

Products					
PlotID	Length	Product	Piles	Net Qty	
B14	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4	4
B15	18-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4	4
B16	13-00-00	11 7/8" NI-20	2	2	2
B17	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1	1
B18	11-00-00	11 7/8" NI-20	1	1	1
B19 (-4R)	7-00-00	11 7/8" NI-20	1	1	1
B20 (-4R)	5-00-00	11 7/8" NI-20	1	1	1
B21 (-4R)	10-00-00	11 7/8" NI-20	1	1	1
B22 (-4R)	4-00-00	11 7/8" NI-20	2	2	2
B23	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	2
B24	2-00-00	11 7/8" NI-20	1	1	1
B25	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3	3
B26	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4	4
B27	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	2
J1	14-00-00	11 7/8" NI-20	1	16	16
J2	13-00-00	11 7/8" NI-20	1	9	9
J3	12-00-00	11 7/8" NI-20	1	6	6
J4	10-00-00	11 7/8" NI-20	1	8	8
J5	7-00-00	11 7/8" NI-20	1	9	9
J6	6-00-00	11 7/8" NI-20	1	15	15
J7	4-00-00	11 7/8" NI-20	1	4	4
J8	3-00-00	11 7/8" NI-20	1	4	4
J9	2-00-00	11 7/8" NI-20	1	11	11
J10	21-00-00	11 7/8" NI-40x	1	13	13
J11	20-00-00	11 7/8" NI-40x	1	10	10
J12	20-00-00	11 7/8" NI-40x	2	4	4
J13	18-00-00	11 7/8" NI-40x	1	37	37
J14	18-00-00	11 7/8" NI-40x	2	8	8
J15	17-00-00	11 7/8" NI-40x	1	8	8
Ca1	237-00-00	1 1/8" x 11 7/8" Rim Board	1	1	1
Bk1	123-00-00	11 7/8" NI-20	1	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS5.50/10
H2	1		HGUS7.25/10
H3	1		HHGU7.25-SDS5
H4	1		HU312-2
H5	111		LT251188
H6	2		MIT311.88-2

REVISION 1 - JUN. 06, 2022

GROUND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
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.

SE047042 - SE047089
SE048435 - SE048436

JT/PL: 45147/(116409) 118037
LI: (343076) 345513*

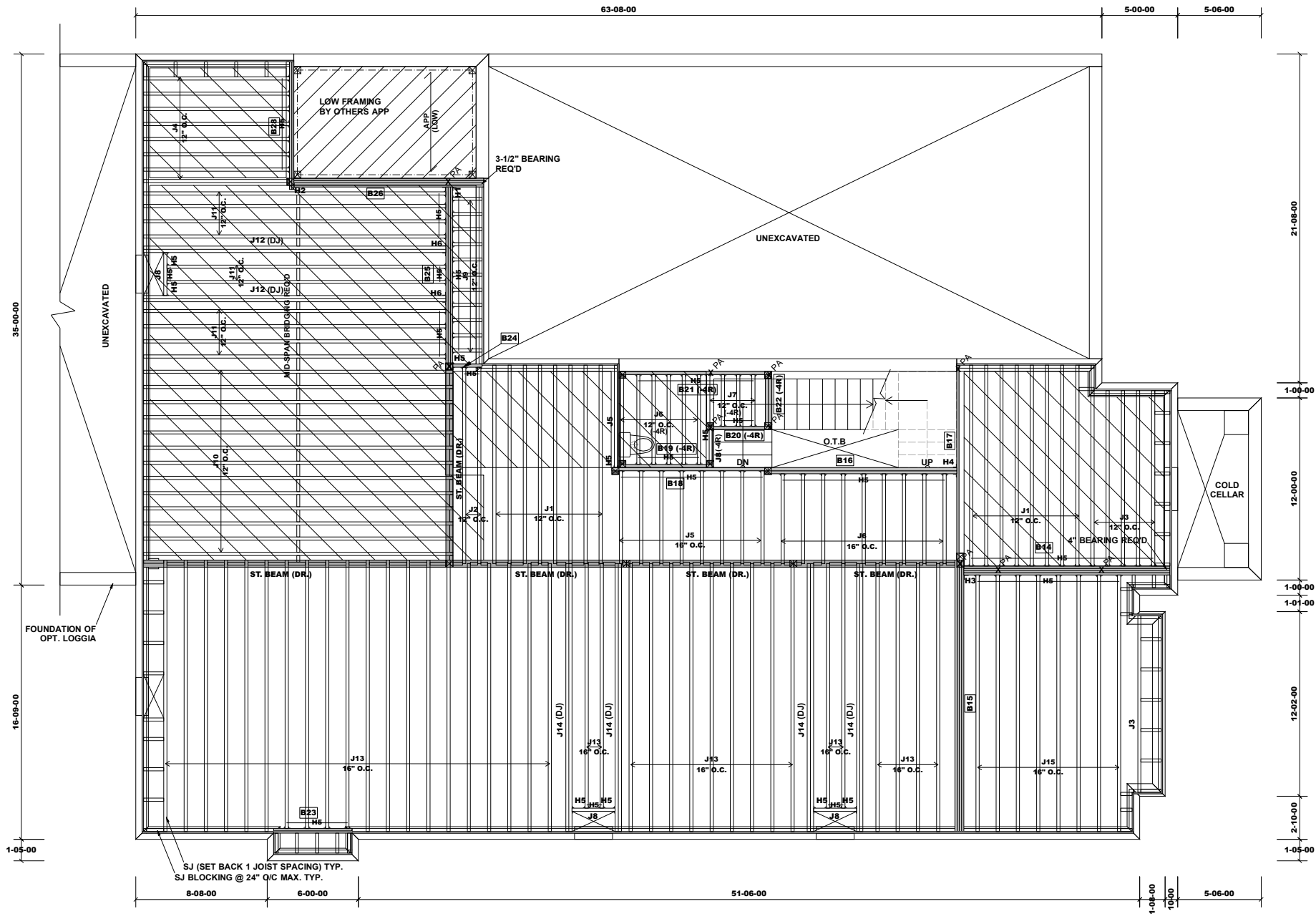
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 27, 2022

Designer: TL
Sheet: 1 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products					
PlotID	Length	Product	Piles	Net Qty	
B14	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4	
B15	18-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4	
B16	13-00-00	11 7/8" NI-20	2	2	
B17	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1	
B18	11-00-00	11 7/8" NI-20	1	1	
B19 (-4R)	7-00-00	11 7/8" NI-20	1	1	
B20 (-4R)	5-00-00	11 7/8" NI-20	1	1	
B21 (-4R)	10-00-00	11 7/8" NI-20	1	1	
B22 (-4R)	4-00-00	11 7/8" NI-20	2	2	
B23	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
B24	2-00-00	11 7/8" NI-20	1	1	
B25	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3	
B26	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4	
B28	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
J1	14-00-00	11 7/8" NI-20	1	16	
J2	13-00-00	11 7/8" NI-20	1	2	
J3	12-00-00	11 7/8" NI-20	1	6	
J4	10-00-00	11 7/8" NI-20	1	8	
J5	7-00-00	11 7/8" NI-20	1	9	
J6	6-00-00	11 7/8" NI-20	1	15	
J7	4-00-00	11 7/8" NI-20	1	4	
J8	3-00-00	11 7/8" NI-20	1	4	
J9	2-00-00	11 7/8" NI-20	1	11	
J10	21-00-00	11 7/8" NI-40x	1	13	
J11	20-00-00	11 7/8" NI-40x	1	10	
J12	20-00-00	11 7/8" NI-40x	2	4	
J13	18-00-00	11 7/8" NI-40x	1	37	
J14	18-00-00	11 7/8" NI-40x	2	8	
J15	17-00-00	11 7/8" NI-40x	1	8	
Ca1	216-01-12	1 1/8" x 11 7/8" Rim Board	1	1	
Bk1	117-00-00	11 7/8" NI-20	1	1	

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS5.50/10
H2	1		HGUS7.25/10
H3	1		HHGU7.25-SDS5
H4	1		HU312-2
H5	104		LT251188
H6	2		MIT311.88-2

REVISION 1 - JUN. 06, 2022

GROUND FLOOR FRAMING

UNIT 6002 - THE KINGSVIEW

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) 118037
LI: (343076) 345513*

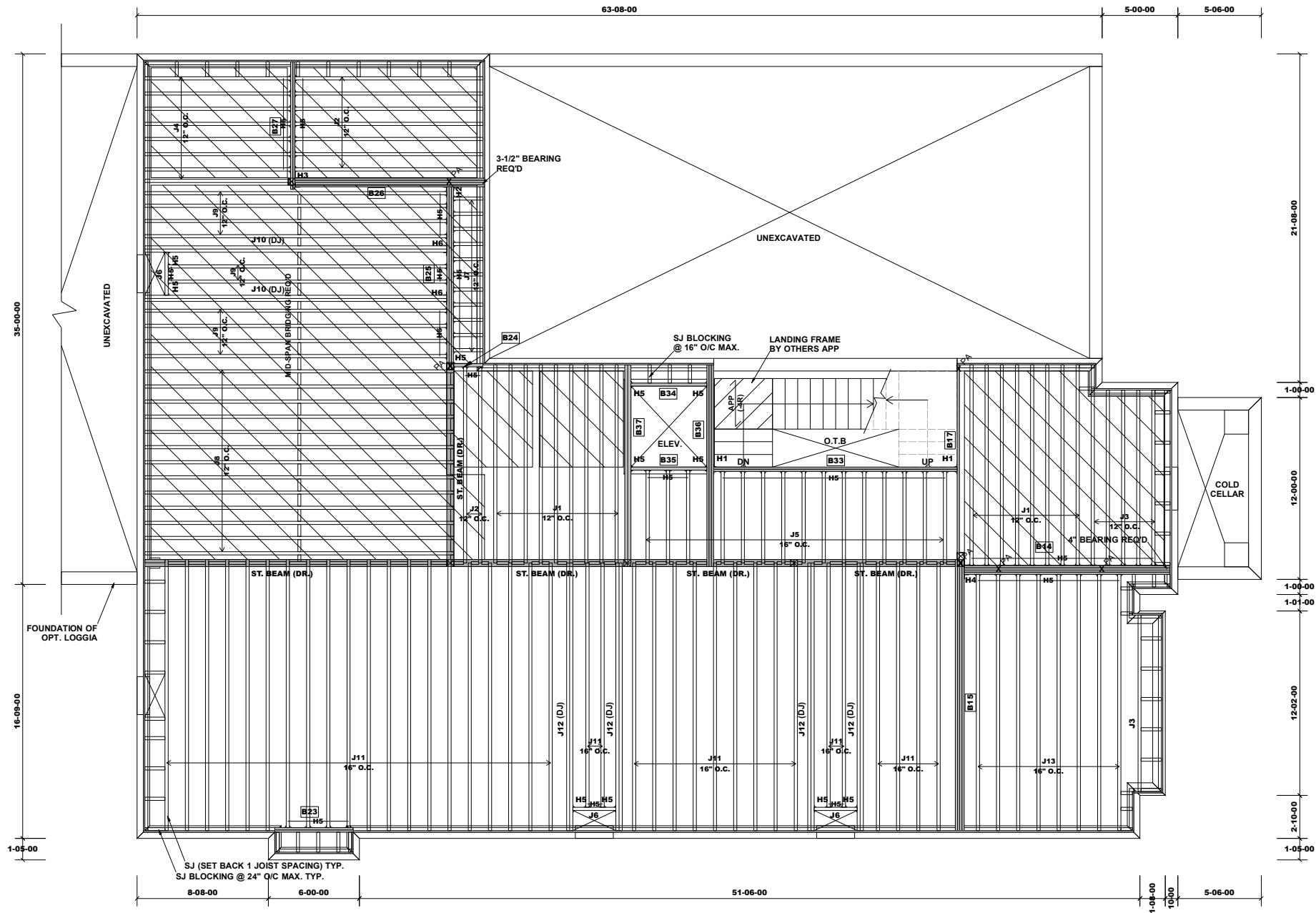
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 27, 2022

Designer: TL
Sheet: 2 of 24

Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products					
PlotID	Length	Product	Piles	Net Qty	
B14	14'-00'-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4	
B15	18'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4	
B17	13'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1	
B23	6'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
B24	2'-00'-00	11 7/8" NI-20	1	1	
B25	13'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3	
B26	13'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4	
B27	9'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
B33	17'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
B34	5'-00'-00	11 7/8" NI-20	1	1	
B35	5'-00'-00	11 7/8" NI-20	1	1	
B36	14'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3	
B37	14'-00'-00	11 7/8" NI-20	2	2	
J1	14'-00'-00	11 7/8" NI-20	1	17	
J2	13'-00'-00	11 7/8" NI-20	1	9	
J3	12'-00'-00	11 7/8" NI-20	1	6	
J4	10'-00'-00	11 7/8" NI-20	1	8	
J5	7'-00'-00	11 7/8" NI-20	1	15	
J6	3'-00'-00	11 7/8" NI-20	1	3	
J7	2'-00'-00	11 7/8" NI-20	1	11	
J8	21'-00'-00	11 7/8" NI-40x	1	13	
J9	20'-00'-00	11 7/8" NI-40x	1	10	
J10	20'-00'-00	11 7/8" NI-40x	2	4	
J11	18'-00'-00	11 7/8" NI-40x	1	37	
J12	18'-00'-00	11 7/8" NI-40x	2	8	
J13	17'-00'-00	11 7/8" NI-40x	1	8	
Ca1	227'-00'-00	1 1/8" x 11 7/8" Rim Board	1	1	
Bk1	126'-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		HGUS7.25/10
H4	1		HHGU7.25-SDS5
H5	94		LT251188
H6	2		MIT311.88-2

REVISION 1 - JUN. 06, 2022

GROUND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
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

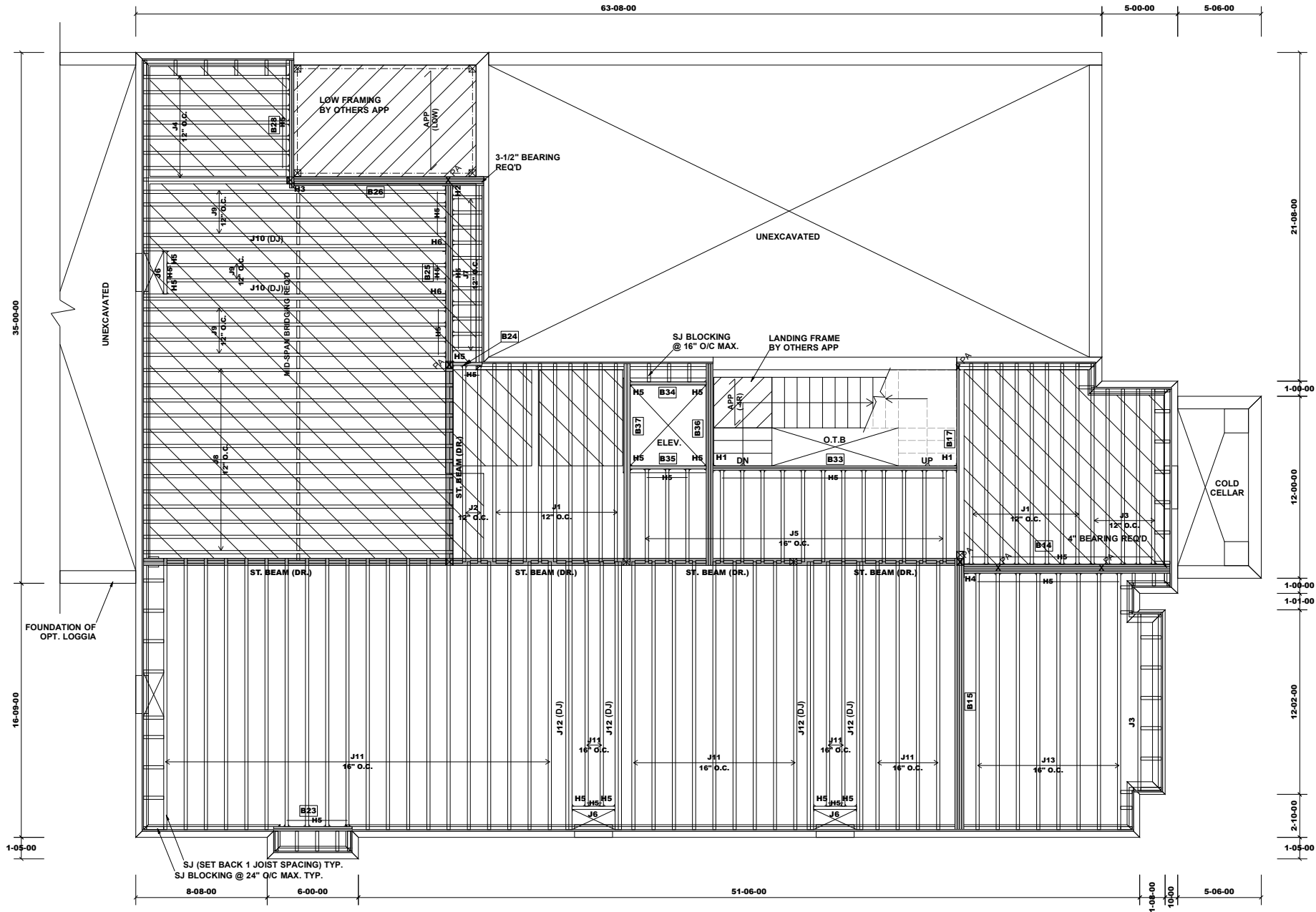
SUBFLOOR: 3/4" NAILED & GLUED*

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.



Products					
PlotID	Length	Product	Piles	Net Qty	
B14	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4	
B15	18-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4	
B17	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1	
B23	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
B24	2-00-00	11 7/8" NI-20	1	1	
B25	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3	
B26	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4	
B28	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
B33	17-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
B34	5-00-00	11 7/8" NI-20	1	1	
B35	5-00-00	11 7/8" NI-20	1	1	
B36	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3	
B37	14-00-00	11 7/8" NI-20	2	2	
J1	14-00-00	11 7/8" NI-20	1	17	
J2	13-00-00	11 7/8" NI-20	1	2	
J3	12-00-00	11 7/8" NI-20	1	6	
J4	10-00-00	11 7/8" NI-20	1	8	
J5	7-00-00	11 7/8" NI-20	1	15	
J6	3-00-00	11 7/8" NI-20	1	3	
J7	2-00-00	11 7/8" NI-20	1	11	
J8	21-00-00	11 7/8" NI-40x	1	13	
J9	20-00-00	11 7/8" NI-40x	1	10	
J10	20-00-00	11 7/8" NI-40x	2	4	
J11	18-00-00	11 7/8" NI-40x	1	37	
J12	18-00-00	11 7/8" NI-40x	2	8	
J13	17-00-00	11 7/8" NI-40x	1	8	
Ca1	207-00-00	1 1/8" x 11 7/8" Rim Board	1	1	
Bk1	120-00-00	11 7/8" NI-20	1	1	

Connector Summary			
PlotID	Qty	Manuf	Product
H1	2		HGUS410
H2	1		HGUS5.50/10
H3	1		HGUS7.25/10
H4	1		HHGU7.25-SDS5
H5	87		LT251188
H6	2		MIT311.88-2

REVISION 1 - JUN. 06, 2022

GROUND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
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

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Do not scale - refer to architectural plans for dimensions.

JT/PL: 45147/(116409) 118037
LI: (343076) 345513*

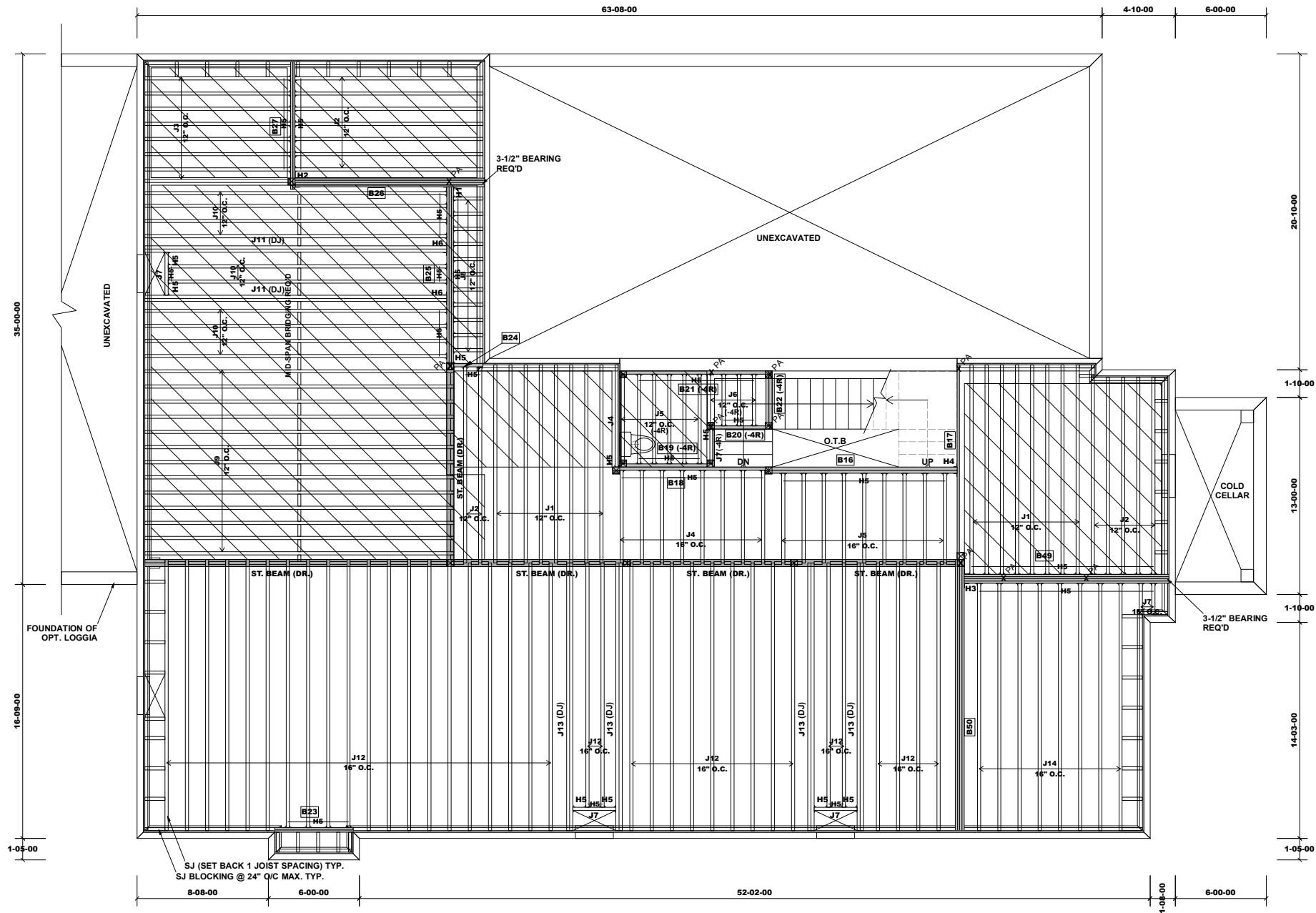
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 27, 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	
B16	13-00-00	11 7/8" NI-20	2	2	
B17	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1	
B18	11-00-00	11 7/8" NI-20	1	1	
B19 (-4R)	7-00-00	11 7/8" NI-20	1	1	
B20 (-4R)	5-00-00	11 7/8" NI-20	1	1	
B21 (-4R)	10-00-00	11 7/8" NI-20	1	1	
B22 (-4R)	4-00-00	11 7/8" NI-20	2	2	
B23	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
B24	2-00-00	11 7/8" NI-20	1	1	
B25	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3	
B26	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4	
B27	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
B49	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4	
B50	18-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4	
J1	14-00-00	11 7/8" NI-20	1	16	
J2	13-00-00	11 7/8" NI-20	1	14	
J3	10-00-00	11 7/8" NI-20	1	8	
J4	7-00-00	11 7/8" NI-20	1	9	
J5	6-00-00	11 7/8" NI-20	1	15	
J6	4-00-00	11 7/8" NI-20	1	4	
J7	3-00-00	11 7/8" NI-20	1	6	
J8	2-00-00	11 7/8" NI-20	1	11	
J9	21-00-00	11 7/8" NI-40x	1	13	
J10	20-00-00	11 7/8" NI-40x	1	10	
J11	20-00-00	11 7/8" NI-40x	2	4	
J12	18-00-00	11 7/8" NI-40x	1	37	
J13	18-00-00	11 7/8" NI-40x	2	8	
J14	17-00-00	11 7/8" NI-40x	1	8	
Ca1	232-00-00	1 1/8" x 11 7/8" Rim Board	1	1	
Bk1	118-00-00	11 7/8" NI-20	1	1	

