

		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
J1	14-00-00	9 1/2" NI-40x	1	7	MFD
J2	18-00-00	11 7/8" NI-40x	1	12	MFD
J2DJ	18-00-00	11 7/8" NI-40x	2	4	MFD
J3	16-00-00	11 7/8" NI-40x	1	14	MFD
J3DJ	16-00-00	11 7/8" NI-40x	2	4	MFD
J4	14-00-00	11 7/8" NI-40x	1	6	MFD
J5	10-00-00	11 7/8" NI-40x	1	2	MFD
J6	8-00-00	11 7/8" NI-40x	1	3	MFD
J7	6-00-00	11 7/8" NI-40x	1	8	MFD
J8	4-00-00	11 7/8" NI-40x	1	3	MFD
J9	2-00-00	11 7/8" NI-40x	1	2	MFD
J10	20-00-00	11 7/8" NI-80	1	5	MFD
B3L	14-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B6	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B4	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B5	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B1	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B2	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1 .	MED

	Connecto	r Summary
Qty	Manuf	Product
9	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88

CTY OF HAMILTON **Building Division**

THESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE

THE OWNER AND/OR CONTRACTOR SHALL COMPLY WITH THE OWNER APPLICABLE LAW

FOR CHIEF BUILDING OFFICIAL



FROM PLAN DATED:

BUILDER: GREEN PARK HOMES

SITE: RUSSELL GARDENS PH 3

MODEL: VALLYCREEK 1

ELEVATION: 1

LOT:

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ **REVISION:**

NOTES:

REFER TO THE NORDIC INSTALLATION GUIDE FOR PROPER STORAGE AND

INSTALLATION.

SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.F REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIPLE SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. CANTILEVERED JOISTS INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR HOLES INCLUDING DUCT CHASE AND FIELD CUT OPENINGS SEE FIGURE 7, TABLES 1 & 2. CERAMIC TILE APPLICATION AS PER O.B.C 9.30.6.

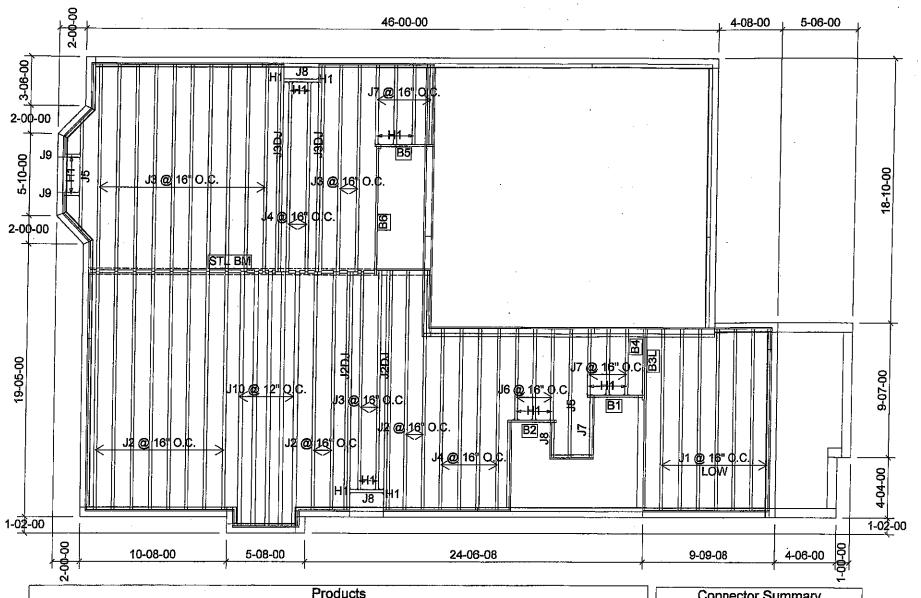
LOADING:

DESIGN LOADS: L/480,000 LIVE LOAD: 40.0 lb/ft2 DEAD LOAD: 20.0 lb/ft2

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2020-02-19

1st FLOOR



L		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
J1	14-00-00	9 1/2" NI-40x	1	7	MFD
J2	18-00-00	11 7/8" NI-40x	1	12	MFD
J2DJ	18-00-00	11 7/8" NI-40x	2	4	MFD
J3	16-00-00	11 7/8" NI-40x	1	14	MFD
J3DJ	16-00-00	11 7/8" NI-40x	2	4	MFD
J4	14-00-00	11 7/8" NI-40x	1	6	MFD
J5	10-00-00	11 7/8" NI-40x	1	2	MFD
J6	8-00-00	11 7/8" NI-40x	1	3	MFD
J7 `	6-00-00	11 7/8" NI-40x	1	8	MFD
J8	4-00-00	11 7/8" NI-40x	1.	3	MFD.
J9	2-00-00	11 7/8" NI-40x	1	2	MFD
J10	20-00-00	11 7/8" NI-80	1	5	MFD
B3L	14-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B6	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B4	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B5	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B1	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B2	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD.

	Connecto	r Summary
Qty	Manuf	Product
9	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88

THE OWNER ANDIOR CONTRACTOR SHALL COMPLY WITH THE ONTARIO BUILDING CODE AND ALL OTHER APPLICABLE LAW

FOR CHIEF BUILDING OFFICIAL



FROM PLAN DATED:

BUILDER: GREEN PARK HOMES

SITE: RUSSELL GARDENS PH 3

MODEL: VALLYCREEK 1

ELEVATION: 2

LOT:

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ **REVISION:**

NOTES:

REFER TO THE NORDIC INSTALLATION GUIDE FOR PROPER STORAGE AND

INSTALLATION.

SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.F REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. MULTIPLE SQUASH **BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. CANTILEVERED JOISTS INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR HOLES INCLUDING DUCT CHASE AND FIELD CUT OPENINGS SEE FIGURE 7, TABLES 1 & 2, CERAMIC TILE APPLICATION AS PER O.B.C 9.30.6.

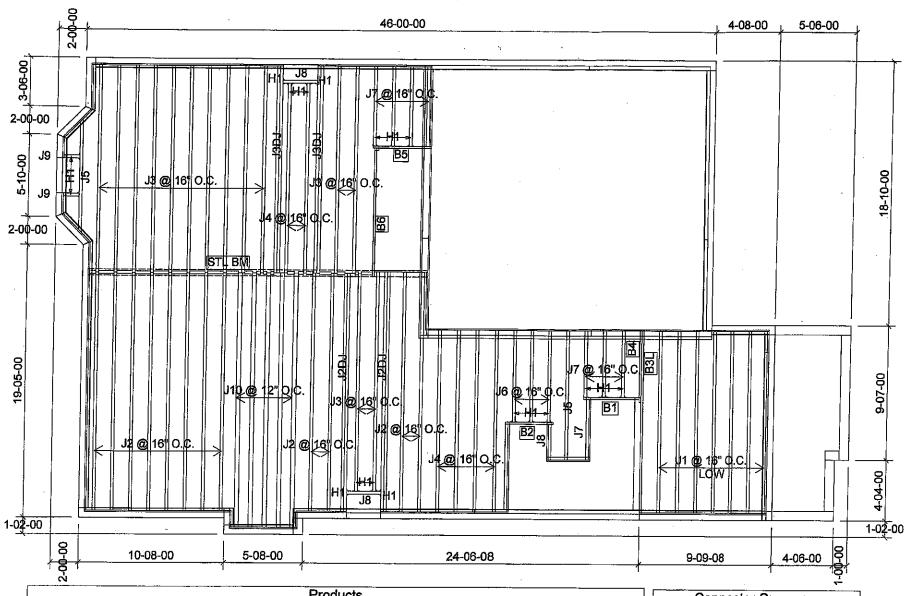
LOADING:

DESIGN LOADS: L/480.000 LIVE LOAD: 40.0 lb/ft2 DEAD LOAD: 20.0 lb/ft2

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2020-02-19

1st FLOOR



		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
J1	14-00-00	9 1/2" NI-40x	1	7	MFD
J2	18-00-00	11 7/8" NI-40x	1	12	MFD
J2DJ	18-00-00	11 7/8" NI-40x	2	4	MFD
J3	16-00-00	11 7/8" NI-40x	1	14	MFD
J3DJ	16-00-00	11 7/8" NI-40x	2	4	MFD
J4	14-00-00	11 7/8" NI-40x	1	6	MFD
J5	10-00-00	11 7/8" NI-40x	.1	2 .	MFD
J6	8-00-00	11 7/8" NI-40x	1	3	MFD
J7	6-00-00	11 7/8" NI-40x	1	8	MFD
J8	4-00-00	11 7/8" NI-40x	1	3	MFD
J9	2-00-00	11 7/8" NI-40x	1	2	MFD
J10	20-00-00	11 7/8" NI-80	1	5	MFD
B3L	14-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B6	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B4	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B5	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B1	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B2	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MED

	•	7 -	
	Connecto	r Summary	
Qty	Manuf	Product	
9	H1	IUS2.56/11.88	
4	H1	IUS2.56/11.88	
6	H1	IUS2.56/11.88	CITY OF HAMILTON
			Building Division

THESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE

THE OWNER AND/OR CONTRACTOR SHALL COMPLY WITH THE ORTARIO BUILDING CODE AND ALL OTHER APPLICABLE LAW

FOR CHIEF BUILDING OFFICIAL



FROM PLAN DATED:

BUILDER: GREEN PARK HOMES

SITE: RUSSELL GARDENS PH 3

MODEL: VALLYCREEK 1

ELEVATION: 3

LOT:

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ **REVISION:**

NOTES:

REFER TO THE NORDIC INSTALLATION GUIDE FOR PROPER STORAGE AND

INSTALLATION. **SQUASH BLOCKS** OF 2x4, 2x6, 2x8 #2 S.P.F REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. MULTIPLE SQUASH **BLOCKS REQ'D UNDER CONCENTRATED** LOADS. SEE FIGURE 1. CANTILEVERED JOISTS INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR HOLES INCLUDING DUCT CHASE AND FIELD CUT OPENINGS SEE FIGURE 7, TABLES 1 & 2. CERAMIC TILE APPLICATION AS PER O.B.C 9.30.6.

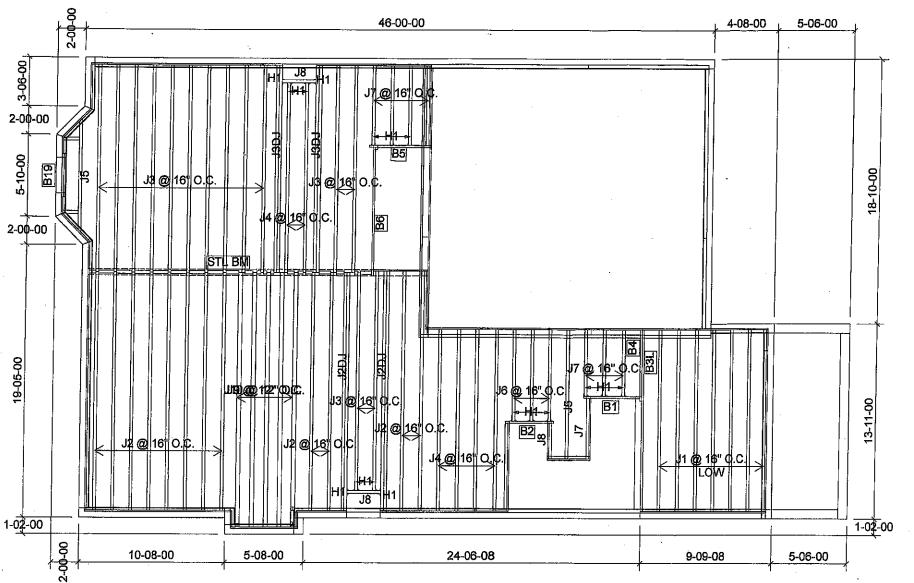
LOADING:

DESIGN LOADS: L/480,000 LIVE LOAD: 40.0 lb/ft² DEAD LOAD: 20.0 lb/ft2

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2020-02-19

1st FLOOR



		Products			
PlotiD	Length	Product	Plies	Net Qty	Fab Type
J1	14-00-00	9 1/2" NI-40x	1	7	MFD
J2	18-00-00	11 7/8" NI-40x	1	12	MFD
J2DJ	18-00-00	11 7/8" NI-40x	2	4	MFD
J3	16-00-00	11 7/8" NI-40x	1	14	MFD
J3DJ	16-00-00	11 7/8" NI-40x	2	4	MFD
J4	14-00-00	11 7/8" NI-40x	1	6	MFD
J5	10-00-00	11 7/8" NI-40x	1	2	MFD
J6	8-00-00	11 7/8" NI-40x	1	3	MFD
J7	6-00-00	11 7/8" NI-40x	1	8	MFD
J8	4-00-00	11 7/8" NI-40x	1	3	MFD
J9.	20-00-00	11 7/8" NI-80	1	5	MFD
B3L	14-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B6	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B4	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B5	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B1	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B2	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B19	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	. 2	2	MFD

· · · · · · · · · · · · · · · · · · ·	Connecto	r Summary
Qty	Manuf	Product
9	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88

CITY OF HAMILTON **Building Division**

THESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE

THE OWNER AND/OR CONTRACTOR SHALL COMPLY WITH THE ONTARIO BUILDING CODE AND ALL OTHER APPLICABLE LAW

FOR CHIEF BUILDING OFFICIAL

LUMBER INC ALPA LUMBER GROUP

FROM PLAN DATED:

BUILDER: GREEN PARK HOMES

SITE: RUSSELL GARDENS PH 3

MODEL: VALLYCREEK 1

ELEVATION: 1

LOT:

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ **REVISION:**

NOTES:

REFER TO THE NORDIC INSTALLATION GUIDE FOR PROPER STORAGE AND INSTALLATION.

SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.F REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. MULTIPLE SQUASH **BLOCKS REQ'D UNDER CONCENTRATED** LOADS. SEE FIGURE 1. CANTILEVERED JOISTS INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR HOLES INCLUDING DUCT CHASE AND FIELD CUT OPENINGS SEE FIGURE 7, TABLES 1 & 2. CERAMIC TILE APPLICATION AS PER O.B.C 9.30.6.

LOADING:

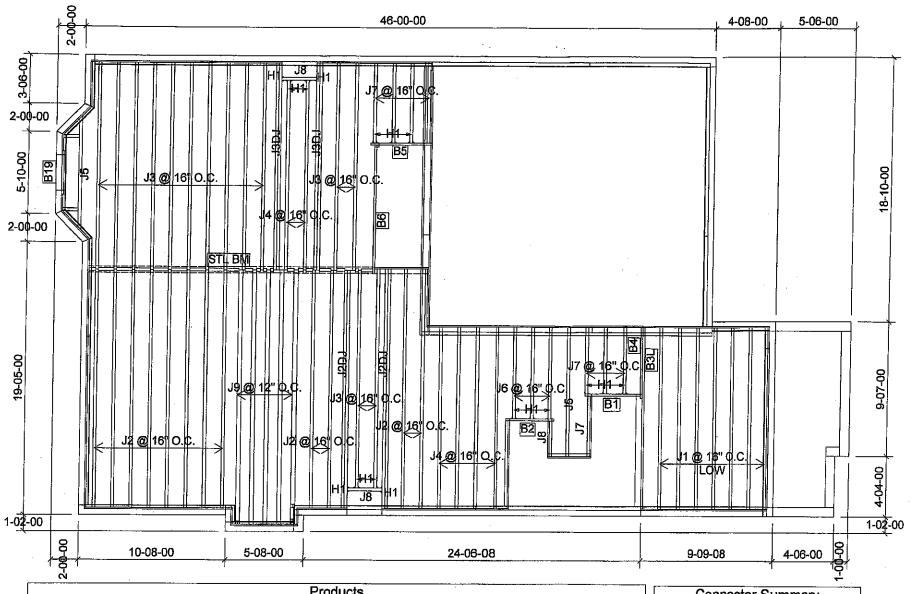
DESIGN LOADS: L/480.000 LIVE LOAD: 40.0 lb/ft² DEAD LOAD: 20.0 lb/ft2

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2020-03-24

1st FLOOR

DECK CONDITION



		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
J1	14-00-00	9 1/2" NI-40x	1	7	MFD
J2	18-00-00	11 7/8" NI-40x	1	12	MFD
J2DJ	18-00-00	11 7/8" NI-40x	2	4	MFD
J3	16-00-00	11 7/8" NI-40x	1	14	MFD
J3DJ	16-00-00	11 7/8" NI-40x	2	4	MFD
J4	14-00-00	11 7/8" NI-40x	1	6	MFD
J5	10-00-00	11 7/8" NI-40x	1	2	MFD
J6	8-00-00	11 7/8" NI-40x	1	3	MFD
J7	6-00-00	11 7/8" NI-40x	1	8	MFD
J8	4-00-00	11 7/8" NI-40x	1	3	MFD
J9	20-00-00	11 7/8" NI-80	1	5	MFD
B3L	14-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B6	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B4	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B5	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B1	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B2	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B19	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD

	Connecto	r Summary	7
Qty	Manuf	Product	1
9		IUS2.56/11.88]
4	H1	IUS2.56/11.88	
4	H1	IUS2.56/11.88	
4	H1	IUS2.56/11.88	ITY OF HAMIL

THESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE

THE OWNER AND/OR CONTRACTOR SHALL COMPLY WITH THE ON WARD SUILDING CODE AND ALL OTHER APPLICABLE LAW

DZ 14

FOR CHIEF BUILDING OFFICIAL

.



FROM PLAN DATED:

BUILDER: GREEN PARK HOMES

SITE: RUSSELL GARDENS PH 3

MODEL: VALLYCREEK 1

ELEVATION: 2

LOT:

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ **REVISION:**

NOTES:

REFER TO THE NORDIC INSTALLATION
GUIDE FOR PROPER STORAGE AND
INSTALLATION.

SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.F REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. MULTIPLE SQUASH BLOCKS REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. CANTILEVERED JOISTS INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR HOLES INCLUDING DUCT CHASE AND FIELD CUT OPENINGS SEE FIGURE 7, TABLES 1 & 2. CERAMIC TILE APPLICATION AS PER O.B.C 9.30.6.

