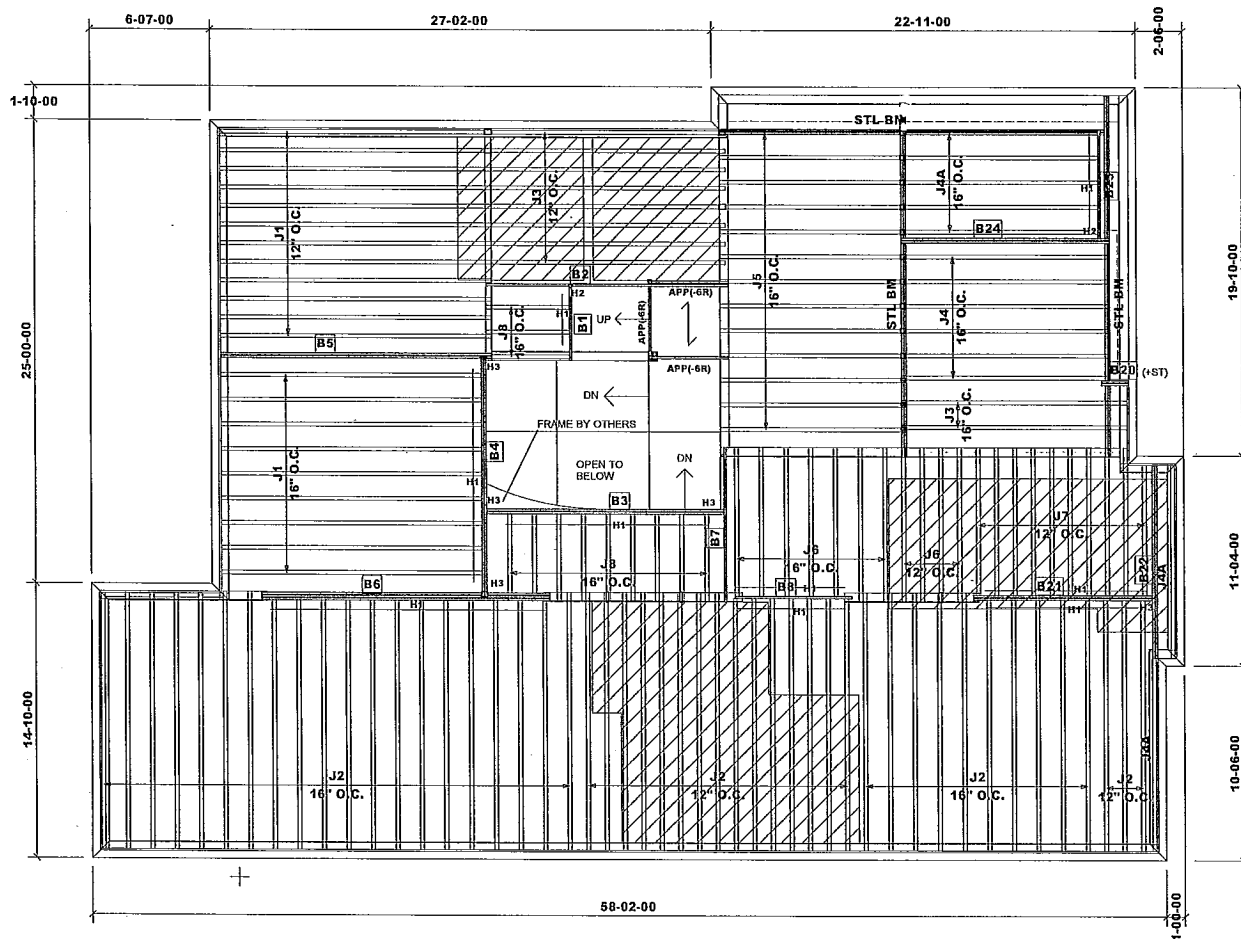
Project: Pine Valley

Date: November 26, 2017

Sheet: 10 of 15

Maple, Ontario

Home Lumber



MODEL: UNIT 5003 - EL.C
+ OPT. LOGGIA

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

Products				
PlotID	Length	Product	Plies	Net Qty
J1	15-00-00	11 7/8" NI-20	1	21
J2	14-00-00	11 7/8" NI-20	1	48
J3	13-00-00	11 7/8" NI-20	1	10
J4	12-00-00	11 7/8" NI-20	1	6
J4A	11-00-00	11 7/8" NI-20	1	7
J5	10-00-00	11 7/8" NI-20	1	13
J6	9-00-00	11 7/8" NI-20	1	11
J7	8-00-00	11 7/8" NI-20	1	10
J8	5-00-00	11 7/8" NI-20	1	12
B6	16-00-00	VERSALAM-12 2.0E	3	3
B5	15-00-00	VERSALAM-12 2.0E	2	2
B2	14-00-00	VERSALAM-12 2.0E	1	1
B3	13-00-00	VERSALAM-12 2.0E	2	2
B4	13-00-00	VERSALAM-12 2.0E	2	2
B24	12-00-00	VERSALAM-12 2.0E	2	2
B22	11-00-00	VERSALAM-12 2.0E	2	2
B21	10-00-00	VERSALAM-12 2.0E	2	2
B7	9-00-00	VERSALAM-12 2.0E	1	1
B8	7-00-00	VERSALAM-12 2.0E	1	1
B23	6-00-00	VERSALAM-12 2.0E	1	1
B1	5-00-00	VERSALAM-12 2.0E	1	1
B20	2-00-00	VERSALAM-12 2.0E	2	2

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H3-----HGUS410(FM)

NOTE:

TM-----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 11 7/8" O.S.B.

SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290683

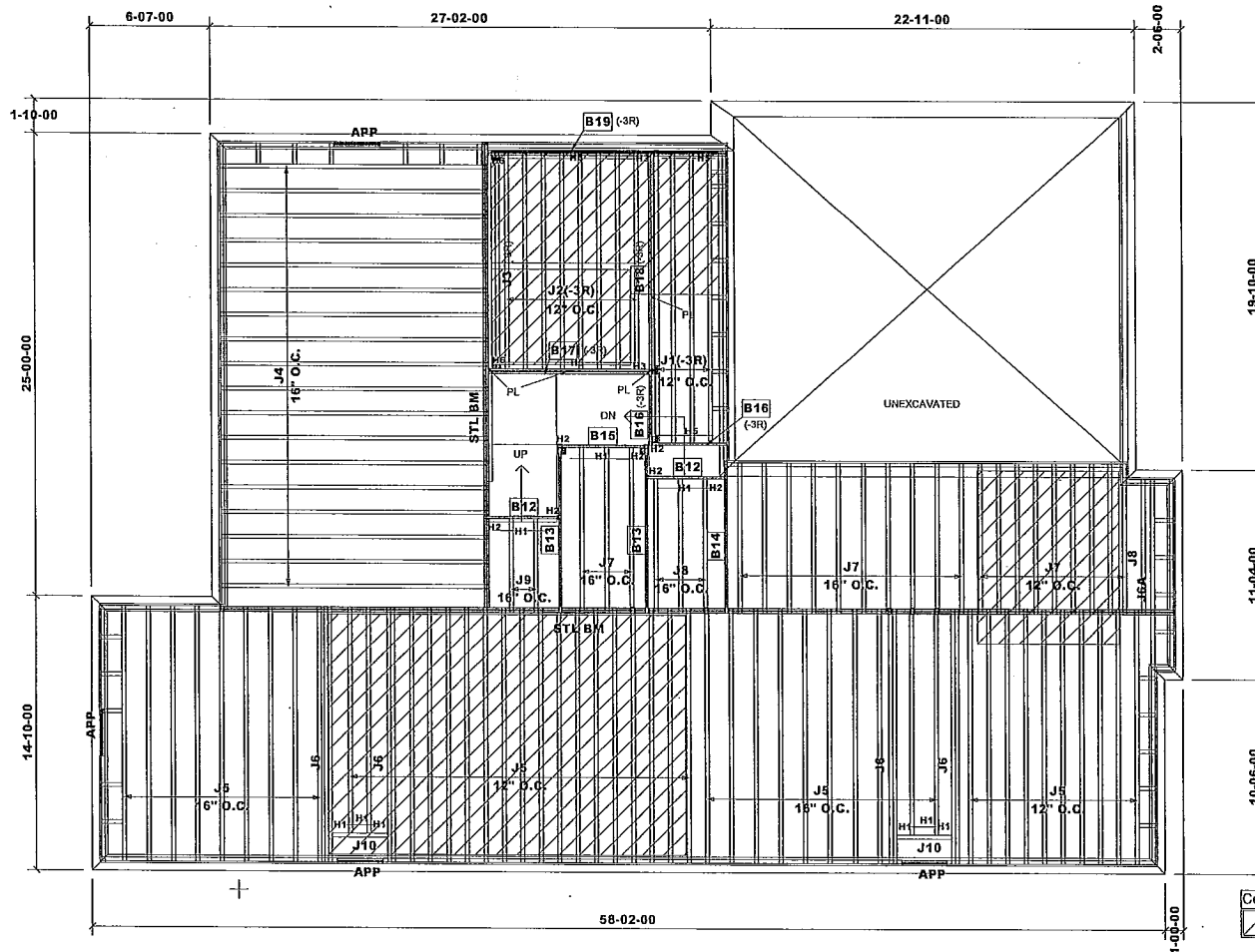
Project: Pine Valley

Date: November 26, 2017

Sheet: 11 of 15

Maple, Ontario

Home Lumber



MODEL: UNIT 5003 - EL.C
+ OPT. LOGGIA

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 44'

Products				
PlotID	Length	Product	Plies	Net Qty
J1	16-00-00	9 1/2" NI-20	1	4
J2	12-00-00	9 1/2" NI-20	1	8
J3	12-00-00	9 1/2" NI-20	2	2
J4	15-00-00	11 7/8" NI-20	1	18
J5	14-00-00	11 7/8" NI-20	1	47
J6	14-00-00	11 7/8" NI-20	2	8
J6A	11-00-00	11 7/8" NI-20	1	1
J7	9-00-00	11 7/8" NI-20	1	22
J8	8-00-00	11 7/8" NI-20	1	4
J9	6-00-00	11 7/8" NI-20	1	2
J10	3-00-00	11 7/8" NI-20	1	2
B19	13-00-00	VERSALAM-10 2.0E	2	2
B18	12-00-00	VERSALAM-10 2.0E	2	2
B13	10-00-00	VERSALAM-12 2.0E	1	2
B14	9-00-00	VERSALAM-12 2.0E	1	1
B17	9-00-00	VERSALAM-10 2.0E	2	2
B16	5-00-00	VERSALAM-10 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	2
B15	5-00-00	VERSALAM-12 2.0E	1	1

HANGER SCHEDULE	
H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H3	HGUS410(FM)
H5	LT259(TM)
H6	MIT39.5-2(TM)

NOTE:
TM ----- TOP MOUNT HANGERS
FM ----- FACE MOUNT HANGERS

RIMBOARD	
1-	1/8" X 9 1/2" O.S.B.
1-	1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" NAILED & GLUED	
APP	AS PER PLAN
BBO	BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6
1-2X8 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

JT/PL: 45147/94992
LI: 290683

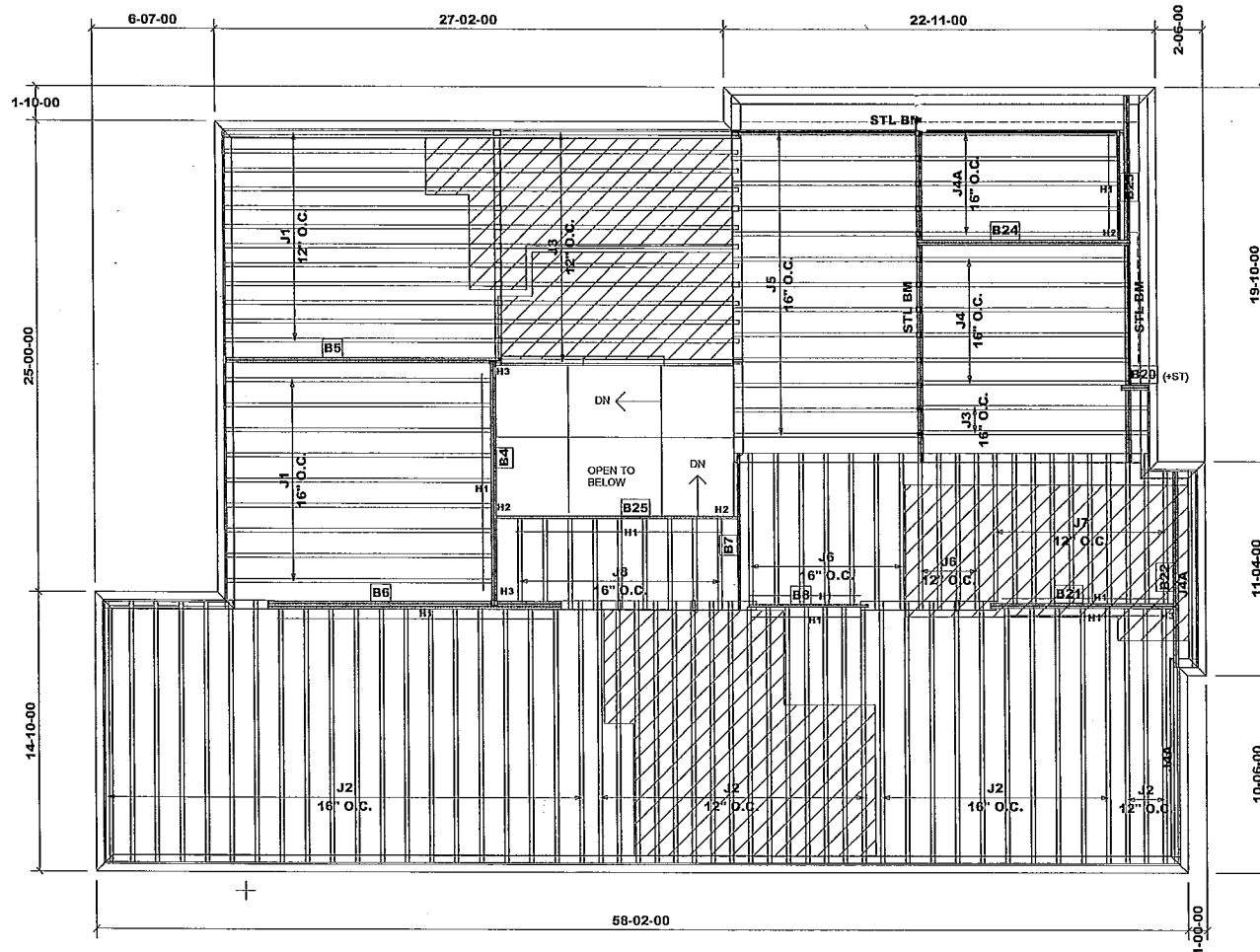
Builder: Gold Park
Project: Pine Valley

Location: Vaughan
Date: November 26, 2017

Designer: NL
Sheet: 12 of 15

Alpa Roof Trusses Inc.
Maple, Ontario

Salesperson: Derek
Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	15-00-00	11 7/8" NI-20	1	21
J2	14-00-00	11 7/8" NI-20	1	48
J3	13-00-00	11 7/8" NI-20	1	15
J4	12-00-00	11 7/8" NI-20	1	6
J4A	11-00-00	11 7/8" NI-20	1	7
J5	10-00-00	11 7/8" NI-20	1	13
J6	9-00-00	11 7/8" NI-20	1	11
J7	8-00-00	11 7/8" NI-20	1	10
J8	5-00-00	11 7/8" NI-20	1	9
B6	16-00-00	VERSALAM-12 2.0E	3	3
B5	15-00-00	VERSALAM-12 2.0E	2	2
B25	13-00-00	VERSALAM-12 2.0E	1	1
B4	13-00-00	VERSALAM-12 2.0E	2	2
B24	12-00-00	VERSALAM-12 2.0E	2	2
B22	11-00-00	VERSALAM-12 2.0E	2	2
B21	10-00-00	VERSALAM-12 2.0E	2	2
B7	9-00-00	VERSALAM-12 2.0E	1	1
B8	7-00-00	VERSALAM-12 2.0E	1	1
B23	6-00-00	VERSALAM-12 2.0E	1	1
B20	2-00-00	VERSALAM-12 2.0E	2	2

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H3-----HGUS410(FM)

NOTE:

TM-----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 11 7/8" O.S.B.

SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.8

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.