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS5.50/10
H2	1		HGUS7.25/10
H3	1		HHGU7.25-SDS5
H4	1		HU312-2
H5	113		LT251188
H6	2		MIT311.88-2

REVISION 1 - JUN. 18, 2022

GROUND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
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) 118037
LI: (343076) 345513*

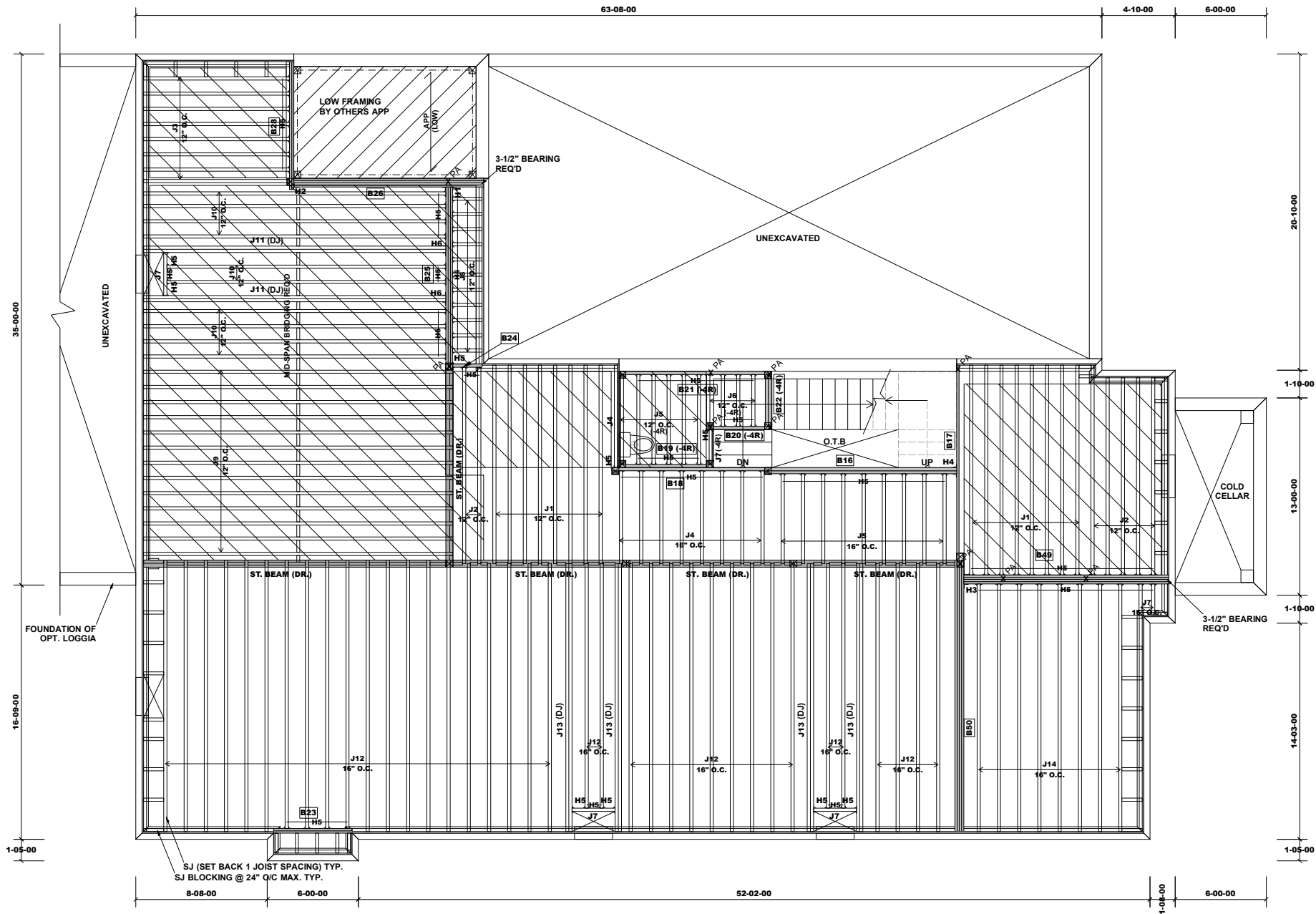
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 27, 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	
B16	13-00-00	11 7/8" NI-20	2	2	
B17	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1	
B18	11-00-00	11 7/8" NI-20	1	1	
B19 (-4R)	7-00-00	11 7/8" NI-20	1	1	
B20 (-4R)	5-00-00	11 7/8" NI-20	1	1	
B21 (-4R)	10-00-00	11 7/8" NI-20	1	1	
B22 (-4R)	4-00-00	11 7/8" NI-20	2	2	
B23	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
B24	2-00-00	11 7/8" NI-20	1	1	
B25	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3	
B26	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4	
B28	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
B49	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4	
B50	18-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4	
J1	14-00-00	11 7/8" NI-20	1	16	
J2	13-00-00	11 7/8" NI-20	1	7	
J3	10-00-00	11 7/8" NI-20	1	8	
J4	7-00-00	11 7/8" NI-20	1	9	
J5	6-00-00	11 7/8" NI-20	1	15	
J6	4-00-00	11 7/8" NI-20	1	4	
J7	3-00-00	11 7/8" NI-20	1	6	
J8	2-00-00	11 7/8" NI-20	1	11	
J9	21-00-00	11 7/8" NI-40x	1	13	
J10	20-00-00	11 7/8" NI-40x	1	10	
J11	20-00-00	11 7/8" NI-40x	2	4	
J12	18-00-00	11 7/8" NI-40x	1	37	
J13	18-00-00	11 7/8" NI-40x	2	8	
J14	17-00-00	11 7/8" NI-40x	1	8	
Ca1	211-04-12	1 1/8" x 11 7/8" Rim Board	1	1	
Bk1	112-00-00	11 7/8" NI-20	1	1	

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS5.50/10
H2	1		HGUS7.25/10
H3	1		HHGU7.25-SDS5
H4	1		HU312-2
H5	106		LT251188
H6	2		MIT311.88-2

REVISION 1 - JUN. 18, 2022

GROUND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
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) 118037
LI: (343076) 345513*

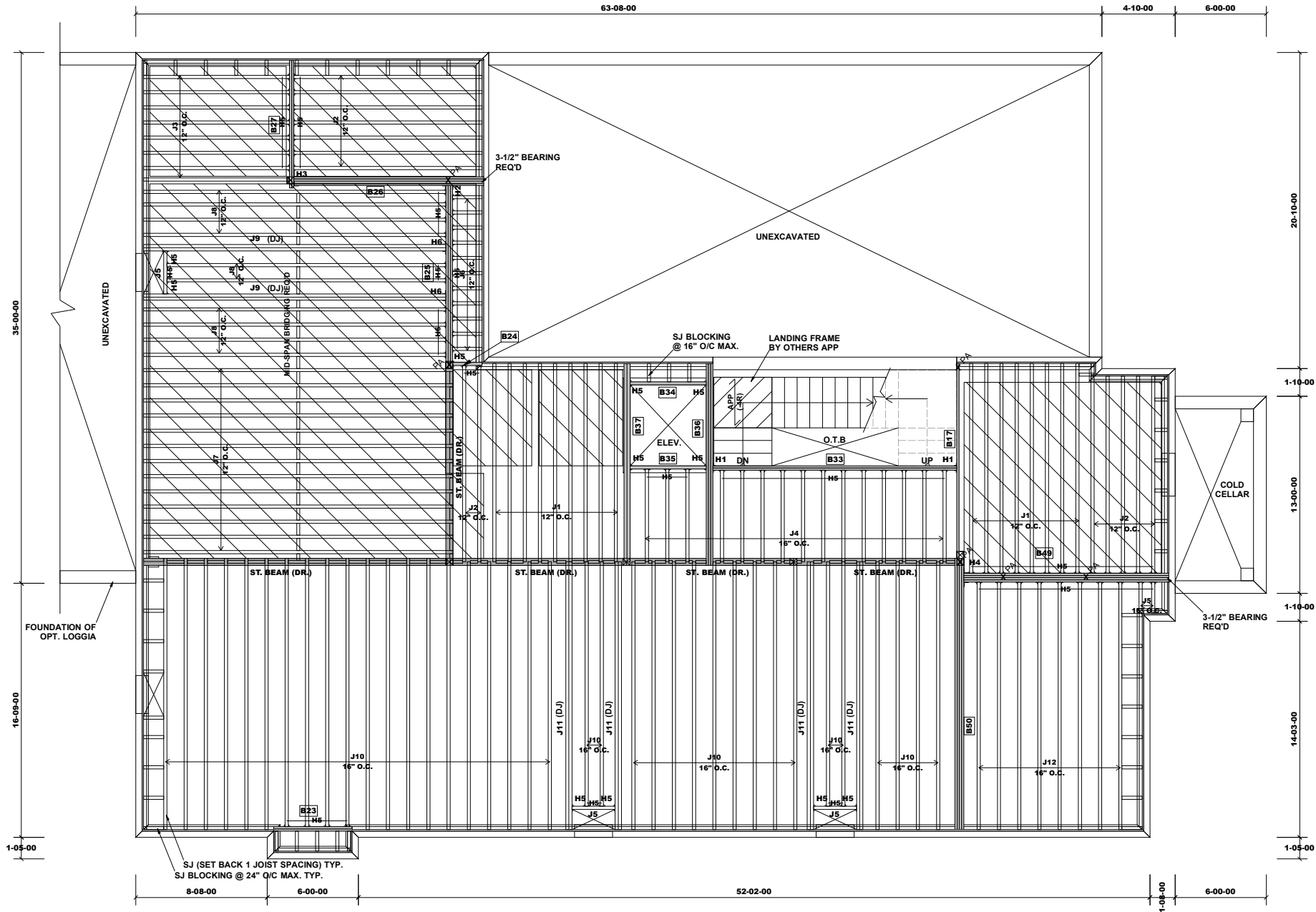
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 27, 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
B17	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B23	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B24	2-00-00	11 7/8" NI-20	1	1
B25	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B26	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B27	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B33	17-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B34	5-00-00	11 7/8" NI-20	1	1
B35	5-00-00	11 7/8" NI-20	1	1
B36	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B37	14-00-00	11 7/8" NI-20	2	2
B49	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4
B50	18-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
J1	14-00-00	11 7/8" NI-20	1	17
J2	13-00-00	11 7/8" NI-20	1	14
J3	10-00-00	11 7/8" NI-20	1	8
J4	7-00-00	11 7/8" NI-20	1	15
J5	3-00-00	11 7/8" NI-20	1	5
J6	2-00-00	11 7/8" NI-20	1	11
J7	21-00-00	11 7/8" NI-40x	1	13
J8	20-00-00	11 7/8" NI-40x	1	10
J9	20-00-00	11 7/8" NI-40x	2	4
J10	18-00-00	11 7/8" NI-40x	1	37
J11	18-00-00	11 7/8" NI-40x	2	8
J12	17-00-00	11 7/8" NI-40x	1	8
Ca1	223-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	120-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	2		HGUS410
H2	1		HGUS5.50/10
H3	1		HGUS7.25/10
H4	1		HHGU7.25-SDS5
H5	96		LT251188
H6	2		MIT311.88-2

REVISION 1 - JUN. 18, 2022

GROUND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
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) 118037
LI: (343076) 345513*

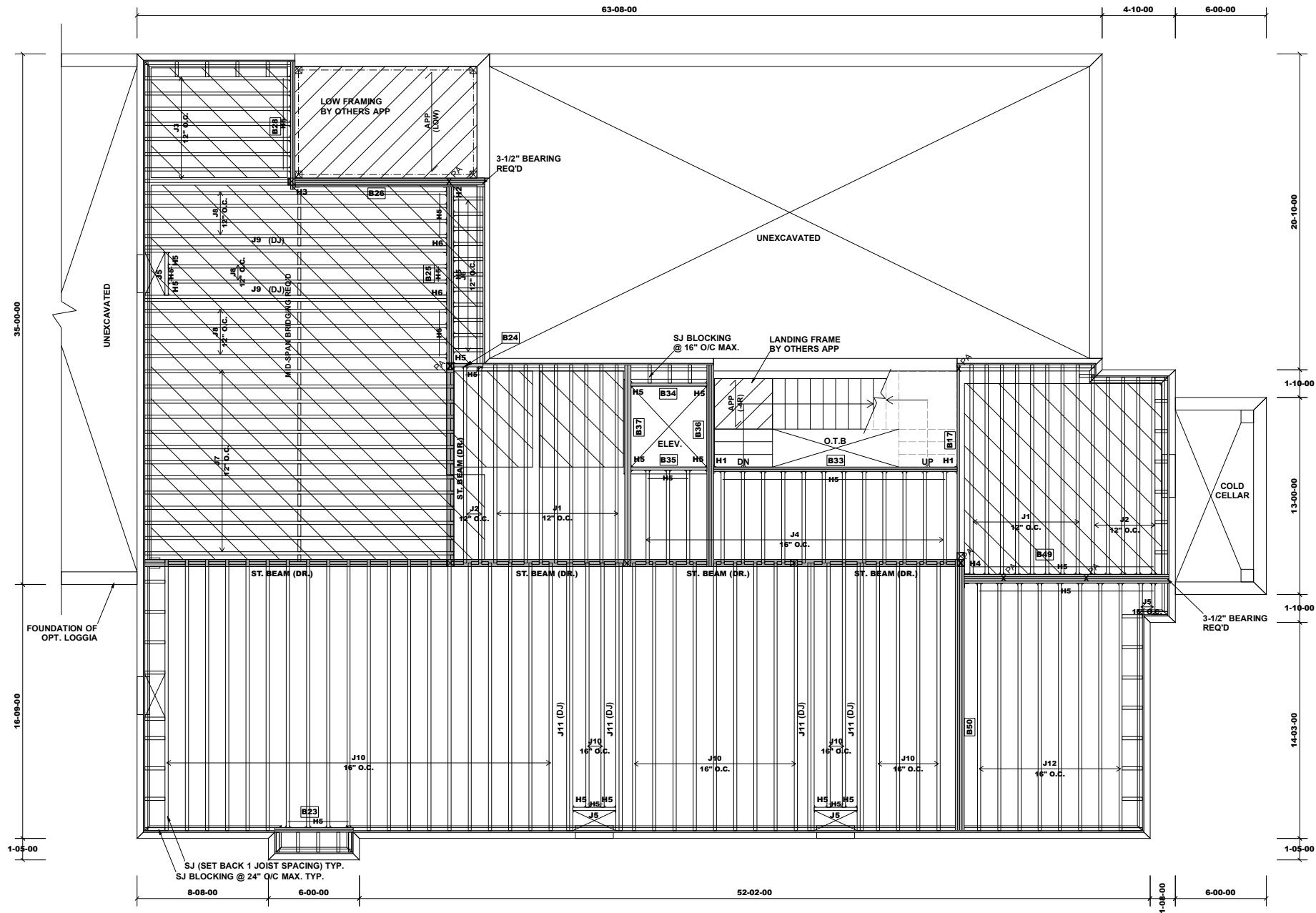
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 27, 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
B17	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B23	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B24	2-00-00	11 7/8" NI-20	1	1
B25	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B26	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B28	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B33	17-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B34	5-00-00	11 7/8" NI-20	1	1
B35	5-00-00	11 7/8" NI-20	1	1
B36	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B37	14-00-00	11 7/8" NI-20	2	2
B49	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4
B50	18-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
J1	14-00-00	11 7/8" NI-20	1	17
J2	13-00-00	11 7/8" NI-20	1	7
J3	10-00-00	11 7/8" NI-20	1	8
J4	7-00-00	11 7/8" NI-20	1	15
J5	3-00-00	11 7/8" NI-20	1	5
J6	2-00-00	11 7/8" NI-20	1	11
J7	21-00-00	11 7/8" NI-40x	1	13
J8	20-00-00	11 7/8" NI-40x	1	10
J9	20-00-00	11 7/8" NI-40x	2	4
J10	18-00-00	11 7/8" NI-40x	1	37
J11	18-00-00	11 7/8" NI-40x	2	8
J12	17-00-00	11 7/8" NI-40x	1	8
Ca1	203-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	114-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	2		HGUS410
H2	1		HGUS5.50/10
H3	1		HGUS7.25/10
H4	1		HHGU7.25-SDS5
H5	89		LT251188
H6	2		MIT311.88-2

REVISION 1 - JUN. 18, 2022

GROUND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
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

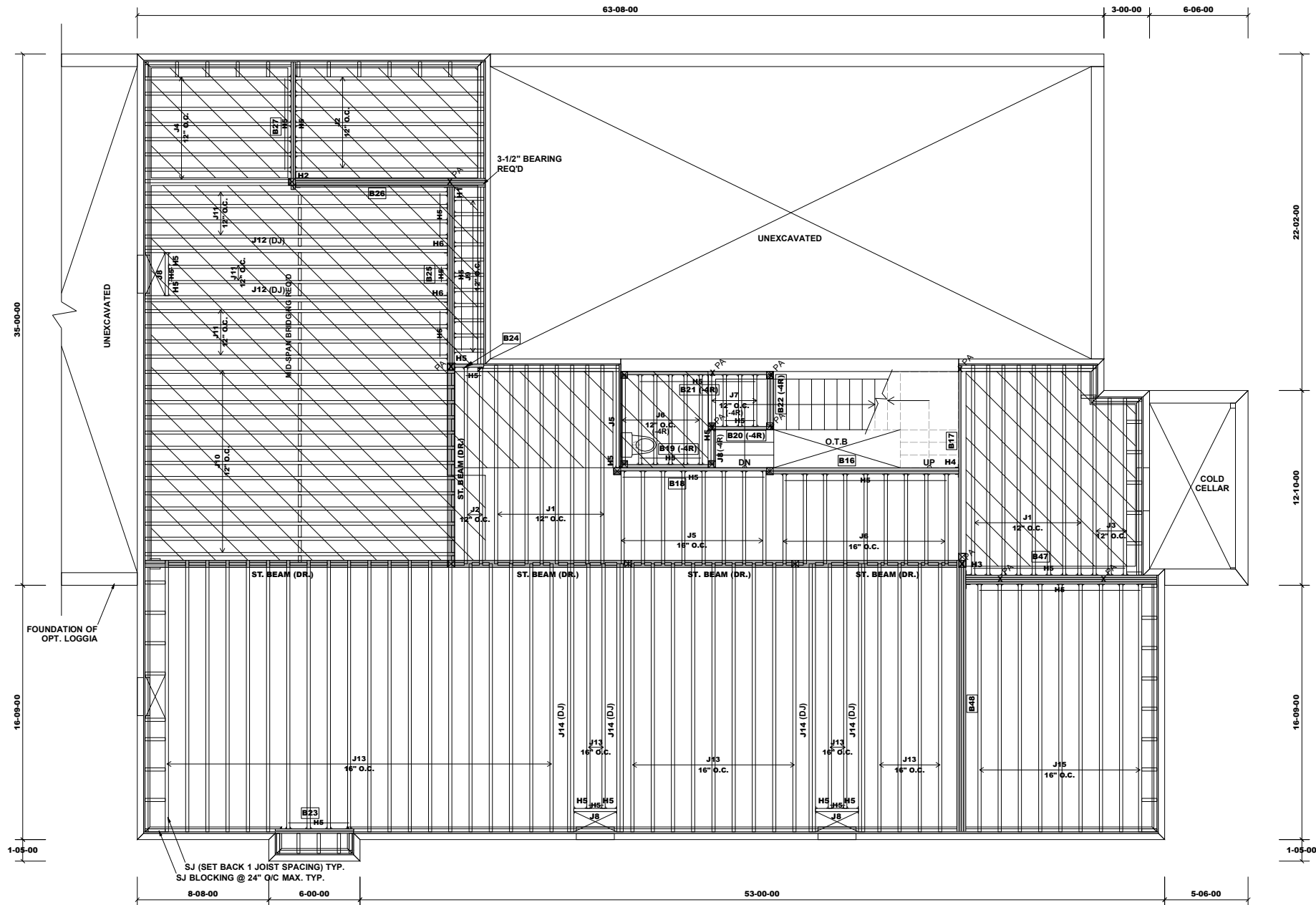
SUBFLOOR: 3/4" NAILED & GLUED*

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.



Products				
PlotID	Length	Product	Plies	Net Qty
B16	13-00-00	11 7/8" NI-20	2	2
B17	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B18	11-00-00	11 7/8" NI-20	1	1
B19 (-4R)	7-00-00	11 7/8" NI-20	1	1
B20 (-4R)	5-00-00	11 7/8" NI-20	1	1
B21 (-4R)	10-00-00	11 7/8" NI-20	1	1
B22 (-4R)	4-00-00	11 7/8" NI-20	2	2
B23	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	1
B24	2-00-00	11 7/8" NI-20	1	1
B25	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B26	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B27	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B47	13-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4
B48	18-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
J1	14-00-00	11 7/8" NI-20	1	16
J2	13-00-00	11 7/8" NI-20	1	9
J3	12-00-00	11 7/8" NI-20	1	3
J4	10-00-00	11 7/8" NI-20	1	8
J5	7-00-00	11 7/8" NI-20	1	9
J6	6-00-00	11 7/8" NI-20	1	15
J7	4-00-00	11 7/8" NI-20	1	4
J8	3-00-00	11 7/8" NI-20	1	4
J9	2-00-00	11 7/8" NI-20	1	11
J10	21-00-00	11 7/8" NI-40x	1	13
J11	20-00-00	11 7/8" NI-40x	1	10
J12	20-00-00	11 7/8" NI-40x	2	4
J13	18-00-00	11 7/8" NI-40x	1	37
J14	18-00-00	11 7/8" NI-40x	2	8
J15	17-00-00	11 7/8" NI-40x	1	9
Ca1	230-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	116-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS5.50/10
H2	1		HGUS7.25/10
H3	1		HHGU7.25-SDS5
H4	1		HU312-2
H5	110		LT251188
H6	2		MIT311.88-2

REVISION 1 - JUN. 06, 2022

GROUND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
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.

