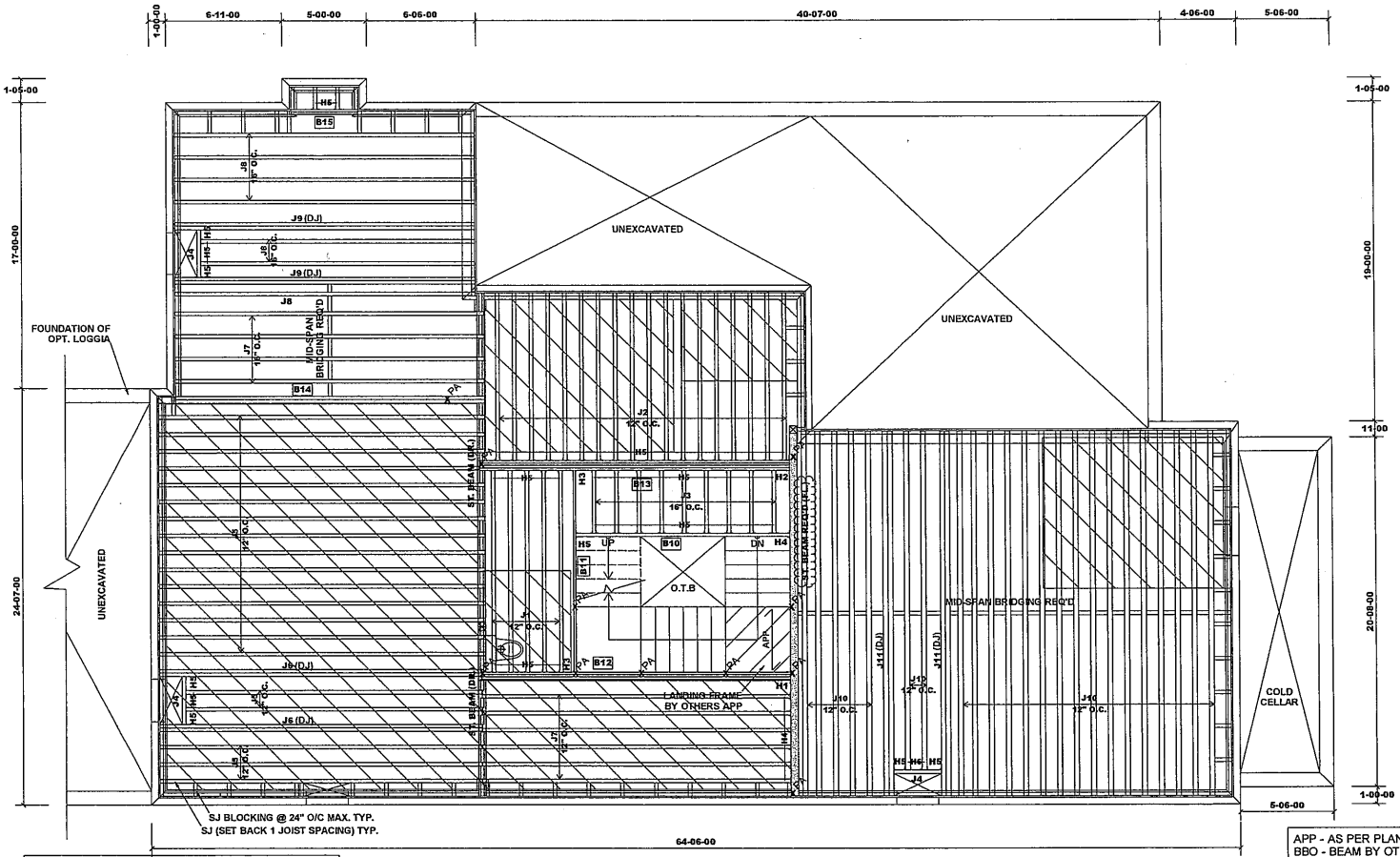


Products				
PlotID	Length	Product	Piles	Net Qty
B10	13-00-00	11 7/8" NI-20	1	1
B11	12-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B12	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B13	19-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4
B14	19-00-00	11 7/8" NI-40x	2	2
B15	4-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
J1	12-00-00	11 7/8" NI-20	1	5
J2	10-00-00	11 7/8" NI-20	1	18
J3	4-00-00	11 7/8" NI-20	1	9
J4	3-00-00	11 7/8" NI-20	1	3
J5	20-00-00	11 7/8" NI-40x	1	20
J6	20-00-00	11 7/8" NI-40x	2	4
J7	19-00-00	11 7/8" NI-40x	1	10
J8	18-00-00	11 7/8" NI-40x	1	7
J9	18-00-00	11 7/8" NI-40x	2	4
J10	22-00-00	11 7/8" NI-80	1	23
J11	22-00-00	11 7/8" NI-80	2	4
Ca1	213-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	100-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS5.50/10
H2	1		HGUS7.25/10
H3	2		HUS1.81/10
H4	7		LF259
H5	59		LT251188
H6	2		LT351188

GROUND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION A

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

SE046729 - SE046767

JT/PL: 45147/116409
LI: 343073*

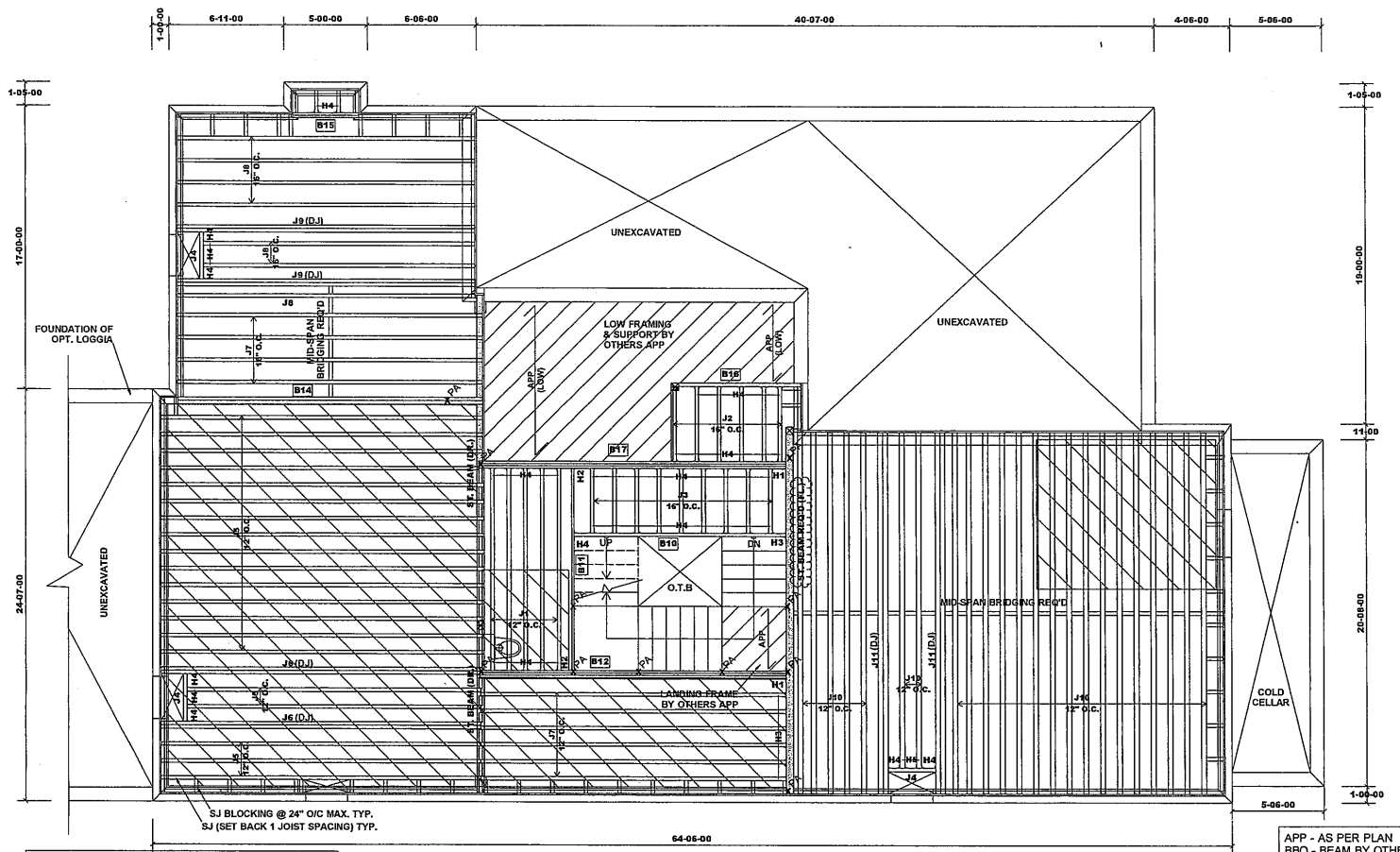
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 1 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B10	13-00-00	11 7/8" NI-20	1	1
B11	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B12	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B14	19-00-00	11 7/8" NI-40x	2	2
B15	4-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B16	8-00-00	11 7/8" NI-20	1	1
B17	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
J1	13-00-00	11 7/8" NI-20	1	5
J2	5-00-00	11 7/8" NI-20	1	6
J3	4-00-00	11 7/8" NI-20	1	9
J4	3-00-00	11 7/8" NI-20	1	3
J5	20-00-00	11 7/8" NI-40x	1	20
J6	20-00-00	11 7/8" NI-40x	2	4
J7	19-00-00	11 7/8" NI-40x	1	10
J8	18-00-00	11 7/8" NI-40x	1	7
J9	18-00-00	11 7/8" NI-40x	2	4
J10	22-00-00	11 7/8" NI-80	1	23
J11	22-00-00	11 7/8" NI-80	2	4
Ca1	203-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	90-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	2		HGUS5.50/10
H2	2		HUS1.81/10
H3	7		LF259
H4	52		LT251188
H5	2		LT351188

GROUND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION A
W/ SUNKEN MUDROOM

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

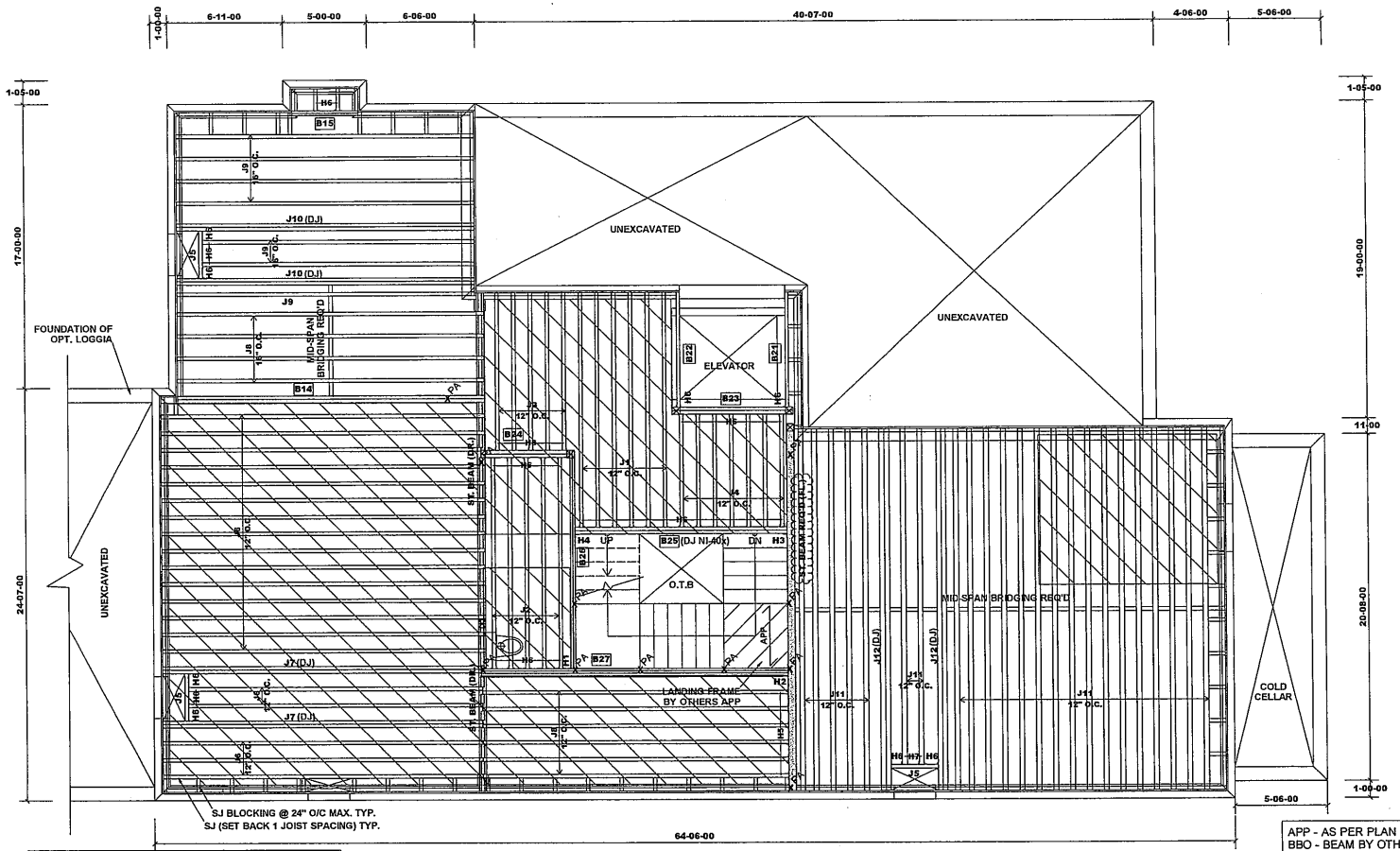
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 2 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B14	19-00-00	11 7/8" NI-40x	2	2
B15	4-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B21	7-00-00	11 7/8" NI-20	1	1
B22	7-00-00	11 7/8" NI-20	1	1
B23	8-00-00	11 7/8" NI-20	2	2
B24	6-00-00	11 7/8" NI-20	2	2
B25	13-00-00	11 7/8" NI-40x	2	2
B26	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B27	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
J1	14-00-00	11 7/8" NI-20	1	6
J2	13-00-00	11 7/8" NI-20	1	5
J3	10-00-00	11 7/8" NI-20	1	5
J4	7-00-00	11 7/8" NI-20	1	7
J5	3-00-00	11 7/8" NI-20	1	3
J6	20-00-00	11 7/8" NI-40x	1	20
J7	20-00-00	11 7/8" NI-40x	2	4
J8	19-00-00	11 7/8" NI-40x	1	10
J9	18-00-00	11 7/8" NI-40x	1	7
J10	18-00-00	11 7/8" NI-40x	2	4
J11	22-00-00	11 7/8" NI-80	1	23
J12	22-00-00	11 7/8" NI-80	2	4
Ca1	206-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	98-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS410
H2	1		HGUS5.50/10
H3	1		HU310-2
H4	1		HU312-2
H5	6		LF259
H6	49		LT251188
H7	2		LT351188

GROUND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION A

W/ ELEVATOR

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

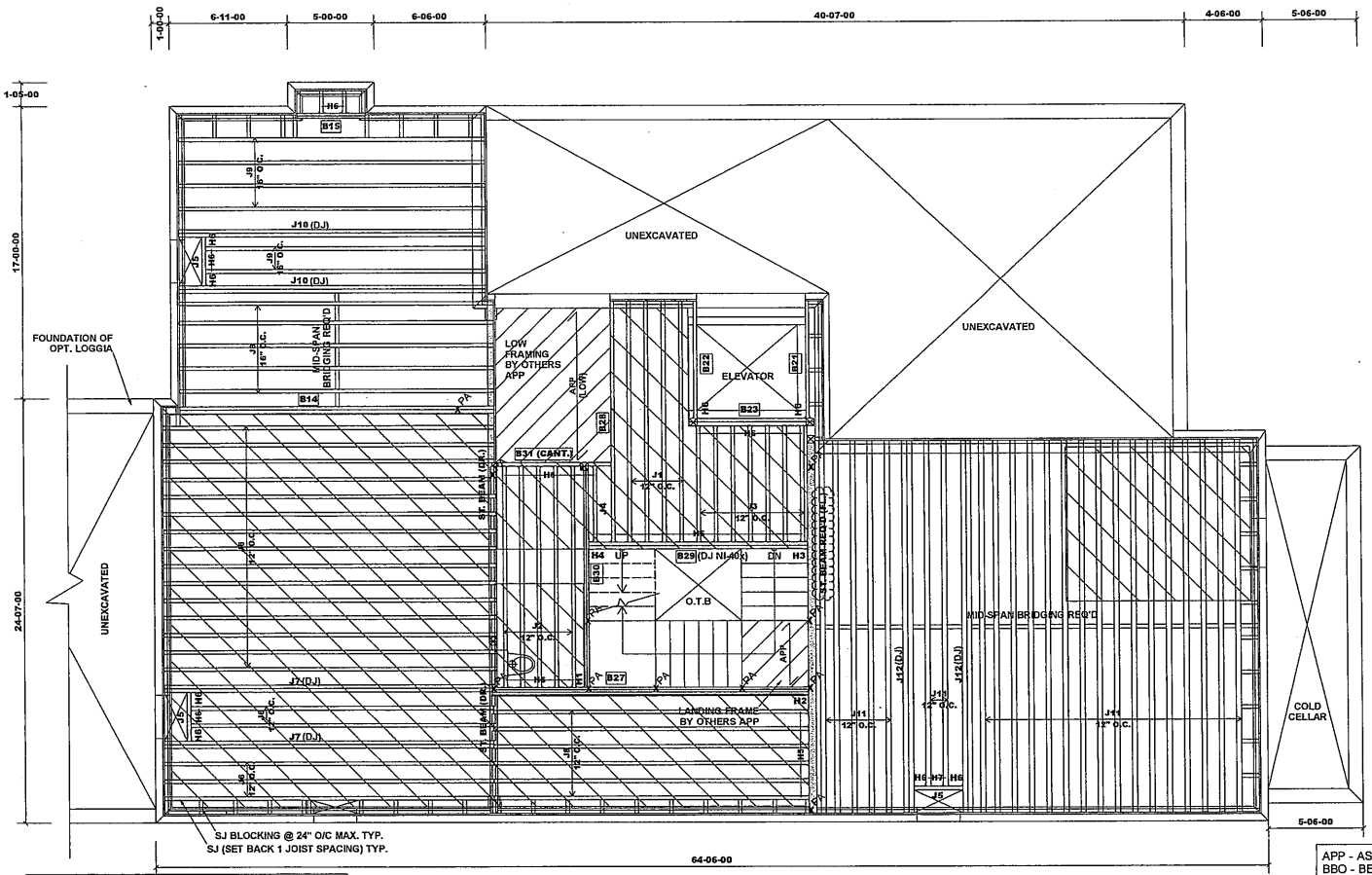
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 3 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B14	19-00-00	11 7/8" NI-40x	2	2
B15	4-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B21	7-00-00	11 7/8" NI-20	1	1
B22	7-00-00	11 7/8" NI-20	1	1
B23	8-00-00	11 7/8" NI-20	2	2
B27	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B28	14-00-00	11 7/8" NI-20	1	1
B29	13-00-00	11 7/8" NI-40x	2	2
B30	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B31 (CANT.)	7-00-00	11 7/8" NI-20	1	1
J1	14-00-00	11 7/8" NI-20	1	4
J2	13-00-00	11 7/8" NI-20	1	5
J3	7-00-00	11 7/8" NI-20	1	7
J4	5-00-00	11 7/8" NI-20	1	1
J5	3-00-00	11 7/8" NI-20	1	3
J6	20-00-00	11 7/8" NI-40x	1	20
J7	20-00-00	11 7/8" NI-40x	2	4
J8	19-00-00	11 7/8" NI-40x	1	11
J9	18-00-00	11 7/8" NI-40x	1	6
J10	18-00-00	11 7/8" NI-40x	2	4
J11	22-00-00	11 7/8" NI-80	1	23
J12	22-00-00	11 7/8" NI-80	2	4
Ca1	209-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	91-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS410
H2	1		HGUS5.50/10
H3	1		HU310-2
H4	1		HU312-2
H5	6		LP259
H6	45		LT251188
H7	2		LT351188

GROUND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION A
W/ SUNKEN MUDROOM
W/ ELEVATOR

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

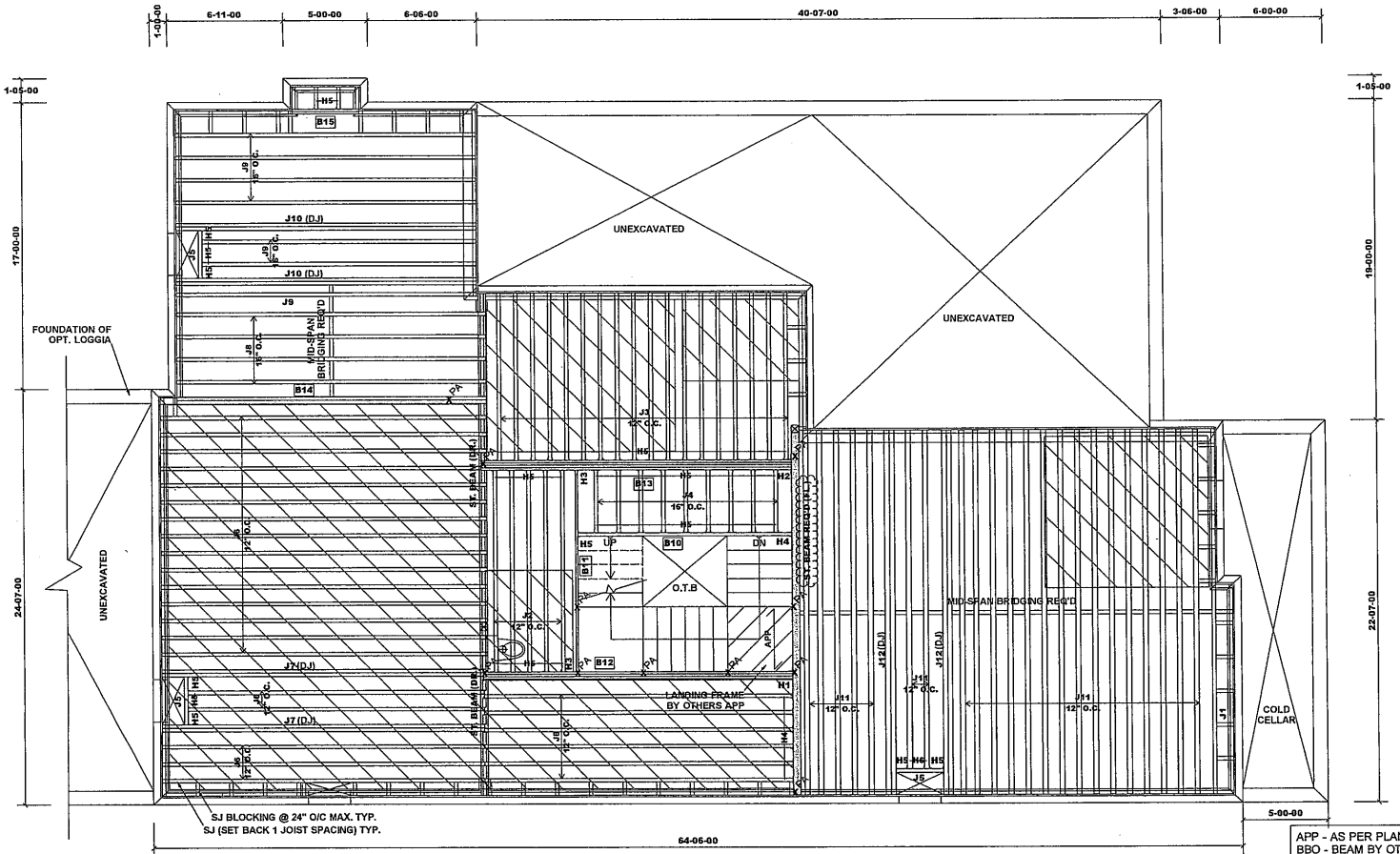
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 4 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B10	13-00-00	11 7/8" NI-20	1	1
B11	12-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B12	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B13	19-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4
B14	19-00-00	11 7/8" NI-40x	2	2
B15	4-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
J1	13-00-00	11 7/8" NI-20	1	1
J2	12-00-00	11 7/8" NI-20	1	5
J3	10-00-00	11 7/8" NI-20	1	18
J4	4-00-00	11 7/8" NI-20	1	9
J5	3-00-00	11 7/8" NI-20	1	3
J6	20-00-00	11 7/8" NI-40x	1	20
J7	20-00-00	11 7/8" NI-40x	2	4
J8	19-00-00	11 7/8" NI-40x	1	10
J9	18-00-00	11 7/8" NI-40x	1	7
J10	18-00-00	11 7/8" NI-40x	2	4
J11	22-00-00	11 7/8" NI-80	1	22
J12	22-00-00	11 7/8" NI-80	2	4
Ca1	213-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	101-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS5.50/10
H2	1		HGUS7.25/10
H3	2		HUS1.81/10
H4	7		LF259
H5	59		LT251188
H6	2		LT351188

GROUND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION B

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

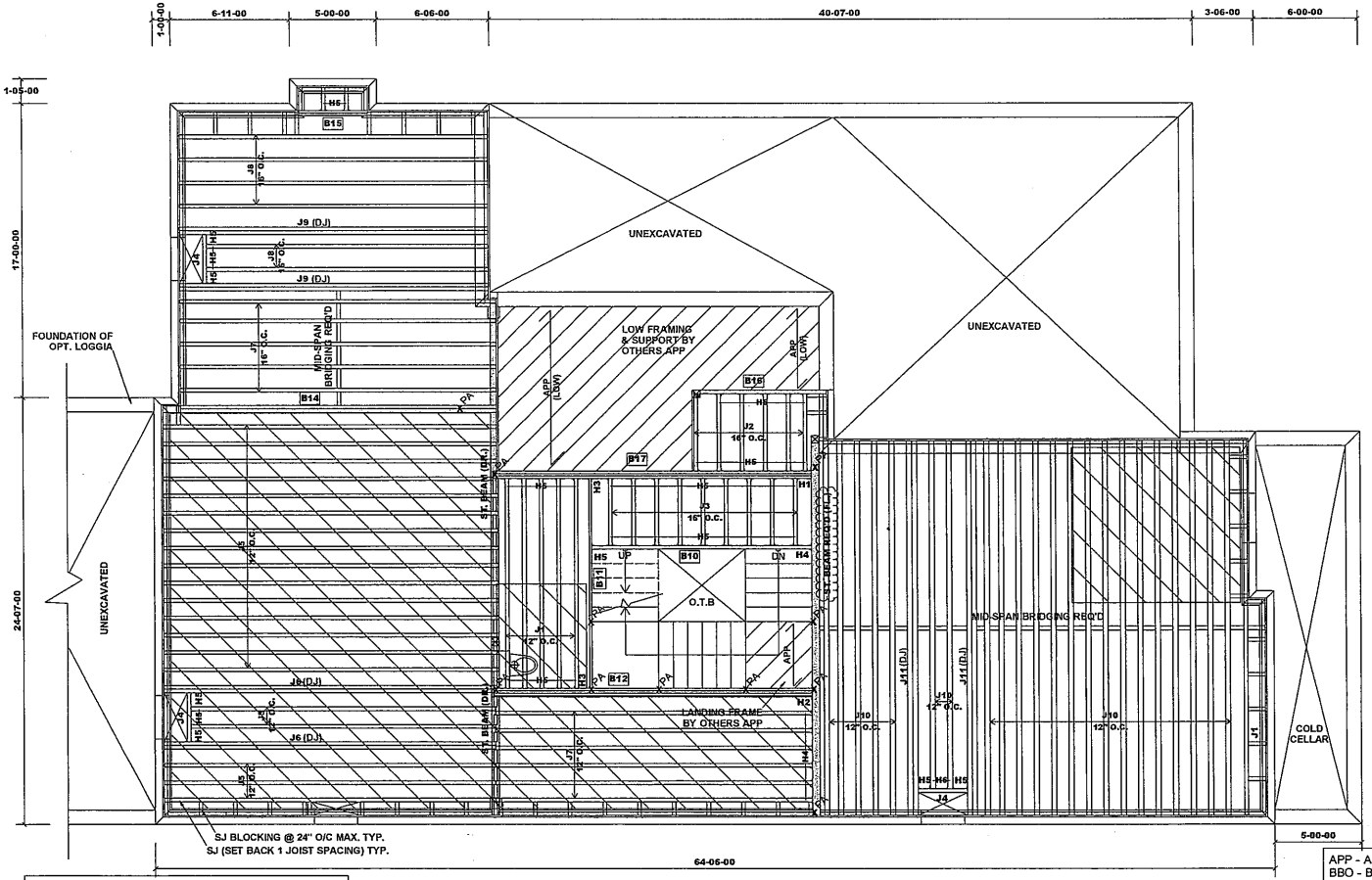
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 5 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B10	13-00-00	11 7/8" NI-20	1	1
B11	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B12	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B14	19-00-00	11 7/8" NI-40x	2	2
B15	4-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B16	8-00-00	11 7/8" NI-20	1	1
B17	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
J1	13-00-00	11 7/8" NI-20	1	6
J2	5-00-00	11 7/8" NI-20	1	6
J3	4-00-00	11 7/8" NI-20	1	9
J4	3-00-00	11 7/8" NI-20	1	3
J5	20-00-00	11 7/8" NI-40x	1	20
J6	20-00-00	11 7/8" NI-40x	2	4
J7	19-00-00	11 7/8" NI-40x	1	11
J8	18-00-00	11 7/8" NI-40x	1	6
J9	18-00-00	11 7/8" NI-40x	2	4
J10	22-00-00	11 7/8" NI-80	1	22
J11	22-00-00	11 7/8" NI-80	2	4
Ca1	203-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Blk1	91-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS410
H2	1		HGUS5.50/10
H3	2		HUS1.81/10
H4	7		LF259
H5	52		LT251188
H6	2		LT351188

GROUND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION B
W/ SUNKEN MUDROOM

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

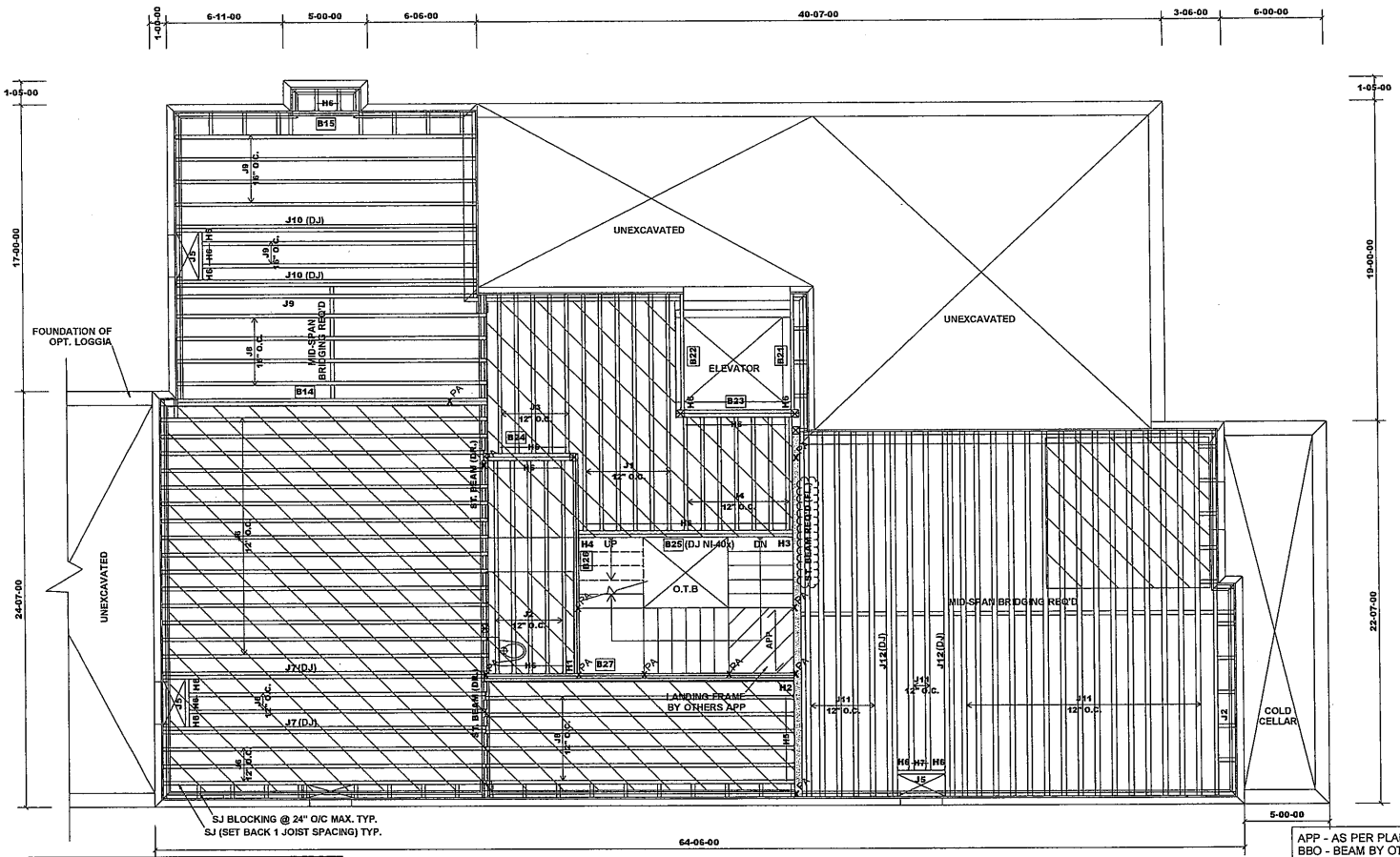
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 6 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B14	19-00-00	11 7/8" NI-40x	2	2
B15	4-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B21	7-00-00	11 7/8" NI-20	1	1
B22	7-00-00	11 7/8" NI-20	1	1
B23	8-00-00	11 7/8" NI-20	2	2
B24	6-00-00	11 7/8" NI-20	2	2
B25	13-00-00	11 7/8" NI-40x	2	2
B26	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B27	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
J1	14-00-00	11 7/8" NI-20	1	6
J2	13-00-00	11 7/8" NI-20	1	6
J3	10-00-00	11 7/8" NI-20	1	5
J4	7-00-00	11 7/8" NI-20	1	7
J5	3-00-00	11 7/8" NI-20	1	3
J6	20-00-00	11 7/8" NI-40x	1	20
J7	20-00-00	11 7/8" NI-40x	2	4
J8	19-00-00	11 7/8" NI-40x	1	10
J9	18-00-00	11 7/8" NI-40x	1	7
J10	18-00-00	11 7/8" NI-40x	2	4
J11	22-00-00	11 7/8" NI-80	1	22
J12	22-00-00	11 7/8" NI-80	2	4
Ca1	205-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	100-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS410
H2	1		HGUS5.50/10
H3	1		HU310-2
H4	1		HU312-2
H5	6		LF259
H6	49		LT251188
H7	2		LT351188

GROUND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION B

W/ ELEVATOR

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

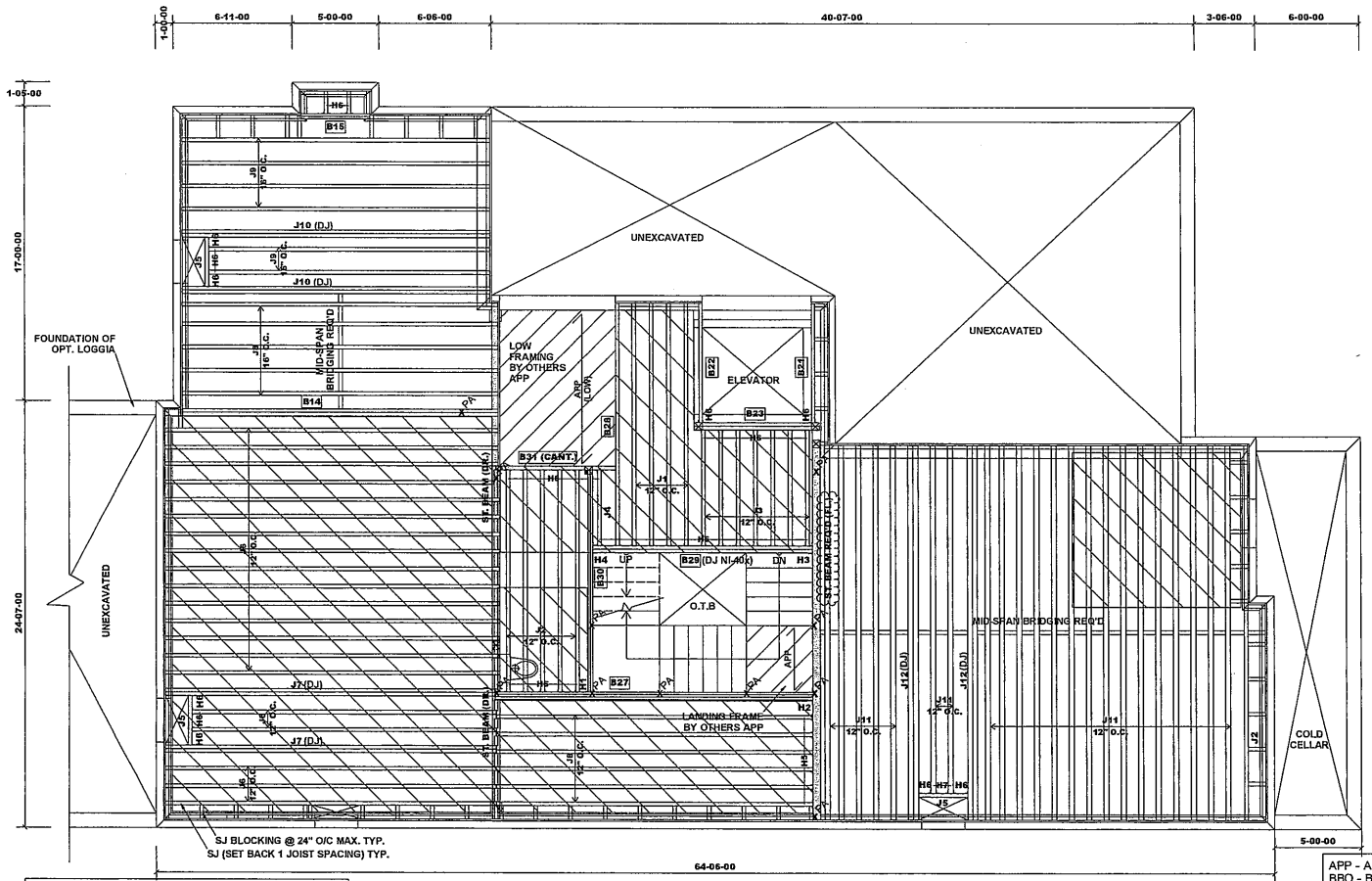
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 7 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B14	19-00-00	11 7/8" NI-40x	2	2
B15	4-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B21	7-00-00	11 7/8" NI-20	1	1
B22	7-00-00	11 7/8" NI-20	1	1
B23	8-00-00	11 7/8" NI-20	2	2
B27	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B28	14-00-00	11 7/8" NI-20	1	1
B29	13-00-00	11 7/8" NI-40x	2	2
B30	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B31 (CANT.)	7-00-00	11 7/8" NI-20	1	1
J1	14-00-00	11 7/8" NI-20	1	4
J2	13-00-00	11 7/8" NI-20	1	6
J3	7-00-00	11 7/8" NI-20	1	7
J4	5-00-00	11 7/8" NI-20	1	1
J5	3-00-00	11 7/8" NI-20	1	3
J6	20-00-00	11 7/8" NI-40x	1	20
J7	20-00-00	11 7/8" NI-40x	2	4
J8	19-00-00	11 7/8" NI-40x	1	11
J9	18-00-00	11 7/8" NI-40x	1	6
J10	18-00-00	11 7/8" NI-40x	2	4
J11	22-00-00	11 7/8" NI-80	1	22
J12	22-00-00	11 7/8" NI-80	2	4
Ca1	209-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	92-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS410
H2	1		HGUS5.50/10
H3	1		HU310-2
H4	1		HU312-2
H5	6		LF259
H6	45		LT251188
H7	2		LT351188