MODEL: UNIT 5003 - E.L.C
W/OPT. 2ND FLOOR

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

JT/PL: 45147/94992
LI: 290683

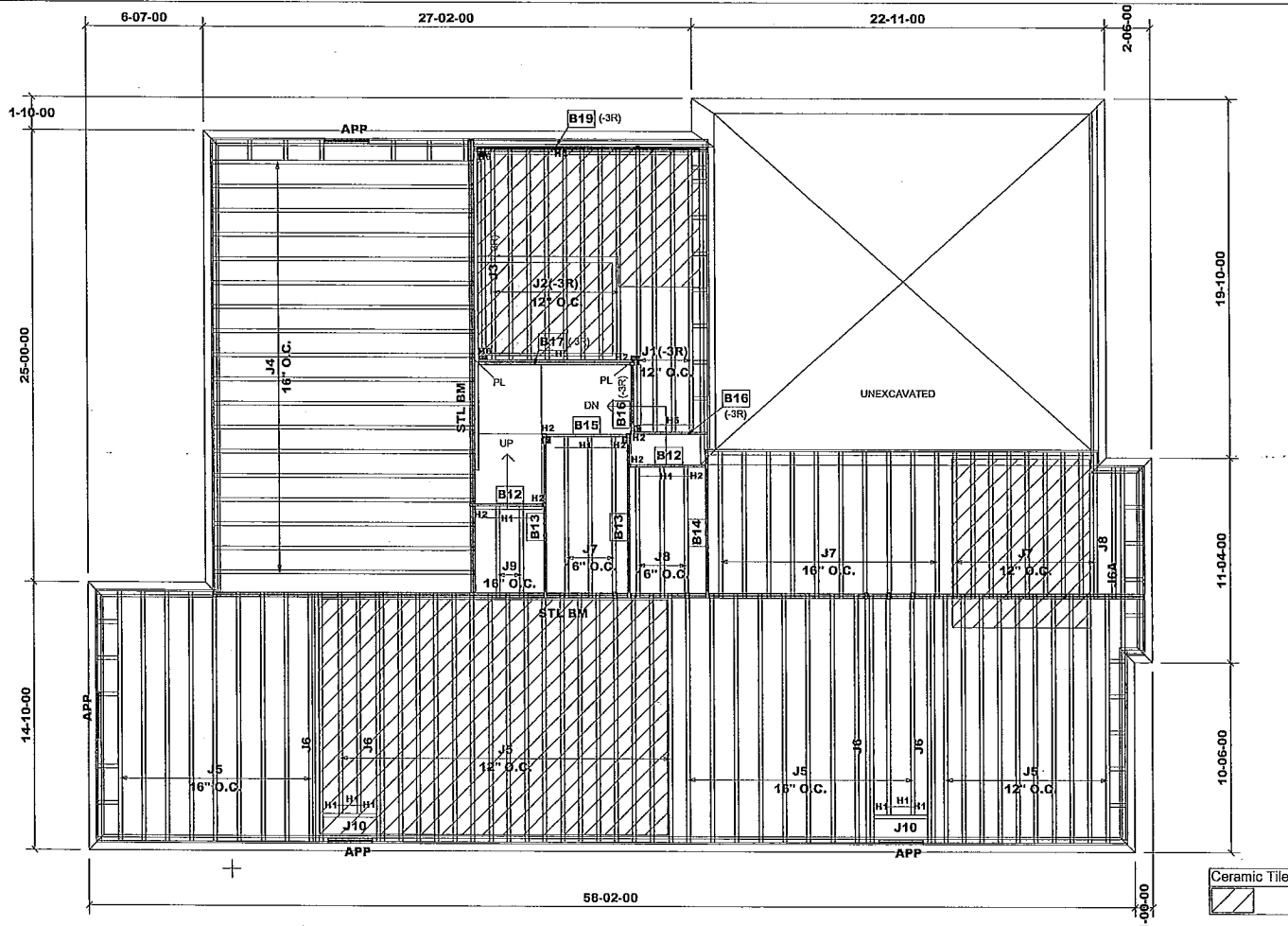
Builder: Gold Park
Project: Pine Valley

Location: Vaughan
Date: November 26, 2017

Designer: NL
Sheet: 13 of 15

Alpa Roof Trusses Inc.
Maple, Ontario

Salesperson: Derek
Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	16-00-00	9 1/2" NI-20	1	4
J2	12-00-00	9 1/2" NI-20	1	8
J3	12-00-00	9 1/2" NI-20	2	2
J4	15-00-00	11 7/8" NI-20	1	18
J5	14-00-00	11 7/8" NI-20	1	47
J6	14-00-00	11 7/8" NI-20	2	8
J6A	11-00-00	11 7/8" NI-20	1	1
J7	9-00-00	11 7/8" NI-20	1	22
J8	8-00-00	11 7/8" NI-20	1	4
J9	6-00-00	11 7/8" NI-20	1	2
J10	3-00-00	11 7/8" NI-20	1	2
B19	13-00-00	VERSALAM-10 2.0E	2	2
B13	10-00-00	VERSALAM-12 2.0E	1	2
B14	9-00-00	VERSALAM-12 2.0E	1	1
B17	9-00-00	VERSALAM-10 2.0E	2	2
B16	5-00-00	VERSALAM-10 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	2
B15	5-00-00	VERSALAM-12 2.0E	1	1

HANGER SCHEDULE	
H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H3	LT251188 (TM)
H4	LT259(TM)
H5	MIT39.5-2(TM)
NOTE:	
TM	TOP MOUNT HANGERS
FM	FACE MOUNT HANGERS

RIMBOARD	
1-	1/8" X 9 1/2" O.S.B.
1-	1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" NAILED & GLUED	
APP - AS PER PLAN	
BBO - BEAM BY OTHERS	

Ceramic tile application as per O.B.C. 9.30.6
 1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

MODEL: UNIT 5003 - EL.C
 W/OPT. 2ND FLOOR

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
 TOTAL LENGTH: 44'

JT/PL: 45147/94992
 LI: 290683

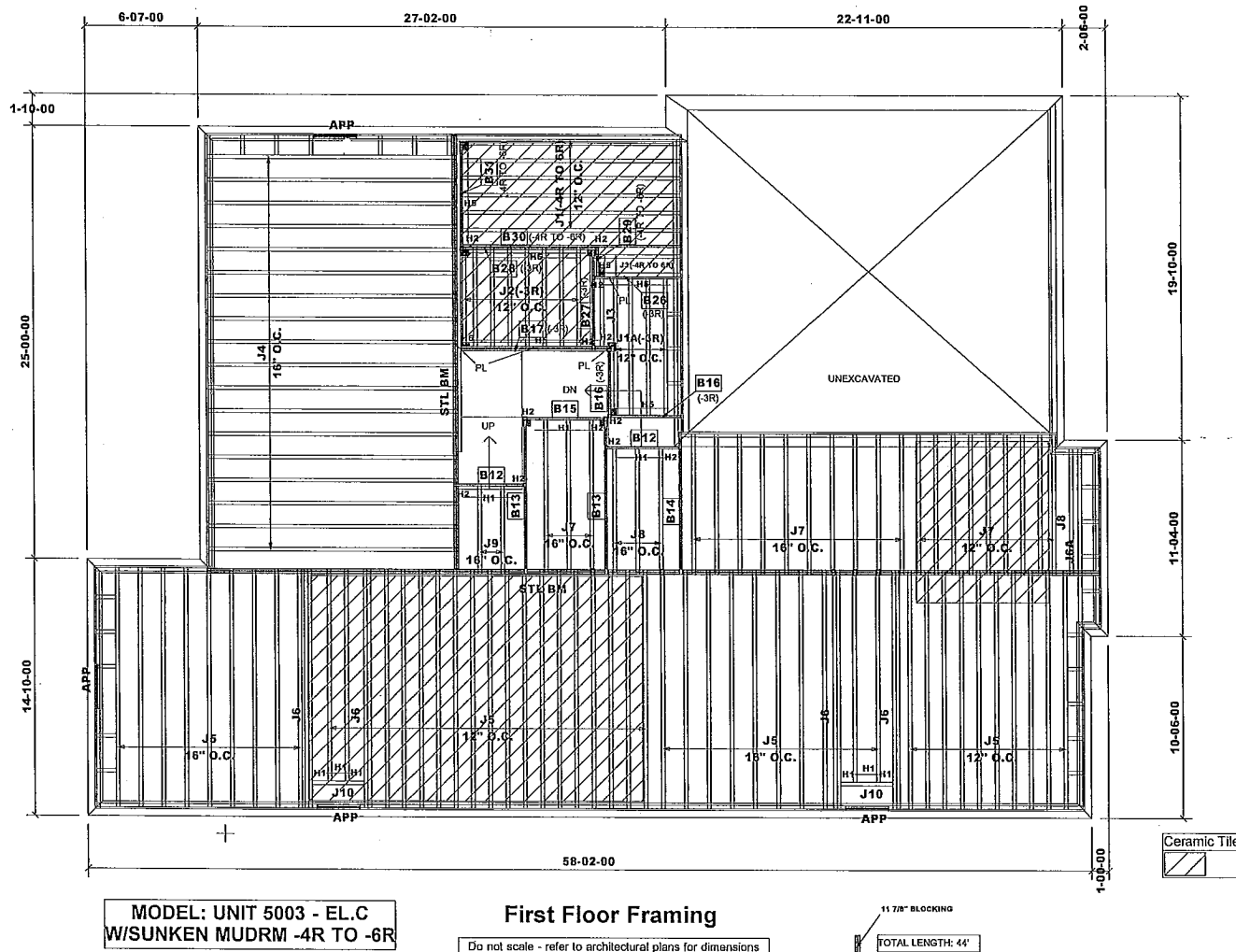
Builder: Gold Park
 Project: Pine Valley

Location: Vaughan
 Date: November 26, 2017

Designer: NL
 Sheet: 14 of 15

Alpa Roof Trusses Inc.
 Maple, Ontario

Salesperson: Derek
 Home Lumber



Products				
PlotID	Length	Product	Piles	Net Qty
J1	13-00-00	9 1/2" NI-20	1	6
J1A	8-00-00	9 1/2" NI-20	1	4
J2	6-00-00	9 1/2" NI-20	1	8
J3	5-00-00	9 1/2" NI-20	1	3
J4	15-00-00	11 7/8" NI-20	1	18
J5	14-00-00	11 7/8" NI-20	1	47
J6	14-00-00	11 7/8" NI-20	2	8
J6A	11-00-00	11 7/8" NI-20	1	1
J7	9-00-00	11 7/8" NI-20	1	22
J8	8-00-00	11 7/8" NI-20	1	4
J9	6-00-00	11 7/8" NI-20	1	2
J10	3-00-00	11 7/8" NI-20	1	2
B30	13-00-00	VERSALAM-10 2.0E	1	1
B13	10-00-00	VERSALAM-12 2.0E	1	2
B14	9-00-00	VERSALAM-12 2.0E	1	1
B17	9-00-00	VERSALAM-10 2.0E	2	2
B28	8-00-00	VERSALAM-10 2.0E	1	1
B31	7-00-00	VERSALAM-10 2.0E	1	1
B27	6-00-00	VERSALAM-10 2.0E	1	1
B26	6-00-00	VERSALAM-10 2.0E	1	1
B16	5-00-00	VERSALAM-10 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	2
B15	5-00-00	VERSALAM-12 2.0E	1	1
B29	2-00-00	VERSALAM-10 2.0E	1	1

HANGER SCHEDULE

H1 ——— LT251188 (TM)
H2 ——— HUS1.81/10(FM)
H5 ——— LT259(TM)

NOTE:
TM ——— TOP MOUNT HANGERS
FM ——— FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.

SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

MODEL: UNIT 5003 - EL.C
W/SUNKEN MUDRM -4R TO -6R

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 44'



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B01



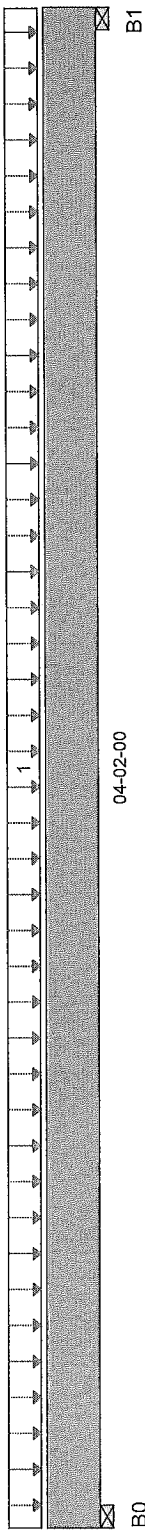
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 11:07:53

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 04-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing		Live	Dead	Snow	Wind				
B0, 3-1/2"		417 / 0	169 / 0						
B1, 3-1/2"		417 / 0	169 / 0						
Load Summary									
Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft^2)	L	00-00-00	04-02-00	40	15	1.00	1.15	05-00-00

Controls Summary

Pos.	Moment	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
End Shear	322 lbs	17,696 ft-lbs	7,232 lbs	3.9%	1	02-01-00
Total Load Defl.	L/999 (0.002")	n/a	n/a	4.5%	1	01-03-06
Live Load Defl.	L/999 (0.002")	n/a	n/a	n/a	4	02-01-00
Max Defl.	0.002"	n/a	n/a	n/a	5	02-01-00
Span / Depth	3.7	n/a	n/a	n/a	4	02-01-00
Squash Blocks	Valid	n/a	n/a	n/a		00-00-00

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

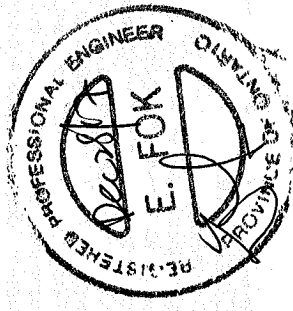
Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	836 lbs	22.2%	11.2%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	836 lbs	22.2%	11.2%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.

Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



BC CALC®, BC FRAMER®, AJUST™, ALLJOIST®, BC RIM BOARD™, BCi®, BOISE GLULAM™, SIMPLE FRAMING SYSTEM®, VERSA-LAM®, VERSA-RIM PLUS®, VERSA-RIM®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products L.L.C.



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B02



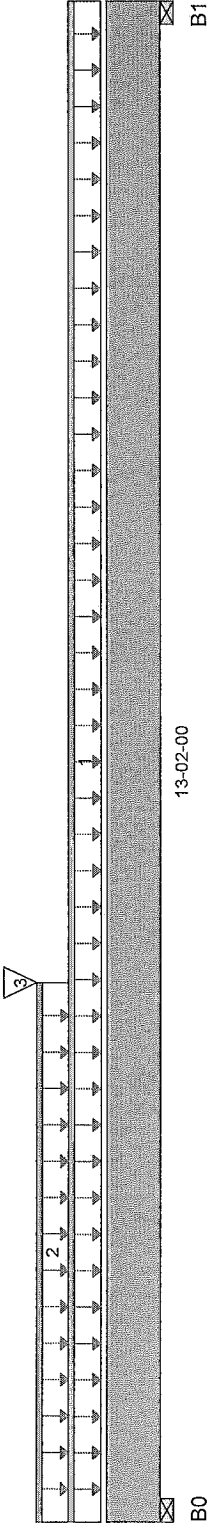
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 10:12:27

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 13-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	554 / 0	691 / 0		
B1, 3-1/2"	344 / 0	597 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	13-02-00	27	74		1.00	1.15
2	Unf. Lin. (lb/ft)	L	00-00-00	04-08-00	27	14			n/a
3	Conc. Pt. (lbs)	L	04-08-00	04-08-00	417	169			n/a

Controls Summary

Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	5,368 ft-lbs	17,696 ft-lbs	30.3%	1	04-08-00
End Shear	1,441 lbs	7,232 lbs	19.9%	1	01-03-06
Total Load Defl.	L/693 (0.22")	0.635"	34.6%	4	06-04-05
Live Load Defl.	L/999 (0.097")	n/a	n/a	5	06-02-15
Max Defl.	0.22"	1"	22%	4	06-04-05
Span / Depth	12.8	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

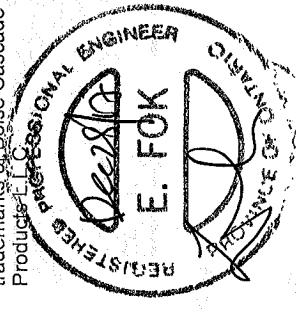
Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	1,695 lbs	45%	22.7%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	835 lbs	34.1%	17.2%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S.152548



Boise Cascade

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B03



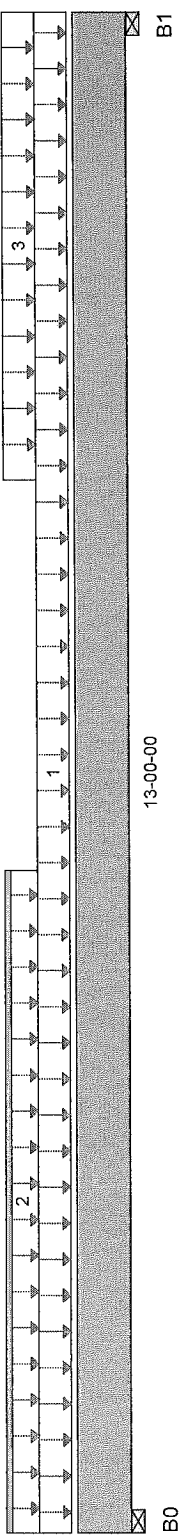
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 10:13:23

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 13-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	886 / 0	411 / 0		
B1, 3-1/2"	1,041 / 0	468 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft^2)	L	00-00-00	13-00-00	40	15			02-06-00
2	Unf. Lin. (lb/ft)	L	00-00-00	05-08-00	40	15			n/a
3	Unf. Area (lb/ft^2)	L	09-00-00	13-00-00	40	15			02-06-00

Controls Summary

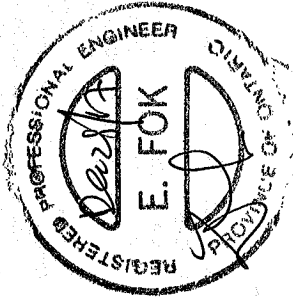
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	5,449 ft-lbs	35,392 ft-lbs	15.4%	1	06-06-00
End Shear	1,623 lbs	14,464 lbs	11.2%	1	11-08-10
Total Load Defl.	L/999 (0.114")	n/a	n/a	4	06-06-00
Live Load Defl.	L/999 (0.078")	n/a	n/a	5	06-06-00
Max Defl.	0.114"	n/a	n/a	4	06-06-00
Span / Depth	12.7	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	1,843 lbs	24.4%	12.3%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	2,146 lbs	28.5%	14.4%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4
Nail one ply to another with 3 1/2" spiral nails @ 12" o.c., staggered in 2 rows



S.152549



Boise Cascade

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B04



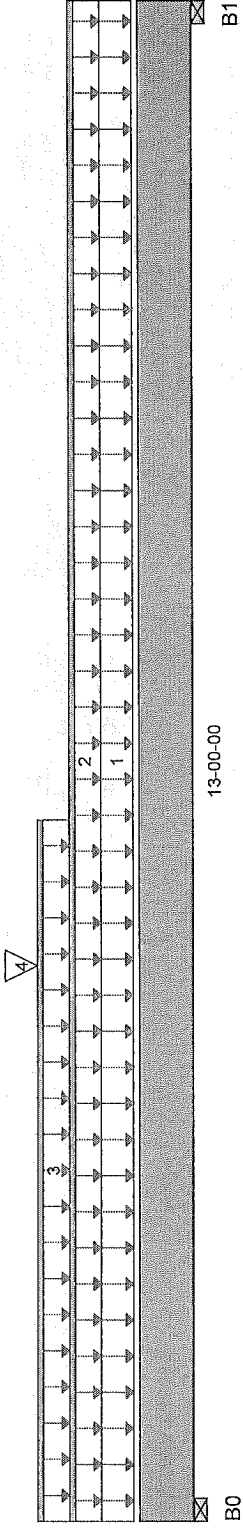
BC CALCO® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 10:14:43