LOADING:

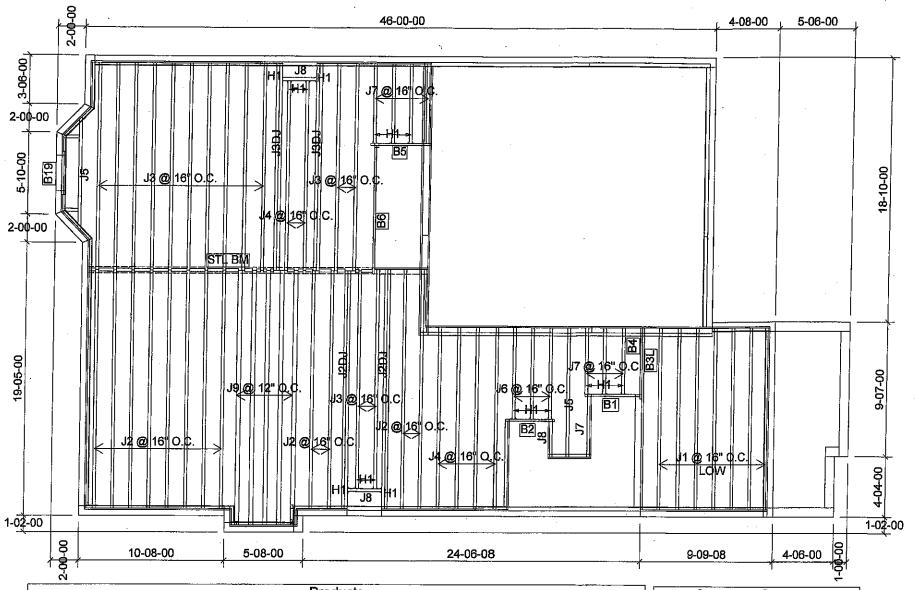
DESIGN LOADS: L/480.000 LIVE LOAD: 40.0 lb/ft² DEAD LOAD: 20.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2020-03-24

1st FLOOR

DECK CONDITION



1		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
J1	14-00-00	9 1/2" NI-40x	1	7	MFD
J2	18-00-00	11 7/8" NI-40x	1	12	MFD
J2DJ	18-00-00	11 7/8" NI-40x	2	4	MFD
J3	16-00-00	11 7/8" Ní-40x	1	14	MFD
J3DJ	16-00-00	11 7/8" NI-40x	2	4	MFD
J4	14-00-00	11 7/8" NI-40x	1	6	MFD
J5	10-00-00	11 7/8" NI-40x	1	2	MFD
J6	8-00-00	11 7/8" NI-40x	1	3	MFD
J7	6-00-00	11 7/8" NI-40x	1	8	MFD
J8	4-00-00	11 7/8" NI-40x	1	3	MFD
J9	20-00-00	11 7/8" NI-80	1	5	MFD
B3L	14-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B6	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B4	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B5	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B1	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B2	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B19	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD

	Connecto	r Summary]	,
Qty	Manuf	Product]	
9	H1	IUS2.56/11.88	1	
4	H 1	IUS2.56/11.88	1	
4	H1	IUS2.56/11.88		
			TIY OF I	HAI

THESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE

THE OWNER AUDIOR COUTRACTOR SHALL COMPLY WITH THE ONTAINO BUILDING CODE AND ALL OTHER APPLICABLE LAW

These drawing and/o: specifications have been reviewed by

FOR CHIEF BUILDING OFFICIAL

DATE



FROM PLAN DATED:

BUILDER: GREEN PARK HOMES

SITE: RUSSELL GARDENS PH 3

MODEL: VALLYCREEK 1

ELEVATION: 3

LOT:

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ **REVISION:**

NOTES:

REFER TO THE NORDIC INSTALLATION
GUIDE FOR PROPER STORAGE AND
INSTALLATION.

SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.F
REQ'D UNDER INTERIOR UNIFORM LOAD
BEARING WALLS. MULTIPLE SQUASH
BLOCKS REQ'D UNDER CONCENTRATED
LOADS. SEE FIGURE 1. CANTILEVERED
JOISTS INCLUDING CANT' OVER BRICK REQ.
I-JOIST BLOCKING ALONG BEARING AND
RIMBOARD CLOSURE AT ENDS. SEE
FIGURES 4 & 5 FOR REINFORCEMENT
REQUIREMENTS. FOR HOLES INCLUDING
DUCT CHASE AND FIELD CUT OPENINGS
SEE FIGURE 7, TABLES 1 & 2. CERAMIC TILE
APPLICATION AS PER O.B.C 9.30.6.

LOADING:

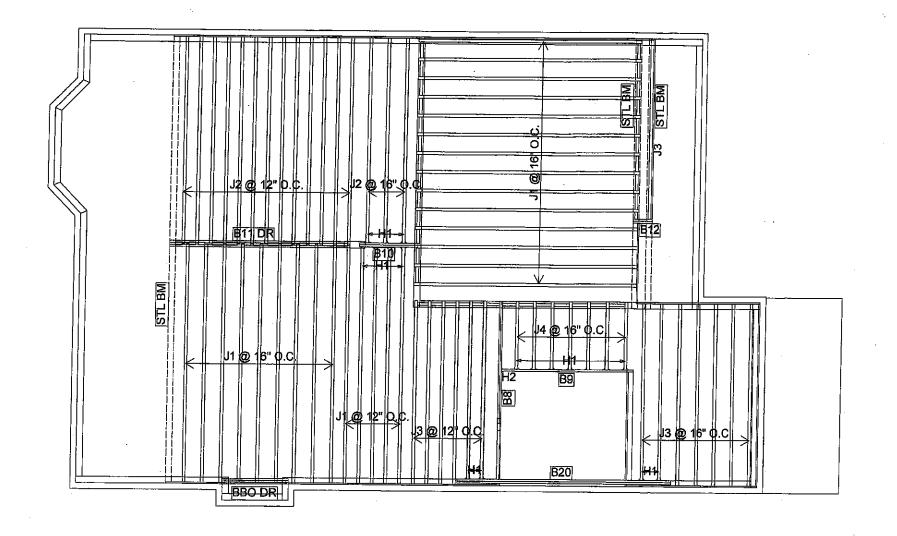
DESIGN LOADS: L/480.000 LIVE LOAD: 40.0 lb/ft² DEAD LOAD: 20.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2020-03-24

1st FLOOR

DECK CONDITION



		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
J1	18-00-00	11 7/8" NI-40x	1	28	MFD
J2	16-00-00	11 7/8" NI-40x	· 1	16	MFD
J3	14-00-00	11 7/8" NI-40x	1	14	MFD
J4	6-00-00	11 7/8" NI-40x	1	7	MFD
B20	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B11 DR	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3 .	3	MFD
B9	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B8	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B10	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B12	2-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD

	Connecto	r Summary
Qty	Manuf	Product
7	H1	IUS2.56/11.88
11	H1	IUS2.56/11.88
1	H2	HUS1.81/40/ O

ESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE

THE OWNER AND/OR CONTRACTOR SHALL COMPLY WITH CHTARIO BUILDING CODE AND ALL OTHER APPLICABLE LA

FOR CHIEF BUILDING OFFICIAL DATE



FROM PLAN DATED:

BUILDER: GREEN PARK HOMES

SITE: RUSSELL GARDENS PH 3

MODEL: VALLYCREEK 1

ELEVATION: 1

LOT:

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ REVISION:

NOTES:

REFER TO THE NORDIC INSTALLATION **GUIDE FOR PROPER STORAGE AND** INSTALLATION. SQUASH BLOCKS OF 2x4. 2x6, 2x8 #2 S.P.F. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. MULTIPLE SQUASH BLOCKS REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. CANTILEVERED JOISTS INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR HOLES INCLUDING DUCT CHASE AND FIELD **CUT OPENINGS** SEE FIGURE 7 TABLES 1 & 2 OF THE INSTALLATION GUIDE. CERAMIC TILE APPLICATION AS PER O.B.C. 9.30.6

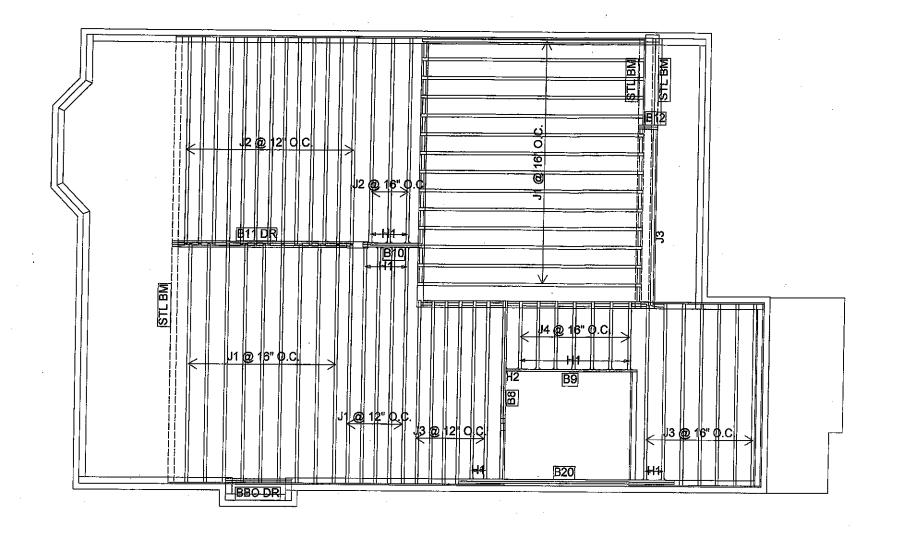
LOADING:

DESIGN LOADS: L/480.000 LIVE LOAD: 40.0 lb/ft² DEAD LOAD: 20.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 2020-03-24

2nd FLOOR



		Products			 -
PlotID	Length	Product	Plies	Net Qty	Fab Type
J1	18-00-00	11 7/8" NI-40x	1	28	MFD
J2	16-00-00	11 7/8" NI-40x	1	16	MFD
J3	14-00-00	11 7/8" NI-40x	1	14	MFD
J4	6-00-00	11 7/8" NI-40x	1	7	MFD
B20	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B11 DR	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3	MFD
B9	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1 .	MFD
B8	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B10	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B12	2-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD

		Connecto	r Summary
ı	Qty	Manuf	Product
	7	H1	IUS2.56/11.88
	11	H1	IUS2.56/11.88
	1	H2	HUS1.81/10

CTTY OF HAMILTON
Building Division

Permit No. 20-191703

THESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE

THE OWNER AND/OR CONTRACTOR SHALL COMPLY WITH THE ONTARIO BUILDING CODE AND ALL OTHER APPLICABLE LAW

These draying and or specifications have been reviewed DEC 14 20 FOR CHIEF BUILDING OFFICIAL DATE

TAMARACK
LUMBER INC
ALPA LUMBER GROUP

FROM PLAN DATED:

BUILDER: GREEN PARK HOMES

SITE: RUSSELL GARDENS PH 3

MODEL: VALLYCREEK 1

ELEVATION: 2

LOT:

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ **REVISION:**

NOTES:

REFER TO THE NORDIC INSTALLATION **GUIDE** FOR PROPER STORAGE AND INSTALLATION. SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.F. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. MULTIPLE **SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. CANTILEVERED JOISTS INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR HOLES INCLUDING DUCT CHASE AND FIELD **CUT OPENINGS** SEE FIGURE 7 TABLES 1 & 2 OF THE INSTALLATION GUIDE. CERAMIC TILE APPLICATION AS PER O.B.C. 9.30.6

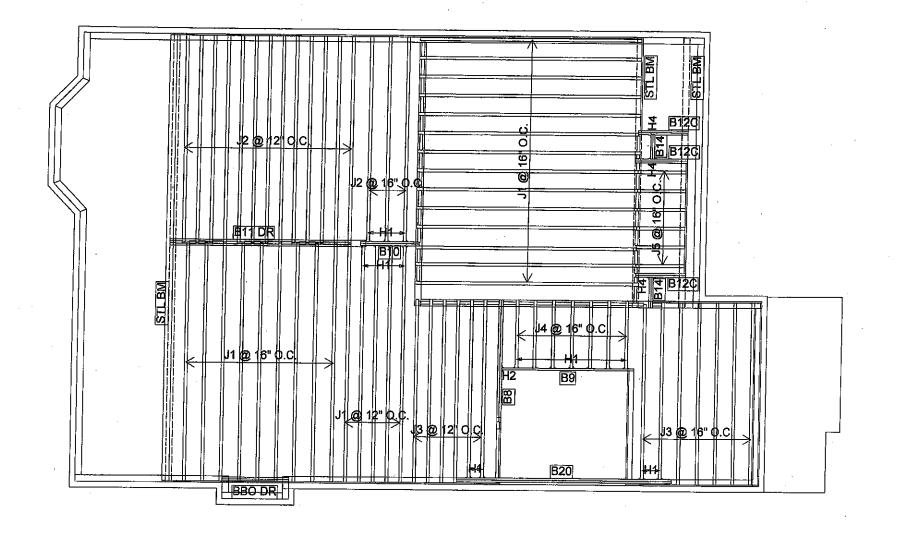
LOADING:

DESIGN LOADS: L/480.000 LIVE LOAD: 40.0 lb/ft² DEAD LOAD: 20.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 2020-03-24

2nd FLOOR



		Products			·
PlotID	Length	Product	Plies	Net Qty	Fab Type
J1	18-00-00	11 7/8" NI-40x	1	28	MFD
J2	16-00-00	11 7/8" NI-40x	1	16	MFD
J3	14-00-00	11 7/8" NI-40x	1	13	MFD
J4	6-00-00	11 7/8" NI-40x	1	7	MFD
J5	4-00-00	11 7/8" NI-40x	1	6	MFD
B20	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B11 DR	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3	MFD
B9	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B8	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B10	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B12C	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	6	MFD
B14	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B14	2-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD

	Connecto	r Summary
Qty	Manuf	Product
7	H1	IUS2.56/11.88
11	H1	IUS2.56/11.88
.1	H2	HUS1.81/10
3	H4	HGUS410

CITY OF HAMILTON Building Division

Permit No. 20-187703

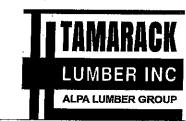
THESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE

THE OWNER AND/OR CONTRACTOR SHALL COMPLY WITH THE ONTARIO BUILDING CODE AND ALL OTHER APPLICABLE LAW

These drawings and/or specifications have been reviewed by

FOR CHIEF BUILDING OFFICIAL

DATE



FROM PLAN DATED:

BUILDER: GREEN PARK HOMES

SITE: RUSSELL GARDENS PH 3

MODEL: VALLYCREEK 1

ELEVATION: 3

LOT:

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ REVISION:

NOTES:

REFER TO THE NORDIC INSTALLATION **GUIDE FOR PROPER STORAGE AND** INSTALLATION. SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.F. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. MULTIPLE SQUASH BLOCKS REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. CANTILEVERED JOISTS INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR HOLES INCLUDING DUCT CHASE AND FIELD **CUT OPENINGS** SEE FIGURE 7 TABLES 1 & 2 OF THE INSTALLATION GUIDE. CERAMIC TILE APPLICATION AS PER O.B.C. 9.30.6

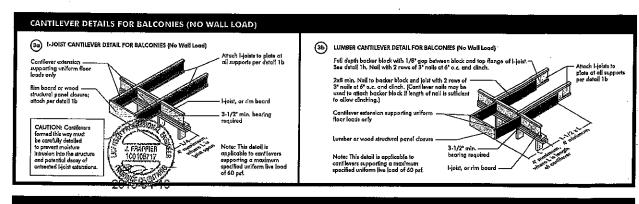
LOADING:

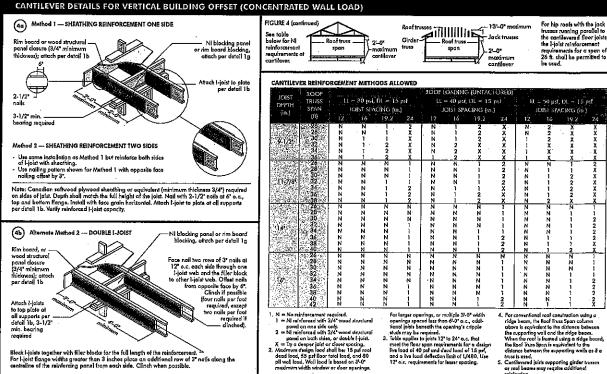
DESIGN LOADS: L/480.000 LIVE LOAD: 40.0 lb/ft² DEAD LOAD: 20.0 lb/ft²

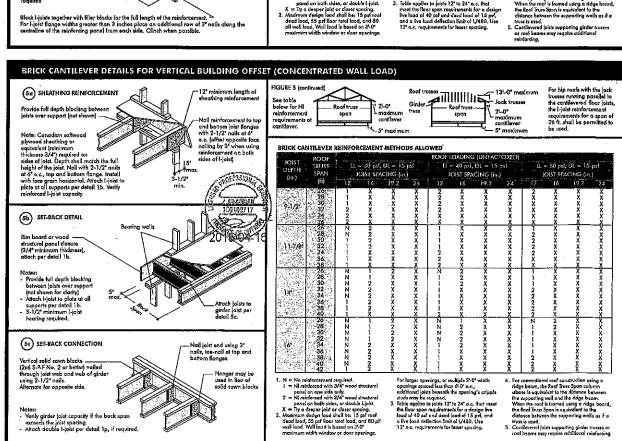
SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 2020-03-24

2nd FLOOR







Actas: Verify girder joist capacity if the back span exceeds the joist spacing. Attach double Lipist per detail 1p, if required.

WER HOLES

RULES FOR CUTTING HOLES AND DUCT CHASE OPENINGS:

- The distance between the inside edge of the support and the centreline of any hole or duct chase opening shall be in compliance with the requirements of Table 1 or 2, respectively.
- 2. I-joist top and bottom flanges must NEVER be cut, notched, or otherwise modified
- 3. Whenever possible, field-cut holes should be centred on the middle of the web. 4. The maximum size hole or the maximum depth of a duct chase opening that can
- be cut into an i-joist web shall agued the clear distance between the flonges of the i-joist minus 1/4 inch. A minimum of 1/8 inch should always be maintained between the top or bettom of the hole or opening and the adjacent i-joist flange.
- The sides of square holes or longest sides of rectangular holes should not exceed 3/4 of the diameter of the maximum round hole permitted at that location.
- ... v. we warness of the maximum round hole permitted at theil localien.
 6. Where more than one hole is necessary, the distance between adjacent hole edges shall exceed twice the diameter of the largest round hole or twice the size of the largest square hole for twice the regular to the largest size of the longest rectinguish as a dust chose opening and each hale and dust chose opening shall be sized and localed in compliance with the requirements of lobits? I and 2, respectively.
- A knockout is not considered a hole, may be utilized anywhere it occurs, and
 may be ignored for purposes of calculating minimum distances between holes
 and/or duct chase openings.
- Holes measuring 1-1/2 inches or smaller shall be permitted anywhere in a confilerence decision of a joist. Holes of greater size may be permitted subject to verification.
- A 1-1/2 inch hole or smaller can be placed anywhere in the web provided that it
 meets the requirements of rule number 6 above.
- All holes and dust chase openings shall be cut in a workman-like manner in accordance with the restrictions listed above and as illustrated in Figure 7.
- 11. Limit three maximum size holes per span, of which one may be a duct chaze

FIELD-CUT HOLE LOCATOR

8

A group of round holes at approximately the same location shall be permitted if they meet the requirements for a single round hole circumscribed around them.

Duct chase opening (see Table 2 for minimum distance from bearing)

Above table may be used for 1-joist spacing of 24 inches on centre or less.
 Hole location distance is measured from Inside face of supports to centre of hale.
 Distances in this chart are based on uniformly loaded joists.

Never drill, cut or notch the flange, o over-cut the web.

Holes in webs should be out with a sharp saw.