GROUND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION B
W/ SUNKEN MUDROOM
W/ ELEVATOR

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

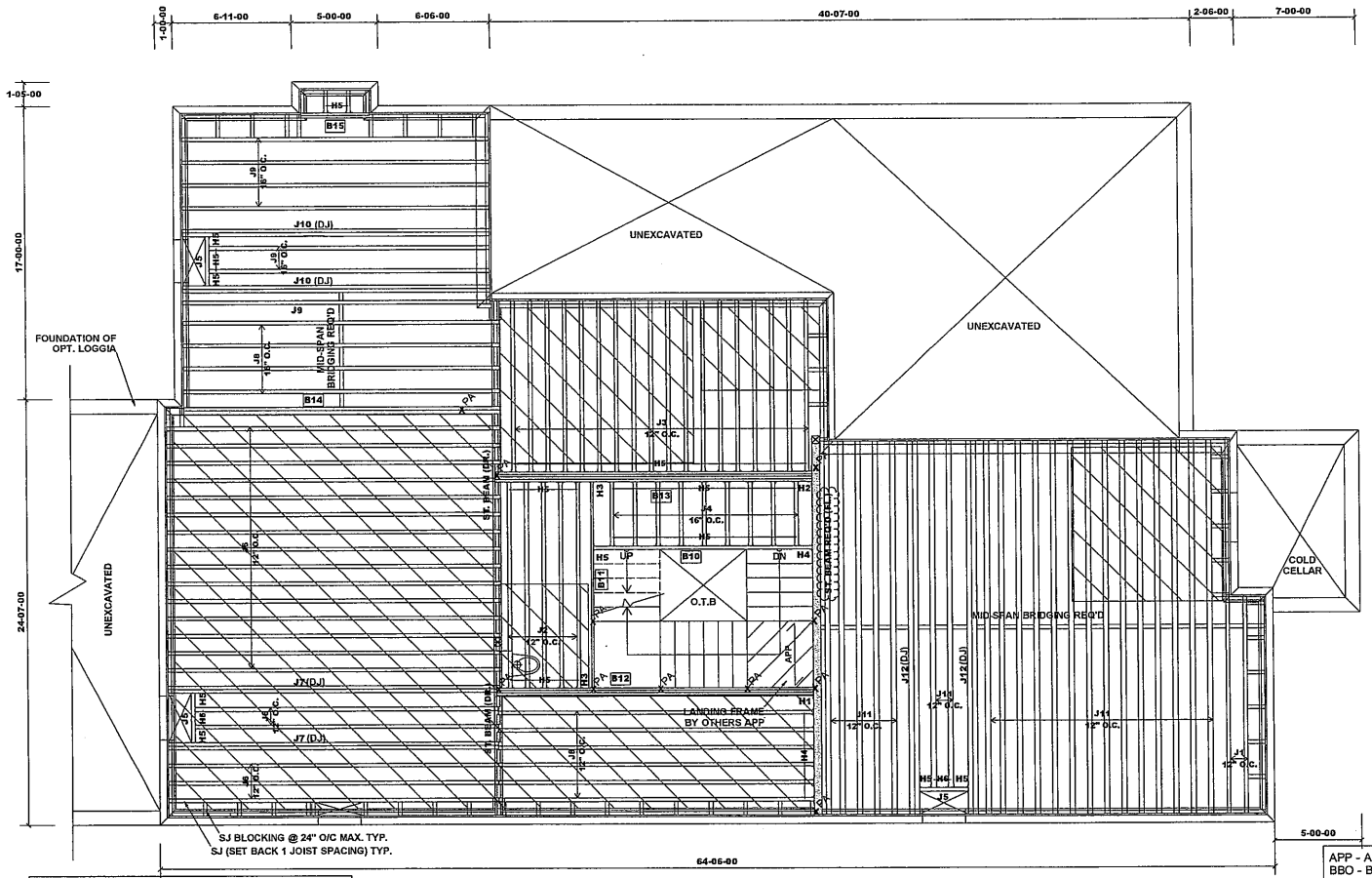
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 8 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B10	13-00-00	11 7/8" NI-20	1	1
B11	12-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B12	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B13	19-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4
B14	19-00-00	11 7/8" NI-40x	2	2
B15	4-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
J1	13-00-00	11 7/8" NI-20	1	2
J2	12-00-00	11 7/8" NI-20	1	5
J3	10-00-00	11 7/8" NI-20	1	18
J4	4-00-00	11 7/8" NI-20	1	9
J5	3-00-00	11 7/8" NI-20	1	3
J6	20-00-00	11 7/8" NI-40x	1	20
J7	20-00-00	11 7/8" NI-40x	2	4
J8	19-00-00	11 7/8" NI-40x	1	10
J9	18-00-00	11 7/8" NI-40x	1	7
J10	18-00-00	11 7/8" NI-40x	2	4
J11	22-00-00	11 7/8" NI-80	1	21
J12	22-00-00	11 7/8" NI-80	2	4
Ca1	213-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	102-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS5.50/10
H2	1		HGUS7.25/10
H3	2		HUS1.81/10
H4	7		LF259
H5	59		LT251188
H6	2		LT351188

GROUND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION C

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

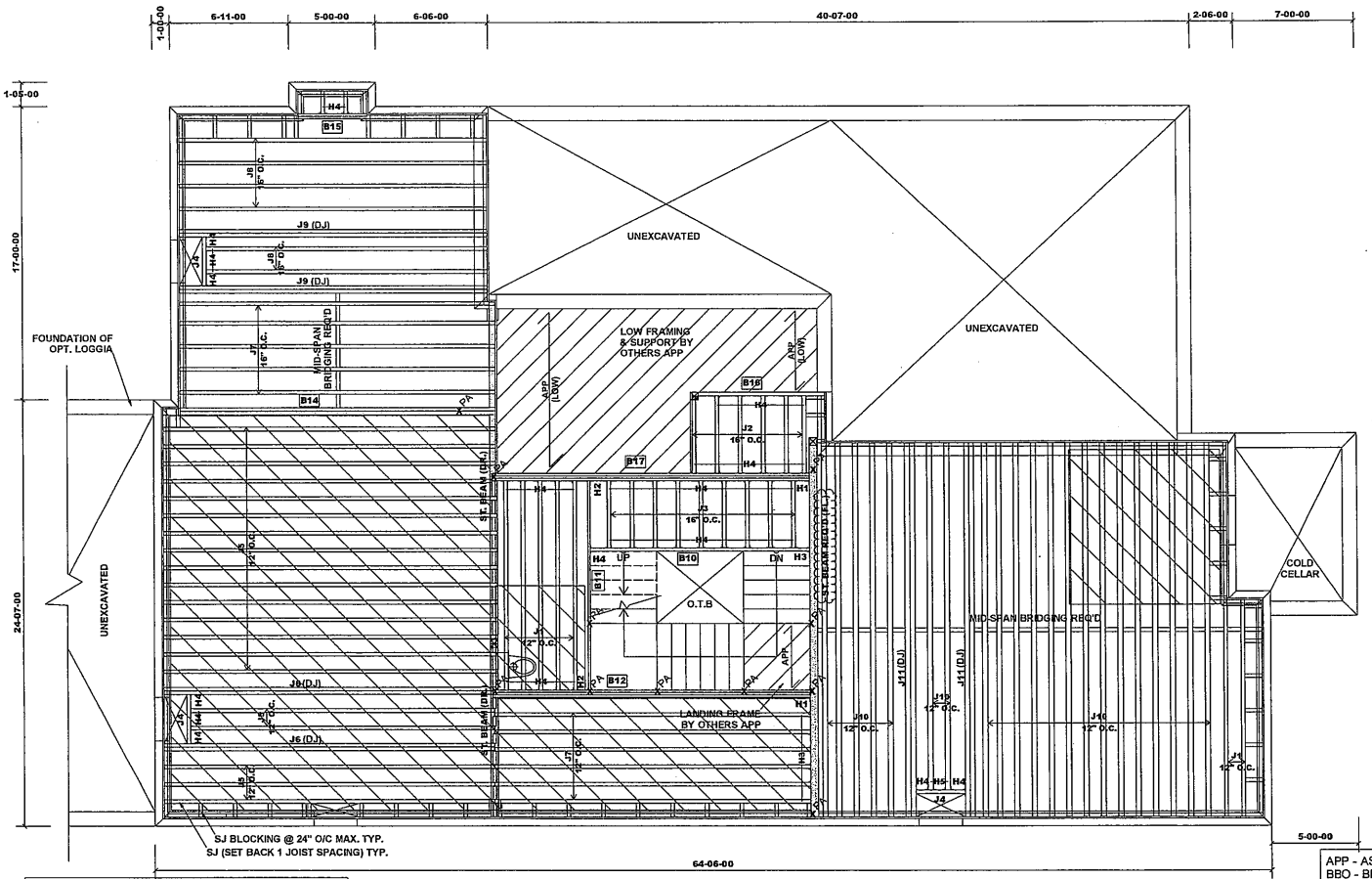
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 9 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B10	13-00-00	11 7/8" NI-20	1	1
B11	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B12	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B14	19-00-00	11 7/8" NI-40x	2	2
B15	4-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B16	8-00-00	11 7/8" NI-20	1	1
B17	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
J1	13-00-00	11 7/8" NI-20	1	7
J2	5-00-00	11 7/8" NI-20	1	6
J3	4-00-00	11 7/8" NI-20	1	9
J4	3-00-00	11 7/8" NI-20	1	3
J5	20-00-00	11 7/8" NI-40x	1	20
J6	20-00-00	11 7/8" NI-40x	2	4
J7	19-00-00	11 7/8" NI-40x	1	11
J8	18-00-00	11 7/8" NI-40x	1	6
J9	18-00-00	11 7/8" NI-40x	2	4
J10	22-00-00	11 7/8" NI-80	1	21
J11	22-00-00	11 7/8" NI-80	2	4
Ca1	203-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	92-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	2		HGUS5.50/10
H2	2		HUS1.81/10
H3	7		LF259
H4	52		LT251188
H5	2		LT351188

GROUND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION C
W/ SUNKEN MUDROOM

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
- Ceramic Tile
- Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

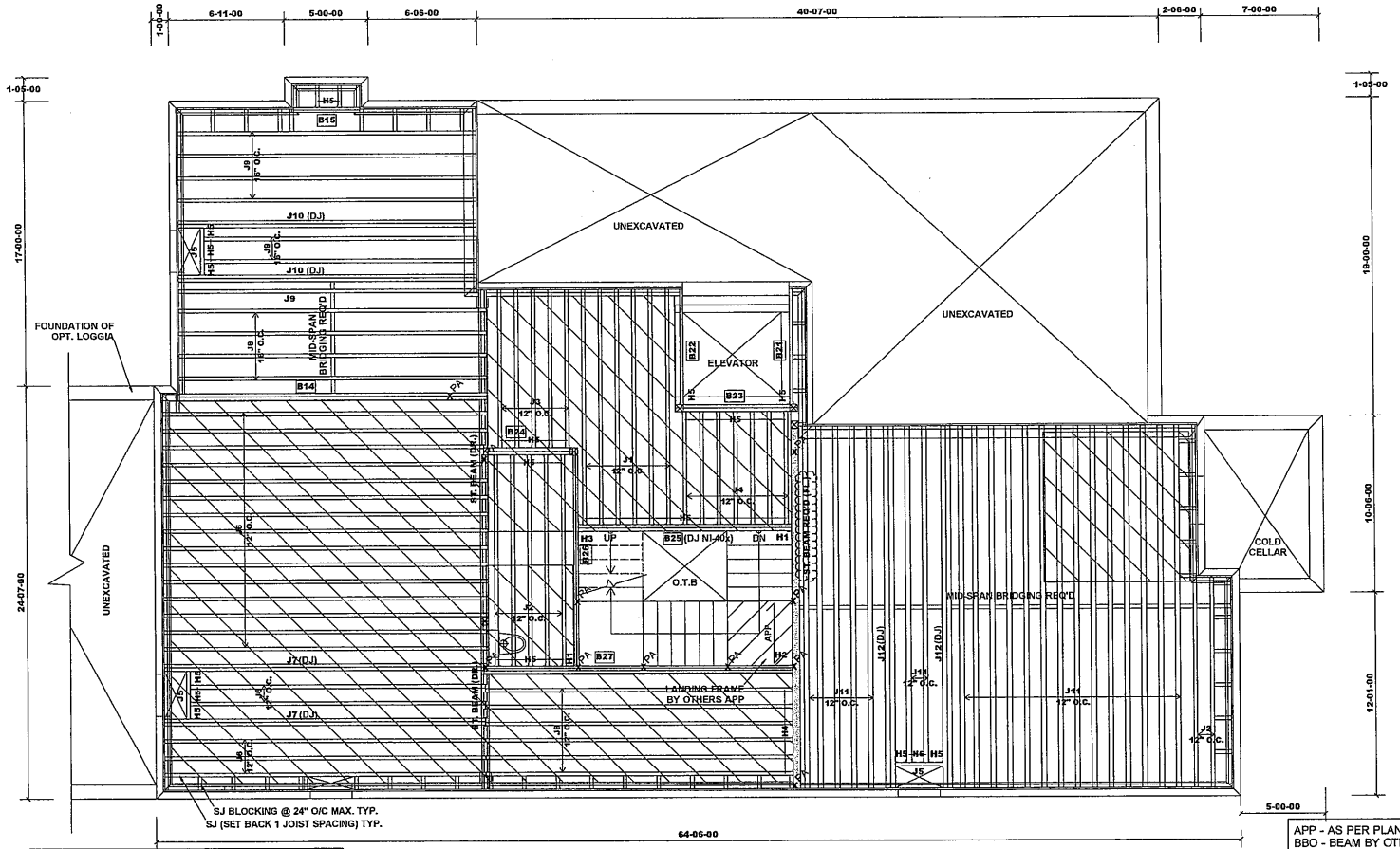
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 10 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B14	19-00-00	11 7/8" NI-40x	2	2
B15	4-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B21	7-00-00	11 7/8" NI-20	1	1
B22	7-00-00	11 7/8" NI-20	1	1
B23	8-00-00	11 7/8" NI-20	2	2
B24	6-00-00	11 7/8" NI-20	2	2
B25	13-00-00	11 7/8" NI-40x	2	2
B26	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B27	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
J1	14-00-00	11 7/8" NI-20	1	6
J2	13-00-00	11 7/8" NI-20	1	7
J3	10-00-00	11 7/8" NI-20	1	5
J4	7-00-00	11 7/8" NI-20	1	7
J5	3-00-00	11 7/8" NI-20	1	3
J6	20-00-00	11 7/8" NI-40x	1	20
J7	20-00-00	11 7/8" NI-40x	2	4
J8	19-00-00	11 7/8" NI-40x	1	10
J9	18-00-00	11 7/8" NI-40x	1	7
J10	18-00-00	11 7/8" NI-40x	2	4
J11	22-00-00	11 7/8" NI-80	1	21
J12	22-00-00	11 7/8" NI-80	2	4
Ca1	206-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	101-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	2		HGUS410
H2	1		HGUS5.50/10
H3	1		HU312-2
H4	6		LF259
H5	49		LT251188
H6	2		LT351188

GROUND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION C
W/ ELEVATOR

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

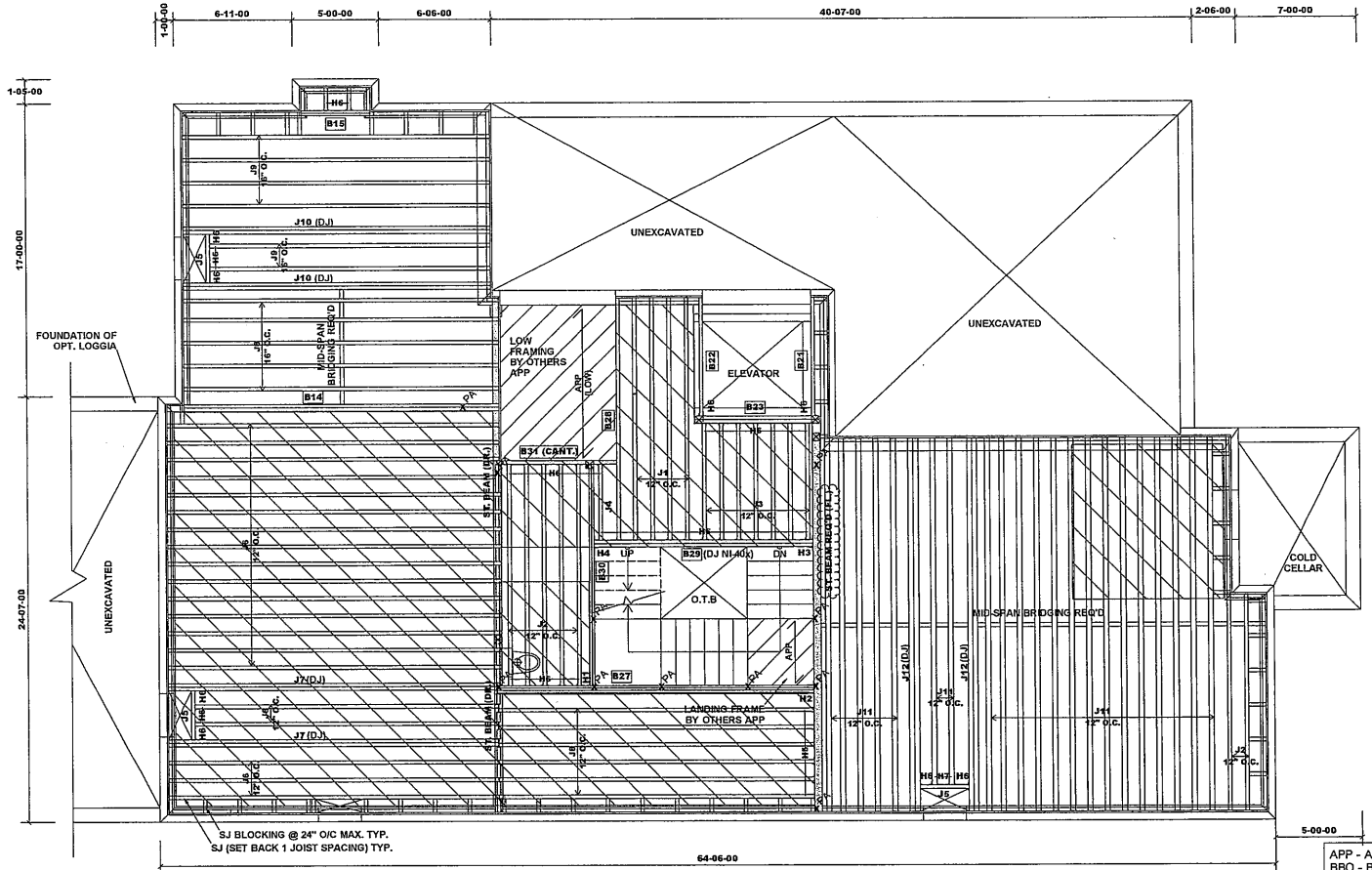
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 11 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B14	19-00-00	11 7/8" NI-40x	2	2
B15	4-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B21	7-00-00	11 7/8" NI-20	1	1
B22	7-00-00	11 7/8" NI-20	1	1
B23	8-00-00	11 7/8" NI-20	2	2
B27	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B28	14-00-00	11 7/8" NI-20	1	1
B29	13-00-00	11 7/8" NI-40x	2	2
B30	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B31 (CANT.)	7-00-00	11 7/8" NI-20	1	1
J1	14-00-00	11 7/8" NI-20	1	4
J2	13-00-00	11 7/8" NI-20	1	7
J3	7-00-00	11 7/8" NI-20	1	7
J4	5-00-00	11 7/8" NI-20	1	1
J5	3-00-00	11 7/8" NI-20	1	3
J6	20-00-00	11 7/8" NI-40x	1	20
J7	20-00-00	11 7/8" NI-40x	2	4
J8	19-00-00	11 7/8" NI-40x	1	11
J9	18-00-00	11 7/8" NI-40x	1	6
J10	18-00-00	11 7/8" NI-40x	2	4
J11	22-00-00	11 7/8" NI-80	1	21
J12	22-00-00	11 7/8" NI-80	2	4
Ca1	209-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	93-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS410
H2	1		HGUS5.50/10
H3	1		HU310-2
H4	1		HU312-2
H5	6		LF259
H6	45		LT251188
H7	2		LT351188

GROUND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION C
W/ SUNKEN MUDROOM
W/ ELEVATOR

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 12 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
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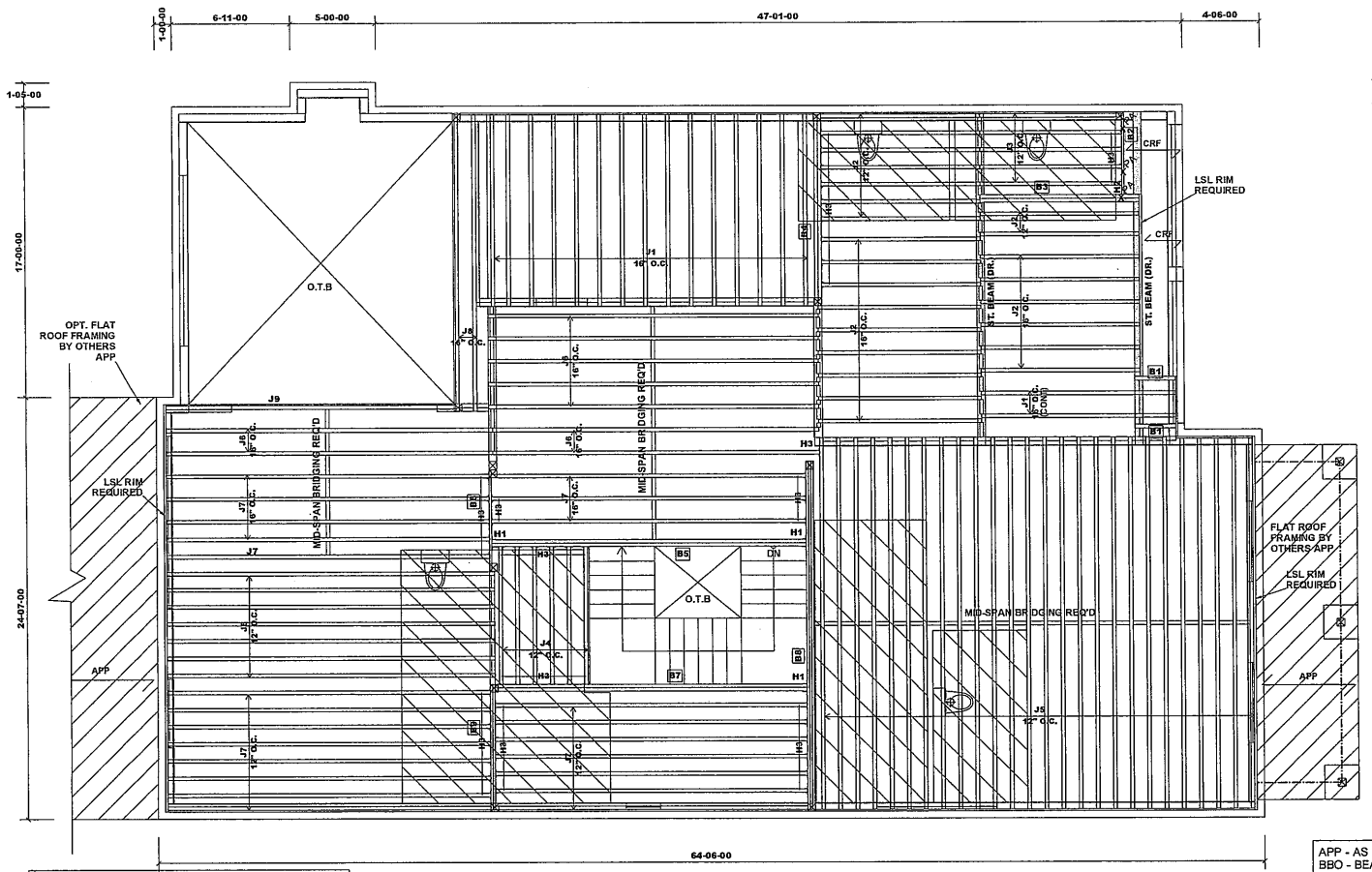


Products				
PlotID	Length	Product	Plies	Net Qty
B1	3-00-00	11 7/8" NI-20	1	2
B2	5-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B3	10-00-00	11 7/8" NI-20	2	2
B4	12-00-00	11 7/8" NI-20	2	2
B5	19-00-00	11 7/8" NI-40x	2	2
B6	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B7	19-00-00	11 7/8" NI-40x	2	2
B8	21-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
J1	12-00-00	11 7/8" NI-20	1	17
J2	10-00-00	11 7/8" NI-20	1	24
J3	9-00-00	11 7/8" NI-20	1	5
J4	8-00-00	11 7/8" NI-20	1	6
J5	22-00-00	11 7/8" NI-40x	1	26
J6	20-00-00	11 7/8" NI-40x	1	16
J7	19-00-00	11 7/8" NI-40x	1	23
J8	18-00-00	11 7/8" NI-40x	1	2
J9	17-00-00	11 7/8" NI-40x	1	1
Ca1	153-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	57-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	106-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	3		HU312-2
H2	1		HU9
H3	55		LT251188

SECOND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION A

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

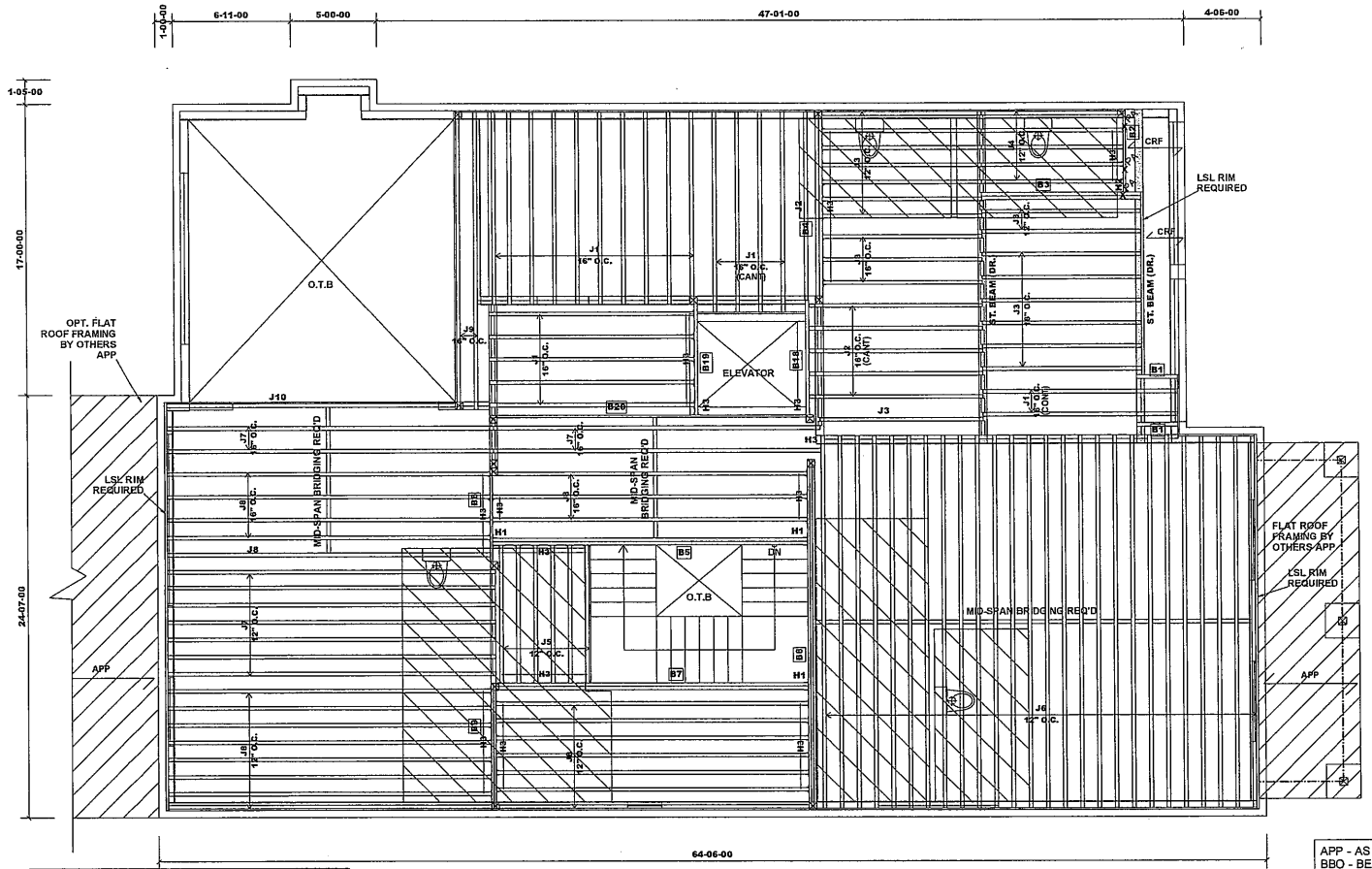
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 13 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B1	3-00-00	11 7/8" NI-20	1	2
B2	5-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B3	10-00-00	11 7/8" NI-20	2	2
B4	12-00-00	11 7/8" NI-20	2	2
B5	19-00-00	11 7/8" NI-40x	2	2
B6	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B7	19-00-00	11 7/8" NI-40x	2	2
B8	21-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B18	7-00-00	11 7/8" NI-20	1	1
B19	7-00-00	11 7/8" NI-20	1	1
B20	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
J1	12-00-00	11 7/8" NI-20	1	21
J2	11-00-00	11 7/8" NI-20	1	6
J3	10-00-00	11 7/8" NI-20	1	19
J4	9-00-00	11 7/8" NI-20	1	5
J5	8-00-00	11 7/8" NI-20	1	6
J6	22-00-00	11 7/8" NI-40x	1	26
J7	20-00-00	11 7/8" NI-40x	1	11
J8	19-00-00	11 7/8" NI-40x	1	23
J9	18-00-00	11 7/8" NI-40x	1	2
J10	17-00-00	11 7/8" NI-40x	1	1
Ca1	158-07-10	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	57-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	101-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	3		HU312-2
H2	1		HU9
H3	62		LT251188

SECOND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION A
W/ ELEVATOR

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
- Ceramic Tile
- Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

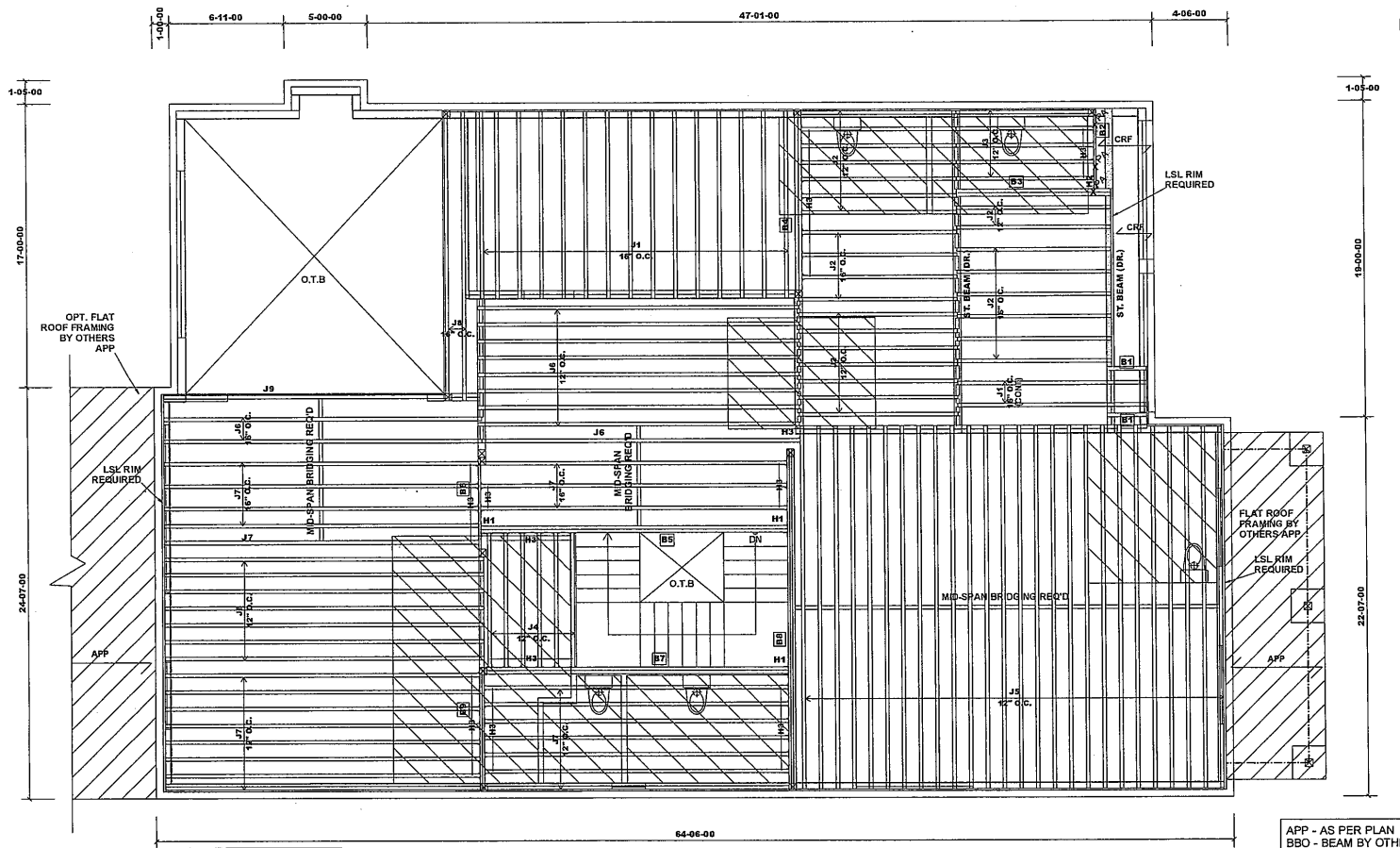
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 14 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B1	3-00-00	11 7/8" NI-20	1	2
B2	5-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B3	10-00-00	11 7/8" NI-20	2	2
B4	12-00-00	11 7/8" NI-20	2	2
B5	19-00-00	11 7/8" NI-40x	2	2
B6	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B7	19-00-00	11 7/8" NI-40x	2	2
B8	21-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
J1	12-00-00	11 7/8" NI-20	1	17
J2	10-00-00	11 7/8" NI-20	1	26
J3	9-00-00	11 7/8" NI-20	1	5
J4	8-00-00	11 7/8" NI-20	1	6
J5	22-00-00	11 7/8" NI-40x	1	26
J6	20-00-00	11 7/8" NI-40x	1	18
J7	19-00-00	11 7/8" NI-40x	1	23
J8	18-00-00	11 7/8" NI-40x	1	2
J9	17-00-00	11 7/8" NI-40x	1	1
Ca1	153-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	57-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	98-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	3		HU312-2
H2	1		HU9
H3	55		LT251188