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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) 118037
LI: (343076) 345513*

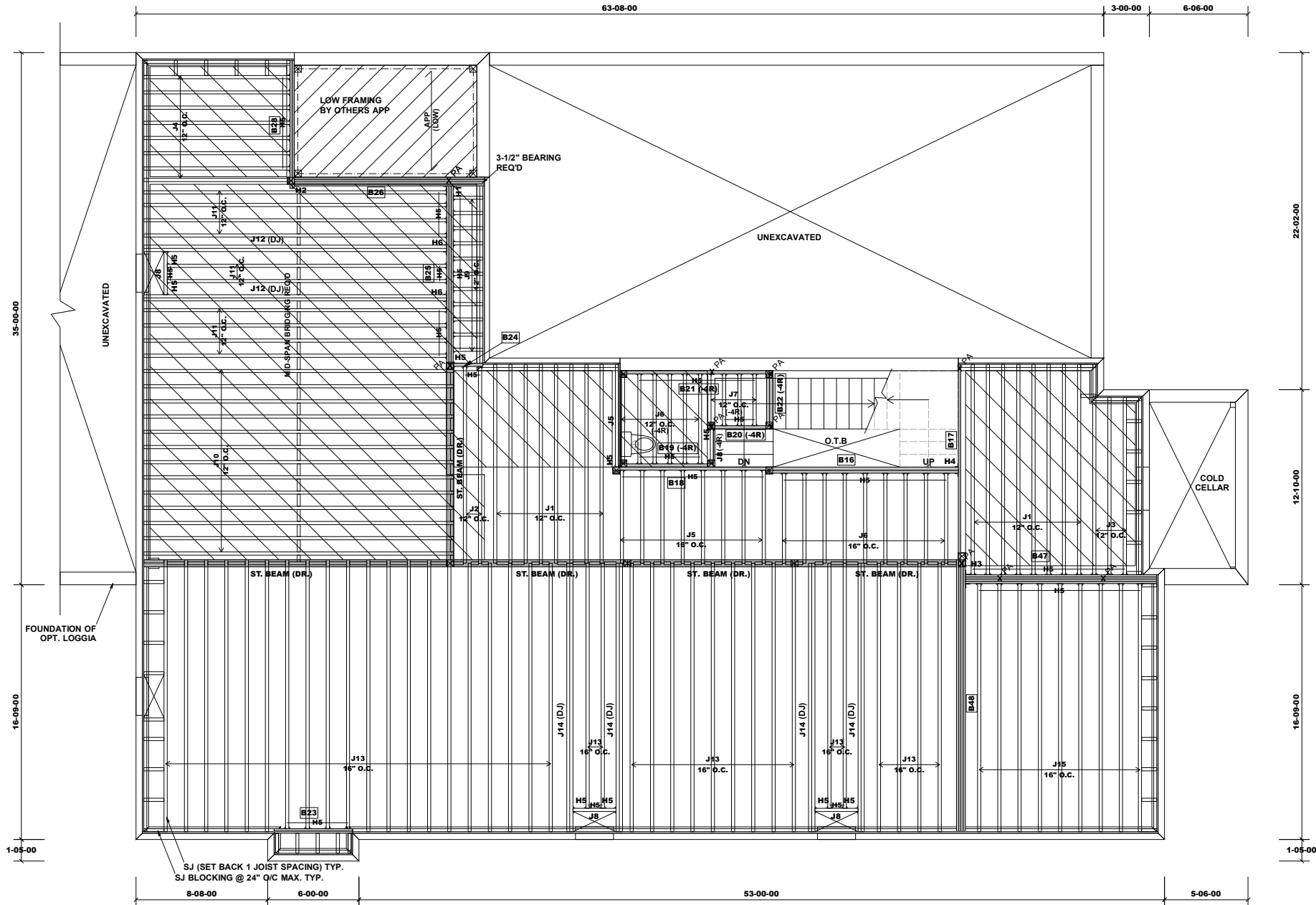
Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 27, 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
B16	13-00-00	11 7/8" NI-20	2	2
B17	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B18	11-00-00	11 7/8" NI-20	1	1
B19 (-4R)	7-00-00	11 7/8" NI-20	1	1
B20 (-4R)	5-00-00	11 7/8" NI-20	1	1
B21 (-4R)	10-00-00	11 7/8" NI-20	1	1
B22 (-4R)	4-00-00	11 7/8" NI-20	2	2
B23	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B24	2-00-00	11 7/8" NI-20	1	1
B25	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B26	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B28	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B47	13-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4
B48	18-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
J1	14-00-00	11 7/8" NI-20	1	16
J2	13-00-00	11 7/8" NI-20	1	2
J3	12-00-00	11 7/8" NI-20	1	3
J4	10-00-00	11 7/8" NI-20	1	8
J5	7-00-00	11 7/8" NI-20	1	9
J6	6-00-00	11 7/8" NI-20	1	15
J7	4-00-00	11 7/8" NI-20	1	4
J8	3-00-00	11 7/8" NI-20	1	4
J9	2-00-00	11 7/8" NI-20	1	11
J10	21-00-00	11 7/8" NI-40x	1	13
J11	20-00-00	11 7/8" NI-40x	1	10
J12	20-00-00	11 7/8" NI-40x	2	4
J13	18-00-00	11 7/8" NI-40x	1	37
J14	18-00-00	11 7/8" NI-40x	2	8
J15	17-00-00	11 7/8" NI-40x	1	9
Ca1	210-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	110-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS5.50/10
H2	1		HGUS7.25/10
H3	1		HHGU7.25-SDS5
H4	1		HU312-2
H5	103		LT251188
H6	2		MIT311.88-2

REVISION 1 - JUN. 06, 2022

GROUND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
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.

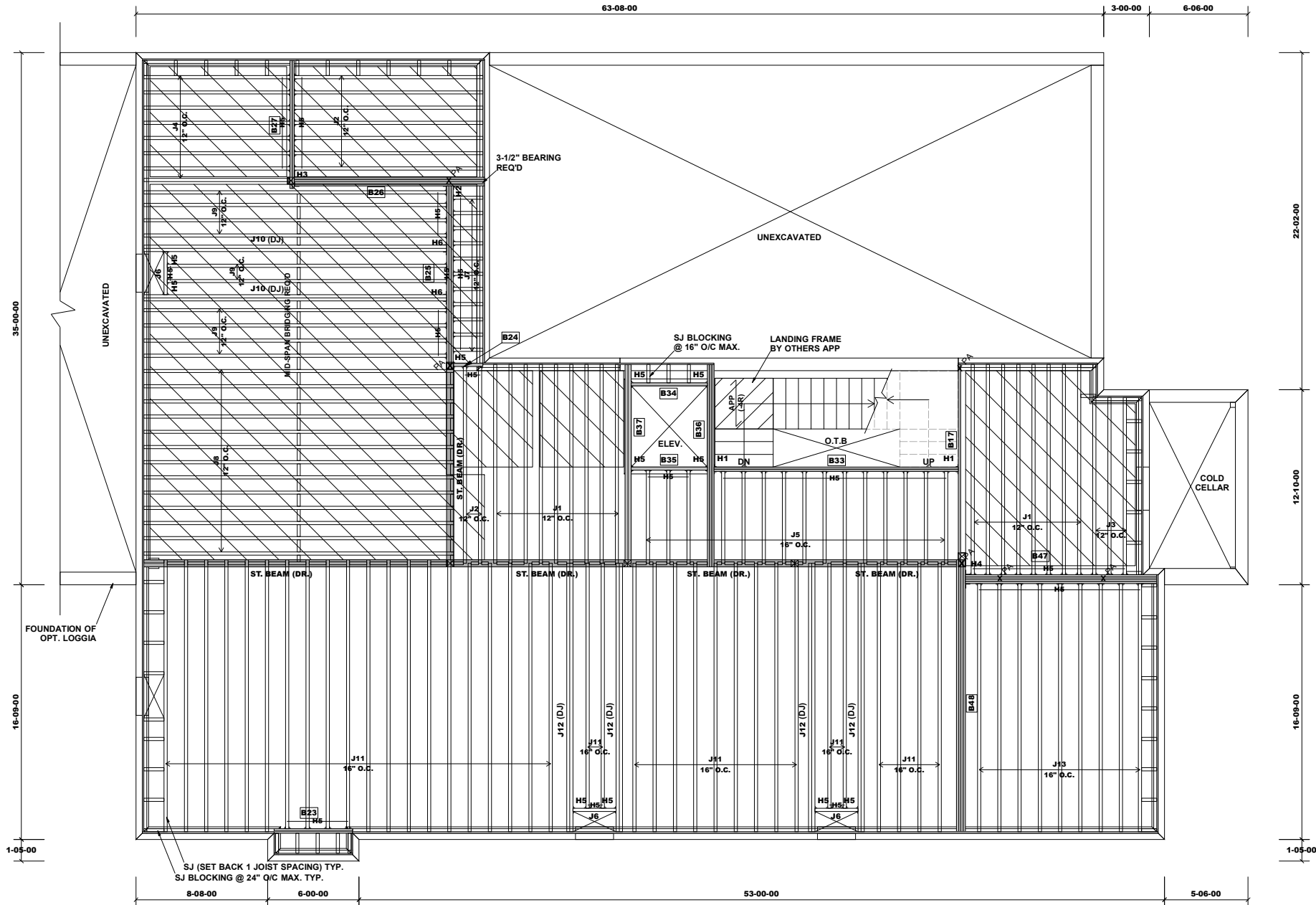
JT/PL: 45147/(116409) 118037
LI: (343076) 345513*

Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 27, 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
B17	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B23	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B24	2-00-00	11 7/8" NI-20	1	1
B25	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B26	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B27	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B33	17-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B34	5-00-00	11 7/8" NI-20	1	1
B35	5-00-00	11 7/8" NI-20	1	1
B36	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B37	14-00-00	11 7/8" NI-20	2	2
B47	13-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4
B48	18-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
J1	14-00-00	11 7/8" NI-20	1	17
J2	13-00-00	11 7/8" NI-20	1	9
J3	12-00-00	11 7/8" NI-20	1	3
J4	10-00-00	11 7/8" NI-20	1	8
J5	7-00-00	11 7/8" NI-20	1	15
J6	3-00-00	11 7/8" NI-20	1	3
J7	2-00-00	11 7/8" NI-20	1	11
J8	21-00-00	11 7/8" NI-40x	1	13
J9	20-00-00	11 7/8" NI-40x	1	10
J10	20-00-00	11 7/8" NI-40x	2	4
J11	18-00-00	11 7/8" NI-40x	1	37
J12	18-00-00	11 7/8" NI-40x	2	8
J13	17-00-00	11 7/8" NI-40x	1	9
Ca1	221-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	119-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	2		HGUS410
H2	1		HGUS5.50/10
H3	1		HGUS7.25/10
H4	1		HHGU7.25-SDS5
H5	93		LT251188
H6	2		MIT311.88-2

REVISION 1 - JUN. 06, 2022

GROUND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
ELEVATION C

W/ ELEVATOR

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

HATCH LEGEND	
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	Conv Framed

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SUBFLOOR: 3/4" NAILED & GLUED*

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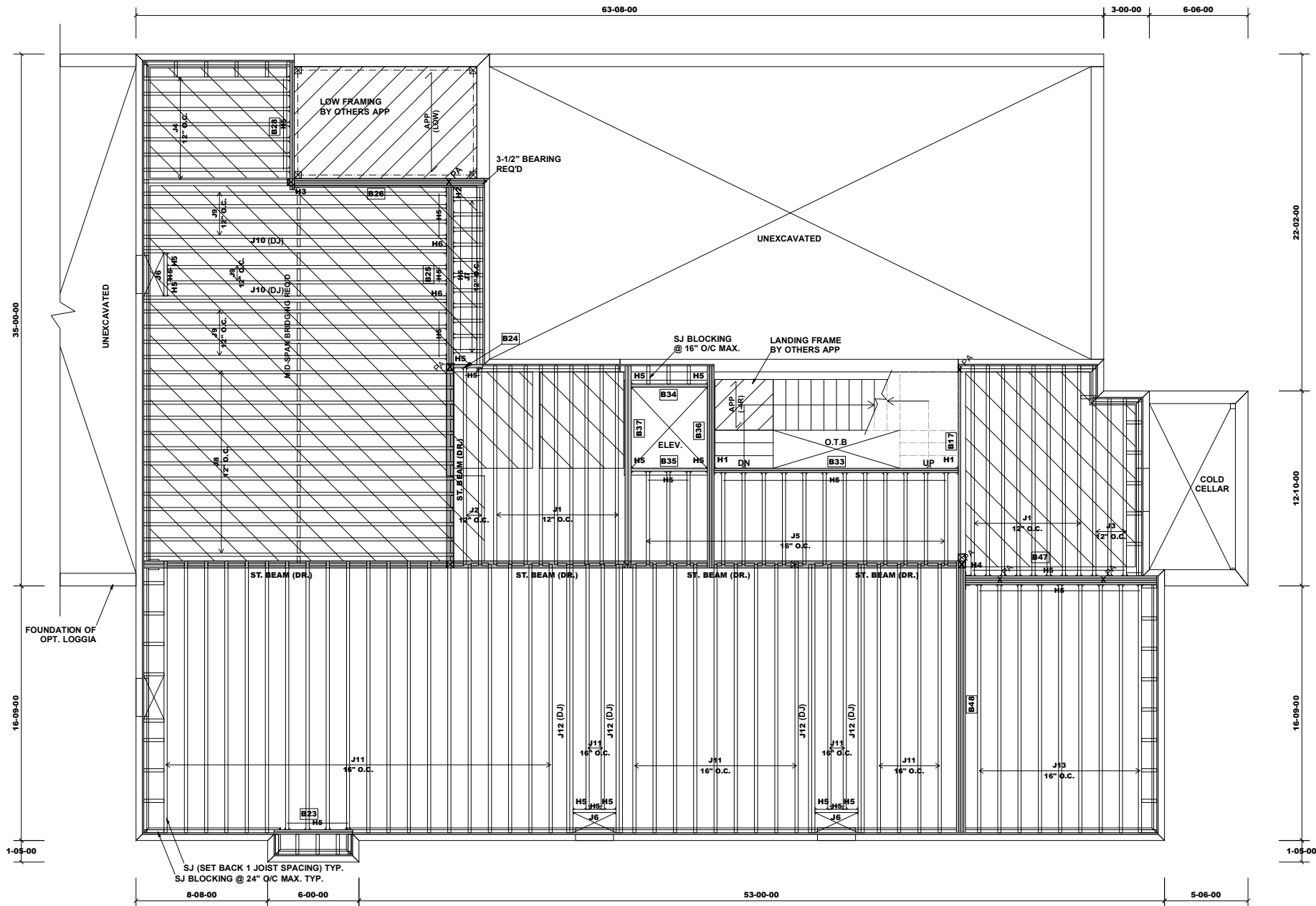
JT/PL: 45147/(116409) 118037
LI: (343076) 345513*

Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 27, 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	
B17	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1	
B23	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
B24	2-00-00	11 7/8" NI-20	1	1	
B25	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3	
B26	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4	
B28	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
B33	17-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2	
B34	5-00-00	11 7/8" NI-20	1	1	
B35	5-00-00	11 7/8" NI-20	1	1	
B36	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3	
B37	14-00-00	11 7/8" NI-20	2	2	
B47	13-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4	
B48	18-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4	
J1	14-00-00	11 7/8" NI-20	1	17	
J2	13-00-00	11 7/8" NI-20	1	2	
J3	12-00-00	11 7/8" NI-20	1	3	
J4	10-00-00	11 7/8" NI-20	1	8	
J5	7-00-00	11 7/8" NI-20	1	15	
J6	3-00-00	11 7/8" NI-20	1	3	
J7	2-00-00	11 7/8" NI-20	1	11	
J8	21-00-00	11 7/8" NI-40x	1	13	
J9	20-00-00	11 7/8" NI-40x	1	10	
J10	20-00-00	11 7/8" NI-40x	2	4	
J11	18-00-00	11 7/8" NI-40x	1	37	
J12	18-00-00	11 7/8" NI-40x	2	8	
J13	17-00-00	11 7/8" NI-40x	1	9	
Ca1	200-00-00	1 1/8" x 11 7/8" Rim Board	1	1	
Bk1	113-00-00	11 7/8" NI-20	1	1	

Connector Summary			
PlotID	Qty	Manuf	Product
H1	2		HGUS410
H2	1		HGUS5.50/10
H3	1		HGUS7.25/10
H4	1		HHGU7.25-SDS5
H5	86		LT251188
H6	2		MIT311.88-2

REVISION 1 - JUN. 06, 2022

GROUND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
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

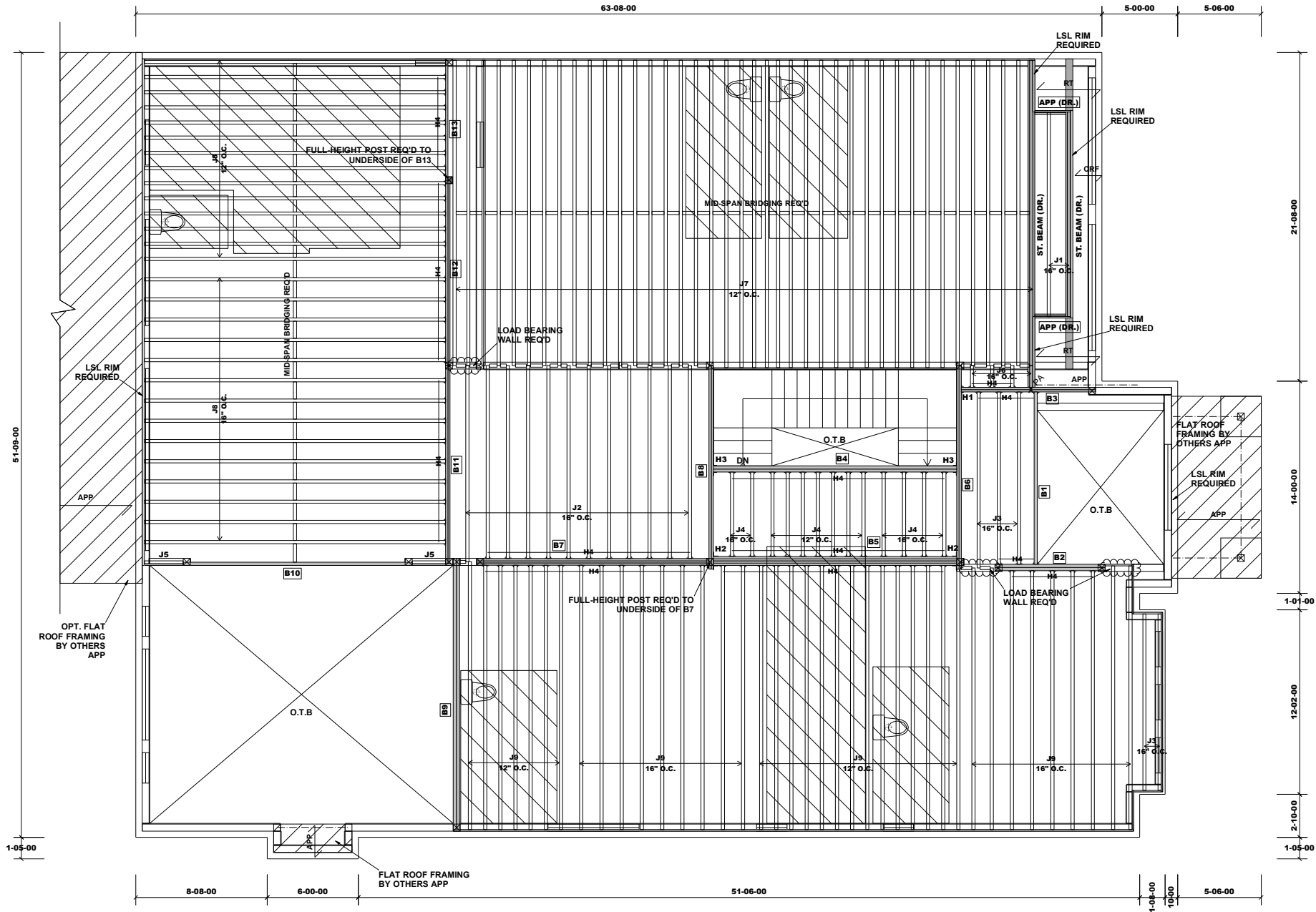
SUBFLOOR: 3/4" NAILED & GLUED*

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.



Products				
PlotID	Length	Product	Piles	Net Qty
B1	12-00-00	11 7/8" NI-20	1	1
B2	8-00-00	11 7/8" NI-20	2	2
B3	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B4	17-00-00	11 7/8" NI-20	2	2
B5	17-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B6	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B7	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B8	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B9	18-00-00	11 7/8" NI-20	2	2
B10	16-00-00	11 7/8" NI-20	1	1
B11	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B12	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B13	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
J1	14-00-00	11 7/8" NI-20	1	2
J2	13-00-00	11 7/8" NI-20	1	12
J3	12-00-00	11 7/8" NI-20	1	5
J4	6-00-00	11 7/8" NI-20	1	13
J5	3-00-00	11 7/8" NI-20	1	2
J6	2-00-00	11 7/8" NI-20	1	4
J7	21-00-00	11 7/8" NI-40x	1	40
J8	20-00-00	11 7/8" NI-40x	1	28
J9	18-00-00	11 7/8" NI-40x	1	39
Ca1	153-00-00	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	73-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS410
H2	2		HGUS7.25/10
H3	2		HU312-2
H4	107		LT251188

SECOND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
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

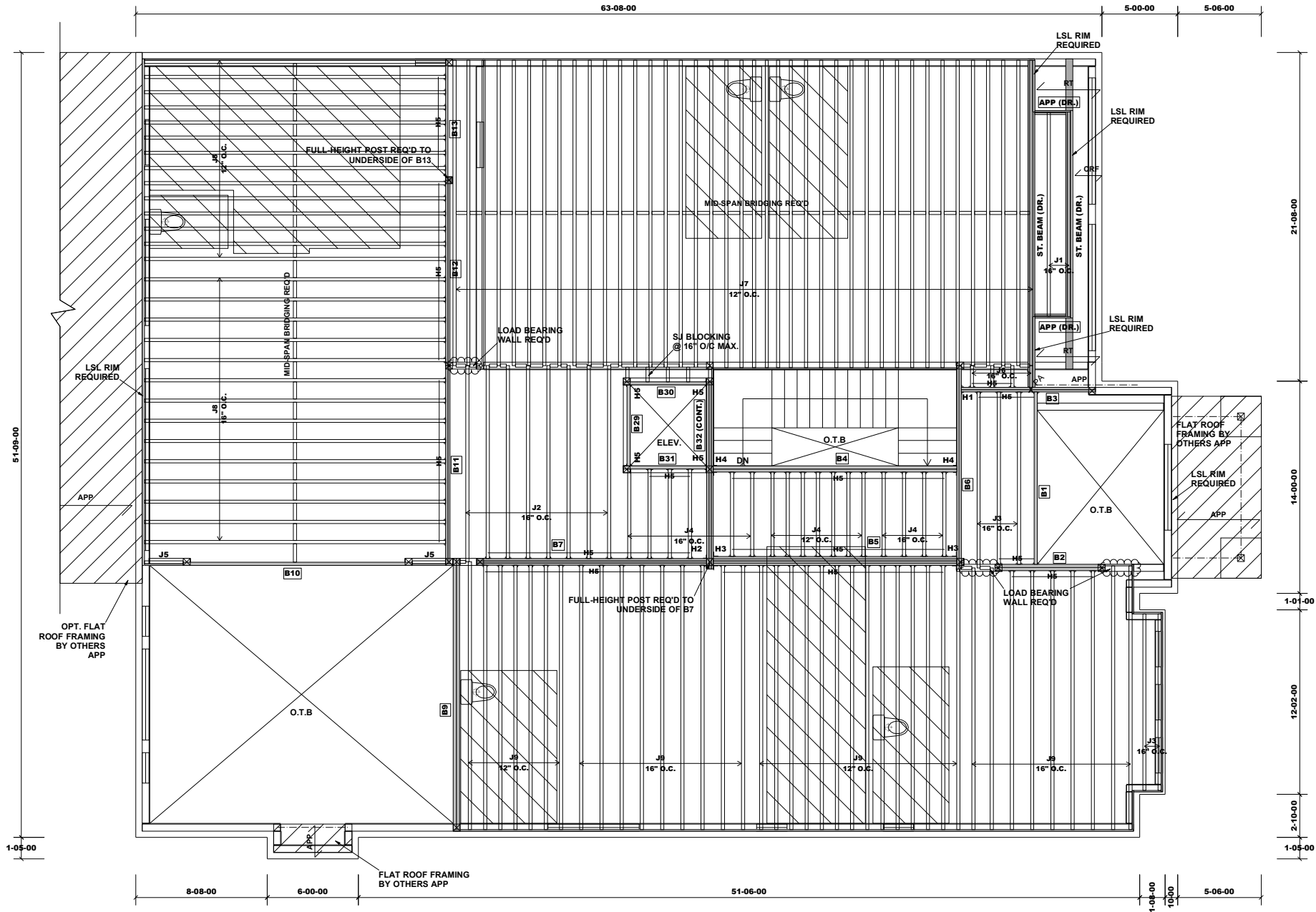
SUBFLOOR: 3/4" NAILED & GLUED*

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.