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 13-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	2,578 / 0	1,739 / 0		
B1, 3-1/2"	2,240 / 0	1,577 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	13-00-00	40	20			07-03-00
2	Unf. Lin. (lb/ft)	L	00-00-00	13-00-00		60			n/a
3	Unf. Lin. (lb/ft)	L	00-00-00	06-00-00	27	14			n/a
4	Conc. Pt. (lbs)	L	04-09-00	04-09-00	886	411			n/a

Controls Summary

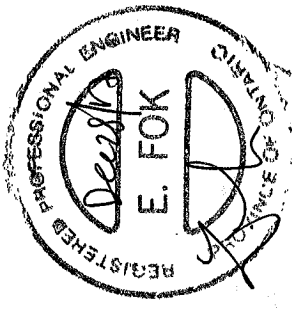
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	18,916 ft-lbs	35,392 ft-lbs	53.4%	1	05-06-06
End Shear	5,061 lbs	14,464 lbs	35%	1	01-03-06
Total Load Defl.	L/392 (0.384")	0.627"	61.2%	4	06-04-05
Live Load Defl.	L/655 (0.23")	0.418"	54.9%	5	06-04-05
Max Defl.	0.384"	1"	38.4%	4	06-04-05
Span / Depth	12.7	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	6,040 lbs	80.2%	40.4%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	5,332 lbs	70.8%	35.7%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALCO® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4
Nail one ply to another with
3 1/2" spiral nails @ 10"
o.c, staggered in 2 rows



S152550



Boise Cascade

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B05



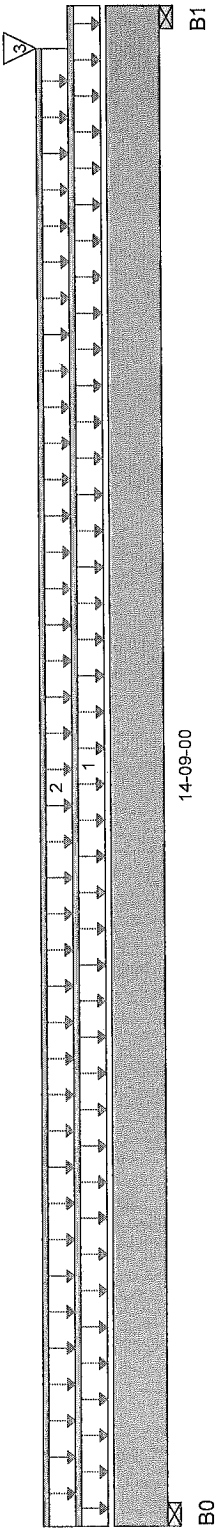
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 10:15:27

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 14-09-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	428 / 0	758 / 0		
B1, 3-1/2"	2,598 / 0	2,288 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	14-09-00	27	74			n/a
2	Unf. Lin. (lb/ft)	L	00-00-00	14-04-00	27	14			n/a
3	Conc. Pt. (lbs)	L	14-04-00	14-04-00	2,240	1,577			n/a

Controls Summary

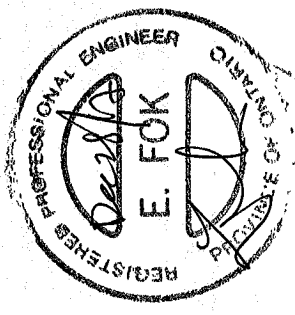
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	3,785 ft-lbs	23,005 ft-lbs	16.5%	0	07-06-13
End Shear	1,909 lbs	14,464 lbs	13.2%	1	13-05-10
Total Load Defl.	L/1,045 (0.164")	0.715"	23%	4	07-06-13
Live Load Defl.	L/999 (0.061")	n/a	n/a	5	07-06-13
Max Defl.	0.164"	1"	16.4%	4	07-06-13
Span / Depth	14.4	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	1,062 lbs	21.7%	10.9%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	6,757 lbs	89.7%	45.2%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4
Nail one ply to another with
3 1/2" spiral nails @ 12"
o.c. staggered in 2 rows



S.152551



Boise Cascade

Triple 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B06

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 10:17:23



BC CALC® Design Report

Build 6080

Job Name: 45147 (5003)

Address: Pine Valley

City, Province, Postal Code: Vaughan, ON

Customer: Gold Park

Code reports: CCMC 12472-R

File Name: 290683.bcc

Description: Second Floor Framing

Specifier:

Designer: NL

Company: Alpa Roof Trusses

Misc:



15-08-00

B1

Total Horizontal Product Length = 15-08-00

Reaction Summary (Down / Uplift) (lbs)

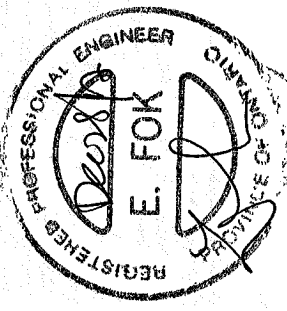
Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	2,985 / 0	2,200 / 0		
B1, 3-1/2"	4,658 / 0	3,257 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	15-08-00	40	20			07-00-00
2	Unf. Lin. (lb/ft)	L	00-00-00	15-08-00		60			n/a
3	Unf. Lin. (lb/ft)	L	00-00-00	12-02-00	27	14			n/a
4	Unf. Area (lb/ft²)	L	12-02-00	15-08-00	40	15			02-06-00
5	Conc. Pt. (lbs)	L	12-02-00	12-02-00	2,578	1,739			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	33,155 ft-lbs	55,212 ft-lbs	60.1%	1	09-07-06
End Shear	9,919 lbs	21,696 lbs	45.7%	1	14-04-10
Total Load Defl.	L/269 (0.679")	0.76"	89.2%	4	08-01-00
Live Load Defl.	L/463 (0.394")	0.507"	77.8%	5	08-03-01
Max Defl.	0.679"	1"	67.9%	4	08-01-00
Span / Depth	15.4	n/a	n/a		00-00-00
Squash Blocks	Valid				



Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 5-1/4"	7,227 lbs	63.9%	32.2%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 5-1/4"	11,059 lbs	97.8%	49.3%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Design meets User specified (1") Maximum Total load deflection criteria.
 Calculations assume member is fully braced.
 Resistance Factor phi has been applied to all presented results per CSA O86.
 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 4

Nail one ply to another with
 3 1/2" spiral nails @ 8" v1
 o.c. staggered in 2 rows

S.152552



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B07



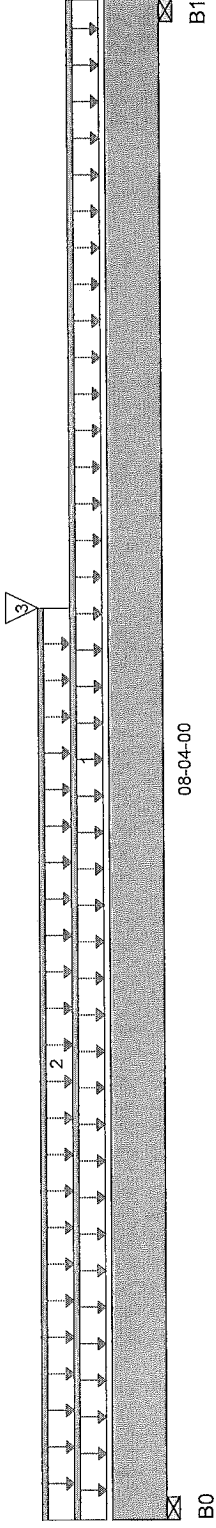
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 14:13:45

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 08-04-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	619 / 0	568 / 0		
B1, 3-1/2"	782 / 0	637 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	08-04-00	27	74			n/a
2	Unf. Lin. (lb/ft)	L	00-00-00	05-00-00	27	14			n/a
3	Conc. Pt. (lbs)	L	05-00-00	05-00-00	1,041	468			n/a

Controls Summary

Pos.	Moment	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
1	End Shear	5,337 ft-lbs	17,696 ft-lbs	30.2%	1	05-00-00
2	Total Load Defl.	1,790 lbs	7,232 lbs	24.7%	1	07-00-10
3	Live Load Defl.	L/999 (0.075")	n/a	n/a	4	04-03-10
	Max Defl.	L/999 (0.043")	n/a	n/a	5	04-03-10
	Span / Depth	0.075"	n/a	n/a	4	04-03-10
	Squash Blocks	Valid	n/a	n/a		00-00-00

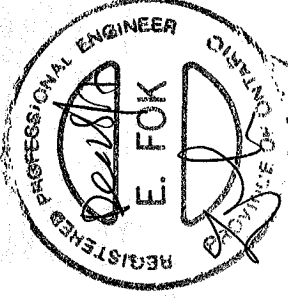
Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

Bearing Supports	Dim. (L x W)	Demand	Demand / Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	1,638 lbs	43.5%	21.9%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	1,970 lbs	52.3%	26.4%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S152553



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B08



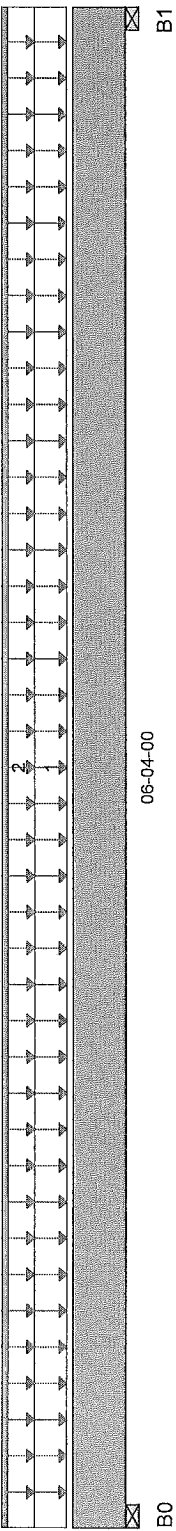
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 10:18:30

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 06-04-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	1,393 / 0	906 / 0		
B1, 3-1/2"	1,393 / 0	906 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	06-04-00	40	20		1.00	1.15
2	Unf. Lin. (lb/ft)	L	00-00-00	06-04-00	60	60			n/a

Controls Summary

Controls Summary			Demand	Resistance	Resistance	Case	Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide
Pos. Moment	4,390 ft-lbs	17,696 ft-lbs	24.8%	1	03-02-00		
End Shear	1,918 lbs	7,232 lbs	26.5%	1	01-03-06		
Total Load Defl.	L/999 (0.04")	n/a	n/a	4	03-02-00		
Live Load Defl.	L/999 (0.024")	n/a	n/a	5	03-02-00		
Max Defl.	0.04"	n/a	n/a	4	03-02-00		
Span / Depth	5.9	n/a	n/a		00-00-00		
Squash Blocks	Valid						

Disclosure

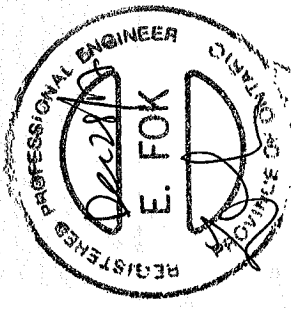
Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	3,222 lbs	85.5%	43.1%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	3,222 lbs	85.5%	43.1%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S.152554



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B09



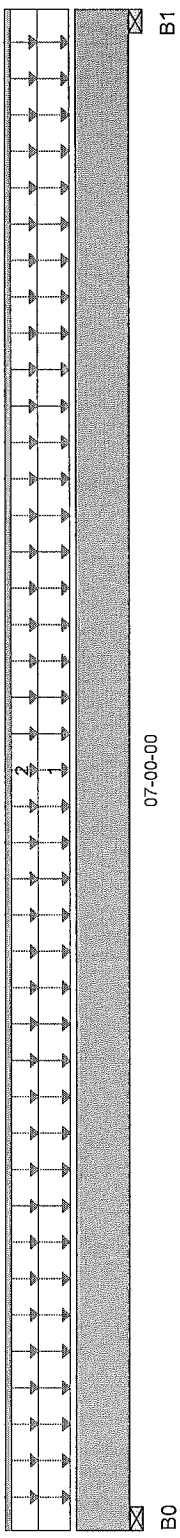
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 10:19:29

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 07-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	1,540 / 0	1,001 / 0		
B1, 3-1/2"	1,540 / 0	1,001 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	07-00-00	40	20		1.00	1.15
2	Unf. Lin. (lb/ft)	L	00-00-00	07-00-00	40	60			n/a

Controls Summary

Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	5,443 ft-lbs	17,696 ft-lbs	30.8%	1	03-06-00
End Shear	2,258 lbs	7,232 lbs	31.2%	1	01-03-06
Total Load Defl.	L/999 (0.061")	n/a	n/a	4	03-06-00
Live Load Defl.	L/999 (0.037")	n/a	n/a	5	03-06-00
Max Defl.	0.061"	n/a	n/a	4	03-06-00
Span / Depth	6.6	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

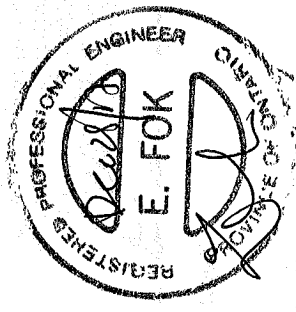
Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	3,561 lbs	94.5%	47.7%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	3,561 lbs	94.5%	47.7%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S.152555



Boise Cascade



BC CALC® Design Report

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B10

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 10:20:05

Build 6080

Job Name:

Address:

City, Province, Postal Code: Vaughan, ON

Customer:

Code reports:

45147 (5003)
Pine Valley

File Name: 290683.bcc

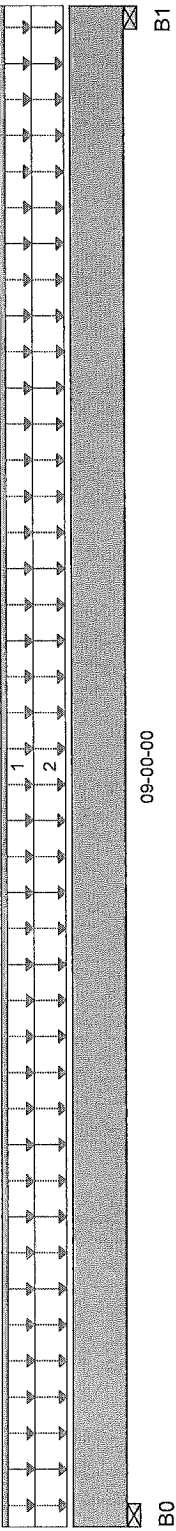
Description: Second Floor Framing

Specifier:

Designer: NL

Company: Alpa Roof Trusses

Misc:



B0

09-00-00

B1

Total Horizontal Product Length = 09-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	121 / 0	716 / 0	283 / 0	
B1, 3-1/2"	122 / 0	716 / 0	284 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	09-00-00	27	114			n/a
2	Unf. Area (lb/ft^2)	L	00-00-00	09-00-00	11	11	21	1.00 1.15	03-00-00

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	2,031 ft-lbs	23,005 ft-lbs	8.8%	0	04-06-00
End Shear	717 lbs	9,401 lbs	7.6%	0	01-03-06
Total Load Defl.	L/999 (0.028")	n/a	n/a	13	04-06-00
Live Load Defl.	L/999 (0.009")	n/a	n/a	17	04-06-00
Max Defl.	0.028"	n/a	n/a	13	04-06-00
Span / Depth	8.6	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	1,002 lbs	20.5%	10.3%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	1,002 lbs	20.5%	10.3%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.

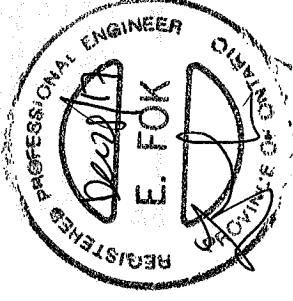
Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 4

Nail one ply to another with

3 1/2" spiral nails @ 12"

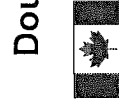
o.c. staggered in 2 rows



S152556



Boise Cascade



BC CALC® Design Report

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

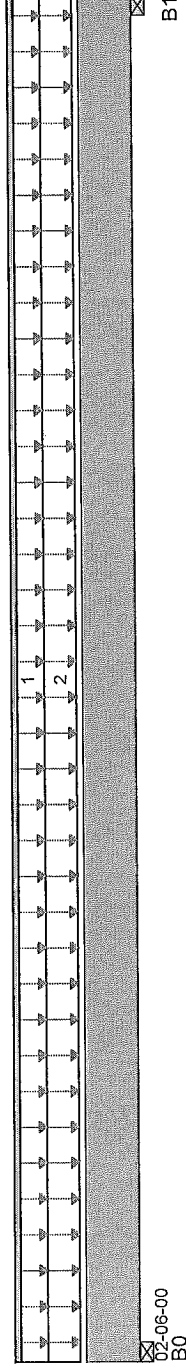
Floor Beam\B11

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 11:14:58

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 02-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	34 / 0	281 / 0	236 / 0	
B1, 3-1/2"	34 / 0	281 / 0	236 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	02-06-00	27	114			n/a
2	Unf. Area (lb/ft^2)	L	00-00-00	02-06-00	11				09-00-00

Controls Summary

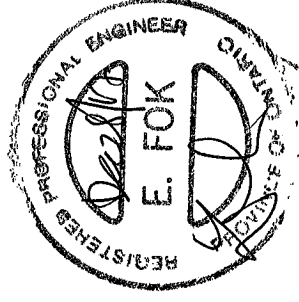
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	301 ft-lbs	35,392 ft-lbs	0.9%	5	01-03-00
End Shear	18 lbs	14,464 lbs	0.1%	5	01-03-06
Total Load Defl.	L/999 (0")	n/a	n/a	13	01-03-00
Live Load Defl.	L/999 (0")	n/a	n/a	17	01-03-00
Max Defl.	0"	n/a	n/a	13	01-03-00
Span / Depth	2.1	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	723 lbs	9.6%	4.8%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	723 lbs	9.6%	4.8%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4
Nail one ply to another with 3 1/2" spiral nails @ 6" o.c. staggered in 2 rows





Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B12



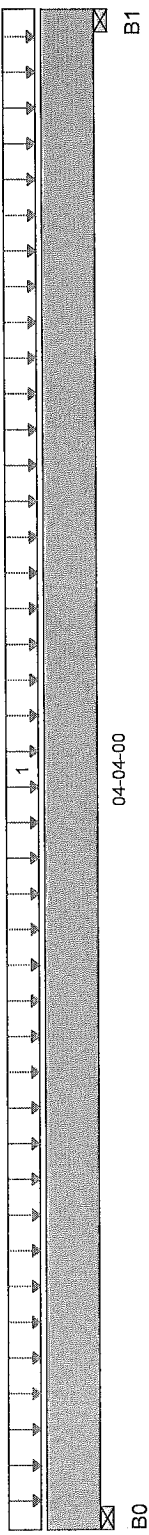
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 11:15:38

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



04-04-00

Total Horizontal Product Length = 04-04-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	433 / 0	176 / 0		
B1, 3-1/2"	433 / 0	176 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	04-04-00	40	15		1.00 1.15	05-00-00

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

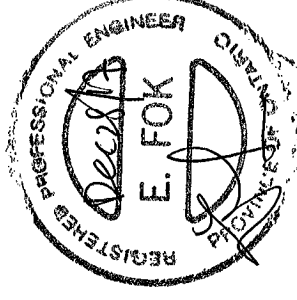
BC CALC®, BC FRAMER®, AUS™, ALLJOIST®, BC RIM BOARD™, BC®, BOISE GLULAM™, SIMPLE FRAMING™, SYSTEM®, VERSA-LAM®, VERSA-RIM®, PLUS®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products L.L.C.