SECOND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION A
W/ 5 BEDROOM

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

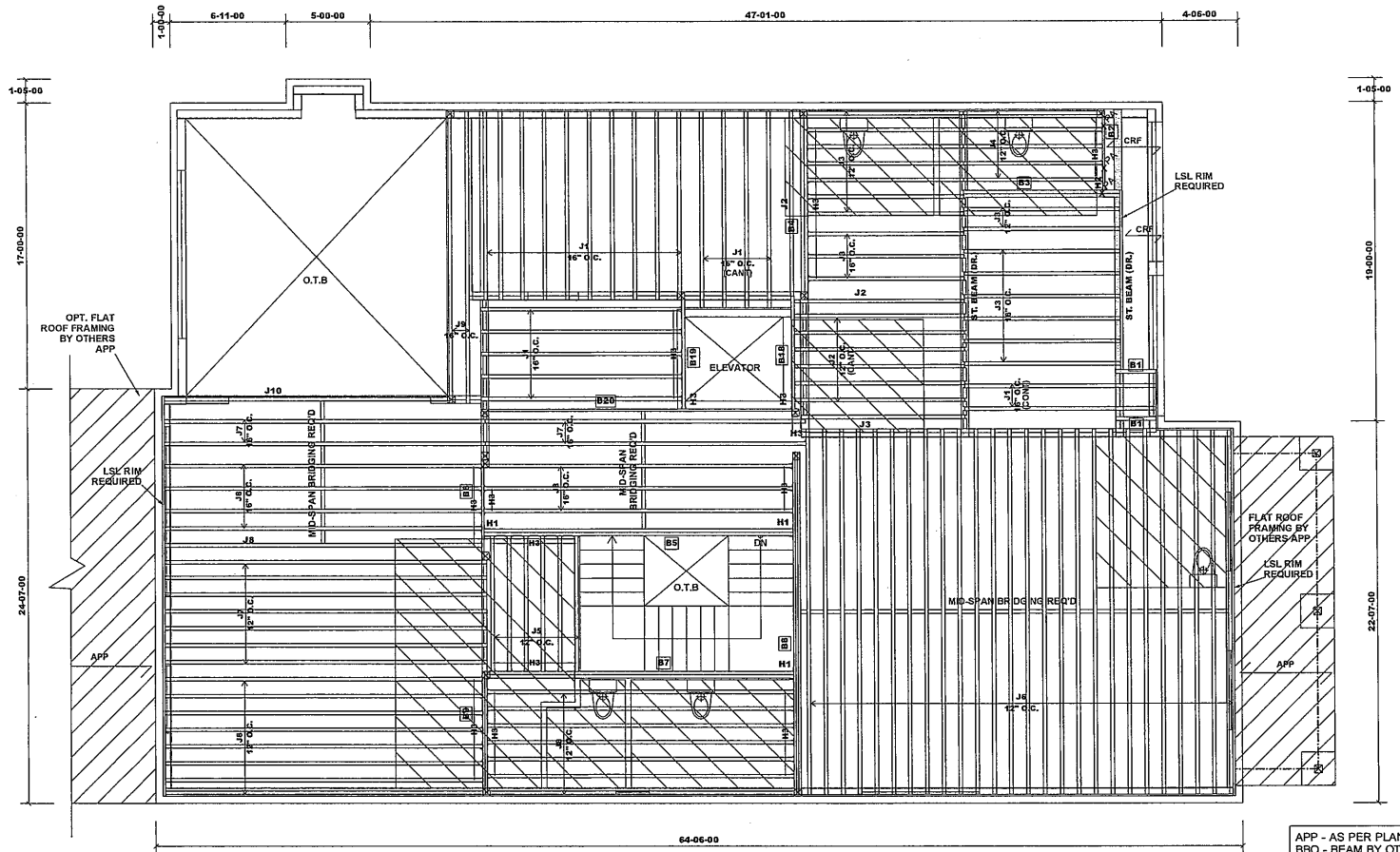
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 15 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B1	3-00-00	11 7/8" NI-20	1	2
B2	5-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B3	10-00-00	11 7/8" NI-20	2	2
B4	12-00-00	11 7/8" NI-20	2	2
B5	19-00-00	11 7/8" NI-40x	2	2
B6	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B7	19-00-00	11 7/8" NI-40x	2	2
B8	21-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B18	7-00-00	11 7/8" NI-20	1	1
B19	7-00-00	11 7/8" NI-20	1	1
B20	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
J1	12-00-00	11 7/8" NI-20	1	21
J2	11-00-00	11 7/8" NI-20	1	8
J3	10-00-00	11 7/8" NI-20	1	19
J4	9-00-00	11 7/8" NI-20	1	5
J5	8-00-00	11 7/8" NI-20	1	6
J6	22-00-00	11 7/8" NI-40x	1	26
J7	20-00-00	11 7/8" NI-40x	1	11
J8	19-00-00	11 7/8" NI-40x	1	23
J9	18-00-00	11 7/8" NI-40x	1	2
J10	17-00-00	11 7/8" NI-40x	1	1
Ca1	158-07-10	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	57-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	101-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	3		HU312-2
H2	1		HU9
H3	62		LT251188

SECOND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION A
W/ 5 BEDROOM
W/ ELEVATOR

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
- Ceramic Tile
- Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

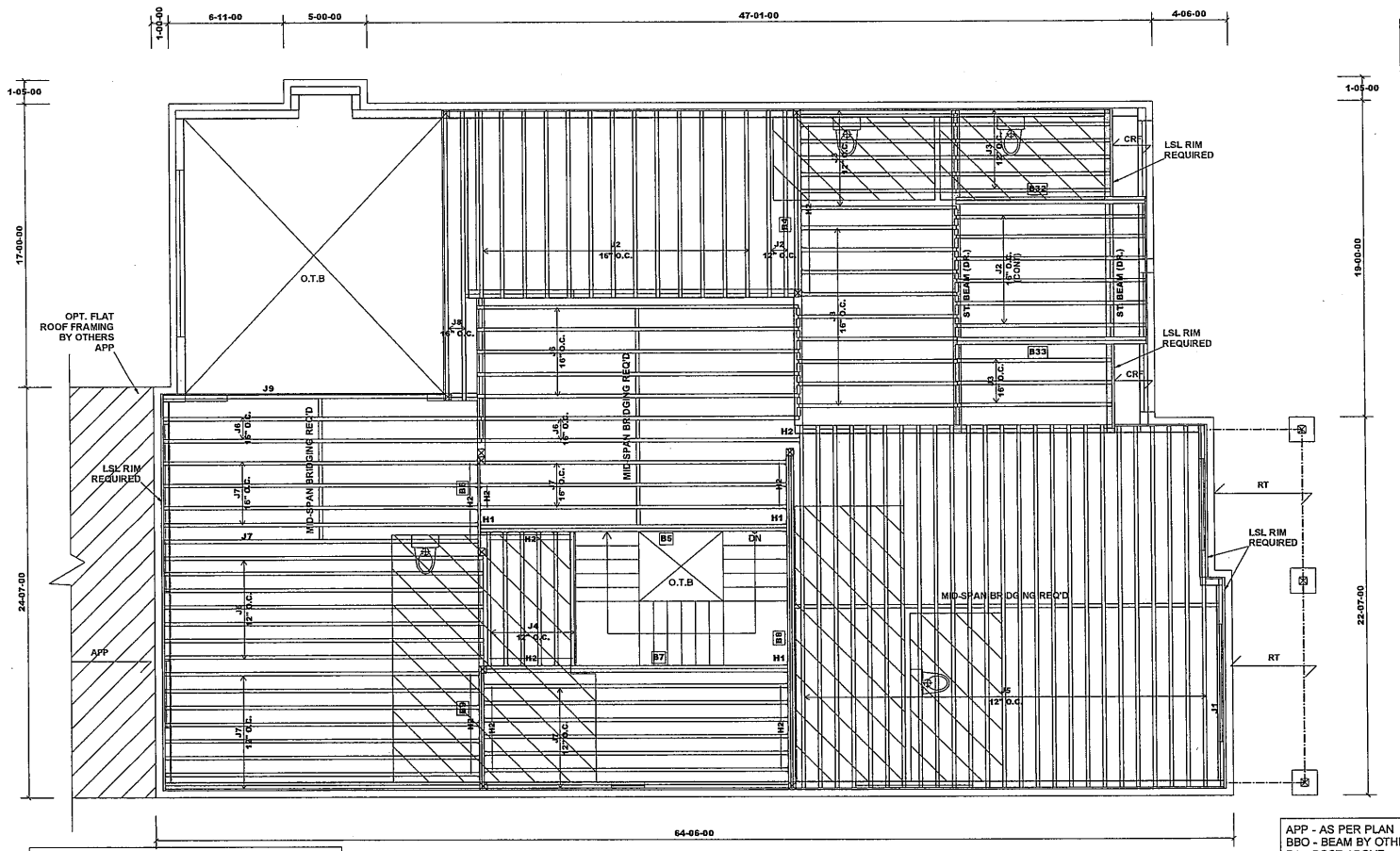
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 16 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B4	12-00-00	11 7/8" NI-20	2	2
B5	19-00-00	11 7/8" NI-40x	2	2
B6	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B7	19-00-00	11 7/8" NI-40x	2	2
B8	21-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B32	12-00-00	11 7/8" NI-20	2	2
B33	12-00-00	11 7/8" NI-20	2	2
J1	13-00-00	11 7/8" NI-20	1	1
J2	12-00-00	11 7/8" NI-20	1	21
J3	10-00-00	11 7/8" NI-20	1	25
J4	8-00-00	11 7/8" NI-20	1	6
J5	22-00-00	11 7/8" NI-40x	1	25
J6	20-00-00	11 7/8" NI-40x	1	16
J7	19-00-00	11 7/8" NI-40x	1	23
J8	18-00-00	11 7/8" NI-40x	1	2
J9	17-00-00	11 7/8" NI-40x	1	1
Ca1	160-05-04	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	56-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	108-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	3		HU312-2
H2	52		LT251188

SECOND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION B

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

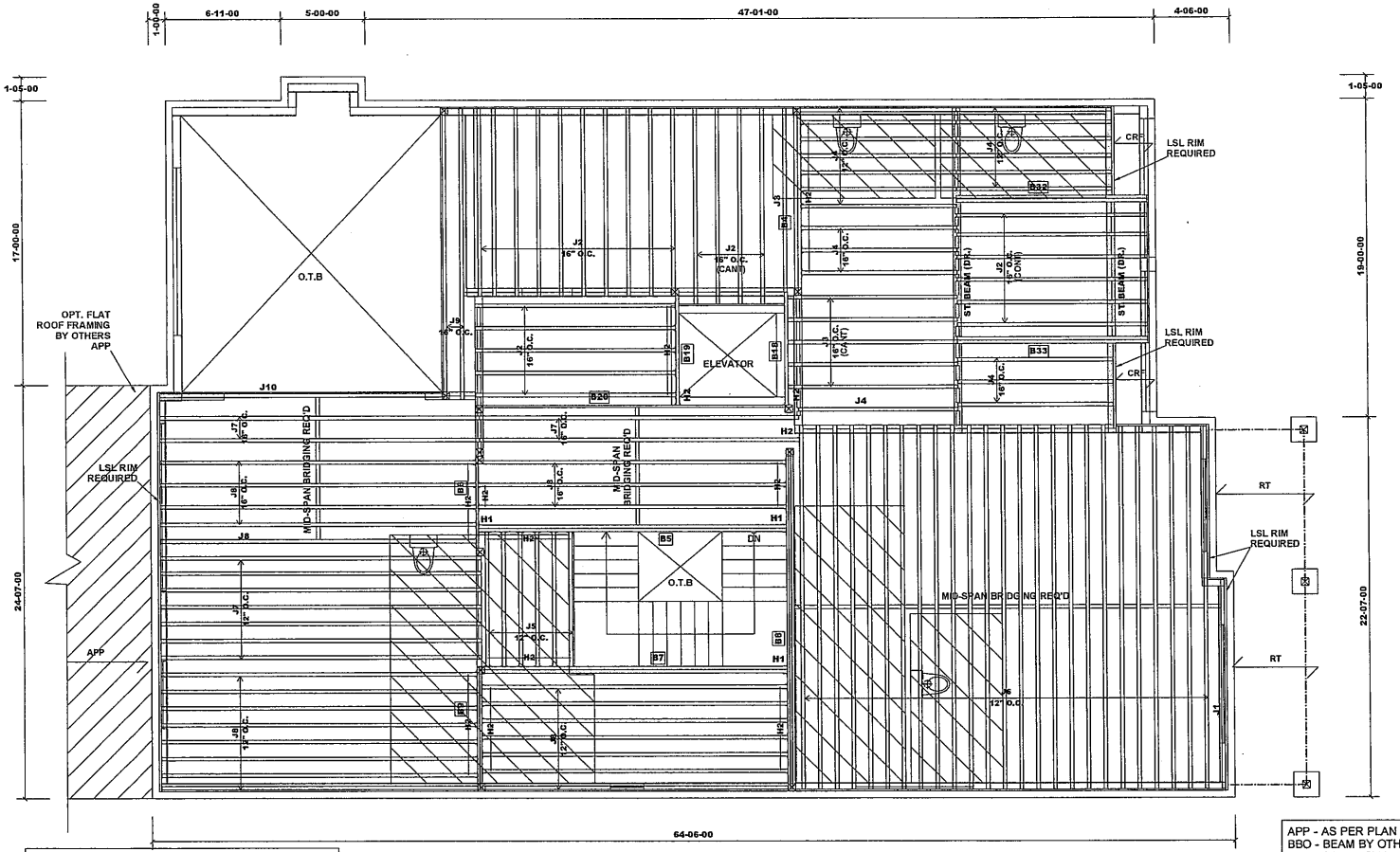
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 17 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B4	12-00-00	11 7/8" NI-20	2	2
B5	19-00-00	11 7/8" NI-40x	2	2
B6	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B7	19-00-00	11 7/8" NI-40x	2	2
B8	21-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B18	7-00-00	11 7/8" NI-20	1	1
B19	7-00-00	11 7/8" NI-20	1	1
B20	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B32	12-00-00	11 7/8" NI-20	2	2
B33	12-00-00	11 7/8" NI-20	2	2
J1	13-00-00	11 7/8" NI-20	1	1
J2	12-00-00	11 7/8" NI-20	1	25
J3	11-00-00	11 7/8" NI-20	1	6
J4	10-00-00	11 7/8" NI-20	1	20
J5	8-00-00	11 7/8" NI-20	1	6
J6	22-00-00	11 7/8" NI-40x	1	25
J7	20-00-00	11 7/8" NI-40x	1	11
J8	19-00-00	11 7/8" NI-40x	1	23
J9	18-00-00	11 7/8" NI-40x	1	2
J10	17-00-00	11 7/8" NI-40x	1	1
Ca1	167-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	56-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	103-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	3		HU312-2
H2	58		LT251188

SECOND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION B
W/ ELEVATOR

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
- Ceramic Tile
- Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 18 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
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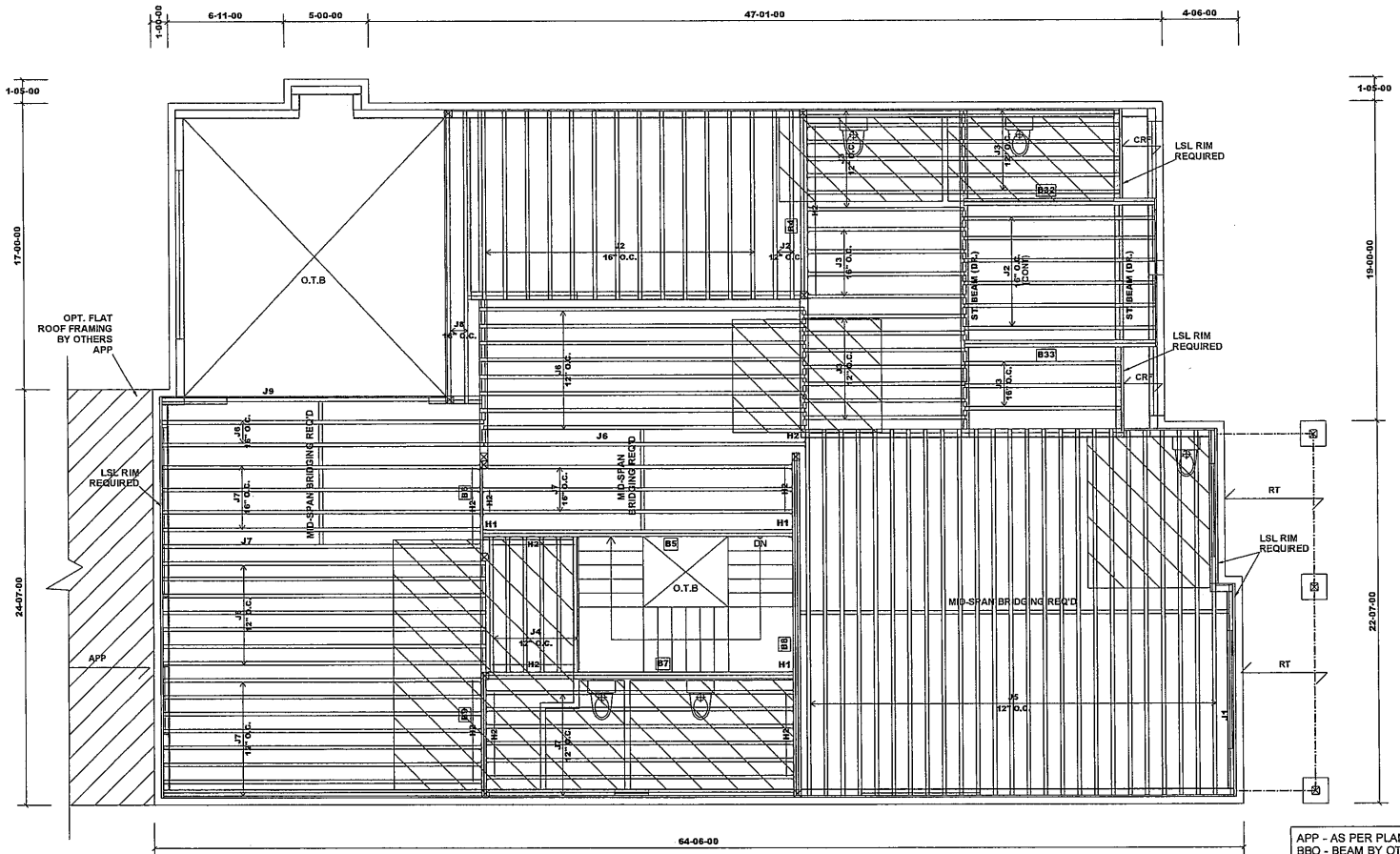

Products				
PlotID	Length	Product	Plies	Net Qty
B4	12-00-00	11 7/8" NI-20	2	2
B5	19-00-00	11 7/8" NI-40x	2	2
B6	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B7	19-00-00	11 7/8" NI-40x	2	2
B8	21-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B32	12-00-00	11 7/8" NI-20	2	2
B33	12-00-00	11 7/8" NI-20	2	2
J1	13-00-00	11 7/8" NI-20	1	1
J2	12-00-00	11 7/8" NI-20	1	21
J3	10-00-00	11 7/8" NI-20	1	27
J4	8-00-00	11 7/8" NI-20	1	6
J5	22-00-00	11 7/8" NI-40x	1	25
J6	20-00-00	11 7/8" NI-40x	1	18
J7	19-00-00	11 7/8" NI-40x	1	23
J8	18-00-00	11 7/8" NI-40x	1	2
J9	17-00-00	11 7/8" NI-40x	1	1
Ca1	160-05-04	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	56-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	100-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	3		HUS12-2
H2	52		LT251188

SECOND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION B
W/ 5 BEDROOM

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 19 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
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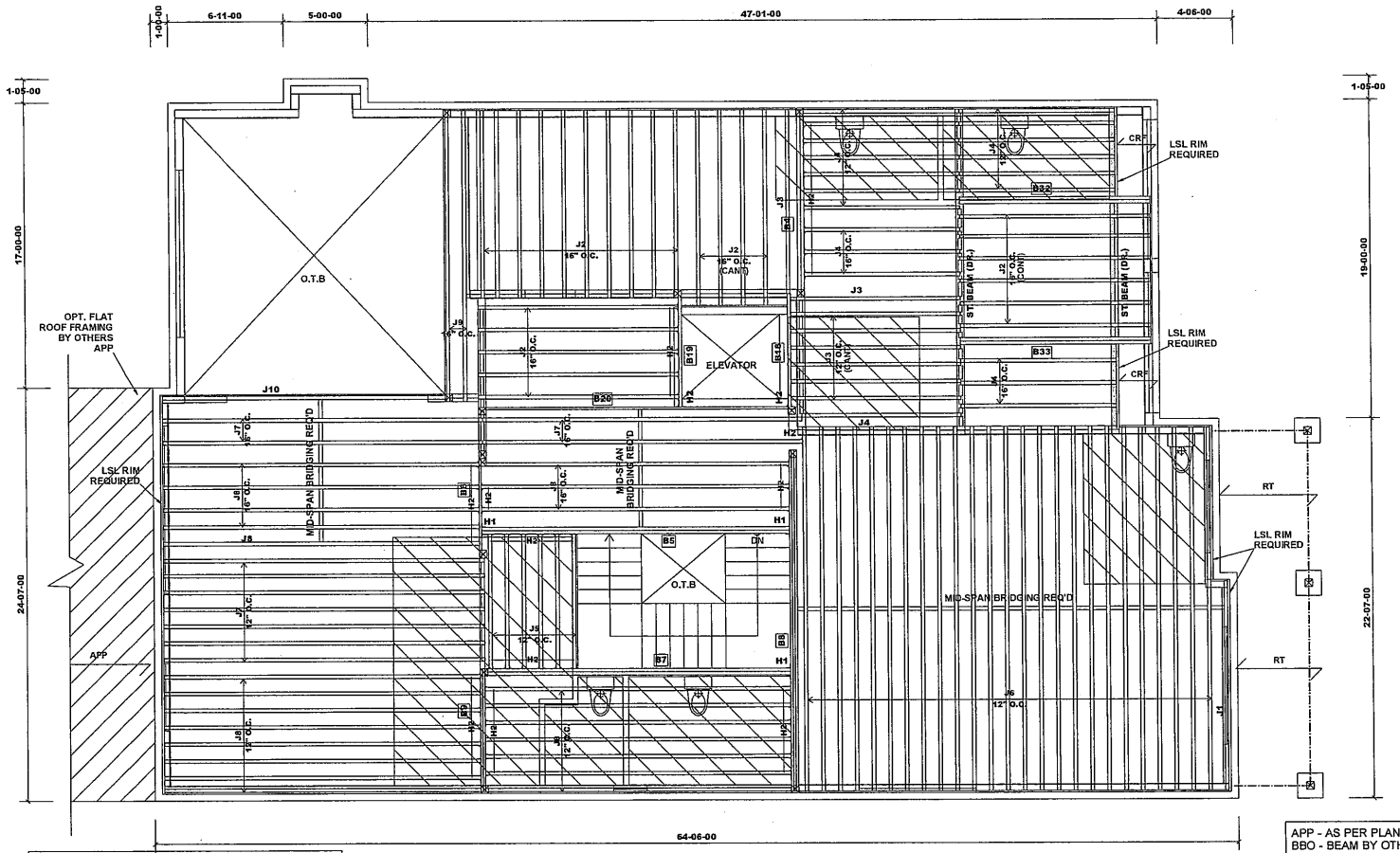

Products				
PlotID	Length	Product	Plies	Net Qty
B4	12-00-00	11 7/8" NI-20	2	2
B5	19-00-00	11 7/8" NI-40x	2	2
B6	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B7	19-00-00	11 7/8" NI-40x	2	2
B8	21-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B18	7-00-00	11 7/8" NI-20	1	1
B19	7-00-00	11 7/8" NI-20	1	1
B20	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B32	12-00-00	11 7/8" NI-20	2	2
B33	12-00-00	11 7/8" NI-20	2	2
J1	13-00-00	11 7/8" NI-20	1	1
J2	12-00-00	11 7/8" NI-20	1	25
J3	11-00-00	11 7/8" NI-20	1	8
J4	10-00-00	11 7/8" NI-20	1	20
J5	8-00-00	11 7/8" NI-20	1	6
J6	22-00-00	11 7/8" NI-40x	1	25
J7	20-00-00	11 7/8" NI-40x	1	11
J8	19-00-00	11 7/8" NI-40x	1	23
J9	18-00-00	11 7/8" NI-40x	1	2
J10	17-00-00	11 7/8" NI-40x	1	1
Ca1	167-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	56-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	102-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	3		HU312-2
H2	58		LT251188

SECOND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION B
W/ 5 BEDROOM
W/ ELEVATOR

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 20 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

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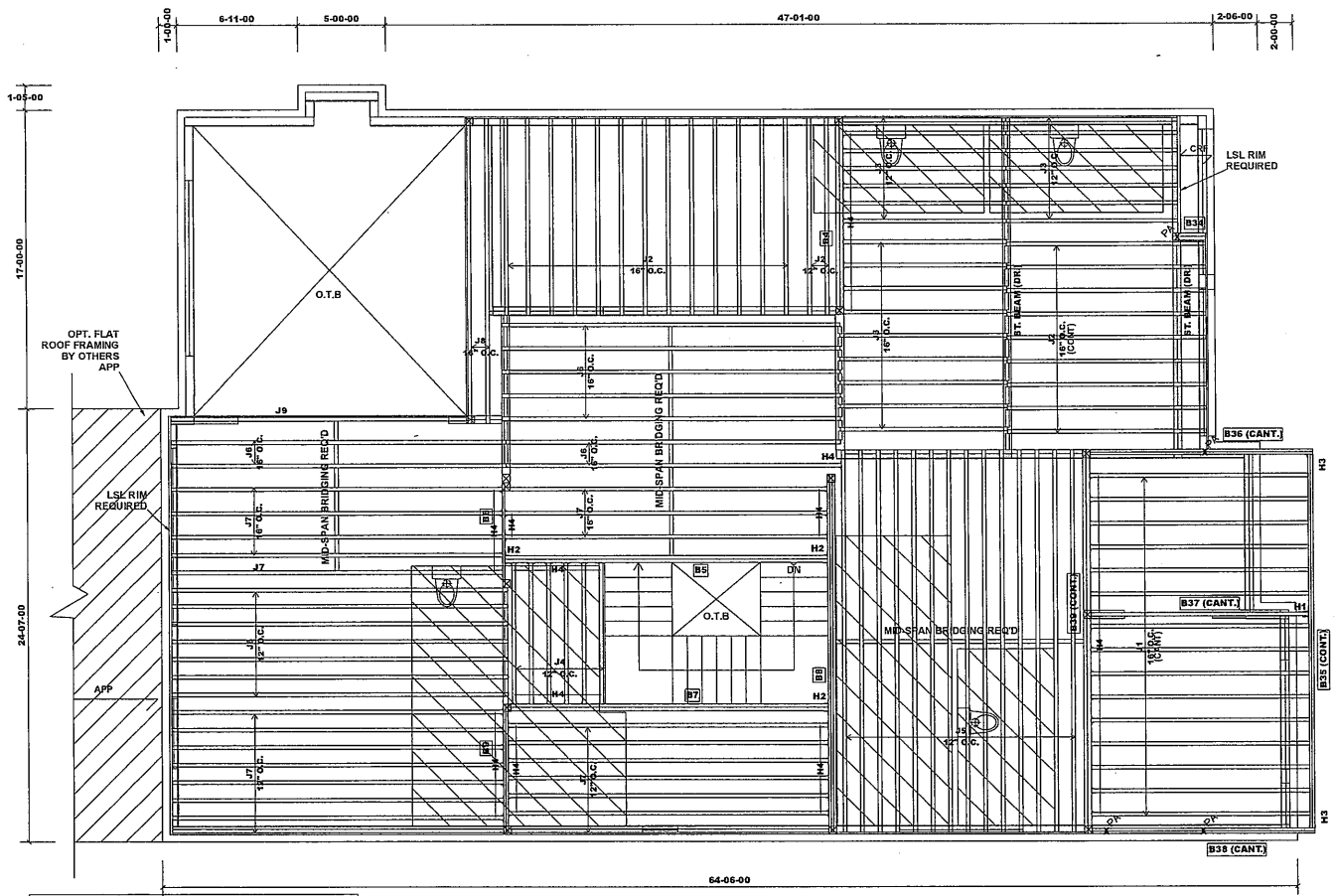


Products				
PlotID	Length	Product	Plies	Net Qty
B4	12-00-00	11 7/8" NI-20	2	2
B5	19-00-00	11 7/8" NI-40x	2	2
B6	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B7	19-00-00	11 7/8" NI-40x	2	2
B8	21-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B34	2-00-00	11 7/8" NI-20	2	2
B35 (CONT.)	22-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B36 (CANT.)	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B37 (CANT.)	13-00-00	11 7/8" NI-20	1	1
B38 (CANT.)	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B39 (CONT.)	22-00-00	11 7/8" NI-20	2	2
J1	13-00-00	11 7/8" NI-20	1	15
J2	12-00-00	11 7/8" NI-20	1	24
J3	10-00-00	11 7/8" NI-20	1	23
J4	8-00-00	11 7/8" NI-20	1	6
J5	22-00-00	11 7/8" NI-40x	1	14
J6	20-00-00	11 7/8" NI-40x	1	16
J7	19-00-00	11 7/8" NI-40x	1	23
J8	18-00-00	11 7/8" NI-40x	1	2
J9	17-00-00	11 7/8" NI-40x	1	1
Ca1	147-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	31-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	117-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1	N/A	HU312 (INVERTED)
H2	3		HU312-2
H3	2		HUC410
H4	67		LT251188

SECOND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION C

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
- Ceramic Tile
- Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

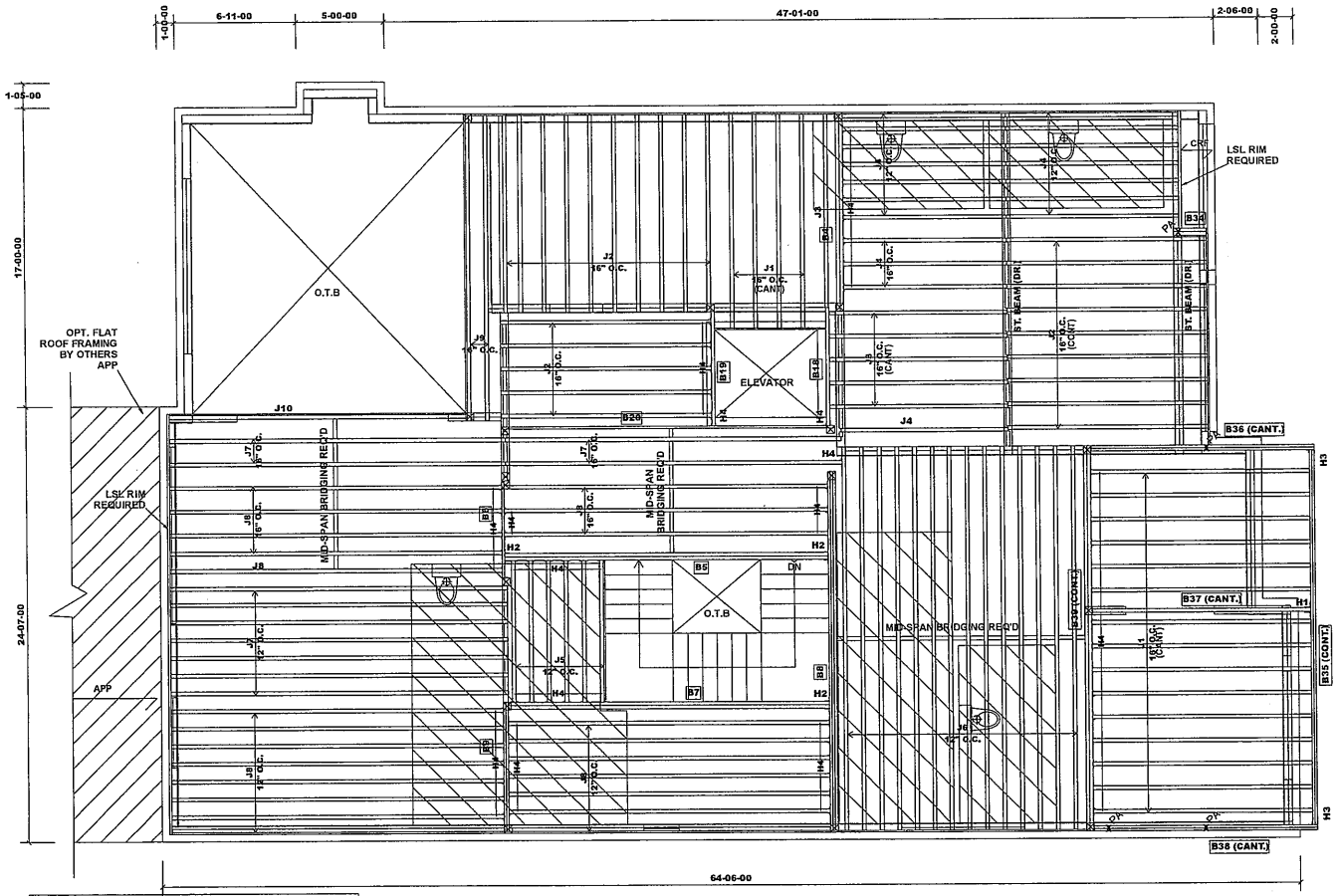
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 21 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B4	12-00-00	11 7/8" NI-20	2	2
B5	19-00-00	11 7/8" NI-40x	2	2
B6	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B7	19-00-00	11 7/8" NI-40x	2	2
B8	21-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B18	7-00-00	11 7/8" NI-20	1	1
B19	7-00-00	11 7/8" NI-20	1	1
B20	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B34	2-00-00	11 7/8" NI-20	2	2
B35 (CONT.)	22-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B36 (CANT.)	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B37 (CANT.)	13-00-00	11 7/8" NI-20	1	1
B38 (CANT.)	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B39 (CONT.)	22-00-00	11 7/8" NI-20	2	2
J1	13-00-00	11 7/8" NI-20	1	19
J2	12-00-00	11 7/8" NI-20	1	24
J3	11-00-00	11 7/8" NI-20	1	6
J4	10-00-00	11 7/8" NI-20	1	18
J5	8-00-00	11 7/8" NI-20	1	6
J6	22-00-00	11 7/8" NI-40x	1	14
J7	20-00-00	11 7/8" NI-40x	1	11
J8	19-00-00	11 7/8" NI-40x	1	23
J9	18-00-00	11 7/8" NI-40x	1	2
J10	17-00-00	11 7/8" NI-40x	1	1
Ca1	152-10-04	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	31-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	114-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1	N/A	HU312 (INVERTED)
H2	3		HU312-2
H3	2		HUC410
H4	73		LT251188

SECOND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION C
W/ ELEVATOR

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
- Ceramic Tile
- Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

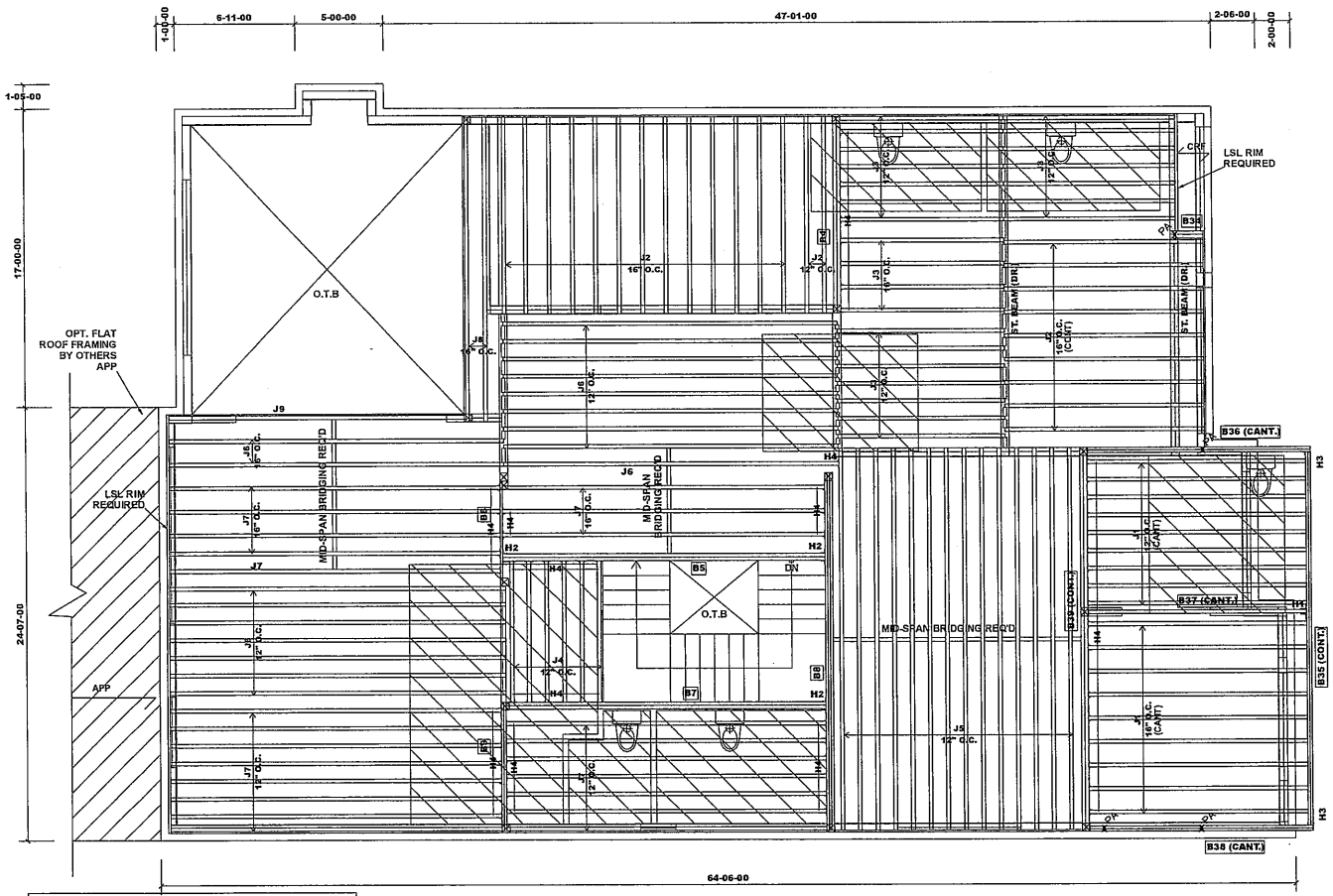
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 22 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B4	12-00-00	11 7/8" NI-20	2	2
B5	19-00-00	11 7/8" NI-40x	2	2
B6	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B7	19-00-00	11 7/8" NI-40x	2	2
B8	21-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B34	2-00-00	11 7/8" NI-20	2	2
B35 (CONT.)	22-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B36 (CANT.)	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B37 (CANT.)	13-00-00	11 7/8" NI-20	1	1
B38 (CANT.)	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B39 (CONT.)	22-00-00	11 7/8" NI-20	2	2
J1	13-00-00	11 7/8" NI-20	1	18
J2	12-00-00	11 7/8" NI-20	1	24
J3	10-00-00	11 7/8" NI-20	1	25
J4	8-00-00	11 7/8" NI-20	1	6
J5	22-00-00	11 7/8" NI-40x	1	14
J6	20-00-00	11 7/8" NI-40x	1	18
J7	19-00-00	11 7/8" NI-40x	1	23
J8	18-00-00	11 7/8" NI-40x	1	2
J9	17-00-00	11 7/8" NI-40x	1	1
Ca1	147-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	31-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	109-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1	N/A	HU312 (INVERTED)
H2	3		HU312-2
H3	2		HUC410
H4	70		LT251188

SECOND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION C
W/ 5 BEDROOM

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

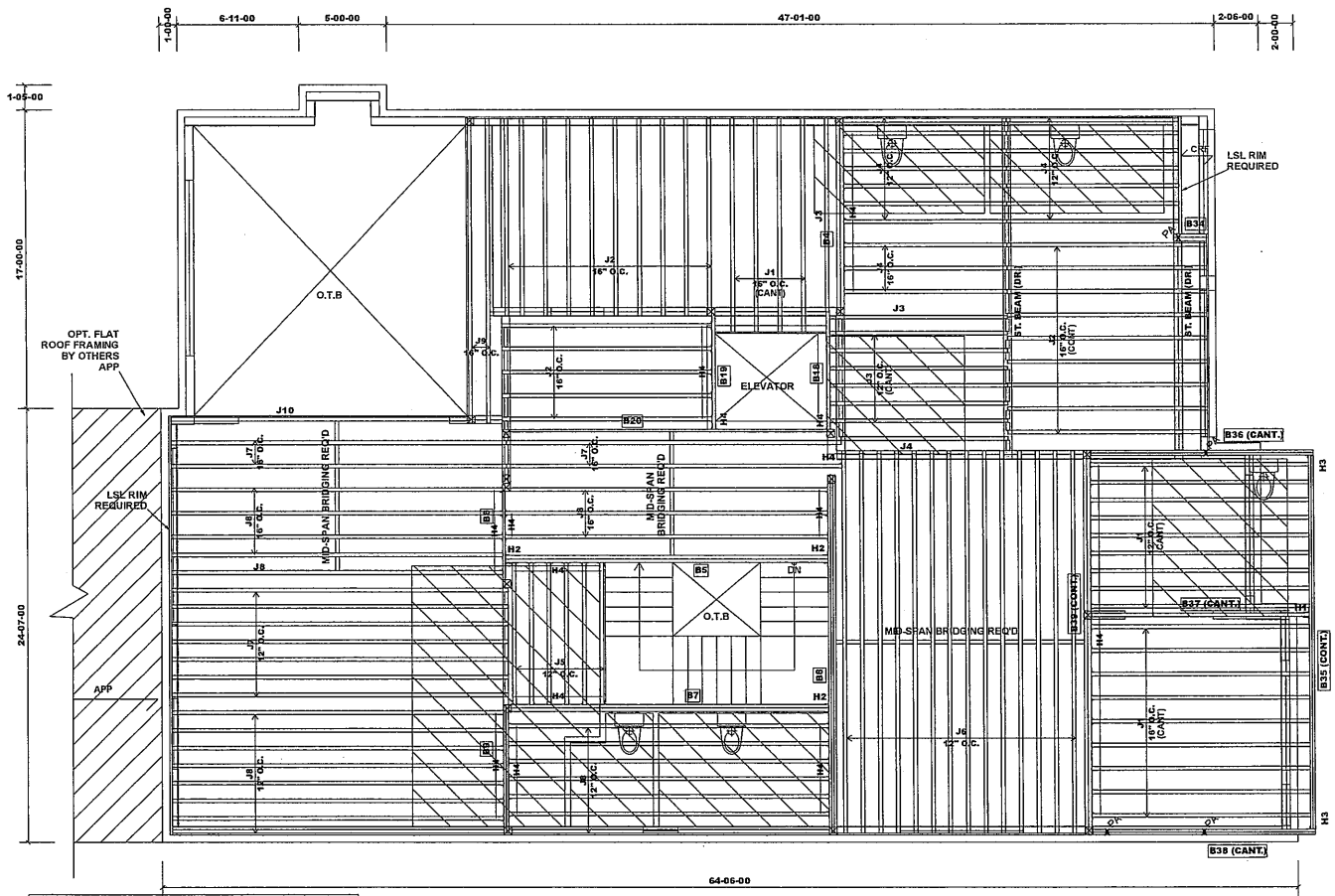
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

Designer: TL
Sheet: 23 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B4	12-00-00	11 7/8" NI-20	2	2
B5	19-00-00	11 7/8" NI-40x	2	2
B6	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B7	19-00-00	11 7/8" NI-40x	2	2
B8	21-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B18	7-00-00	11 7/8" NI-20	1	1
B19	7-00-00	11 7/8" NI-20	1	1
B20	19-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B34	2-00-00	11 7/8" NI-20	2	2
B35 (CONT.)	22-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B36 (CANT.)	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B37 (CANT.)	13-00-00	11 7/8" NI-20	1	1
B38 (CANT.)	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B39 (CONT.)	22-00-00	11 7/8" NI-20	2	2
J1	13-00-00	11 7/8" NI-20	1	22
J2	12-00-00	11 7/8" NI-20	1	24
J3	11-00-00	11 7/8" NI-20	1	8
J4	10-00-00	11 7/8" NI-20	1	18
J5	8-00-00	11 7/8" NI-20	1	6
J6	22-00-00	11 7/8" NI-40x	1	14
J7	20-00-00	11 7/8" NI-40x	1	11
J8	19-00-00	11 7/8" NI-40x	1	23
J9	18-00-00	11 7/8" NI-40x	1	2
J10	17-00-00	11 7/8" NI-40x	1	1
Ca1	152-10-04	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	31-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	111-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1	N/A	HU312 (INVERTED)
H2	3		HU312-2
H3	2		HUC410
H4	76		LT251188

SECOND FLOOR FRAMING
UNIT 5011 - THE TIMBERLAND
ELEVATION C
W/ 5 BEDROOM
W/ ELEVATOR

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
O.T.B - OPEN TO BELOW
GT - GIRDER TRUSS
RT - ROOF TRUSS

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

SUBFLOOR: 3/4" NAILED & GLUED*

Blocking panels are required over all interior supports.
Squash blocks are required under concentrated loads.