Products				
PlotID	Length	Product	Pieces	Net Qty
B1	12-00-00	11 7/8" NI-20	1	1
B2	8-00-00	11 7/8" NI-20	2	2
B3	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B4	17-00-00	11 7/8" NI-20	2	2
B5	17-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B6	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B7	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	18-00-00	11 7/8" NI-20	2	2
B10	16-00-00	11 7/8" NI-20	1	1
B11	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B12	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B13	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B29	6-00-00	11 7/8" NI-20	1	1
B30	6-00-00	11 7/8" NI-20	1	1
B31	6-00-00	11 7/8" NI-20	1	1
B32 (CONT.)	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
J1	14-00-00	11 7/8" NI-20	1	2
J2	13-00-00	11 7/8" NI-20	1	8
J3	12-00-00	11 7/8" NI-20	1	5
J4	6-00-00	11 7/8" NI-20	1	17
J5	3-00-00	11 7/8" NI-20	1	2
J6	2-00-00	11 7/8" NI-20	1	4
J7	21-00-00	11 7/8" NI-40x	1	40
J8	20-00-00	11 7/8" NI-40x	1	28
J9	18-00-00	11 7/8" NI-40x	1	39
Ca1	154-00-00	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	79-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS410
H2	1		HGUS5.50/10
H3	2		HGUS7.25/10
H4	2		HU312-2
H5	114		LT251188

SECOND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
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.

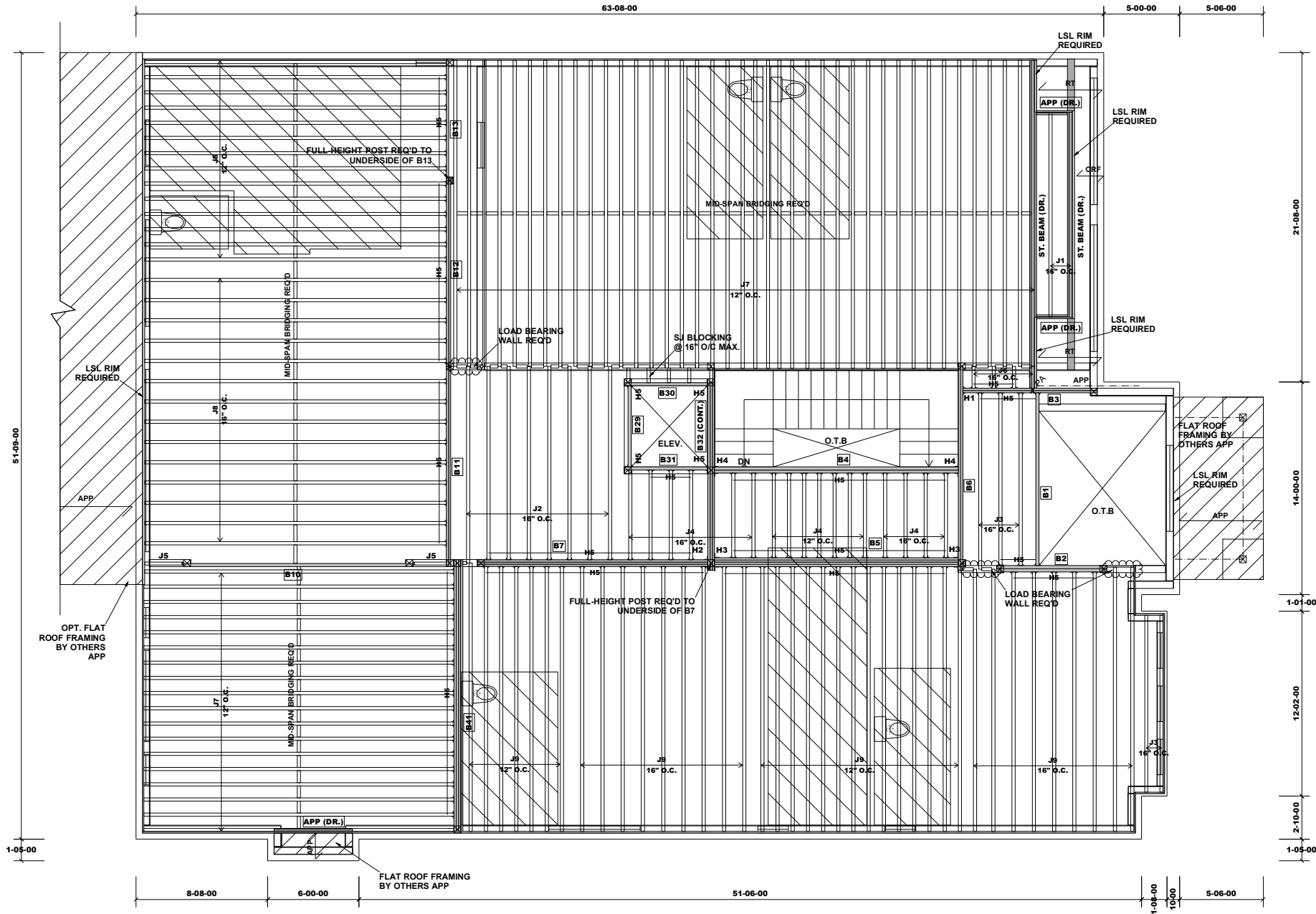
JT/PL: 45147/(116409) 118037
LI: (343076) 345513*

Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 27, 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	12'-00"-00	11 7/8" NI-20	1	1
B2	8'-00"-00	11 7/8" NI-20	2	2
B3	9'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B4	17'-00"-00	11 7/8" NI-20	2	2
B5	17'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B6	14'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B7	16'-00"-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B10	16'-00"-00	11 7/8" NI-20	1	1
B11	14'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B12	13'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B13	8'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B29	6'-00"-00	11 7/8" NI-20	1	1
B30	6'-00"-00	11 7/8" NI-20	1	1
B31	6'-00"-00	11 7/8" NI-20	1	1
B32 (CONT.)	13'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B41	18'-00"-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4
J1	14'-00"-00	11 7/8" NI-20	1	2
J2	13'-00"-00	11 7/8" NI-20	1	8
J3	12'-00"-00	11 7/8" NI-20	1	5
J4	6'-00"-00	11 7/8" NI-20	1	17
J5	3'-00"-00	11 7/8" NI-20	1	2
J6	2'-00"-00	11 7/8" NI-20	1	4
J7	21'-00"-00	11 7/8" NI-40x	1	58
J8	20'-00"-00	11 7/8" NI-40x	1	28
J9	18'-00"-00	11 7/8" NI-40x	1	39
Ca1	186'-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	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	2		HGUS7.25/10
H4	2		HU312-2
H5	131		LT251188

SECOND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
ELEVATION A
W/ OPT. FLOOR PLAN
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

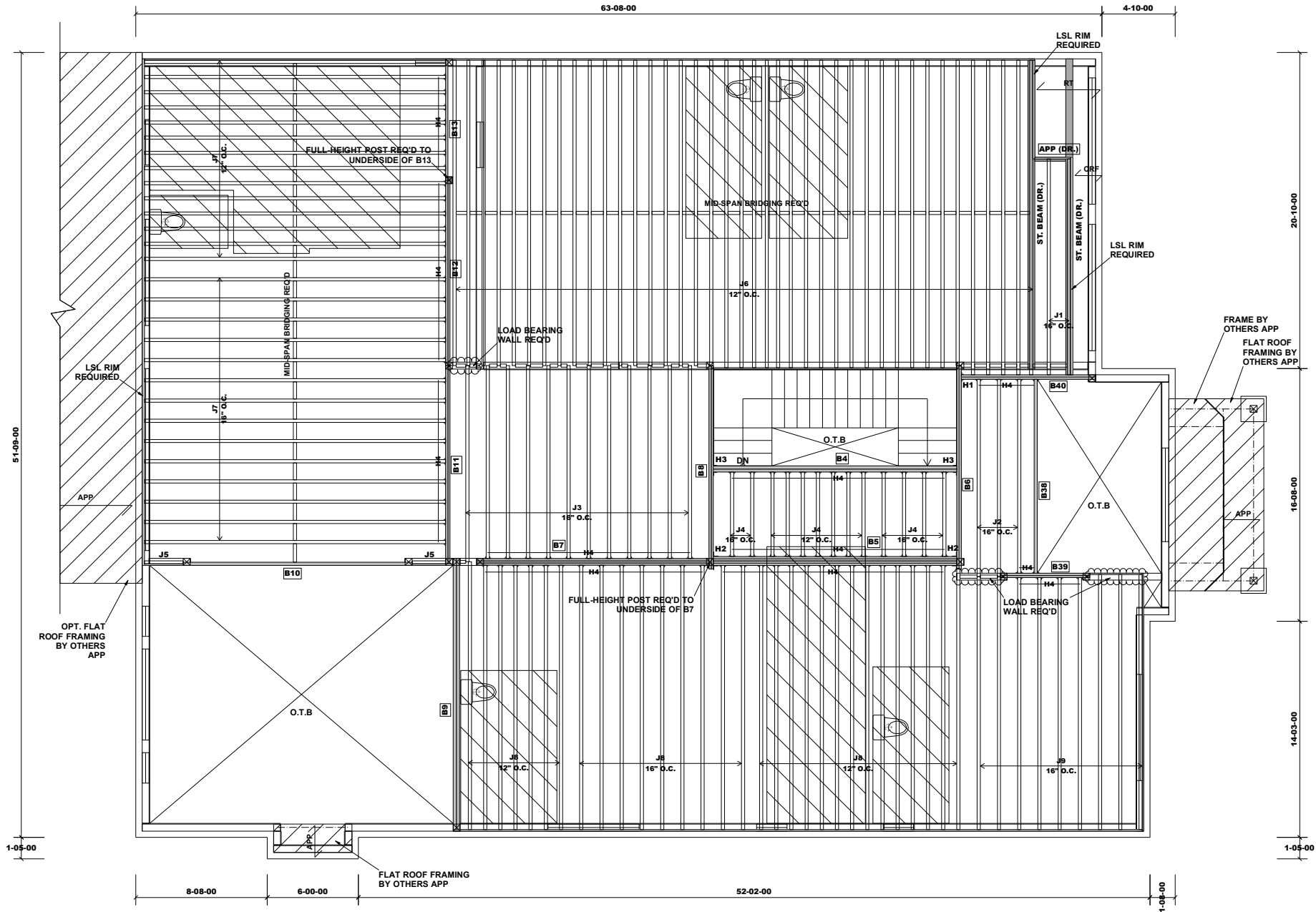
SUBFLOOR: 3/4" NAILED & GLUED*

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.



Products				
PlotID	Length	Product	Piles	Net Qty
B4	17-00-00	11 7/8" NI-20	2	2
B5	17-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B6	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B7	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B8	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B9	18-00-00	11 7/8" NI-20	2	2
B10	16-00-00	11 7/8" NI-20	1	1
B11	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B12	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B13	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B38	13-00-00	11 7/8" NI-20	1	1
B39	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B40	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
J1	15-00-00	11 7/8" NI-20	1	2
J2	14-00-00	11 7/8" NI-20	1	3
J3	13-00-00	11 7/8" NI-20	1	12
J4	6-00-00	11 7/8" NI-20	1	13
J5	3-00-00	11 7/8" NI-20	1	2
J6	21-00-00	11 7/8" NI-40x	1	40
J7	20-00-00	11 7/8" NI-40x	1	28
J8	18-00-00	11 7/8" NI-40x	1	30
J9	17-00-00	11 7/8" NI-40x	1	9
Ca1	149-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	55-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	76-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS410
H2	2		HGUS7.25/10
H3	2		HU312-2
H4	102		LT251188

SECOND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
ELEVATION B

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*

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

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.

HATCH LEGEND	
	Ceramic Tile
	Conv Framed

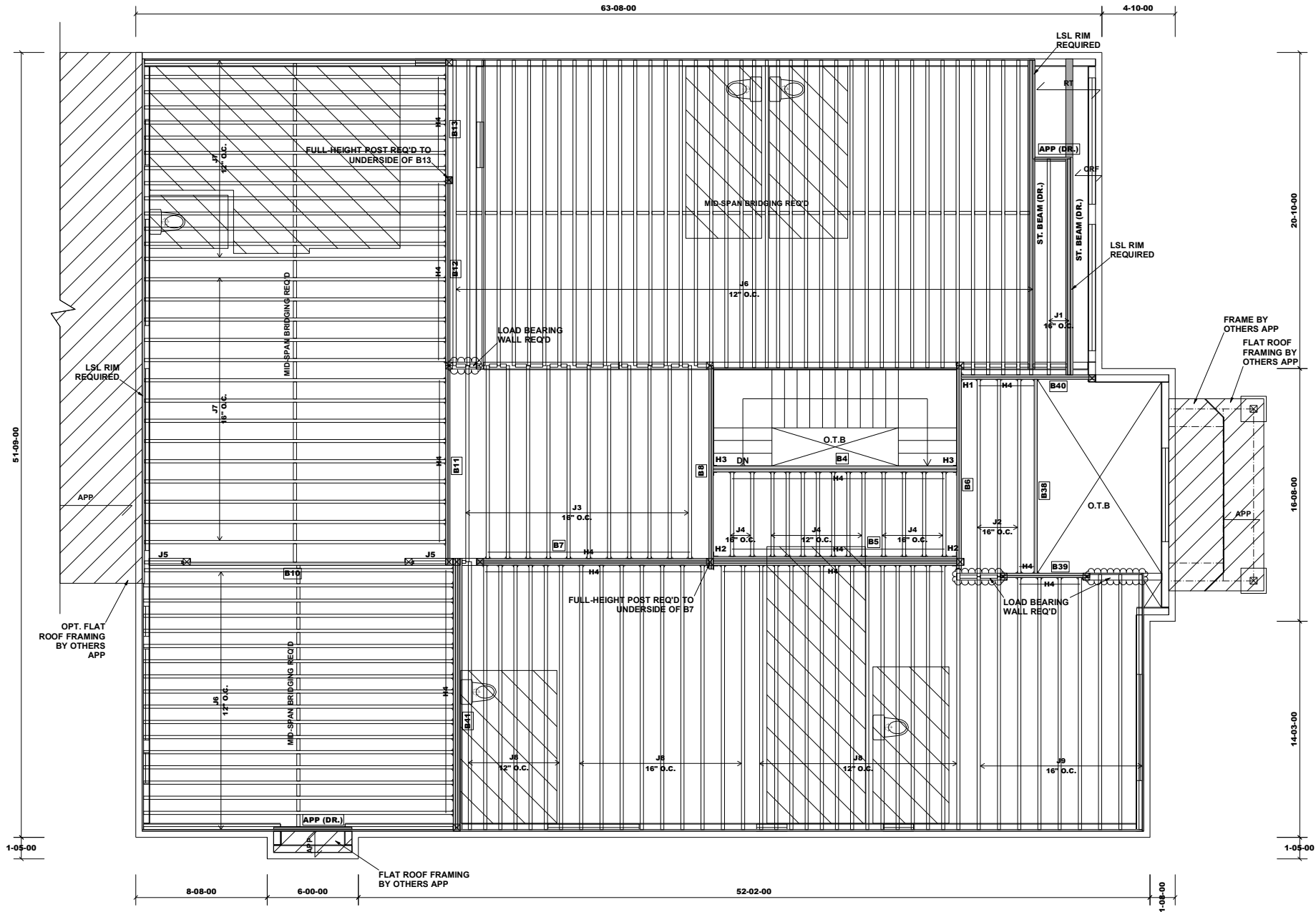
JT/PL: 45147/(116409) 118037
LI: (343076) 345513*

Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 27, 2022

Designer: TL
Sheet: 17 of 24
Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Piles	Net Qty
B4	17-00-00	11 7/8" NI-20	2	2
B5	17-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B6	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B7	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B8	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B10	16-00-00	11 7/8" NI-20	1	1
B11	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B12	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B13	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B38	13-00-00	11 7/8" NI-20	1	1
B39	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B40	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B41	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4
J1	15-00-00	11 7/8" NI-20	1	2
J2	14-00-00	11 7/8" NI-20	1	3
J3	13-00-00	11 7/8" NI-20	1	12
J4	6-00-00	11 7/8" NI-20	1	13
J5	3-00-00	11 7/8" NI-20	1	2
J6	21-00-00	11 7/8" NI-40x	1	58
J7	20-00-00	11 7/8" NI-40x	1	28
J8	18-00-00	11 7/8" NI-40x	1	30
J9	17-00-00	11 7/8" NI-40x	1	9
Ca1	181-00-00	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	90-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS410
H2	2		HGUS7.25/10
H3	2		HU312-2
H4	119		LT251188

SECOND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
ELEVATION B
W/ OPT. FLOOR PLAN

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

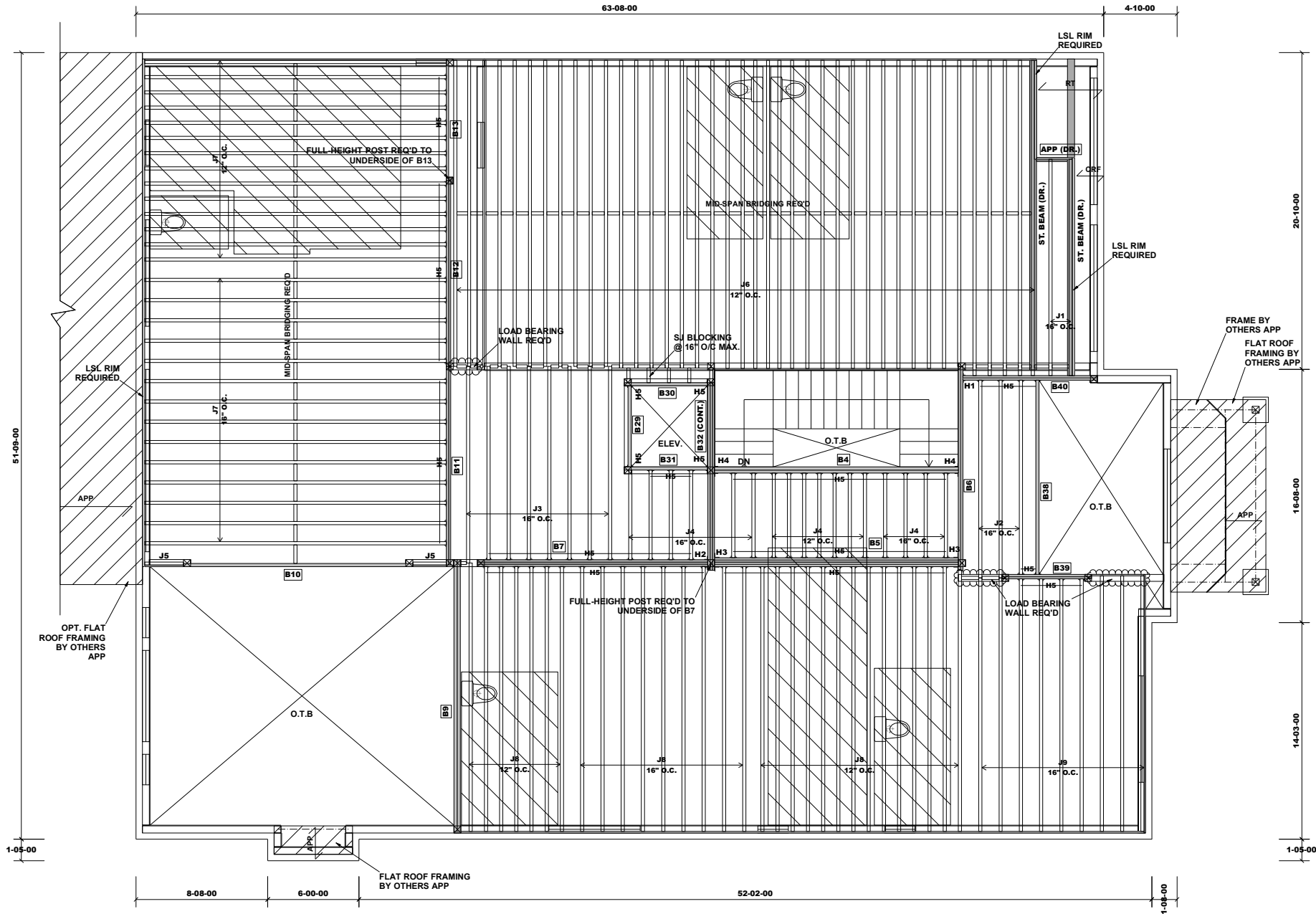
SUBFLOOR: 3/4" NAILED & GLUED*

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.



Products				
PlotID	Length	Product	Pieces	Net Qty
B4	17'-00"-00	11 7/8" NI-20	2	2
B5	17'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B6	14'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B7	16'-00"-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	18'-00"-00	11 7/8" NI-20	2	2
B10	16'-00"-00	11 7/8" NI-20	1	1
B11	14'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B12	13'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B13	8'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B29	6'-00"-00	11 7/8" NI-20	1	1
B30	6'-00"-00	11 7/8" NI-20	1	1
B31	6'-00"-00	11 7/8" NI-20	1	1
B32 (CONT.)	13'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B38	13'-00"-00	11 7/8" NI-20	1	1
B39	6'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B40	9'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
J1	15'-00"-00	11 7/8" NI-20	1	2
J2	14'-00"-00	11 7/8" NI-20	1	3
J3	13'-00"-00	11 7/8" NI-20	1	8
J4	6'-00"-00	11 7/8" NI-20	1	17
J5	3'-00"-00	11 7/8" NI-20	1	2
J6	21'-00"-00	11 7/8" NI-40x	1	40
J7	20'-00"-00	11 7/8" NI-40x	1	28
J8	18'-00"-00	11 7/8" NI-40x	1	30
J9	17'-00"-00	11 7/8" NI-40x	1	9
Ca1	150'-00"-00	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	55'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	82'-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		HGUS7.25/10
H4	2		HU312-2
H5	109		LT251188

SECOND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
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

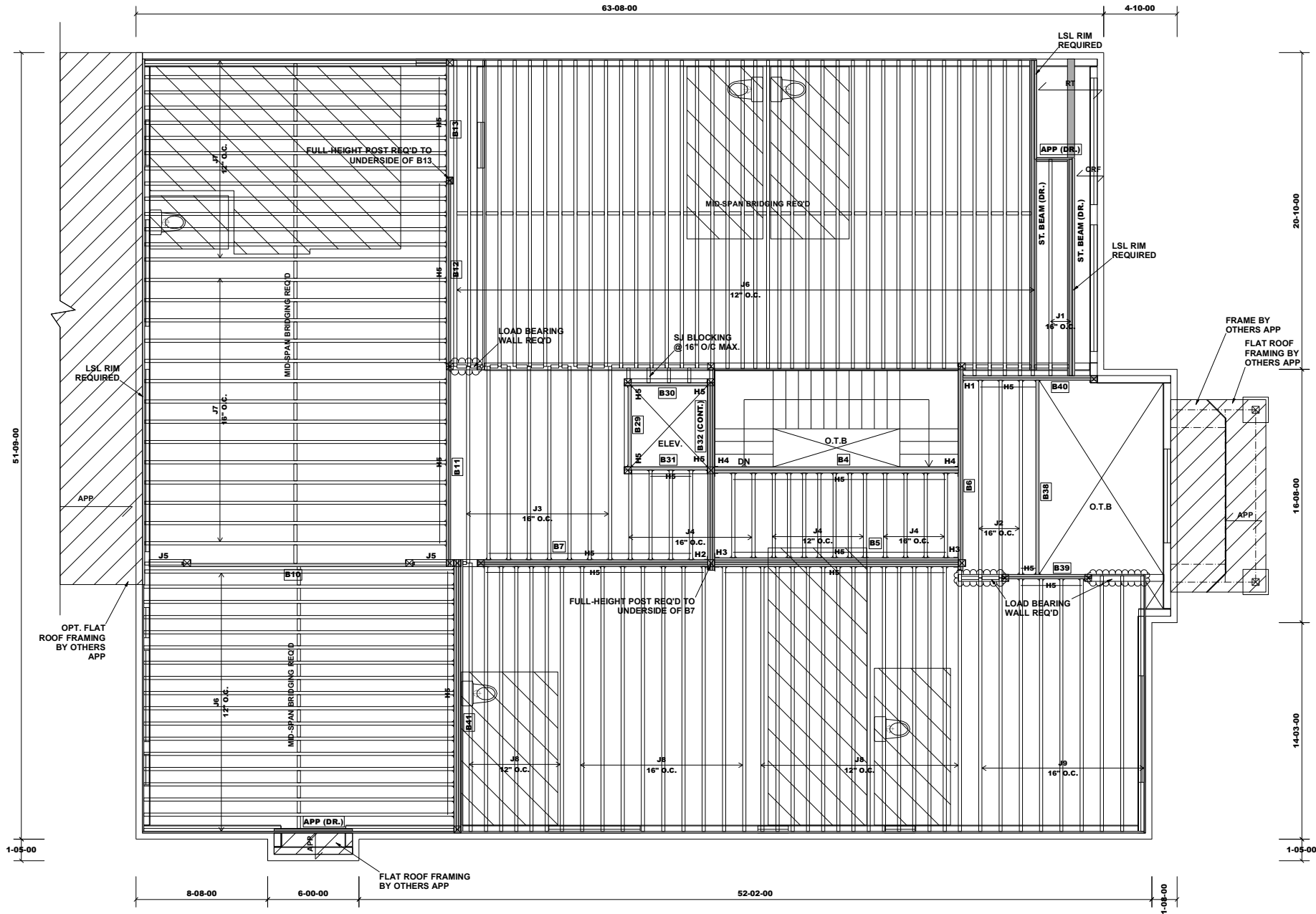
SUBFLOOR: 3/4" NAILED & GLUED*

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.