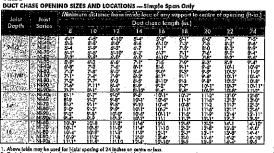
For redengular holes, avoid over-cutting the corners, as this can cause unnecessor dress concertifions. Slightly rounding thes conners is recommended. Starting the corners is recommended. Starting the redengular hole by drilling a 1-inich diameter hole in each of the four corners and then medicing the cuts between the holes in center and medicing the cuts between the holes in center good method to minimize demange to the 1-joid.

The above table it hased on the Lipisis used at their meximum epon, if the Lipisis are placed at less than their full maximum span the minimum distance from the controlline of the hole to the face of any support (D) as given above may be reduced as fallows:

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

Minimum distance from inside face of any support to co

201550416 DUCT CHASE OPENING SIZES AND LOCATIONS -- 5 imple Span Only



1. Above table my be used for Irbid proding of 24 indhes on carbin or loss.
2. Dud dress appears to centre of appears to centre of appears to centre of appears.
3. The above Irbid in a bose of a might pracing list only for "online application," contact your food distributor.
4. Columns or how sed on whether the application, contact your food distributor.
4. Columns or how sed on whether the application, contact your food distributor.
4. Columns or how sed on whether the application, contact your local distributor.
4. Columns or how sed on the application of the application of

INSTALLING THE GLUED FLOOR SYSTEM

. Wipe any mud, dirt, water, or ice from I-joist flanges before gluing.

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

- 2. Snop a chalk line across the I-joists four feet in from the wall for panel edge alignment and as a boundary for spreading glue,
- Spread only enough glue to lay one or two panels at a time, or follow specific recommendations from the glue manufacturer.

Maintain minimum 1/8" space between top and bottom flance

- Lay the first panel with longue side to the wall, and nail in place. This protects the tangue of the next panel from damage when topped into place with a block and sladgehammer.
- Apply a continuous line of glue (about 1/4-inch diameter) to the top flange of a single I-joist. Apply
 glue in a winding pattern on wide areas, such as with double I-joists. 6. Apply two lines of glue on lipits where panel ands but to assure proper gluing of each end.
- 7. After the first row of panels is in place, spread give in the groove of one or two panels at a time before laying the ned row. Give line may be continuous or spaced, but avoid squeeze-out by applying a thinke line (1/8 Inch) then used on Holef Ranges.
- 8. Top the second row of pone's into place, using a block to protect groove edges.
- 9. Stegger end joints in each succeeding row of panels. A 1/8-inch space between all end joints and 1/8-inch at all edges, including T&O edges, is recommended. (Use a spacer tool or an 2-1/2" common noil to assure accounts and consider to pacing.)
- On the Marker second was constant specing.)

 10. Complete all nailing of each panel before glue sets. Check the manufacturer's recommendation for cure time. (Warm weather accelerates glue setting.) Use 2" ring- or screw-shank nails for panels 3/4-inch thick or less, and 2-1/2" ring- or screw-shank nails for thicker panels. Space nails per the table below. Clear nail specing may be required by some code, or for diophragam construction, finished deck can be walked on right away and will carry construction loads without damage to the glue bond.

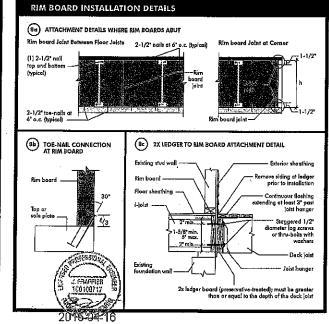
FASTENERS FOR SHEATHING AND SUBFLOORING(1)

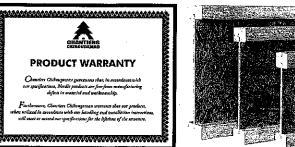
Maximum Joist	Pane	Common	uil Size and T Ring Thread	ype		n Spacing Jeners
Spacing (in.)	Thickness (in.)	Wire or Spiral Nails	Nails or Screws	Staples	Edges	Interm. Supports
- 16	5/8	2.	1-3/4*	2.	6'	12*
20	5/8	2*	1-3/4*	3.	6.	12*
24	3/4	2'	1-3/4"	9.	6"	12"

- 1. Fasteners of sheathing and subflooring shall conform to the above table.
- Staples shall not be less than 1/16-inch in diameter or thickness, with not less than a 3/8-inch grown driven with the grown parallel to fronting.
- 3. Flooring screws shall not be less than 1/8-inch in diameter
- 4. Special conditions may impose heavy traffic and concentrated loads that require construction in excess
- 5. Use only adhesives conforming to CAN/CGSB-71.26 Standard, Adhesives for Field-Gluing Plywood to Lumber Framing for Floor System, applied in accordance with the manufacturer's recommendations. If OSB panels with sealed surfaces and edges are to be used, use only solvent-based gluss; check with panel manufacturer.

Ref.: NRC-CNRC, National Building Code of Canada 2010, Table 9.23.3.5.

IMPORTANT NOTE:
Floor sheathing must be field glued to the 1-joist flanges in order to achieve the maximum spans shown in this document. If sheathing is nailed only, 1-joist spans must be verified with your local distributor.









Refer to the Installation Guide for Residential Floors for additional information. CCMC 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 centreline of any hole or duct chase opening shall be in compliance with the requirements of
- Table 1 or 2, respectively.

 2. Lipist top and bottom flanges must NEVER be cut, notched, or alharwise modified.

 3. Whenever possible, field out holes should be centred 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-joist was shall equal the clear distance believen the flanges of the I-joist minus 1/4 inch. A minimum of 1/8 inch should always be maintained.

between the top or bottom of the hale or opening and the adjacent l-joist flange.

- 5. The sides of square holes or longest sides of rectangular holes should not exceed 3/4 of
- 5. The sides of square holes or longest sides of rectangular holes should not exceed 3/4 of the diameter of the maximum round hole permitted at that location.
 6. Where more than one hole is necessary, the distance between adjacent hole edges shall exceed twice the diameter of the largest round hole or twice the size of the largest square hole (ar twice the length of the longest side of the largest rectangular hole or duct chose opening) and each hole and duct chose opening shall be sized and located in compliance with the requirements of Tables 1 and 2, respectively.
 7. A knockout is not considered a hole, may be utilized anywhere it occurs, and may be ignored for purposes of calculating minimum distances between hales and/or duct that a constant.
- those openings.

 Notes measuring 1-1/2 inches or smaller are permitted anywhere in a contilevered section of a joist. Holes of greater size may be permitted subject to verification.
- A 1-1/2 inch hole or smaller can be placed anywhere in the web
- A 1-1/2 inch hole or smaller can be placed onlywhere in the web
 provided that it meets the requirements of nile number 6 above.
 All holes and duct chase openings shall be cut in a workman-like
 manner in accordance with the restrictions listed above and as
 illustrated in Figure 7.
 I that they market an accordance with the restrictions are shall be cut in an accordance with the restrictions listed above and as
- 11. Limit three maximum size holes per span, of which one may be
- a duct chase opening.

 12. A group of round holes of approximately the same location shall be permitted if they meet the requirements for a single round hole circumscribed around them.

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

fatal.	1	(Ainimur	n Dista	nce fro	m Insid	e Face	of Any	Suppor	to Ce	ntre of	Hole (ft	- in.}		
Joist Depth	Joist Series						Rou	nd Hol	e Diam	eter (in)					
		2	3	4	5	6	6-1/4	7	8	8-5/8	9	10	10-3/4	11	12	12-3/4
l	NI-20	0'-7"	146"	2'-10"	4'-3'	5'-8'	6'-0"			***						
	NJ-40x	0'-7"	1.6	3'-0"	4'-4"	6'-0"	6'-4"			***				***		
9-1/2'	NI-60	1'-3"	2'-6"	4'-0"	5'-4"	71-01	7-5'									
ļ	NI-70	2.0	3'-4"	4'-9"	6-3	8'-0"	8'-4"	***		~					•••	
<u> </u>	NI-80	2.3	3'-6"	5'-0"	6 6	6'-2"	81-81					***				***
ļ.	NI-20	0:-7"	0,-8,	1,-0,	2'-4"	3'-8"	4.0	5-0	6'-6'	7'-9'				~		
	M-40x	0'-7"	0'-6"	1, 3,	2'-8'	4'-0"	4-4	5-5	7'-0'	8-4				•••		***
11 7 00	NI-60	0.7	1'-8"	3'-0"	4'-3"	5'-9"	6'-0"	7.3	&-10°	10-0						
11-7/8	NI-70	1.3"	2.6	4'-0°	5'-4'	6-9	7-2	8-4	10'-0"	11'-2"						
	Nt-80	1.6	2'-10'	4'-2"	5-6	740	7'-5"	8-6	10-3	11'4"				-		
1 :	NI-90	0-7	0'-8"	1'-5"	3'-2"	4-10		6-9"	8'-9"	10-2						
	Ni-90x	0'-7"	0'-8"	0-9	2'-5"	4-4	4-9	6-3								
	NI-40x	0'-7"	0.8	0-8	1'-0"	2'-4"	21-91	3.9	5'-2"	6-0	6'-6"	8-3 _n	10'-2"			
	NI-60	0'-7"	0.8	1'-8"	3'-0"	4'-3"	4-8	5-8	7-2"	8'-0'	8'-8"	10'-4"	11-9			
14"	NI-70	0'-8"	1, 10,	3-0°	4'-5"	5-30		7-3	8-9	9.9	10'-4"		13-5		***	
	NI-80	0'-10"	2'-0"	3'-4"	4-9	6'-2"	6-5	7'-6"	9-0"	10'-0'	10'-8"		13-9			
l :	NI-90	0-7	0'-8"	0'-10"	2.5	4'-0"	4-5	5'-9"	7-5	8'-8"	9-4	11'-4"	12-11*			•••
	NI-90x	0'-7"	0'-8"	0'-8"	2'-0"	3,-6,	4-2	5-5	7-3	8'-5'	9-2"		***	***		-4-
	NI-60	0'-7"	0-8"	0'-8"	1'-6"	2'-10"		4-2	5-6'	6'-4"	7-0	B'-5"	91.81	10'-2'		13'-9"
اندا	NI-70	0'-7"	7'-0"	2'-3"	3-6*	4-10		5.3	7-8	8'-6"	9-2	10-8"	12-0		14-0"	75'-6"
16"	NI-80	0.7	11-3"	2-6"	31-101	5'-3'	5'-6"	6.6	8'-0"	9'-0'	01.5	11-0"	12-3	12-9		16'-0"
i i	NI-90	0.7	0'-8"	0-8-	1-9"	3-3	3'-8'	4-9	6'-5"	7'-5"	8'-0"	9'-10"	11-3		13'-9"	15'-4°
L. I	NI-90x	0.7"	0'-8"	G-9"	2'-0"	3'-6"	4.0	5'-0"	6-9	7'-9"	8-4	10-2"	11-6°	12'0'		

- Above table may be used for I-joist spacing of 24 inches on centre or less.
 Hole location distance is measured from inside face of supports to centre of hole.
 Distances in this chart are based on uniformly loaded joists.
 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 sharter spans; contact your local distributor.

DUCT CHASE OPENING SIZES AND LOCATIONS

Simple Span Only

Joist	1-7-5	Minim	um distar	um distance from inside face of supports to centre of opening (fi - in.)							
Depth .	Joist Series	Series Duct Chase Length (in.)									
200		8	10	12	14	16	18	20	22	24	
	NI-20	4'-1"	4'-5'	4'-10"	5'-4"	5'-8'	6'-1"	6'-6"	7'-1"	7'-5	
	Ni-40x	5'-3"	5'-8"	6'-0'	6'-5"	6'-10"	7'-3"	7-8	8-2	8-6	
9-1/2"	NJ-60	5'-4'	51.91	61.21	6.7	7'-1	71.51	8'-0"	8'-3'	8-9	
	NI-70	5'-1"	5'-5"	5'-10"	6'-3"	6'-7'	7'-1"	7-6	8'-1"	8'-4"	
	NI-80	51-31	5'-8"	6'-0"	6'-5°	65.10	7-3	7'-8'	8'-2°	8-6	
	N/-20	5'-9'	6'-2"	6'-6'	7-1"	7'-5'	7'-9"	8'-3'	8-9	9'-4"	
	Ni-40x	6'-8'	7'-2'	7'-6'	8-1	8'-6"	יוֹייִי	9-6	10'-1'	10-9	
	NI-60	7'-3"	7'-8"	8'-0"	8' 6'	9-0	9'-3"	9-9-	0.3	jī'-Ď"	
11-7/6"	NI-70	7-1"	7-4	7491	8'-3"	8-7	9-1-	9-6"	10'-1"	10-4	
	NI-80	7'-2'	7'-7"	8-0"	8'-5"	8'-10'	9-3	9-8"	10'-2"	IO-B	
	NI-90	7.6	7'-11'	8'-4"	8-9"	9'-2'	7.7	161	10-7	10-11	
	NJ-90x	7-7*	8'-1'	8'-5"	8-10	9'-4'	9 -B	JO-2"	10'-8"	1142*	
	NI-40x	8'-1"	8'-7'	9-0"	9-6	10'1"	10'-7"	111-2	1248	12'-8"	
J	NI-60	8'-9'	9.3	9.8	10'-1"	7 0'-6"	11-1"	11'-6"	13'-3"	13'-0"	
14*	NI-70	6'-7"	9-1	9-5	9-10	10'-4"	0.8	11'-2'	11:-7*	12:-3"	
'"	Nt-80	9'-0"	7-3	9-9	10'-1	10'-7"	11-1-	11'-6"	12'-1"	12'-6"	
	NI-90	9'-2"	91.8*	10:-0	10-6	10-11*		311-9	12'-4'	12-11	
	NI-90x	9'-4"	9-9	10-3	10-7"	1 51-14	11'-7"	12'-1"	12:-7*	1352	
	NJ-60	10-3	10'-8"	11-2	11'-6"	12'-1"	12'-6"	1342"	14'-1"	14-10	
	NJ-70	10'-1	10'-5"	11-0	11-4	17'-10'		12'-8"	13'-3"	4'-0"	
16"	NI-80	10-4	10'-9'	11.3	11 '-9"	12'-1"	1247"	13'-1'	1348"	4.4	
1	N(-90	10-9	11-2"	11-8	12'-0"	12'-6"	13'-0"	13'-6'	14-2"	14410	
i	NJ-90x	13511	111-5	11-10	12'-4"	12'-)0"	13,5,	13'-9'	1444°	15'-2"	

sides laterally support the top flange, bearing stiffeners shall be used. installed par manufacturer

- Above table may be used for I-joist spacing of 24 inches on centre or less.
 Duct chase opening location distance is measured from inside face of supports to centre of opening.
 The above table is based on simple-span joists only. For other applications, contact your local distributor.
 Distances are based on uniformly loaded floor joists that meet lies span requirements for a design live load of 40 pst and dead load of 15 pst, and a live load deflection limit of L/480.
 The above table is based on the I-joist being used of their maximum spans. The minimum distance as given above may be reduced for shorter spans; contact your local distributor.

18. Offset nails from -1/6" to 1/4" gap between top flunge and filter block

WEB STIFFENERS

RECOMMENDATIONS:

PILLER BLOCK REQUIREMENTS FOR DOUBLE I-JOIST

CONSTRUCTION

Filler _ block

Filler block is required between josts for two renging of span.
 Nail joids together with two rows of 3" nails at 12 inches o.c. (clinched when possible) an each side of the double lipioti. 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 joist using this detail is 860 lbt/th. Variat double Liaist coapcity.

Maximum support capacity = 1,620 lbs.

. Support back of I-joist web during nailing to prevent

damage to web/flange connection.

2. Leave a 1/8 to 1/4-inch gop between top of filler black and bottom of top I-joist flange.

3. Filler block is required between joists for full length

2-1/8" x 6" 2-1/8" x 8" 2-1/2° x 1-1/2 3" x 6" 3" x 6" -1/2°x 11-7/8* 1-1/2* 11-7/8° 3° v 7° 3-1/2" x 2" 14" 3'x 9" 16" 3'x 11"

Net Dopih Filler Block Size

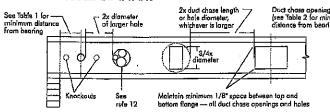
-One 2-1/2" nail at top and battom flange (15) √2x4 min. (1/8" gap minimum) Two 2-1/2" nails from each web to lumber piece I-joist placking panel One 2-1/2" noil one side only

NOTES:

Ali nails shown in the above details the above certais are assumed to be common wire nails unless otherwise noted. 3° (0.122° dia.) common spiral nails may be substituted for 2-1/2° (0.128° dia.) common wire nails. Framing lumber assumed to be Sprute-Pine-Fir No. 2 or better individual components not sho to scale for durity.

FIGURE 7

FIELD-CUT HOLE LOCATOR





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

Never drill, cut or notch the flange, or over-cut the web.

Holes in webs should be cut with a sharp saw.

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

SAFETY AND CONSTRUCTION PRECAUTIONS



sheathed, do not over-stress

1-joists with concentrated for

WARNING: Hoists 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 ach I joist as it is installed, using hangers, blocking panels, rim board, and/or cross-bridging at joist ends. When I joists an applied continuous over interior supports and a load-bearing wall is planned at that focation, blocking will be required at the interior support.

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

- or buckling.

 * Temporary bracing or struts must be 1x4 inch minimum, at least 8 feet long and spaced no more than 8 feet an centre, and must be secured with a minimum of two 2-1/2* nails fostened to the top surface of each 1-joist. Nail the bracing to a lateral restraint at the end of each boy. Lop ends of adjoining bracing over at feest two 1-joists.

 **Or, sheathing (temporary or permanent) can be nailed to the tap flange of the first 4 feet of 1-joist at the end of the boy.

 5. For confliewerd 1-joist, braze top and bottom flanges, and brace ends with closure panels, tim board, or cross-bridging.

 4. install and fully not permanent sheathing to each 1-joist before placing loads on the floor system. Then, stack building
- 5. Never install a domoged l-joist.

Improper storage or installation, failure to follow applicable building codes, failure to follow span ratings for Nordic Licists, failure to fallow allowable hale sizes and locations, or failure to use web stiffeners when required can result in zerious accidents Follow these installation guidelines corefully.

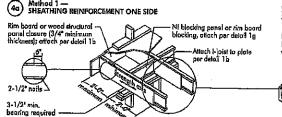


PRODUCT WARRANTY

our specifications, Nordic products are free from manufacturing defects in material and workmanship.

Furthermore, Chautiers Chibougaman warrants that our products, when utilized in accordance wiels our handling and installation histraction will meet or exceed our specifications for the lifetime of the structure.

CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET



A bearing stiffener is required in all engineered applications with factored reactions greater than shown in the I-joist properties table found of the I-joist Construction Guide (C101). The gap between the etitlener and the flange is at

A bearing stiffener is required when the I-joist is supported in a honger and the sides of the honger do not extend up to, and support, the top flange. The gap between the siffener and flange is at the top.