Ceramic Tile Application as per O.B.C. 9.30.6

Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/116409
LI: 343073*

Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 04, 2022

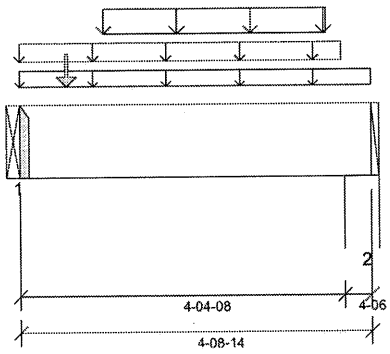
Designer: TL
Sheet: 24 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A (1,** Level: **Second Floor** Label: **B2 - i50187** Type: **Beam**	**1 Ply Member** **1 3/4" x 11 7/8" 1.55E TimberStrand® LSL**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/01/2022 16:43



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 0'- 9 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 615 psi Wall @ 4'- 5 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 4 3/4"	1.25D + 1.5L + S	0.96	1346 lb ft	12692 lb ft	Passed - 11%
Factored Shear:	0'- 11 7/8"	1.25D + 1.5L + S	0.96	957 lb	6895 lb	Passed - 14%
Total Load (TL) Pos. Defl.:	2'- 2 3/4"	D + L + 0.5S		0.010"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-08	1.25D + 1.5L + S	0.96	1147 lb		3291 lb	-	Passed - 35%
2	4-06	1.25D + 1.5L + S	0.96	1114 lb		9599 lb	4506 lb	Passed - 25%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	HU9		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	4'- 8 7/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	4'- 8 7/8"	User Load	Top	21 lb/ft	-	32 lb/ft	-
Uniform	0'	4'- 4"	E18(i41627)	Top	101 lb/ft	-	-	-
Uniform	1'- 1 5/8"	4'- 1 5/8"	Smoothed Load	Back	81 lb/ft	168 lb/ft	-	-
Point	0'- 7 5/8"	0'- 7 5/8"	J3(i50794)	Back	75 lb	155 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B3(i50688)	450 lb	332 lb	71 lb	-
2	4'- 4 1/2"	4'- 8 7/8"	E13(i41622)	447 lb	327 lb	81 lb	-

DESIGN NOTES

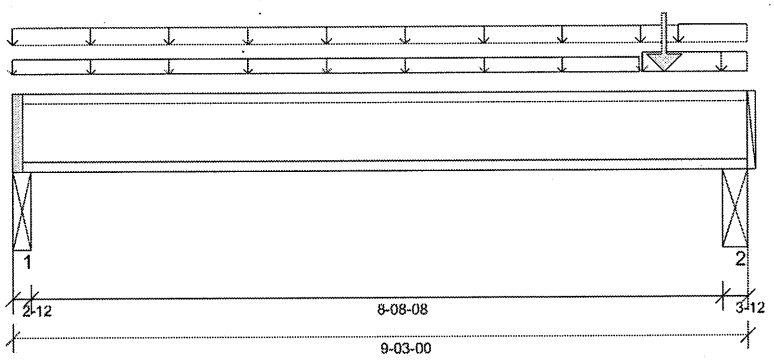
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

SG0046730

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A (1,** Level: **Second Floor** Label: **B3 - i50688** Type: **Beam**	**2 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 — Report Version: 2021.03.26 04/01/2022 16:44



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 8'- 1/4"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'- 1 3/4"
- 769 psi Beam @ 9'- 1/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	6'- 6 1/8"	1.25D + 1.5L + S	0.96	1640 lb ft	10701 lb ft	Passed - 15%
Factored Shear:	8'- 11 3/16"	1.25D + 1.5S + L	0.93	1932 lb	4150 lb	Passed - 47%
Live Load (LL) Pos. Defl.:	4'- 10 1/8"	L + 0.5S		0.021"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	4'- 10 7/8"	D + L + 0.5S		0.041"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	2-12	1.25D + 1.5L + S	0.96	528 lb		4008 lb	10139 lb	Passed - 13%
2	3-12	1.25D + 1.5S + L	0.93	2005 lb		4095 lb	13358 lb	Passed - 49%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	9'- 3"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	8'- 4 3/4"	FC2 Floor Decking (Plan View Fill)	Top	13 lb/ft	35 lb/ft	-	-
Uniform	0'	7'- 10 3/4"	FC2 Floor Decking (Plan View Fill)	Top	4 lb/ft	-	-	-
Uniform	7'- 11 1/4"	9'- 3"	E19(i41630)	Top	101 lb/ft	-	-	-
Uniform	8'- 4 3/4"	9'- 3"	E19(i41630)	Top	27 lb/ft	-	42 lb/ft	-
Point	8'- 2 9/16"	8'- 2 9/16"	-	Back	641 lb	332 lb	360 lb	-

UNFACTORED REACTIONS

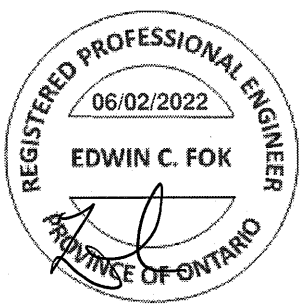
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/4"	ST. BEAM (DR.)(i41694)	167 lb	182 lb	41 lb	-
2	8'- 11 1/4"	9'- 3"	ST. BEAM (DR.)(i41693)	826 lb	442 lb	355 lb	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

PLY TO PLY CONNECTION

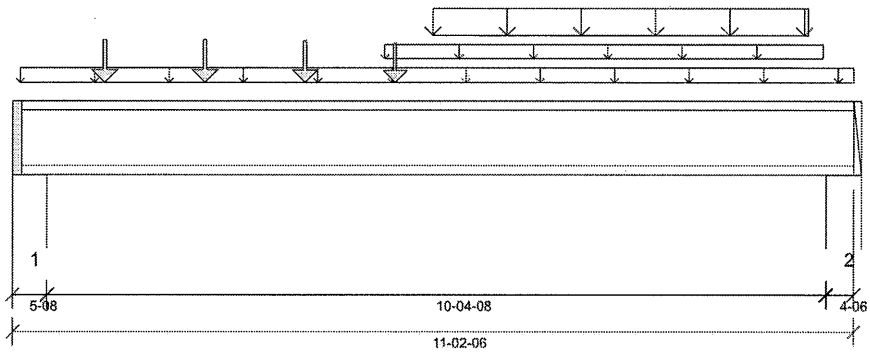
- Member design assumed proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.



343073

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A (1,** Level: **Second Floor** Label: **B4 - i50668** Type: **Beam**	**2 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/01/2022 16:44



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:
Top: 0' Bottom: 1'- 1 1/2"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 4 1/2"
- 615 psi Wall @ 10'- 11"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	6'- 1 1/8"	1.25D + 1.5L	1.00	6007 lb ft	11160 lb ft	Passed - 54%
Factored Shear:	10'- 9 15/16"	1.25D + 1.5L	1.00	2174 lb	4480 lb	Passed - 49%
Live Load (LL) Pos. Defl.:	5'- 7 3/4"	L		0.135"	L/360	Passed - L/920
Total Load (TL) Pos. Defl.:	5'- 7 15/16"	D + L		0.200"	L/240	Passed - L/623

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	5-08	1.25D + 1.5L	1.00	2156 lb		4480 lb	16918 lb	Passed - 48%
2	4-06	1.25D + 1.5L	1.00	2190 lb		4480 lb	13457 lb	Passed - 49%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	11'- 2 3/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'- 1 1/4"	11'- 2 3/8"	FC2 Floor Decking (Plan View Fill)	Top	6 lb/ft	15 lb/ft	-	-
Uniform	4'- 11 1/2"	10'- 9 1/2"	FC2 Floor Decking (Plan View Fill)	Top	2 lb/ft	-	-	-
Uniform	5'- 7 1/8"	10'- 7 1/8"	Smoothed Load	Front	95 lb/ft	191 lb/ft	-	-
Point	1'- 2 3/4"	1'- 2 3/4"	J2(i50710)	Front	95 lb	254 lb	-	-
Point	2'- 6 3/4"	2'- 6 3/4"	J2(i50711)	Front	95 lb	254 lb	-	-
Point	3'- 10 3/4"	3'- 10 3/4"	J2(i51034)	Front	91 lb	241 lb	-	-
Point	5'- 1 1/8"	5'- 1 1/8"	J2(i50789)	Front	93 lb	210 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	2(i41619)	469 lb	1051 lb	-	-
2	10'- 10"	11'- 2 3/8"	E13(i41622)	515 lb	1027 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

PLY TO PLY CONNECTION

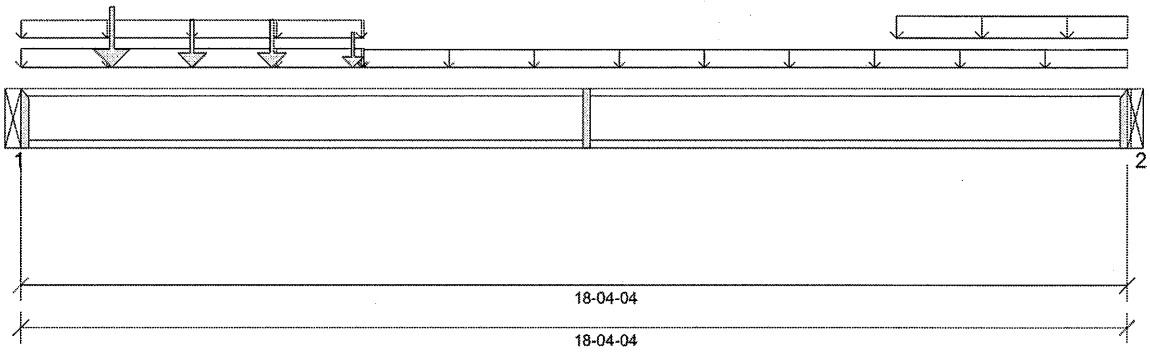
- Member design assumed proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

S3046732

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A (1** Level: **Second Floor** Label: **B5 - i51035** Type: **Beam**	**2 Ply Member** **11 7/8" NI-40x**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/01/2022 16:44



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 8'- 9 1/8"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 769 psi Beam @ 18'- 4 1/4"

REGISTERED PROFESSIONAL ENGINEER 06/02/2022 EDWIN C. FOK PROVINCE OF ONTARIO

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 5 7/8"	1.25D + 1.5L	1.00	7582 lb ft	12510 lb ft	Passed - 61%
Factored Shear:	0'- 1/16"	1.25D + 1.5L	1.00	2575 lb	4680 lb	Passed - 55%
Live Load (LL) Pos. Defl.:	8'- 8 15/16"	L		0.283"	L/360	Passed - L/779
Total Load (TL) Pos. Defl.:	8'- 8"	D + L		0.476"	L/240	Passed - L/462

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-12	1.25D + 1.5L	1.00	2579 lb		4020 lb	-	Passed - 64%
2	1-12	1.25D + 1.5L	1.00	1549 lb		4020 lb	-	Passed - 39%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	HU312-2		-	-	-	Connector manually specified by the user.
2	HU312-2		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	18'- 4 1/4"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	5'- 8 1/4"	User Load	Top	60 lb/ft	-	-	-
Uniform	0'	5'- 8 1/4"	FC2 Floor Decking (Plan View Fill)	Top	10 lb/ft	25 lb/ft	-	-
Uniform	5'- 8 1/4"	18'- 4 1/4"	FC2 Floor Decking (Plan View Fill)	Top	11 lb/ft	29 lb/ft	-	-
Uniform	14'- 6 1/4"	18'- 4 1/4"	User Load	Top	32 lb/ft	84 lb/ft	-	-
Point	1'- 5 7/8"	1'- 5 7/8"	J4(i50736)	Front	155 lb	317 lb	-	-
Point	2'- 9 7/8"	2'- 9 7/8"	J4(i50735)	Front	110 lb	224 lb	-	-
Point	4'- 1 7/8"	4'- 1 7/8"	J4(i50734)	Front	110 lb	224 lb	-	-
Point	5'- 6 1/16"	5'- 6 1/16"	-	Front	59 lb	146 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B6(i50191)	814 lb	1040 lb	-	-
2	18'- 4 1/4"	18'- 4 1/4"	B8(i50995)	389 lb	710 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

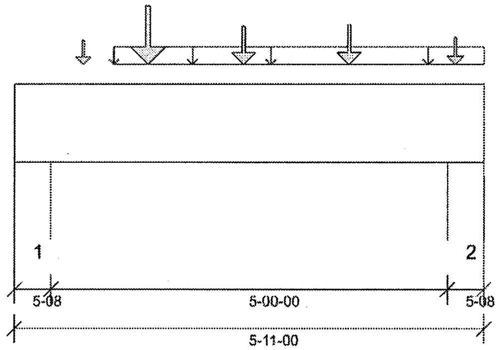
PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

SE046733

MiTek	Customer: Gold Park Homes Job Address: Pine Valley Ph2 City: Vaughan Job Track: 45147	Job Name: 343073 Ground A + Second A (1, Level: Second Floor Label: B6 - i50191 Type: Beam	**1 Ply Member** **1 3/4" x 11 7/8" 1.55E TimberStrand® LSL**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/01/2022 16:44



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 1 1/2"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 4 1/2"
- 615 psi Wall @ 5'- 6 1/2"

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 10 5/8"	1.25D + 1.5L	1.00	6326 lb ft	13266 lb ft	Passed - 48%
Factored Shear:	1'- 5 3/8"	1.25D + 1.5L	1.00	4757 lb	7207 lb	Passed - 66%
Live Load (LL) Pos. Defl.:	2'- 10 7/8"	L		0.037"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	2'- 10 11/16"	D + L		0.057"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	5-08	1.25D + 1.5L	1.00	4798 lb		12613 lb	5921 lb	Passed - 81%
2	5-08	1.25D + 1.5L	1.00	4501 lb		12613 lb	5921 lb	Passed - 76%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	5'- 11"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	1'- 3"	5'- 11"	User Load	Top	60 lb/ft	-	-	-
Point	1'- 8 1/8"	1'- 8 1/8"	-	Front	958 lb	1419 lb	-	-
Point	2'- 10 5/8"	2'- 10 5/8"	-	Front	353 lb	940 lb	-	-
Point	4'- 2 5/8"	4'- 2 5/8"	-	Front	373 lb	993 lb	-	-
Point	0'- 10 3/8"	0'- 10 3/8"	J7(i50769)	Back	159 lb	375 lb	-	-
Point	5'- 6 5/8"	5'- 6 5/8"	J7(i50773)	Back	188 lb	502 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	11(i41681)	1232 lb	2094 lb	-	-
2	5'- 5 1/2"	5'- 11"	8(i41678)	1122 lb	2144 lb	-	-

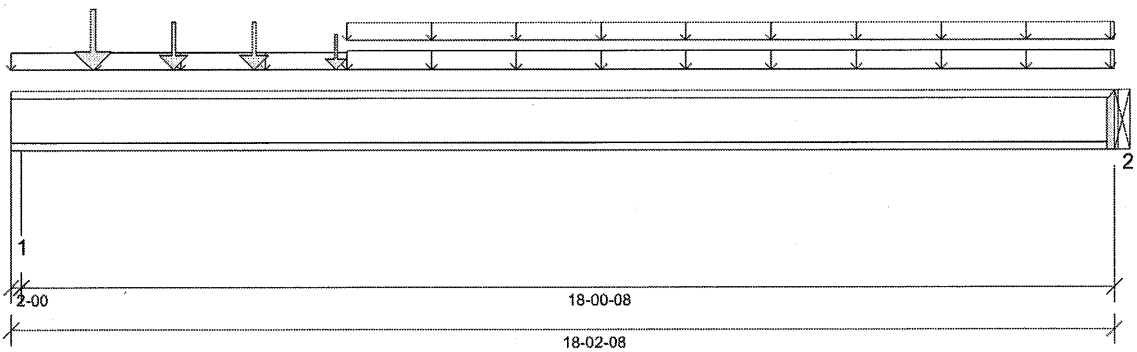
DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

SZ0406734

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A (1** Level: **Second Floor** Label: **B7 - i50294** Type: **Beam**	**2 Ply Member** **11 7/8" NI-40x**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 — Report Version: 2021.03.26 04/01/2022 16:45



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:
Top: 0' Bottom: 12'- 8"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 1"
- 769 psi Beam @ 18'- 2 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	7'- 3 5/8"	1.25D + 1.5L	0.98	7739 lb ft	12220 lb ft	Passed - 63%
Factored Shear:	0'- 2 1/16"	1.25D + 1.5L	0.98	2423 lb	4572 lb	Passed - 53%
Live Load (LL) Pos. Defl.:	8'- 5 5/8"	L		0.217"	L/360	Passed - L/998
Total Load (TL) Pos. Defl.:	8'- 9 13/16"	D + L		0.503"	L/240	Passed - L/430
Permanent Deflection:	9'- 13/16"			-	L/360	Passed - L/823

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	2-00	1.25D + 1.5L	0.98	2438 lb		3998 lb	6009 lb	Passed - 61%
2	1-12	1.4D	0.65	980 lb		4020 lb	-	Passed - 24%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
2	HU312-2		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	18'- 2 1/2"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	5'- 6 1/2"	FC2 Floor Decking (Plan View Fill)	Top	8 lb/ft	20 lb/ft	-	-
Uniform	5'- 6 1/2"	18'- 2 1/2"	User Load	Top	60 lb/ft	-	-	-
Uniform	5'- 6 1/2"	18'- 2 1/2"	FC2 Floor Decking (Plan View Fill)	Top	9 lb/ft	24 lb/ft	-	-
Point	1'- 4 1/8"	1'- 4 1/8"	J4(i50736)	Back	157 lb	317 lb	-	-
Point	2'- 8 1/8"	2'- 8 1/8"	J4(i50735)	Back	112 lb	224 lb	-	-
Point	4'- 1/8"	4'- 1/8"	J4(i50734)	Back	112 lb	224 lb	-	-
Point	5'- 4 5/16"	5'- 4 5/16"	-	Back	59 lb	146 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2"	9(i41679)	781 lb	968 lb	-	-
2	18'- 2 1/2"	18'- 2 1/2"	B8(i50995)	703 lb	366 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
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- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

SG046735

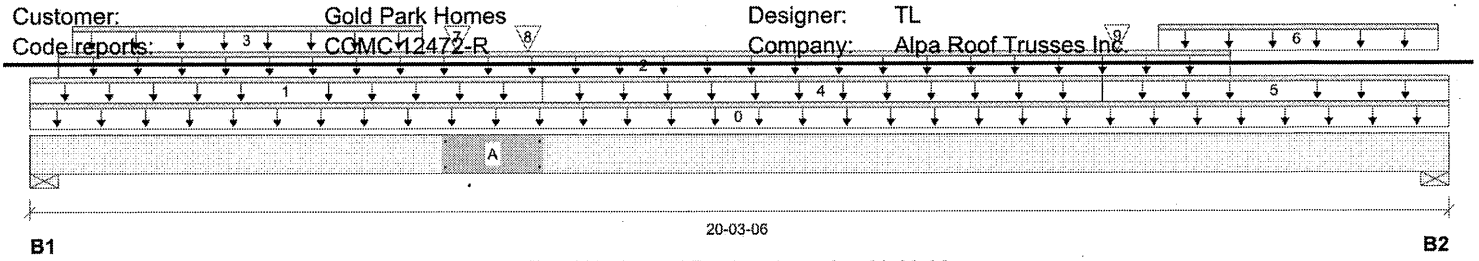
Triple 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

PASSED

Second Floor\Flush Beams\B8(i50995) (Flush Beam)

BC Design Engine Member Report — Dry | 1 span | No cant. — April 1, 2022 16:45:22
Build 8183

Job name:	45147-Model 5011	File name:	343073 Ground A + Second A (1,13).mmdl
Address:	Pine Valley Ph2	Description:	Second Floor\Flush Beams\B8(i50995)
City, Province, Postal Code:	Vaughan, ON	Specifier:	
Customer:	Gold Park Homes	Designer:	TL
Code reports:	CCMC 12472-R	Company:	Alpa Roof Trusses Inc.



Total Horizontal Product Length = 20-03-06

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4-3/8"	2583 / 0	2153 / 0		
B2, 5-1/2"	2617 / 0	1903 / 0		

Load Summary

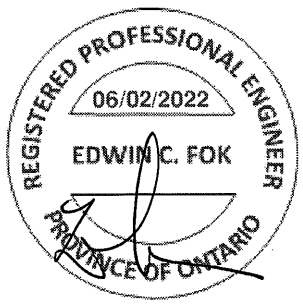
Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	20-03-06	Top		18			00-00-00
1	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	07-03-14	Top	14	5			n\a
2	WALL	Unf. Lin. (lb/ft)	L	00-04-14	17-01-14	Top		60			n\a
3	Smoothed Load	Unf. Lin. (lb/ft)	L	00-07-04	05-07-04	Back	373	146			n\a
4	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	07-03-14	15-03-14	Top	18	7			n\a
5	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	15-03-14	20-03-06	Top	14				n\a
6	Smoothed Load	Unf. Lin. (lb/ft)	L	16-01-08	20-01-08	Back	378	142			n\a
7	J7(i50782)	Conc. Pt. (lbs)	L	06-01-04	06-01-04	Back	405	158			n\a
8	B7(i50294)	Conc. Pt. (lbs)	L	07-01-06	07-01-06	Back	366	703			n\a
9	B5(i51035)	Conc. Pt. (lbs)	L	15-06-06	15-06-06	Back	710	389			n\a

Controls Summary

	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	26055 ft-lbs	55211 ft-lbs	47.2%	1	07-01-06
End Shear	6310 lbs	21696 lbs	29.1%	1	01-04-04
Total Load Deflection	L/260 (0.905")	n\a	92.5%	4	09-11-07
Live Load Deflection	L/517 (0.455")	n\a	69.7%	5	09-11-07
Max Defl.	0.905"	n\a	n\a	4	09-11-07
Span / Depth	19.8				

Bearing Supports

		Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	4-3/8" x 5-1/4"	6566 lbs	46.5%	23.4%	Spruce-Pine-Fir
B2	Wall/Plate	5-1/2" x 5-1/4"	6304 lbs	35.5%	17.9%	Spruce-Pine-Fir



Notes

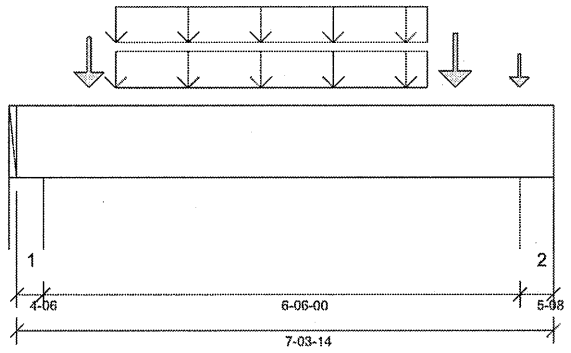
Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 9
Calculations assume unbraced length of Top: 00-00-00, Bottom: 04-04-11.

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 6 " O/C STAGGERED IN 2 ROWS

SB046786

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A (1,** Level: **Second Floor** Label: **B9 - i51052** Type: **Beam**	**2 Ply Member** **1 3/4" x 11 7/8" 1.55E TimberStrand® LSL**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/01/2022 16:45



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

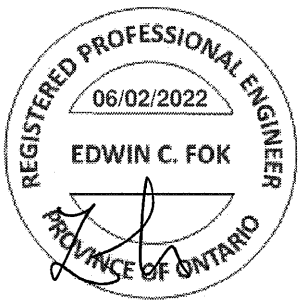
Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 0'- 6 1/2"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 3 3/8"
- 615 psi Wall @ 6'- 11 3/8"

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 8 " O/C STAGGERED IN 2 ROWS



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 10 1/4"	1.25D + 1.5L	1.00	8618 lb ft	26531 lb ft	Passed - 32%
Factored Shear:	5'- 10 1/2"	1.25D + 1.5L	1.00	5248 lb	14414 lb	Passed - 36%
Live Load (LL) Pos. Defl.:	3'- 7 3/8"	L		0.045"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	3'- 7 3/8"	D + L		0.066"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	4-06	1.25D + 1.5L	1.00	4783 lb		20065 lb	9420 lb	Passed - 51%
2	5-08	1.25D + 1.5L	1.00	5272 lb		25225 lb	11843 lb	Passed - 45%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	7'- 3 7/8"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	1'- 4 1/4"	5'- 7 1/4"	Smoothed Load	Back	155 lb/ft	356 lb/ft	-	-
Uniform	1'- 4 1/4"	5'- 7 1/4"	Smoothed Load	Front	157 lb/ft	348 lb/ft	-	-
Point	0'- 11 13/16"	0'- 11 13/16"	-	Front	309 lb	701 lb	-	-
Point	5'- 11 3/4"	5'- 11 3/4"	-	Front	340 lb	768 lb	-	-
Point	6'- 10 1/4"	6'- 10 1/4"	J7(i50761)	Back	165 lb	378 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 4 3/8"	E12(i41614)	1027 lb	2212 lb	-	-
2	6'- 10 3/8"	7'- 3 7/8"	9(i41679)	1210 lb	2627 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Lateral stability factor (KL) was based on user preference to use the width of one ply.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

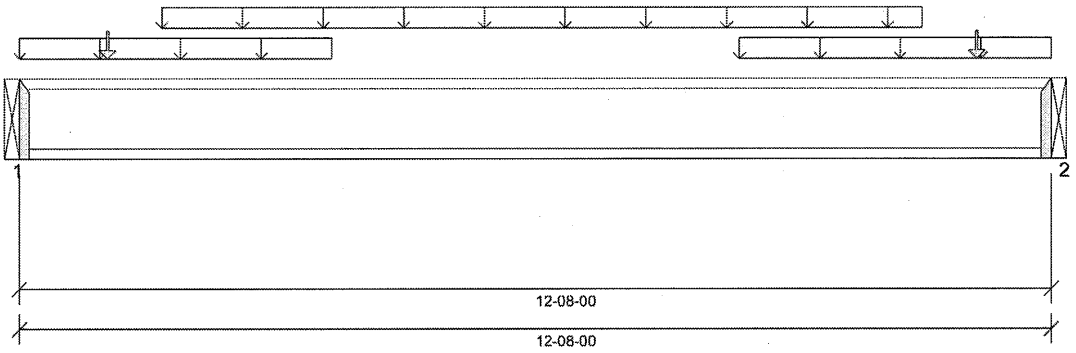
PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

SG046737

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A (1** Level: **Ground Floor** Label: **B10 - i50605** Type: **Beam**	**1 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 — Report Version: 2021.03.26 04/01/2022 16:46



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 1 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 769 psi Beam @ 12'- 8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	6'- 5"	1.25D + 1.5L	1.00	4556 lb ft	5580 lb ft	Passed - 82%
Factored Shear:	12'- 7 15/16"	1.25D + 1.5L	1.00	1628 lb	2240 lb	Passed - 73%
Live Load (LL) Pos. Defl.:	6'- 4"	L		0.303"	L/360	Passed - L/502
Total Load (TL) Pos. Defl.:	6'- 4"	D + L		0.424"	L/240	Passed - L/358

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-12	1.25D + 1.5L	1.00	1606 lb		1970 lb	-	Passed - 82%
2	1-12	1.25D + 1.5L	1.00	1629 lb		1970 lb	-	Passed - 83%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	LT251188		-	-	-	Connector manually specified by the user.
2	LF259		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	12'- 8"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	-0'	3'- 10"	User Load	Top	32 lb/ft	84 lb/ft	-	-
Uniform	1'- 9"	11'- 1"	Smoothed Load	Back	31 lb/ft	83 lb/ft	-	-
Uniform	8'- 10"	12'- 8"	User Load	Top	32 lb/ft	84 lb/ft	-	-
Point	1'- 1"	1'- 1"	J3(i51046)	Back	39 lb	103 lb	-	-
Point	11'- 9"	11'- 9"	J3(i50997)	Back	38 lb	102 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B11(i50611)	322 lb	806 lb	-	-
2	12'- 8"	12'- 8"	ST. BEAM REQ'D (FL.)()	324 lb	813 lb	-	-

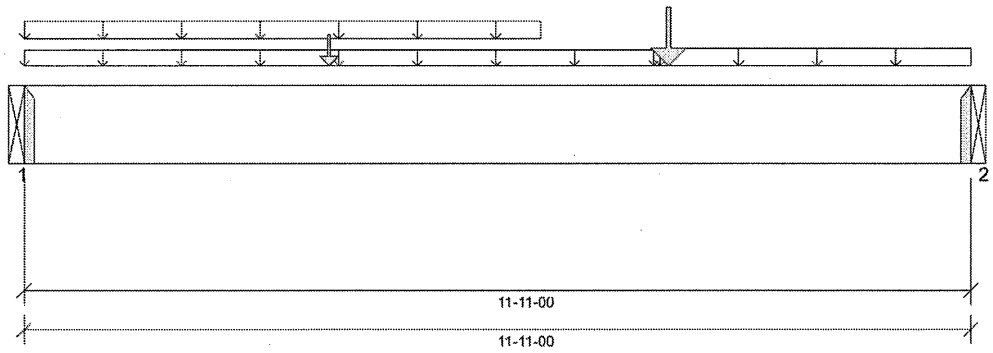
DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

SE046738

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A (1,** Level: **Ground Floor** Label: **B11 - i50611** Type: **Beam**	**1 Ply Member** **1 3/4" x 11 7/8" 1.55E TimberStrand® LSL**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 — Report Version: 2021.03.26 04/01/2022 16:46



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:
Top: 0' Bottom: 8'

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 769 psi Beam @ 11'- 11"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	8'- 1 1/4"	1.25D + 1.5L	1.00	6329 lb ft	13266 lb ft	Passed - 48%
Factored Shear:	10'- 11 1/8"	1.25D + 1.5L	1.00	1739 lb	7207 lb	Passed - 24%
Live Load (LL) Pos. Defl.:	6'- 2 7/16"	L		0.182"	L/360	Passed - L/785
Total Load (TL) Pos. Defl.:	6'- 1 1/4"	D + L		0.304"	L/240	Passed - L/470

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-08	1.25D + 1.5L	1.00	1573 lb		3440 lb	-	Passed - 46%
2	1-08	1.25D + 1.5L	1.00	1847 lb		3440 lb	-	Passed - 54%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	HUS1.81/10		-	-	-	Connector manually specified by the user.
2	HUS1.81/10		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	11'- 11"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	8'	FC1 Floor Decking (Plan View Fill)	Top	7 lb/ft	18 lb/ft	-	-
Uniform	0'	6'- 6"	User Load	Top	60 lb/ft	-	-	-
Uniform	8'	11'- 11"	FC1 Floor Decking (Plan View Fill)	Top	15 lb/ft	40 lb/ft	-	-
Point	8'- 1 1/4"	8'- 1 1/4"	B10(i50605)	Front	322 lb	806 lb	-	-
Point	3'- 10"	3'- 10"	User Load	Top	116 lb	308 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B12(i50218)	556 lb	595 lb	-	-
2	11'- 11"	11'- 11"	B13(i50963)	471 lb	829 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
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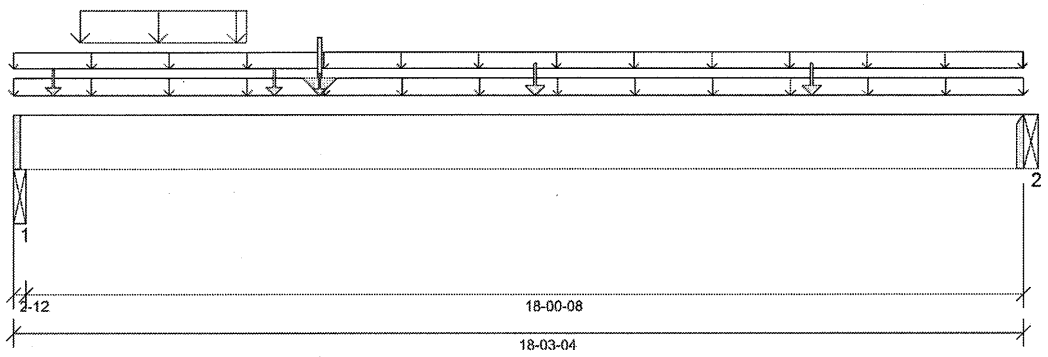
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

S6046739

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A (1,** Level: **Ground Floor** Label: **B12 - i50218** Type: **Beam**	**3 Ply Member** **1 3/4" x 11 7/8" 1.55E TimberStrand® LSL**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 — Report Version: 2021.03.26 04/01/2022 16:46



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

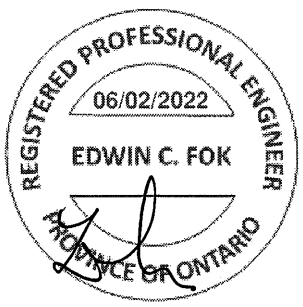
Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:
Top: 0' Bottom: 12'- 8"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'- 1 3/4"
- 769 psi Beam @ 18'- 3 1/4"

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 6 " O/C STAGGERED IN 2 ROWS



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	6'- 4 7/8"	1.25D + 1.5L	1.00	19531 lb ft	39797 lb ft	Passed - 49%
Factored Shear:	1'- 2 5/8"	1.25D + 1.5L	1.00	4694 lb	21621 lb	Passed - 22%
Live Load (LL) Pos. Defl.:	8'- 9 5/16"	L		0.375"	L/360	Passed - L/576
Total Load (TL) Pos. Defl.:	8'- 10"	D + L		0.754"	L/240	Passed - L/287
Permanent Deflection:	8'- 10 3/4"			-	L/360	Passed - L/589

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	2-12	1.25D + 1.5L	1.00	5320 lb		18919 lb	11102 lb	Passed - 48%
2	1-08	1.25D + 1.5L	1.00	3202 lb		10319 lb	-	Passed - 31%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
2	HGUS5.50/10		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	18'- 3 1/4"	Self Weight	Top	19 lb/ft	-	-	-
Uniform	0'	18'- 3 1/4"	User Load	Top	60 lb/ft	-	-	-
Uniform	-0'	5'- 7 1/4"	FC1 Floor Decking (Plan View Fill)	Top	9 lb/ft	24 lb/ft	-	-
Uniform	1'- 2 1/2"	4'- 2 1/2"	Smoothed Load	Back	115 lb/ft	247 lb/ft	-	-
Uniform	5'- 7 1/4"	18'- 3 1/4"	FC1 Floor Decking (Plan View Fill)	Top	11 lb/ft	29 lb/ft	-	-
Point	0'- 8 1/2"	0'- 8 1/2"	J1(i51011)	Back	97 lb	209 lb	-	-
Point	4'- 8 1/2"	4'- 8 1/2"	J1(i50682)	Back	106 lb	229 lb	-	-
Point	5'- 6 3/8"	5'- 6 3/8"	B11(i50611)	Back	556 lb	595 lb	-	-
Point	5'- 6 3/8"	5'- 6 3/8"	User Load	Top	56 lb	148 lb	-	-
Point	9'- 5 1/4"	9'- 5 1/4"	User Load	Top	127 lb	339 lb	-	-
Point	14'- 5 1/4"	14'- 5 1/4"	User Load	Top	127 lb	339 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/4"	ST. BEAM (DR.)(i41668)	1828 lb	2019 lb	-	-
2	18'- 3 1/4"	18'- 3 1/4"	ST. BEAM REQ'D (FL.)()	1259 lb	1091 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Lateral stability factor (KL) was based on user preference to use the width of one ply.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
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- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

SEQ46740

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

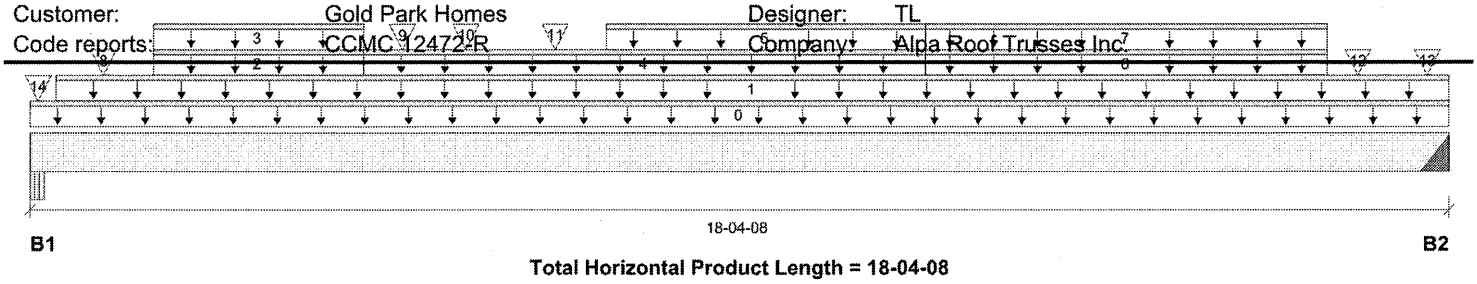
PASSED

Ground Floor\Flush Beams\B13(i50963) (Flush Beam)

BC Design Engine Member Report — Dry | 1 span | No cant. — April 1, 2022 16:47:15

Build 8183

Job name:	45147-Model 5011	File name:	343073 Ground A + Second A (1,13).mmdl
Address:	Pine Valley Ph2	Description:	Ground Floor\Flush Beams\B13(i50963)
City, Province, Postal Code:	Vaughan, ON	Specifier:	
Customer:	Gold Park Homes	Designer:	TL
Code reports:	CCMC 12472-R	Company:	Alpa Roof Trusses Inc.