Products				
PlotID	Length	Product	Pieces	Net Qty
B4	17-00-00	11 7/8" NI-20	2	2
B5	17-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B6	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B7	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B10	16-00-00	11 7/8" NI-20	1	1
B11	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B12	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B13	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B29	6-00-00	11 7/8" NI-20	1	1
B30	6-00-00	11 7/8" NI-20	1	1
B31	6-00-00	11 7/8" NI-20	1	1
B32 (CONT.)	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B38	13-00-00	11 7/8" NI-20	1	1
B39	6-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B40	9-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B41	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4
J1	15-00-00	11 7/8" NI-20	1	2
J2	14-00-00	11 7/8" NI-20	1	3
J3	13-00-00	11 7/8" NI-20	1	8
J4	6-00-00	11 7/8" NI-20	1	17
J5	3-00-00	11 7/8" NI-20	1	2
J6	21-00-00	11 7/8" NI-40x	1	58
J7	20-00-00	11 7/8" NI-40x	1	28
J8	18-00-00	11 7/8" NI-40x	1	30
J9	17-00-00	11 7/8" NI-40x	1	9
Ca1	182-00-00	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	96-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS410
H2	1		HGUS5.50/10
H3	2		HGUS7.25/10
H4	2		HU312-2
H5	126		LT251188

REVISION 1 - JUN. 06, 2022

SECOND FLOOR FRAMING

UNIT 6002 - THE KINGSVIEW

ELEVATION B

W/ OPT. FLOOR PLAN

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.

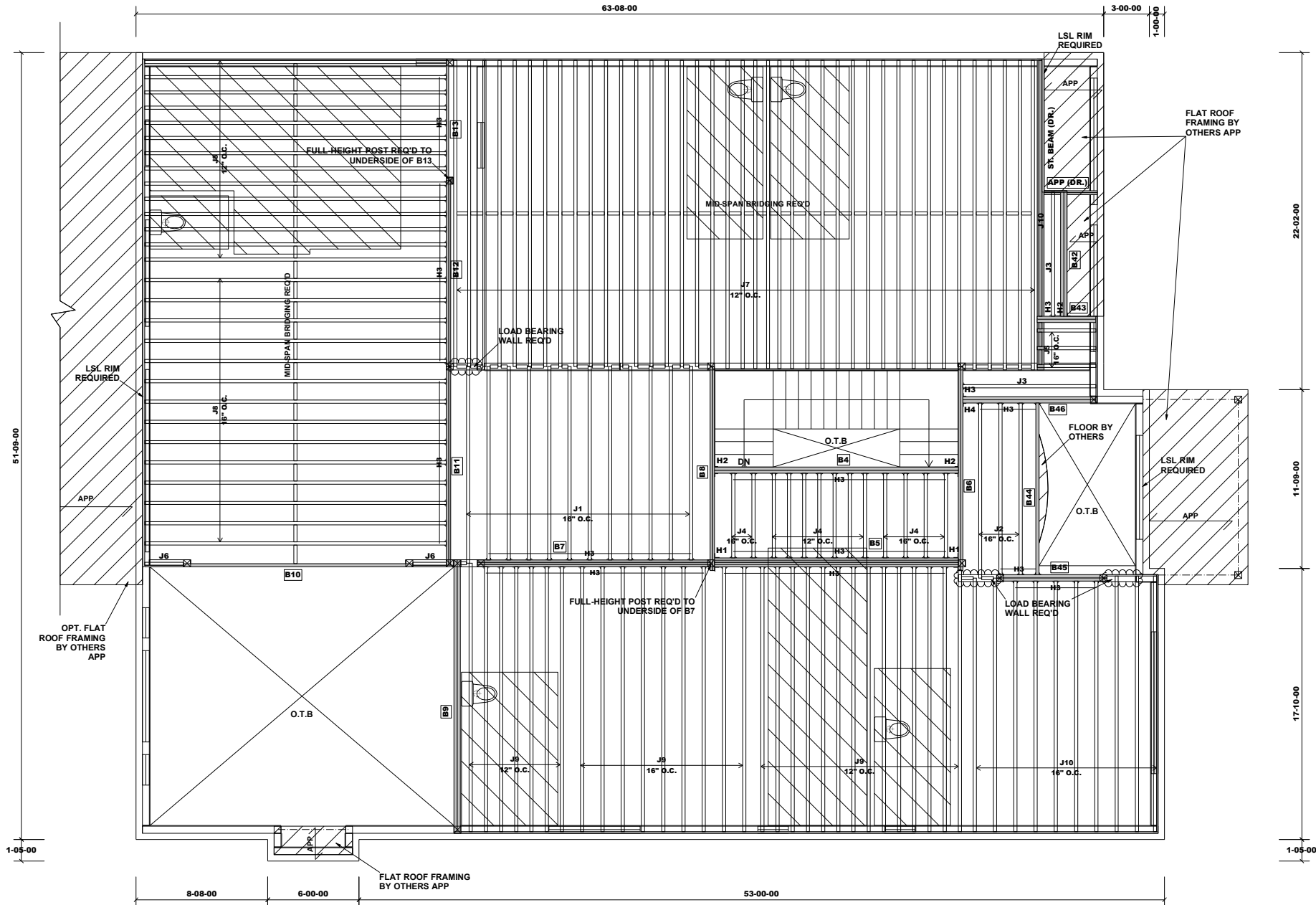
JT/PL: 45147/(116409) 118037
LI: (343076) 345513*

Builder: Gold Park Homes
Project: Pine Valley Ph2

Location: Vaughan, ON
Date: Apr. 27, 2022

Designer: TL
Sheet: 20 of 24
Alpa Roof Trusses Inc.
Stouffville, Ontario

Salesperson: Derek F.
Home Lumber Inc.



Products				
PlotID	Length	Product	Plies	Net Qty
B4	17'-00'-00	11 7/8" NI-20	2	2
B5	17'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand@ LSL	4	4
B6	14'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand@ LSL	2	2
B7	16'-00'-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	3	3
B8	14'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand@ LSL	2	2
B9	18'-00'-00	11 7/8" NI-20	2	2
B10	16'-00'-00	11 7/8" NI-20	1	1
B11	14'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand@ LSL	2	2
B12	13'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand@ LSL	2	2
B13	8'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand@ LSL	1	1
B42	9'-00'-00	11 7/8" NI-20	2	2
B43	4'-00'-00	11 7/8" NI-20	2	2
B44	12'-00'-00	11 7/8" NI-20	1	1
B45	8'-00'-00	11 7/8" NI-20	2	2
B46	9'-00'-00	11 7/8" NI-20	2	2
J1	13'-00'-00	11 7/8" NI-20	1	12
J2	12'-00'-00	11 7/8" NI-20	1	3
J3	9'-00'-00	11 7/8" NI-20	1	2
J4	6'-00'-00	11 7/8" NI-20	1	13
J5	4'-00'-00	11 7/8" NI-20	1	3
J6	3'-00'-00	11 7/8" NI-20	1	2
J7	21'-00'-00	11 7/8" NI-40x	1	40
J8	20'-00'-00	11 7/8" NI-40x	1	28
J9	18'-00'-00	11 7/8" NI-40x	1	30
J10	17'-00'-00	11 7/8" NI-40x	1	11
Ca1	155'-00'-00	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	43'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand@ LSL	1	1
Bk1	76'-00'-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	2		HGUS7.25/10
H2	3		HU312-2
H3	106		LT251188
H4	1		MIT311.88-2

SECOND FLOOR FRAMING

UNIT 6002 - THE KINGSVIEW

ELEVATION C

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*

FLOOR LOADING

LIVE LOAD : 40 PSF

DEAD LOAD : 15 PSF

DEAD LOAD (TILE): 20 PSF

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

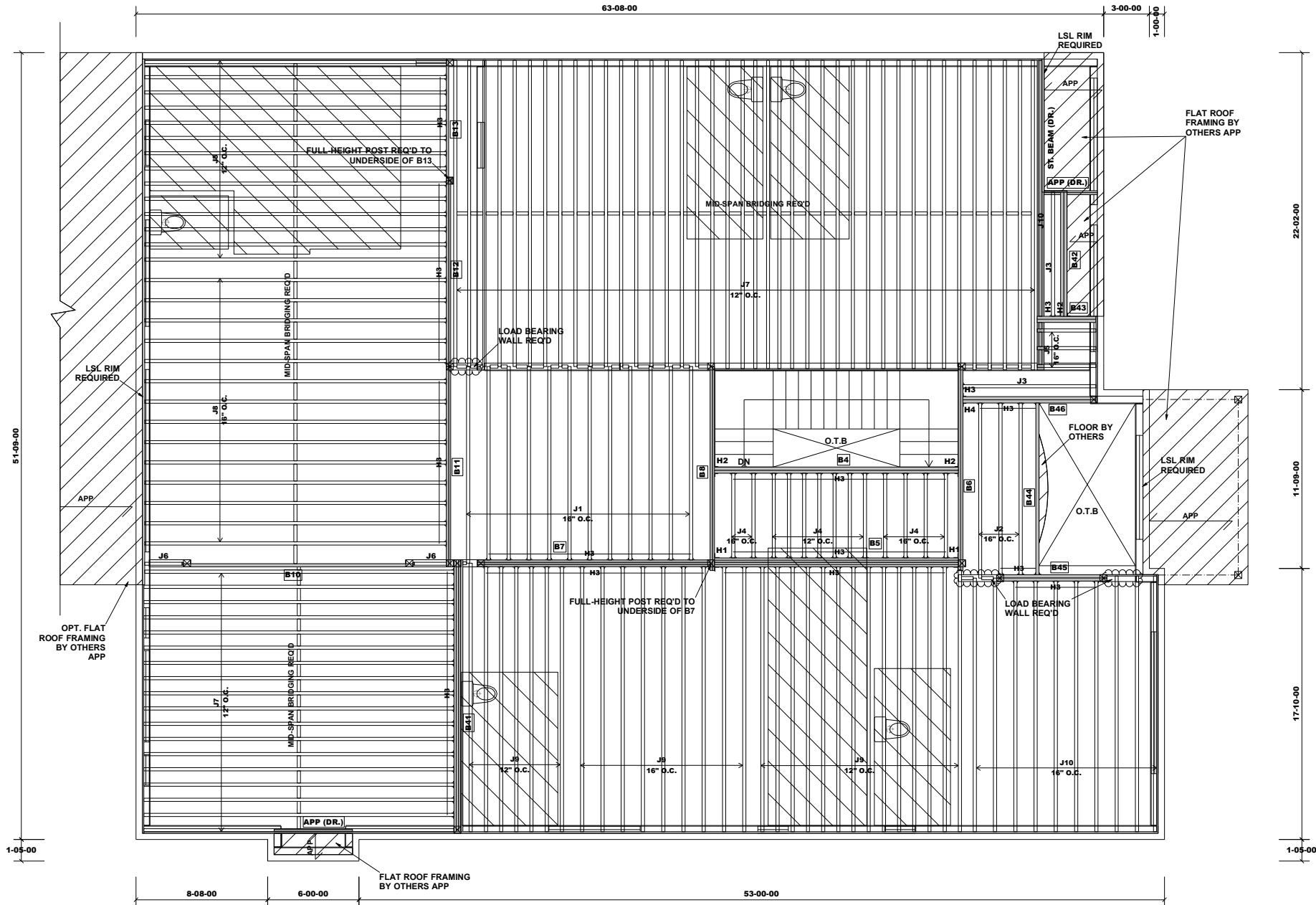
Provide I-Joist blocking between cantilevered joists (along bearing) and rimboard closure at ends.

Do not scale - refer to architectural plans for dimensions.

HATCH LEGEND

Ceramic Tile

Conv Framed



Products				
PlotID	Length	Product	Plies	Net Qty
B4	17'-00'-00	11 7/8" NI-20	2	2
B5	17'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B6	14'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B7	16'-00'-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B8	14'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B10	16'-00'-00	11 7/8" NI-20	1	1
B11	14'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B12	13'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B13	8'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B41	18'-00'-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4
B42	9'-00'-00	11 7/8" NI-20	2	2
B43	4'-00'-00	11 7/8" NI-20	2	2
B44	12'-00'-00	11 7/8" NI-20	1	1
B45	8'-00'-00	11 7/8" NI-20	2	2
B46	9'-00'-00	11 7/8" NI-20	2	2
J1	13'-00'-00	11 7/8" NI-20	1	12
J2	12'-00'-00	11 7/8" NI-20	1	3
J3	9'-00'-00	11 7/8" NI-20	1	2
J4	6'-00'-00	11 7/8" NI-20	1	13
J5	4'-00'-00	11 7/8" NI-20	1	3
J6	3'-00'-00	11 7/8" NI-20	1	2
J7	21'-00'-00	11 7/8" NI-40x	1	58
J8	20'-00'-00	11 7/8" NI-40x	1	28
J9	18'-00'-00	11 7/8" NI-40x	1	30
J10	17'-00'-00	11 7/8" NI-40x	1	11
Ca1	186'-00'-00	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	44'-00'-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	90'-00'-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	2		HGUS7.25/10
H2	3		HU312-2
H3	123		LT251188
H4	1		MIT311.88-2

SECOND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
ELEVATION C
W/ OPT. FLOOR PLAN

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

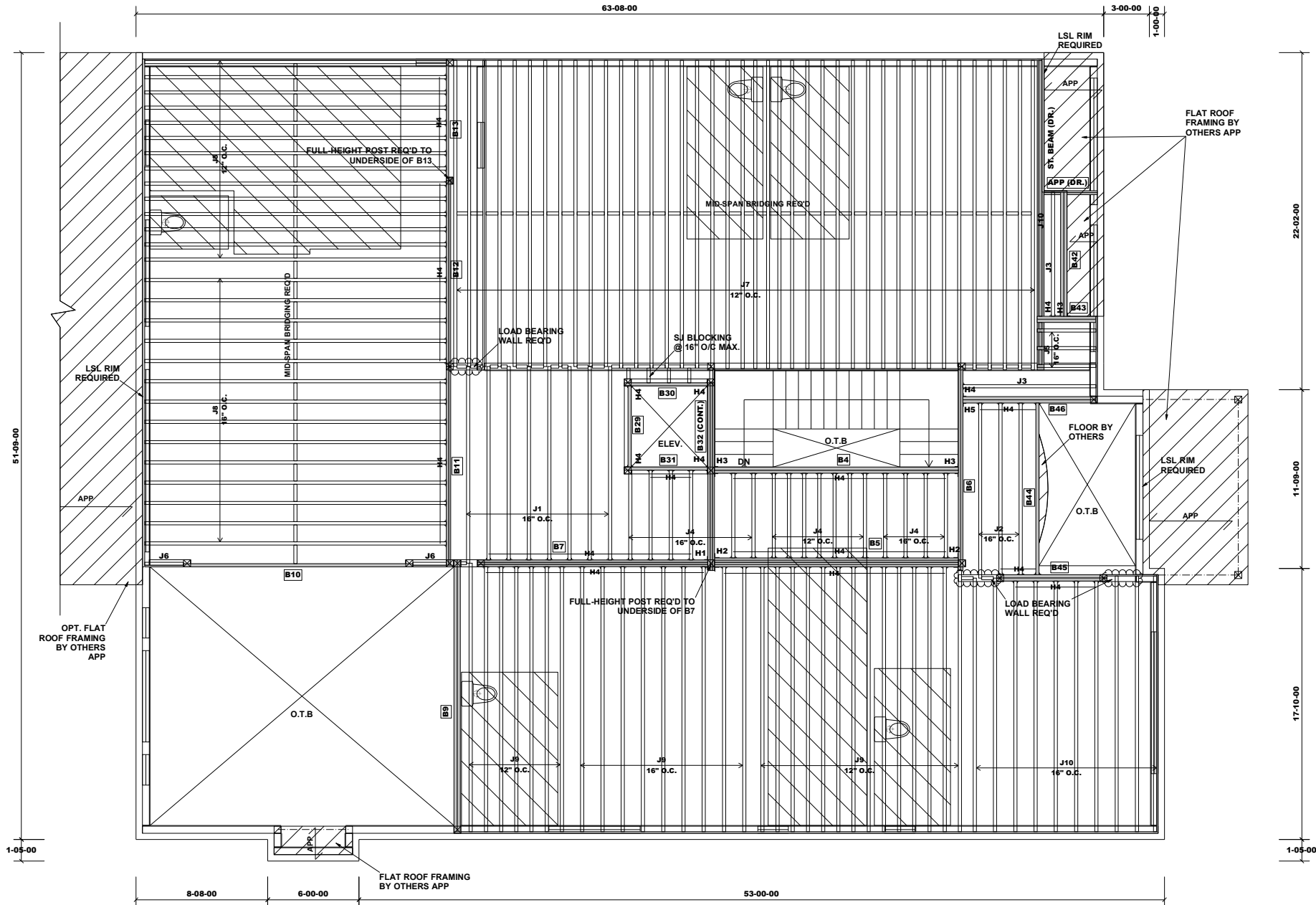
SUBFLOOR: 3/4" NAILED & GLUED*

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.



Products				
PlotID	Length	Product	Pieces	Net Qty
B4	17'-00"-00	11 7/8" NI-20	2	2
B5	17'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B6	14'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B7	16'-00"-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B9	18'-00"-00	11 7/8" NI-20	2	2
B10	16'-00"-00	11 7/8" NI-20	1	1
B11	14'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B12	13'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B13	8'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B29	6'-00"-00	11 7/8" NI-20	1	1
B30	6'-00"-00	11 7/8" NI-20	1	1
B31	6'-00"-00	11 7/8" NI-20	1	1
B32 (CONT.)	13'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B42	9'-00"-00	11 7/8" NI-20	2	2
B43	4'-00"-00	11 7/8" NI-20	2	2
B44	12'-00"-00	11 7/8" NI-20	1	1
B45	8'-00"-00	11 7/8" NI-20	2	2
B46	9'-00"-00	11 7/8" NI-20	2	2
J1	13'-00"-00	11 7/8" NI-20	1	8
J2	12'-00"-00	11 7/8" NI-20	1	3
J3	9'-00"-00	11 7/8" NI-20	1	2
J4	6'-00"-00	11 7/8" NI-20	1	17
J5	4'-00"-00	11 7/8" NI-20	1	3
J6	3'-00"-00	11 7/8" NI-20	1	2
J7	21'-00"-00	11 7/8" NI-40x	1	40
J8	20'-00"-00	11 7/8" NI-40x	1	28
J9	18'-00"-00	11 7/8" NI-40x	1	30
J10	17'-00"-00	11 7/8" NI-40x	1	11
Ca1	155'-00"-08	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	43'-00"-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	82'-00"-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS5.50/10
H2	2		HGUS7.25/10
H3	3		HU312-2
H4	113		LT251188
H5	1		MIT311.88-2

SECOND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
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

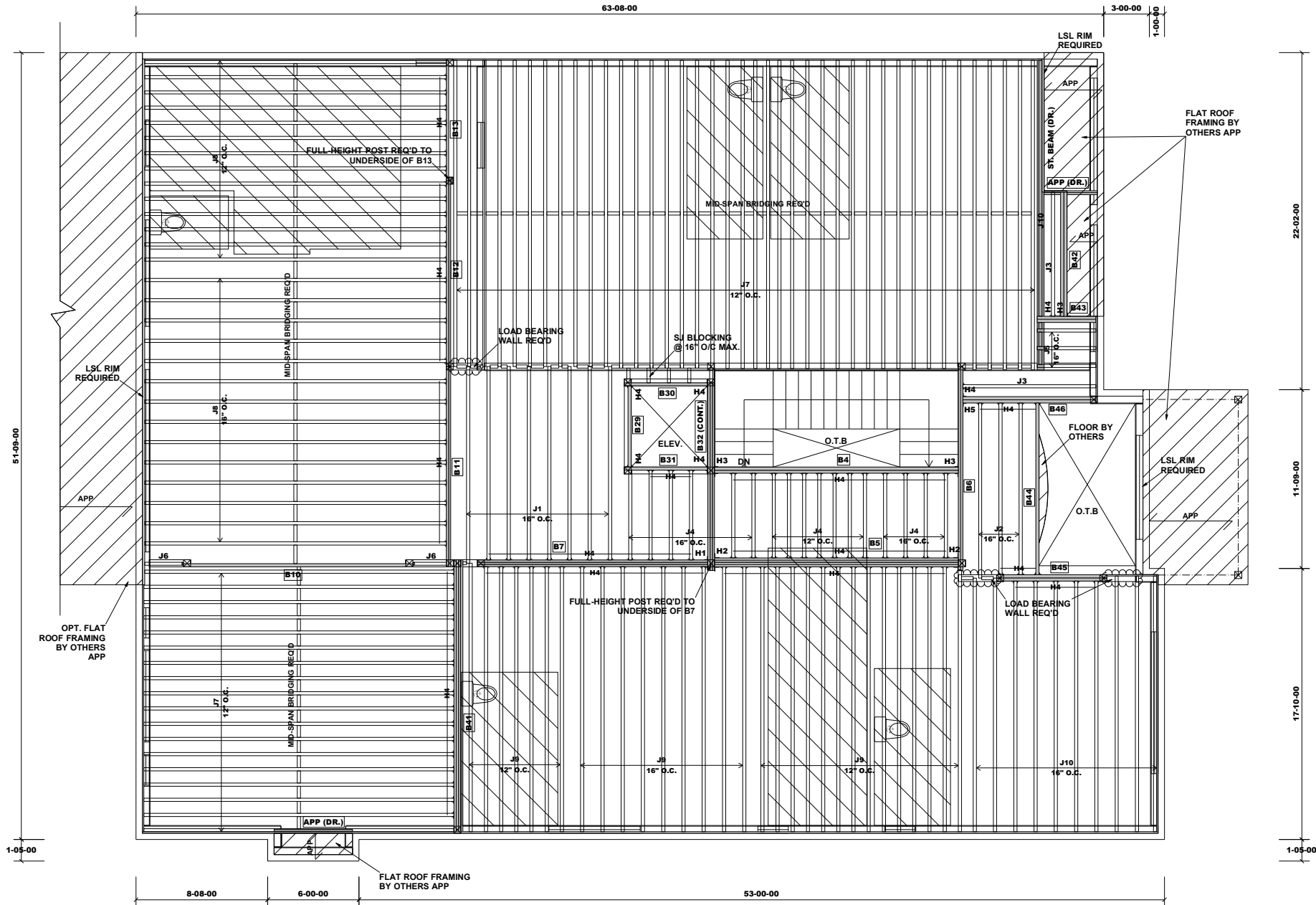
SUBFLOOR: 3/4" NAILED & GLUED*

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.