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	869 lbs	23.1%	11.6%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	869 lbs	23.1%	11.6%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S.152558



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B13

Dry | 1 span | No cantilevers | 0/12 slope (deg)

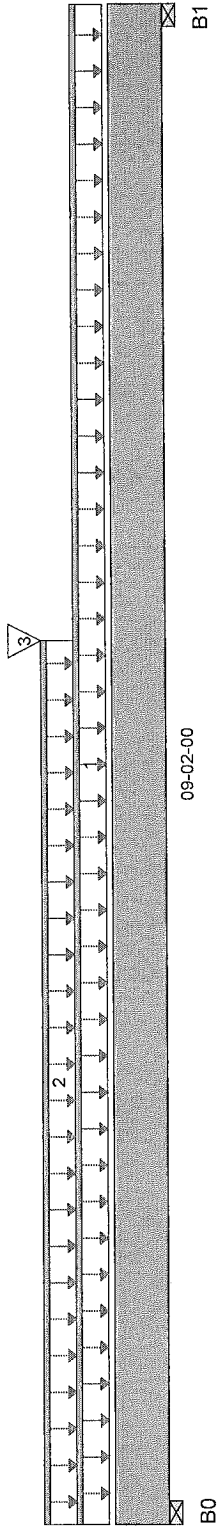
November 26, 2017 11:16:10

BC CALC® Design Report



Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 09-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	407 / 0	218 / 0		
B1, 3-1/2"	418 / 0	216 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	09-02-00	27	14			n/a
2	Unf. Lin. (lb/ft)	L	00-00-00	05-04-00	27	14			n/a
3	Conc. Pt. (lbs)	L	05-04-00	05-04-00	433	176			n/a

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

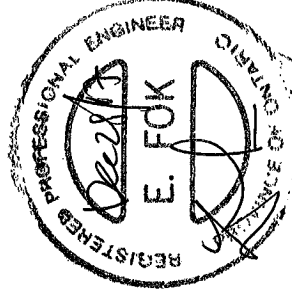
BC CALC®, BC FRAMER®, AUS™, ALLJOIST®, BC RIM BOARD™, BC®, BOISE GLULAM™, SIMPLE FRAMING™, SYSTEM®, VERSA-LAM®, VERSA-RIM PLUS®, VERSA-RIM®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products L.L.C.

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	883 lbs	23.4%	11.8%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	897 lbs	23.8%	12%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S.152559



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B14



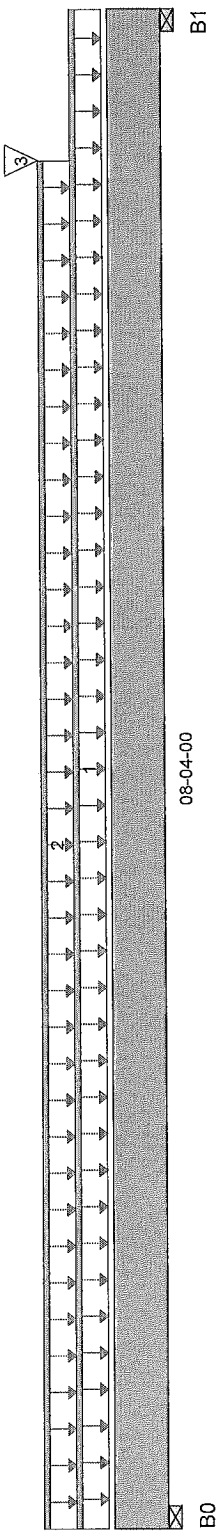
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 11:16:44

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	258 / 0	405 / 0		
B1, 3-1/2"	603 / 0	543 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	08-04-00	27	74			n/a
2	Unf. Lin. (lb/ft)	L	00-00-00	07-06-00	27	14			n/a
3	Conc. Pt. (lbs)	L	07-06-00	07-06-00	433	176			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	1,807 ft-lbs	17,696 ft-lbs	10.2%	1	04-06-05
End Shear	1,009 lbs	7,232 lbs	14%	1	07-00-10
Total Load Defl.	L/999 (0.031")	n/a	n/a	4	04-03-01
Live Load Defl.	L/999 (0.013")	n/a	n/a	5	04-04-03
Max Defl.	0.031"	n/a	n/a	4	04-03-01
Span / Depth	8	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

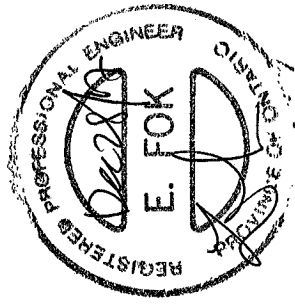
Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	893 lbs	23.7%	11.9%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	1,583 lbs	42%	21.2%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S.152560



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B15

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 15:34:33



BC CALCO® Design Report

Build 6080

Job Name: 45147 (5003)

Address: Pine Valley

City, Province, Postal Code: Vaughan, ON

Customer: Gold Park

Code reports: CCMC 12472-R

File Name: 290683.bcc

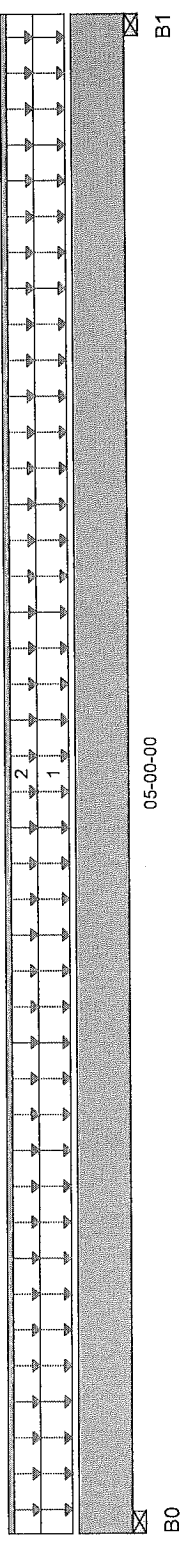
Description: First Floor Framing

Specifier:

Designer: NL

Company: Alpa Roof Trusses

Misc:



Total Horizontal Product Length = 05-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B0, 3-1/2"	458 / 0	337 / 0
B1, 3-1/2"	458 / 0	337 / 0

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	05-00-00	40	15			04-07-00
2	Unf. Lin. (lb/ft)	L	00-00-00	05-00-00		60			n/a

Controls Summary

Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	1,143 ft-lbs	17,696 ft-lbs	6.5%	1	02-06-00
End Shear	540 lbs	7,232 lbs	7.5%	1	01-03-06
Total Load Defl.	L/999 (0.006")	n/a	n/a	4	02-06-00
Live Load Defl.	L/999 (0.004")	n/a	n/a	5	02-06-00
Max Defl.	0.006"	n/a	n/a	4	02-06-00
Span / Depth	4.6	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

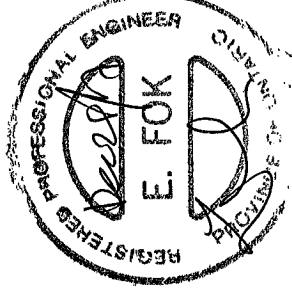
BC CALCO®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BC®, BOISE GLULAM™, SIMPLE FRAMING SYSTEM®, VERSA-LAM®, VERSA-RIM PLUS®, VERSA-RIM®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products L.L.C.

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	1,109 lbs	29.4%	14.8%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	1,109 lbs	29.4%	14.8%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Design meets User specified (1") Maximum Total load deflection criteria.
 Calculations assume member is fully braced.
 Resistance Factor phi has been applied to all presented results per CSA O86.
 BC CALCO® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor : Normal Part code : Part 4



S.152561



Boise Cascade

Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Floor Beam\B16

Dry | 1 span | No cantilevers | 0/12 slope (deg)

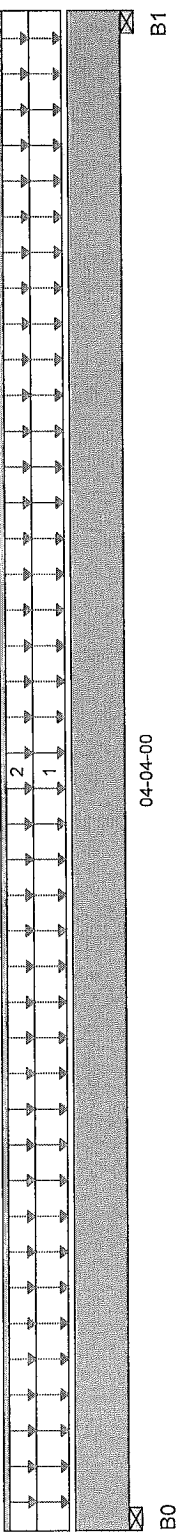
November 26, 2017 11:18:01

BC CALC® Design Report



Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 04-04-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	780 / 0	530 / 0		
B1, 3-1/2"	780 / 0	530 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft^2)	L	00-00-00	04-04-00	40	20		1.00 1.15	09-00-00
2	Unf. Lin. (lb/ft)	L	00-00-00	04-04-00	40	60			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	1,588 ft-lbs	11,610 ft-lbs	13.7%	1	02-02-00
End Shear	917 lbs	5,785 lbs	15.8%	1	01-01-00
Total Load Defl.	L/999 (0.012")	n/a	n/a	4	02-02-00
Live Load Defl.	L/999 (0.007")	n/a	n/a	5	02-02-00
Max Defl.	0.012"	n/a	n/a	4	02-02-00
Span / Depth	4.9	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

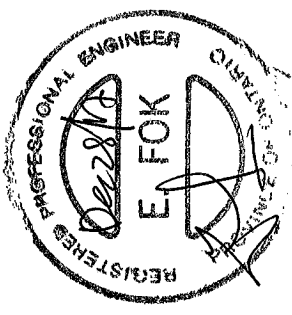
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Bearing Supports

	Dim. (L x W)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	1,833 lbs	48.6%	24.5%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	1,833 lbs	48.6%	24.5%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S.152562



Boise Cascade



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Floor Beam\B17

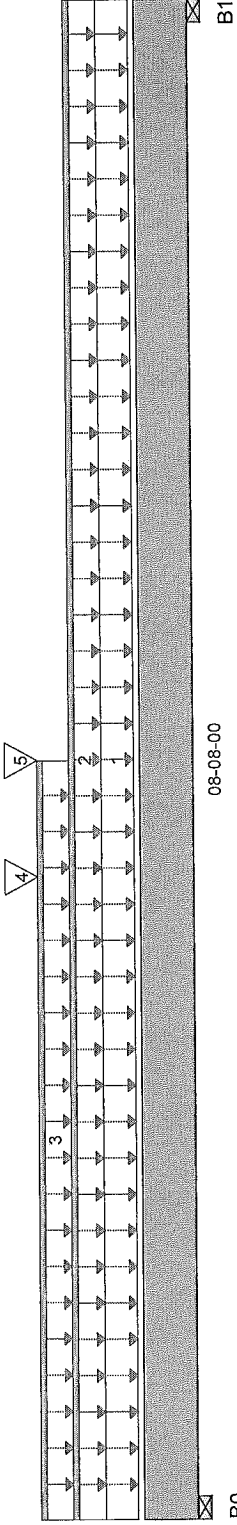
Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 11:19:52

BC CALC® Design Report

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 08-08-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	1,743 / 0	1,365 / 0		
B1, 3-1/2"	1,569 / 0	1,290 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft^2)	L	00-00-00	08-08-00	40	20			06-00-00
2	Unf. Lin. (lb/ft)	L	00-00-00	08-08-00		120			n/a
3	Unf. Lin. (lb/ft)	L	00-00-00	04-04-00	27	14			n/a
4	Conc. Pt. (lbs)	L	03-08-00	03-08-00	698	262			n/a
5	Conc. Pt. (lbs)	L	04-04-00	04-04-00	417	169			n/a

Controls Summary

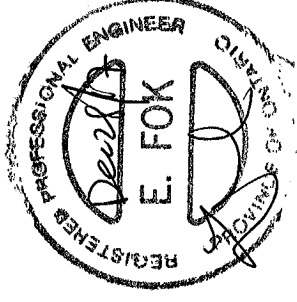
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	10,016 ft-lbs	23,220 ft-lbs	43.1%	1	04-00-00
End Shear	3,530 lbs	11,571 lbs	30.5%	1	01-01-00
Total Load Defl.	L/599 (0.164")	0.41"	40%	4	04-03-00
Live Load Defl.	L/999 (0.095")	n/a	n/a	5	04-03-00
Max Defl.	0.164"	1"	16.4%	4	04-03-00
Span / Depth	10.4	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	4,321 lbs	57.3%	28.9%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	3,966 lbs	52.6%	26.5%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4
Nail one ply to another with
3 1/2" spiral nails @ [Z]
o.c. staggered in 2 rows



S.152563



Boise Cascade

Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Floor Beam\B18

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 11:21:47



BC CALC® Design Report

Build 6080

Job Name: 45147 (5003)

Address: Pine Valley

City, Province, Postal Code: Vaughan, ON

Customer: Gold Park

Code reports: CCMC 12472-R

File Name: 290683.bcc

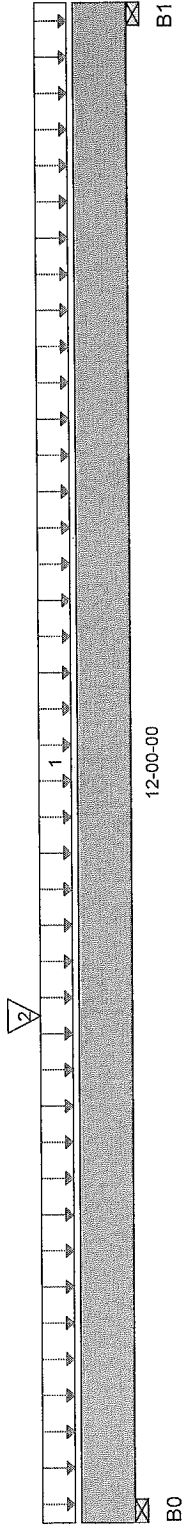
Description: First Floor Framing

Specifier:

Designer: NL

Company: Alpa Roof Trusses

Misc:



Total Horizontal Product Length = 12'-00'-00"

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	559 / 0	298 / 0		
B1, 3-1/2"	394 / 0	236 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	12-00-00	40	20			01-00-00
2	Conc. Pt. (lbs)	L	04-00-00	04-00-00	473	178			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	3,787 ft-lbs	23,220 ft-lbs	16.3%	1	04-00-00
End Shear	1,105 lbs	11,571 lbs	9.5%	1	01-01-00
Total Load Defl.	L/999 (0.116")	n/a	n/a	4	05-08-12
Live Load Defl.	L/999 (0.076")	n/a	n/a	5	05-08-12
Max Defl.	0.116"	n/a	n/a	4	05-08-12
Span / Depth	14.6	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	1,210 lbs	16.1%	8.1%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	887 lbs	11.8%	5.9%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.