Total Horizontal Product Length = 18-04-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4"	6078 / 0	3695 / 0		
B2, 2"	3013 / 0	2060 / 0		

Load Summary

Tag	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	18-04-08	Top		24			00-00-00
1	WALL	Unf. Lin. (lb/ft)	L	00-04-00	18-04-08	Top		60			n\a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	01-07-02	04-03-12	Front	276	112			n\a
3	Smoothed Load	Unf. Lin. (lb/ft)	L	01-07-02	04-03-12	Back	228	109			n\a
4	-	Unf. Lin. (lb/ft)	L	04-03-12	11-07-02	Back	199	95			n\a
5	Smoothed Load	Unf. Lin. (lb/ft)	L	07-05-08	11-07-02	Front	83	31			n\a
6	Smoothed Load	Unf. Lin. (lb/ft)	L	11-07-02	16-09-08	Back	199	81			n\a
7	Smoothed Load	Unf. Lin. (lb/ft)	L	11-07-02	16-09-08	Front	88	33			n\a
8	-	Conc. Pt. (lbs)	L	00-11-06	00-11-06	Front	404	178			n\a
9	J1(i50682)	Conc. Pt. (lbs)	L	04-09-12	04-09-12	Front	232	94			n\a
10	B11(i50611)	Conc. Pt. (lbs)	L	05-07-10	05-07-10	Front	829	471			n\a
11	J3(i51046)	Conc. Pt. (lbs)	L	06-09-08	06-09-08	Front	107				n\a
12	-	Conc. Pt. (lbs)	L	17-02-05	17-02-05	Front	314	84			n\a
13	J2(i50410)	Conc. Pt. (lbs)	L	18-01-02	18-01-02	Back	206	84			n\a
14	8(i41678)	Conc. Pt. (lbs)	L	00-01-04	00-01-04	Top	2312	1216			n\a

(TOP LOADED)

Controls Summary

	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	35400 ft-lbs	73615 ft-lbs	48.1%	1	08-01-02
End Shear	8304 lbs	28927 lbs	28.7%	1	01-03-14
Total Load Deflection	L/285 (0.758")	n\a	84.2%	4	09-01-02
Live Load Deflection	L/479 (0.451")	n\a	75.2%	5	09-01-02
Max Defl.	0.758"	n\a	n\a	4	09-01-02
Span / Depth	18.2				

Bearing Supports

		Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Beam	4" x 7"	13736 lbs	79.7%	40.2%	Unspecified
B2	Hanger	2" x 7"	7094 lbs	n\a	41.5%	HGUS7.25/10

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

Cautions

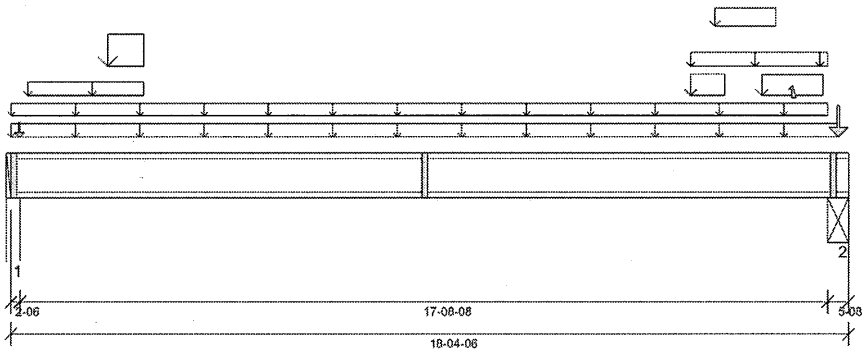
Hanger model HGUS7.25/10 and seat length were input by the user.
adequate capacity.

CONNECT 4 PLY MEMBERS WITH SIMPSONC SDW22624 WOOD SCREWS @ 24" O.C., STAGGERED IN 2 ROWS

SEO-240741

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A (1,** Level: **Ground Floor** Label: **B14 - i51051** Type: **Beam**	**2 Ply Member** **11 7/8" NI-40x**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/01/2022 16:47



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 8'- 11 7/8"

Factored Resistance of Support Material:

- 1305 psi Wall @ 0'- 1 3/8"
- 769 psi Beam @ 17'- 11 7/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	9'- 4 1/4"	1.25D + 1.5L	1.00	6489 lb ft	12510 lb ft	Passed - 52%
Factored Shear:	17'- 10 13/16"	1.25D + 1.5L	1.00	2724 lb	4680 lb	Passed - 58%
Live Load (LL) Pos. Defl.:	9'- 1 3/8"	L		0.265"	L/360	Passed - L/803
Total Load (TL) Pos. Defl.:	9'- 1 5/16"	D + L		0.420"	L/240	Passed - L/506

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	2-06	1.25D + 1.5L	1.00	2066 lb		4203 lb	15500 lb	Passed - 49%
2	5-08	1.25D + 1.5L	1.00	3120 lb		4680 lb	21151 lb	Passed - 67%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	18'- 4 3/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	18'- 1 5/8"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	42 lb/ft	-	-
Uniform	0'	17'- 10 7/8"	FC1 Floor Decking (Plan View Fill)	Top	2 lb/ft	-	-	-
Uniform	0'- 4 3/8"	2'- 10 7/8"	13(i42108)	Top	68 lb/ft	-	-	-
Uniform	2'- 1 3/8"	2'- 10 7/8"	13(i42108)	Top	244 lb/ft	577 lb/ft	-	-
Uniform	14'- 10 7/8"	17'- 10 7/8"	14(i42109)	Top	68 lb/ft	-	-	-
Uniform	14'- 10 7/8"	15'- 7 7/8"	14(i42109)	Top	104 lb/ft	280 lb/ft	-	-
Uniform	15'- 5 1/4"	16'- 9 1/4"	14(i42109)	Top	69 lb/ft	183 lb/ft	-	-
Uniform	16'- 5 5/8"	17'- 9 5/8"	14(i42109)	Top	99 lb/ft	264 lb/ft	-	-
Point	0'- 2 3/16"	0'- 2 3/16"	E2(i41607)	Top	41 lb	-	-	-
Point	17'- 1 5/8"	17'- 1 5/8"	14(i42109)	Top	-	-1 lb	-	-
Point	18'- 1 5/8"	18'- 1 5/8"	8(i41678)	Top	93 lb	171 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/8"	-	624 lb	859 lb	-	-
++>	0'- 1/2"	0'- 1/2"	W3(i41588)	272 lb	374 lb	-	-
++>	0'- 11/16"	0'- 11/16"	W2(i41593)	352 lb	485 lb	-	-
2	17'- 10 7/8"	18'- 4 3/8"	ST. BEAM (DR.)(i41669)	821 lb	1394/-1 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

PLY TO PLY CONNECTION

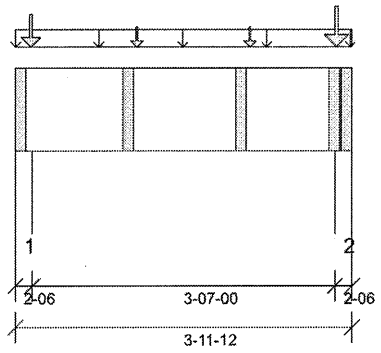
- Member design assumed proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

SE0467472

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A (1,** Level: **Ground Floor** Label: **B15 - i50139** Type: **Beam**	**2 Ply Member** **1 3/4" x 11 7/8" 1.55E TimberStrand® LSL**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/01/2022 16:47



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

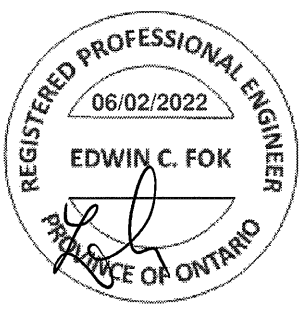
Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 1 1/2"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 1 3/8"
- 615 psi Wall @ 3'- 10 3/8"

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @6 " O/C STAGGERED IN 2 ROWS



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	1'- 11"	1.25D + 1.5L	0.76	236 lb ft	20271 lb ft	Passed - 1%
Factored Shear:	2'- 9 1/2"	1.25D + 1.5L	0.76	135 lb	11013 lb	Passed - 1%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	2-06	1.25D + 1.5L	0.76	449 lb		8322 lb	3907 lb	Passed - 11%
2	2-06	1.25D + 1.5L	0.76	561 lb		8325 lb	3908 lb	Passed - 14%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	3'- 11 3/4"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	3'- 11 3/4"	FC1 Floor Decking (Plan View Fill)	Top	10 lb/ft	28 lb/ft	-	-
Point	1'- 5 1/4"	1'- 5 1/4"	Bk1(i50585)	Back	15 lb	41 lb	-	-
Point	2'- 9 1/4"	2'- 9 1/4"	Bk1(i50664)	Back	14 lb	37 lb	-	-
Point	0'- 2 3/16"	0'- 2 3/16"	E4(i41612)	Top	182 lb	-	-	-
Point	3'- 9 9/16"	3'- 9 9/16"	E8(i41611)	Top	269 lb	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/8"	-	249 lb	95 lb	-	-
++>	0'- 7/16"	0'- 7/16"	W4(i41585)	84 lb	32 lb	-	-
++>	0'- 3/4"	0'- 3/4"	W5(i41583)	165 lb	63 lb	-	-
2	3'- 9 3/8"	3'- 11 3/4"	-	326 lb	98 lb	-	-
++>	3'- 10 15/16"	3'- 10 15/16"	W7(i41586)	215 lb	65 lb	-	-
++>	3'- 11 3/8"	3'- 11 3/8"	W8(i41595)	111 lb	33 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Lateral stability factor (KL) was based on user preference to use the width of one ply.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

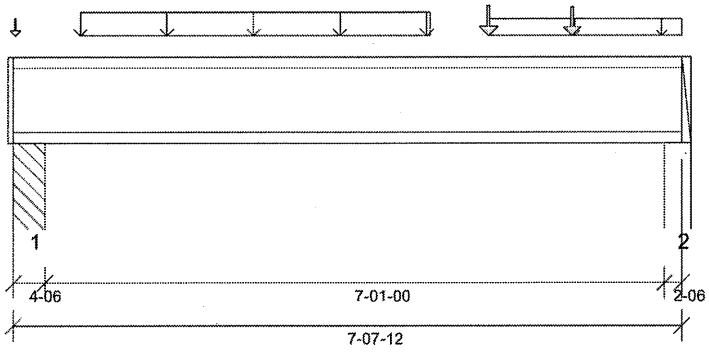
PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

S2006743

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A W Sunken M...** Level: **Ground Floor** Label: **B16 - i52558** Type: **Beam**	**1 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/04/2022 09:35



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 1 1/2"

Factored Resistance of Support Material:

- 1334 psi Column @ 0'- 3 3/8"
- 615 psi Wall @ 7'- 6 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	4'- 1 1/4"	1.25D + 1.5L	1.00	1292 lb ft	5580 lb ft	Passed - 23%
Factored Shear:	0'- 4 7/16"	1.25D + 1.5L	1.00	614 lb	2240 lb	Passed - 27%
Live Load (LL) Pos. Defl.:	3'- 10 15/16"	L		0.034"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	3'- 10 15/16"	D + L		0.047"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	4-06	1.25D + 1.5L	1.00	633 lb		2240 lb	14595 lb	Passed - 28%
2	2-06	1.25D + 1.5L	1.00	617 lb		2045 lb	3653 lb	Passed - 30%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	7'- 7 3/4"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'- 9 1/4"	4'- 9 1/4"	Smoothed Load	Front	37 lb/ft	98 lb/ft	-	-
Tapered	5'- 5 1/4"	7'- 7 3/4"	FC1 Floor Decking (Plan View Fill)	Top	4 To 2 lb/ft	11 To 6 lb/ft	-	-
Point	5'- 5 1/4"	5'- 5 1/4"	J2(i52495)	Front	40 lb	107 lb	-	-
Point	6'- 4 3/4"	6'- 4 3/4"	J2(i52472)	Front	36 lb	95 lb	-	-
Point	0'- 1/4"	0'- 1/4"	FC1 Floor Decking (Plan View Fill)	Top	4 lb	9 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 4 3/8"	Pt1(i52557)	130 lb	314 lb	-	-
2	7'- 5 3/8"	7'- 7 3/4"	W39(i52072)	126 lb	307 lb	-	-

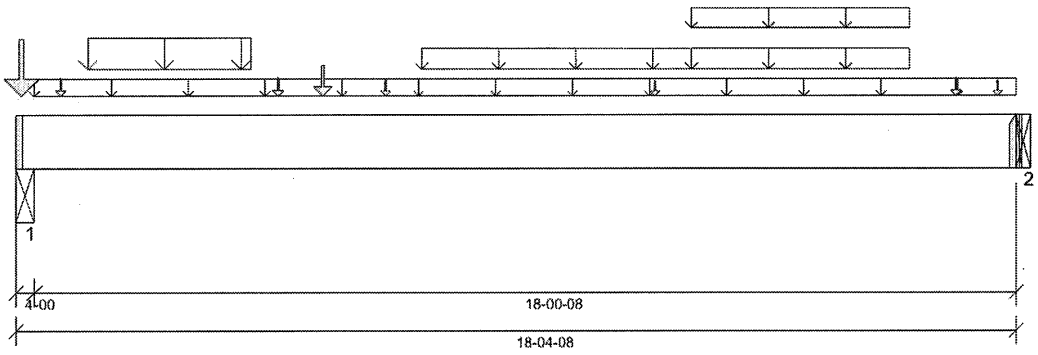
DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

SG0467490

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A W Sunken M...** Level: **Ground Floor** Label: **B17 - i52556** Type: **Beam**	**3 Ply Member** **1 3/4" x 11 7/8" 1.55E TimberStrand® LSL**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 — Report Version: 2021.03.26 04/04/2022 09:35



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

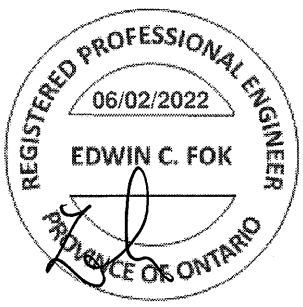
Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:
Top: 0' Bottom: 1'- 1 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'- 3"
- 769 psi Beam @ 18'- 4 1/2"

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 6" O/C STAGGERED IN 2 ROWS



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	8'- 1 1/2"	1.25D + 1.5L	1.00	20329 lb ft	39797 lb ft	Passed - 51%
Factored Neg. Moment:	0'- 3"	1.25D + 1.5L	1.00	726 lb ft	38704 lb ft	Passed - 2%
Factored Shear:	1'- 3 7/8"	1.25D + 1.5L	1.00	4805 lb	21621 lb	Passed - 22%
Live Load (LL) Pos. Defl.:	9'- 13/16"	L		0.434"	L/360	Passed - L/498
Total Load (TL) Pos. Defl.:	9'- 1 3/16"	D + L		0.798"	L/240	Passed - L/271
Permanent Deflection:	9'- 1 11/16"			-	L/360	Passed - L/613

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	4-00	1.25D + 1.5L	1.00	10328 lb		27519 lb	16149 lb	Passed - 64%
2	1-08	1.25D + 1.5L	1.00	4191 lb		10319 lb	-	Passed - 41%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
2	HGUS5.50/10		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	18'- 4 1/2"	Self Weight	Top	19 lb/ft	-	-	-
Uniform	0'- 4"	18'- 4 1/2"	User Load	Top	60 lb/ft	-	-	-
Uniform	1'- 3 3/4"	4'- 3 3/4"	Smoothed Load	Front	104 lb/ft	259 lb/ft	-	-
Uniform	12'- 4 7/8"	16'- 4 7/8"	Smoothed Load	Back	37 lb/ft	98 lb/ft	-	-
Uniform	12'- 4 7/8"	16'- 4 7/8"	Smoothed Load	Front	32 lb/ft	86 lb/ft	-	-
Tapered	7'- 5 1/2"	12'- 4 7/8"	Smoothed Load	Front	39 To 35 lb/ft	104 To 93 lb/ft	-	-
Point	0'- 9 3/4"	0'- 9 3/4"	J1(i52548)	Front	88 lb	218 lb	-	-
Point	4'- 9 3/4"	4'- 9 3/4"	J1(i52540)	Front	97 lb	240 lb	-	-
Point	5'- 7 5/8"	5'- 7 5/8"	B11(i52545)	Front	476 lb	842 lb	-	-
Point	6'- 9 1/2"	6'- 9 1/2"	J3(i52507)	Front	44 lb	118 lb	-	-
Point	17'- 3 1/8"	17'- 3 1/8"	-	Front	82 lb	217 lb	-	-
Point	11'- 8 7/8"	11'- 8 7/8"	J2(i52559)	Back	-	71 lb	-	-
Point	18'- 3/8"	18'- 3/8"	J2(i52472)	Back	-	86 lb	-	-
Point	0'- 1 1/4"	0'- 1 1/4"	8(i41678)	Top	1212 lb	2304 lb	-	-

(TOP LOAD30)

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 4"	ST. BEAM (DR.)(i41669)	2898 lb	4489 lb	-	-
2	18'- 4 1/2"	18'- 4 1/2"	ST. BEAM REQ'D (FL.)()	1379 lb	1627 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Lateral stability factor (KL) was based on user preference to use the width of one ply.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.

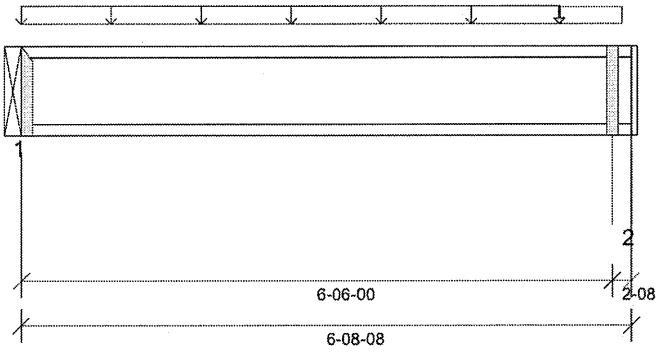
SEQ46745

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A...** Level: **Second Floor** Label: **B18 - i52915** Type: **Beam**	**1 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15

Report Version: 2021.03.26 04/05/2022 10:02



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 5'- 11"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 615 psi Wall @ 6'- 7"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 3 13/16"	1.25D + 1.5L	1.00	196 lb ft	5580 lb ft	Passed - 4%
Factored Shear:	0'- 1/16"	1.25D + 1.5L	1.00	118 lb	2240 lb	Passed - 5%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-12	1.25D + 1.5L	1.00	118 lb		1970 lb	-	Passed - 6%
2	2-08	1.25D + 1.5L	1.00	118 lb		2060 lb	3845 lb	Passed - 6%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	LT251188		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	6'- 8 1/2"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	-0'	5'- 11"	FC2 Floor Decking (Plan View Fill)	Top	6 lb/ft	16 lb/ft	-	-
Uniform	5'- 11"	6'- 7 1/4"	FC2 Floor Decking (Plan View Fill)	Top	2 lb/ft	4 lb/ft	-	-
Point	5'- 11"	5'- 11"	FC2 Floor Decking (Plan View Fill)	Top	3 lb	9 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B20(i52942)	30 lb	54 lb	-	-
2	6'- 6"	6'- 8 1/2"	31(i52654)	30 lb	54 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
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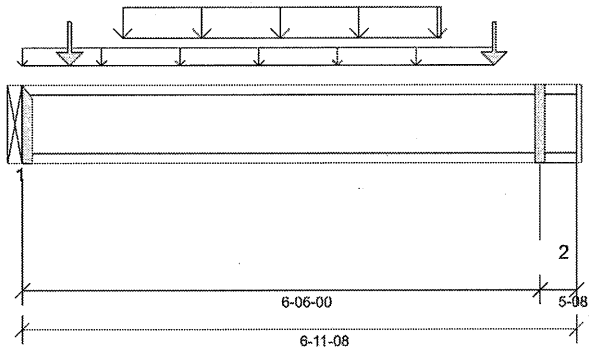
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

S20467446

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A...** Level: **Second Floor** Label: **B19 - i52844** Type: **Beam**	**1 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/05/2022 10:03



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 1 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 615 psi Wall @ 6'- 7"

Reinforcement Accessories Required

- Critical Reaction Web Stiffener @ 0'

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 3 1/8"	1.25D + 1.5L	1.00	3020 lb ft	5580 lb ft	Passed - 54%
Factored Shear:	0'- 1/16"	1.25D + 1.5L	1.00	1707 lb	2240 lb	Passed - 76%
Live Load (LL) Pos. Defl.:	3'- 3 1/2"	L		0.060"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	3'- 3 1/2"	D + L		0.098"	L/240	Passed - L/795

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-12	1.25D + 1.5L	1.00	1707 lb		1970 lb	-	Passed - 87%
2	5-08	1.25D + 1.5L	1.00	1659 lb		2240 lb	8459 lb	Passed - 74%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	LT251188		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	6'- 11 1/2"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	5'- 11"	24(i52019)	Top	61 lb/ft	-	-	-
Uniform	1'- 3 1/8"	5'- 3 1/8"	Smoothed Load	Back	90 lb/ft	242 lb/ft	-	-
Point	0'- 7 1/8"	0'- 7 1/8"	J1(i52862)	Back	91 lb	243 lb	-	-
Point	5'- 11 1/8"	5'- 11 1/8"	J1(i51903)	Back	88 lb	234 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B20(i52942)	482 lb	736 lb	-	-
2	6'- 6"	6'- 11 1/2"	2(i41619)	447 lb	734 lb	-	-

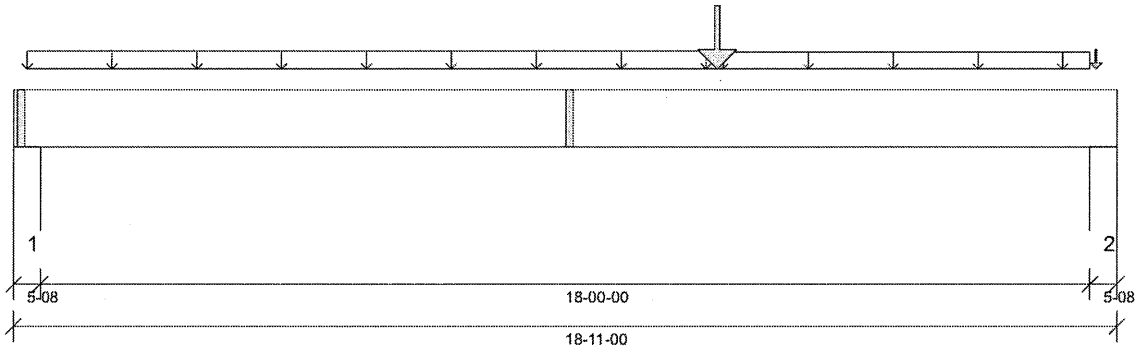
DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

S6046747

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A...** Level: **Second Floor** Label: **B20 - i52942** Type: **Beam**	**1 Ply Member** **1 3/4" x 11 7/8" 1.55E TimberStrand® LSL**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/05/2022 10:03



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

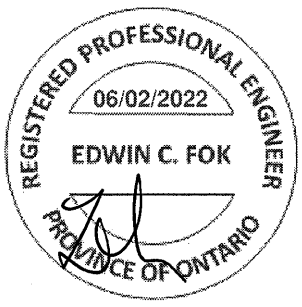
Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 9'- 7/8"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 4 1/2"
- 615 psi Wall @ 18'- 6 1/2"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	12'- 3/4"	1.25D + 1.5L	1.00	9099 lb ft	13266 lb ft	Passed - 69%
Factored Shear:	17'- 5 5/8"	1.25D + 1.5L	1.00	1486 lb	7207 lb	Passed - 21%
Live Load (LL) Pos. Defl.:	9'- 11 1/4"	L		0.542"	L/360	Passed - L/398
Total Load (TL) Pos. Defl.:	9'- 11 5/16"	D + L		0.897"	L/240	Passed - L/240
Permanent Deflection:	9'- 11 7/16"			-	L/360	Passed - L/628

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	5-08	1.25D + 1.5L	1.00	1144 lb		12613 lb	5921 lb	Passed - 19%
2	5-08	1.25D + 1.5L	1.00	1662 lb		12613 lb	5921 lb	Passed - 28%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	18'- 11"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'- 2 3/4"	12'- 2"	FC2 Floor Decking (Plan View Fill)	Top	10 lb/ft	27 lb/ft	-	-
Uniform	12'- 2"	18'- 5 1/2"	FC2 Floor Decking (Plan View Fill)	Top	6 lb/ft	15 lb/ft	-	-
Point	12'- 3/4"	12'- 3/4"	B19(i52844)	Back	482 lb	736 lb	-	-
Point	18'- 6 3/4"	18'- 6 3/4"	B18(i52915)	Back	30 lb	54 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	8(i41678)	317 lb	490 lb	-	-
2	18'- 5 1/2"	18'- 11"	27(i52155)	475 lb	720 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

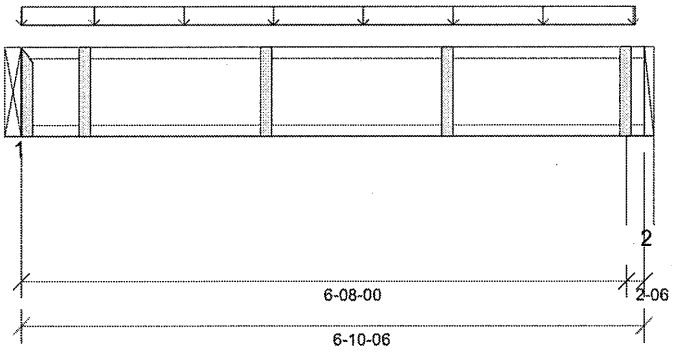
SEQ46748

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A...** Level: **Ground Floor** Label: **B21 - i53530** Type: **Beam**	**1 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15

Report Version: 2021.03.26 04/05/2022 10:03



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 9 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 615 psi Wall @ 6'- 9"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 4 7/16"	1.25D + 1.5L	1.00	255 lb ft	5580 lb ft	Passed - 5%
Factored Shear:	0'- 1/16"	1.25D + 1.5L	1.00	154 lb	2240 lb	Passed - 7%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-12	1.25D + 1.5L	1.00	154 lb		1970 lb	-	Passed - 8%
2	2-06	1.25D + 1.5L	1.00	152 lb		2045 lb	3653 lb	Passed - 7%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	LT251188		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

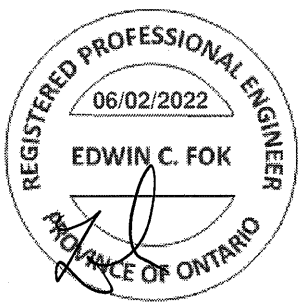
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	6'- 10 3/8"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	-0'	0'- 9 5/8"	FC1 Floor Decking (Plan View Fill)	Top	9 lb/ft	23 lb/ft	-	-
Uniform	0'- 9 5/8"	6'- 9 1/8"	FC1 Floor Decking (Plan View Fill)	Top	8 lb/ft	21 lb/ft	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B23(i53681)	37 lb	72 lb	-	-
2	6'- 8"	6'- 10 3/8"	W39(i52454)	36 lb	71 lb	-	-

DESIGN NOTES

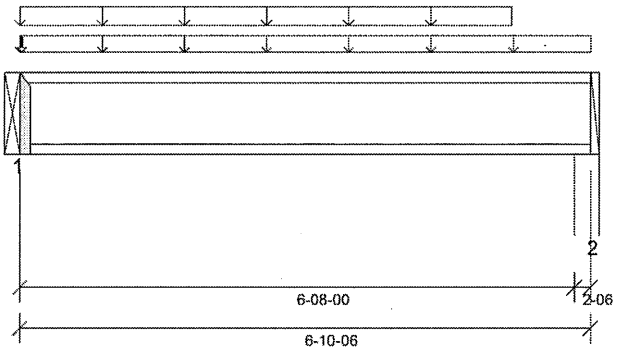
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.



S20466709

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A...** Level: **Ground Floor** Label: **B22 - i53703** Type: **Beam**	**1 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/05/2022 10:03



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 6'- 8"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 615 psi Wall @ 6'- 9"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 4 1/16"	1.25D + 1.5L	0.73	707 lb ft	4046 lb ft	Passed - 17%
Factored Shear:	0'- 1/16"	1.25D + 1.5L	0.73	428 lb	1624 lb	Passed - 26%
Total Load (TL) Pos. Defl.:	3'- 4 3/8"	D + L		0.026"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-12	1.25D + 1.5L	0.73	429 lb		1970 lb	-	Passed - 22%
2	2-06	1.25D + 1.5L	0.73	369 lb		1483 lb	2649 lb	Passed - 25%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	LT251188		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	6'- 10 3/8"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	6'- 10 3/8"	FC1 Floor Decking (Plan View Fill)	Top	7 lb/ft	19 lb/ft	-	-
Uniform	0'	5'- 11"	20(i52013)	Top	68 lb/ft	-	-	-
Point	0'- 1/4"	0'- 1/4"	FC1 Floor Decking (Plan View Fill)	Top	-	3 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B23(i53681)	263 lb	67 lb	-	-
2	6'- 8"	6'- 10 3/8"	W18(i41598)	214 lb	68 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

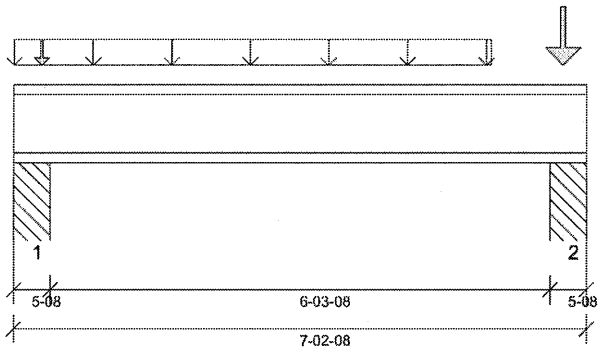
SEO246750

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A...** Level: **Ground Floor** Label: **B23 - i53681** Type: **Beam**	**2 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15

Report Version: 2021.03.26 04/05/2022 10:04



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 0'- 9 1/2"

Factored Resistance of Support Material:

- 1334 psi Column @ 0'- 4 1/2"
- 1334 psi Column @ 6'- 10"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 6 1/8"	1.25D + 1.5L	1.00	1583 lb ft	11160 lb ft	Passed - 14%
Factored Neg. Moment:	6'- 10"	1.25D + 1.5L	1.00	253 lb ft	11160 lb ft	Passed - 2%
Factored Shear:	0'- 5 9/16"	1.25D + 1.5L	1.00	1119 lb	4480 lb	Passed - 25%
Live Load (LL) Pos. Defl.:	3'- 6 3/4"	L		0.016"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	3'- 6 3/4"	D + L		0.025"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	5-08	1.25D + 1.5L	1.00	1558 lb		4480 lb	36688 lb	Passed - 35%
2	5-08	1.25D + 1.5L	1.00	2961 lb		4480 lb	36696 lb	Passed - 66%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	7'- 2 1/2"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'- 1/8"	6'- 1/8"	Smoothed Load	Front	73 lb/ft	150 lb/ft	-	-
Point	0'- 4 1/4"	0'- 4 1/4"	B22(i53703)	Back	263 lb	67 lb	-	-
Point	6'- 10 15/16"	6'- 10 15/16"	-	Top	602 lb	918 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	Pt1(i53710)	548 lb	612 lb	-	-
2	6'- 9"	7'- 2 1/2"	Pt1(i53679)	798 lb	1280 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
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- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

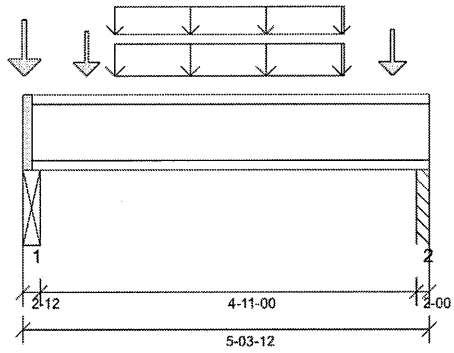
S3048751

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A...** Level: **Ground Floor** Label: **B24 - i53835** Type: **Beam**	**2 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15

Report Version: 2021.03.26 04/05/2022 10:05



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 0'- 6 1/8"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'- 1 3/4"
- 1334 psi Column @ 5'- 2 3/4"

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 8 1/2"	1.25D + 1.5L	1.00	3057 lb ft	11160 lb ft	Passed - 27%
Factored Neg. Moment:	0'- 1 3/4"	1.25D + 1.5L	1.00	150 lb ft	11160 lb ft	Passed - 1%
Factored Shear:	5'- 1 11/16"	1.25D + 1.5L	1.00	2455 lb	4480 lb	Passed - 55%
Live Load (LL) Pos. Defl.:	2'- 8 7/16"	L		0.024"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	2'- 8 7/16"	D + L		0.036"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	2-12	1.25D + 1.5L	1.00	3437 lb		4180 lb	10574 lb	Passed - 82%
2	2-00	1.25D + 1.5L	1.00	2456 lb		4000 lb	13349 lb	Passed - 61%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	5'- 3 3/4"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	1'- 2 1/2"	4'- 2 1/2"	Smoothed Load	Front	124 lb/ft	260 lb/ft	-	-
Uniform	1'- 2 1/2"	4'- 2 1/2"	Smoothed Load	Back	96 lb/ft	194 lb/ft	-	-
Point	0'- 10 1/16"	0'- 10 1/16"	-	Front	198 lb	410 lb	-	-
Point	4'- 10 1/16"	4'- 10 1/16"	-	Front	208 lb	429 lb	-	-
Point	0'- 1/4"	0'- 1/4"	8(i41678)	Top	250 lb	591 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/4"	ST. BEAM (DR.)(i41669)	753 lb	1600 lb	-	-
2	5'- 1 3/4"	5'- 3 3/4"	Pt1(i53830)	599 lb	1203 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