Products				
PlotID	Length	Product	Piles	Net Qty
B4	17-00-00	11 7/8" NI-20	2	2
B5	17-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	4	4
B6	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B7	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B10	16-00-00	11 7/8" NI-20	1	1
B11	14-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B12	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	2	2
B13	8-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
B29	6-00-00	11 7/8" NI-20	1	1
B30	6-00-00	11 7/8" NI-20	1	1
B31	6-00-00	11 7/8" NI-20	1	1
B32 (CONT.)	13-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	3	3
B41	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	4	4
B42	9-00-00	11 7/8" NI-20	2	2
B43	4-00-00	11 7/8" NI-20	2	2
B44	12-00-00	11 7/8" NI-20	1	1
B45	8-00-00	11 7/8" NI-20	2	2
B46	9-00-00	11 7/8" NI-20	2	2
J1	13-00-00	11 7/8" NI-20	1	8
J2	12-00-00	11 7/8" NI-20	1	3
J3	9-00-00	11 7/8" NI-20	1	2
J4	6-00-00	11 7/8" NI-20	1	17
J5	4-00-00	11 7/8" NI-20	1	3
J6	3-00-00	11 7/8" NI-20	1	2
J7	21-00-00	11 7/8" NI-40x	1	58
J8	20-00-00	11 7/8" NI-40x	1	28
J9	18-00-00	11 7/8" NI-40x	1	30
J10	17-00-00	11 7/8" NI-40x	1	11
Ca1	187-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Ca2	44-00-00	1 3/4" x 11 7/8" 1.55E TimberStrand® LSL	1	1
Bk1	95-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	1		HGUS5.50/10
H2	2		HGUS7.25/10
H3	3		HU312-2
H4	130		LT251188
H5	1		MIT311.88-2

SECOND FLOOR FRAMING
UNIT 6002 - THE KINGSVIEW
ELEVATION C
W/ OPT. FLOOR PLAN
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.



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B1 - i55944**
Type: **Beam**

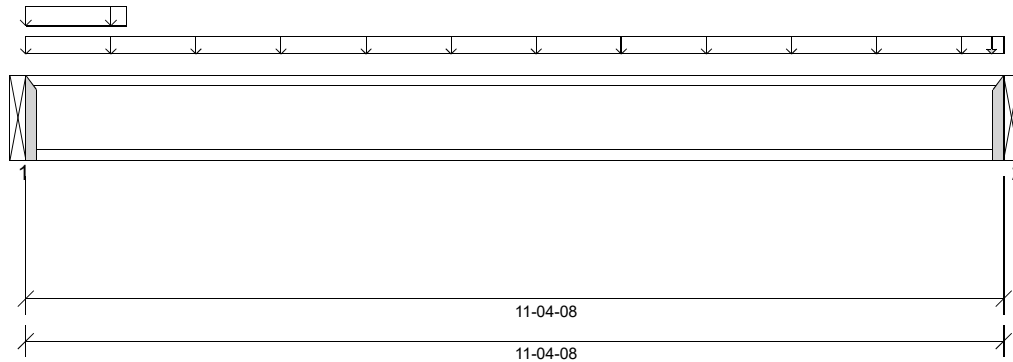
1 Ply Member
11 7/8" NI-20

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 04/25/2022 18:16



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: 11'- 4 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 769 psi Beam @ 11'- 4 1/2"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 7 3/16"	1.25D + 1.5L	1.00	853 lb ft	5580 lb ft	Passed - 15%
Factored Shear:	0'- 1/16"	1.25D + 1.5L	1.00	373 lb	2240 lb	Passed - 17%
Live Load (LL) Pos. Defl.:	5'- 8 1/4"	L		0.042"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	5'- 7 7/8"	D + L		0.065"	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	1.00	374 lb		1970 lb	-	Passed - 19%
2	1'-12	1.25D + 1.5L	1.00	305 lb		1970 lb	-	Passed - 15%

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	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'	11'- 4 1/2"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	-0'	11'- 4 1/2"	FC3 Floor Decking (Plan View Fill)	Top	9 lb/ft	24 lb/ft	-	-
Uniform	0'	1'- 2"	User Load	Top	60 lb/ft	-	-	-
Point	11'- 2 13/16"	11'- 2 13/16"	User Load	Top	2 lb	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B2(i56074)	134 lb	137 lb	-	-
2	11'- 4 1/2"	11'- 4 1/2"	B3(i56101)	74 lb	141 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.

SE047042



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B2 - i56074**
Type: **Beam**

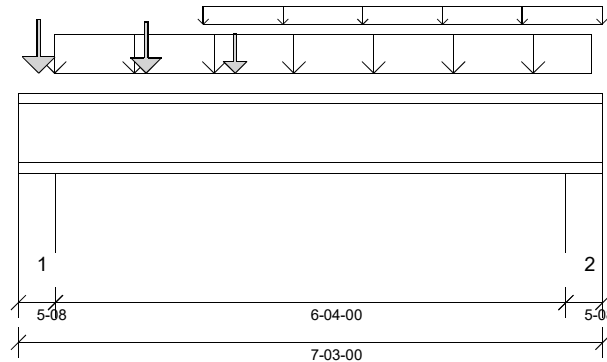
2 Ply Member
11 7/8" NI-20

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 04/25/2022 18:16



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 @ 6'- 10 1/2"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 9 3/8"	1.25D + 1.5L	1.00	4862 lb ft	11160 lb ft	Passed - 44%
Factored Neg. Moment:	0'- 4 1/2"	1.25D + 1.5L	1.00	78 lb ft	11160 lb ft	Passed - 1%
Factored Shear:	0'- 5 9/16"	1.25D + 1.5L	1.00	3053 lb	4480 lb	Passed - 68%
Live Load (LL) Pos. Defl.:	3'- 6 7/8"	L		0.051"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	3'- 6 15/16"	D + L		0.078"	L/240	Passed - L/970

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	3676 lb		4480 lb	16918 lb	Passed - 82%
2	5-08	1.25D + 1.5L	1.00	2927 lb		4480 lb	16918 lb	Passed - 65%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	7'- 3"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'- 5 3/8"	7'- 1 3/8"	Smoothed Load	Front	130 lb/ft	348 lb/ft	-	-
Uniform	2'- 3 1/2"	7'- 3"	User Load	Top	60 lb/ft	-	-	-
Point	0'- 3"	0'- 3"	J3(i55732)	Back	118 lb	315 lb	-	-
Point	1'- 7"	1'- 7"	J3(i55546)	Back	111 lb	295 lb	-	-
Point	2'- 8 1/4"	2'- 8 1/4"	B1(i55944)	Back	134 lb	137 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	6(i41705)	837 lb	1780 lb	-	-
2	6'- 9 1/2"	7'- 3"	5(i41704)	742 lb	1307 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.

SE047043



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B3 - i56101**
Type: **Beam**

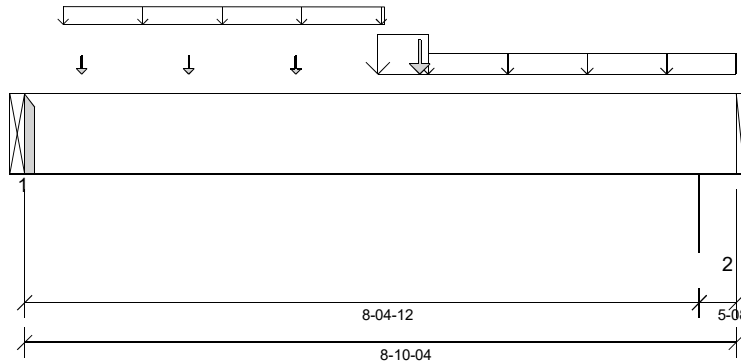
2 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/25/2022 18:17



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: 3'- 10" Bottom: 3'- 10"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 615 psi Wall @ 8'- 5 3/4"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	4'- 8 15/16"	1.25D + 1.5S + L	1.00	10108 lb ft	18071 lb ft	Passed - 56%
Factored Shear:	7'- 4 7/8"	1.25D + 1.5S + L	1.00	3480 lb	14414 lb	Passed - 24%
Live Load (LL) Pos. Defl.:	4'- 4 5/8"	S + 0.5L		0.062"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	4'- 4 3/4"	D + S + 0.5L		0.113"	L/240	Passed - L/894

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	0.99	3040 lb		6777 lb	-	Passed - 45%
2	5-08	1.25D + 1.5S + L	1.00	4783 lb		25224 lb	11842 lb	Passed - 40%

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'	8'- 10 1/4"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	4'- 4 3/4"	5'- 1/4"	E26(i41638)	Top	1160 lb/ft	-	1651 lb/ft	-
Uniform	5'- 1/4"	8'- 10 1/4"	E45(i44198)	Top	312 lb/ft	-	329 lb/ft	-
Tapered	0'- 5 3/4"	4'- 5 3/4"	Smoothed Load	Front	92 To 82 lb/ft	245 To 219 lb/ft	-	-
Point	4'- 11"	4'- 11"	B1(i55944)	Front	74 lb	141 lb	-	-
Point	0'- 8 1/2"	0'- 8 1/2"	J6(i56067)	Back	-	36 lb	-	-
Point	2'- 1/2"	2'- 1/2"	J6(i55720)	Back	-	43 lb	-	-
Point	3'- 4 1/2"	3'- 4 1/2"	J6(i55652)	Back	-	41 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B6(i56046)	907 lb	809 lb	688 lb	-
2	8'- 4 3/4"	8'- 10 1/4"	E4(i41620)	1597 lb	382 lb	1605 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.

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 12" O/C, SE047044
STAGGERED IN 2 ROWS



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B4 - i56059**
Type: **Beam**

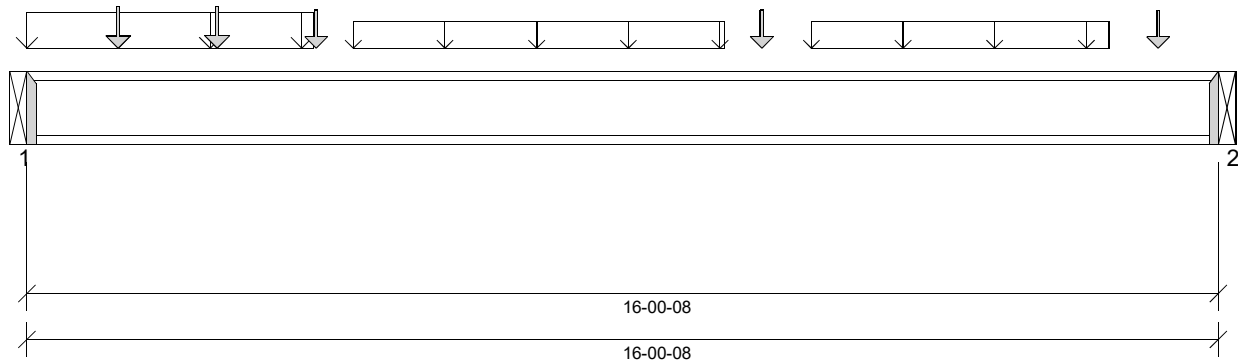
2 Ply Member
11 7/8" NI-20

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 04/25/2022 18:17



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 @ 16'- 1/2"

Reinforcement Accessories Required

- Critical Reaction Web Stiffener @ 0'



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	6'- 10 3/4"	1.25D + 1.5L	1.00	10192 lb ft	11160 lb ft	Passed - 91%
Factored Shear:	0'- 1/16"	1.25D + 1.5L	1.00	3541 lb	4480 lb	Passed - 79%
Live Load (LL) Pos. Defl.:	7'- 9 11/16"	L		0.510"	L/360	Passed - L/377
Total Load (TL) Pos. Defl.:	7'- 9 3/4"	D + L		0.720"	L/240	Passed - L/267
Permanent Deflection:	7'- 9 15/16"			-	L/360	Passed - L/996

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	3543 lb		3940 lb	-	Passed - 90%
2	1-12	1.25D + 1.5L	1.00	2215 lb		3940 lb	-	Passed - 56%

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'	16'- 1/2"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	3'- 10 1/4"	User Load	Top	90 lb/ft	240 lb/ft	-	-
Uniform	4'- 4 3/4"	9'- 4 3/4"	Smoothed Load	Front	48 lb/ft	128 lb/ft	-	-
Uniform	10'- 6 3/4"	14'- 6 3/4"	Smoothed Load	Front	48 lb/ft	128 lb/ft	-	-
Point	1'- 2 3/4"	1'- 2 3/4"	J4(i55953)	Front	65 lb	173 lb	-	-
Point	2'- 6 3/4"	2'- 6 3/4"	J4(i55819)	Front	64 lb	171 lb	-	-
Point	3'- 10 3/4"	3'- 10 3/4"	J4(i55841)	Front	56 lb	149 lb	-	-
Point	9'- 10 3/4"	9'- 10 3/4"	J4(i55915)	Front	56 lb	149 lb	-	-
Point	15'- 2 3/4"	15'- 2 3/4"	J4(i55590)	Front	55 lb	147 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B8(i56005)	710 lb	1770 lb	-	-
2	16'- 1/2"	16'- 1/2"	B6(i56046)	457 lb	1097 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.

SE047045



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B5 - i56055**
Type: **Beam**

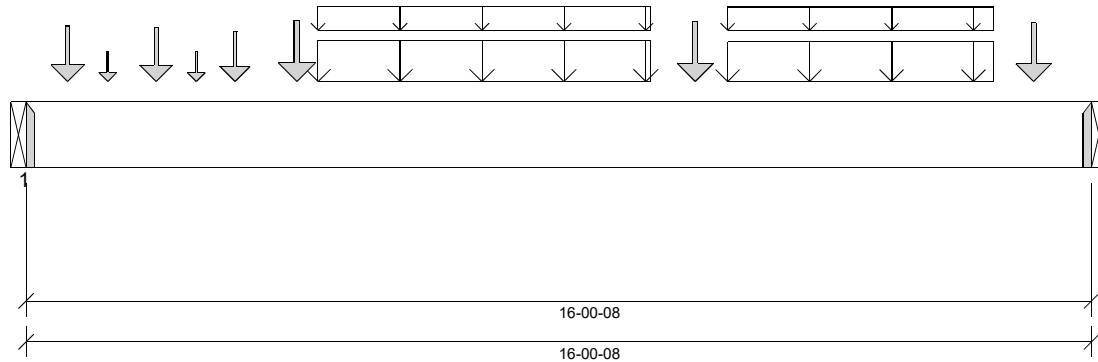
4 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/25/2022 18:17



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 @ 16'- 1/2"



SIMPSON SDW22634 SIMPSON
WOOD SCREW @ 12" O/C,
STAGGERED IN 2 ROWS.

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	8'- 1 3/4"	1.25D + 1.5L	1.00	32705 lb ft	53063 lb ft	Passed - 62%
Factored Shear:	0'- 11 7/8"	1.25D + 1.5L	1.00	6972 lb	28828 lb	Passed - 24%
Live Load (LL) Pos. Defl.:	8'- 3/16"	L		0.484"	L/360	Passed - L/397
Total Load (TL) Pos. Defl.:	8'- 3/16"	D + L		0.725"	L/240	Passed - L/265
Permanent Deflection:	8'- 1/16"			-	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	1-08	1.25D + 1.5L	1.00	7944 lb		13759 lb	-	Passed - 58%
2	1-08	1.25D + 1.5L	1.00	7717 lb		13759 lb	-	Passed - 56%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	HGUS7.25/10		-	-	-	Connector manually specified by the user.
2	HGUS7.25/10		-	-	-	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'	16'- 1/2"	Self Weight	Top	26 lb/ft	-	-	-
Uniform	4'- 4 3/4"	9'- 4 3/4"	Smoothed Load	Front	177 lb/ft	354 lb/ft	-	-
Uniform	4'- 4 3/4"	9'- 4 3/4"	Smoothed Load	Back	51 lb/ft	123 lb/ft	-	-
Uniform	10'- 6 3/4"	14'- 6 3/4"	Smoothed Load	Front	149 lb/ft	354 lb/ft	-	-
Uniform	10'- 6 3/4"	14'- 6 3/4"	Smoothed Load	Back	46 lb/ft	123 lb/ft	-	-
Point	0'- 7 1/2"	0'- 7 1/2"	J9(i56012)	Front	173 lb	461 lb	-	-
Point	1'- 11 1/2"	1'- 11 1/2"	J9(i56086)	Front	168 lb	447 lb	-	-
Point	3'- 1 3/4"	3'- 1 3/4"	J9(i56094)	Front	154 lb	388 lb	-	-
Point	4'- 15/16"	4'- 15/16"	-	Front	231 lb	497 lb	-	-
Point	10'- 7/8"	10'- 7/8"	-	Front	210 lb	497 lb	-	-
Point	15'- 2 1/16"	15'- 2 1/16"	-	Front	195 lb	486 lb	-	-
Point	1'- 2 3/4"	1'- 2 3/4"	J4(i55953)	Back	62 lb	166 lb	-	-
Point	2'- 6 3/4"	2'- 6 3/4"	J4(i55819)	Back	62 lb	164 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B8(i56005)	1817 lb	3759 lb	-	-
2	16'- 1/2"	16'- 1/2"	B6(i56046)	1787 lb	3679 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.

SE047046



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B6 - i56046**
Type: **Beam**

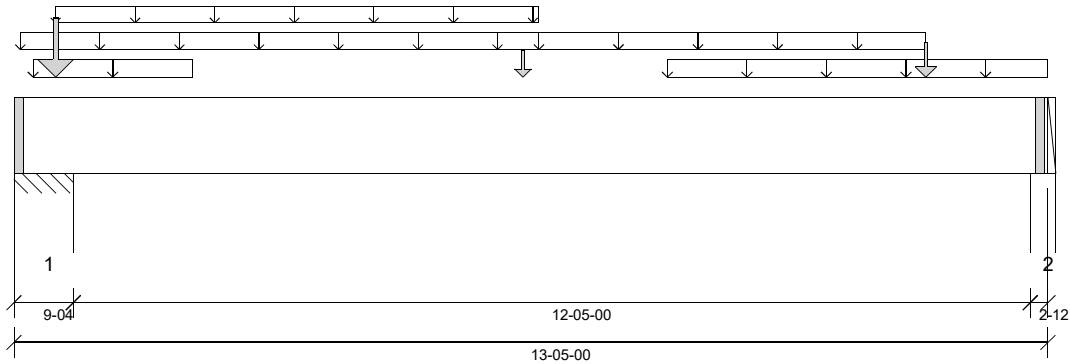
2 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/25/2022 18:17



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'- 6 3/4"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 8 1/4"
- 615 psi Wall @ 13'- 3 1/4"



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

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	6'- 7 1/4"	1.25D + 1.5L + S	1.00	10592 lb ft	26531 lb ft	Passed - 40%
Factored Neg. Moment:	0'- 8 1/4"	1.25D + 1.5L + S	1.00	1152 lb ft	12527 lb ft	Passed - 9%
Factored Shear:	12'- 2 3/8"	1.25D + 1.5L + S	1.00	4281 lb	14414 lb	Passed - 30%
Live Load (LL) Pos. Defl.:	7'- 1 3/8"	L + 0.5S		0.159"	L/360	Passed - L/939
Total Load (TL) Pos. Defl.:	7'- 2 1/16"	D + L + 0.5S		0.263"	L/240	Passed - L/565

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	9'-04	1.25D + 1.5L + S	1.00	10234 lb		42424 lb	19917 lb	Passed - 51%
2	2'-12	1.25D + 1.5L + S	1.00	4431 lb		12613 lb	5921 lb	Passed - 75%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	13'- 5"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'- 1"	6'- 9 3/4"	FC3 Floor Decking (Plan View Fill)	Top	10 lb/ft	26 lb/ft	-	-
Uniform	0'- 3"	2'- 3 3/4"	User Load	Top	60 lb/ft	-	-	-
Uniform	0'- 6 1/2"	6'- 9 3/4"	FC3 Floor Decking (Plan View Fill)	Top	7 lb/ft	19 lb/ft	-	-
Uniform	6'- 9 3/4"	11'- 10"	FC3 Floor Decking (Plan View Fill)	Top	11 lb/ft	29 lb/ft	-	-
Uniform	8'- 5 3/4"	13'- 5"	User Load	Top	60 lb/ft	-	-	-
Point	11'- 10"	11'- 10"	B3(i56101)	Front	907 lb	809 lb	688 lb	-
Point	0'- 6 1/2"	0'- 6 1/2"	B5(i56055)	Back	1787 lb	3679 lb	-	-
Point	6'- 7 1/4"	6'- 7 1/4"	B4(i56059)	Back	457 lb	1097 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 9 1/4"	-	2545 lb	4719 lb	79 lb	-
+++	0'- 1 7/8"	0'- 1 7/8"	6(i41705)	1032 lb	1913 lb	32 lb	-
+++	0'- 5 3/4"	0'- 5 3/4"	4(i41703)	1513 lb	2806 lb	47 lb	-
2	13'- 2 1/4"	13'- 5"	14(i41746)	1375 lb	1332 lb	609 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.
- Bearing capacity of member at support 1, 2 was verified for the effect of concentrated load applied near the support. At support 1. Required Load Area: L=3.500", W=3.500". LDF=1.00, Pf=7752 lb, Qr=16052 lb, Result=48.29%.

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.

SE047047

Second Floor\Flush Beams\B7(i56010) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

April 25, 2022 18:18:05

Build 8183

Job name: 45147-Model 6002

File name: 343076 Ground A + Second A (1,13).mmdl

Address: Pine Valley Ph2

Description: Second Floor\Flush Beams\B7(i56010)

City, Province, Postal Code: Vaughan, ON

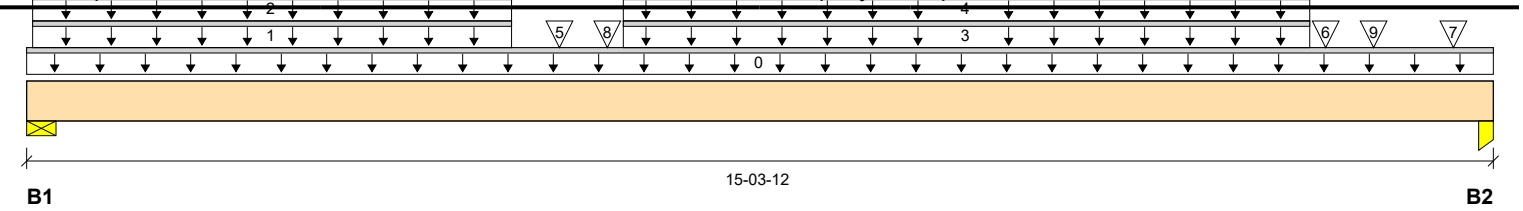
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses Inc.



Total Horizontal Product Length = 15-03-12

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	4746 / 0	1987 / 0		
B2, 2"	4576 / 0	1863 / 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	15-03-12	Top		18			00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-00-12	05-00-12	Front	352	147			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	00-00-12	05-00-12	Back	278	104			n/a
3	Smoothed Load	Unf. Lin. (lb/ft)	L	06-02-12	13-04-12	Front	327	123			n/a
4	Smoothed Load	Unf. Lin. (lb/ft)	L	06-02-12	13-04-12	Back	242	91			n/a
5	J9(i56062)	Conc. Pt. (lbs)	L	05-06-12	05-06-12	Front	410	158			n/a
6	J9(i56117)	Conc. Pt. (lbs)	L	13-06-12	13-06-12	Front	469	176			n/a
7	J9(i56042)	Conc. Pt. (lbs)	L	14-10-12	14-10-12	Front	460	172			n/a
8	J2(i55795)	Conc. Pt. (lbs)	L	06-00-12	06-00-12	Back	347	130			n/a
9	J2(i55676)	Conc. Pt. (lbs)	L	14-00-12	14-00-12	Back	400	150			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	33707 ft-lbs	55211 ft-lbs	61.1%	1	08-02-12
End Shear	8483 lbs	21696 lbs	39.1%	1	14-01-14
Total Load Deflection	L/279 (0.638")	n/a	86.1%	4	07-09-12
Live Load Deflection	L/393 (0.452")	n/a	91.6%	5	07-09-12
Max Defl.	0.638"	n/a	n/a	4	07-09-12
Span / Depth	15.0				


Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 5-1/2" x 5-1/4"	9603 lbs	54.1%	27.3%	Spruce-Pine-Fir
B2	Column 2" x 5-1/4"	9192 lbs	50.5%	71.8%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 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 4
 Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-09-08.