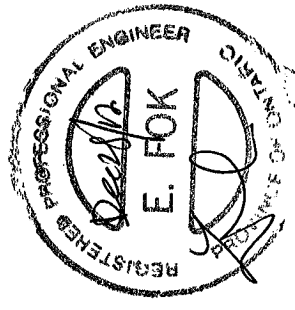
Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 4

Nail one ply to another with

3 1/2" spiral nails @ 12"

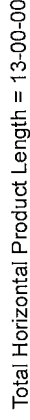
o.c., staggered in 2 rows



S.152564



File Name: 290683.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Year	Share
1,331 / 0	
1,536 / 0	

	Live	Dead	Snow	Wind	Trib.
1	1	1	1	1	1
2	1	1	1	1	1
3	1	1	1	1	1
4	1	1	1	1	1
5	1	1	1	1	1
6	1	1	1	1	1
7	1	1	1	1	1
8	1	1	1	1	1
9	1	1	1	1	1
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77	1	1	1	1	1
78	1	1	1	1	1
79	1	1	1	1	1
80	1	1	1	1	1
81	1	1	1	1	1

	Ref.	Start	End	1.00	0.65	1.00	1.15
2)	L	00-00-00	08-10-00	40	20		06-00-00
2)	L	08-10-00	13-00-00	40	20		08-00-00
	L	00-00-00	13-00-00		60		n/a
	L	08-10-00	08-10-00	394	236		n/a

Resistance	Resistance	Case
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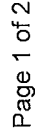
Weight	Count	Percentage	Period
20 ft-lbs	1	61.4%	07-01-10
571 lbs	1	36.8%	11-11-00
0.627"	4	92.7%	06-07-13
0.418"	5	79.6%	06-07-13
1"	4	58.1%	06-07-13
n/a	n/a	n/a	00-00-00

nd	Support	Member	Material
----	---------	--------	----------

4 lbs	56.6%	Spruce Pine Fir
2 lbs	67.6%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC@ analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4
Nail one ply to another with
3 1/2" spiral nails @ 16"
o.c. staggered in 2 rows



8152565



Boise Cascade

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B20



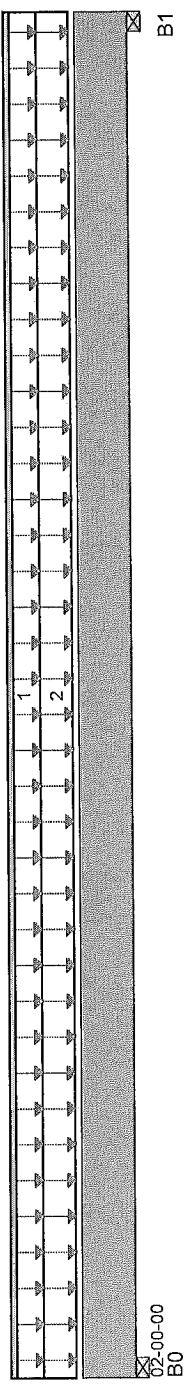
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 13:08:50

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 02-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	27 / 0	225 / 0	189 / 0	
B1, 3-1/2"	27 / 0	225 / 0	189 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	02-00-00	27	114			n/a
2	Unf. Area (lb/ft^2)	L	00-00-00	02-00-00	11			21	09-00-00

Controls Summary

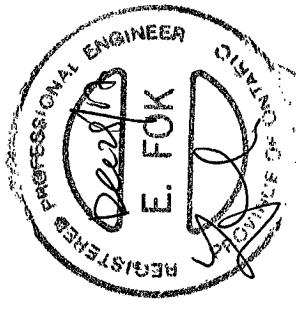
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	172 ft-lbs	35,392 ft-lbs	0.5%	5	01-00-00
End Shear	163 lbs	14,464 lbs	1.1%	5	01-03-06
Total Load Defl.	L/999 (0")	n/a	n/a	13	01-00-00
Max Defl.	0"	n/a	n/a	13	01-00-00
Span / Depth	1.6	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	578 lbs	7.7%	3.9%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	578 lbs	7.7%	3.9%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4
Nail one ply to another with 3 1/2" spiral nails @ 6" o.c. staggered in 2 rows



S.152566



Boise Cascade

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP Floor Beam\B21

Dry | 1 span | No cantilevers | 0/12 slope (deg)

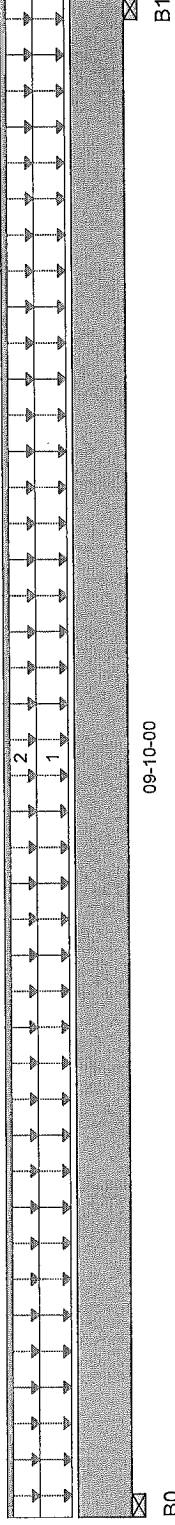
November 26, 2017 13:16:13

BC CALCC® Design Report



Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



09-10-00

B0 B1 Total Horizontal Product Length = 09-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	2,163 / 0	1,436 / 0		
B1, 3-1/2"	2,163 / 0	1,436 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft ²)	L	00-00-00	09-10-00	40	20			11-00-00
2	Unf. Lin. (lb/ft)	L	00-00-00	09-10-00		60			n/a

Controls Summary

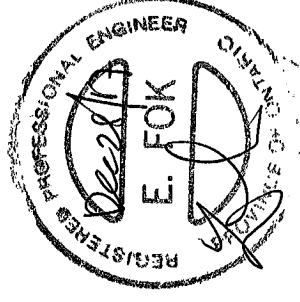
Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	11,261 ft-lbs	35,392 ft-lbs	31.8%	1	04-11-00
End Shear	3,726 lbs	14,464 lbs	25.8%	1	01-03-06
Total Load Defl.	L/864 (0.13")	0.469"	27.8%	4	04-11-00
Live Load Defl.	L/999 (0.078")	n/a	n/a	5	04-11-00
Max Defl.	0.13"	1"	13%	4	04-11-00
Span / Depth	9.5	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	5,040 lbs	66.9%	33.7%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	5,040 lbs	66.9%	33.7%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALCC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4 Nail one ply to another with 3 1/2" spiral nails @ 10" o.c. staggered in 2 rows



S152567



Boise Cascade

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B22



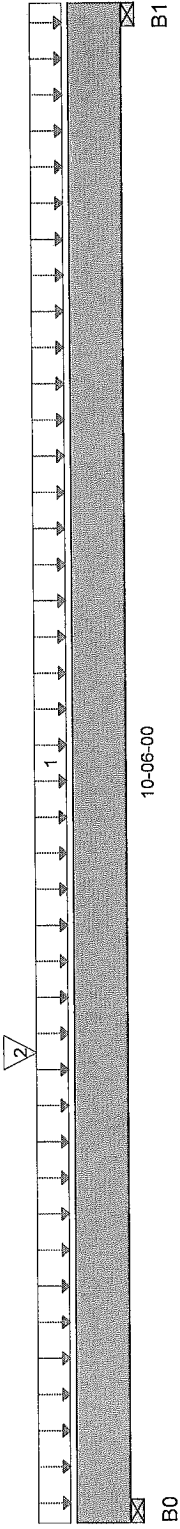
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 13:18:23

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 10'-06'-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Trib.
B0, 3-1/2"	3,213 / 0	1,918 / 0			
B1, 3-1/2"	2,352 / 0	1,346 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1		Unf. Area (lb/ft^2)	L	00-00-00	10-06-00	54	27			06-00-00
2		Conc. Pt. (lbs)	L	03-03-00	03-03-00	2,163	1,436			n/a

Controls Summary

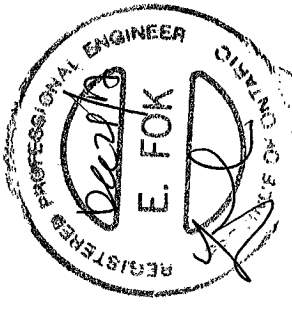
Pos.	Moment	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
1	18,109 ft-lbs	35,392 ft-lbs	51.2%	1	03-03-00	
End Shear	6,315 lbs	14,464 lbs	43.7%	1	01-03-06	
Total Load Defl.	L/538 (0.224")	0.502"	44.6%	4	05-00-04	
Live Load Defl.	L/859 (0.14")	0.335"	41.9%	5	05-00-04	
Max Defl.	0.224"	1"	22.4%	4	05-00-04	
Span / Depth	10.1	n/a	n/a		00-00-00	
Squash Blocks	Valid					

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	7,217 lbs	95.8%	48.3%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	5,210 lbs	69.1%	34.9%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4 Nail one ply to another with 3 1/2" spiral nails @ 12" o.c, staggered in 2 rows



5152568



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B23



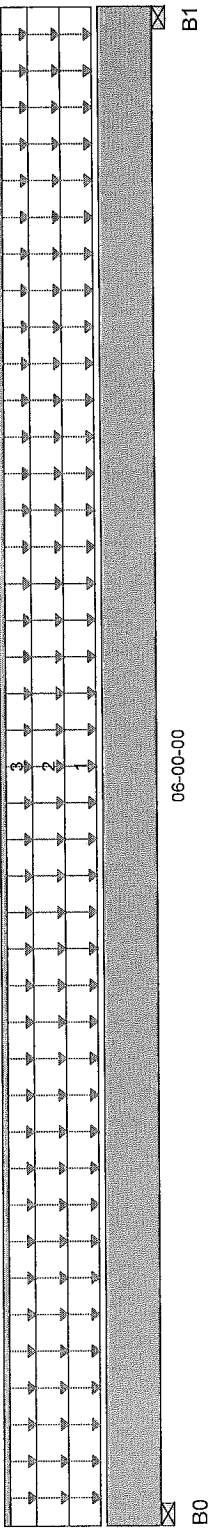
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 13:23:10

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



B0
B1
06-00-00
Total Horizontal Product Length = 06-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	660 / 0	681 / 0	63 / 0	
B1, 3-1/2"	660 / 0	681 / 0	63 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft^2)	L	00-00-00	06-00-00	40	20			05-06-00
2	Unf. Area (lb/ft^2)	L	00-00-00	06-00-00		11		21	01-00-00
3	Unf. Lin. (lb/ft)	L	00-00-00	06-00-00		100			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	2,396 ft-lbs	17,696 ft-lbs	13.5%	1	03-00-00
End Shear	1,073 lbs	7,232 lbs	14.8%	1	01-03-06
Total Load Defl.	L/999 (0.02")	n/a	n/a	11	03-00-00
Live Load Defl.	L/999 (0.01")	n/a	n/a	15	03-00-00
Max Defl.	0.02"	n/a	n/a	11	03-00-00
Span / Depth	5.6	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

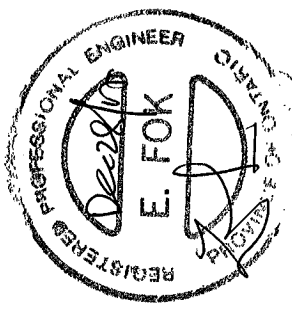
BC CALC®, BC FRAMER®, AUS™, ALLJOIST®, BC RIM BOARD™, BC®, BOISE GLULAM™, SIMPLE FRAMING SYSTEM®, VERSA-LAM®, VERSA-RIM PLUS®, VERSA-RIM®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products L.L.C.

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	1,873 lbs	49.7%	25.1%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	1,873 lbs	49.7%	25.1%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S152569



Boise Cascade

BC CALC® Design Report



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

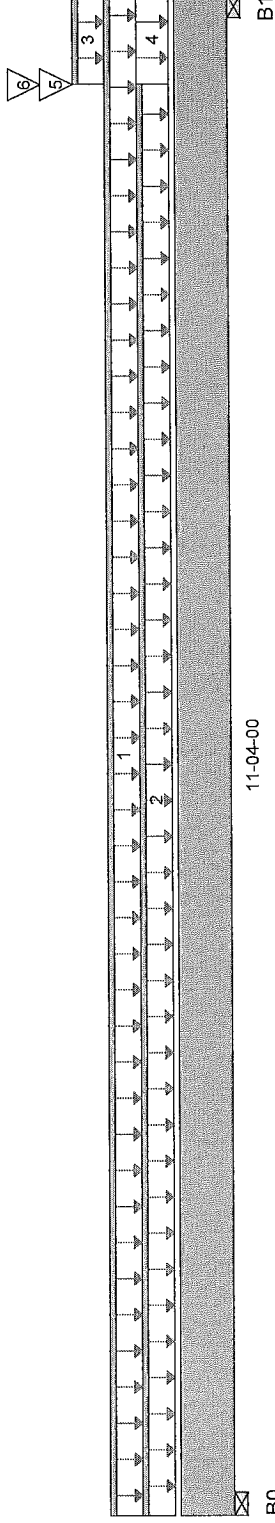
Floor Beam\B24

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 14:13:04

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 11-04-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	332 / 0	266 / 0	8 / 0	
B1, 3-1/2"	922 / 0	1,201 / 0	229 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	11-04-00	27	14			n/a
2	Unf. Lin. (lb/ft)	L	00-00-00	10-08-00	27	14			n/a
3	Unf. Lin. (lb/ft)	L	10-08-00	11-04-00		100			n/a
4	Unf. Area (lb/ft^2)	L	10-08-00	11-04-00		11	21		03-00-00
5	Conc. Pt. (lbs)	L	10-08-00	10-08-00	660	681	63		n/a
6	Conc. Pt. (lbs)	L	10-08-00	10-08-00		252	132		n/a

Controls Summary

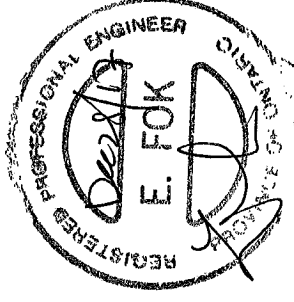
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	2,471 ft-lbs	35,392 ft-lbs	7%	1	06-04-04
End Shear	1,447 lbs	14,464 lbs	10%	1	10-00-10
Total Load Defl.	L/999 (0.04")	n/a	n/a	11	05-09-10
Live Load Defl.	L/999 (0.022")	n/a	n/a	15	05-09-10
Max Defl.	0.04"	n/a	n/a	11	05-09-10
Span / Depth	11	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	835 lbs	11.1%	5.6%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	2,998 lbs	39.8%	20.1%	Spruce Pine Fir

Notes

Nail one ply to another with
3 1/2" spiral nails @ 12"
o.c, staggered in 2 rows



S152570



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B25



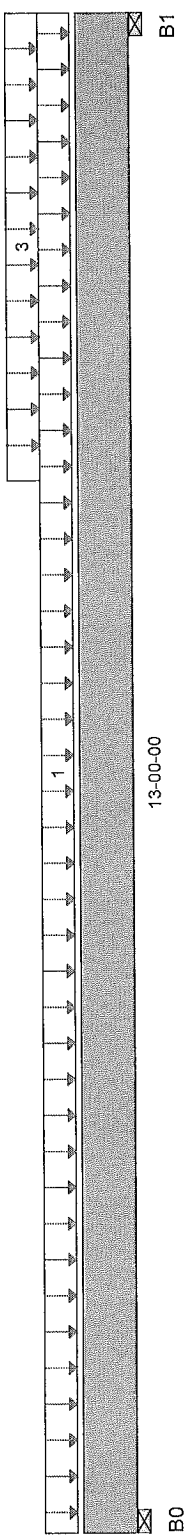
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 15:07:06

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B0, 3-1/2"	707 / 0	304 / 0
B1, 3-1/2"	993 / 0	412 / 0

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Trib.
1	Unf. Area (lb/ft^2)	L	00-00-00	13-00-00	40	15	02-06-00
3	Unf. Area (lb/ft^2)	L	09-00-00	13-00-00	40	15	02-06-00

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	4,750 ft-lbs	17,696 ft-lbs	26.8%	1	07-00-13
End Shear	1,491 lbs	7,232 lbs	20.6%	1	11-08-10
Total Load Defl.	L/769 (0.196")	0.627"	31.2%	4	06-07-01
Live Load Defl.	L/1,096 (0.137")	0.418"	32.8%	5	06-07-01
Max Defl.	0.196"	1"	19.6%	4	06-07-01
Span / Depth	12.7	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

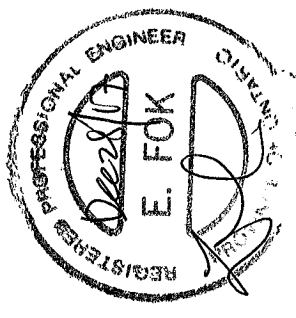
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Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	1,440 lbs	38.2%	19.3%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	2,005 lbs	53.2%	26.8%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S/52571



Boise Cascade

Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Floor Beam\B26

Dry | 1 span | No cantilevers | 0/12 slope (deg)

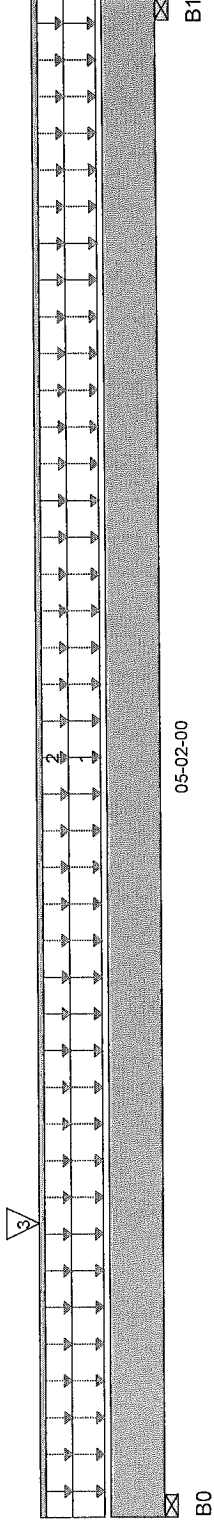
November 26, 2017 15:09:37



BC CALC® Design Report

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 05-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	912 / 0	575 / 0		
B1, 3-1/2"	594 / 0	455 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	05-02-00	40	20			05-00-00
2	Unf. Lin. (lb/ft)	L	00-00-00	05-02-00		60			n/a
3	Conc. Pt. (lbs)	L	01-00-00	01-00-00	473	178			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	1,784 ft-lbs	11,610 ft-lbs	15.4%	1	02-03-10
End Shear	1,440 lbs	5,785 lbs	24.9%	1	01-01-00
Total Load Defl.	L/999 (0.021")	n/a	n/a	4	02-06-07
Live Load Defl.	L/999 (0.012")	n/a	n/a	5	02-05-14
Max Defl.	0.021"	n/a	n/a	4	02-06-07
Span / Depth	5.9	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

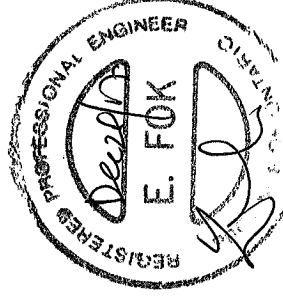
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Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	2,087 lbs	55.4%	27.9%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	1,460 lbs	38.7%	19.5%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S.152572



Boise Cascade

Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Floor Beam\B27

Dry | 1 span | No cantilevers | 0/12 slope (deg)