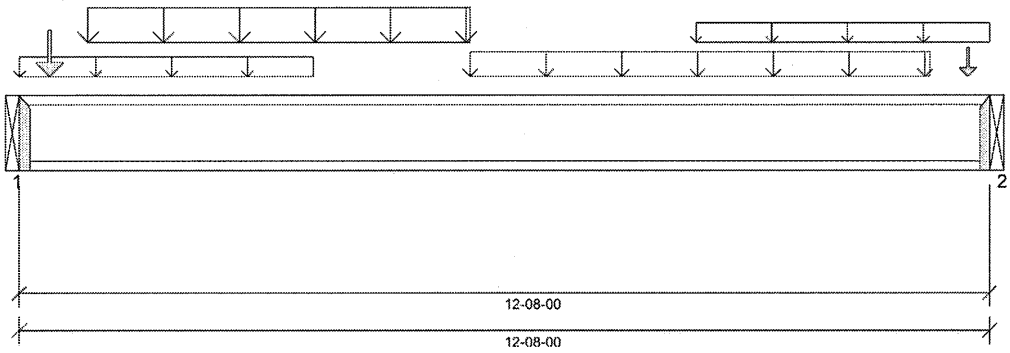
PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

SE04672

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A...** Level: **Ground Floor** Label: **B25 - i53766** Type: **Beam**	**2 Ply Member** **11 7/8" NI-40x**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/05/2022 10:05



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 0'- 9 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 769 psi Beam @ 12'- 8"

Reinforcement Accessories Required

- Critical Reaction Web Stiffener @ 0'

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 4 5/8"	1.25D + 1.5L	1.00	10648 lb ft	12510 lb ft	Passed - 85%
Factored Shear:	0'- 1/16"	1.25D + 1.5L	1.00	4067 lb	4680 lb	Passed - 87%
Live Load (LL) Pos. Defl.:	6'- 2 3/16"	L		0.233"	L/360	Passed - L/652
Total Load (TL) Pos. Defl.:	6'- 2 3/16"	D + L		0.350"	L/240	Passed - L/434

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-12	1.25D + 1.5L	1.00	4068 lb		4680 lb	-	Passed - 87%
2	1-12	1.25D + 1.5L	1.00	3114 lb		4020 lb	-	Passed - 77%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	HU312-2		-	-	-	Connector manually specified by the user.
2	HU310-2		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	12'- 8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	-0'	3'- 10"	User Load	Top	32 lb/ft	84 lb/ft	-	-
Uniform	0'- 10 5/8"	5'- 10 5/8"	Smoothed Load	Back	146 lb/ft	294 lb/ft	-	-
Uniform	5'- 10 5/8"	11'- 10 5/8"	Smoothed Load	Back	75 lb/ft	151 lb/ft	-	-
Uniform	8'- 10"	12'- 8"	User Load	Top	32 lb/ft	84 lb/ft	-	-
Point	0'- 4 5/8"	0'- 4 5/8"	J1(i53768)	Back	127 lb	256 lb	-	-
Point	12'- 4 5/8"	12'- 4 5/8"	J4(i53700)	Back	56 lb	115 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B26(i53857)	950 lb	1917 lb	-	-
2	12'- 8"	12'- 8"	ST. BEAM REQ'D (FL.)()	729 lb	1472 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.
- This member exceeded the 8" limit for no web stiffener support, only web stiffener support design was considered for this member

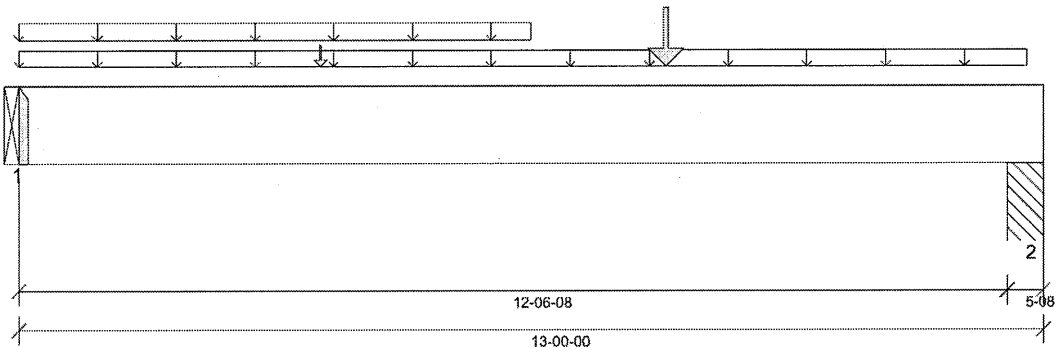
PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

S3046753

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A...** Level: **Ground Floor** Label: **B26 - i53857** Type: **Beam**	**2 Ply Member** **1 3/4" x 11 7/8" 1.55E TimberStrand® LSL**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 — Report Version: 2021.03.26 04/05/2022 10:05



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 8'

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 1334 psi Column @ 12'- 7 1/2"

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 12" O/C STAGGERED IN 2 ROWS

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	8'- 2 1/2"	1.25D + 1.5L	1.00	14108 lb ft	26531 lb ft	Passed - 53%
Factored Shear:	11'- 6 5/8"	1.25D + 1.5L	1.00	3275 lb	14414 lb	Passed - 23%
Live Load (LL) Pos. Defl.:	6'- 8 1/16"	L		0.207"	L/360	Passed - L/728
Total Load (TL) Pos. Defl.:	6'- 7 5/16"	D + L		0.340"	L/240	Passed - L/443

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-08	1.25D + 1.5L	1.00	2552 lb		6880 lb	-	Passed - 37%
2	5-08	1.25D + 1.5L	1.00	3366 lb		25225 lb	25688 lb	Passed - 13%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	HGUS410		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	13'	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	8'	FC1 Floor Decking (Plan View Fill)	Top	7 lb/ft	18 lb/ft	-	-
Uniform	-0'	6'- 6"	User Load	Top	60 lb/ft	-	-	-
Uniform	8'	12'- 9 1/2"	FC1 Floor Decking (Plan View Fill)	Top	10 lb/ft	26 lb/ft	-	-
Point	8'- 2 1/2"	8'- 2 1/2"	B25(i53766)	Front	950 lb	1917 lb	-	-
Point	3'- 10"	3'- 10"	User Load	Top	116 lb	308 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B27(i53844)	852 lb	1037 lb	-	-
2	12'- 6 1/2"	13'	Pt1(i53830)	893 lb	1454 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Lateral stability factor (KL) was based on user preference to use the width of one ply.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

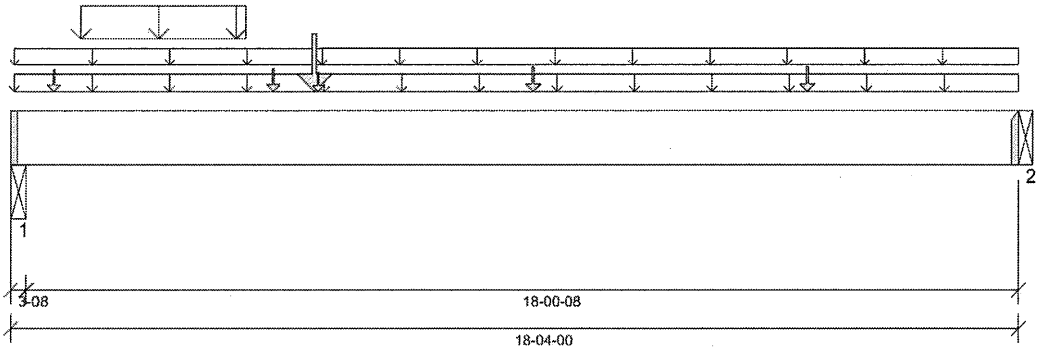
PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

SEQ#467847

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A...** Level: **Ground Floor** Label: **B27 - i53844** Type: **Beam**	**3 Ply Member** **1 3/4" x 11 7/8" 1.55E TimberStrand® LSL**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 — Report Version: 2021.03.26 04/05/2022 10:06



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

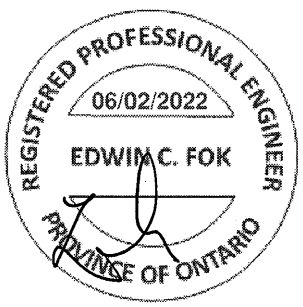
Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 12'- 8"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'- 2 1/2"
- 769 psi Beam @ 18'- 4"

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 6 " O/C STAGGERED IN 2 ROWS



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 7 1/8"	1.25D + 1.5L	1.00	23515 lb ft	39797 lb ft	Passed - 59%
Factored Shear:	1'- 3 3/8"	1.25D + 1.5L	1.00	5532 lb	21621 lb	Passed - 26%
Live Load (LL) Pos. Defl.:	8'- 9"	L		0.447"	L/360	Passed - L/484
Total Load (TL) Pos. Defl.:	8'- 9 3/4"	D + L		0.873"	L/240	Passed - L/247
Permanent Deflection:	8'- 10 9/16"			-	L/360	Passed - L/523

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	3-08	1.25D + 1.5L	1.00	6193 lb		24079 lb	14130 lb	Passed - 44%
2	1-08	1.25D + 1.5L	1.00	3520 lb		10319 lb	-	Passed - 34%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
2	HGUS5.50/10		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	18'- 4"	Self Weight	Top	19 lb/ft	-	-	-
Uniform	0'- 3/4"	18'- 4"	User Load	Top	60 lb/ft	-	-	-
Uniform	0'- 3/4"	5'- 8"	FC1 Floor Decking (Plan View Fill)	Top	9 lb/ft	24 lb/ft	-	-
Uniform	1'- 3 1/4"	4'- 3 1/4"	Smoothed Load	Back	125 lb/ft	260 lb/ft	-	-
Uniform	5'- 8"	18'- 4"	FC1 Floor Decking (Plan View Fill)	Top	11 lb/ft	29 lb/ft	-	-
Point	0'- 9 1/4"	0'- 9 1/4"	J2(i53846)	Back	104 lb	217 lb	-	-
Point	4'- 9 1/4"	4'- 9 1/4"	J2(i53855)	Back	114 lb	240 lb	-	-
Point	5'- 6 1/4"	5'- 6 1/4"	B26(i53857)	Back	852 lb	1037 lb	-	-
Point	5'- 7 1/8"	5'- 7 1/8"	User Load	Top	56 lb	148 lb	-	-
Point	9'- 6"	9'- 6"	User Load	Top	127 lb	339 lb	-	-
Point	14'- 6"	14'- 6"	User Load	Top	127 lb	339 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 3 1/2"	ST. BEAM (DR.)(i41668)	2077 lb	2383 lb	-	-
2	18'- 4"	18'- 4"	ST. BEAM REQ'D (FL.)()	1354 lb	1233 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Lateral stability factor (KL) was based on user preference to use the width of one ply.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

S6046755

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A W Elevator W...** Level: **Ground Floor** Label: **B28 - i54872** Type: **Beam**	**1 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

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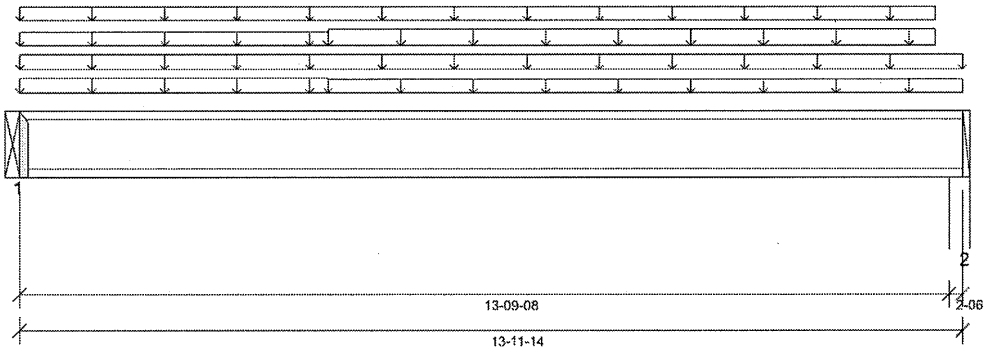


DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 13'- 9 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 615 psi Wall @ 13'- 10 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	7'- 2"	1.25D + 1.5L	0.86	2869 lb ft	4816 lb ft	Passed - 60%
Factored Shear:	13'- 9 7/16"	1.4D	0.65	641 lb	1456 lb	Passed - 44%
Live Load (LL) Pos. Defl.:	6'- 9 3/4"	L		0.100"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	7'- 1/8"	D + L		0.327"	L/240	Passed - L/505
Permanent Deflection:	7'- 1 3/16"			-	L/360	Passed - L/812

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-12	1.25D + 1.5L	0.86	771 lb		1970 lb	-	Passed - 39%
2	2-06	1.4D	0.65	646 lb		1329 lb	2375 lb	Passed - 49%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	LT251188		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	13'- 11 7/8"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	13'- 11 7/8"	FC1 Floor Decking (Plan View Fill)	Top	7 lb/ft	19 lb/ft	-	-
Uniform	0'	13'- 7"	FC1 Floor Decking (Plan View Fill)	Top	2 lb/ft	-	-	-
Uniform	0'	4'- 7"	FC1 Floor Decking (Plan View Fill)	Top	8 lb/ft	21 lb/ft	-	-
Uniform	0'	4'- 7"	FC1 Floor Decking (Plan View Fill)	Top	3 lb/ft	-	-	-
Uniform	4'- 7"	13'- 11 7/8"	FC1 Floor Decking (Plan View Fill)	Top	2 lb/ft	4 lb/ft	-	-
Uniform	4'- 7"	13'- 7"	User Load	Top	60 lb/ft	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B29(i54870)	321 lb	242 lb	-	-
2	13'- 9 1/2"	13'- 11 7/8"	W43(i54814)	467 lb	178 lb	-	-

DESIGN NOTES

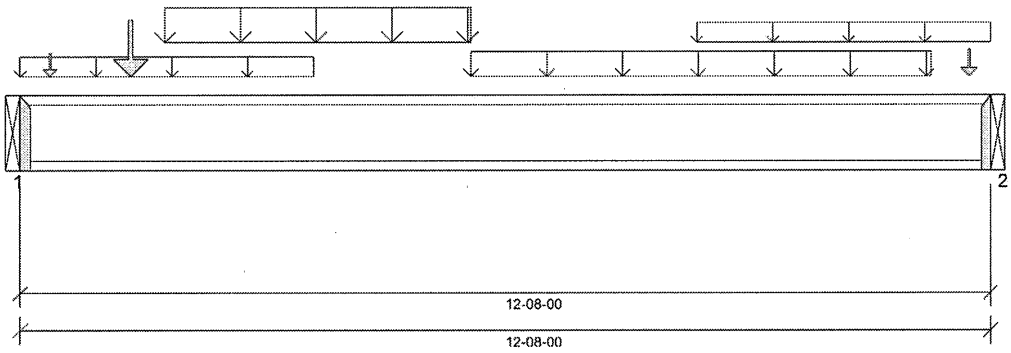
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

S20467586

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A W Elevator W...** Level: **Ground Floor** Label: **B29 - i54870** Type: **Beam**	**2 Ply Member** **11 7/8" NI-40x**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 — Report Version: 2021.03.26 04/05/2022 11:38



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

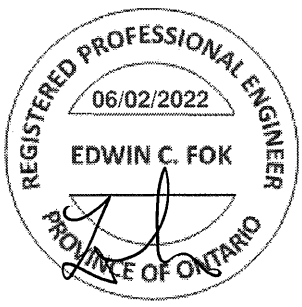
Top: 0' Bottom: 0'- 10 1/8"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 769 psi Beam @ 12'- 8"

Reinforcement Accessories Required

- Critical Reaction Web Stiffener @ 0'



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 4 5/8"	1.25D + 1.5L	1.00	10679 lb ft	12510 lb ft	Passed - 85%
Factored Shear:	0'- 1/16"	1.25D + 1.5L	1.00	3819 lb	4680 lb	Passed - 82%
Live Load (LL) Pos. Defl.:	6'- 2 5/16"	L		0.229"	L/360	Passed - L/664
Total Load (TL) Pos. Defl.:	6'- 2 1/8"	D + L		0.352"	L/240	Passed - L/431

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-12	1.25D + 1.5L	1.00	3820 lb		4680 lb	-	Passed - 82%
2	1-12	1.25D + 1.5L	1.00	3118 lb		4020 lb	-	Passed - 78%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	HU312-2		-	-	-	Connector manually specified by the user.
2	HU310-2		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	12'- 8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	-0'	3'- 10"	User Load	Top	32 lb/ft	84 lb/ft	-	-
Uniform	1'- 10 5/8"	5'- 10 5/8"	Smoothed Load	Back	145 lb/ft	292 lb/ft	-	-
Uniform	5'- 10 5/8"	11'- 10 5/8"	Smoothed Load	Back	75 lb/ft	151 lb/ft	-	-
Uniform	8'- 10"	12'- 8"	User Load	Top	32 lb/ft	84 lb/ft	-	-
Point	0'- 4 5/8"	0'- 4 5/8"	J4(i55029)	Back	41 lb	82 lb	-	-
Point	1'- 5 1/4"	1'- 5 1/4"	B28(i54872)	Back	321 lb	242 lb	-	-
Point	12'- 4 5/8"	12'- 4 5/8"	J3(i55082)	Back	56 lb	115 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B30(i54871)	1019 lb	1694 lb	-	-
2	12'- 8"	12'- 8"	ST. BEAM REQ'D (FL.)()	746 lb	1461 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

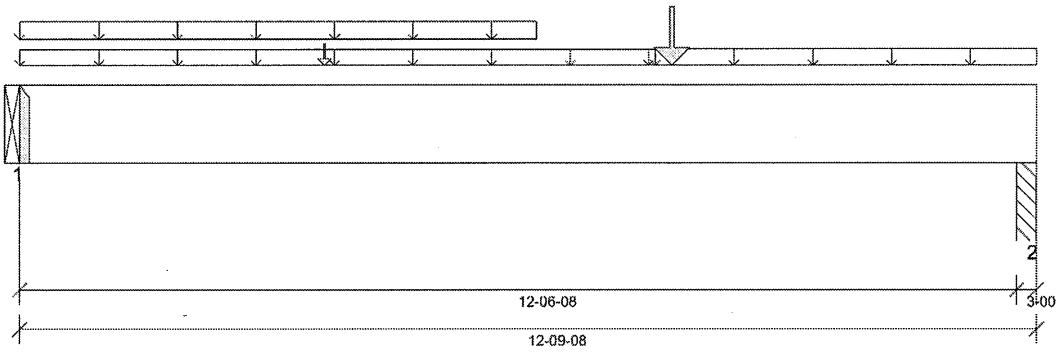
PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

S6046757

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A W Elevator W...** Level: **Ground Floor** Label: **B30 - i54871** Type: **Beam**	**2 Ply Member** **1 3/4" x 11 7/8" 1.55E TimberStrand® LSL**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 — Report Version: 2021.03.26 04/05/2022 11:38



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 8'

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 1334 psi Column @ 12'- 7 1/2"

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 12" O/C STAGGERED IN 2 ROWS

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	8'- 2 1/2"	1.25D + 1.5L	1.00	13394 lb ft	26531 lb ft	Passed - 50%
Factored Shear:	11'- 6 5/8"	1.25D + 1.5L	1.00	3114 lb	14414 lb	Passed - 22%
Live Load (LL) Pos. Defl.:	6'- 7 7/8"	L		0.187"	L/360	Passed - L/803
Total Load (TL) Pos. Defl.:	6'- 7 3/16"	D + L		0.326"	L/240	Passed - L/461

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-08	1.25D + 1.5L	1.00	2465 lb		6880 lb	-	Passed - 36%
2	3-00	1.25D + 1.5L	1.00	3213 lb		13759 lb	14011 lb	Passed - 23%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	HGUS410		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	12'- 9 1/2"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	8'	FC1 Floor Decking (Plan View Fill)	Top	7 lb/ft	18 lb/ft	-	-
Uniform	-0'	6'- 6"	User Load	Top	60 lb/ft	-	-	-
Uniform	8'	12'- 9 1/2"	FC1 Floor Decking (Plan View Fill)	Top	10 lb/ft	26 lb/ft	-	-
Point	8'- 2 1/2"	8'- 2 1/2"	B29(i54870)	Front	1019 lb	1694 lb	-	-
Point	3'- 10"	3'- 10"	User Load	Top	116 lb	308 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B27(i54873)	877 lb	955 lb	-	-
2	12'- 6 1/2"	12'- 9 1/2"	Pt1(i54868)	937 lb	1319 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Lateral stability factor (KL) was based on user preference to use the width of one ply.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

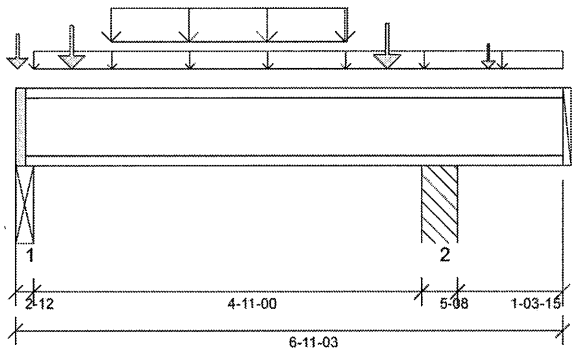
EG0246758

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A W Elevator W...** Level: **Ground Floor** Label: **B31 (CANT.) - i54869** Type: **Beam**	**1 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15

Report Version: 2021.03.26 04/05/2022 11:39



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 0'- 10 1/16"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'- 1 3/4"
- 1334 psi Column @ 5'- 4 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 8 1/2"	1.25D + 1.5L	1.00	2105 lb ft	5580 lb ft	Passed - 38%
Factored Neg. Moment:	5'- 4 1/2"	1.25D + 1.5L	0.65	195 lb ft	3627 lb ft	Passed - 5%
Factored Shear:	0'- 2 13/16"	1.25D + 1.5L	1.00	1523 lb	2240 lb	Passed - 68%
Live Load (LL) Pos. Defl.:	2'- 9 3/16"	L		0.031"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	2'- 9"	D + L		0.052"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	2-12	1.25D + 1.5L	1.00	1857 lb		2090 lb	5287 lb	Passed - 89%
2	5-08	1.25D + 1.5L	1.00	1821 lb		5070 lb	18348 lb	Passed - 36%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	6'- 11 3/16"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'- 2 3/4"	6'- 11 3/16"	User Load	Top	60 lb/ft	-	-	-
Uniform	1'- 2 1/2"	4'- 2 1/2"	Smoothed Load	Front	127 lb/ft	264 lb/ft	-	-
Point	0'- 8 1/2"	0'- 8 1/2"	J2(i54981)	Front	106 lb	223 lb	-	-
Point	4'- 8 1/2"	4'- 8 1/2"	J2(i54998)	Front	114 lb	238 lb	-	-
Point	5'- 11 7/8"	5'- 11 7/8"	J4(i55029)	Front	38 lb	76 lb	-	-
Point	0'- 1/4"	0'- 1/4"	8(i41678)	Top	74 lb	160 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/4"	ST. BEAM (DR.)(i41669)	523 lb	803/-9 lb	-	-
2	5'- 1 3/4"	5'- 7 1/4"	Pt1(i54868)	615 lb	701 lb	-	-

DESIGN NOTES

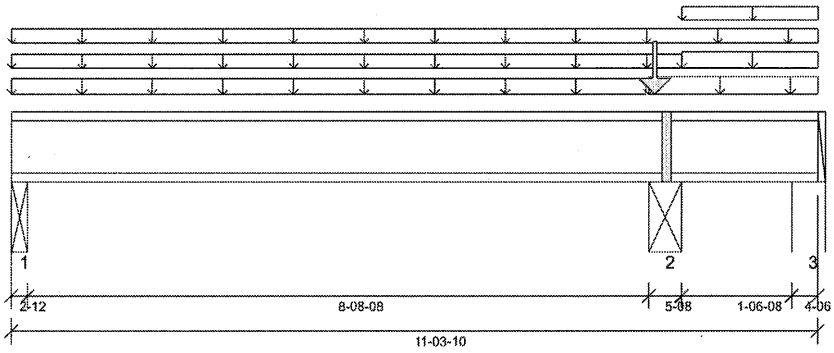
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- The deflection at the cantilever for either live and/or total loads is less than 3/8" and therefore has been excluded from the deflection ratio considerations.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

S6048759

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground B + Second B (5,** Level: **Second Floor** Label: **B32 - i52156** Type: **Beam**	**2 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 — Report Version: 2021.03.26 04/06/2022 08:36



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

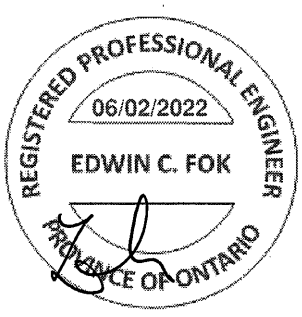
Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 8'- 8 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'- 1 3/4"
- 769 psi Beam @ 9'- 2"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 8 3/4"	1.25D + 1.5L	0.85	934 lb ft	9506 lb ft	Passed - 10%
Factored Neg. Moment:	9'- 2"	1.25D + 1.5L	0.85	1338 lb ft	9506 lb ft	Passed - 14%
Factored Shear:	9'- 4 13/16"	1.25D + 1.5L	0.65	669 lb	2912 lb	Passed - 23%
Total Load (TL) Pos. Defl.:	4'- 1 3/4"	D + L		0.022"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	2-12	1.25D + 1.5L	0.85	543 lb		3561 lb	9007 lb	Passed - 15%
2	5-08	1.25D + 1.5L	0.85	2492 lb		8637 lb	18014 lb	Passed - 29%
3	4-06	1.25D + 1.5L	0.85		-499 lb	-	-	

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	11'- 3 5/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	11'- 3 5/8"	FC2 Floor Decking (Plan View Fill)	Top	7 lb/ft	20 lb/ft	-	-
Uniform	0'	9'- 4 3/4"	FC2 Floor Decking (Plan View Fill)	Top	5 lb/ft	12 lb/ft	-	-
Uniform	0'	8'- 10 3/4"	User Load	Top	60 lb/ft	-	-	-
Uniform	8'- 11 1/4"	11'- 3 5/8"	E45(i52080)	Top	101 lb/ft	-	-	-
Uniform	9'- 4 3/4"	11'- 3 5/8"	E45(i52080)	Top	27 lb/ft	42 lb/ft	-	-
Uniform	9'- 4 3/4"	11'- 3 5/8"	FC2 Floor Decking (Plan View Fill)	Top	-	8 lb/ft	-	-
Point	9'- 1/4"	9'- 1/4"	E45(i52080)	Top	231 lb	350 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/4"	ST. BEAM (DR.)(i41694)	286 lb	119 lb	-	-
2	8'- 11 1/4"	9'- 4 3/4"	ST. BEAM (DR.)(i41693)	1147 lb	729 lb	-	-
3	10'- 11 1/4"	11'- 3 5/8"	E9(i41609)	-171 lb	79/-143 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

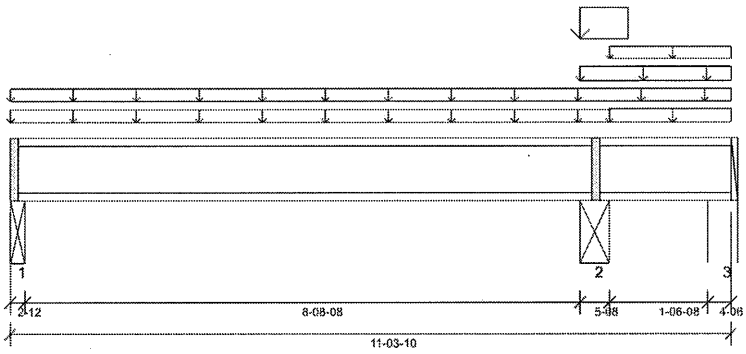
PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

SE046760

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground B + Second B (5,** Level: **Second Floor** Label: **B33 - i52169** Type: **Beam**	**2 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/06/2022 08:41



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

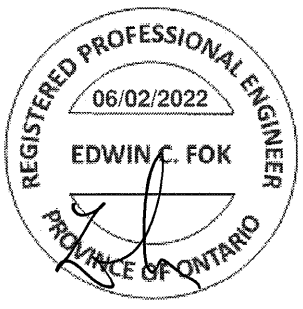
Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 8'- 8 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'- 1 3/4"
- 769 psi Beam @ 9'- 2"
- 615 psi Wall @ 11'- 1/4"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 8 1/2"	1.25D + 1.5L	0.91	564 lb ft	10113 lb ft	Passed - 6%
Factored Neg. Moment:	9'- 2"	1.25D + 1.5L	0.91	797 lb ft	10113 lb ft	Passed - 8%
Factored Shear:	9'- 4 13/16"	1.25D + 1.5L	1.00	862 lb	4480 lb	Passed - 19%
Total Load (TL) Pos. Defl.:	4'- 1 1/2"	D + L		0.012"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	2-12	1.25D + 1.5L	0.91	330 lb		3788 lb	9582 lb	Passed - 9%
2	5-08	1.25D + 1.5L	1.00	1933 lb		10140 lb	21147 lb	Passed - 19%
3	4-06	1.25D + 1.5L	0.86	285 lb		3831 lb	11508 lb	Passed - 7%
3	4-06	0.9D + 1.5L	0.91		-211 lb	-	-	

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	11'- 3 5/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	11'- 3 5/8"	FC2 Floor Decking (Plan View Fill)	Top	7 lb/ft	18 lb/ft	-	-
Uniform	0'	9'- 4 3/4"	FC2 Floor Decking (Plan View Fill)	Top	9 lb/ft	23 lb/ft	-	-
Uniform	8'- 11 1/4"	11'- 3 5/8"	E47(i52083)	Top	101 lb/ft	-	-	-
Uniform	8'- 11 1/4"	9'- 8 1/4"	E47(i52083)	Top	308 lb/ft	467 lb/ft	-	-
Uniform	9'- 4 3/4"	11'- 3 5/8"	E47(i52083)	Top	27 lb/ft	42 lb/ft	-	-
Uniform	9'- 4 3/4"	11'- 3 5/8"	FC2 Floor Decking (Plan View Fill)	Top	-	8 lb/ft	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/4"	ST. BEAM (DR.)(i41694)	79 lb	156/-1 lb	-	-
2	8'- 11 1/4"	9'- 4 3/4"	ST. BEAM (DR.)(i41693)	570 lb	787 lb	-	-
3	10'- 11 1/4"	11'- 3 5/8"	E9(i41609)	104 lb	113/-190 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

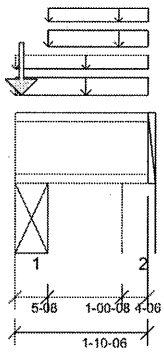
PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

SE004676

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground C + Second C (9,** Level: **Second Floor** Label: **B34 - i56510** Type: **Beam**	**2 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/07/2022 08:46



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'- 4 1/2"
- 615 psi Wall @ 1'- 7"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Neg. Moment:	0'- 4 1/2"	1.25D + 1.5S	1.00	355 lb ft	11106 lb ft	Passed - 3%
Factored Moment:	0'- 4 1/2"	1.25D + 1.5S	1.00	355 lb ft	11106 lb ft	Passed - 3%
Factored Moment:				0 lb ft	0 lb ft	
Factored Moment:				0 lb ft	0 lb ft	
Factored Shear:	0'- 5 9/16"	1.25D + 1.5S + L	1.00	417 lb	4480 lb	Passed - 9%
Live Load (LL) Deflection:	0'- 10 9/16"	S		0.000"	L/360	Passed - L/999
Total Load (TL) Deflection:	0'- 10 3/8"	D + S		0.000"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	5-08	1.25D + 1.5S + L	1.00	1667 lb		4480 lb	21147 lb	Passed - 37%
2	4-06	1.25D + 1.5L	0.65	77 lb		2912 lb	13392 lb	Passed - 3%
2	4-06	0.9D + 1.5S	1.00		-89 lb	-	-	

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	1'- 10 3/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	1'- 10 3/8"	E45(i55511)	Top	101 lb/ft	-	-	-
Uniform	0'	1'- 10 3/8"	FC2 Floor Decking (Plan View Fill)	Top	-	8 lb/ft	-	-
Uniform	0'- 5 1/2"	1'- 10 3/8"	E45(i55511)	Top	27 lb/ft	-	42 lb/ft	-
Uniform	0'- 5 1/2"	1'- 10 3/8"	FC2 Floor Decking (Plan View Fill)	Top	-	8 lb/ft	-	-
Point	0'- 1"	0'- 1"	E45(i55511)	Top	334 lb	-	510 lb	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	ST. BEAM (DR.)(i41693)	550 lb	13 lb	670 lb	-
2	1'- 6"	1'- 10 3/8"	E9(i41609)	32 lb	16 lb	-101 lb	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

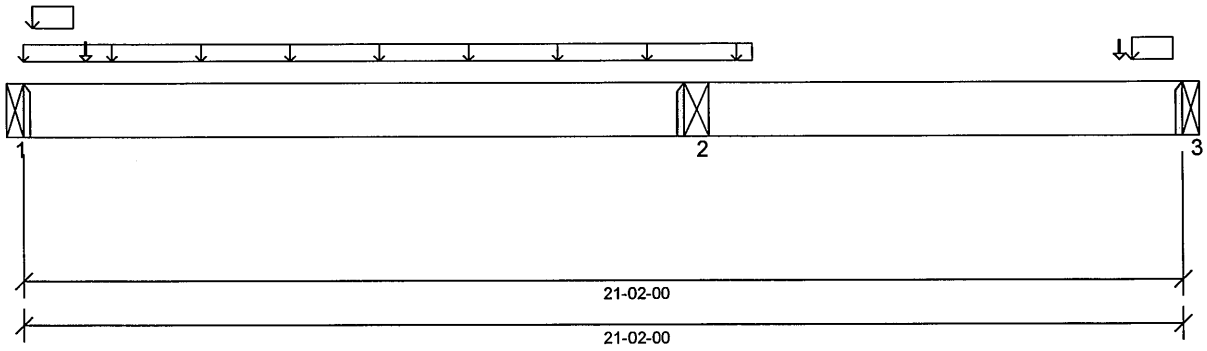
PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

SE046762

MiTek	Customer: Gold Park Homes Job Address: Pine Valley Ph2 City: Vaughan Job Track: 45147	Job Name: 343073 Ground C + Second C (9, Level: Second Floor Label: B35 (CONT.) - i57825 Type: Beam	2 Ply Member 1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	Status: Design Passed

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 — Report Version: 2021.03.26 06/02/2022 13:13



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 1 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 1305 psi Beam @ 12'- 1 3/4"
- 769 psi Beam @ 21'- 2"

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 12" O/C STAGGERED IN 2 ROWS

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	4'- 6 7/8"	1.25D + 1.5L	0.65	384 lb ft	17245 lb ft	Passed - 2%
Factored Neg. Moment:	12'- 1 3/4"	1.25D + 1.5L	0.65	413 lb ft	17045 lb ft	Passed - 2%
Factored Shear:	11'- 5/8"	1.25D + 1.5L	0.65	180 lb	9369 lb	Passed - 2%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-08	1.25D + 1.5L	0.65	262 lb		4472 lb	-	Passed - 6%
2	2-08	1.25D + 1.5L	0.65	352 lb		7453 lb	7422 lb	Passed - 5%
3	1-08	1.4D	0.65	179 lb		4472 lb	-	Passed - 4%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	HUC410		-	-	-	Connector manually specified by the user.
2	No Solution	Not Specified	N/A	N/A	N/A	Connector manually specified by the user.
3	HUC410		-	-	-	Connector manually specified by the user.

* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction. Where header fasteners are longer than the width of the supporting member, install backer block or clinch header nails.