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



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B8 - i56005**
Type: **Beam**

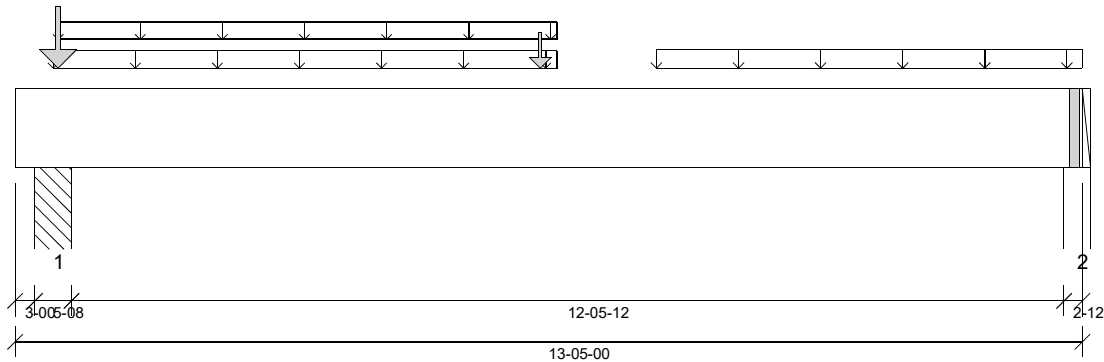
2 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/25/2022 18:18



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'- 4 1/2"

Factored Resistance of Support Material:

- 1334 psi Column @ 0'- 5 3/4"
- 615 psi Wall @ 13'- 3 1/4"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	6'- 7 1/4"	1.25D + 1.5L	1.00	13636 lb ft	26531 lb ft	Passed - 51%
Factored Shear:	1'- 8 3/8"	1.25D + 1.5L	1.00	2377 lb	14414 lb	Passed - 16%
Live Load (LL) Pos. Defl.:	6'- 8 13/16"	L		0.212"	L/360	Passed - L/707
Total Load (TL) Pos. Defl.:	6'- 9 5/16"	D + L		0.324"	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	5'-08	1.25D + 1.5L	1.00	10444 lb		25225 lb	25687 lb	Passed - 41%
2	2'-12	1.25D + 1.5L	1.00	2389 lb		12613 lb	5921 lb	Passed - 40%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	13'- 5"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'- 5 3/4"	6'- 9 3/4"	FC3 Floor Decking (Plan View Fill)	Top	11 lb/ft	28 lb/ft	-	-
Uniform	0'- 6 1/2"	6'- 9 3/4"	FC3 Floor Decking (Plan View Fill)	Top	10 lb/ft	28 lb/ft	-	-
Uniform	8'- 3/4"	13'- 5"	User Load	Top	60 lb/ft	-	-	-
Point	0'- 6 1/2"	0'- 6 1/2"	B5(i56055)	Front	1817 lb	3759 lb	-	-
Point	6'- 7 1/4"	6'- 7 1/4"	B4(i56059)	Front	710 lb	1770 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'- 3"	0'- 8 1/2"	Pt1(i56027)	2430 lb	4925 lb	-	-
2	13'- 2 1/4"	13'- 5"	13(i41745)	737 lb	991 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.
- 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.
- User loads assume a bearing length of 3.5" in determining member capacity for loads near supports.
- Bearing capacity of member at support 1, 2 was verified for the effect of concentrated load applied near the support. At support 1. Required Load Area: L=3.500", W=3.500". LDF=1.00, Pf=7910 lb, Q'r=13759 lb, Result=57.49%.

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.

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

SE047049



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B9 - i56115**
Type: **Beam**

2 Ply Member
11 7/8" NI-20

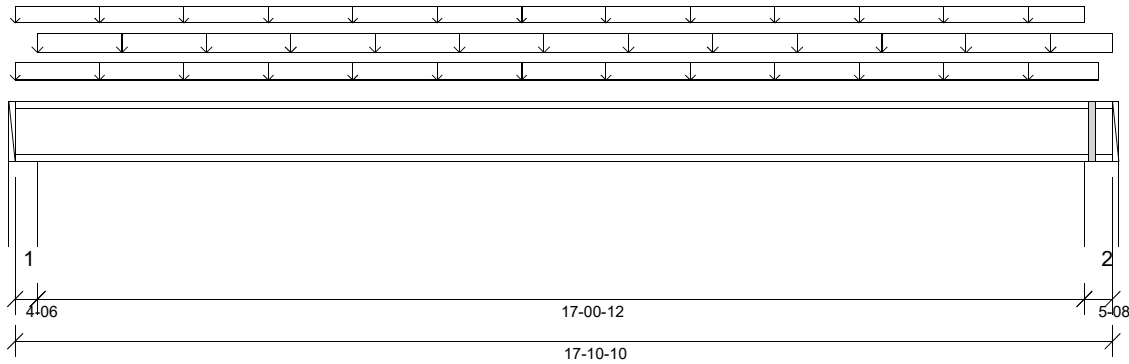
Status:
**Design
Passed**

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

04/25/2022 18:18



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: 17'- 3/4"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 3 3/8"
- 615 psi Wall @ 17'- 6 1/8"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	8'- 10 9/16"	1.25D + 1.5L	0.77	4991 lb ft	8595 lb ft	Passed - 58%
Factored Shear:	0'- 4 7/16"	1.25D + 1.5L	0.77	1150 lb	3450 lb	Passed - 33%
Live Load (LL) Pos. Defl.:	8'- 10 3/4"	L		0.110"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	8'- 10 11/16"	D + L		0.430"	L/240	Passed - L/475
Permanent Deflection:	8'- 10 11/16"			-	L/360	Passed - L/687

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	0.77	1177 lb		3450 lb	10364 lb	Passed - 34%
2	5-08	1.25D + 1.5L	0.77	1191 lb		3450 lb	13029 lb	Passed - 35%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	17'- 10 5/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	17'- 7 7/8"	FC3 Floor Decking (Plan View Fill)	Top	7 lb/ft	18 lb/ft	-	-
Uniform	0'	17'- 5 1/8"	FC3 Floor Decking (Plan View Fill)	Top	3 lb/ft	8 lb/ft	-	-
Uniform	0'- 4 3/8"	17'- 10 5/8"	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'- 4 3/8"	E12(i41623)	660 lb	236 lb	-	-
2	17'- 5 1/8"	17'- 10 5/8"	8(i41726)	678 lb	228 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.

SE047050



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B10 - i55941**
Type: **Beam**

1 Ply Member
11 7/8" NI-20

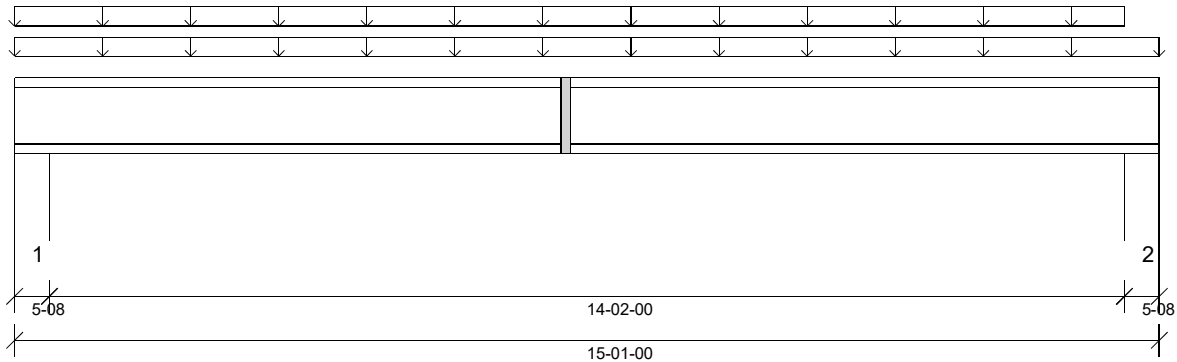
Status:
Design Passed

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

04/25/2022 18:19



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: 7'- 7 3/8"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 4 1/2"
- 615 psi Wall @ 14'- 8 1/2"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	7'- 6 1/2"	1.25D + 1.5L	0.81	3559 lb ft	4536 lb ft	Passed - 78%
Factored Shear:	0'- 5 9/16"	1.25D + 1.5L	0.81	983 lb	1821 lb	Passed - 54%
Live Load (LL) Pos. Defl.:	7'- 6 1/2"	L		0.127"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	7'- 6 1/2"	D + L		0.435"	L/240	Passed - L/390
Permanent Deflection:	7'- 6 1/2"			-	L/360	Passed - L/611

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	0.81	1048 lb		1821 lb	6876 lb	Passed - 58%
2	5-08	1.25D + 1.5L	0.81	1012 lb		1821 lb	6876 lb	Passed - 56%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	15'- 1"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	15'- 1"	FC3 Floor Decking (Plan View Fill)	Top	11 lb/ft	31 lb/ft	-	-
Uniform	0'	14'- 7 1/2"	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'- 5 1/2"	7(i41725)	560 lb	231 lb	-	-
2	14'- 7 1/2"	15'- 1"	8(i41726)	534 lb	231 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.

SE047051



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B11 - i55780**
Type: **Beam**

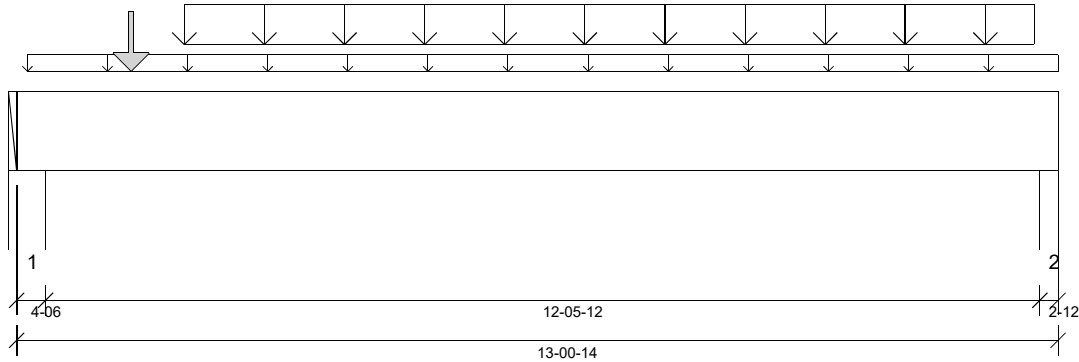
2 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/25/2022 18:19



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'- 3 3/8"
- 615 psi Wall @ 12'- 11 1/8"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	6'- 9 1/4"	1.25D + 1.5L	1.00	17156 lb ft	26531 lb ft	Passed - 65%
Factored Shear:	11'- 10 1/4"	1.25D + 1.5L	1.00	5185 lb	14414 lb	Passed - 36%
Live Load (LL) Pos. Defl.:	6'- 7 1/4"	L		0.333"	L/360	Passed - L/449
Total Load (TL) Pos. Defl.:	6'- 7 1/4"	D + L		0.468"	L/240	Passed - L/320

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	5069 lb		20066 lb	9420 lb	Passed - 54%
2	2-12	1.25D + 1.5L	1.00	5267 lb		12613 lb	5921 lb	Passed - 89%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	13'- 7/8"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'- 1 5/8"	13'- 7/8"	FC3 Floor Decking (Plan View Fill)	Top	10 lb/ft	26 lb/ft	-	-
Uniform	2'- 1 1/4"	12'- 9 1/4"	Smoothed Load	Back	149 lb/ft	398 lb/ft	-	-
Point	1'- 5 1/4"	1'- 5 1/4"	J8(i55821)	Back	210 lb	561 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 4 3/8"	8(i41726)	1030 lb	2521 lb	-	-
2	12'- 10 1/8"	13'- 7/8"	2(i41625)	1067 lb	2622 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.

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

SE047052



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B12 - i55864**
Type: **Beam**

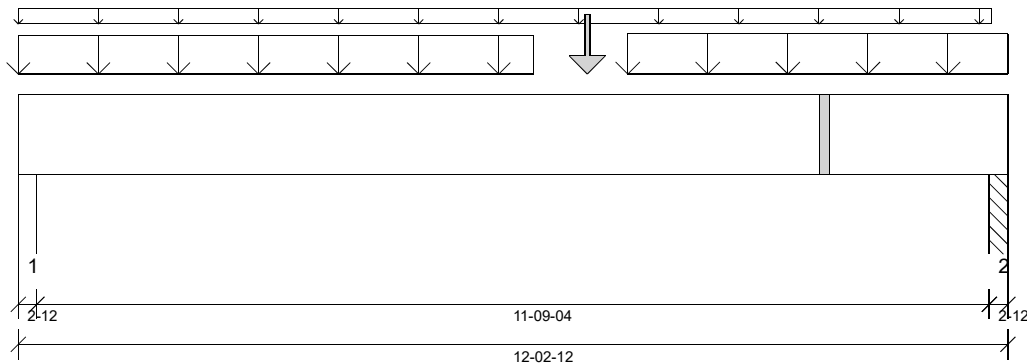
2 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/25/2022 18:19



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 3/4"
- 1334 psi Column @ 12'- 1"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 8 3/8"	1.25D + 1.5L	1.00	14747 lb ft	26531 lb ft	Passed - 56%
Factored Shear:	1'- 2 5/8"	1.25D + 1.5L	1.00	5223 lb	14414 lb	Passed - 36%
Live Load (LL) Pos. Defl.:	6'- 1 3/8"	L		0.252"	L/360	Passed - L/560
Total Load (TL) Pos. Defl.:	6'- 1 1/2"	D + L		0.361"	L/240	Passed - L/391

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	5264 lb		12613 lb	5921 lb	Passed - 89%
2	2'-12"	1.25D + 1.5L	1.00	5409 lb		12613 lb	12844 lb	Passed - 43%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	12'- 2 3/4"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	12'- 3/8"	FC3 Floor Decking (Plan View Fill)	Top	3 lb/ft	9 lb/ft	-	-
Uniform	0'	6'- 4 3/8"	Smoothed Load	Back	156 lb/ft	417 lb/ft	-	-
Uniform	7'- 6 3/8"	12'- 2 3/4"	Smoothed Load	Back	194 lb/ft	423 lb/ft	-	-
Point	7'- 3/8"	7'- 3/8"	J8(i55649)	Back	177 lb	465 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/4"	2(i41625)	1087 lb	2612 lb	-	-
2	12'	12'- 2 3/4"	Pt1(i54589)	1194 lb	2602 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.

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

SE047053



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B13 - i55737**
Type: **Beam**

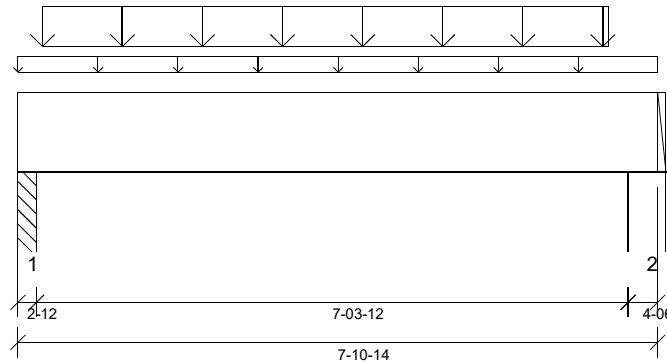
1 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/25/2022 18:19



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'- 1 3/4"
- 615 psi Wall @ 7'- 7 1/2"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 9 5/8"	1.25D + 1.5L	1.00	6012 lb ft	13266 lb ft	Passed - 45%
Factored Shear:	1'- 2 5/8"	1.25D + 1.5L	1.00	3013 lb	7207 lb	Passed - 42%
Live Load (LL) Pos. Defl.:	3'- 10 5/8"	L		0.078"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	3'- 10 5/8"	D + L		0.115"	L/240	Passed - L/764

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	3048 lb		6306 lb	6422 lb	Passed - 48%
2	4'-06	1.25D + 1.5L	1.00	2925 lb		10033 lb	4710 lb	Passed - 62%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	7'- 10 7/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	7'- 10 7/8"	FC3 Floor Decking (Plan View Fill)	Top	4 lb/ft	10 lb/ft	-	-
Uniform	0'- 3 5/8"	7'- 3 5/8"	Smoothed Load	Back	183 lb/ft	395 lb/ft	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/4"	Pt1(i54589)	695 lb	1453 lb	-	-
2	7'- 6 1/2"	7'- 10 7/8"	E2(i41618)	667 lb	1394 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.

SE047054

Ground Floor\Flush Beams\B14(i56016) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

April 25, 2022 18:20:09

Build 8183

Job name: 45147-Model 6002

File name: 343076 Ground A + Second A (1,13).mmdl

Address: Pine Valley Ph2

Description: Ground Floor\Flush Beams\B14(i56016)

City, Province, Postal Code: Vaughan, ON

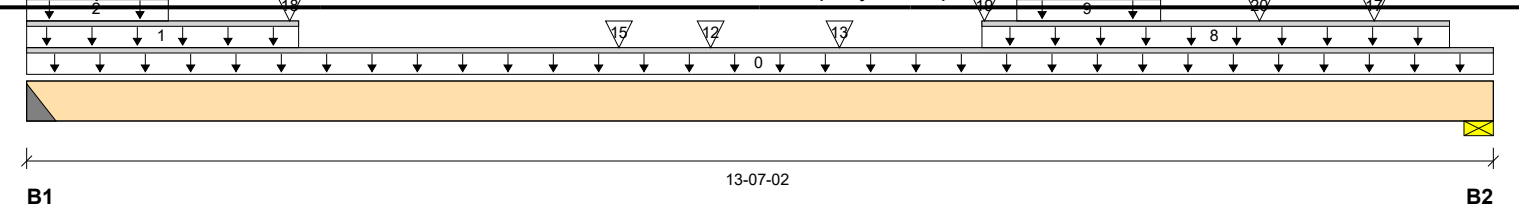
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses Inc.


Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	7173 / 3	3540 / 0	28 / 0	
B2, 4-3/8"	5023 / 17	2740 / 0	35 / 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	13-07-02	Top		24			00-00-00
1	6(i41705)	Unf. Lin. (lb/ft)	L	00-00-00	02-06-04	Top		68			n/a
2	6(i41705)	Unf. Lin. (lb/ft)	L	00-00-00	01-03-12	Top	281	105			n/a
3	6(i41705)	Unf. Lin. (lb/ft)	L	00-00-00	00-03-12	Top	441				n/a
4	6(i41705)	Unf. Lin. (lb/ft)	L	00-03-12	01-07-12	Top	233	88			n/a
5	Smoothed Load	Unf. Lin. (lb/ft)	L	00-11-14	04-11-14	Front	347	131			n/a
6	Smoothed Load	Unf. Lin. (lb/ft)	L	00-11-14	04-11-14	Back	274	135			n/a
7	6(i41705)	Unf. Lin. (lb/ft)	L	01-02-02	02-06-02	Top	326	122			n/a
8	-	Unf. Lin. (lb/ft)	L	08-10-04	13-02-04	Top		68			n/a
9	5(i41704)	Unf. Lin. (lb/ft)	L	09-02-02	10-06-02	Top	327	122			n/a
10	5(i41704)	Unf. Lin. (lb/ft)	L	10-03-14	11-02-04	Top	241	82			n/a
11	-	Conc. Pt. (lbs)	L	00-08-15	00-08-15	Front	693	287			n/a
12	-	Conc. Pt. (lbs)	L	06-04-01	06-04-01	Front	737	324			n/a
13	-	Conc. Pt. (lbs)	L	07-06-06	07-06-06	Front	752	388	63		n/a
14	-	Conc. Pt. (lbs)	L	10-03-15	10-03-15	Front	749	315			n/a
15	J1(i56008)	Conc. Pt. (lbs)	L	05-05-14	05-05-14	Back	274	151			n/a
16	J3(i56103)	Conc. Pt. (lbs)	L	09-05-14	09-05-14	Back	241	125			n/a
17	J3(i56063)	Conc. Pt. (lbs)	L	12-05-14	12-05-14	Back	251	132			n/a
18	6(i41705)	Conc. Pt. (lbs)	L	02-05-04	02-05-04	Top	1780	837			n/a
19	-	Conc. Pt. (lbs)	L	08-10-08	08-10-08	Top	2011	1041			n/a
20	-	Conc. Pt. (lbs)	L	11-05-02	11-05-02	Top	234	122			n/a
21	-	Conc. Pt. (lbs)	L	11-05-02	11-05-02	Top	-20	-45			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	41941 ft-lbs	73615 ft-lbs	57.0%	1	07-05-14
End Shear	13710 lbs	28927 lbs	47.4%	1	01-01-14
Total Load Deflection	L/325 (0.487")	n/a	73.9%	58	06-05-14
Live Load Deflection	L/490 (0.323")	n/a	73.5%	85	06-05-14
Max Defl.	0.487"	n/a	n/a	58	06-05-14
Span / Depth	13.3				


Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Hanger 2" x 7"	15212 lbs	n/a	89.1%	HGUS7.25/10
B2	Wall/Plate 4-3/8" x 7"	10995 lbs	58.4%	29.4%	Spruce-Pine-Fir

 SDW22634 SIMPSON WOOD SCREW @ 12" O/C, STAGGERED IN 2 ROWS.
 (TOP LOADED)

SE047055



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Ground Floor**
Label: **B15 - i56007**
Type: **Beam**

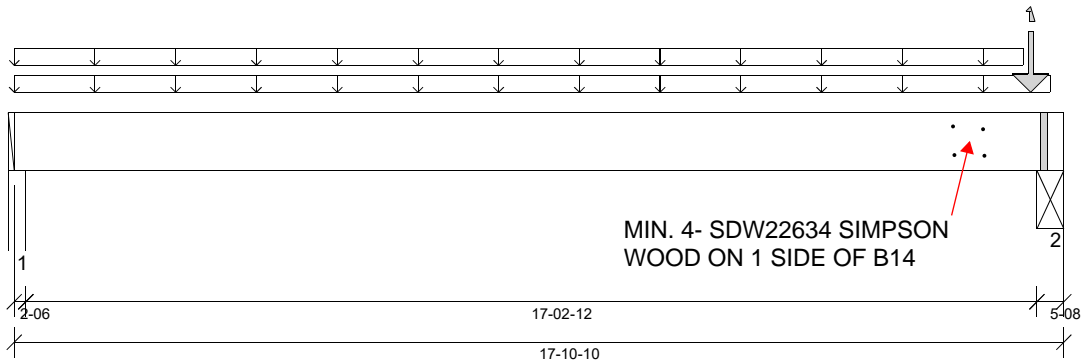
4 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/25/2022 18:20



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: 16'- 8 1/2"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 1 3/8"
- 769 psi Beam @ 17'- 6 1/8"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	10'- 11 1/4"	1.25D + 1.5L + S	1.00	7877 lb ft	53063 lb ft	Passed - 15%
Factored Neg. Moment:	17'- 6 1/8"	1.25D + 1.5L + S	1.00	905 lb ft	8341 lb ft	Passed - 11%
Factored Shear:	16'- 5 1/4"	1.4D	0.65	5580 lb	18738 lb	Passed - 30%
Live Load (LL) Pos. Defl.:	9'- 4 3/16"	L + 0.5S		0.125"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	9'- 3 5/16"	D + L + 0.5S		0.215"	L/240	Passed - L/962

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 + S	1.00	1481 lb		21785 lb	10228 lb	Passed - 14%
2	5-08	1.25D + 1.5L + S	1.00	26802 lb		50450 lb	29606 lb	Passed - 91%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	17'- 10 5/8"	Self Weight	Top	26 lb/ft	-	-	-
Uniform	0'	17'- 7 7/8"	FC2 Floor Decking (Plan View Fill)	Top	11 lb/ft	28 lb/ft	-	-
Uniform	0'	17'- 2 3/8"	FC2 Floor Decking (Plan View Fill)	Top	9 lb/ft	24 lb/ft	-	-
Point	17'- 3 13/16"	17'- 3 13/16"	-	Top	6198 lb	12039/-3 lb	106 lb	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/8"	W16(i41596)	485 lb	628 lb	1 lb	-
2	17'- 5 1/8"	17'- 10 5/8"	ST. BEAM (DR.)(i41690)	6518 lb	12321/-3 lb	105 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.
- Bearing capacity of member at support 1, 2 was verified for the effect of concentrated load applied near the support. At support 2. Required Load Area: L=1.500", W=5.500". LDF=1.00, Pf=4633 lb, Q'=10811 lb, Result=42.85%.

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.

SDW22634 SIMPSON WOOD SCREW @ 12" O/C, STAGGERED IN 2 ROWS.