• A food stiffener is resolved at locations where a factored concentrated load greater than 2,370 liss is applied to the top flonge between supports, or in the case of a conditive, anywhere between the contilever tip and the support. These values are for istandard term load duration, and may be adjusted for other load durations as permitted by the code. The gap between the stiffener and the flonge is at the bottom.

SHEATHING REINFORCEMENT TWO SIDES

No Gan

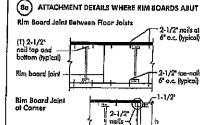
2-1/2" or 3-1/2"

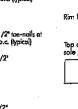
Use same installation as Method 1 but reinforce both sides of I-jois! with streathing.

pattern show for Method I

NOTE: Canadian softward plywood sheathing or equivalent (minimum (hickness 3/4*) required on sides of joist. Depth shall match the full height of the joist. Nail with 2-1/2* nails at 6* o.c., top and bottom flange. Install with face grain horizontal. Attach i-joist to plate of all supports per detail 1b. Verify reinforced i-joist capacity.

RIM BOARD INSTALLATION DETAILS



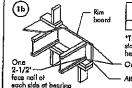


Rim board

8b TOE-NAIL

CONNECTION





inches or less and is based on standard term load duration, is 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.

Filler block

Multiple I-foist header with full denth filler

black shown. Nordic Lam or SCL headers

may also be used. Verify double 1-joist

Sacker block attached per detail 1h. Nail with twelve 3*

nails, clinch when possible

Install hanger per

Maximum Pactored Uniform Vertical Load* (plf)

3,300

Maximum England

3-1/2" 5-1/2" wide vide

5,500 8,500

4,300 6,600

The uniform vertical load is limited to a joist depth of 16

2-1/2" nails at 6" o.c. to top plats (when used for lateral shear transfer, noil to bearing plate with same nailing as required for decking)

Pair of Squash

1-1/8° Rim Board Plus

Backer block (use if hanger load exceeds 340 lbs). Before installing a backer block to a doubte i-joist, drive three additional 3° naits through the webs and filler block where the

BACKER BLOCKS (Blocks must be igno enough to permit required opiling without solition)

double I-joist, drive three additional 3° noils through the webs and filler black where the backer black will fit. Clinch. Install backer light to top flange. Use twelve 3° nails, clinched when possible. Mooinum factored resistance for hanger for this detail = 1,620 lbs.

Minimum grade for backer block material shall be S-RF No. 2 or keiter for solid sown lumber and wood structural panels conforming to CAN/CSA-0325 or CAN/CSA-0437 Standard.

**For face-mount hangers use net joist depth minus 3-1/4* for joists with 1-1/2" thick flanges.

(Im)

Provide lateral bracing per detail 1a or 1b

Minimum Death**

5-1/2"

7-1/4*

Biocking Fanel or Rim Joist

NI Joists

NI blocking

panel per defail la

Flonge Width | Material Thickness Required*

For 2° thick flanges use net depth minus 4-1/4°.

2x plate flush with inside face of wall or beam. 1/8° overhang allowed

past inside face of wall or beam.

NOTE: Unless ha

l-joist to top plate per detail 1 b

2-1/2"

3-1/2"

(1d)

Biocking Panel or Rim Joist

*The uniform vertical load is limited to a rim board depth of 16 inches or less and is bosed on standard term load duration. It shall not be used in the design of a bending member, such as header, or rafter. For concentrated vertical load transfer, see detail 1d.

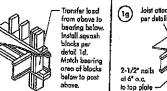
leximum Factored Uniform Vertical Load* (plf)

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

Attach rim board to top plate using 2-1/2" wire or spiral toe-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.



Joist attachment ner detail 1h 2-1/2° nails

as offset bearing walls, are not covered by Blocking required over all interior supports under load-bearing walls or when floor joists are not continuous over support NI blocking panel per detail 1a

Load bearing wall above shall align vertically

with the bearing below. Other conditions, such

Double I-joist header sides laterally suppo

> Backer block required (both sides for face-

> > inside face

Attach I-Joist

NOTE: Blacking required at

bearing for lateral support, not shown for clarity.

For hanger capacity see hanger manufacturer's recommendations. Verify double I-juist capacity to support

Structural Composite Lumber (SCL) For nailing schedules for multiple beams, see the manufacturer's recommendations. installed per monufacturer's

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

v Lumber 2x4 min., extend block to face of adjacent web. Two 2-1/2" spiral nails on opposite side.

OPTIONAL: Minimum 1x4 inch strap
applied to underside of joist of blocking line or 1/2 inch minimum gypsum ceiling attached to underside of joists.

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

All nails are common spiral in this detail.

WEB STIFFENER INSTALLATION DETAILS

CONCENTRATED LOAD Approx. 1/8*-1/4* Gap (4) 2-1/2" nails, 3" nails required for I-joists with

3-1/2" flange width Gan See the adjacent table for web stiffener size requirements

STIFFENER SIZE REQUIREMENTS Web Stifferner Size Each Side of Web 1" x 2-5/16" 2-1/2" 1-1/2" x 2-5/16" 3.1/2"

NORDIC **STRUCTURES**

COMPANY Feb. 19, 2020 08:26 PROJECT J2 1ST FLOOR.wwb

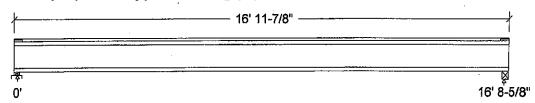
Design Check Calculation Sheet

Nordic Sizer - Canada 7.2

Loads:

Load	Туре	Distribution	Pat-	Location	[ft]	Magnitude		Unit
	1		tern	Start	End	Start	End	
Loadl	Dead	Full Area		•	-	20.00		psf
Load2	Live	Full Area				40.00		psf

Maximum Reactions (lbs) and Support Bearing (in):



Unfactored: Dead Live	223 446	223 446
Factored: Total	947	947
Bearing:		-
Capacity	'	
Joist	2101	2138
Support	3971	-
Des ratio		
Joist	0.45	0.44
Support	0.24	i -]
Load case	#2	#2
Length	2-3/8	2-5/8
Min req'd	1-3/4	1-3/4
Stiffener	No	No
KD	1.00	1.00
KB support	1.00	-
fcp sup	769	-
Kzcp sup	1.09	

Nordic Joist 11-7/8" NI-40x Floor joist @ 16" o.c.

Supports: 1 - Lumber Sill plate, No.1/No.2; 2 - Steel Beam, W; Total length: 16' 11-7/8"; Clear span: 16' 6-7/8"; 3/4" nailed and glued OSB sheathing This section PASSES the design code check.

Limit States Design using CSA-086-09 and Vibration Criterion:

				<u> </u>
Criterion	Analysis Value	Design Value	Unit	_Analysis/Design
Shear	Vf = 947	$\forall r = 2336$	lbs	Vf/Vr = 0.41
Moment(+)	Mf = 3960	Mr = 6255	lbs-ft	0.63
Perm. Defl'n	0.12 = < L/999	0.56 = L/360	in 🥒	P. 0.21
Live Defl'n	0.23 = L/861	0.42 = L/480	in 🎉	Q. 0.56
Total Defl'n	0.35 = L/574	0.84 = L/240	in S	31620 60.56
Bare Defl'n	0.28 = L/712	0.56 = L/360	in ∫∰	1 10 15 1
Vibration	Lmax = 16'-8.6	Lv = 18'-1.3	ft 💆	S. KATSOULAKOS \$ 92
Defl'n	= 0.030	= 0.038	in å	0/.78
			1	

STRUCTURAL

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COMPONENT ONLY

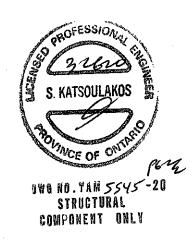
WoodWorks® Sizer

for NORDIC STRUCTURES

J2 1ST FLOOR.wwb				Nordic S	izer – Cana	da 7.2				Page
Additional	Data:									
FACTORS:			KH		\mathtt{KL}	KT	KS	KN	LC#	
۷r	2336	1.00	1.00	-	_	-	-		#2	
	6255		1.00	-	1.000	-	_	_	#2	
	371.1 mi			-	-	-	_	-	#2	
CRITICAL LO	DAD COMBIN	NATIONS	3:							
Shear	: LC #2	= 1.25	5D + 1.5	Ŀ						
Moment(+)	: LC #2	= 1.25	5D + 1.5	<u>.</u>						
Deflection	on: LC #1	= 1.01) (perma	enent)						
			0 + 1.0L							
			0 + 1.0L							
			0 + 1.0L							
Bearing	: Suppor									
-	Suppor	t 2 - I	C #2 = 3	L.25D +	1.5L					
Load Type	es: D=dead	W=wir	nd S=sno	ow H=ea	arth,grou	ndwater	r E=eart	thquake		
	L=live	(use, oc	ccupancy)	Ls=l:	ive(stora	ge, equi	(pment)	f=fire		
Load Patt	terns: s=S	/2 L=I	L+Ls _≕ı	io patte	ern load :	in this	s span			
All Load	Combination	ons (LO	cs) are l	isted i	in the Ana	alysis	output			
CALCULATION								63.46	JAMS TO O	RC 2012
Eleff = 4	159.76 lb-:	in^2 F	(= 6.18€	06 lbs				• • •	CARO IO G	DQ 2012
"Live" de	eflection :	is due	to all r	on-dead	i loads (live, w	ind, sno	ow)	AMENDED 2	2020
<u>-</u> -					-					· · · · · ·

Design Notes:

- 1. WoodWorks analysis and design are in accordance with the 2010 National Building Code of Canada (NBC), Division B. Part 4, and the CSA O86-09 Engineering Design in Wood standard, which includes Update No.1
- 2. Please verify that the default deflection limits are appropriate for your application.
- 3. Refer to Nordic Structures technical documentation for installation guidelines and construction details.
- 4. Nordic I-joists are listed in CCMC evaluation report 13032-R.
- 5. Joists shall be laterally supported at supports and continuously along the compression edge.
- 6. The design assumptions and specifications have been provided by the client. Any damages resulting from faulty or incorrect information, specifications, and/or designs furnished, and the correctness or accuracy of this information is their responsibility. This analysis does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of this component based on the design criteria and loadings shown.



NORDIC STRUCTURES

COMPANY Feb. 19, 2020 08:18 PROJECT
J1 2ND FLOOR ABOVE GARAGE.wwb

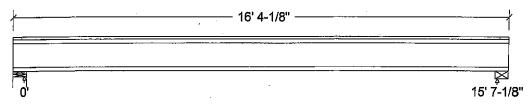
Design Check Calculation Sheet

Nordic Sizer - Canada 7.2

Loads:

Load	Type	Distribution	Pat-	Location	[ft]	Magnitude	Unit
			tern	Start	End	Start End	L i
Loadl	Dead	Full Area				20.00	psf
Load2	Live	Full Area				40.00	psf

Maximum Reactions (lbs) and Support Bearing (in):



Unfactored: Dead Live	208 416		208 416
Factored: Total	884		884
Bearing:			
Capacity			1
Joist	2336		2336
Support	9724		-
Des ratio			
Joist	0.38		0.38
Support	0.09		l - i
Load case	#2		#2
Length	5-1/2		5-1/4
Min req'd	1-3/4		1-3/4
Stiffener	No		No
KD	1.00		1.00
KB support	-	·	-
fcp sup	769		-
Kzcp sup	-		

Bearing for wall supports is perpendicular-to-grain bearing on top plate. No stud design included.

Nordic Joist 11-7/8" NI-40x Floor joist @ 16" o.c.

Supports: 1 - Lumber Wall, No.1/No.2; 2 - Steel Beam, W;
Total length: 16' 4-1/8"; Clear span: 15' 5-3/8"; 5/8" nailed and glued OSB sheathing
This section PASSES the design code check.

Limit States Design using CSA-O86-09 and Vibration Criterion:

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 884	Vr = 2336	lbs	vf/vr = 0.38
Moment (+)	Mf = 3445	Mr = 6255	ا lbs-ft	$N^{O} MI/M_{\rm N} = 0.55$
Perm. Defl'n	0.09 = < L/999	0.52 = L/360	in /o	0.18
Live Defl'n	0.18 = < L/999	0.39 = L/480	in 🎉	2 USO 6 0.18
Total Defl'n	0.28 = L/679	0.78 = L/240	in /3	60.35
Bare Defl'n	0.22 = L/864	0.52 = L/360	in 19 c	KATSOULAKOS 👺 42
Vibration	Lmax = 15'-7.1	Lv = 17' - 2.4	ft 🔁 '	0,91
Defl'n	= 0.030	= 0.042	in 🕻 (0.73

OWG NO.TAM 5546-20 Structural Component only

WoodWorks® Sizer

for NORDIC STRUCTURES

J1 2ND FLOOR ABOVE GARAGE.wwb

Nordic Sizer - Canada 7.2

Page 2

Additional	Data:							••		
FACTORS:			KH		KĿ	ΚT	KS	KN	LC#	
Vr	2336	1.00	1.00	-	-	-	_	-	#2	
Mr+	6255			-	1.000	-	-	-	#2	
EI	371.1 m			-	-	-	-	-	#2	
CRITICAL LO	DAD COMBI	NATIONS	3 :							
Shear	: LC #2		5D + 1.5I							
Moment (+)	: LC #2	= 1.25	5D + 1.5I	L						
Deflection										
) + 1.0L							
) + 1.0L							
	LC #2	= 1.0) + 1.0L	(bare	joist)					•
Bearing			C #2 = 1							
			.C #2 = 1					4.		
Load Type										
					ve (stora			f=fire		
Load Patt	erns: s=S	5/2 L=I	.+Ls _=n	o patte	rn load :	in this	span			
All Load		ons (LC	s) are l	isted i	n the Ana	alysis	output			
CALCULATIO	DNS:							eau	eadme to	0BC 2012
Eleff = 4									I ORING I C	7 424 20 12
"Live" de	flection	is due	to all n	on-dead	.loads (:	live, w	ind, sno	ow)	AMENDED	1 2020

Design Notes:

- 1. WoodWorks analysis and design are in accordance with the 2010 National Building Code of Canada (NBC), Division B, Part 4, and the CSA O86-09 Engineering Design in Wood standard, which includes Update No.1
- 2. Please verify that the default deflection limits are appropriate for your application.
- 3. Refer to Nordic Structures technical documentation for installation guidelines and construction details.
- 4. Nordic I-joists are listed in CCMC evaluation report 13032-R.
- 5. Joists shall be laterally supported at supports and continuously along the compression edge.
- 6. The design assumptions and specifications have been provided by the client. Any damages resulting from faulty or incorrect information, specifications, and/or designs furnished, and the correctness or accuracy of this information is their responsibility. This analysis does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of this component based on the design criteria and loadings shown.



BWB NO. TAMSSYG -20 STRUCTURAL COMFONENT ONLY

NORDIC STRUCTURES

COMPANY

Feb. 19, 2020 08:19

PROJECT
J1 2ND FLOOR.wwb

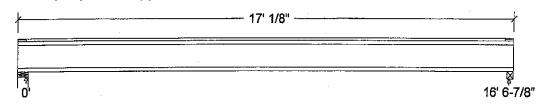
Design Check Calculation Sheet

Nordic Sizer - Canada 7.2

Loads:

Load	Туре	Distribution	Pat-	Location	[ft]	Magnitude	Magnitude [
			tern	Start	End	Start	End	
Loadl	Dead	Full Area		<u> </u>		20.00		psf
Load2	Live	Full Area				40.00		psf

Maximum Reactions (lbs) and Support Bearing (in):



Unfactored: Dead Live	221 442	221 442
Factored: Total	939	939
Bearing:		
Capacity		
Joist	2336	2138
Support	7735	4043
Des ratio		
Joist	0.40	0.44
Support	0.12	0.23
Load case	#2	#2
Length	4-3/8	2-5/8
Min req'd	1-3/4	1-3/4
Stiffener	No	No
KD	1.00	1.00
KB support	-	1.00
fcp sup	769	769
Kzcp sup		1.00

Bearing for wall supports is perpendicular-to-grain bearing on top plate. No stud design included.

Nordic Joist 11-7/8" NI-40x Floor joist @ 16" o.c.

Supports: 1 - Lumber Wail, No.1/No.2; 2 - Lumber Beam, No.1/No.2; Total length: 17' 1/8"; Clear span: 16' 5-1/8"; 5/8" nailed and glued OSB sheathing with 1/2" gypsum ceiling **This section PASSES the design code check.**

Limit States Design using CSA-086-09 and Vibration Criterion:

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 939	Vr = 2336	lbs	Vf/Vr = 0.40
Moment(+)	Mf = 3891	Mr = 6255	مرس lbs-ft	$\mathbf{L}^{O^{TC}}\mathbf{Mf}/\mathbf{M}_{L} = 0.62$
Perm. Defl'n	$0.12 = \langle L/999 \rangle$	0.55 = L/360	in 🔊	0.21
Live Defl'n	0.23 = L/862	0.41 = L/480	in /6	31620 20.56
Total Defl'n	0.35 = L/574	0.83 = L/240	in / 😤 🕏	F.0.42
Bare Defl'n	0.27 = L/730	0.55 = L/360	in 💆 c	KATSOULAKOS 19.49
Vibration	Lmax = 16'-6.9	Lv = 17' - 8.1	I I I I	1 /// 13.94 1
Defl'n	= 0.031	= 0.038	in \	0.82

. Ng No. Fam 5547 -20 Structural

COMPONENT ONLY

ON NOTE OF ONL

WoodWorks® Sizer

for NORDIC STRUCTURES

J1 2ND FLOOR.wwb

Nordic Sizer - Canada 7.2

Page 2

Additional	Data:									
FACTORS:	f/E	KD	KH	KZ	KL	KT	KS	KN	LC#	
Vr	2336	1.00	1.00	-	_	-	-	-	#2	
Mr+	6255	1.00			1.000	-	-	-	#2	
	371.1 m			-	_	-	=	_	#2	
CRITICAL LO	DAD COMB	INATIONS	:							
Shear	: LC #2	= 1.29	5D + 1.5I		•					
Moment (+)	: LC #2	= 1.25	5D + 1.5I	_						
Deflection						•				
	LC #2	= 1.00) + 1.0L	(live)					
	LC #2	= 1.00	+ 1.0L	(tota	1)					
			+ 1.0L							
Bearing	: Suppo:	rt 1 - I	.C #2 = 1	25D +	1.5L					
_			C #2 = 1							
Load Type	s: D=dead	d W=win	d S=sno	w H=ea	arth, grou	ndwater	E=eart	hquake		
	L=liv	e(use,oc	cupancy)	Ls=l:	ive(stora	ge,equi	.pment)	f=fire		
Load Patt	erns: s=	s/2 L=L	+Ls _=n	o patte	ern load .	in this	span			
All Load	Combinat:	ions (LC	s) are l	isted i	in the An	alysis	output			
CALCULATIO	ONS:							-		222 2242
Eleff = 4		-in^2 K	= 6.18e	06 lbs				eu.	NFORMS TO	UBC 2012
"Live" de	flection	is due	to all n	on-deac	d loads (live, w	ind, sno	w)	AMENDED	2020
									HMENUEV	4046

Design Notes:

- 1. WoodWorks analysis and design are in accordance with the 2010 National Building Code of Canada (NBC), Division B, Part 4, and the CSA O86-09 Engineering Design in Wood standard, which includes Update No.1
- 2. Please verify that the default deflection limits are appropriate for your application.
- 3. Refer to Nordic Structures technical documentation for installation guidelines and construction details.
- 4. Nordic I-joists are listed in CCMC evaluation report 13032-R.
- 5. Joists shall be laterally supported at supports and continuously along the compression edge.
- 6. The design assumptions and specifications have been provided by the client. Any damages resulting from faulty or incorrect information, specifications, and/or designs furnished, and the correctness or accuracy of this information is their responsibility. This analysis does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of this component based on the design criteria and loadings shown.