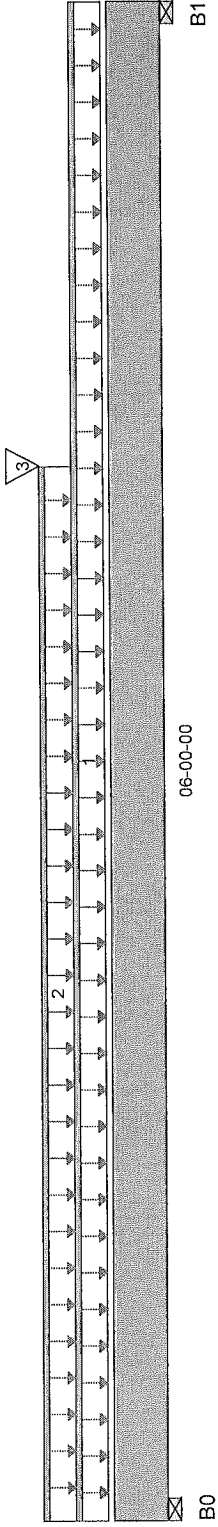
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BC CALC® Design Report



Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 06-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	420 / 0	442 / 0		
B1, 3-1/2"	767 / 0	665 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	06-00-00	27	74			n/a
2	Unf. Lin. (lb/ft)	L	00-00-00	04-02-00	27	14			n/a
3	Conc. Pt. (lbs)	L	04-02-00	04-02-00	912	575			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	2,948 ft-lbs	11,610 ft-lbs	25.4%	1	04-02-00
End Shear	1,830 lbs	5,785 lbs	31.6%	1	04-11-00
Total Load Defl.	L/999 (0.04")	n/a	n/a	4	03-02-07
Live Load Defl.	L/999 (0.022")	n/a	n/a	5	03-02-07
Max Defl.	0.04"	n/a	n/a	4	03-02-07
Span / Depth	7	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

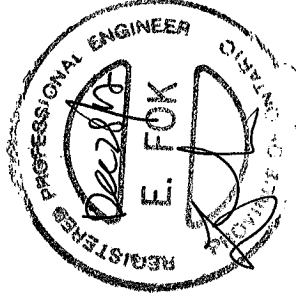
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Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	1,182 lbs	31.4%	15.8%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	1,981 lbs	52.6%	26.5%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S.152573



Boise Cascade

Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Floor Beam\B28



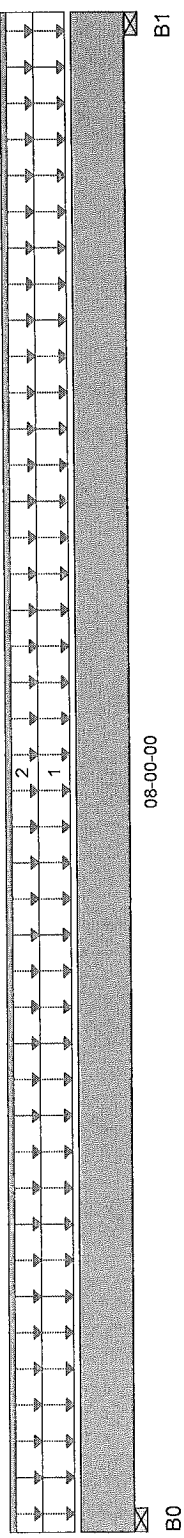
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 15:10:47

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
B0, 3-1/2"	Unf. Area (lb/ft²)	L	00-00-00	08-00-00	40	20	1.00	1.15	03-00-00
B1, 3-1/2"	Unf. Lin. (lb/ft)	L	00-00-00	08-00-00	60	60			n/a

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	08-00-00	40	20	1.00	1.15	03-00-00
2	Unf. Lin. (lb/ft)	L	00-00-00	08-00-00	60	60			n/a

Controls Summary

Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	2,389 ft-lbs	11,610 ft-lbs	20.6%	1	04-00-00
End Shear	980 lbs	5,785 lbs	16.9%	1	01-01-00
Total Load Defl.	L/999 (0.071")	n/a	n/a	4	04-00-00
Live Load Defl.	L/999 (0.035")	n/a	n/a	5	04-00-00
Max Defl.	0.071"	n/a	n/a	4	04-00-00
Span / Depth	9.5	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

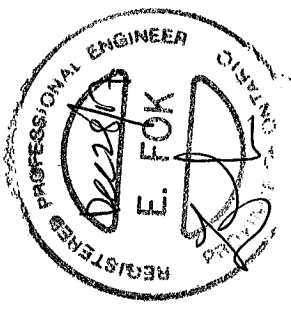
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Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	1,344 lbs	35.7%	18%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	1,344 lbs	35.7%	18%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S.152574



Boise Cascade

Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Floor Beam\B29

Dry | 1 span | No cantilevers | 0/12 slope (deg)

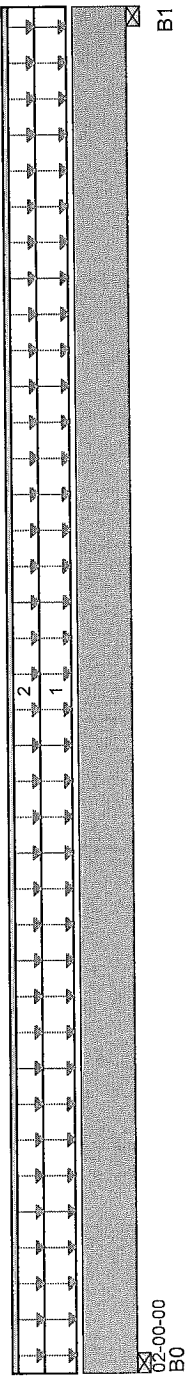
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BC CALC® Design Report

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 02-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Trib.
B0, 3-1/2"	103 / 0	116 / 0			
B1, 3-1/2"	103 / 0	116 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1		Unf. Area (lb/ft²)	L	00-00-00	02-00-00	40	20			02-07-00
2		Unf. Lin. (lb/ft)	L	00-00-00	02-00-00		60			n/a

Controls Summary

Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	89 ft-lbs	11,610 ft-lbs	0.8%	1	01-00-00
End Shear	25 lbs	5,785 lbs	0.4%	1	01-01-00
Total Load Defl.	L/999 (0")	n/a	n/a	4	01-00-00
Live Load Defl.	L/999 (0")	n/a	n/a	5	01-00-00
Max Defl.	0"	n/a	n/a	4	01-00-00
Span / Depth	1.9	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

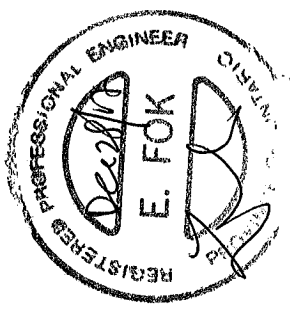
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Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	301 lbs	8%	4%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	301 lbs	8%	4%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S.152575



Boise Cascade

Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Floor Beam\B30

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 26, 2017 15:12:13



BC CALC® Design Report

Build 6080

Job Name:

45147 (5003)

Address:

Pine Valley

City, Province, Postal Code: Vaughan, ON

Customer:

Gold Park

Code reports:

CCMC 12472-R

File Name: 290683.bcc

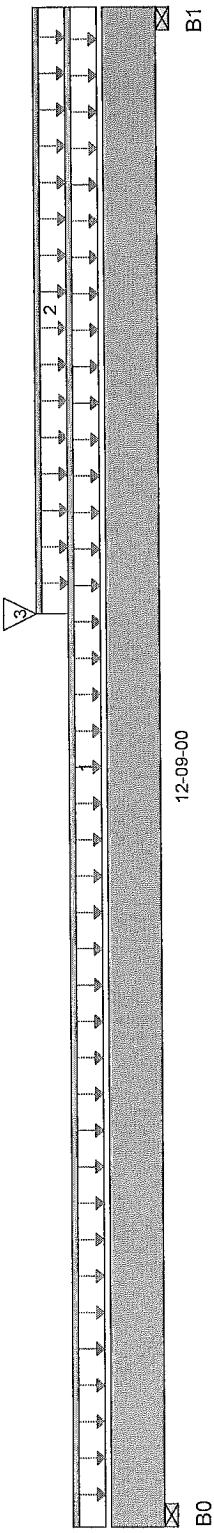
Description: First Floor Framing

Specifier:

Designer: NL

Company: Alpa Roof Trusses

Misc:



Total Horizontal Product Length = 12-09-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	239 / 0	562 / 0		
B1, 3-1/2"	346 / 0	630 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	12-09-00	27	74			n/a
2	Unf. Lin. (lb/ft)	L	07-08-00	12-09-00	27	14			n/a
3	Conc. Pt. (lbs)	L	07-08-00	07-08-00	103	116			n/a

Controls Summary

Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	2,624 ft-lbs	7,546 ft-lbs	34.8%	0	07-00-09
End Shear	742 lbs	3,761 lbs	19.7%	0	11-08-00
Total Load Defl.	L/491 (0.301")	0.615"	48.9%	4	06-05-03
Live Load Defl.	L/999 (0.1")	n/a	n/a	5	06-07-10
Max Defl.	0.301"	1"	30.1%	4	06-05-03
Span / Depth	15.5	n/a	n/a		00-00-00
Squash Blocks	Valid				

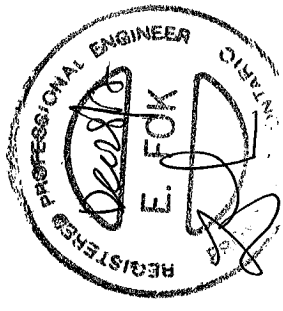
Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

Bearing Supports	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	786 lbs	32.1%	16.2%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	883 lbs	36%	18.2%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S152576



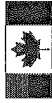
Boise Cascade

Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Floor Beam\B31

Dry | 1 span | No cantilevers | 0/12 slope (deg)

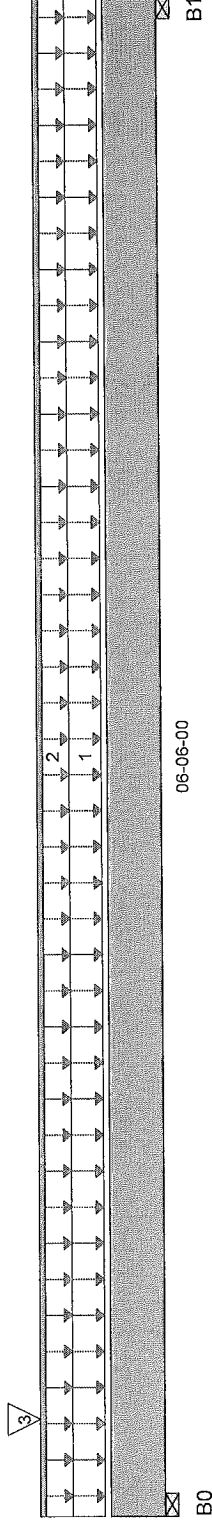
November 26, 2017 15:34:25



BC CALC® Design Report

Build 6080
Job Name: 45147 (5003)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290683.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	1,077 / 0	1,178 / 0		
B1, 3-1/2"	852 / 0	651 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	06-06-00	40	20			06-06-00
2	Unf. Lin. (lb/ft)	L	00-00-00	06-06-00		60			n/a
3	Conc. Pt. (lbs)	L	00-05-00	00-05-00	239	562			n/a

Controls Summary

Pos. Moment	2,991 ft-lbs	11,610 ft-lbs	25.8%	1	03-02-03
End Shear	1,507 lbs	5,785 lbs	26.1%	1	01-01-00
Total Load Defl.	L/999 (0.057")	n/a	n/a	4	03-03-00
Live Load Defl.	L/999 (0.032")	n/a	n/a	5	03-03-00
Max Defl.	0.057"	n/a	n/a	4	03-03-00
Span / Depth	7.6	n/a	n/a		00-00-00
Squash Blocks	Valid				

be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods.
Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

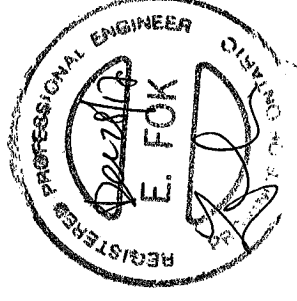
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Bearing Supports

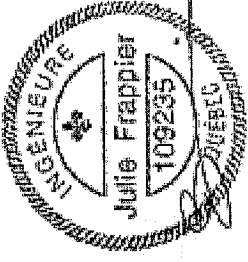
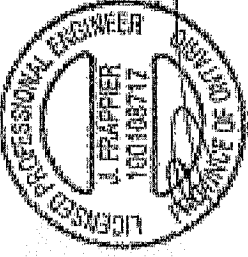
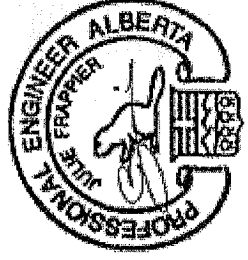
	Dim. (L x W)	Demand	Demand / Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	3,087 lbs	81.9%	41.3%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	2,092 lbs	55.5%	28%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S152577



Maximum Floor Spans

Live Load = 40 psf, Dead Load = 15 psf
Simple Spans, L/360 Deflection Limit
3/4" OSB G&N Sheathing

Depth	Series	Bare			1/2" Gypsum Ceiling		
		12"	16"	19.2"	On Centre Spacing	15"	On Centre Spacing
9-1/2"	NI-20	15'-10"	15'-0"	14'-5"	13'-5"	16'-4"	14'-6"
	NI-40x	17'-0"	16'-0"	15'-5"	14'-9"	17'-5"	15'-10"
	NI-60	17'-2"	16'-2"	15'-7"	14'-11"	17'-6"	15'-11"
	NI-70	18'-0"	16'-11"	16'-3"	15'-7"	18'-5"	16'-7"
	NI-80	18'-3"	17'-1"	16'-5"	15'-9"	18'-8"	17'-3"
11-7/8"	NI-20	17'-10"	16'-10"	16'-2"	15'-6"	18'-6"	17'-4"
	NI-40x	19'-4"	17'-11"	17'-3"	16'-6"	19'-11"	18'-6"
	NI-60	19'-7"	18'-2"	17'-5"	16'-9"	20'-2"	18'-9"
	NI-70	20'-9"	19'-2"	18'-3"	17'-5"	21'-4"	19'-9"
	NI-80	21'-1"	19'-5"	18'-6"	17'-7"	21'-7"	20'-0"
14"	NI-90x	21'-8"	20'-0"	19'-1"	18'-0"	22'-2"	20'-6"
	NI-40x	21'-5"	19'-10"	18'-11"	17'-11"	22'-1"	20'-6"
	NI-60	21'-10"	20'-2"	19'-3"	18'-2"	22'-5"	20'-10"
	NI-70	23'-0"	21'-3"	20'-3"	19'-2"	23'-8"	21'-11"
	NI-80	23'-5"	21'-7"	20'-7"	19'-5"	24'-0"	22'-3"
16"	NI-90x	24'-1"	22'-3"	21'-2"	20'-0"	24'-8"	22'-10"
	NI-40x	23'-9"	22'-0"	20'-11"	19'-10"	24'-6"	22'-9"
	NI-60	25'-1"	23'-2"	22'-0"	20'-10"	25'-9"	23'-10"
	NI-80	25'-6"	23'-6"	22'-4"	21'-2"	26'-1"	24'-2"
	NI-90x	26'-4"	24'-3"	23'-1"	21'-10"	26'-11"	24'-11"

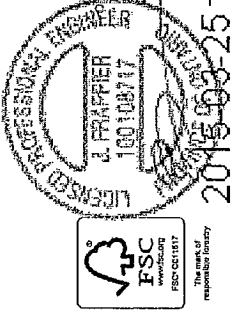
Depth	Series	Mid-Span Blocking			Mid-Span Blocking and 1/2" Gypsum Ceiling		
		12"	16"	On Centre Spacing	12"	16"	On Centre Spacing
9-1/2"	NI-20	17'-1"	15'-5"	14'-6"	13'-5"	17'-1"	15'-5"
	NI-40x	18'-8"	17'-6"	16'-7"	15'-3"	19'-2"	17'-8"
	NI-60	18'-11"	17'-8"	16'-10"	15'-7"	19'-4"	18'-0"
	NI-70	20'-0"	18'-7"	17'-9"	17'-0"	20'-5"	19'-0"
	NI-80	20'-3"	18'-10"	17'-11"	17'-2"	20'-8"	19'-3"
11-7/8"	NI-20	20'-2"	18'-8"	17'-6"	16'-2"	20'-7"	18'-8"
	NI-40x	21'-10"	20'-4"	19'-5"	17'-8"	22'-5"	20'-11"
	NI-60	22'-1"	20'-7"	19'-7"	18'-7"	22'-8"	21'-2"
	NI-70	23'-4"	21'-8"	20'-8"	19'-7"	23'-10"	22'-3"
	NI-80	23'-7"	21'-11"	20'-11"	19'-9"	24'-1"	22'-6"
14"	NI-90x	24'-3"	22'-6"	21'-6"	20'-4"	24'-8"	23'-0"
	NI-40x	24'-5"	22'-9"	21'-8"	19'-5"	25'-1"	23'-6"
	NI-60	24'-10"	23'-1"	22'-0"	20'-10"	25'-6"	23'-10"
	NI-70	26'-1"	24'-3"	23'-2"	21'-10"	26'-8"	24'-11"
	NI-80	26'-6"	24'-7"	23'-5"	22'-2"	27'-1"	25'-3"
16"	NI-90x	27'-3"	25'-4"	24'-1"	22'-9"	27'-9"	25'-11"
	NI-60	27'-3"	25'-5"	24'-2"	22'-10"	28'-0"	26'-2"
	NI-70	28'-8"	26'-8"	25'-4"	23'-11"	29'-3"	27'-4"
	NI-80	29'-1"	27'-0"	25'-9"	24'-4"	29'-8"	27'-9"
	NI-90x	29'-11"	27'-10"	26'-6"	25'-0"	30'-6"	28'-5"

1. Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 15 psf. The ultimate limit states are based on the factored loads of 1.50L + 1.25D. The serviceability limit states include the consideration for floor vibration, a live load deflection limit of L/360 and a total load deflection limit of L/240.
2. Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 3/4 inch for a joist spacing of 24 inches or less. The composite floor may include 1/2 inch gypsum ceiling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum ceiling attached to joists.
3. Minimum bearing length shall be 1-3/4 inches for the end bearings.
4. Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.
5. This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA O86-09, NBC 2010, and OBC 2012.
6. Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-1274C.



www.nordicwpc.com

Refer to the Installation Guide for Residential Floors for additional information.
CMC EVALUATION REPORT 13032-R



WEB HOLE SPECIFICATIONS

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, respectively.
- I-joint top and bottom flanges must NEVER be cut, notched, or otherwise modified.
- Whenever possible, field-cut holes should be centered on the middle of the web.
- The maximum size hole or the maximum depth of a duct chase opening that can be cut into an I-joint web shall equal the clear distance between the flanges of the I-joint minus 1/4 inch. A minimum of 1/8 inch should always be maintained between the top or bottom of the hole or opening and the adjacent I-joint flange.