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	-0'	21'- 2"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	-0'	13'- 3 3/4"	FC2 Floor Decking (Plan View Fill)	Top	2 lb/ft	6 lb/ft	-	-
Uniform	0'- 2"	0'- 11"	E53(i55516)	Top	101 lb/ft	-	-	-
Uniform	20'- 3"	21'	E50(i55515)	Top	101 lb/ft	-	-	-
Point	1'- 1 3/4"	1'- 1 3/4"	E54(i55518)	Top	30 lb	-	-	-
Point	20'- 1/4"	20'- 1/4"	E51(i55514)	Top	30 lb	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	-0'	0'	B38 (CANT.)(i57864)	172 lb	32 lb	-	-
2	12'- 7/8"	12'- 2 5/8"	B37 (CANT.)(i57853)	215 lb	54 lb	-	-
3	21'- 2"	21'- 2"	B36 (CANT.)(i57861)	130 lb	-7 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Lateral stability factor (KL) was based on user preference to use the width of one ply.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

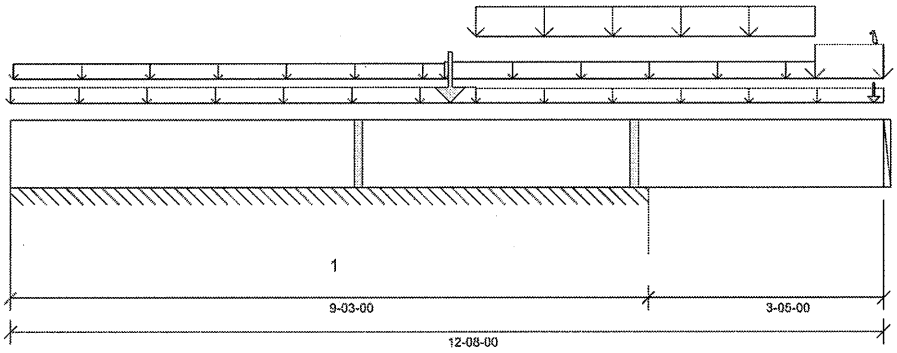
PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

SE046763

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground C + Second C (9,** Level: **Second Floor** Label: **B36 (CANT.) - i56797** Type: **Beam**	**2 Ply Member** **1 3/4" x 11 7/8" 1.55E TimberStrand® LSL**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/07/2022 08:48



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: ,
TL Deflection Limit: ,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 4'- 9 1/2"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 1 1/2"
- 615 psi Wall @ 4'- 7 1/2"
- 615 psi Wall @ 9'- 1 1/2"

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ " O/C STAGGERED IN 2 ROWS

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	6'- 4 1/2"	1.25D + 1.5S + L	0.95	1124 lb ft	25256 lb ft	Passed - 4%
Factored Neg. Moment:	9'- 1 1/2"	1.25D + 1.5S + L	0.96	6255 lb ft	14542 lb ft	Passed - 43%
Factored Shear:	10'- 2 7/8"	1.25D + 1.5L + S	0.84	2037 lb	12168 lb	Passed - 17%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	6-08	1.25D + 1.5L	0.65	492 lb		19378 lb	9097 lb	Passed - 5%
1	1-02-08	1.25D + 1.5L + S	0.88	1109 lb		58192 lb	27320 lb	Passed - 4%
1	1-06-00	1.25D + 1.5S + L	0.96	6878 lb		79102 lb	37136 lb	Passed - 19%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	12'- 8"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	6'- 9"	FC2 Floor Decking (Plan View Fill)	Top	19 lb/ft	51 lb/ft	-	-
Uniform	0'- 1/2"	6'- 3 1/2"	User Load	Top	60 lb/ft	-	-	-
Uniform	6'- 3 1/2"	11'- 8"	E47(i55509)	Top	101 lb/ft	-	-	-
Uniform	6'- 9"	12'- 8"	FC2 Floor Decking (Plan View Fill)	Top	11 lb/ft	30 lb/ft	-	-
Uniform	6'- 9"	11'- 8"	E47(i55509)	Top	165 lb/ft	-	259 lb/ft	-
Uniform	11'- 8"	12'- 8"	E49(i55513)	Top	266 lb/ft	-	259 lb/ft	-
Point	12'- 6 1/4"	12'- 6 1/4"	B35 (CONT.) (i56712)	Front	271 lb	49/-23 lb	-	-
Point	6'- 4 1/2"	6'- 4 1/2"	E47(i55509)	Top	655 lb	-	1003 lb	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	9'- 3"	-	3046 lb	524/-57 lb	2208/-38 lb	-
++>	0'- 1 1/2"	0'- 1 1/2"	4(i41620)	232 lb	137/-11 lb	-38 lb	-
++>	2'- 4 1/2"	6'- 3 1/2"	4(i41620)	82 lb/ft	68 lb/ft	128 lb/ft	-
++>	6'- 3 1/2"	8'- 9"	E10(i41615)	-	-	-	-
++>	9'- 1 1/2"	9'- 1 1/2"	E41(i52074)	2733 lb	319/-46 lb	2079 lb	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Lateral stability factor (KL) was based on user preference to use the width of one ply.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

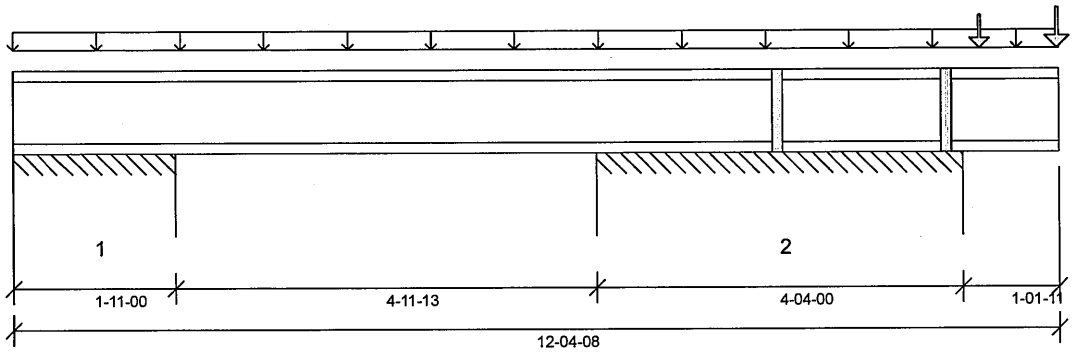
S6046764

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground C + Second C (9,** Level: **Second Floor** Label: **B37 (CANT.) - i57853** Type: **Beam**	**1 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15

Report Version: 2021.03.26 06/02/2022 13:13



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 9'- 1/2"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 1 1/2"
- 615 psi Wall @ 1'- 9 1/2"
- 615 psi Wall @ 7'- 5/16"
- 615 psi Wall @ 11'- 1 5/16"

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	4'- 11 9/16"	1.25D + 1.5L	0.86	177 lb ft	4825 lb ft	Passed - 4%
Factored Neg. Moment:	11'- 1 5/16"	1.4D	0.65	457 lb ft	3627 lb ft	Passed - 13%
Factored Shear:	11'- 2 7/8"	1.25D + 1.5S	0.65	544 lb	1456 lb	Passed - 37%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	4-12	0.9D + 1.5L	0.80	60 lb		1796 lb	6464 lb	Passed - 3%
1	4-12	1.25D + 1.5L + S	0.88		-100 lb	-	-	
1	1-06-00	1.25D + 1.5L	0.86	380 lb		4384 lb	23936 lb	Passed - 9%
2	11-12	0.9D + 1.5L	0.89	266 lb		4535 lb	16165 lb	Passed - 6%
2	11-12	1.25D + 1.5S	0.65		-51 lb	-	-	
2	1-06-00	1.25D + 1.5S + L	0.80	914 lb		4063 lb	22184 lb	Passed - 22%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	12'- 4 1/2"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	12'- 4 1/2"	FC2 Floor Decking (Plan View Fill)	Top	14 lb/ft	37 lb/ft	-	-
Point	11'- 5 1/4"	11'- 5 1/4"	E48(i55512)	Top	130 lb	-	58 lb	-
Point	12'- 4 1/4"	12'- 4 1/4"	B35 (CONT.) (i57825)	Top	215 lb	54 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	1'- 11"	16(i55591)	113/-17 lb	242/-52 lb	2/-1 lb	-
==>	0'- 1 1/2"	0'- 1 1/2"	16(i55591)	-17 lb	50/-52 lb	-1 lb	-
==>	1'- 9 1/2"	1'- 9 1/2"	16(i55591)	113 lb	192 lb	2 lb	-
2	6'- 10 13/16"	11'- 2 13/16"	-	493/-34 lb	400 lb	64/-7 lb	-
++>	7'- 5/16"	7'- 5/16"	15(i55590)	-34 lb	197 lb	-7 lb	-
++>	8'- 9 1/2"	10'- 9"	E42(i52075)	-	-	-	-
++>	11'- 1 5/16"	11'- 1 5/16"	E43(i52076)	493 lb	203 lb	64 lb	-

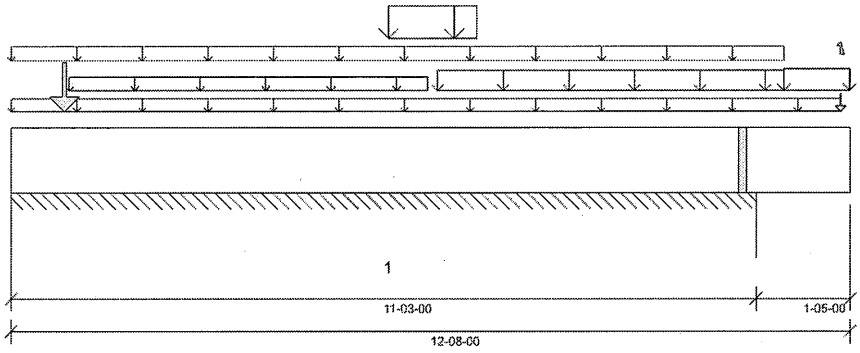
DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- The deflection at the cantilever for either live and/or total loads is less than 3/8" and therefore has been excluded from the deflection ratio considerations.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

S3046765

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground C + Second C (9,** Level: **Second Floor** Label: **B38 (CANT.) - i56748** Type: **Beam**	**2 Ply Member** **1 3/4" x 11 7/8" 1.55E TimberStrand® LSL**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 — Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 — Report Version: 2021.03.26 04/07/2022 08:49



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: ,
TL Deflection Limit: ,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 10'- 9 1/2"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 1 1/2"
- 615 psi Wall @ 5'- 7 1/2"
- 615 psi Wall @ 11'- 1 1/2"

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 12" O/C STAGGERED IN 2 ROWS
(Top loaded)

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	0'- 9 5/8"	1.25D + 1.5S + L	0.99	2098 lb ft	26251 lb ft	Passed - 8%
Factored Neg. Moment:	5'- 7 1/2"	1.25D + 1.5S + L	0.99	2692 lb ft	6457 lb ft	Passed - 42%
Factored Shear:	12'- 2 7/8"	1.25D + 1.5L	0.65	616 lb	9369 lb	Passed - 7%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-06-00	1.25D + 1.5S + L	0.99	3189 lb		81682 lb	38348 lb	Passed - 8%
1	1-06-00	1.25D + 1.5S + L	0.99	5390 lb		81932 lb	38465 lb	Passed - 14%
1	1-06-00	1.25D + 1.5L + S	0.86	3309 lb		70592 lb	33141 lb	Passed - 10%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	12'- 8"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	12'- 6 1/4"	FC2 Floor Decking (Plan View Fill)	Top	8 lb/ft	22 lb/ft	-	-
Uniform	0'	11'- 8"	E25(i41626)	Top	101 lb/ft	-	-	-
Uniform	0'- 10 1/2"	6'- 3 1/2"	E25(i41626)	Top	27 lb/ft	-	42 lb/ft	-
Uniform	5'- 8 3/8"	7'- 3/8"	E25(i41626)	Top	440 lb/ft	-	677 lb/ft	-
Uniform	6'- 5 1/4"	11'- 8"	E25(i41626)	Top	165 lb/ft	-	259 lb/ft	-
Uniform	11'- 8"	12'- 8"	E52(i55517)	Top	266 lb/ft	-	259 lb/ft	-
Point	12'- 6 1/4"	12'- 6 1/4"	B35 (CONT.) (i56712)	Back	276 lb	73/-16 lb	-	-
Point	0'- 9 5/8"	0'- 9 5/8"	E25(i41626)	Top	949 lb	-	1457 lb	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	11'- 3"	-	2890 lb	288/-39 lb	2558 lb	-
++>	0'- 1 1/2"	0'- 1 1/2"	E12(i41614)	888 lb	44/-7 lb	1077 lb	-
++>	1'- 11 1/2"	5'- 7 1/2"	E12(i41614)	312 lb/ft	30/-1 lb/ft	247 lb/ft	-
++>	5'- 7 1/2"	9'- 3 1/2"	E12(i41614)	305 lb/ft	26/-6 lb/ft	370 lb/ft	-
++>	11'- 1 1/2"	11'- 1 1/2"	E43(i52076)	1385 lb	187/-25 lb	864 lb	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Lateral stability factor (KL) was based on user preference to use the width of one ply.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.
- User loads assume a bearing length of 3.5" in determining member capacity for loads near supports.
- Bearing capacity of member at support 1 was verified for the effect of concentrated load applied near the support. At support 1. Required Load Area: L=1.500", W=3.500". LDF=0.99, Pf=3428 lb, Q'r=6880 lb, Result=49.83%.

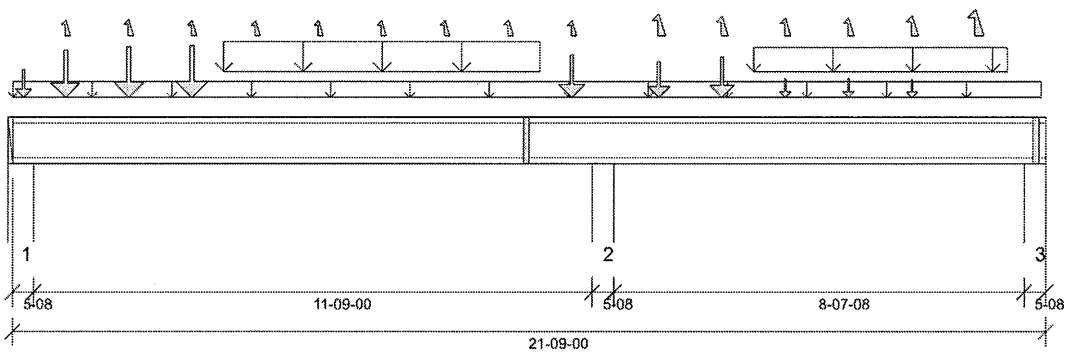
PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

S2046766

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground C + Second C (9,** Level: **Second Floor** Label: **B39 (CONT.) - i56788** Type: **Beam**	**2 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12 | Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15 | Report Version: 2021.03.26 04/07/2022 08:49



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 1 1/2"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 4 1/2"
- 615 psi Wall @ 12'- 5 1/4"
- 615 psi Wall @ 21'- 4 1/2"

REGISTERED PROFESSIONAL ENGINEER
06/02/2022
EDWIN C. FOK
PROVINCE OF ONTARIO

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 1 1/4"	1.25D + 1.5L	1.00	6345 lb ft	11160 lb ft	Passed - 57%
Factored Neg. Moment:	12'- 5 1/4"	1.25D + 1.5L	1.00	6456 lb ft	11160 lb ft	Passed - 58%
Factored Shear:	12'- 2 7/16"	1.25D + 1.5L	1.00	3283 lb	4480 lb	Passed - 73%
Live Load (LL) Pos. Defl.:	6'- 1/8"	L + 0.5S		0.177"	L/360	Passed - L/798
Live Load (LL) Neg. Defl.:	16'- 2 7/8"	L + 0.5S		0.071"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	5'- 11 7/8"	D + L + 0.5S		0.238"	L/240	Passed - L/593
Total Load (TL) Neg. Defl.:	16'- 1 5/16"	D + L + 0.5S		0.089"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	5-08	1.25D + 1.5L + S	1.00	2546 lb		4480 lb	16918 lb	Passed - 57%
2	5-08	1.25D + 1.5L	1.00	5392 lb		10140 lb	16918 lb	Passed - 53%
3	5-08	0.9D + 1.5L	1.00	1094 lb		4480 lb	16918 lb	Passed - 24%
3	5-08	1.25D + 1.5L + S	1.00		-514 lb	-	-	

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	21'- 9"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	-0'	21'- 7 3/4"	FC2 Floor Decking (Plan View Fill)	Top	6 lb/ft	16 lb/ft	-	-
Uniform	4'- 5 1/4"	11'- 1 1/4"	Smoothed Load	Front	80 lb/ft	229 lb/ft	-	-
Uniform	15'- 7 1/4"	20'- 11 1/4"	Smoothed Load	Front	-	189 lb/ft	-	-
Point	1'- 1 1/4"	1'- 1 1/4"	J1(i56762)	Front	86 lb	279/-5 lb	-9 lb	-
Point	2'- 5 1/4"	2'- 5 1/4"	J1(i56745)	Front	96 lb	305/-5 lb	-12 lb	-
Point	3'- 9 1/4"	3'- 9 1/4"	J1(i56781)	Front	109 lb	305/-5 lb	-	-
Point	5'- 1 1/4"	5'- 1 1/4"	J1(i56767)	Front	-	-5 lb	-	-
Point	6'- 5 1/4"	6'- 5 1/4"	J1(i56800)	Front	-	-5 lb	-	-
Point	7'- 9 1/4"	7'- 9 1/4"	J1(i56683)	Front	-	-5 lb	-	-
Point	9'- 1 1/4"	9'- 1 1/4"	J1(i56807)	Front	-	-5 lb	-3 lb	-
Point	10'- 5 1/4"	10'- 5 1/4"	J1(i56718)	Front	-	-5 lb	-9 lb	-
Point	11'- 9 1/4"	11'- 9 1/4"	J1(i56756)	Front	80 lb	229/-4 lb	-2 lb	-
Point	13'- 7 1/4"	13'- 7 1/4"	J1(i56817)	Front	-	236/-34 lb	-48 lb	-
Point	14'- 11 1/4"	14'- 11 1/4"	J1(i56708)	Front	33 lb	252/-38 lb	-18 lb	-
Point	16'- 3 1/4"	16'- 3 1/4"	J1(i56717)	Front	45 lb	-38 lb	-	-
Point	17'- 7 1/4"	17'- 7 1/4"	J1(i56703)	Front	45 lb	-38 lb	-	-
Point	18'- 11 1/4"	18'- 11 1/4"	J1(i56701)	Front	31 lb	-38 lb	-20 lb	-
Point	20'- 3 1/4"	20'- 3 1/4"	J1(i56696)	Front	-32 lb	-40 lb	-58 lb	-
Point	0'- 2 3/4"	0'- 2 3/4"	E25(i41626)	Top	88 lb	-	61 lb	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	E12(i41614)	527 lb	1228/-71 lb	49 lb	-
2	12'- 2 1/2"	12'- 8"	16(i55591)	866 lb	2871/-162 lb	-99 lb	-
3	21'- 3 1/2"	21'- 9"	4(i41620)	-15 lb	739/-284 lb	-68 lb	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.

SG046767

NORDIC
STRUCTURES

Maximum Floor Spans – M4.1, L/360

Design Criteria

Spans:	Simple span
Loads:	Live load = 40 psf and dead load = 20 psf
Deflection limits:	L/360 under live load and L/240 under total load
Sheathing:	3/4 in. nailed-glued oriented strand board (OSB) sheathing

Maximum Floor Spans

Joist depth	Joist series	Bare, On centre spacing				1/2 in. gypsum ceiling, On centre spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-11"	15'-0"	14'-6"	13'-5"	16'-5"	15'-5"	14'-6"	13'-5"
	NI-40x	17'-0"	16'-0"	15'-5"	14'-10"	17'-5"	16'-5"	15'-10"	14'-11"
	NI-60	17'-2"	16'-2"	15'-7"	14'-11"	17'-7"	16'-7"	16'-0"	15'-4"
	NI-80	18'-3"	17'-1"	16'-5"	15'-9"	18'-8"	17'-5"	16'-9"	16'-1"
11-7/8"	NI-20	17'-11"	16'-11"	16'-3"	15'-8"	18'-7"	17'-5"	16'-10"	16'-1"
	NI-40x	19'-4"	17'-11"	17'-3"	16'-7"	19'-11"	18'-6"	17'-9"	17'-0"
	NI-60	19'-7"	18'-2"	17'-6"	16'-9"	20'-2"	18'-9"	17'-11"	17'-2"
	NI-80	21'-1"	19'-6"	18'-6"	17'-7"	21'-7"	20'-0"	19'-0"	18'-0"
	NI-90	21'-6"	19'-10"	18'-11"	17'-11"	22'-0"	20'-4"	19'-5"	18'-4"
14"	NI-40x	21'-5"	19'-11"	18'-11"	18'-0"	22'-1"	20'-7"	19'-7"	18'-7"
	NI-60	21'-10"	20'-2"	19'-3"	18'-3"	22'-6"	20'-10"	19'-11"	18'-10"
	NI-80	23'-5"	21'-7"	20'-7"	19'-5"	24'-0"	22'-3"	21'-2"	20'-0"
	NI-90	23'-10"	22'-1"	21'-0"	19'-10"	24'-5"	22'-7"	21'-6"	20'-4"
16"	NI-60	23'-9"	22'-0"	21'-0"	19'-10"	24'-6"	22'-9"	21'-8"	20'-7"
	NI-80	25'-6"	23'-7"	22'-5"	21'-2"	26'-2"	24'-3"	23'-1"	21'-10"
	NI-90	26'-0"	24'-0"	22'-10"	21'-6"	26'-7"	24'-8"	23'-5"	22'-2"

Joist depth	Joist series	Mid-span blocking with 1x4 inch strap, On centre spacing				Mid-span blocking and 1/2 in. gypsum ceiling, On centre spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	17'-1"	15'-5"	14'-6"	13'-5"	17'-1"	15'-5"	14'-6"	13'-5"
	NI-40x	18'-8"	17'-6"	16'-7"	14'-11"	19'-2"	17'-8"	16'-7"	14'-11"
	NI-60	18'-11"	17'-8"	16'-10"	15'-7"	19'-5"	18'-0"	16'-10"	15'-7"
	NI-80	20'-3"	18'-10"	17'-11"	17'-2"	20'-8"	19'-3"	18'-4"	17'-5"
11-7/8"	NI-20	20'-3"	18'-8"	17'-6"	16'-1"	20'-7"	18'-8"	17'-6"	16'-1"
	NI-40x	21'-10"	20'-4"	19'-0"	17'-0"	22'-5"	20'-10"	19'-0"	17'-0"
	NI-60	22'-1"	20'-7"	19'-8"	18'-7"	22'-8"	21'-2"	20'-3"	18'-8"
	NI-80	23'-8"	22'-0"	20'-11"	19'-10"	24'-1"	22'-6"	21'-6"	20'-4"
	NI-90	24'-1"	22'-5"	21'-4"	20'-2"	24'-7"	22'-11"	21'-10"	20'-8"
14"	NI-40x	24'-5"	22'-9"	20'-11"	18'-8"	25'-1"	22'-11"	20'-11"	18'-8"
	NI-60	24'-10"	23'-2"	22'-1"	20'-10"	25'-6"	23'-10"	22'-9"	21'-4"
	NI-80	26'-6"	24'-8"	23'-6"	22'-2"	27'-1"	25'-3"	24'-1"	22'-9"
	NI-90	27'-0"	25'-1"	23'-11"	22'-7"	27'-6"	25'-8"	24'-6"	23'-2"
16"	NI-60	27'-3"	25'-5"	24'-3"	22'-11"	28'-0"	26'-2"	25'-0"	23'-1"
	NI-80	29'-1"	27'-1"	25'-9"	24'-4"	29'-8"	27'-9"	26'-5"	25'-0"
	NI-90	29'-7"	27'-6"	26'-2"	24'-9"	30'-2"	28'-2"	26'-10"	25'-5"

Notes:

1. The tabulated clear spans are based on CSA O86-14 and NBC 2015, and are applicable to residential floor construction meeting the above design criteria.
2. For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
3. Minimum bearing length shall be 1-3/4 inch for end bearings, and 3-1/2 inches for intermediate bearings.
4. Bearing stiffeners are not required when I-joists are used in accordance with this table, except as required for hangers.
5. Nordic I-joists are listed in CCMC Evaluation Report 13032-R and APA Product Report PR-L274C.

The construction details for residential designs are prone to changes.

Details released after April 2014 supersedes N-C301

Installation must comply with latest documentation on I-Joist and other Nordic products from the http://nordic.ca/

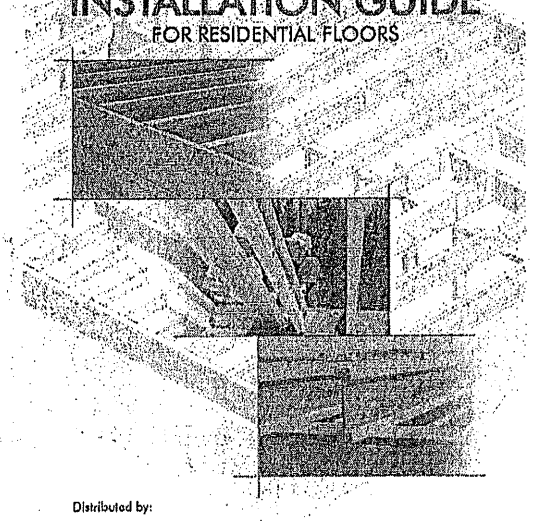
This document does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of its component based on the design criteria and loadings shown on the calculation sheets.

Document prepared for the use of Stephanie Gon from Alpa, Ontario. (Nordic Request 1810-095)

LICENSED PROFESSIONAL ENGINEER
L. RAYMOND
100501723
CofA # 100604746
Oct. 17 2018
PROVINCE OF ONTARIO

NORDIC ENGINEERED WOOD

INSTALLATION GUIDE
FOR RESIDENTIAL FLOORS



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SAFETY AND CONSTRUCTION PRECAUTIONS

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

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

WARNING

I-joists are not stable until completely installed, and will not carry any load until fully braced and sheathed.

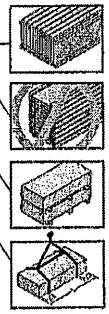
Avoid Accidents by Following these Important Guidelines!

1. Brace and nail each I-joist as it is installed, using hangers, blocking panels, rim board, and/or cross-bridging at joist ends. When I-joists are applied continuous over interior supports and a load-bearing wall is planned at that location, blocking will be required at the interior support.
2. When the building is completed, the floor sheathing will provide lateral support for the top flanges of the I-joists. Until this sheathing is applied, temporary bracing, often called struts, or temporary sheathing must be applied to prevent I-joist rollover or buckling.
   - Temporary bracing or struts must be 1x4 inch minimum, at least 8 feet long and spaced no more than 8 feet on centre, and must be secured with a minimum of two 2-1/2" nails fastened to the top surface of each I-joist. Nail the bracing to a lateral restraint at the end of each bay. Lap ends of adjoining bracing over at least two I-joists.
   - Or, sheathing (temporary or permanent) can be nailed to the top flange of the first 4 feet of I-joists at the end of the bay.
3. For cantilevered I-joists, brace top and bottom flanges, and brace ends with closure panels, rim board, or cross-bridging.
4. Install and fully nail permanent sheathing to each I-joist before placing loads on the floor system. Then, stack building materials over beams or walls only.
5. Never install a damaged I-joist.

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

STORAGE AND HANDLING GUIDELINES

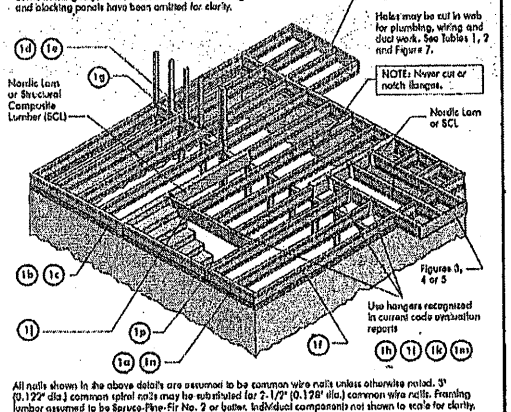
1. Bundle wrap can be slippery when wet. Avoid walking on wrapped bundles.
2. Store, stack, and handle I-joists vertically and level only.
3. Always stack and handle I-joists in the upright position only.
4. Do not store I-joists in direct contact with the ground and/or flatwise.
5. Protect I-joists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



INSTALLING NORDIC I-JOISTS

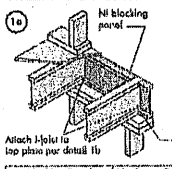
1. Before laying out floor system components, verify that I-joist flange widths match hanger widths. If not, contact your supplier.
2. Except for cutting to length, I-joist flanges should never be cut, drilled, or notched.
3. Install I-joists so that top and bottom flanges are within 1/2 inch of true vertical alignment.
4. I-joists must be anchored securely to supports before floor sheathing is attached, and supports for multiple-span joists must be level.
5. Minimum bearing lengths: 1-3/4 inches for end bearings and 3-1/2 inches for intermediate bearings.
6. When using hangers, seat I-joists firmly in hanger bottoms to minimize settlement.
7. Leave a 1/16-inch gap between the I-joist end and a header.
8. Concentrated loads greater than those that can normally be expected in residential construction should only be applied to the top surface of the top flange. Normal concentrated loads include track lighting fixtures, audio equipment and security cameras. Never suspend unusual or heavy loads from the I-joist's bottom flange. Wherever possible, suspend all concentrated loads from the top of the I-joist. Or, attach the load to blocking that has been securely fastened to the I-joist webs.
9. Never install I-joists where they will be permanently exposed to weather, or where they will remain in direct contact with concrete or masonry.
10. Restrain ends of floor joists to prevent rollover. Use rim board, rim joists or I-joist blocking panels.
11. For I-joists installed over and beneath bearing walls, use full depth blocking panels, rim board, or squash blocks (cripple members) to transfer gravity loads through the floor system to the wall or foundation below.
12. Due to shrinkage, common framing lumber set on edge may never be used as blocking or rim boards. I-joist blocking panels or other engineered wood products – such as rim board – must be cut to fit between the I-joists, and an I-joist-compatible depth selected.
13. Provide permanent lateral support of the bottom flange of all I-joists at interior supports of multiple-span joists. Similarly, support the bottom flange of all cantilevered I-joists at the end and support next to the cantilever extension. In the completed structure, the gypsum wallboard ceiling provides this lateral support. Until the final finished ceiling is applied, temporary bracing or struts must be used.
14. If square-edge panels are used, edges must be supported between I-joists with 2x4 blocking. Glue panels to blocking to minimize squeaks. Blocking is not required under structural finish flooring, such as wood strip flooring, or if a separate underlayment layer is installed.
15. Nail spacing: Space nails installed to the flange's top face in accordance with the applicable building code requirements or approved building plans.

FIGURE 1
TYPICAL NORDIC I-JOIST FLOOR FRAMING AND CONSTRUCTION DETAILS



All nails shown in the above details 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 Spruce-Pine-Fir No. 2 or better. Individual components not shown to scale for clarity.

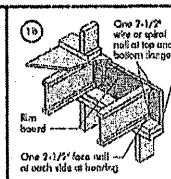
1a



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

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

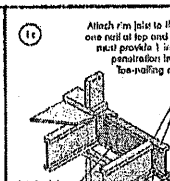
1b



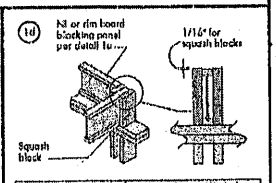
Blocking Panel or Rim Joist	Maximum Factored Uniform Vertical Load* (plf)
1-1/8" Rim Board Plus	8,090

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

1c



1d



Pair of Squash Blocks	Maximum Factored Vertical per Pair of Squash Blocks (lbs)	
	3-1/2" wide	5-1/2" wide
2x Lumber	5,600	8,500
1-1/8" Rim Board Plus	4,500	6,600

Provide lateral bracing per detail 1a, 1b, or 1c

The construction details for residential designs are prone to changes.

Details released after April 2014 supersedes N-C301

Installation must comply with latest documentation on I-Joist and other Nordic products from the http://nordic.ca/

This document 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 its component based on the design criteria and loadings shown on the calculation sheets.

Document prepared for the use of Stephanie Gon from Alpa, Ontario. (Nordic Request 1810-095)

MAXIMUM FLOOR SPANS

1. Maximum clear spans applicable to simple-span or multiple-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 and a live load deflection limit of L/480. For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
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, or 3/4 inch for joist spacing of 24 inches. Adhesive shall meet the requirements given in CGSB-71.26 Standard. No concrete topping or bridging element was assumed. Increased spans may be achieved with the used of gypsum and/or a row of blocking at mid-span.
3. Minimum bearing length shall be 1-3/4 inches for the end bearings, and 3-1/2 inches for the intermediate 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 uniform loads, an engineering analysis may be required based on the use of the design properties.
6. Tables are based on Limit States Design per CAN/CSA O86-09 Standard, and NBC 2010.
7. SI units conversions: 1 inch = 25.4 mm; 1 foot = 0.305 m

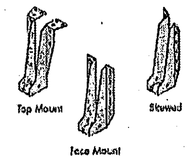
MAXIMUM FLOOR SPANS FOR NORDIC I-JOISTS
SIMPLE AND MULTIPLE SPANS

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9-1/2"	NI-20	15'-1"	14'-2"	13'-9"	13'-5"	16'-3"	15'-1"	14'-10"	14'-7"
	NI-40x	16'-1"	15'-2"	14'-8"	14'-9"	17'-8"	16'-5"	15'-10"	15'-5"
	NI-60	16'-3"	15'-4"	14'-10"	14'-11"	17'-7"	16'-7"	16'-0"	16'-4"
	NI-70	17'-1"	16'-1"	15'-6"	15'-7"	18'-7"	17'-4"	16'-9"	17'-2"
	NI-80	17'-3"	16'-3"	15'-8"	15'-9"	18'-10"	17'-6"	16'-11"	17'-5"
11-7/8"	NI-20	16'-11"	16'-0"	15'-5"	15'-6"	18'-4"	17'-3"	16'-8"	16'-7"
	NI-40x	18'-1"	17'-0"	16'-5"	16'-8"	20'-0"	18'-6"	17'-9"	17'-7"
	NI-60	18'-4"	17'-3"	16'-7"	16'-9"	20'-3"	18'-9"	18'-0"	18'-9"
	NI-70	19'-6"	18'-0"	17'-4"	17'-6"	21'-4"	19'-11"	19'-0"	19'-8"
	NI-80	19'-9"	18'-3"	17'-6"	17'-7"	21'-9"	20'-2"	19'-3"	19'-11"
	NI-90	20'-2"	18'-7"	17'-10"	17'-11"	22'-5"	20'-7"	19'-8"	19'-9"
	NI-90x	20'-4"	18'-9"	17'-11"	18'-0"	22'-8"	20'-9"	19'-10"	20'-5"
14"	NI-40x	20'-1"	18'-7"	17'-10"	17'-11"	23'-2"	20'-6"	19'-8"	19'-4"
	NI-60	20'-5"	18'-11"	18'-1"	18'-2"	22'-7"	20'-11"	20'-0"	20'-10"
	NI-70	21'-7"	20'-0"	19'-1"	19'-2"	23'-10"	22'-1"	21'-1"	21'-10"
	NI-80	21'-11"	20'-3"	19'-4"	19'-5"	24'-3"	22'-5"	21'-5"	22'-2"
	NI-90	22'-3"	20'-8"	19'-9"	19'-9"	24'-9"	22'-10"	21'-10"	21'-10"
	NI-90x	22'-7"	20'-11"	19'-11"	20'-0"	25'-0"	23'-1"	22'-0"	22'-9"
16"	NI-60	22'-3"	20'-8"	19'-9"	19'-10"	24'-7"	22'-9"	21'-9"	22'-9"
	NI-70	23'-6"	21'-9"	20'-9"	20'-10"	26'-0"	24'-0"	22'-11"	23'-9"
	NI-80	23'-11"	22'-1"	21'-1"	21'-2"	26'-5"	24'-5"	23'-3"	24'-1"
	NI-90	24'-5"	22'-6"	21'-6"	21'-6"	26'-11"	24'-10"	23'-9"	23'-9"
	NI-90x	24'-8"	22'-9"	21'-9"	21'-10"	27'-3"	25'-2"	24'-0"	24'-10"

CCMC EVALUATION REPORT 13032-R

I-JOIST HANGERS

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



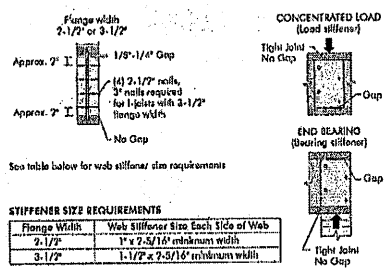
WEB STIFFENERS

RECOMMENDATIONS:

- 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 stiffener and the flange is at the top.
- A *bearing stiffener* is required when the I-joist is supported in a hanger and the sides of the hanger do not extend up to, and support, the top flange. The gap between the stiffener and flange is at the top.
- A *load stiffener* is required at locations where a factored concentrated load greater than 2,370 lbs is applied to the top flange between supports, or in the case of a cantilever, anywhere between the cantilever tip and the support. These values are for standard term load duration, and may be adjusted for other load durations as permitted by the code. The gap between the stiffener and the flange is at the bottom.

SI units conversion: 1 inch = 25.4 mm

FIGURE 2
WEB STIFFENER INSTALLATION DETAILS

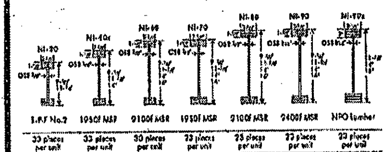


See table below for web stiffener size requirements

STIFFENER SIZE REQUIREMENTS

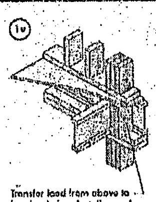
Flange Width	Web Stiffener Size Each Side of Web
2-1/2"	1" x 2-5/16" minimum width
3-1/2"	1-1/2" x 2-5/16" minimum width

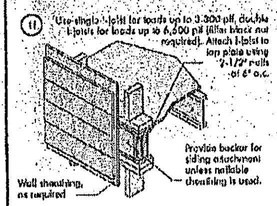
NORDIC I-JOIST SERIES



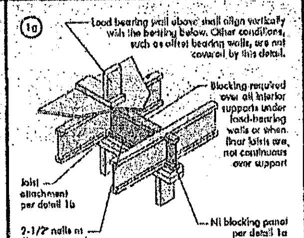
Chantiers Chibougamau Ltd. harvests its own trees, which enables Nordic products to adhere to strict quality control procedures throughout the manufacturing process. Every phase of the operation, from forest to the finished product, reflects our commitment to quality.

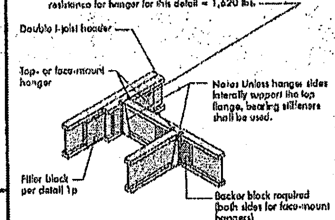
Nordic Engineered Wood I-Joists use only finger-jointed black spruce lumber in their flanges, ensuring consistent quality, superior strength, and longer span carrying capacity.





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





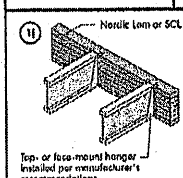
For hanger capacity see hanger manufacturer's recommendations. Verify double I-joist capacity to support concentrated loads.

BACKER BLOCKS (Blocks must be long enough to permit required nailing without splitting)

Flange Width	Material Thickness Required*	Minimum Depth**
2-1/2"	1"	5-1/2"
3-1/2"	1-1/2"	7-1/4"

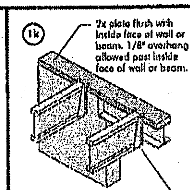
* Minimum grade for backer block material shall be S-P-F No. 2 or better for solid sawn lumber and wood structural panels conforming to CAN/CSA-O325 or CAN/CSA-O437 Standard.

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

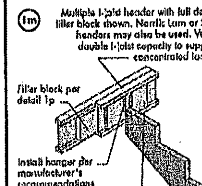


For nailing schedules for multiple beams, see the manufacturer's recommendations.

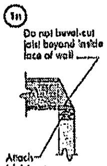
Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.



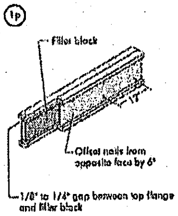
Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.



Maximum support capacity = 1,620 lbs.



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

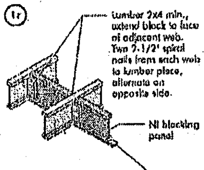


Notes:

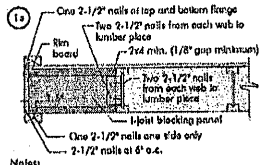
1. Support back of I-joist web during nailing to prevent damage to web/flange connection.
2. Leave a 1/8 to 1/4-inch gap between top of filler block and bottom of top I-joist flange.
3. Filler block is required between joists for full length of span.
4. Nail joists together with two rows of 3" nails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

FILLER BLOCK REQUIREMENTS FOR DOUBLE I-JOIST CONSTRUCTION

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



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



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

The construction details for residential designs are prone to changes.