STRUCTURAL COMPONENT ONLY

NORDIC **STRUCTURES**

COMPANY Feb. 19, 2020 08:22 PROJECT J10 1ST FLOOR.wwb

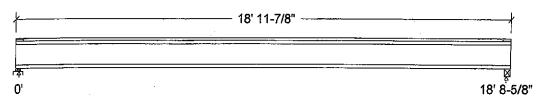
Design Check Calculation Sheet

Nordic Sizer - Canada 7.2

Loads:

	Load	Type	Distribution	Pat-	Location	[ft]	Magnitud	e	Unit
				tern	Start	End	Start	End.	
	Loadl	Dead	Full Area	1			20.00		psf
ŀ	Load2	Live	Full Area				40.00		psf

Maximum Reactions (lbs) and Support Bearing (in):



Unfactored: Dead Live	187 374	. 187 374
Factored: Total	796	796
Bearing:		
Capacity		
Joist	2187	2211
Support	5559	_
Des ratio		
Joist	0.36	0.36
Support	0.14	- 1
Load case	#2	#2
Length	2-3/8	2-5/8
Min req'd	1-3/4	1-3/4
Stiffener	No	No
KD	1.00	1.00
KB support	1.00	-
fcp sup	769	-
Kzcp sup	1.09	

Nordic Joist 11-7/8" NI-80 Floor joist @ 12" o.c.

Supports: 1 - Lumber Sill plate, No.1/No.2; 2 - Steel Beam, W; Total length: 18' 11-7/8"; Clear span: 18' 6-7/8"; 3/4" nailed and glued OSB sheathing This section PASSES the design code check.

Limit States Design using CSA-086-09 and Vibration Criterion:

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 796	Vr = 2336	lbs	Vf/Vr = 0.34
Moment(+)	Mf = 3723	Mr = 11609	lbs-ft	O.32
Perm. Defl'n	0.10 = < L/999	0.62 = L/360	in	0.16
Live Defl'n	0.20 = < L/999	0.47 = L/480	in 🎉	9 6 44 Can 1 Ca 44
Total Defl'n	0.31 = L/734	0.94 = L/240	in /	0.83
Bare Defl'n	0.23 = L/980	0.62 = L/360	in 👸	S. KATSOULAKOS O. \$7
Vibration	Lmax = 18'-8.6	Lv = 21'-2.7	ft 🖫	S. NATSUDEANOS O. 188
Defl'n	= 0.025	= 0.034	in	70.7B

#W4 NO . TAN*5548* -20 STRUCTURAL

COMPONENT ONLY

WoodWorks® Sizer

for NORDIC STRUCTURES

J10 1ST FLOOR.wwb

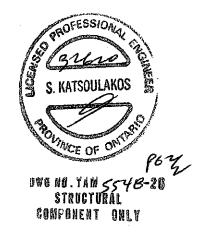
Nordic Sizer - Canada 7.2

Page 2

Vr 2336 1.00 1.00 #2 Mr+ 11609 1.00 1.00 - 1.000 #2 EI 547.1 million #2 RITICAL LOAD COMBINATIONS: Shear : LC #2 = 1.25D + 1.5L Moment(+) : LC #2 = 1.25D + 1.5L Deflection: LC #1 = 1.0D (permanent) LC #2 = 1.0D + 1.0L (Live) LC #2 = 1.0D + 1.0L (total) LC #2 = 1.0D + 1.0L (bare joist)											
Vr 2336 1.00 1.00 #2 Mr+ 11609 1.00 1.00 - 1.000 #2 EI 547.1 million #2 ERITICAL LOAD COMBINATIONS: Shear : LC #2 = 1.25D + 1.5L Moment(+) : LC #2 = 1.25D + 1.5L Deflection: LC #1 = 1.0D (permanent)	Additiona	l Data:									
Vr 2336 1.00 1.00 #2 Mr+ 11609 1.00 1.00 - 1.000 #2 EI 547.1 million #2 ERITICAL LOAD COMBINATIONS: Shear : LC #2 = 1.25D + 1.5L Moment(+) : LC #2 = 1.25D + 1.5L Deflection: LC #1 = 1.0D (permanent)	FACTORS:	f/E	KD	KH	KZ	KI.	KТ	KS	ĸM	T C#	
Mr+ 11609 1.00 1.00 - 1.000 #2 EI 547.1 million #2 CRITICAL LOAD COMBINATIONS: Shear : LC #2 = 1.25D + 1.5L Moment(+) : LC #2 = 1.25D + 1.5L Deflection: LC #1 = 1.0D (permanent)	Vr .	2336	1 00	1 00	_			=		- "	
#2 #2 #2 #3 #3 #4 #5 #6 #7 #6 #6 #7 #7 #7 #7 #7 #7	Mr+	11609	1.00	1.00		1.000	_	_	_		
SRITICAL LOAD COMBINATIONS: Shear : LC #2 = 1.25D + 1.5L Moment(+) : LC #2 = 1.25D + 1.5L Deflection: LC #1 = 1.0D (permanent) LC #2 = 1.0D + 1.0L (live) LC #2 = 1.0D + 1.0L (total) LC #2 = 1.0D + 1.0L (bare joist) Bearing : Support 1 - LC #2 = 1.25D + 1.5L Support 2 - LC #2 = 1.25D + 1.5L Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake L=live(use, occupancy) Ls=live(storage, equipment) f=fire Load Patterns: s=S/2 L=L+Ls =no pattern load in this span All Load Combinations (LCs) are listed in the Analysis output ALCULATIONS: Eleff = 625.37 lb-in^2 K= 6.18e06 lbs CAMFIRMS TO OBC 2012	EI	547.1 m	illion	_	_	-	_	_			
Moment (+): LC #2 = 1.25D + 1.5L Deflection: LC #1 = 1.0D (permanent) LC #2 = 1.0D + 1.0L (live) LC #2 = 1.0D + 1.0L (total) LC #2 = 1.0D + 1.0L (bare joist) Bearing: Support 1 - LC #2 = 1.25D + 1.5L Support 2 - LC #2 = 1.25D + 1.5L Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake L=live(use, occupancy) Ls=live(storage, equipment) f=fire Load Patterns: s=S/2 L=L+Ls _=no pattern load in this span All Load Combinations (LCs) are listed in the Analysis output ALCULATIONS: Eleff = 625.37 lb-in^2 K= 6.18e06 lbs CAMFIRMS TO OBC 2012	CRITICAL LO	DAD COMBI	NATIONS	: :						11 2	
Deflection: LC #1 = 1.0D (permanent) LC #2 = 1.0D + 1.0L (live) LC #2 = 1.0D + 1.0L (total) LC #2 = 1.0D + 1.0L (bare joist) Bearing: Support 1 - LC #2 = 1.25D + 1.5L Support 2 - LC #2 = 1.25D + 1.5L Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake L=live(use, occupancy) Ls=live(storage, equipment) f=fire Load Patterns: s=S/2 L=L+Ls _=no pattern load in this span All Load Combinations (LCs) are listed in the Analysis output ALCULATIONS: Eleff = 625.37 lb-in^2 K= 6.18e06 lbs CAMFORMS TO OBC 2012	Shear	: LC #2	= 1.25	5D + 1.55	Ľ						
LC #2 = 1.0D + 1.0L (live) LC #2 = 1.0D + 1.0L (total) LC #2 = 1.0D + 1.0L (bare joist) Bearing : Support 1 - LC #2 = 1.25D + 1.5L Support 2 - LC #2 = 1.25D + 1.5L Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake L=live(use, occupancy) Ls=live(storage, equipment) f=fire Load Patterns: s=S/2 L=L+Ls =no pattern load in this span All Load Combinations (LCs) are listed in the Analysis output ALCULATIONS: Eleff = 625.37 lb-in^2 K= 6.18e06 lbs CAMFIRMS TO OBC 2012											
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LC #2 = 1.0D + 1.0L (bare joist) Bearing : Support 1 - LC #2 = 1.25D + 1.5L Support 2 - LC #2 = 1.25D + 1.5L Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake L=live(use, occupancy) Ls=live(storage, equipment) f=fire Load Patterns: s=S/2 L=L+Ls =no pattern load in this span All Load Combinations (LCs) are listed in the Analysis output ALCULATIONS: CLAFTAMS TO OBC 2012		LC #2	= 1.00	+ 1.0L	(total	.)					
Bearing: Support 1 - LC #2 = 1.25D + 1.5L Support 2 - LC #2 = 1.25D + 1.5L Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake L=live(use, occupancy) Ls=live(storage, equipment) f=fire Load Patterns: s=S/2 L=L+Ls =no pattern load in this span All Load Combinations (LCs) are listed in the Analysis output ALCULATIONS: Eleff = 625.37 lb-in^2 K= 6.18e06 lbs Clarification in the data to the Allege Box (Section 1) and th		LC #2	= 1.0D	+ 1.0L	(bare	joist)					
Support 2 - LC #2 = 1.25D + 1.5L Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake L=live(use, occupancy) Ls=live(storage, equipment) f=fire Load Patterns: s=S/2 L=L+Ls =no pattern load in this span All Load Combinations (LCs) are listed in the Analysis output ALCULATIONS: Eleff = 625.37 lb-in^2 K= 6.18e06 lbs Clarification in data to the Analysis of the Combination o	Bearing	: Suppor	ct 1 - L	C #2 = 1	25D +	1.5L					
Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake L=live(use, occupancy) Ls=live(storage, equipment) f=fire Load Patterns: s=S/2 L=L+Ls _=no pattern load in this span All Load Combinations (LCs) are listed in the Analysis output ALCULATIONS: Eleff = 625.37 lb-in^2 K= 6.18e06 lbs Claffing TO OBC 2012		Suppor	rt 2 - L	C #2 = 1	.25D +	1.5L					
L=live(use,occupancy) Ls=live(storage,equipment) f=fire Load Patterns: s=S/2 L=L+Ls =no pattern load in this span All Load Combinations (LCs) are listed in the Analysis output ALCULATIONS: Eleff = 625.37 lb-in^2 K= 6.18e06 lbs Clarification in the Analysis output Clarification in the Analysis output	Load Type	s: D=deac	i W≃win	d S=sno	w H=ea	rth, groun	ndwater	E≔eart	:hauake	•	
Load Patterns: s=S/2 L=L+Ls _=no pattern load in this span All Load Combinations (LCs) are listed in the Analysis output ALCULATIONS: Eleff = 625.37 lb-in^2 K= 6.18e06 lbs COMFORMS TO OBG 2012		L=live	(use,oc	cupancy)	Ls≔li	ve(storac	re,equi	pment)	f=fire		
All Load Combinations (LCs) are listed in the Analysis output ALCULATIONS: Eleft = 625.37 lb-in^2 K= 6.18e06 lbs Clarent in the Analysis output Clarent in the Analysis output	Load Patt	erns: s=S	3/2 L=L	+Ls =n	o patte	rn load i	in this	span			
ALCULATIONS: Eleff = 625.37 lb-in^2 K= 6.18e06 lbs Clarent to the first transfer to the first transfer to the first transfer transfer to the first transfer	All Load	Combinati	ons (LC	s) are 1	isted i	n the Ana	alvsis	output			
Tirely defination to the to all the same	CALCULATIO	DNS:					<u>.</u>	<u>-</u>	A (2. 24.		
Time! doffication is due to 13 years 1 1 1 1 1 1 1 1 1	EIeff = 6	25.37 lb-	in^2 K	= 6.18e	06 lbs				Can	OAMS TO	0BC 201
ADELLAR TREATMENT TREATMENT TO STORY						loads (1	ive. w	ind. sno	w l	Mannen	9000
								, 0110		MURNYRU	- HAN

Design Notes:

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- 2. Please verify that the default deflection limits are appropriate for your application.
- 3. Refer to Nordic Structures technical documentation for installation guidelines and construction details.
- 4. Nordic I-joists are listed in CCMC evaluation report 13032-R.
- 5. Joists shall be laterally supported at supports and continuously along the compression edge.
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BC CALC® Member Report



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

1ST FLR FRAMING\Flush Beams\B1(i2307) (Flush Beam)

Dry | 2 spans | L. cant.

February 19, 2020 08:00:55

PASSED

Build 7239

Job name: Address:

City, Province, Postal Code: WATERDOWN

Customer:

Code reports:

CCMC 12472-R

File name:

VALLEYCREEK 1 EL 1 NEW.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B1(i2307)

Dead

0.65

120

61

62

6

Snow

1.00

Wind

1.15

Tributary

00-00-00

n\a

n\a

n\a n\a

Specifier:

AJ

Designer: Company:

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_\V	 	1 1 1 1 1 1	 	1 1 1 1 1 1	+++
+ + +	+ + + +	* + + + + + +	101 1 1 1 1	+ + + + + + +	+ + +
					×
00-04-04 B1			03-07-08		——— B2

Total Horizontal Product Length = 03-11-12

Reaction Sur	nmary (Down / O	pint) (ibs)			•
Bearing	Live	Dead	Snow	Wind	
B1, 3-1/2"	625 / 0	325 / 0		. <u>-</u>	 •
B2, 3-3/4"	596 / 9	305 / 0			

Loa	ad Summary						Live
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-11-12	Тор	·
1	STAIR	Unf. Lin. (lb/ft)	L	00-06-00	03-11-12	Тор	240
2	J8(I2333)	Conc. Pt. (lbs)	L	00-01-04	00-01-04	Top	122
3	J8(i2291)	Conc. Pt. (lbs)	L	01-05-04	01-05-04	Тор	124
4	J8(i2140)	Conc. Pt. (lbs)	L	02-09-04	02-09-04	Top	127

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	998 ft-lbs	17696 ft-lbs	5.6%	3	02-00-09
Nea. Moment	-65 ft-lbs	-17696 ft-lbs	0.4%	1	00-04-04
End Shear	575 lbs	7232 lbs	8.0%	3	02-08-02
Cont. Shear	553 lbs	7232 lbs	7.6%	1	01-05-14
Total Load Deflection	L/999 (0.003")	n\a	n\a	10	02-00-09
Live Load Deflection	L/999 (0,002")	n\a	n\a	13	02-00-09
Total Neg. Defl.	2xL/1998 (-0.001")	n\a	n\a	10	00-00-00
Max Defl.	0.003"	n\a	n\a	10	02-00-09
Span / Depth	3.4				

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	3-1/2" x 1-3/4"	1344 lbs	35.7%	18.0%	Spruce-Pine-Fir
B2	Wall/Plate	3-3/4" x 1-3/4"	1275 lbs	31.6%	15.9%	Spruce-Pine-Fir

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

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

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

ONINCE OF OF ova no . TAM 5549-20 STRUCTURAL COMPONENT ONLY Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular CINFINMS TO OBC 2012 application. The output here is 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 (800)232-0788 before installation.

> BC CALC®, BC FRAMER® , AJS™ ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B2(i1942) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 2 spans | R cant.

February 19, 2020 08:00:55

Build 7239 Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer: Code reports: CCMC 12472-R

File name:

VALLEYCREEK 1 EL 1 NEW.mmdl

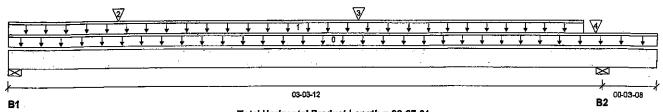
Description:

1ST FLR FRAMING\Flush Beams\B2(i1942)

Specifier:

AJ

Designer: Company:



Total Horizontal Product Length = 03-07-04

Reaction Sun	nmary (Down / D	pilit) (ibs)			1	
Bearing	Live	Dead	Snow	Wind		
B1, 3-1/2"	655 / 0	338 / 0				
B2, 3-1/2"	634 / 0	328 / 0				

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
Tag		Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-07-04	Тор		6			00-00-00
1	STAIR	Unf. Lin. (lb/ft)	L	00-00-00	03-02-08	Top	240	120			n\a
2	J7(i2132)	Conc. Pt. (lbs)	L	00-07-04	00-07-04	Top	172	86			n\a
3	J7(i2133)	Conc. Pt. (lbs)	L	01-11-04	01-11-04	Тор	172	86			n\a
4	J7(i2135)	Conc. Pt. (lbs)	L	03-03-04	03-03-04	Тор	170	85 #	ROFE	SSION	∘. n∖a ∛

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	949 ft-lbs	17696 ft-lbs	5.4%	2	01-11-04
End Shear	490 lbs	7232 lbs	6.8%	1	01-03-06
Cont. Shear	458 lbs	7232 lbs	6.3%	1	02-02-02
Total Load Deflection	L/999 (0.002")	n\a	n\a	9	01-09-04
Live Load Deflection	L/999 (0.001")	n\a	n\a	12	01-09-04
Total Neg. Defl.	2xL/1998 (-0.001")	n\a	n\a	9	03-07-04
Max Defl.	0.002"	n\a	n\a	9	01-09-04
Span / Depth	3.1				

Beari	ng Supports	Dim, (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	3-1/2" x 1-3/4"	1405 lbs	37.3%	18.8%	Spruce-Pine-Fir
B2	Wall/Plate	3-1/2" x 1-3/4"	1362 lbs	36.1%	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.

Calculations assume member is fully braced.

CONFORMS TO OBC 2012

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 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

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BC CALC®, BC FRAMER®, AJS™ ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®. VERSA-LAM®, VERSA-RIM PLUS®,

before installation.



BYE HU. TAN 5550-20 STRUCTURAL





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

1ST FLR FRAMING\Flush Beams\B3L(i1802) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

February 19, 2020 08:00:55

Build 7239

Job name: Address:

Customer:

Code reports:

City, Province, Postal Code: WATERDOWN

CCMC 12472-R

File name:

VALLEYCREEK 1 EL 1 NEW.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B3L(i1802)

Specifier:

Designer: AJ

Company:

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Total Horizontal Product Length = 12-11-12

/Down / Linlift\ /lhs\

Keachon Sui	milary (Down / O	hint) (ina)			
Bearing	Live	Dead	Snow	Wind	
B1, 1-7/8"	176 / 0	119 / 0			
B2 / 2/9"	181 / 0	122 / 0			

Lo	ad Summary	•					Live	Dead	Snow	Wind	Tributary
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	12-11-12	Тор		5			00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	12-11-12	Top	28	14			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1276 ft-lbs	11610 ft-lbs	11.0%	1	06-04-10
End Shear	350 lbs	5785 lbs	6.1%	1	00-11-06
Total Load Deflection	L/999 (0.104")	n\a	n\a	4	06-04-10
Live Load Deflection	L/999 (0.062")	n\a	n\a	5	06-04-10
Max Defl.	0.104"	n\a	n\a	4	06-04-10
Span / Depth	15.9				

Bearin	ig Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Materia l
B1	Wall/Plate	1-7/8" x 1-3/4"	412 lbs	20.4%	10.3%	Spruce-Pine-Fir
B2	Wall/Plate	4-3/8" x 1-3/4"	425 lbs	9.0%	4.6%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria. Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume member is fully braced.