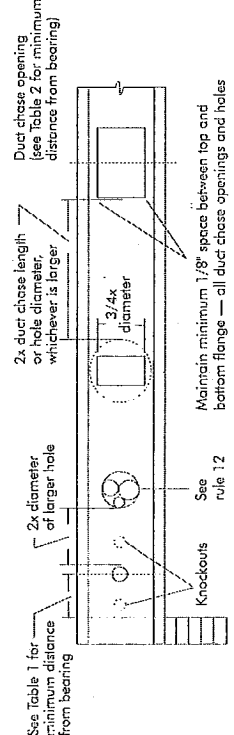
TABLE 1

LOCATION OF CIRCULAR HOLES IN JOIST WEBS
Simple or Multiple Span for Dead Loads up to 15 psf and Live Loads up to 40 psf

Joist Depth	Joist Series	Minimum Distance from Inside Face of Any Support to Centre of Hole (ft. - in.)										
		2	3	4	5	6	6-1/4	7	8	8-5/8	9	10
9-1/2"	NL-20	0-7"	1-6"	2-10"	4-3"	5-8"	6-0"	---	---	---	---	12-3/4"
	NL-40x	0-7"	1-6"	3-0"	4-1"	6-0"	6-4"	---	---	---	---	---
	NL-60	1-3"	2-6"	4-0"	5-4"	7-0"	7-5"	---	---	---	---	---
	NL-80	2-0"	3-4"	5-0"	6-3"	8-0"	8-4"	---	---	---	---	---
	NL-90x	2-3"	3-6"	5-0"	6-3"	8-0"	8-4"	---	---	---	---	---
11-7/8"	NL-20	0-7"	0-8"	1-0"	2-4"	3-8"	4-0"	5-0"	6-4"	7-9"	---	---
	NL-40x	0-7"	0-8"	1-3"	2-8"	4-0"	4-4"	5-5"	7-0"	8-4"	---	---
	NL-60	0-7"	1-8"	3-0"	4-3"	5-9"	6-0"	7-3"	8-10"	10-0"	---	---
	NL-80	1-3"	2-6"	4-0"	5-4"	6-9"	7-2"	8-4"	10-0"	11-2"	---	---
	NL-90x	1-6"	2-10"	4-2"	5-6"	7-0"	7-5"	8-6"	10-3"	11-4"	---	---
14"	NL-20	0-7"	0-8"	1-5"	3-2"	4-10"	5-4"	6-9"	8-9"	10-2"	---	---
	NL-40x	0-7"	0-8"	1-5"	3-2"	4-10"	5-4"	6-9"	8-9"	10-2"	---	---
	NL-60	0-7"	0-8"	1-0"	2-4"	3-8"	4-0"	5-0"	6-4"	7-9"	---	---
	NL-80	0-7"	1-0"	2-3"	3-6"	4-10"	5-3"	6-3"	7-8"	8-6"	---	---
	NL-90x	0-7"	1-0"	2-3"	3-6"	4-10"	5-3"	6-3"	7-8"	8-6"	---	---
16"	NL-20	0-7"	0-8"	1-0"	2-4"	3-8"	4-0"	5-0"	6-4"	7-9"	---	---
	NL-40x	0-7"	0-8"	1-0"	2-4"	3-8"	4-0"	5-0"	6-4"	7-9"	---	---
	NL-60	0-7"	1-0"	2-3"	3-6"	4-10"	5-3"	6-3"	7-8"	8-6"	---	---
	NL-80	0-7"	1-3"	2-6"	3-10"	5-3"	5-6"	6-3"	8-0"	9-0"	---	---
	NL-90x	0-7"	0-8"	0-9"	2-0"	3-6"	4-0"	5-0"	6-9"	7-9"	---	---

1. Above table may be used for I-joint spacing of 24 inches on centre or less.
2. Hole location distance is measured from inside face of supports to centre of hole.
3. Distances in this chart are based on uniformly loaded joists.
4. The above table is based on the I-joists being used at their maximum spans. The minimum distance as given above may be reduced for shorter spans; contact your local distributor.

FIGURE 7
FIELD-CUT HOLE LOCATOR



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 unfastened I-joists. Once sheathed, do not over-stress I-joists with concentrated loads from building materials.

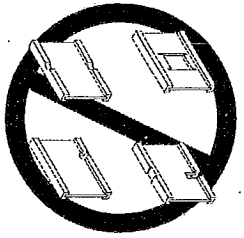
- WARNING:** I-joists are not stable until completely installed, and will not carry any load until fully braced and sheathed.
- AVOID ACCIDENTS BY FOLLOWING THESE INSTALLATION GUIDELINES:**
1. Brace and nail each I-joint as it is installed, using hangers, blocking panels, rim board, and/or cross-bracing at joist ends.
 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, or temporary sheathing must be applied to prevent I-joint rollover or buckling.
 3. Temporary bracing or struts must be 1x4 inch minimum, at least 8 feet long and spaced no more than 8 feet on centre, and must be secured with a minimum of two 2-1/2 inch nails fastened to the top surface of each I-joint. Nail the bracing to a lateral restraint at the end of each bay. Lap ends of bracing over at least two I-joists.
 4. For cantilevered I-joists, brace top and bottom flanges, and brace ends with closure panels, rim board, or cross-bracing.
 5. Install and fully nail permanent sheathing to each I-joint before placing loads on the floor system. Then, stack building materials over beams or walls only.
 6. Never install a damaged I-joint.
- 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.

TABLE 2

DUCT CHASE OPENING SIZES AND LOCATIONS
Simple Span Only

Joist Depth	Joist Series	Minimum distance from inside face of supports to centre of opening (ft. - in.)										
		8	10	12	14	16	18	20	22	24	26	28
9-1/2"	NL-20	4-1"	4-5"	4-10"	5-4"	5-8"	6-1"	6-6"	7-1"	7-5"	---	---
	NL-40x	5-3"	5-8"	6-0"	6-10"	6-7"	7-1"	7-5"	8-0"	8-6"	---	---
	NL-60	5-4"	5-9"	6-2"	6-7"	7-1"	7-5"	8-0"	8-3"	8-9"	---	---
	NL-80	5-1"	5-5"	5-10"	6-3"	6-7"	7-1"	7-6"	8-1"	8-4"	---	---
	NL-90x	5-3"	5-8"	5-8"	6-10"	6-5"	7-3"	7-8"	8-2"	8-6"	---	---
11-7/8"	NL-20	5-0"	6-2"	6-6"	7-1"	7-5"	7-9"	8-3"	8-9"	9-4"	---	---
	NL-40x	6-8"	7-2"	7-6"	8-1"	8-6"	9-1"	9-6"	10-1"	10-9"	---	---
	NL-60	7-3"	7-8"	8-0"	8-6"	9-0"	9-3"	9-6"	10-1"	10-4"	---	---
	NL-80	7-1"	7-6"	7-9"	8-3"	8-7"	9-1"	9-6"	10-1"	10-4"	---	---
	NL-90x	7-2"	7-7"	8-0"	8-5"	8-10"	9-3"	9-8"	10-2"	10-8"	---	---
14"	NL-20	8-1"	8-7"	8-5"	8-10"	9-2"	9-7"	10-1"	10-7"	10-11"	---	---
	NL-40x	8-1"	8-7"	9-0"	9-6"	10-1"	10-7"	11-2"	12-0"	12-8"	---	---
	NL-60	8-9"	9-3"	9-8"	10-1"	10-5"	11-1"	11-6"	12-3"	13-0"	---	---
	NL-80	8-7"	9-1"	9-5"	9-10"	10-4"	10-8"	11-2"	11-7"	12-3"	---	---
	NL-90x	9-0"	9-3"	9-9"	10-1"	10-7"	11-1"	11-6"	12-1"	12-6"	---	---
16"	NL-20	9-2"	9-8"	10-0"	10-6"	10-11"	11-5"	11-9"	12-4"	12-11"	---	---
	NL-40x	9-4"	9-9"	10-3"	10-7"	11-1"	11-7"	12-1"	12-7"	13-2"	---	---
	NL-60	10-3"	10-8"	11-2"	11-6"	12-1"	12-6"	13-2"	14-1"	14-10"	---	---
	NL-80	10-4"	10-9"	11-0"	11-4"	11-10"	12-3"	12-8"	13-3"	14-0"	---	---
	NL-90x	10-9"	11-2"	11-8"	12-0"	12-6"	13-0"	13-6"	14-2"	14-10"	---	---

1. Above table may be used for I-joint spacing of 24 inches on centre or less.
2. Duct chase opening location distance is measured from inside face of supports to centre 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 15 psf, and a live load deflection limit of L/480.
5. The above table is based on the I-joists being used at their maximum spans. The minimum distance as given above may be reduced for shorter spans; contact your local distributor.



Knockouts are pre-cored 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 centre along the length of the I-joint. 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-joint.



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



Never stack building materials over unfastened I-joists. Once sheathed, do not over-stress I-joists with concentrated loads from building materials.

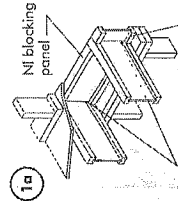


PRODUCT WARRANTY

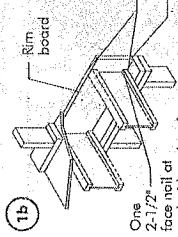
Chantiers Chibougamau guarantees that, in accordance with our specifications, Nordic products are free from manufacturing defects in material and workmanship.

Furthermore, Chantiers Chibougamau warrants that our products, when utilized in accordance with our handling and installation instructions, will meet or exceed our specifications for the lifetime of the structure.

Blocking Panel or Rim Joist	Maximum Factored Uniform Vertical Load* (plf)
NI Joists	3,300

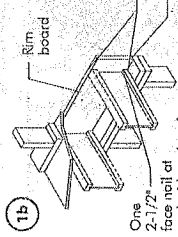


Attach I-joist to top plate per detail 1b



One 2-1/2" face nail at each side at bearing

Blocking Panel or Rim Joist	Maximum Factored Uniform Vertical Load* (plf)
1-1/8" Rim Board Plus	8,090



Rim board

*The uniform vertical load is limited to a rim board depth of 16 inches or less and is based on standard term 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, see detail 1d.

One 2-1/2" wire or spiral nail at top and bottom flange

Attach rim board to top plate using 2-1/2" wire or spiral tie-nails at 6" o.c.

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

Minimum bearing length shall be 1-3/4" for the end bearings, and 3-1/2" for the intermediate bearings when applicable.

1a

1b

1c

1d

1e

1f

1g

1h

1i

1j

1k

1l

1m

1n

1o

1p

1q

1r

1s

1t

1u

1v

1w

1x

1y

1z

2a

2b

2c

2d

2e

2f

2g

2h

2i

2j

2k

2l

2m

2n

2o

2p

2q

2r

2s

2t

2u

2v

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7q

7r

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8a

8b

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8f

8g

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8k

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8n

8o

8p

8q

8r

8s

8t

8u

8v

8w

8x

8y

8z

9a

9b

9c

9d

9e

9f

9g

9h

9i

9j

9k

9l

9m

9n

9o

9p

9q

9r

9s

9t

9u

9v

9w

9x

9y

9z

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10c

10d

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11f

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11q

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12v

12w

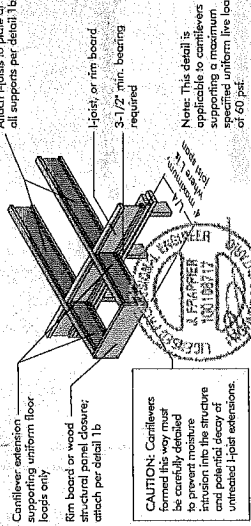
12x

12y

12z

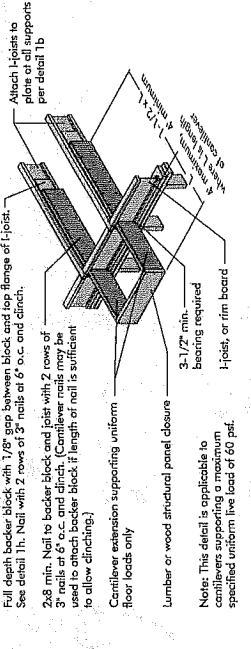
CANTILEVER DETAILS FOR BALCONIES (NO WALL LOAD)

4a) I-JOIST CANTILEVER DETAIL FOR BALCONIES (NO WALL LOAD)



CAUTION: Cantilevers formed this way must be carefully detailed to ensure proper load transfer into the structure and potential decay of untreated I-joist extensions.

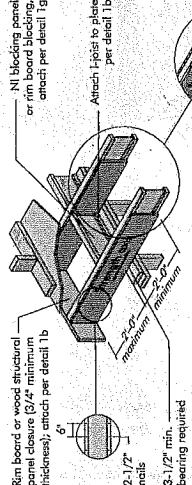
3b) LUMBER CANTILEVER DETAIL FOR BALCONIES (NO WALL LOAD)



Note: This detail is applicable to cantilevers supporting a maximum specified uniform live load of 60 psf.

CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET (CONCENTRATED WALL LOAD)

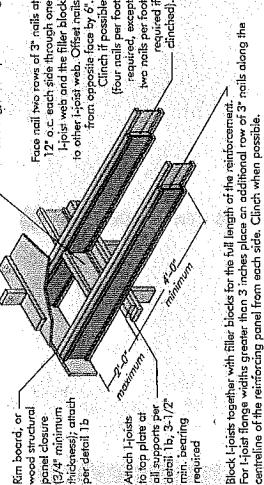
4a) Method 1 — SHEATHING REINFORCEMENT ONE SIDE



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 nailing offset by 3\"/>

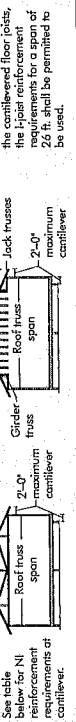
Note: Canadian approved sheathing or equivalent (minimum thickness 3/4\") required on sides of joist. Depth shall match the full height of the joist. Nail with 2-1/2\"/>

4b) Alternate Method 2 — DOUBLE I-JOIST



Block I-joists together with filler blocks for the full length of the reinforcement. For I-joist flange widths greater than 3 inches place an additional row of 3\"/>

FIGURE 4 (continued)

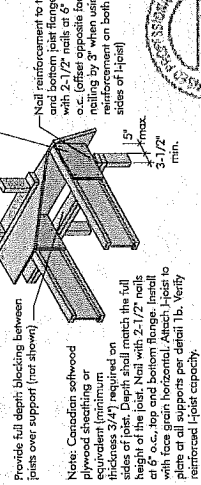


CANTILEVER REINFORCEMENT METHODS ALLOWED

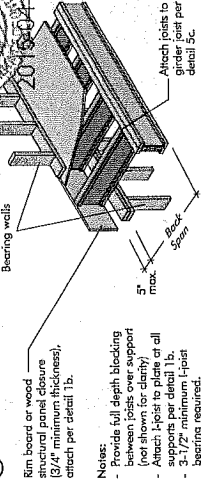
JOIST DEPTH (in.)	ROOF FLOORING (UNFACTORED)									
	1L-36 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf
9-1/2"	N	N	N	N	N	N	N	N	N	N
11-7/8"	N	N	N	N	N	N	N	N	N	N
14"	N	N	N	N	N	N	N	N	N	N
16"	N	N	N	N	N	N	N	N	N	N

1. N = No reinforcement required.
 2. N = Reinforced with 3/4\"/>

5a) SHEATHING REINFORCEMENT



5b) SET-BACK DETAIL



5c) SET-BACK CONNECTION

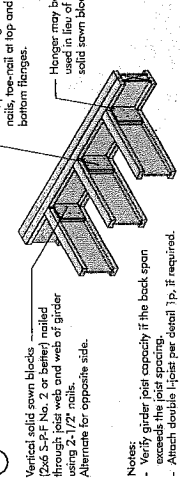


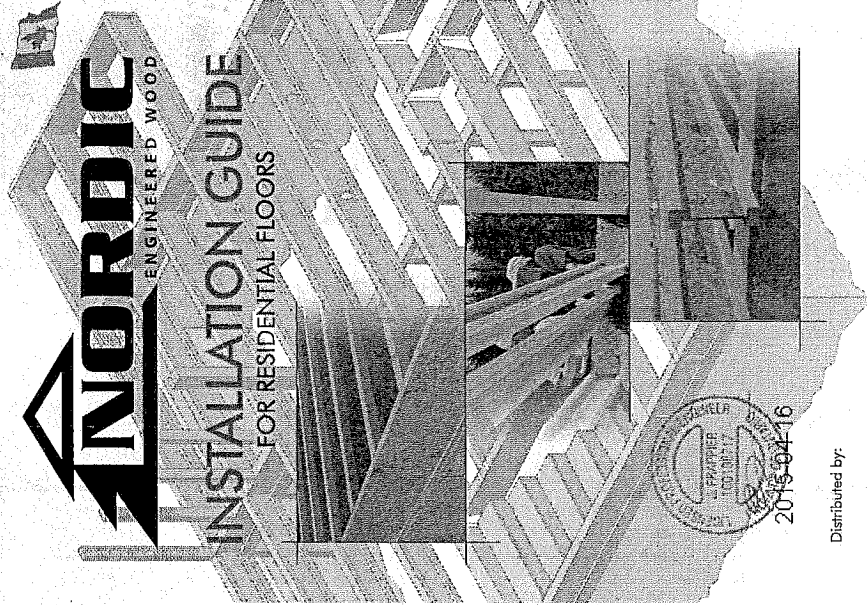
FIGURE 5 (continued)



BRICK CANTILEVER REINFORCEMENT METHODS ALLOWED

JOIST DEPTH (in.)	ROOF FLOORING (UNFACTORED)									
	1L-36 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf	1L-40 psf DL = 15 psf
9-1/2"	N	N	N	N	N	N	N	N	N	N
11-7/8"	N	N	N	N	N	N	N	N	N	N
14"	N	N	N	N	N	N	N	N	N	N
16"	N	N	N	N	N	N	N	N	N	N

1. N = No reinforcement required.
 2. N = Reinforced with 3/4\"/>



INSTALLATION GUIDE FOR RESIDENTIAL FLOORS

2015-04-16
FSC
COC 1001817

Distributed by:

SAFETY AND CONSTRUCTION PRECAUTIONS



WARNING
I-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-bracing at joist ends. When I-joists are applied continuously over interior supports and a load-bearing wall is planned at that location, blocking will be required of the interior support.
2. When the building is completed, the floor sheathing will provide lateral support for the top flange of the I-joists. Until this sheathing is applied, temporary bracing or blocking, or temporary sheathing must be applied to prevent I-joist rollover or buckling.