Details released after April 2014 supersedes N-C301

Installation must comply with latest documentation on I-Joist and other Nordic products from the http://nordic.ca/

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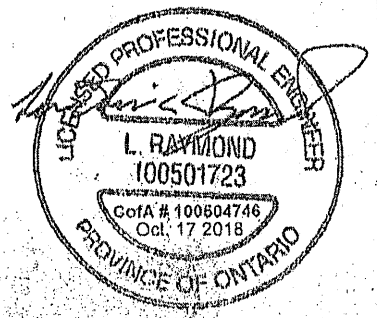
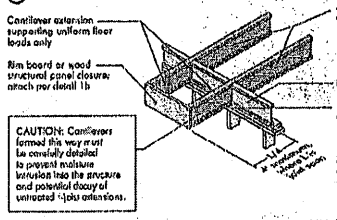
Document prepared for the use of Stephanie Gon from Alpa, Ontario. (Nordic Request 1810-095)

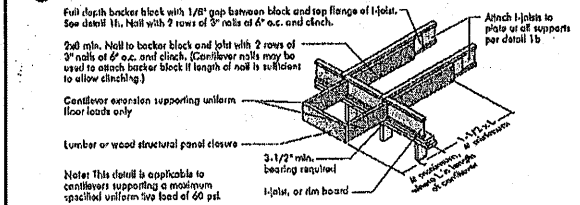


CANTILEVER DETAILS FOR BALCONIES (NO WALL LOAD)

3a I-JOIST CANTILEVER DETAIL FOR BALCONIES (No Wall Load)

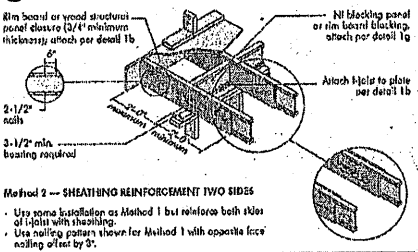


3b LUMBER CANTILEVER DETAIL FOR BALCONIES (No Wall Load)



CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET (CONCENTRATED WALL LOAD)

4a Method 1 — SHEATHING REINFORCEMENT ONE SIDE



Method 2 — SHEATHING REINFORCEMENT TWO SIDES

- Use same installation as Method 1 but reinforce both sides of I-joist with sheathing.
- Use nailing pattern shown for Method 1 with opposite face nailing offset by 3".

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

4b Alternate Method 2 — DOUBLE I-JOIST

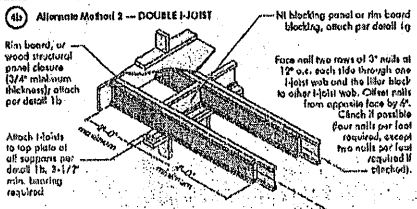
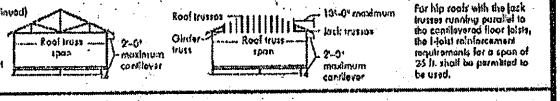


FIGURE 4 (continued)



For hip roofs with the jack trusses running parallel to the cantilevered floor joists, the I-joist reinforcement requirements for a span of 25 ft. shall be permitted to be used.

CANTILEVER REINFORCEMENT METHODS ALLOWED

		9-1/2"				11-7/8"				14"				16"	
		1	2	3	4	1	2	3	4	1	2	3	4	1	2
12"	24	N	N	1	2	N	1	2	X	N	2	X	X		
	28	N	N	1	X	N	1	2	X	N	2	X	X		
	30	N	1	1	X	N	1	X	X	1	2	X	X		
	32	N	1	2	X	N	2	X	X	1	X	X	X		
	34	N	1	2	X	N	2	X	X	1	X	X	X		
	36	N	1	2	X	1	2	X	X	1	X	X	X		
16"	24	1	N	N	1	1	N	1	2	2	N	1	2		
	28	1	N	N	1	1	N	1	2	2	1	2	X		
	30	1	N	N	1	2	N	1	2	2	1	2	X		
	32	1	N	1	2	2	N	1	2	X	1	2	X		
	34	1	N	1	2	2	1	2	X	X	1	2	X		
	36	1	N	1	2	X	1	2	X	X	2	X	X		
	38	2	N	1	2	X	1	2	X	X	2	X	X		
19.2"	24	N	N	N	N	N	N	N	1	N	N	N	1		
	28	N	N	N	N	N	N	N	1	N	N	N	1		
	30	N	N	N	N	N	N	N	1	N	N	N	1		
	32	N	N	N	1	N	N	N	1	N	N	1	2		
	34	N	N	N	1	N	N	N	1	N	N	1	2		
	36	N	N	N	1	N	N	1	2	N	N	1	2		
	38	N	N	N	1	N	N	1	2	N	1	1	2		
	40	N	N	N	1	N	N	1	2	N	1	1	2		
24"	24	N	N	N	N	N	N	N	N	N	N	N	1		
	28	N	N	N	N	N	N	N	1	N	N	N	1		
	30	N	N	N	N	N	N	N	1	N	N	N	1		
	32	N	N	N	N	N	N	N	1	N	N	1	1		
	34	N	N	N	1	N	N	N	1	N	N	1	2		
	36	N	N	N	1	N	N	N	1	N	N	1	2		
	38	N	N	N	1	N	N	N	1	N	N	1	2		
	40	N	N	N	1	N	N	N	1	N	N	1	2		

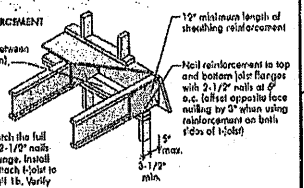
1. N = No reinforcement required.
   1 = NI reinforced with 3/4" wood structural panel on one side only.
   2 = NI reinforced with 3/4" wood structural panel on both sides, or double I-joist.
   X = Try a deeper joist or closer spacing.
2. Maximum design load shall be 15 psf roof dead load, 55 psf floor total load, and 60 plf wall load. Wall load is based on 3'-0" maximum width window or door openings.

For larger openings, or multiple 3'-0" width openings spaced less than 6'-0" o.c., additional joists beneath the opening's cripple studs may be required.

3. Table applies to joists 12" to 24" o.c. that meet the floor span requirements for a design live load of 40 psf and dead load of 15 psf, and a live load deflection limit of L/480. Use 12" o.c. requirements for lesser spacing.
4. For conventional roof construction using a ridge beam, the Roof Truss Span column above is equivalent to the distance between the supporting walls and the ridge beam. When the roof is framed using a ridge board, the Roof Truss Span is equivalent to the distance between the supporting walls or if a truss is used.
5. Cantilevered joists supporting girder trusses or roof beams may require additional reinforcing.

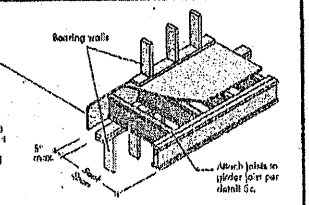
BRICK CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET (CONCENTRATED WALL LOAD)

5a SHEATHING REINFORCEMENT



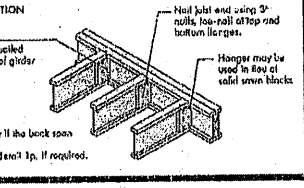
Note: Canadian softwood plywood sheathing or equivalent (minimum thickness 3/4") required on sides of joist. Depth shall match the full height of the joist. Nail with 2-1/2" nails at 6" o.c., top and bottom flange. Install with face grain horizontal. Attach I-joist to plate or all supports per detail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

5b SET-BACK DETAIL



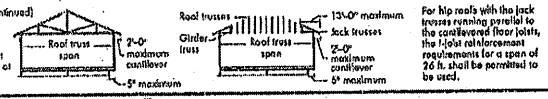
Notes:
- Provide full depth blocking between joists over support (not shown for clarity)
- Attach I-joist to plate at all supports per detail 1b.
- 3-1/2" minimum I-joist bearing required.

5c SET-BACK CONNECTION



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

FIGURE 5 (continued)



For hip roofs with the jack trusses running parallel to the cantilevered floor joists, the I-joist reinforcement requirements for a span of 26 ft. shall be permitted to be used.

BRICK CANTILEVER REINFORCEMENT METHODS ALLOWED

		9-1/2"				11-7/8"				14"				16"	
		1	2	3	4	1	2	3	4	1	2	3	4	1	2
12"	26	1	X	X	X	2	X	X	X	2	X	X	X		
	28	1	X	X	X	2	X	X	X	2	X	X	X		
	30	1	X	X	X	2	X	X	X	2	X	X	X		
	32	2	X	X	X	2	X	X	X	X	X	X	X		
	34	2	X	X	X	2	X	X	X	X	X	X	X		
	36	2	X	X	X	X	X	X	X	X	X	X	X		
16"	26	X	2	X	X	X	X	X	X	X	X	X	X		
	28	X	2	X	X	X	X	X	X	X	X	X	X		
	30	X	2	X	X	X	X	X	X	X	X	X	X		
	32	X	2	X	X	X	X	X	X	X	X	X	X		
	34	X	X	X	X	X	X	X	X	X	X	X	X		
	36	X	X	X	X	X	X	X	X	X	X	X	X		
	38	X	X	X	X	X	X	X	X	X	X	X	X		
19.2"	26	N	2	X	X	1	X	X	X	1	X	X	X		
	28	N	2	X	X	1	X	X	X	2	X	X	X		
	30	1	2	X	X	1	X	X	X	2	X	X	X		
	32	1	X	X	X	1	X	X	X	2	X	X	X		
	34	1	X	X	X	2	X	X	X	2	X	X	X		
	36	1	X	X	X	2	X	X	X	2	X	X	X		
	38	1	X	X	X	2	X	X	X	X	X	X	X		
	40	1	X	X	X	2	X	X	X	X	X	X	X		
24"	26	1	2	X	X	1	X	X	X	2	X	X	X		
	28	1	2	X	X	1	X	X	X	2	X	X	X		
	30	1	X	X	X	1	X	X	X	2	X	X	X		
	32	1	X	X	X	2	X	X	X	2	X	X	X		
	34	1	X	X	X	2	X	X	X	2	X	X	X		
	36	1	X	X	X	2	X	X	X	X	X	X	X		
	38	1	X	X	X	2	X	X	X	X	X	X	X		
	40	2	X	X	X	2	X	X	X	X	X	X	X		

1. N = No reinforcement required.
   1 = NI reinforced with 3/4" wood structural panel on one side only.
   2 = NI reinforced with 3/4" wood structural panel on both sides, or double I-joist.
   X = Try a deeper joist or closer spacing.
2. Maximum design load shall be 15 psf roof dead load, 55 psf floor total load, and 60 plf wall load. Wall load is based on 3'-0" maximum width window or door openings.

For larger openings, or multiple 3'-0" width openings spaced less than 6'-0" o.c., additional joists beneath the opening's cripple studs may be required.

3. Table applies to joists 12" to 24" o.c. that meet the floor span requirements for a design live load of 40 psf and dead load of 15 psf, and a live load deflection limit of L/480. Use 12" o.c. requirements for lesser spacing.
4. For conventional roof construction using a ridge beam, the Roof Truss Span column above is equivalent to the distance between the supporting walls and the ridge beam. When the roof is framed using a ridge board, the Roof Truss Span is equivalent to the distance between the supporting walls or if a truss is used.
5. Cantilevered joists supporting girder trusses or roof beams may require additional reinforcing.

The construction details for residential designs are prone to changes.

Details released after April 2014 supersedes N-C301

Installation must comply with latest documentation on I-Joist and other Nordic products from the http://nordic.ca/

This document 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 its component based on the design criteria and loadings shown on the calculation sheets.

Document prepared for the use of Stephanie Gon from Alpa, Ontario. (Nordic Request 1810-095)

WEB HOLES

RULES FOR CUTTING HOLES AND DUCT CHASE OPENINGS:

1. 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 equal the clear distance between the flanges of the I-joist minus 1/4 inch. A minimum of 1/8 inch should always be maintained between the top or bottom of the hole or opening and the adjacent I-joist flange.
5. The sides of square holes or longest sides of rectangular holes should not exceed 3/4 of the diameter of the maximum round hole permitted at that location.
6. Where more than one hole is necessary, the distance between adjacent hole edges shall exceed twice the diameter of the largest round hole or twice the size of the largest square hole *(or twice the length of the longest side of the longest rectangular hole or duct chase opening)* and each hole and duct chase opening shall be sized and located in compliance with the requirements of Tables 1 and 2, respectively.
7. A knockout is not considered a hole, may be utilized anywhere it occurs, and may be ignored for purposes of calculating minimum distances between holes and/or duct chase openings.
8. Holes measuring 1-1/2 inches or smaller shall be permitted anywhere in a cantilevered section of a joist. Holes of greater size may be permitted subject to verification.
9. A 1-1/2 inch hole or smaller can be placed anywhere in the web provided that it meets the requirements of rule number 6 above.
10. All holes and duct chase openings shall be cut in a workman-like manner in accordance with the restrictions listed above and as illustrated in *Figure 7*.
11. Limit three maximum size holes per span, of which one may be a duct chase opening.
12. 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.

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

9-1/2"	[illegible]	[illegible]
11-7/8"	[illegible]	[illegible]
14"	[illegible]	[illegible]
16"	[illegible]	[illegible]

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

OPTIONAL:

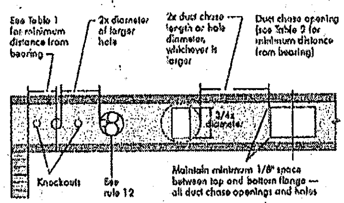
The above table is based on the I-joists used at their maximum span. If the I-joists are placed at less than their full maximum span (see Maximum Floor Spans), the minimum distance from the centreline of the hole to the face of any support (D) as given above may be reduced as follows:

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

Where
- $D_{reduced}$ = Distance from the inside face of any support to centre of hole, reduced for less-than-maximum span applications (ft). The reduced distance shall not be less than 6 inches from the face of the support to edge of the hole.
- L_{actual} = The actual measured span distance between the inside faces of supports (ft).
- SAF = Span Adjustment Factor given in this table.
- D = The minimum distance from the inside face of any support to centre of hole from this table.

If $\frac{L_{actual}}{SAF}$ is greater than 1, use 1 in the above calculation for $\frac{L_{actual}}{SAF}$.

FIGURE 7
FIELD-CUT HOLE LOCATOR



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

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

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

Holes in webs should be cut with a sharp saw.

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

TABLE 2
DUCT CHASE OPENING SIZES AND LOCATIONS — Simple Span Only

9-1/2"	[illegible]	[illegible]
11-7/8"	[illegible]	[illegible]
14"	[illegible]	[illegible]
16"	[illegible]	[illegible]

1. Above table may be used for I-joist spacing of 24 inches on centre or less.
2. Duct chase opening location distance is measured from inside face of supports to centre of opening.
3. The above table is based on simple-span joists only. For other applications, contact your local distributor.
4. Distances are based on uniformly loaded floor joists that meet the span requirements for a design live load of 40 psf and dead load of 15 psf, and a live load deflection limit of L/480. For other applications, contact your local distributor.

INSTALLING THE GLUED FLOOR SYSTEM

1. Wipe any mud, dirt, water, or ice from I-joist flanges before gluing.
2. Snap a chalk line across the I-joists four feet in from the wall for panel edge alignment and as a boundary for spreading glue.
3. Spread only enough glue to lay one or two panels at a time, or follow specific recommendations from the glue manufacturer.
4. Lay the first panel with tongue side to the wall, and nail in place. This protects the tongue of the next panel from damage when tapped into place with a block and sledgehammer.
5. Apply a continuous line of glue (about 1/4-inch diameter) to the top flange of a single I-joist. Apply glue in a winding pattern on wide areas, such as with double I-joists.
6. Apply two lines of glue on I-joists where panel ends butt to assure proper gluing of each end.
7. After the first row of panels is in place, spread glue in the groove of one or two panels at a time before laying the next row. Glue line may be continuous or spaced, but avoid squeeze-out by applying a thinner line (1/8 inch) than used on I-joist flanges.
8. Tap the second row of panels into place, using a block to protect groove edges.
9. Stagger end joints in each succeeding row of panels. A 1/8-inch space between all end joints and 1/8-inch at all edges, including T&G edges, is recommended. (Use a spacer tool or an 2-1/2" common nail to assure accurate and consistent spacing.)
10. Complete all nailing of each panel before glue sets. Check the manufacturer's recommendations for cure time. (Warm weather accelerates glue setting.) Use 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. Closer nail spacing may be required by some codes, or for diaphragm construction. The 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)

16	5/8	2"	1-3/4"	2"	6"	12"
20	5/8	2"	1-3/4"	2"	6"	12"
24	3/4	2"	1-3/4"	2"	6"	12"

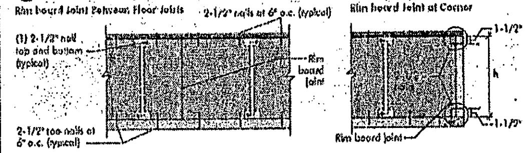
1. Fasteners of sheathing and subflooring shall conform to the above table.
2. Staples shall not be less than 1/16-inch in diameter or thickness, with not less than a 3/8-inch crown driven with the crown parallel to framing.
3. Flooring screws shall not be less than 1/8-inch in diameter.
4. Special conditions may impose heavy traffic and concentrated loads that require construction in excess of the minimums shown.
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 glues; check with panel manufacturer.

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

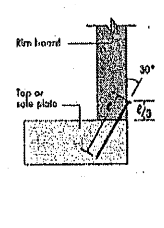
IMPORTANT NOTE:
Floor sheathing must be field glued to the I-joist flanges in order to achieve the maximum spans shown in this document. If sheathing is nailed only, I-joist spans must be verified with your local distributor.

RIM BOARD INSTALLATION DETAILS

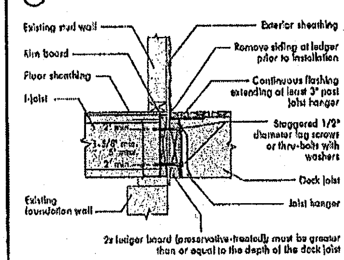
(8a) ATTACHMENT DETAILS WHERE RIM BOARDS ABUT

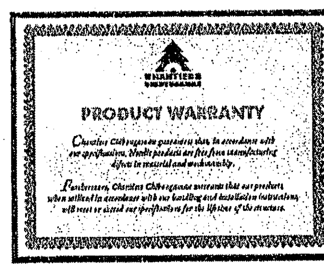


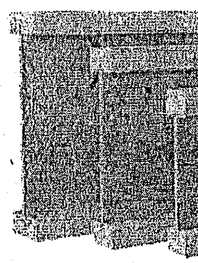
(8b) TOE-NAIL CONNECTION AT RIM BOARD



(8c) 2X LEDGER TO RIM BOARD ATTACHMENT DETAIL





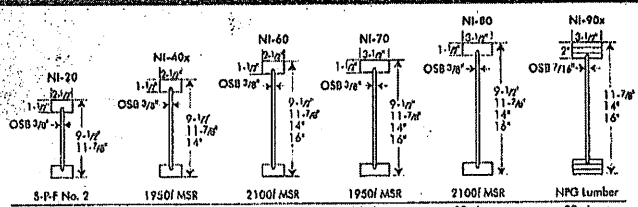


CONSTRUCTION DETAILS FOR RESIDENTIAL FLOORS

NORDIC ENGINEERED WOOD

www.nordicewp.com

FSC



NI-20	NI-40x	NI-60	NI-70	NI-80	NI-90x
S-P-F No. 2	1950f MSR	2100f MSR	1950f MSR	2100f MSR	NPG Lumber
33 pieces per unit	33 pieces per unit	33 pieces per unit	23 pieces per unit	23 pieces per unit	23 pieces per unit

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:

1. 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 equal the clear distance between the flanges of the I-joist minus 1/4 inch. A minimum of 1/8 inch should always be maintained between the top or bottom of the hole or opening and the adjacent I-joist flange.
5. The sides of square holes or longest sides of rectangular holes should not exceed 3/4 of the diameter of the maximum round hole permitted at that location.
6. Where more than one hole is necessary, the distance between adjacent hole edges shall exceed twice the diameter of the largest round hole or twice the size of the largest square hole *(or twice the length of the longest side of the longest rectangular hole or duct chase opening)* and each hole and duct chase opening shall be sized and located in compliance with the requirements of Tables 1 and 2, respectively.
7. A knockout is not considered a hole, may be utilized anywhere it occurs, and may be ignored for purposes of calculating minimum distances between holes and/or duct chase openings.
8. Holes measuring 1-1/2 inches or smaller are permitted anywhere in a cantilevered section of a joist. Holes of greater size may be permitted subject to verification.
9. A 1-1/2 inch hole or smaller can be placed anywhere in the web provided that it meets the requirements of rule number 6 above.
10. All holes and duct chase openings shall be cut in a workmanlike 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 chase opening.
12. 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.

TABLE 1

LOCATION OF CIRCULAR HOLES IN JOIST WEBS

Simple or Multiple Span for Dead Loads up to 15 psf and Live Loads up to 40 psf

Joist Depth	Joist Series	Minimum Distance from Inside Face of Any Support to Centre of Hole (ft - in.) Round Hole Diameter (in.)													
		2	3	4	5	6	6-1/4	7	8	8-5/8	9	10	10-3/4	11	12	12-3/4
9-1/2"	NI-20	0'-7"	1'-6"	2'-10"	4'-3"	5'-8"	6'-0"	---	---	---	---	---	---	---	---	---
	NI-40x	0'-7"	1'-6"	3'-0"	4'-4"	6'-0"	6'-4"	---	---	---	---	---	---	---	---	---
	NI-60	1'-3"	2'-6"	4'-0"	5'-4"	7'-0"	7'-5"	---	---	---	---	---	---	---	---	---
	NI-70	2'-0"	3'-4"	4'-9"	6'-3"	8'-0"	8'-4"	---	---	---	---	---	---	---	---	---
	NI-80	2'-3"	3'-6"	5'-0"	6'-5"	8'-2"	8'-8"	---	---	---	---	---	---	---	---	---
11-7/8"	NI-20	0'-7"	0'-8"	1'-0"	2'-4"	3'-8"	4'-0"	5'-0"	6'-6"	7'-9"	---	---	---	---	---	---
	NI-40x	0'-7"	0'-8"	1'-3"	2'-01"	4'-0"	4'-4"	5'-5"	7'-0"	8'-4"	---	---	---	---	---	---
	NI-60	0'-7"	1'-8"	3'-0"	4'-3"	5'-9"	6'-0"	7'-3"	8'-10"	10'-0"	---	---	---	---	---	---
	NI-70	1'-3"	2'-6"	4'-0"	5'-4"	6'-9"	7'-2"	8'-4"	10'-0"	11'-2"	---	---	---	---	---	---
	NI-80	1'-6"	2'-10"	4'-2"	5'-6"	7'-0"	7'-5"	8'-6"	10'-3"	11'-4"	---	---	---	---	---	---
	NI-90x	0'-7"	0'-8"	0'-9"	2'-5"	4'-4"	4'-9"	6'-0"	---	---	---	---	---	---	---	---
14"	NI-40x	0'-7"	0'-8"	0'-8"	1'-0"	2'-4"	2'-9"	3'-9"	5'-2"	6'-0"	6'-6"	8'-3"	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"	---	---	---
	NI-70	0'-8"	1'-10"	3'-0"	4'-5"	5'-10"	6'-2"	7'-3"	8'-9"	9'-9"	10'-4"	12'-0"	13'-5"	---	---	---
	NI-80	0'-10"	2'-0"	3'-4"	4'-9"	6'-2"	6'-5"	7'-6"	9'-0"	10'-0"	10'-8"	12'-4"	13'-9"	---	---	---
	NI-90x	0'-7"	0'-8"	0'-8"	2'-0"	3'-9"	4'-2"	5'-5"	7'-3"	8'-5"	9'-2"	---	---	---	---	---
16"	NI-60	0'-7"	0'-8"	0'-8"	1'-6"	2'-10"	3'-2"	4'-2"	5'-6"	6'-4"	7'-0"	8'-5"	9'-8"	10'-2"	12'-2"	13'-9"
	NI-70	0'-7"	1'-0"	2'-3"	3'-6"	4'-10"	5'-3"	6'-3"	7'-8"	8'-6"	9'-2"	10'-8"	12'-0"	12'-4"	14'-0"	15'-6"
	NI-80	0'-7"	1'-3"	2'-6"	3'-10"	5'-3"	5'-6"	6'-6"	8'-0"	9'-0"	9'-5"	11'-0"	12'-3"	12'-9"	14'-5"	16'-0"
	NI-90x	0'-7"	0'-8"	0'-9"	2'-0"	3'-6"	4'-0"	5'-0"	6'-9"	7'-9"	8'-4"	10'-2"	11'-6"	12'-0"	---	---

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

TABLE 2

DUCT CHASE OPENING SIZES AND LOCATIONS

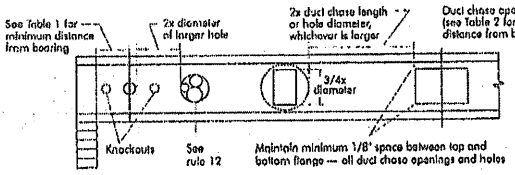
Simple Span Only

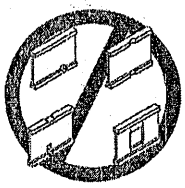
Joist Depth	Joist Series	Minimum Distance from Inside Face of Supports to Centre of Opening (ft - in.) Duct Chase Length (in.)								
		8	10	12	14	16	18	20	22	24
9-1/2"	NI-20	4'-1"	4'-6"	4'-10"	5'-4"	5'-8"	6'-1"	6'-6"	7'-1"	7'-5"
	NI-40x	5'-3"	5'-8"	6'-0"	6'-5"	6'-10"	7'-3"	7'-8"	8'-2"	8'-6"
	NI-60	5'-4"	5'-9"	6'-2"	6'-7"	7'-1"	7'-5"	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	5'-3"	5'-8"	6'-0"	6'-5"	6'-10"	7'-3"	7'-8"	8'-2"	8'-6"
11-7/8"	NI-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"	9'-1"	9'-6"	10'-1"	10'-9"
	NI-60	7'-3"	7'-8"	8'-0"	8'-6"	9'-0"	9'-3"	9'-9"	10'-3"	11'-0"
	NI-70	7'-1"	7'-4"	7'-9"	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"	10'-8"
	NI-90x	7'-7"	8'-1"	8'-5"	8'-10"	9'-4"	9'-8"	10'-2"	10'-8"	11'-2"
14"	NI-40x	8'-1"	8'-7"	9'-0"	9'-6"	10'-1"	10'-7"	11'-2"	12'-0"	12'-0"
	NI-60	8'-9"	9'-3"	9'-8"	10'-1"	10'-6"	11'-1"	11'-6"	13'-3"	13'-0"
	NI-70	8'-7"	9'-1"	9'-5"	9'-10"	10'-4"	10'-8"	11'-2"	11'-7"	12'-3"
	NI-80	9'-0"	9'-3"	9'-9"	10'-1"	10'-7"	11'-1"	11'-6"	12'-1"	12'-6"
	NI-90x	9'-4"	9'-9"	10'-3"	10'-7"	11'-1"	11'-7"	12'-1"	12'-7"	13'-2"
16"	NI-60	10'-3"	10'-8"	11'-2"	11'-6"	12'-1"	12'-6"	13'-2"	14'-1"	14'-10"
	NI-70	10'-1"	10'-5"	11'-0"	11'-4"	11'-10"	12'-3"	12'-8"	13'-3"	14'-0"
	NI-80	10'-4"	10'-9"	11'-3"	11'-9"	12'-1"	12'-7"	13'-1"	13'-8"	14'-4"
	NI-90x	11'-1"	11'-5"	11'-10"	12'-4"	12'-10"	13'-2"	13'-9"	14'-4"	15'-2"

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

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 diameter, and are spaced 15 inches on centre along the length of the I-joist. Where possible, it is preferable to use knockouts instead of field-cut holes.

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

Holes in webs should be cut with a sharp saw.

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

SAFETY AND CONSTRUCTION PRECAUTIONS

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

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

WARNING: I-joists are not stable until completely installed, and will not carry any load until fully braced and sheathed.

AVOID ACCIDENTS BY FOLLOWING THESE IMPORTANT GUIDELINES:

1. Brace and nail each I-joist as it is installed, using hangers, blocking panels, rim board, and/or cross-bridging at joist ends. When I-joists are applied continuous over interior supports and a load-bearing wall is planned at that location, blocking will be required at the interior support.
2. When the building is completed, the floor sheathing will provide lateral support for the top flanges of the I-joists. Until this sheathing is applied, temporary bracing, often called struts, or temporary sheathing must be applied to prevent I-joist rollover or buckling.
   - Temporary bracing or struts must be 1x4 inch minimum, at least 8 feet long and spaced no more than 8 feet on centre, and must be secured with a minimum of two 2-1/2" nails fastened to the top surface of each I-joist. Nail the bracing to a lateral restraint at the end of each bay. Lap ends of adjoining bracing over at least two I-joists.
   - Or, sheathing (temporary or permanent) can be nailed to the top flange of the first 4 feet of I-joists at the end of the bay.
3. For cantilevered I-joists, brace top and bottom flanges, and brace ends with closure panels, rim board, or cross-bridging.
4. Install and fully nail permanent sheathing to each I-joist before placing loads on the floor system. Then, stack building materials over beams or walls only.
5. Never install a damaged I-joist.

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

CHANTIERS CHIBOUGAMAU

PRODUCT WARRANTY

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

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

PROFESSIONAL ENGINEER
L. RAYMOND
100501723
CofA # 100504746
Oct. 17 2018
PROVINCE OF ONTARIO

The construction details for residential designs are prone to changes.

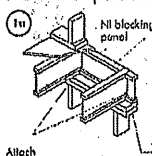
Details released after September 2013 supersedes N-303

Installation must comply with latest documentation on I-Joist and other Nordic products from the http://nordic.ca/

This document 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 its component based on the design criteria and loadings shown on the calculation sheets.

Document prepared for the use of Stephanie Gon from Alpa, Ontario. (Nordic Request 1810-095)

1a

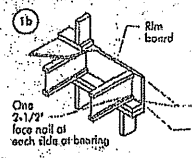


Blocking Panel or Rim Joist	Maximum Factored Uniform Vertical Load* (plf)
NI Joists	3,300

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

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

1b



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

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

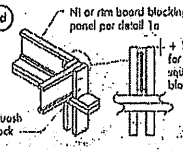
One 2-1/2" wire or spiral nail at top and bottom flange

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

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

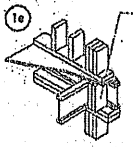
1d



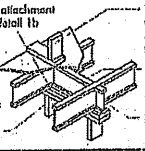
Pair of Squash Blocks	Maximum Factored Vertical Load per Pair of Squash Blocks (lbs)	
	3-1/2" wide	5-1/2" wide
2x Lumber	5,100	8,500
1-1/8" Rim Board Plus	4,200	6,600

Provide lateral bracing per detail 1a or 1b

1e



1g



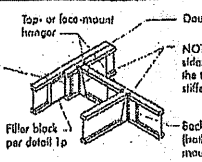
1h

Backer block (use if hanger load exceeds 360 lbs). Before installing a backer block to a double I-joist, drive three additional 3" nails through the web and filler block where the backer block will fit. Clinch. Install backer tight to top flange. Use twelve 3" nails, clinched when possible. Maximum factored resistance for hanger for this detail = 1,620 lbs.

BACKER BLOCKS (blocks must be long enough to permit required nailing without splitting)

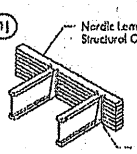
Flange Width	Material Thickness Required*	Minimum Depth**
2-1/2"	1"	5-1/2"
3-1/2"	1-1/2"	7-1/4"

* Minimum grade for backer block material shall be S-P-F No. 2 or better for solid sawn lumber and wood structural panels conforming to CAN/CSA-O325 or CAN/CSA-O437 Standard.
** For face-mount hangers use net joist depth minus 3-1/4" for joists with 1-1/2" thick flanges. For 2" thick flanges use net depth minus 4-1/4".



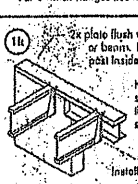
For hanger capacity see hanger manufacturer's recommendations. Verify double I-joist capacity to support concentrated loads.

1i

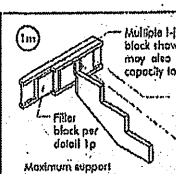


NOTE: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

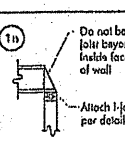
1k



1m

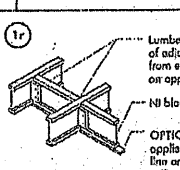


1n

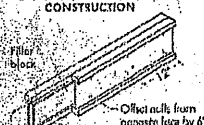


NOTE: Blocking required at bearing for lateral support, not shown for clarity.

1r



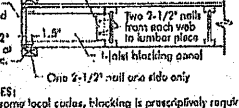
1p FILLER BLOCK REQUIREMENTS FOR DOUBLE I-JOIST CONSTRUCTION



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

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

1s



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

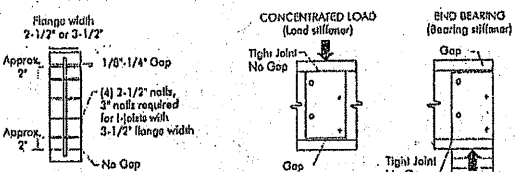
All nails shown in the above details are assumed to be common wire nails unless otherwise noted. 3" (0.122" dia.) common spiral nails may be substituted for 2-1/2" (0.120" dia.) common wire nails. Framing lumber assumed to be Spruce-Pine-Fir No. 2 or better. Individual components not shown to scale for clarity.

WEB STIFFENERS

RECOMMENDATIONS:

- 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 stiffener and the flange is at the top.
- A *bearing stiffener* is required when the I-joist is supported in a hanger and the sides of the hanger do not extend up to, and support, the top flange. The gap between the stiffener and flange is at the top.
- A *load stiffener* is required at locations where a factored concentrated load greater than 2,370 lbs is applied to the top flange between supports, or at the face of a cantilever, anywhere between the cantilever tip and the support. These values are for standard term load duration, and may be adjusted for other load durations as permitted by the code. The gap between the stiffener and the flange is at the bottom.

FIGURE 2
WEB STIFFENER INSTALLATION DETAILS

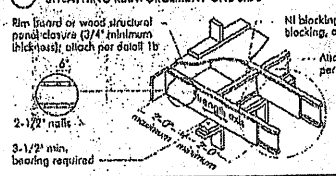


See the adjacent table for web stiffener size requirements

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

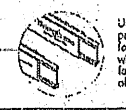
CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET

4a Method 1 — SHEATHING REINFORCEMENT ONE SIDE



Method 2 — SHEATHING REINFORCEMENT TWO SIDES

Use same installation as Method 1 but reinforce both sides of I-joist with sheathing.

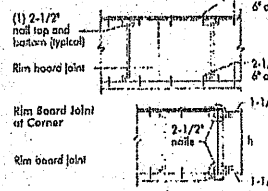


NOTE: Canadian softwood plywood sheathing or equivalent (minimum thickness 3/8") required on sides of joist. Depth shall match the full height of the joist. Nail with 2-1/2" nails at 6" o.c., top and bottom flange, install with face grain horizontal. Attach I-joist to plate at all supports per detail 1b. Verify reinforced I-joist capacity.

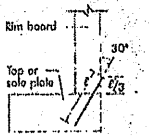
RIM BOARD INSTALLATION DETAILS

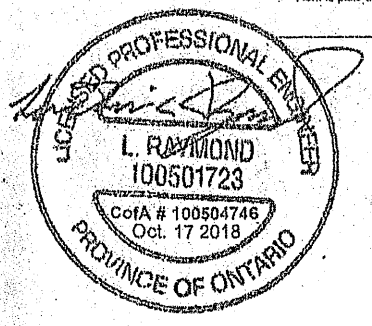
8a ATTACHMENT DETAILS WHERE RIM BOARDS ABUT

Rim Board Joint Between Floor Joists



8b TOE-NAIL CONNECTION AT RIM BOARD





The construction details for residential designs are prone to changes.

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Installation must comply with latest documentation on I-Joist and other Nordic products from the http://nordic.ca/

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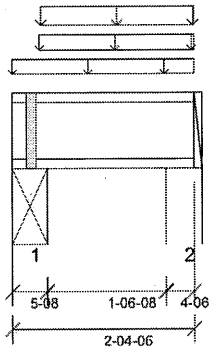
Document prepared for the use of Stephanie Gon from Alpa, Ontario. (Nordic Request 1810-095)

MiTek	Customer: **Gold Park Homes** Job Address: **Pine Valley Ph2** City: **Vaughan** Job Track: **45147**	Job Name: **343073 Ground A + Second A (1,** Level: **Second Floor** Label: **B1 - i50586** Type: **Beam**	**1 Ply Member** **11 7/8" NI-20**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.5.3.233.Update5.15

Report Version: 2021.03.26 04/01/2022 16:42



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)
Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 1'- 6 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'- 4 1/2"
- 615 psi Wall @ 2'- 1"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	1'- 2 7/16"	1.25D + 1.5L	0.65	58 lb ft	3649 lb ft	Passed - 2%
Factored Shear:	1'- 11 15/16"	1.25D + 1.5L	0.65	135 lb	1465 lb	Passed - 9%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	5-08	1.25D + 1.5L	0.65	147 lb		1465 lb	6914 lb	Passed - 10%
2	4-06	1.25D + 1.5L	0.65	203 lb		1465 lb	4400 lb	Passed - 14%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	2'- 4 3/8"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	2'- 4 3/8"	FC2 Floor Decking (Plan View Fill)	Top	2 lb/ft	4 lb/ft	-	-
Uniform	0'- 4 1/4"	2'- 4 3/8"	FC2 Floor Decking (Plan View Fill)	Top	6 lb/ft	17 lb/ft	-	-
Uniform	0'- 4 1/2"	2'- 4 3/8"	E26(i41636)	Top	101 lb/ft	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	ST. BEAM (DR.)(i41693)	95 lb	20 lb	-	-
2	2'	2'- 4 3/8"	E9(i41609)	130 lb	26 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

SE046729