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

AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



owe no. fan 555/-20 STRUCTURÁL COMPONENT ONLY

Disclosure

CANFORMS TO OBC 2012

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA), Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is 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 (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCi®. BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



BC CALC® Member Report

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

1ST FLR FRAMING\Flush Beams\B4(i1854) (Flush Beam)

Dry | 1 span | No cant.

February 19, 2020 08:00:55

PASSED

Build 7239

Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer:

Code reports:

CCMC 12472-R

File name:

VALLEYCREEK 1 EL 1 NEW.mmdl

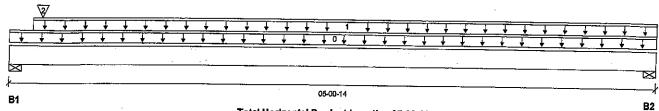
1ST FLR FRAMING\Flush Beams\B4(i1854)

Description: Specifier:

Designer: ΑJ

Wind

Company:



Total Horizontal Product Length = 05-00-14

Snow

Reaction Summary (Down / Uplift) (lbs)

Live Dead B1, 4" 1077 / 0 1242 / 0 B2, 4-3/8" 69/0 50 / 0

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	05-00-14	Top		6		1110	00-00-00
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-02-04	05-00-14	Top	27	14			
2	9(i865)	Conc. Pt. (lbs)	L	00-03-02	00-03-02		1014	1195	and the same	E8610	n\a n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	165 ft-lbs	17696 ft-lbs	0.9%	1	02-06-04
End Shear	78 lbs	7232 lbs	1.1%	1	01-03-14
Total Load Deflection	L/999 (0.001")	n\a	n\a	4	02-06-04
Live Load Deflection	L/999 (0.001")	n\a	п\а	5	02-06-04
Max Defl.	0.001"	n\a	n\a	4	02-06-04
Span / Depth	4.5				· ·

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	4" x 1-3/4"	3168 lbs	73.6%	37.1%	Spruce-Pine-Fir
B2	Wall/Plate	4-3/8" x 1-3/4"	166 lbs	3.5%	1.8%	Spruce-Pine-Fir

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

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

Calculations assume unbraced length of Top: 00-02-04, Bottom: 00-02-04.

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

AMENDED 2020
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86. Resistance Factor phi has been applied to all presented results per CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



DWG #0. PAN 5552-20 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). CONFORMS TO OBC 2012 Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current installation Gulde and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

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1ST FLR FRAMING\Flush Beams\B5(i3094) (Flush Beam)

PASSED

February 19, 2020 08:00:55

BC CALC® Member Report

Build 7239

Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer:

Load Summary

CCMC 12472-R Code reports:

Dry | 3 spans | L & R cant.

VALLEYCREEK 1 EL 1 NEW.mmdi

1ST FLR FRAMING\Flush Beams\B5(i3094)

File name: Description:

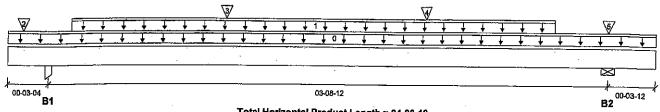
Live

Dead

Specifier:

Designer: AJ

Company:



Total Horizontal Product Length = 04-03-12

Reaction Summary (Down / Unlift) (lbs)

i veaction oui	mmary (Domin's Of	JIKU (ING)			
Bearing	Live	Dead	Snow	Wind	
B1, 3-1/2"	321/0	276 / 0			
B2, 5-1/2"	1629 / 0	1280 / 0			

Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	04-03-12	Top		6		
1	WALL	Unf. Lin. (lb/ft)	L	00-05-00	03-07-12	Top		60		
2	J8(i3154)	Conc. Pt. (lbs)	L	00-01-04	00-01-04	Top	153	77		
3	J8(i3130)	Conc. Pt. (lbs)	L	01-05-04	01-05-04	Top	157	79		AND THE PERSON NAMED AND ADDRESS OF THE PERSON NAMED AND ADDRE
4	J8(i3106)	Conc. Pt. (lbs)	Ĺ	02-09-04	02-09-04	Top	153	.76		COFESS
5	10(i876)	Conc. Pt. (lbs)	L	04-00-00	04-00-00	Top	1476	1102		A STATE OF THE PARTY OF THE PAR
Co	ntrois Summa <u>ry</u>	Factored Demand	Factored Resistance	Dem Resi	and/ stance	Case	Location	Á		ROFESS Z 26

Controls Summary	Factored Demand	Resistance	Demand/ Resistance	Case	Location
Pos. Moment	532 ft-lbs	17696 ft-lbs	3.0%	3	02-02-04
Neg. Moment	-54 ft-lbs	-17696 ft-lbs	0.3%	1	00-03-04
Cont. Shear	440 lbs	7232 lbs	6.1%	3	02-09-06
Total Load Deflection	L/999 (0.002")	n\a	n\a	16	02-01-12
Live Load Deflection	L/999 (0.001")	n\a	n\a	21	02-01-12
Total Neg. Defl.	2xL/1998 (-0.001")	n\a	n\a	14	04-03-12
Max Defl.	0.002"	n\a	n\a	16	02-01-12
Span / Depth	3.8				•

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Column	3-1/2" x 1-3/4"	826 lbs	16.6%	11.1%	Unspecified
B2	Wall/Plate	5-1/2" x 1-3/4"	4043 lbs	68.3%	34.4%	Spruce-Pine-Fir

Notes

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

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

Calculations assume unbraced length of Top: 00-01-00, Bottom: 00-01-00.

Resistance Factor phi has been applied to all presented results per CSA O86. AMENDED 2020

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition. Importance Factor : Normal Part code : Part 9

Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

Disclosure Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular CONFORMS TO OBC 2012 application. The output here is 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 (800)232-0788 before installation.

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STRUCTURAL

COMPONENT ONLY

Wind

Tributary

Snow



BC CALC® Member Report



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

1ST FLR FRAMING\Flush Beams\B6(i3117) (Flush Beam)

Dry | 1 span | No cant.

February 19, 2020 08:00:55

PASSED

Build 7239 Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer:

Code reports:

CCMC 12472-R

File name:

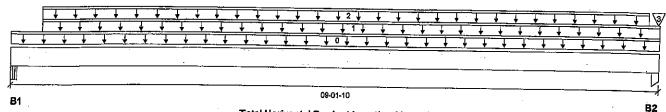
VALLEYCREEK 1 EL 1 NEW.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B6(i3117)

Specifier:

Designer:

Company:



Total Horizontal Product Length = 09-01-10

i reaction ou	innary (Down / O	hiiir) (ina)			
Bearing	Live	Dead	Snow	Wind	
B1, 5-1/4"	128 / 0	351 / 0			
B2, 1-3/4"	137 / 0	351 / 0			

Loa	ad Summary						Live
Tag	<u>Description</u>	Load Type	Ref.	Start	End	Loc.	1.00
0	Self-Weight	Unf. Lin. (lb/ft)	Ī.	00-00-00	09-01-10		
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-05-04	09-01-10	•	30
2	WALL	Unf. Lin. (lb/ft)	L	00-05-04	08-11-14	Top	
3	FC2 Floor Material	Conc. Pt. (lbs)	L			Тор	4

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1067 ft-lbs	11502 ft-lbs	9.3%	0	04-08-09
End Shear	373 lbs	4701 lbs	7.9%	0	01-05-02
Total Load Deflection	L/999 (0.029")	n\a	n\a	4	04-08-09
Live Load Deflection	L/999 (0.008")	n\a	n\a	5	04-08-09
Max Defl.	0.029"	n\a	n\a	4	04-08-09
Span / Depth	8.8				

	j Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	<u>Material</u>
B1	Beam	5-1/4" x 1-3/4"	492 lbs	15.4%	6.7%	Unspecified
B2	Column	1-3/4" x 1-3/4"	492 lbs	30.4%	20.3%	Unspecified

Notes

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

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

Calculations assume member is fully braced.

CONFORMS TO OBC 2012

Resistance Factor phi has been applied to all presented results per CSA O86. AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

BWG NO . PAN 5554-20 COMPONENT ONLY

Disclosure

Dead

0.65

6

15

60

Snow

1.00

Wind

1.15

KATSOUL

ON NOE OF

Tributary

00-00-00

n\a

n∖a n∖a

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of sultability for a particular application. The output here is 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 (800)232-0788 before installation.

BC CALC®, BC FRAMER® , AJS™. ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®.





PASSED

2ND FLR FRAMING\Dropped Beams\B11 DR(i3086) (Dropped Beam)

BC CALC® Member Report

Dry | 1 span | No cant.

February 19, 2020 08:00:55

Build 7239

Job name:

Customer:

Code reports:

Address: City, Province, Postal Code: WATERDOWN

CCMC 12472-R

VALLEYCREEK 1 EL 1 NEW.mmd!

File name: Description:

2ND FLR FRAMING\Dropped Beams\B11 DR(i3086)

Snow

1.00

Wind

1.15

Tributary

00-00-00 n\a n\a n\a

.n\a

Specifier:

Designer:

ΑJ

Company:

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<u> </u>																													_}
B1													13-01	-04															B 2

Total Horizontal Product Length = 13-01-04

Reaction Summary (Down / Oping (IDS)												
Bearing	Live	Dead	Snow	Wind								
B1, 5-1/4"	4071 / 0	2449 / 0										
R2 5.1/8"	4256 / 0	2250 / 0										

Lo	ad Summary						Live	Dead
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65
0	Self-Weight	Unf. Lin. (lb/ft)	L.	00-00-00	13-01-04	Тор		18
1	Smoothed Load	Unf. Lin. (lb/ft)	L	02-01-04	11-05-04	Тор	619	310
2	STL BM(i874)	Conc. Pt. (lbs)	L	00-02-10	00-02-10	Тор		293
3	-	Conc. Pt. (lbs)	L	01-05-13	01-05-13	Top	1304	652
4	J2(i3087)	Conc. Pt. (lbs)	L	11-06-08	11-06-08	Top	291	146
5	-	Conc. Pt. (lbs)	L	12-03-06	12-03-06	Top	637	319
6	J1(i3162)	Conc. Pt. (lbs)	L	13-00-00	13-00-00	Тор	320	160 /

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	26595 ft-lbs	55212 ft-lbs	48.2%	1	06-06-08
End Shear	8769 lbs	21696 lbs	40.4%	1	01-05-02
Total Load Deflection	L/420 (0.354")	n\a	57.2%	4	06-06-08
Live Load Deflection	L/641 (0.231")	n\a	56.1%	5	06-06-08
Max Defl.	0.354"	n\a	n\a	4	06-06-08
Span / Depth	12.5				

Bearin	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Column	5-1/4" x 5-1/4"	9167 lbs	41.0%	27.3%	Unspecified
B2	Wall/Plate	5-1/8" x 5-1/4"	9196 lbs	25.6%	28.0%	Spruce-Pine-Fir

Notes

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

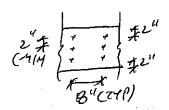
Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume unbraced length of Top: 00-03-07, Bottom: 00-03-07.

Resistance Factor phi has been applied to all presented results per CSA O86. AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



PROVIDE BROWS OF 31/2" ARDOX SPIRAL NAILS @ 8 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN.2" LUMBER EDGE/END DISTANCE, BONOTUSE AIR NAILS

OVINCE OF ON PWG NO. TAM 5555 -20 STRUCTURAL COMPONENT ONLY Disclosure

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> BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



BC CALC® Member Report



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

PASSED

2ND FLR FRAMING\Flush Beams\B10(i1856) (Flush Beam)

Dry | 1 span | No cant.

February 19, 2020 08:00:55

Build 7239

Job name: Address:

City, Province, Postal Code: WATERDOWN

Customer:

CCMC 12472-R Code reports:

File name:

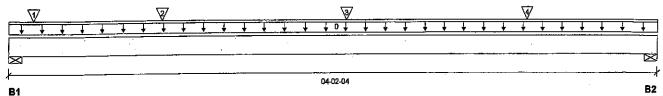
VALLEYCREEK 1 EL 1 NEW.mmdl

2ND FLR FRAMING\Flush Beams\B10(i1856) Description:

Specifier:

Designer:

Company:



Total Horizontal Product Length = 04-02-04

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 4"	1415 / 0	734 / 0
B2 2-3/4"	1077 / 0	563 / 0

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1,00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	04-02-04	Тор		12	•		00-00-00
1	J1(i2334)	Conc. Pt. (lbs)	L	00-01-14	00-01-14	Тор	337	169			n\a
2	-	Conc. Pt. (lbs)	L	00-11-12	00-11-12	Top	726	363			n\a
3	_	Conc. Pt. (lbs)	L	02-01-14	02-01-14	Top	726	363			n\a
4	•	Conc. Pt. (lbs)	L	03-04-01	03-04-01	Тор	703	351	A BOF	essio,	n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	2526 ft-lbs	35392 ft-lbs	7.1%	1	02-01-14
End Shear	1764 lbs	14464 lbs	12.2%	1	01-03-14
Total Load Deflection	L/999 (0.004")	n\a	n\a	4	02-01-14
Live Load Deflection	L/999 (0.003")	n\a	n\a	5	02-01-14
Max Defl.	0.004"	n\a	n\a	4	02-01-14
Span / Depth	3.8				

Bearing	ı Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	4" x 3-1/2"	3039 lbs	35.3%	17.8%	Spruce-Pine-Fir
B2	Wall/Plate	2-3/4" x 3-1/2"	2319 lbs	39.2%	19.8%	Spruce-Pine-Fir

Notes

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

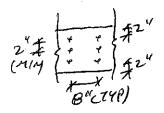
Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. Resistance Factor phi has been applied to all presented results per CSA 086. AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

importance Factor: Normal Part code: Part 9



PROVIDE 3 ROWS OF 31/2" ARBOX SPIRAL NAILS @8 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2' LUMBER EDGE/END DISTANCE. BONOT USE AIR NAILS



DWS NO. YAM 5556-20 STRUCTURAL COMPONENT ONLY

Disclosure

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PASSED

February 19, 2020 08:00:55

2ND FLR FRAMING\Flush Beams\B12(i2495) (Flush Beam) Dry | 1 span | No cant,

BC CALC® Member Report

Build 7239

Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

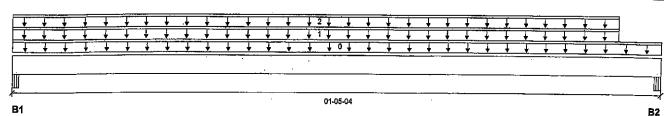
VALLEYCREEK 1 EL 1 NEW.mmdi

File name: Description: 2ND FLR FRAMING\Flush Beams\B12(i2495)

Specifier:

Designer: AJ

Company:



Total Horizontal Product Length = 01-05-04

Meachon Sun	Reaction Stituitary (Down / Opinic) (tos)								
Bearing	Live	Dead	Snow	Wind					
B1, 5-1/4"	24/0	88/0	45 / 0						
B2. 5-1/4"	21/0	77 / 0	39 / 0						

	ad Summary Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead	Snow	Wind	Tributary
<u> ray</u>	Description		1701.				7.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	01-05-04	Тор		12			00-00-00
1	ROOF	Unf. Lin. (lb/ft)	L	00-00-00	01-04-02	Top	33	30	63		n\a
2	WALL	Unf. Lin. (lb/ft)	L	00-00-00	01-04-02	Top		80		be the base?	n\a

	Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
•	Pos. Moment	17 ft-lbs	35392 ft-lbs	n\a	13	00-08-10
	End Shear	79 lbs	14464 lbs	0.5%	13	00-05-04
•	Span / Depth	0.7				

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Beam	5-1/4" x 3-1/2"	201 lbs	2.1%	0.9%	Unspecified
B2	Beam	5-1/4" x 3-1/2"	176 lbs	1.8%	0.8%	Unspecified

Notes

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 2015 and CSA O86. Unbalanced snow loads determined from building geometry were used in selected product's verification.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

CONFORMS TO DBC 2012

AMENDED 2020

PROVIDE 3 ROWS OF 31/2" ARDOX SPIRAL NAILS @ 6 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2" LUMBER EDGE/END DISTANCE, BONOTUSE AIR NAILS



BWG NO . TAN 5557-20 STRUCTURAL COMPONENT ONLY

Disclosure

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PASSED

February 19, 2020 08:00:55

2ND FLR FRAMING\Flush Beams\B8(i1791) (Flush Beam)

BC CALC® Member Report

Build 7239

Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

Dry | 1 span | No cant.

File name:

VALLEYCREEK 1 EL 1 NEW.mmdf

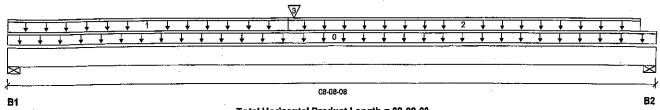
Description: 2ND FLR FRAMING\Flush Beams\B8(i1791)

Wind

Specifier:

Designer: AJ

Company:



Total Horizontal Product Length = 08-08-08

Reaction Summary (Down / Unlift) (lbs)

I TOROLION OUN	\		
Bearing	Live	Dead	Snow
B1, 4"	407 / 0	270 / 0	
R2 5.1/2"	391 / 0	261 / 0	

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	08-08-08	Top		12		•	00-00-00
1	FC3 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	03-08-12	Top	25	13			n\a
2	FC3 Floor Material	Unf. Lin. (lb/ft)	L	03-08-12	08-05-12	Top	47	23			n\a
3	B9(i2266)	Conc. Pt. (lbs)	L.	03-09-10	03-09-10	Тор	483	268	S m C	4E0016	i n∖a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	2855 ft-lbs	35392 ft-lbs	8.1%	1	03-09-10
End Shear	858 ibs	14464 lbs	5.9%	1	01-03-14
Total Load Deflection	L/999 (0.021")	n\a	n\a	4	04-02-13
Live Load Deflection	L/999 (0.013")	n\a	n\a	5	04-02-13
Max Defl.	0.021"	n\a	n\a	4	04-02-13
Span / Depth	8.1				

Bearir	ng Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	4" x 3-1/2"	948 lbs	11.0%	5.6%	Spruce-Pine-Fir
B2	Wall/Plate	5-1/2" x 3-1/2"	913 lbs	7.7%	3.9%	Spruce-Pine-Fir

Notes

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

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

CONFORMS TO OBC 2012

Calculations assume member is fully braced.