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



Never stack building materials over unbraced I-joists. Once sheathed, do not over-stress I-joists with concentrated loads from building materials.

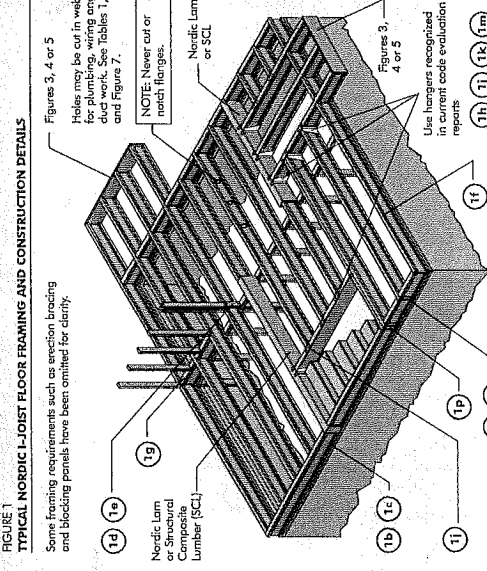
- Temporary bracing or sheath must be 1x4, inch minimum, at least 8 feet long and extend beyond the I-joist ends a minimum of 8 feet on each end, and must be secured with a minimum of two 2-1/2" nails fastened to the top surface of each I-joist. Nail the bracing to a lateral restraint at the end of each bay. Lap ends of adjoining bracing over at least two I-joists.
 - 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-bracing.
 - 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.

STORAGE AND HANDLING GUIDELINES

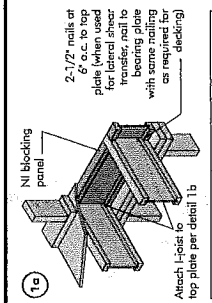
1. Bundle wrap can be slippery when wet. Avoid walking on wrapped bundles.
2. Store, stack, and handle I-joists vertically and level only.
3. Always stack and handle I-joists in the upright position only.
4. Do not store I-joists in direct contact with the ground and/or barbed wire.
5. Protect I-joists 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 crew.
 - 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.

INSTALLING NORDIC I-JOISTS

1. Before laying out floor system components, verify that I-joist flange widths match hanger widths. If not, contact your supplier.
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 intermediate bearing lengths: 1-3/4 inches for intermediate bearings and 3-1/2 inches for intermediate settlement.
5. When using hangers, seat I-joists firmly in hanger bottoms to minimize settlement.
6. Leave a 1/16-inch gap between the I-joist end and a header.
7. 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 I-joist. Or, attach the load to blocking that has been securely fastened to the I-joist webs.
8. Never install I-joists where they will be permanently exposed to weather, or where they will remain in direct contact with concrete or masonry.
9. Restrain ends of floor joists to prevent rollover. Use rim board, rim joists or I-joist blocking panels.
10. For I-joists installed over and beneath bearing walls, use full depth blocking panels, rim board, or squash blocks (cripple members) to transfer gravity loads through the floor system to the wall or foundation below.
11. Due to airtightness, 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.
12. Provide permanent lateral support of the bottom flange of all I-joists at interior supports of multiple-span joists. Similarly, support the bottom flange of all cantilevered I-joists at the end support next to the cantilever extension. In the cantilevered extension, temporary bracing or sheath provides this lateral support. Until the final finished ceiling is applied, temporary bracing or sheath must be used.
13. 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 underlayment layer is installed.
14. Nail spacing: Space nails installed to the flange's top face in accordance with the applicable building code requirements or approved building plans.

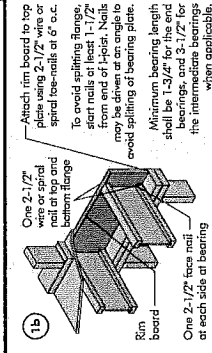


All nails shown in the above details are assumed to be common wire nails unless otherwise noted. 3" (0.125") common wire nails may be substituted for 2-1/2" (0.125") dia. common wire nails. Framing lumber assumed to be Species-Permitted No. 2 or better. Individual components not shown to scale for clarity.



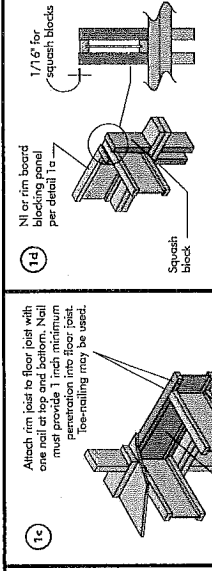
Blocking Panel or Rim Joist	Maximum Endored Uniform Vertical Load* (psf)
1-1/8" Rim Board Plus	8,090
2x Lumber	3,300

*The uniform vertical load is limited to a joist depth of 16 inches or less and is based on standard term 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, see detail 1d.



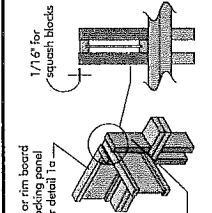
Blocking Panel or Rim Joist	Maximum Endored Uniform Vertical Load* (psf)
1-1/8" Rim Board Plus	8,090
2x Lumber	3,300

*The uniform vertical load is limited to a joist depth of 16 inches or less and is based on standard term 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, see detail 1d.



Blocking Panel or Rim Joist	Maximum Endored Uniform Vertical Load* (psf)
1-1/8" Rim Board Plus	8,090
2x Lumber	3,300

*The uniform vertical load is limited to a joist depth of 16 inches or less and is based on standard term 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, see detail 1d.



Blocking Panel or Rim Joist	Maximum Endored Uniform Vertical Load* (psf)
1-1/8" Rim Board Plus	8,090
2x Lumber	3,300

*The uniform vertical load is limited to a joist depth of 16 inches or less and is based on standard term 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, see detail 1d.

MAXIMUM FLOOR SPANS

MAXIMUM FLOOR SPANS FOR NORDIC I-JOISTS SIMPLE AND MULTIPLE SPANS

Joist Depth	Joist Spacing	Simple Span		On Center Spacing	
		12'	16'	12'	16'
9 1/2"	N-20	13'-0"	14'-0"	13'-0"	14'-0"
	N-40	16'-1"	15'-2"	14'-9"	14'-9"
	N-60	18'-3"	15'-4"	14'-10"	14'-11"
	N-80	17'-1"	16'-1"	15'-6"	15'-7"
	N-100	16'-11"	16'-0"	15'-5"	15'-6"
11 7/8"	N-20	16'-11"	16'-0"	15'-5"	15'-6"
	N-40	18'-1"	17'-0"	16'-3"	16'-4"
	N-60	18'-4"	17'-3"	16'-6"	16'-7"
	N-80	19'-5"	18'-3"	17'-6"	17'-7"
	N-100	19'-5"	18'-3"	17'-6"	17'-7"
14"	N-20	20'-4"	18'-6"	17'-11"	17'-11"
	N-40	20'-5"	18'-7"	17'-11"	17'-11"
	N-60	21'-7"	20'-3"	19'-4"	19'-4"
	N-80	21'-11"	20'-5"	19'-5"	19'-5"
	N-100	22'-5"	20'-8"	19'-9"	19'-9"
16"	N-20	22'-1"	20'-3"	19'-10"	19'-10"
	N-40	22'-1"	20'-3"	19'-10"	19'-10"
	N-60	23'-1"	21'-1"	20'-3"	20'-3"
	N-80	23'-1"	21'-1"	20'-3"	20'-3"
	N-100	24'-3"	22'-5"	21'-6"	21'-6"

1 inch = 25.4 mm
1 foot = 0.305 m

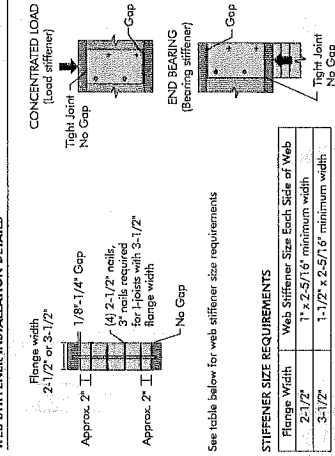
WEB STIFFENERS

RECOMMENDATIONS:

- A bearing stiffener is required in all engineered applications with tapered reactions greater than shown in the I-joist properties table found in the I-joist Construction Guide (C101). The gap between the stiffener and the flange is at the top.
- A bearing stiffener is required when the I-joist is supported in a hanger and the sides of the hanger do not extend up to, and support, the top flange. The gap between the stiffener and flange is at the top.
- A load stiffener is required at locations where a factored concentrated load greater than 2,370 lbs is applied to the top flange between supports, or in the case of a cantilever, anywhere between the cantilever standard term load duration, and may be adjusted for other load durations as permitted by the code. The gap between the stiffener and the flange is at the bottom.

SI units conversion: 1 inch = 25.4 mm

FIGURE 2
WEB STIFFENER INSTALLATION DETAILS



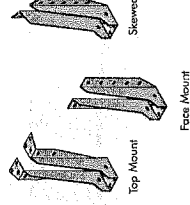
See table below for web stiffener size requirements

STIFFENER SIZE REQUIREMENTS

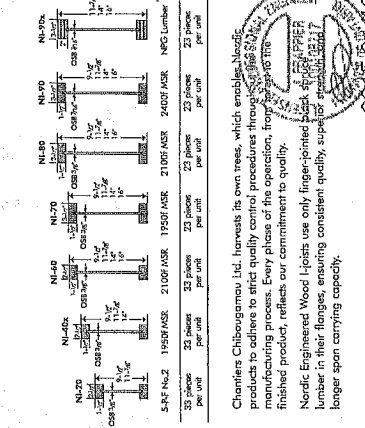
Flange Width	Web Stiffener Size Each Side of Web
2-1/2"	1" x 2-5/16" minimum width
3-1/2"	1-1/2" x 2-5/16" minimum width

I-JOIST HANGERS

- Hangers shown illustrate the three most commonly used metal hangers to support I-joists.
- All nailing must meet the hanger manufacturer's recommendations.
- Hangers should be selected based on the joist depth, flange width and load capacity based on the maximum spans.
- Web stiffeners are required when the sides of the hangers do not laterally brace the top flange of the I-joist.



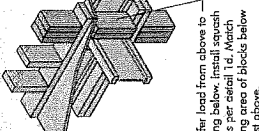
NORDIC I-JOIST SERIES



Chongmau Ltd. harvests its own trees, which enables Nordic products to adhere to strict quality control procedures through ISO 9001 manufacturing process. Every phase of the operation, from logging the finished product, reflects our commitment to quality.

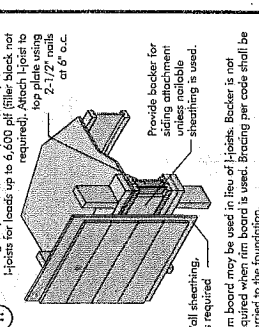
Nordic Engineered Wood I-joists use only finger-jointed solid softwood lumber in their flanges, ensuring consistent quality, superior strength and longer span carrying capacity.

11



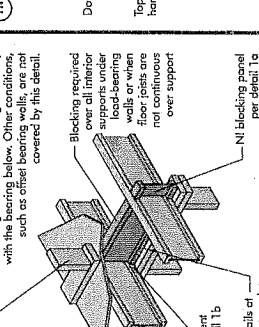
Transfer load from above to bearing below. Install squash blocks per detail 1d. Block bearing area of blocks below to post above.

11



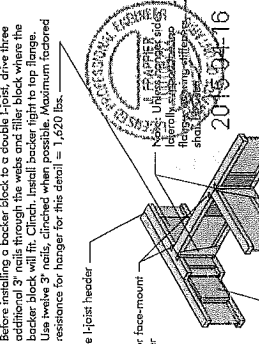
Use single I-joist for loads up to 3,300 plf. double I-joists for loads up to 6,600 plf (filler block not required). Attach I-joist to top plate using 2-1/2" nails at 6" o.c.

1b



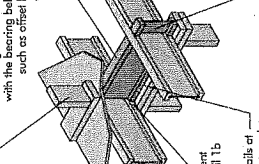
Backer block (use if hanger load exceeds 360 lbs). Before installing a backer block to a double I-joist, drive three additional 3" nails through the webs and filler block where the hanger is attached. Use three 3" nails, driven when possible. Maximum factored resistance for hanger for this detail = 1,620 lbs.

1c



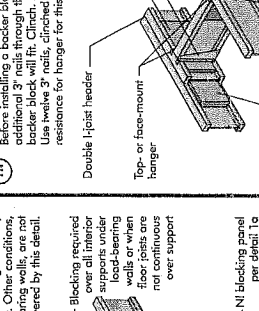
Double I-joist header. Top- or face-mount hanger. Filler block per detail 1p. Backer block required (bottom side for face-mount hanger).

1d



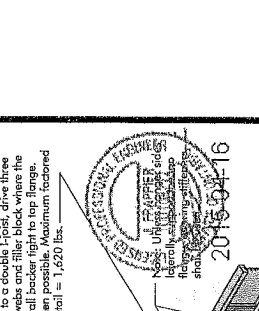
Load bearing wall above shall align vertically with the bearing below. Other conditions, such as offset bearing walls, are not covered by this detail.

1e



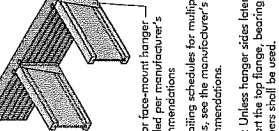
Blocking required over all interior supports under load-bearing walls or when floor joists are not continuous over support.

1f



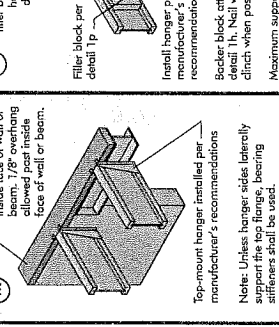
NI blocking panel per detail 1e.

11



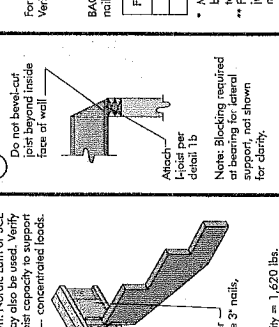
Top- or face-mount hanger. Installed per manufacturer's recommendations. For nailing schedule for multiple beams, see the manufacturer's recommendations.

1m



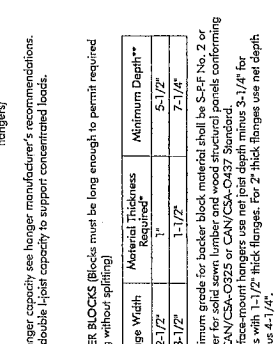
Multiple I-joist header with full depth filler block shown. Nordic Lam or SCL headers may also be used. Verify double I-joist capacity to support concentrated loads.

1n



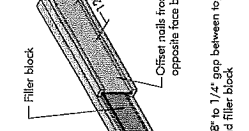
Do not bevel-out joist beyond inside face of wall. Attach I-joist per detail 1b.

1p



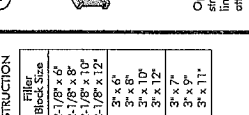
Filler block per detail 1p. Install hanger per manufacturer's recommendations. Backer block attached per detail 1h. Nail with twelve 3" nails, driven when possible. Maximum support capacity = 1,620 lbs.

1p



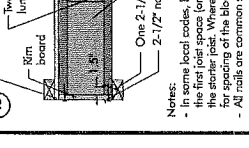
1/8" to 1/4" gap between top flange and filler block.

1r



Lumber 2x4 min. in place of adjacent web. Two 2-1/2" nails from each web to lumber piece, alternate on opposite side.

1s



One 2-1/2" nails at top and bottom flange. Two 2-1/2" nails from each web to lumber piece. 2x4 min. (1/8" gap minimum). Two 2-1/2" nails from each web to lumber piece. L-joist blocking panel. One 2-1/2" nails one side only. 2-1/2" nails at 6" o.c.

Notes:

- In some local codes, blocking is prescriptively required in the first joist space (for first and second joist space) next to the starter joist. Where required, see local code requirements for spacing of the blocking.
- All nails are common steel in this detail.

FILLER BLOCK REQUIREMENTS FOR DOUBLE I-JOIST CONSTRUCTION

Flange Size	Joist Depth	Filler Block Size
2-1/2"	9 1/2"	2-1/8" x 6"
2-1/2"	11 7/8"	2-1/8" x 8"
2-1/2"	14"	2-1/8" x 10"
2-1/2"	16"	2-1/8" x 12"
3-1/2"	9 1/2"	3" x 6"
3-1/2"	11 7/8"	3" x 8"
3-1/2"	14"	3" x 10"
3-1/2"	16"	3" x 12"
3-1/2"	18"	3" x 14"
3-1/2"	20"	3" x 16"

Notes:

- Support back of I-joist web during nailing to prevent damage to web/flange connection.
- Leave a 1/8" to 1/4" inch gap between top of filler block and bottom of top I-joist flange.
- Filler block is required between joists for full depth of span.
- Nail joist together with two rows of 3" nails 12" apart on each side of the double I-joist. Total of four nails per foot required. If nails can be clinched, only two nails per foot are required.
- The maximum factored load that may be applied to one side of the double I-joist using this detail is 860 lb/ft. Verify double I-joist capacity.