AMENDED 2020 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 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

PROVIDE3 ROWS OF 31/2" ARDOX SPIRAL NAILS @ 8 "O/C FOR MULTI-PLY NAILING, MAINTAIN MIN. 2"LUMBER EDGE/END DISTANCE BONOTUSE AIR NAILS



Disclosure

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2ND FLR FRAMING\Flush Beams\B9(i2266) (Flush Beam)

PASSED

February 19, 2020 08:00:55

BC CALC® Member Report

Build 7239

Job name:

Address:

Customer: Code reports:

City, Province, Postal Code: WATERDOWN

CCMC 12472-R

Dry | 1 span | No cant.

File name:

VALLEYCREEK 1 EL 1 NEW.mmdl

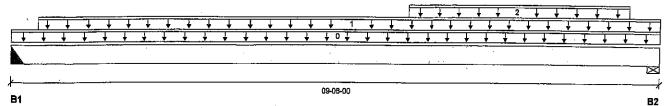
Description: 2ND FLR FRAMING\Flush Beams\B9(i2266)

Specifier:

Designer:

Wind

Company:



Total Horizontal Product Length = 09-08-00

Snow

Reaction	Summary (I	Jown /	Uplift)	(lbs)
Doggina	La	•		Dood

B1, 2' 487 / 0 270 / 0 824 / 0 440 / 0 B2, 5-1/2"

	ad Summary Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	09-08-00	Тор		6			00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-04-14	09-08-00	Тор	98	49			n\a
2	STAIR	Unf, Lin. (lb/ft)	·L	05-10-08	09-02-08	Тор	120	60		are and a second	n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	3043 ft-lbs	17696 ft-lbs	17.2%	1	05-00-14
End Shear	1246 lbs	7232 lbs	17.2%	1	08-02-10
Total Load Deflection	L/999 (0.066")	n\a	n\a	4	04-09-14
Live Load Deflection	L/999 (0.043")	n\a	n\a	5	04-09-14
Max Defl.	0.066"	n\a	n \a	4	04-09-14
Span / Depth	9.3				

Beari	ing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Hanger	2" x 1-3/4"	1069 lbs	n\a	25.0%	HUS1.81/10
B2	Mall/Diate	5-1/2" v 1-3/4"	1785 lbs	30.1%	15.2%	Spruce-Pine-Fir

Header for the hanger HUS1.81/10 at B1 is a Double 1-3/4" x 11-7/8" VERSA-LAM® 1.7 2400 DF. Hanger model HUS1.81/10 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.

Notes

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

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

Calculations assume member is fully braced.

CONFORMS TO OBC 2012

Hanger Manufacturer: Unassigned

AMENDED 2020 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 2015 and CSA O86.

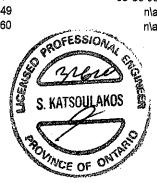
Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

Disclosure

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186 40. TAM 5559-20 STRUCTURAL COMPONENT ONLY





2ND FLR FRAMING\Flush Beams\B12C(i3748) (Flush Beam)

February 19, 2020 08:14:08

PASSED

BC CALC® Member Report Build 7239

Job name: Address:

Dry | 1 span | No cant.

VALLEYCREEK 1 EL 3 NEW.mmdl

File name: 2ND FLR FRAMING\Flush Beams\B12C(i3748) Description:

Wind

City, Province, Postal Code: WATERDOWN

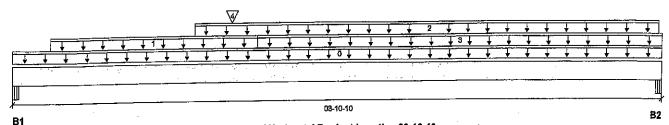
Specifier:

Designer:

Customer: Code reports:

CCMC 12472-R

Company:



Total Horizontal Product Length = 03-10-10

nmary (Down / Unlift) (lbs)

Reaction Sur	milary (DOWILL O		
Bearing	Live	Dead	Snow
B1. 5-1/4"	115 / 0	258 / 0	114/0
B2, 5-1/4"	120 / 0	295 / 0	139 / 0

Los	ad Summary						LIVe	Dead
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-10-10	Тор		12
4	FC3 Floor Material	Unf. Lin. (lb/ft)	L	00-02-11	01-05-06	Top	16	8
1		Unf. Lin. (lb/ft)	Ĺ	01-01-00	03-10-06	αοT	33	111
2	E18(i3596)	Unf. Lin. (lb/ft)	ī	01-05-06	03-10-10	Top	19	9
3	FC3 Floor Material		,	01-03-11	01-03-11	•	77	165
4	-	Conc. Pt. (lbs)	L	01-03-11	01-00-11	ТОР		100

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	550 ft-lbs	35392 ft-lbs	1.6%	13	01-07-10
End Shear	506 lbs	14464 lbs	3.5%	13	01-05-02
Total Load Deflection	L/999 (0.001")	n\a	n\a	35	01-10-11
Live Load Deflection	L/999 (0")	n\a	n\a	51	01-10-11
Max Defl.	0.001"	n\a	n\a	35	01-10-11
Snan / Denth	3.2				

Rearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1 B2	Beam	5-1/4" × 3-1/2" 5-1/4" × 3-1/2"	609 lbs 697 lbs	6.2% 7.1%	2.7% 3.1%	Unspecified Unspecified

Notes

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

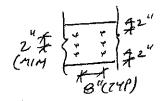
Design meets Code minimum (L/360) Live load deflection criteria.

CONFORMS TO OBC 2012

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086. Unbalanced snow loads determined from building geometry were used in selected products verification.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9



PROVIDE3 ROWS OF 31/4" ARDOX SPIRAL NAILS @ 8 " 0/C FOR MULTI-PLY NAILING, MAINTAIN A MIN.2" LUMBER EDGE/END DISTANCE. DO NOT USE AIR NAILS



Wind

1.15

Tributary

00-00-00 n\a

Snow

1.00

STRUCTURÁL CONFORENT ONLY

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2ND FLR FRAMING\Flush Beams\B14(i3718) (Flush Beam)

PASSED

B2

BC CALC® Member Report

Dry | 1 span | No cant.

February 19, 2020 08:14:08

Build 7239

Job name:

Address:

Customer:

Code reports:

City, Province, Postal Code: WATERDOWN

CCMC 12472-R

File name:

VALLEYCREEK 1 EL 3 NEW.mmdl

2ND FLR FRAMING\Flush Beams\B14(i3718)

Description: Specifier:

Designer:

Company:

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В1

Total Horizontal Product Length = 01-08-08

Reaction Su	mmary (שסעה / ט	pint) (ibs)		
Bearing	Live	Dead	Snow	Wind
B1, 4"	65 / 0	124 / 0	54 / 0	
B2, 4"	60 / 0	105 / 0	43 / 0	

۱a	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	01-08-08	Top		12			00-00-00
1	FC3 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	01-08-08	Тор	43	22			n\a
2	E17(i3598)	Unf. Lin. (lb/ft)	. L	00-00-00	01-06-08	Тор	33	111	63		n\a

Controls Summary	Factored Demand	Factored Resistance	Demand <i>i</i> Resistance	Case	Location
Pos. Moment	61 ft-lbs	35392 ft-lbs	0.2%	1	00-10-04
End Shear	168 lbs	14464 lbs	1.2%	1	01-03-14
Span / Depth	1.2				

Bearin	ng Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material	
B1	Hanger	4" x 3-1/2"	306 lbs	n\a	1.8%	HGUS410	
B2	Hanger	4" x 3-1/2"	264 lbs	n\a	1.5%	HGUS410	

Cautions

Header for the hanger HGUS410 at B1 is a Double 1-3/4" x 11-7/8" VERSA-LAM® 1.7 2400 DF. Hanger model HGUS410 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.

Header for the hanger HGUS410 at B2 is a Double 1-3/4" x 11-7/8" VERSA-LAM® 1.7 2400 DF.

Notes

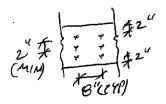
Calculations assume member is fully braced.

CONFORMS TO OBC 2012

Hanger Manufacturer: Unassigned

Resistance Factor phi has been applied to all presented results per CSA O86. AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86. Unbalanced snow loads determined from building geometry were used in selected product's verification.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9



PROVIDE 3 ROWS OF 31/2" ARDOX SPIRAL NAILS @ 8 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2"LUMBER EDGE/END DISTANCE, DO NOT USE AIR NAILS



DYG #0. TAM 556 (-20 STRUCTÚRAL COMPONENT ONLY

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1ST FLR FRAMING\Flush Beams\B19(i3834) (Flush Beam)

Dry | 1 span | No cant.

March 24, 2020 14:44:02

PASSED

Build 7239

Job name:

Address:

Customer:

Code reports:

City, Province, Postal Code: WATERDOWN

BC CALC® Member Report

CCMC 12472-R

File name:

VALLEYCREEK 1 EL 1 DECK CONDITION mmdi

Description: 1ST FLR FRAMING\Flush Beams\B19(i3834)

Specifier:

Designer: ΑJ

Wind

Company:

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	+ + + + + +	+0+++++	<u> </u>	+ + + + +
<u> </u>		<u> 18 milion de la colonia de l</u>		

Total Horizontal Product Length = 03-01-00

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	_Live	Dead
B1, 3"	41 / 0	164 / 0
B2, 3"	41/0	164 / 0

Loa	ad Summary						Live	Dead	Snow	Wind	Tributary
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	,
0.	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00	Тор		12			00-00-00
1	E3(i859)	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00	Top		81			
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00		27 .	10			n\a
_			-	00 00 00	00-01-00	, op	21	ıs			n∖a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	136 ft-lbs	23005 ft-lbs	0.6%	0	01-06-08
End Shear	45 lbs	9401 lbs	0.5%	0	01-02-14
Total Load Deflection	L/999 (0")	n\a	n\a	4	01-06-08
Max Defl.	0"	n\a	n\a	4	01-06-08
Span / Depth	2.7			·	0.0000

Bearing	Suppor <u>ts</u>	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Materiai
B1	Wall/Plate	3" x 3-1/2"	229 lbs	5.5%	2.8%	Spruce-Pine-Fir
B2	Wali/Plate	3" x 3-1/2"	229 lbs	5.5%	2.8%	Spruce-Pine-Fir

Notes

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

Calculations assume member is fully braced.

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

AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor; Normal Part code: Part 9

PROVIDE 3 ROWS OF 31/2" ARDOX SPIRAL NAILS @ 8 " 0/C FOR MULTI-PLY NAILING, MAINTAIN A MIN.2" LUMBER EDGE/END DISTANCE. DO NOT USE AIR NAILS



BYE NO. TANSS 62-20 STRUCTURAL COMPONENT ONLY

Disclosure

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Live Load = 40 psf, Dead Load = 30 psf Simple Spans, L/480 Deflection Limit, 3/4" OSB G&N Sheathing







			В	are			1/2" Gyp	sum Ceiling	
Depth	Series		On Centi	re Spacing			On Cent	re Spacing	
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
	N1-20	15'-7"	14'-2"	13'-4"	12'-4"	15'-7"	14 -2"	13'-4"	12'-4"
	N1-40x	17'-0"	16'-0"	15'-1"	13'-11"	17'-S"	16'-1"	15'-1"	13'-11"
9-1/2"	NI-60	17'-2"	16'-2"	15'-5"	14'-3"	17'-6"	16'-5"	15'-5"	14'-3"
•	NI-70	18'-0"	16'-11"	16'-3"	15'-6"	18'-5"	17'-3"	16'-7"	15'-6"
	NI-80	18'-3"	17'-1"	16'-5"	15'-9"	18'-8"	17'-5"	16'-9"	15'-10"
	NI-20	17'-10"	16'-10"	16'-0"	14'-10"	18'-6"	17'-1"	16'-0"	14'-10"
	NI-40x	19'-4"	17'-11"	17'-3"	15'-10"	19'-11"	18'-6"	17'-9"	15'-10"
	NI-60	19'-7"	18'-2"	17'-5"	16'- 9 "	20'-2"	18'-9"	17'-11"	17'-1"
11-7/8"	NI-70	20'-9"	19'-2"	18'-3"	17'-5"	21'-4"	19'-9"	18'-10"	17'-10"
	N1-80	21'-1"	1 9 '-5"	18'-6"	17'-7"	21'-7"	20'-0"	19'-0"	18'-0"
	N1-90x	21'-8"	20'-0"	19'-1"	18'-0"	22'-2"	20'-6"	19'-6"	18'-6"
	N1-40x	21'-5"	19'-10"	18'-11"	17'-5"	22'-1"	20'-6"	19'-6"	17'-5"
	NI-60	21'-10"	20'-2"	19'-3"	18'-2"	22'-5"	20'-10"	19'-11"	18'-10"
14"	NI-70	23'-0"	21'-3"	20'-3"	19'-2"	23'-8"	21 -11"	20'-10"	19'-9"
	08-1/	23'-5"	21'-7"	20'-7"	19'-5"	24'-0"	22'-3"	21'-2"	20'-0"
	NI-90x	24'-1"	22'-3"	21'-2"	20'-0"	24'-8"	22'-10"	21'-9"	20'-7"
	NI-60	23'-9"	22'-0"	20'-11"	19'-10"	24'-6"	22'-9"	21'-8"	20'-6"
-0	NI-70	25'-1"	23'-2"	22'-0"	20'-10"	25'-9"	23'-10"	22'- 9 "	21'-6"
16"	NI-80	25'-6"	23*-6"	22'-4"	21'-2"	26'-1"	24'-2"	23'-1"	21'-10"
	NI-90x	26'-4"	24'-3"	23'-1"	21'-10"	26'-11"	24'-11"	23'-8"	22'-5"

			Mid-Spar	n Blocking		Mid-S	ipan Blocking ar	id 1/2" Gypsum	Ceiling	
Depth	Series	On Centre Spacing				On Centre Spacing				
Depter		12"	16"	19.2"	24"	12"	16"	19.2"	24"	
	NJ-20	15'-7"	14'-2"	13'-4"	12'-4"	15'-7"	14'-2"	13'-4"	12'-4"	
	N!-40x	17'-9"	16'-1"	15'-1"	13'-11"	17'-9"	16'-1"	15'-1"	13'-11	
9-1/2"	N1-60	18'-1"	16'-5"	15'-5"	14'-3"	18'-1"	16'-5"	15'-5"	14'-3"	
<i>-</i> , -	NI-70	19'-10"	17'-11"	16'-9"	15'-6"	19'-10"	17'-11"	16'-9"	15'-6"	
	NI-80	20'-2"	18'-3"	17'-1"	15'-10"	20'-2"	18'-3"	17'-1"	15'-10	
	NI-20	18'-10"	17'-1"	16'-0"	14'-10"	18'-10"	17'-1"	16'-0"	14'-10	
	NI-40x	21'-3"	19'-3"	17'-9"	15'-10"	21'-3"	19'-3"	17'-9"	15'-10	
	NI-60	21'-9"	19'-8"	18'-5"	17'-1"	21'-9"	19'-8"	18'-5"	17'-1"	
11-7/8"	NI-70	23'-4"	21'-5"	20'-1"	18'-6"	23'-8"	21'-5"	20'-1"	18'-6"	
	NI-80	23'-7"	21'-10"	20'-5"	18'-11"	24'-1"	21'-10"	20'-5"	18'-11	
	NI-90x	24'-3"	22'-6"	21'-3"	19'-7"	24'-8"	22'-7" ·	21'-3"	19'-7"	
	NI-40x	24'-2"	21'-5"	19'-6"	17'-5"	24'-2"	21'-5"	19'-6"	17'-5"	
	NI-60	24'-9"	22'-5"	21'-0"	19'-6"	24'-9"	22'-5"	21'-0"	19'-6"	
14"	NI-70	26'-1"	24'-3"	22'-9"	21'-0"	26'-8"	24'-3"	22'-9"	21'-0"	
	NI-80	26'-6"	24'-7"	23'-3"	21'-6"	27'-1"	24'-10"	23'-3"	21'-6"	
	NI-90x	27'-3"	25'-4"	24'-1"	22'-4"	27'-9"	25'-10"	24'-3"	22'-4"	
	N1-60	27'-3"	24'-11"	23'-5"	21'-7"	27'-6"	24'-11"	23'-5"	21'-7"	
	NJ-70	28'-8"	26'-8"	25'-3"	23'-4"	29'-3"	26'-11"	25'-3"	23'-4"	
16"	NI-80	29'-1"	27'-0"	25'-9"	23'-10"	29'-8"	27'-6"	25'-10"	23'-10'	
	NI-90x	29'-11"	27'-10"	26'-6"	24'-10"	30'-6"	281-5"	26'-11"	24'-10"	

^{1.} Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 30 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/480 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 086-09, 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-L274C.



Live Load = 40 psf, Dead Load = 15 psf Simple Spans, L/480 Deflection Limit 5/8" OSB G&N Sheathing







			Bi	are		1	1/2" Gyps	ium Ceiling		
Depth	Series		On Centi	re Spacing		On Centre Spacing				
νεμισ	551104	12"	16"	19.2"	24"	12"	16"	19.2"	24"	
	NI-20	15'-1"	14'-2"	13'-9"	N/A	15'-7"	14'-8"	14'-2"	N/A	
		16'-1"	15'-2"	14 -8"	N/A	16'-7"	15'-7"	15'-1"	N/A	
9-1/2"		16'-3"	15'-4"	14'-10"	N/A	16'-8"	15'-9"	15'-3"	N/A	
3-1/ L		17'-1"	16'-1"	15'-6"	N/A	17'-5"	16'-5"	15'-10"	N/A	
		17'-3"	16'-3"	15'-8"	N/A	17'-8"	16'-7"	16'-0"	N/A	
		16'-11"	16'-0"	15'-5"	N/A	17'-6"	16'-6"	16'-0"	N/A	
		18'-1"	17'-0"	16'-5"	N/A	18'-9"	17'-6"	16'-11"	N/A	
		18'-4"	17'-3"	16'-7"	N/A	19'-0"	17'-8"	17'-1"	N/A	
11-7/8"		19'-6"	18'-0"	17'-4"	N/A	20'-1"	18'-7"	17'-9"	N/A	
		19'-9"	18'-3"	17'-6"	N/A	20'-4"	18'-10"	17'-11"	N/A	
	NI-20 NI-40x 2" NI-60 NI-70 NI-80 NI-20 NI-40x NI-60	20'-4"	18'-9"	17'-11"	N/A	20'-10"	19'-3"	18'-5"	N/A	
		20'-1"	18'-7"	17'-10"	N/A	20'-10"	19'-4"	18'-6"	N/A	
		20'-5"	18'-11"	18'-1"	N/A	21'-2"	19'-7"	18'-9"	N/A	
14°		21'-7"	20'-0"	19'-1"	N/A	22'-3"	20'-7"	19'-8"	N/A	
14		21'-11"	20'-3"	19'-4"	N/A	22'-7"	20'-11"	20'-0"	N/A	
		22'-7"	20'-11"	19'-11"	N/A	23'-3"	21'-6"	20'-6"	N/A	
		22'-3"	20'-8"	19'-9"	N/A	23'-1"	21'-5"	20'-6"	N/A	
		23'-6"	21'-9"	20'-9"	N/A	24'-3"	22'-5"	21'-5"	N/A	
16"		23'-11"	22'-1"	21'-1"	N/A	24'-8"	22'-10"	21'-9"	N/A	
		24'-8"	22'-9"	21'-9"	N/A	25'-4"	23'-5"	22'-4"	N/A	

			Mid-Spar	Blocking		Mid-S	pan Blocking ar	ıd 1/2" Gypsum	Celiing
Depth	Series		On Centr	e Spacing	On Centre Spacing				
pehai	Carres	12"	15"	19.2"	24"	12"	16"	19.2"	24"
	NI-20	16'-8"	15'-3"	14'-5"	N/A	16'-8"	15'-3"	14'-5"	N/A
	NI-40x	17'-11"	· 16'-11"	16'-1"	N/A	18'-5"	17'-1"	16'-1"	N/A
9-1/2"	NI-60	18'-2"	17'-1"	16'-4"	N/A	18'-7"	17'-4"	16'-4"	N/A
J =1 =	NI-70	19'-2"	17'-10"	17'-2"	N/A	19'-7"	18'-3"	17'-7"	N/A
	NI-80	19'-5"	18'-0"	17'-4"	N/A	19'-10"	18'-5"	17'-8"	N/A
	NI-20	19'-6"	18'-1"	17'-3"	N/A	19'-11"	18'-3"	17'-3"	N/A
	NI-40x	21'-0"	19'-6"	18' - 8"	N/A	21'-7"	20'-2"	19'-2"	N/A
11-7/8"	NI-60	21'-4"	19'-9"	18'-11"	N/A	21'-11"	20'-4"	19'-6"	N/A
	NI-70	22'-5"	20'-10"	19'-11"	N/A	23'-0"	21'-5"	20'-5"	N/A
	NI-80	22'-9"	21'-1"	20'-1"	N/A	23'-3"	21'-7"	20'-8"	N/A
	-7/8" NI-60 NI-70 NI-80 NI-90x	23'-4"	21'-8"	20'-8"	N/A	23'-10"	22'-2"	21'-2"	N/A
	NI-40x	23'-7"	21'-11"	20'-11"	N/A	24'-3"	22'-7"	21'-7"	N/A
	N1-60	24'-0"	22'-3"	21'-3"	N/A	24'-8"	22'-11"	21'-11"	N/A
14"	N1-70	25'-3"	23'-4"	22'-3"	N/A	25'-10"	24'-0"	22'-11"	N/A
	NI-80	25'-7"	23'-8"	22'-7"	N/A	26'-2"	24'-4"	23'-2"	N/A
	NI-90x	26'-4"	24'-4"	23'-3"	N/A	26'-10"	24'-11"	23'-9"	N/A
	N1-60	26'-5"	24'-6"	23'-4"	N/A	-27'-2"	25'-3"	24'-2"	N/A
	NI-70	27'-9"	25'-8"	24'-6"	N/A	28'-5"	26'-5"	25'-2"	N/A
16"	NI-80	28'-2"	26'-1"	24'-10"	N/A	28'-10"	26'-9"	25'-6"	N/A
	NI-90x	29'-0"	26'-10"	25'-7"	N/A	29'-7"	27'-5"	26'-2"	N/A

^{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/480 and a total load deflection limit of L/240.

a aversual detector limits of 3-30 min to 4-30 min to

^{5.} Millionann Dearing Tengor Should 2.2.5 million and spacing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.

^{4.} Dealing summers as a live required 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.

based on the use of the design properties. For its design properties 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-L274C.



Live Load = 40 psf, Dead Load = 15 psf Simple Spans, L/480 Deflection Limit 3/4" OSB G&N Sheathing







			В	are		1	1/2" Gyp:	sum Ceiling	
Nonth	Series		On Cent	re Spacing			On Cent	re Spacing	
Depth	201103	12"	16"	19.2"	24"	12"	16"	19.2"	24"
	NI-20	15'-10"	15'-0"	14'-5"	13'-5"	16'-4"	15'-5"	14'-6"	13'-5"
	N!-40x	17'-0"	16'-0"	15'-5"	14'-9"	17'-5"	16'-5"	15'-10"	15'-2"
9-1/2"	NI-60	17'-2"	16'-2"	15'-7"	14'-11"	17'-6"	16'-7"	15'-11"	15'-3"
3-112	NI-70	18'-0"	16'-11"	16'-3"	15'-7"	18'-5"	17'-3"	16'-7"	15'-11"
	NI-80	18'-3"	17'-1"	16'-5"	15'-9"	18'-8"	17'-5"	16'-9"	16'-1"
	NI-20	17'-10"	16'-10"	16'-2"	15'-6"	18'-6"	17'-4"	16'-9"	16'-1"
	NI-40x	19'-4"	17'-11"	17'-3"	16'-6"	19'-11"	18'-6"	17'-9"	17'-0"
		19'-7"	18'-2"	17'-5"	16'-9"	20'-2"	18'-9"	17'-11"	17'-2"
11-7/8"	NI-60	20'-9"	19'-2"	18'-3"	17'-5"	21'-4"	19'-9"	18'-10"	17'-10"
	NI-70	20 -3	19'-5"	18'-6"	17'-7"	21'-7"	20'-0"	19'-0"	18'-0"
	NI-80	21'-8"	20'-0"	19'-1"	18'-0"	22'-2"	20'-6"	19'-6"	18'-6"
	NI-90x		19'-10"	18'-11"	17'-11"	22'-1"	20'-6"	19'-7"	18'-7"
	Nt-40x	21'-5"	20'-2"	19'-3"	18'-2"	22'-5"	20'-10"	19'-11"	18'-10"
	N1-60	21'-10"		20'-3"	19'-2"	23'-8"	21'-11"	20'-10"	19'-9"
14"·	NI-70	23'-0"	21'-3"		19'-5"	24'-0"	22'-3"	21'-2"	20'-0"
	N1-80	23'-5"	21'-7"	20'-7"		24'-8"	22'-10"	21'-9"	20'-7"
	NI-90x	24'-1"	22'-3"	21'-2"	20'-0"			21'-8"	20'-6"
	NI-60	23'-9"	22'-0"	20'-11"	19'-10"	24'-6"	22'-9"		20'-6" 21'-6"
	NI-70	25'-1"	23'-2"	22'-0"	20'-10"	25'-9"	23'-10"	22'-9"	
16"	NI-80	25'-6"	23'-6"	22'-4"	21'-2"	26'-1"	24'-2"	23'-1"	21'-10"
	N(-90x	26'-4"	24'-3"	23'-1"	21'-10"	26'-11"	24'-11"	23'-8"	22'-5"

			Mid-Spar	n Biocking		Mid-S	pan Blocking ar	ıd 1/2" Gypsum	Ceiling
Depth	Series		On Centr	e Spacing			On Cent	re Spacing	
Deptii	54.00	12"	16"	19.2"	24"	12"	16"	. 19.2"	24"
_ 	NI-20	16'-10"	15'-5"	14'-6"	13'-5"	16'-10"	15'-5"	14'-6"	13'-5"
	NI-40x	18'-8"	17'-2"	16'-3"	15'-2"	18'-10"	17'-2"	16'-3"	15'-2"
)-1/2"	Ni-60	18'-11"	17'-6"	16'-6"	15'-S"	19'-2"	17'- 6 "	16'-6"	15'-5"
7~1/ Z	NI-70	20'-0"	18'-7"	17'-9"	16'-7"	20'-5"	18'-11"	17'-10"	16'-7"
	N1-80	20'-3"	18'-10"	17'-11"	16'-10"	20'-8"	19'-3"	18'-2"	16'-10'
	NI-20	20'-1"	18'-5"	17'-5"	16'-2"	20'-1"	18'-5"	17'-5"	16'-2"
	NI-40x	21'-10"	20'-4"	19'-4"	17'-8"	22'-5"	20'-6"	19'-4"	17'-8"
	NI-60	22'-1"	20'-7"	19'-7"	18 -4"	22'-8"	20'-10"	19'-8"	18'-4"
1.1-7/8*	NI-70	23'-4"	21'-8"	20'-8"	19'-7"	23'-10"	22'-3"	21'-2"	19'-9"
	NI-80	23'-7"	21'-11"	20'-11"	19'-9"	24'-1"	22'-6"	21'-5"	20'-0"
	N3-80 N3-90x	24'-3"	22'-6"	21'-6"	20'-4"	24'-8"	23'-0"	22'-0"	20'-9"
	NI-40x	24'-5"	22'-9"	21'-8"	19'-5"	25'-1"	23'-2"	21'-9"	19'-5"
	NI-40X NI-60	24'-10"	23'-1"	22'-0"	20'-10"	25'-6"	23'-8"	22'-4"	20'-10'
4 all	- NI-70	26'-1"	24'-3"	23'-2"	21'-10"	26'-8"	24'-11"	23'-9"	22'-4"
14"	NI-80	26'-6"	24'-7"	23'-5"	22'-2"	27'-1"	25'-3"	24'-1"	22'-9"
		. 27'-3"	25'-4"	24'-1"	22'-9"	27'-9"	25'-11"	24'-8"	23'-4"
	NI-90x NI-60	27'-3"	25'-5"	24'-2"	22'-10"	28'-0"	26'-2"	24'-9"	23'-1"
	NI-70	28'-8"	26'-8"	25'-4"	23'-11"	29'-3"	27'-4"	26'-1"	24'-8"
16"	N1-70 N1-80	28-6 29'-1"	27'-0"	25'-9"	24'-4"	29'-8"	27'-9"	26'-5"	25'-0"
	NI-80 NI-90x	29'-11"	27'-10"	26'-6"	25'-0"	30'-6"	28'-5"	27'-2"	25'-8"

^{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/430 and a total load deflection limit of L/240.

a live load deflection limit of 1,450 and a lock to the stand and the stand board (OSB) sheathing with a minimum thickness of 3/4 inch for a joist 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.

^{4.} Bearing stimeners are not required which rights and obed with the sports and obstrained loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA 086-09, 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.



Live Load = 40 psf, Dead Load = 30 psf Simple Spans, L/480 Deflection Limit 5/8" OSB G&N Sheathing







			В	are			1/2" Gyp:	sum Ceiling	
Depth	Series		On Centi	re Spacing	On Centre Spacing				
pehai	00.122	12"	16"	19.2"	24"	12"	16"	19.2"	24"
	NI-20	15'-1"	14'-1"	13'-3"	N/A	15'-7"	14'-1"	13'-3"	N/A
	NI-40x	16'-1"	15'-2"	14'-8"	N/A	16'-7"	15'-7"	15'-1"	N/A
9-1/2"	N1-60	16'-3"	15'-4"	14'-10"	N/A	16'-8"	15'-9"	15'-3"	N/A
J -,	NI-70	17'-1"	16'-1"	15'-6"	N/A	17'-5"	16'-5"	15'-10"	N/A
	NI-80	17'-3"	16'-3"	15'-8"	N/A	17'-8"	16'-7"	16'-0"	N/A
	NI-20	16'-11"	16'-0"	15'-5"	.N/A	17'-6"	16'-6"	16'-0"	N/A
	N1-40x	18'-1"	17'-0"	16'-5"	N/A	18'-9"	17'-6"	16'-11"	N/A
11-7/8"	NI-60	18'-4"	17'-3"	16'-7"	N/A	19'-0"	17'-8"	17'-1"	N/A
	NI-70	19'-6"	18'-0"	17'-4"	N/A	20'-1"	18'-7"	17'-9 "	N/A
	N1-80	19'-9"	18'-3"	17'-6"	N/A	20'-4"	18'-10"	17'-11"	N/A
	NJ-90x	20'-4"	18 -9"	17'-11"	N/A	20'-10"	19'-3"	18'-5"	N/A
	NI-40x	20'-1"	18'-7"	17'-10"	N/A	20'-10"	19'-4"	18'-6"	N/A
	N1-60	20'-5"	18'-11"	18'-1"	N/A	21'-2"	19'-7"	18'-9"	N/A
14"	NI-70	21'-7"	20'-0"	19'-1"	N/A	22'-3"	20'-7"	19'-8"	N/A
14	NI-80	21'-11"	20'-3"	19'-4"	N/A	22'-7"	20'-11"	20'-0"	N/A
	NI-90x	22'-7"	20'-11"	19'-11"	N/A	23'-3"	21'-6"	20'-6"	N/A
	NI-60	22'-3"	20'-8"	19'-9"	N/A	23 -1"	21'-5"	20'-6"	N/A
	NI-70	23'-6"	21'-9"	20'-9"	N/A	24'-3"	22'-5"	21'-5"	N/A
16"	NI-80	23'-11"	22'-1"	21'-1"	N/A	24'-8"	22'-10"	21'-9"	N/A
	NI-90x	24'-8"	22'-9"	21'-9"	N/A	25'-4"	23'-5"	22'-4"	N/A

			Mid-Spar	n Blocking		Mid-S	pan Blocking an	ıd 1/2" Gypsum	Ceiling
Depth	Series		On Centr	e Spacing	On Centre Spacing				
Deptii	251163	12"	16"	19.2"	24"	12"	16"	19.2"	24'
	NI-20	15'-7"	14'-1"	13'-3"	N/A	15'-7"	14'-1"	13'-3"	N/A
	NI-40x	17'-9"	16'-1"	15'-1"	N/A	17'-9"	16'-1"	15'-1"	N/A
9-1/2"	N!-60	18'-1"	16'-4"	15'-4"	N/A	18'-1"	16'-4"	15'-4"	N/A
3-1/2	NI-70	19'-2"	17'-10"	16'-9"	N/A	19'-7"	17'-10"	16'-9"	N/A
	N1-80	19'-5"	18'-0"	17'-1"	N/A	19'-10"	18'-3"	17'-1"	N/A
	NI-20	18'-9"	17'-0"	16'-0"	N/A	18'-9"	17'-0"	16'-0"	N/A
		21'-0"	19'-3"	17'-9"	N/A	21'-3"	19'-3"	17'-9"	N/A
	-	21'-4"	19'-8"	18'-5"	N/A	21'-8"	19'-8"	18'-5"	N/A
11-7/8"		22'-6"	20'-10"	19'-11"	N/A	23'-0"	21'-4"	20'-0"	N/A
		22'-9"	21'-1"	20'-1"	N/A	23'-3"	21'-7"	20'-5"	N/A
	NI-40x NI-60 I-7/8" NI-70 NI-80 NI-90x	23'-4"	21'-8"	20'-8"	N/A	23'-10"	22'-2"	21'-2"	N/A
	NI-40x	23'-7"	21'-5"	19'-6"	N/A	24'-1"	21'-5"	19'-6"	N/A
	NI-60	24'-0"	22'-3"	21'-0"	N/A	24'-8"	22'-5"	21'-0"	N/A
14"	NI-70	25'-3"	23'-4"	22'-3"	N/A	25'-10"	24'-0"	22'-9"	N/A
7.4	Nt-80	25'-7"	23'-8"	22'-7"	N/A	26'-2"	24'-4"	23'-2"	N/A
	NI-90x	26'-4"	24'-4"	23'-3"	N/A	26'-10"	24'-11"	23'-9"	N/A
	NI-60	26'-5"	24'-6"	23'-4"	N/A	27'-2"	24'-10"	23'-4"	N/A
	NI-70	27'-9"	25'-8"	24'-6"	N/A	28'-5"	26'-5"	25'-2"	N/A
16"	NI-80	28'-2"	26'-1"	24'-10"	N/A	28'-10"	26'-9"	25'-6"	N/A
	N1-90x	29'-0".	26'-10"	25'-7"	N/A	29'-7"	27'-5"	26'-2"	N/A

^{1.} Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 30 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 1/480 and a total load deflection limit of 1/240.

^{2.} Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 5/8 inch for a joist spacing of 19.2 inches or less. The composite floor may include 1/2 inch gypsum ceiling and/or one row of blocking at mid-span with strapping. 3. Minimum bearing length shall be 1-3/4 inches for the end bearings.

^{5.} Minimum bearing length shall be 1-3/4 males 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-L274C.

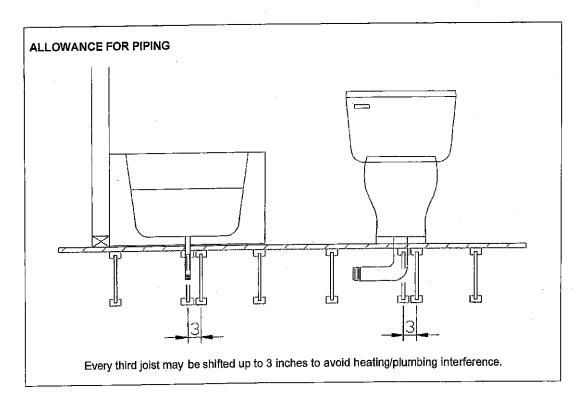


Allowance for Piping (Installation Notes)

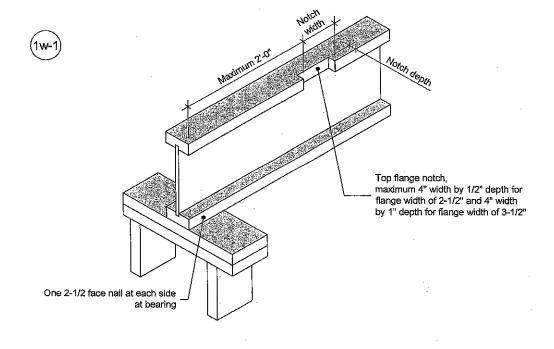
The floor layouts have usually not been checked for heating and/or plumbing interference. On-site adjustment of joists of up to 3 inches is permitted to avoid interferences. When moving a joist, the subfloor thickness shall be checked with code requirements when the joist spacing exceeds 19.2 inches. Except for cutting to length, I-joist flanges should never be cut, drilled, or notched.

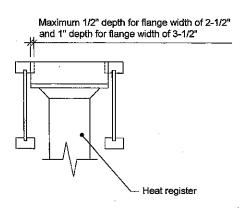
Installation of Nordic I-joists shall be as per *Nordic Joist Installation Guide for Residential Floors*. Refer to Tables 1 and 2 for maximum web hole and duct chase openings, respectively. These tables are based on the I-joists being used at their maximum spans. The minimum distance given may be reduced for shorter spans; contact your distributor for additional information.

The detail below shows the 3-inch allowance for piping. Every third joist may be shifted up to 3 inches to avoid heating/plumbing interference. For other applications, please contact your distributor.



Revised April 12, 2012





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

This document supersedes all previous versions. If the document has been in effect for more than one year, consult nordic,ca or contact Nordic Structures. All nails shown in the details are assumed to be common nails unless otherwise noted. Nails shall have a diameter not less than 0.128 inch for 2-1/2-inch nails, or 0.144 inch for 3-inch nails. Individual components not shown to scale for clarity.

NORDIC **STRUCTURES**

T 514-871-8526 1 866 817-3418 nordic.ca

Notch in I-joist for Heat Register

I-joist - Typical Floor Framing and Construction Details

DOCUMENT

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