SE047056



Customer: **Gold Park Homes**
 Job Address: **Pine Valley Ph2**
 City: **Vaughan**
 Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
 Level: **Ground Floor**
 Label: **B16 - i55288**
 Type: **Beam**

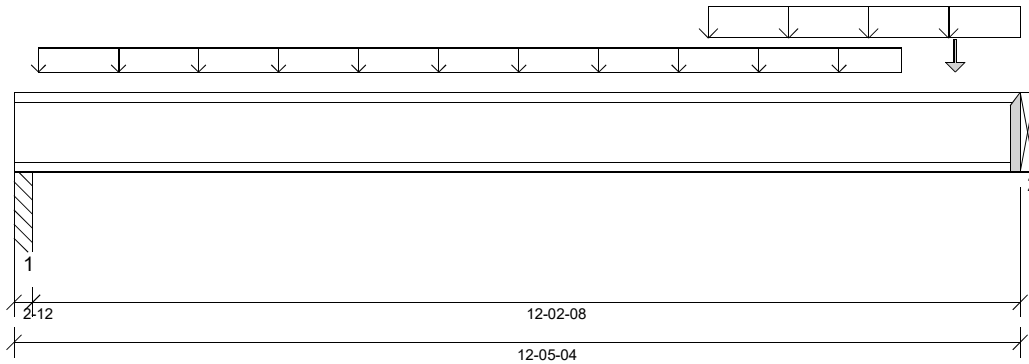
2 Ply Member
11 7/8" NI-20

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 04/25/2022 18:20



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'- 1 3/4"
- 769 psi Beam @ 12'- 5 1/4"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	7'- 7 5/8"	1.25D + 1.5L	1.00	6965 lb ft	11160 lb ft	Passed - 62%
Factored Shear:	12'- 5 3/16"	1.25D + 1.5L	1.00	3081 lb	4480 lb	Passed - 69%
Live Load (LL) Pos. Defl.:	6'- 6 1/16"	L		0.215"	L/360	Passed - L/682
Total Load (TL) Pos. Defl.:	6'- 6"	D + L		0.302"	L/240	Passed - L/485

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	1883 lb		4180 lb	18348 lb	Passed - 45%
2	1'-12	1.25D + 1.5L	1.00	3084 lb		3940 lb	-	Passed - 78%

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'	12'- 5 1/4"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'- 3 5/8"	10'- 11 5/8"	Smoothed Load	Front	50 lb/ft	132 lb/ft	-	-
Uniform	8'- 7"	12'- 5 1/4"	User Load	Top	90 lb/ft	240 lb/ft	-	-
Point	11'- 7 5/8"	11'- 7 5/8"	J6(i55367)	Front	54 lb	145 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/4"	Pt1(i56157)	386 lb	934 lb	-	-
2	12'- 5 1/4"	12'- 5 1/4"	B17(i55995)	614 lb	1544 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.

SE047057



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Ground Floor**
Label: **B17 - i55995**
Type: **Beam**

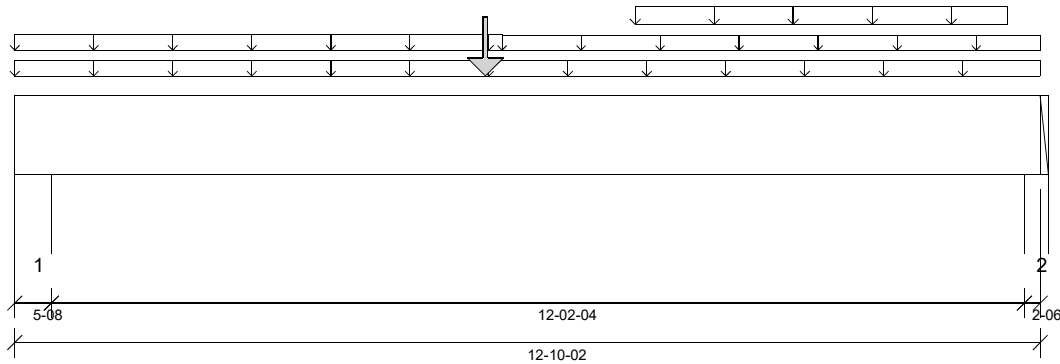
1 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/25/2022 18:21



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'- 6 1/2"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 4 1/2"
- 615 psi Wall @ 12'- 8 3/4"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 10 3/4"	1.25D + 1.5L	1.00	11009 lb ft	13266 lb ft	Passed - 83%
Factored Shear:	1'- 5 3/8"	1.25D + 1.5L	1.00	2126 lb	7207 lb	Passed - 30%
Live Load (LL) Pos. Defl.:	6'- 4 1/4"	L		0.319"	L/360	Passed - L/458
Total Load (TL) Pos. Defl.:	6'- 4 7/8"	D + L		0.485"	L/240	Passed - L/301
Permanent Deflection:	6'- 6"			-	L/360	Passed - L/911

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	2239 lb		12613 lb	5921 lb	Passed - 38%
2	2-06	1.25D + 1.5L	1.00	2004 lb		5446 lb	2557 lb	Passed - 78%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	12'- 10 1/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	-0'	12'- 10 1/8"	FC2 Floor Decking (Plan View Fill)	Top	7 lb/ft	18 lb/ft	-	-
Uniform	0'	6'- 1 1/4"	FC2 Floor Decking (Plan View Fill)	Top	7 lb/ft	18 lb/ft	-	-
Uniform	6'- 1 1/4"	12'- 10 1/8"	FC2 Floor Decking (Plan View Fill)	Top	-	3 lb/ft	-	-
Uniform	7'- 9 1/4"	12'- 5 1/4"	User Load	Top	60 lb/ft	-	-	-
Point	5'- 10 3/4"	5'- 10 3/4"	B16(i55288)	Back	614 lb	1544 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	15(i51466)	508 lb	1032 lb	-	-
2	12'- 7 3/4"	12'- 10 1/8"	W34(i41724)	609 lb	866 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.

SE047058



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Ground Floor**
Label: **B18 - i56153**
Type: **Beam**

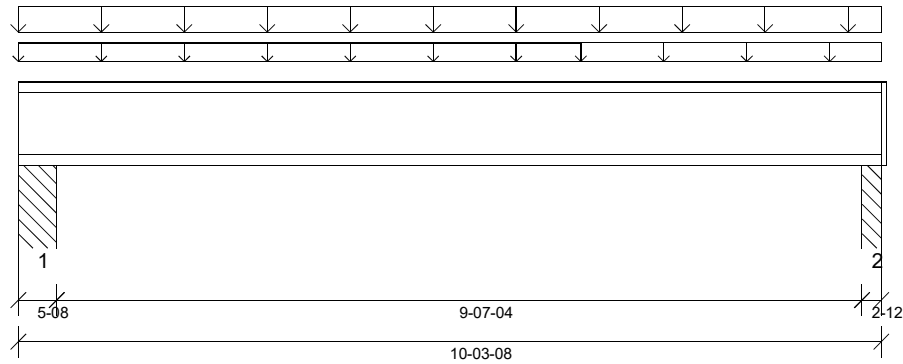
1 Ply Member
11 7/8" NI-20

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 04/25/2022 18:21



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'- 4 1/2"
- 1334 psi Column @ 10'- 1 3/4"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 5 11/16"	1.25D + 1.5L	1.00	3971 lb ft	5580 lb ft	Passed - 71%
Factored Shear:	10'- 11/16"	1.25D + 1.5L	1.00	1780 lb	2240 lb	Passed - 79%
Live Load (LL) Pos. Defl.:	5'- 3 13/16"	L		0.140"	L/360	Passed - L/824
Total Load (TL) Pos. Defl.:	5'- 3 1/4"	D + L		0.238"	L/240	Passed - L/483

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	1959 lb		2240 lb	18348 lb	Passed - 87%
2	2-12	1.25D + 1.5L	1.00	1804 lb		2090 lb	9174 lb	Passed - 86%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	10'- 3 1/2"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	10'- 3 1/2"	Smoothed Load	Top	53 lb/ft	140 lb/ft	-	-
Uniform	0'	6'- 8 1/2"	User Load	Top	60 lb/ft	-	-	-
Uniform	6'- 8 1/2"	10'- 3 1/2"	User Load	Top	19 lb/ft	50 lb/ft	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	Pt1(i56151)	602 lb	807 lb	-	-
2	10'- 3/4"	10'- 3 1/2"	Pt1(i56157)	448 lb	826 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.

SE047059



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Ground Floor**
Label: **B19 (-4R) - i56132**
Type: **Beam**

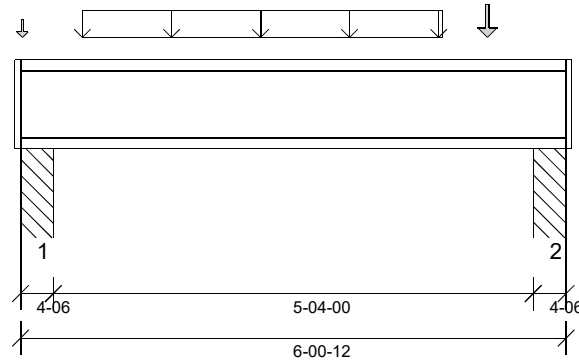
1 Ply Member
11 7/8" NI-20

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 04/25/2022 18:21



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 1/2"

Factored Resistance of Support Material:

- 1334 psi Column @ 0'- 3 3/8"
- 1334 psi Column @ 5'- 9 3/8"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 2 1/4"	1.25D + 1.5L	1.00	1039 lb ft	5580 lb ft	Passed - 19%
Factored Shear:	5'- 8 5/16"	1.25D + 1.5L	1.00	688 lb	2240 lb	Passed - 31%
Live Load (LL) Pos. Defl.:	3'- 3/8"	L		0.018"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	3'- 3/8"	D + L		0.027"	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	678 lb		2240 lb	14595 lb	Passed - 30%
2	4'-06	1.25D + 1.5L	1.00	699 lb		2240 lb	14595 lb	Passed - 31%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	6'- 3/4"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'- 8 1/4"	4'- 8 1/4"	Smoothed Load	Back	64 lb/ft	128 lb/ft	-	-
Point	5'- 2 1/4"	5'- 2 1/4"	J6(i52472)	Back	54 lb	109 lb	-	-
Point	0'- 1/4"	0'- 1/4"	FC1 Floor Decking (Plan View Fill)	Top	6 lb	13 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 4 3/8"	Pt2(i56130)	165 lb	315 lb	-	-
2	5'- 8 3/8"	6'- 3/4"	Pt2(i56133)	169 lb	325 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.

SE047060



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Ground Floor**
Label: **B20 (-4R) - i56129**
Type: **Beam**

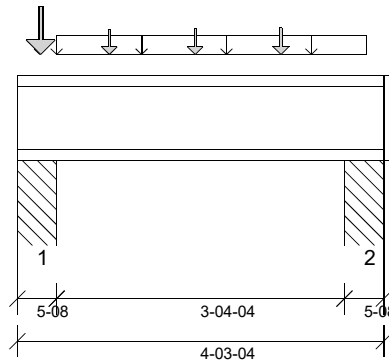
1 Ply Member
11 7/8" NI-20

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 04/25/2022 18:22



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 @ 3'- 10 3/4"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 7/8"	1.25D + 1.5L	1.00	382 lb ft	5580 lb ft	Passed - 7%
Factored Neg. Moment:	0'- 4 1/2"	1.25D + 1.5L	1.00	55 lb ft	5580 lb ft	Passed - 1%
Factored Shear:	0'- 5 9/16"	1.25D + 1.5L	1.00	424 lb	2240 lb	Passed - 19%

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	962 lb		2240 lb	18348 lb	Passed - 43%
2	5'-08	1.25D + 1.5L	1.00	413 lb		2240 lb	18348 lb	Passed - 18%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	4'- 3 1/4"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'- 5 1/2"	4'- 3/4"	User Load	Top	19 lb/ft	50 lb/ft	-	-
Point	0'- 3 1/8"	0'- 3 1/8"	J8(i56134)	Front	9 lb	22 lb	-	-
Point	1'- 7/8"	1'- 7/8"	J7(i52470)	Back	28 lb	73 lb	-	-
Point	2'- 7/8"	2'- 7/8"	J7(i52452)	Back	29 lb	77 lb	-	-
Point	3'- 7/8"	3'- 7/8"	J7(i52460)	Back	32 lb	84 lb	-	-
Point	0'- 3 1/4"	0'- 3 1/4"	User Load	Top	92 lb	244 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	Pt2(i56131)	198 lb	506 lb	-	-
2	3'- 9 3/4"	4'- 3 1/4"	Pt2(i56137)	76 lb	183 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.

SE047061



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Ground Floor**
Label: **B21 (-4R) - i56159**
Type: **Beam**

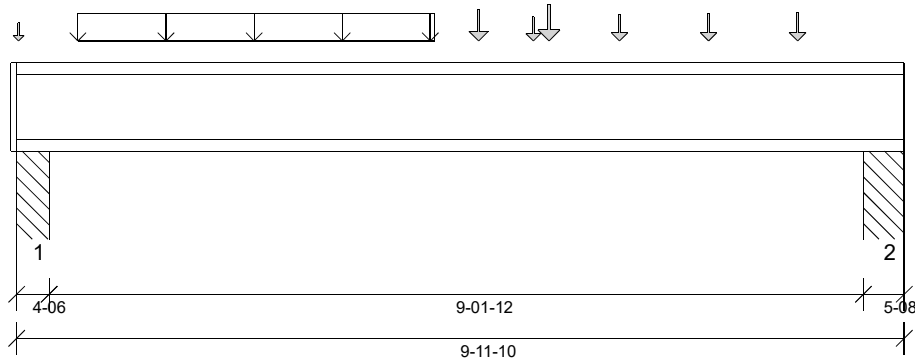
1 Ply Member
11 7/8" NI-20

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 04/25/2022 18:22



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 1/2"

Factored Resistance of Support Material:

- 1334 psi Column @ 0'- 3 3/8"
- 1334 psi Column @ 9'- 7 1/8"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 2 1/4"	1.25D + 1.5L	1.00	2995 lb ft	5580 lb ft	Passed - 54%
Factored Shear:	0'- 4 7/16"	1.25D + 1.5L	1.00	1178 lb	2240 lb	Passed - 53%
Live Load (LL) Pos. Defl.:	4'- 11 1/8"	L		0.109"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	4'- 11"	D + L		0.160"	L/240	Passed - L/684

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	1206 lb		2240 lb	14595 lb	Passed - 54%
2	5-08	1.25D + 1.5L	1.00	1034 lb		2240 lb	18348 lb	Passed - 46%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	9'- 11 5/8"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'- 8 1/4"	4'- 8 1/4"	Smoothed Load	Front	64 lb/ft	128 lb/ft	-	-
Point	5'- 2 1/4"	5'- 2 1/4"	J6(i52472)	Front	52 lb	104 lb	-	-
Point	5'- 9 5/8"	5'- 9 5/8"	J7(i52457)	Front	23 lb	58 lb	-	-
Point	6'- 9 1/4"	6'- 9 1/4"	J7(i52470)	Front	28 lb	75 lb	-	-
Point	7'- 9 1/4"	7'- 9 1/4"	J7(i52452)	Front	29 lb	77 lb	-	-
Point	8'- 9 1/4"	8'- 9 1/4"	J7(i52460)	Front	32 lb	84 lb	-	-
Point	0'- 1/4"	0'- 1/4"	FC1 Floor Decking (Plan View Fill)	Top	6 lb	13 lb	-	-
Point	5'- 11 3/4"	5'- 11 3/4"	User Load	Top	56 lb	145 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 4 3/8"	Pt2(i56136)	282 lb	567 lb	-	-
2	9'- 6 1/8"	9'- 11 5/8"	Pt2(i56160)	227 lb	501 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.

SE047062



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Ground Floor**
Label: **B22 (-4R) - i52459**
Type: **Beam**

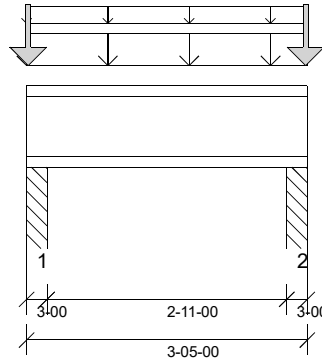
2 Ply Member
11 7/8" NI-20

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 04/25/2022 18:23



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: 3'- 5"

Factored Resistance of Support Material:

- 1334 psi Column @ 0'- 2"
- 1334 psi Column @ 3'- 3"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	1'- 8 1/2"	1.25D + 1.5L	1.00	444 lb ft	11160 lb ft	Passed - 4%
Factored Neg. Moment:	0'- 2"	1.25D + 1.5L	1.00	182 lb ft	11160 lb ft	Passed - 2%
Factored Shear:	0'- 3 1/16"	1.25D + 1.5L	1.00	766 lb	4480 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	3'-00	1.25D + 1.5L	1.00	2099 lb		4240 lb	20019 lb	Passed - 50%
2	3'-00	1.25D + 1.5L	1.00	2099 lb		4240 lb	20016 lb	Passed - 50%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	3'- 5"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	3'- 5"	User Load	Top	90 lb/ft	240 lb/ft	-	-
Uniform	0'	3'- 5"	FC1 Floor Decking (Plan View Fill)	Top	9 lb/ft	24 lb/ft	-	-
Point	0'- 1/4"	0'- 1/4"	User Load	Top	175 lb	647 lb	-	-
Point	3'- 4 3/4"	3'- 4 3/4"	User Load	Top	175 lb	647 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 3"	PT2(i56137)	365 lb	1138 lb	-	-
2	3'- 2"	3'- 5"	PT2(i56160)	346 lb	1068 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.

SE047063



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Ground Floor**
Label: **B23 - i55998**
Type: **Beam**

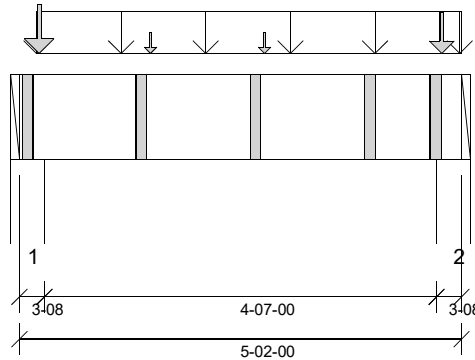
2 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/25/2022 18:23



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'- 5 1/2"

Factored Resistance of Support Material:

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



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 2 3/8"	1.25D + 1.5L	1.00	2228 lb ft	26531 lb ft	Passed - 8%
Factored Shear:	3'- 10 5/8"	1.25D + 1.5L	1.00	2223 lb	14414 lb	Passed - 15%

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	2219 lb		16052 lb	7536 lb	Passed - 29%
2	3-08	1.25D + 1.5L	1.00	2576 lb		16052 lb	7536 lb	Passed - 34%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	5'- 2"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'- 2 3/8"	5'- 2"	Smoothed Load	Top	145 lb/ft	387 lb/ft	-	-
Point	1'- 6 3/8"	1'- 6 3/8"	Bk1(i55370)	Front	15 lb	40 lb	-	-
Point	2'- 10 3/8"	2'- 10 3/8"	Bk1(i55370)	Front	15 lb	40 lb	-	-
Point	0'- 2 3/4"	0'- 2 3/4"	E16(i41614)	Top	347 lb	-	-	-
Point	4'- 11 1/4"	4'- 11 1/4"	E12(i41623)	Top	266 lb	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 3 1/2"	-	724 lb	876 lb	-	-
+++	0'- 7/8"	0'- 7/8"	W20(i41593)	362 lb	438 lb	-	-
+++	0'- 7/8"	0'- 7/8"	W19(i41584)	362 lb	438 lb	-	-
2	4'- 10 1/2"	5'- 2"	-	706 lb	1128 lb	-	-
+++	5'- 1 1/8"	5'- 1 1/8"	W17(i41594)	353 lb	564 lb	-	-
+++	5'- 1 1/8"	5'- 1 1/8"	W16(i41596)	353 lb	564 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.

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

SE047064



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Ground Floor**
Label: **B24 - i56147**
Type: **Beam**

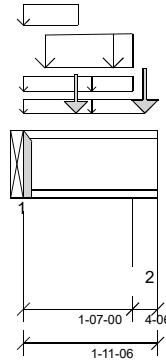
1 Ply Member
11 7/8" NI-20

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 04/25/2022 18:23



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 1/8"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 769 psi Beam @ 0'
- 769 psi Beam @ 0'
- 769 psi Beam @ 0'
- 615 psi Wall @ 1'- 8"
- 615 psi Wall @ 1'- 8"
- 615 psi Wall @ 1'- 8"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	0'- 9 1/8"	1.25D + 1.5L	1.00	650 lb ft	5580 lb ft	Passed - 12%
Factored Neg. Moment:	1'- 8"	1.25D + 1.5L	1.00	58 lb ft	5580 lb ft	Passed - 1%
Factored Shear:	1'- 6 15/16"	1.25D + 1.5L	1.00	1253 lb	2240 lb	Passed - 56%

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	1208 lb		1970 lb	-	Passed - 61%
1	1-12	1.25D + 1.5L	1.00	1208 lb		1970 lb	-	Passed - 61%
1	1-12	1.25D + 1.5L	1.00	1208 lb		1970 lb	-	Passed - 61%
1	1-12	1.25D + 1.5L	1.00	1208 lb		1970 lb	-	Passed - 61%
2	4-06	1.25D + 1.5L	1.00	1868 lb		2240 lb	6729 lb	Passed - 83%
2	4-06	1.25D + 1.5L	1.00	1868 lb		2240 lb	6729 lb	Passed - 83%
2	4-06	1.25D + 1.5L	1.00	1868 lb		2240 lb	6729 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.
* 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'	1'- 11 3/8"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	1'- 9 1/8"	FC2 Floor Decking (Plan View Fill)	Top	8 lb/ft	20 lb/ft	-	-
Uniform	-0'	1'- 7"	2(i41625)	Top	68 lb/ft	-	-	-
Uniform	-0'	0'- 9 1/2"	2(i41625)	Top	82 lb/ft	219 lb/ft	-	-
Uniform	0'- 3 3/4"	1'- 7"	2(i41625)	Top	208 lb/ft	554 lb/ft	-	-
Point	0'- 9 1/8"	0'- 9 1/8"	J2(i55990)	Front	112 lb	231 lb	-	-
Point	1'- 9 1/8"	1'- 9 1/8"	-	Front	159 lb	259 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B25(i56163)	291 lb	578 lb	-	-
2	1'- 7"	1'- 11 3/8"	-	448 lb	856 lb	-	-
++>	1'- 9 7/16"	1'- 9 7/16"	W21(i41603)	394 lb	753 lb	-	-
++>	1'- 11 1/8"	1'- 11 1/8"	W22(i41602)	54 lb	103 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.

SE047065



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Ground Floor**
Label: **B25 - i59773**
Type: **Beam**

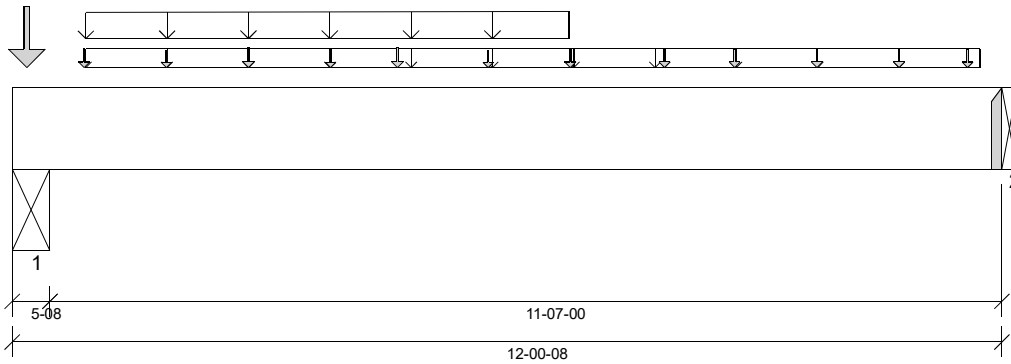
3 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/26/2022 10:33



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'- 4 3/4"

Factored Resistance of Support Material:

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



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 9 1/2"	1.25D + 1.5L	1.00	18624 lb ft	39797 lb ft	Passed - 47%
Factored Neg. Moment:	0'- 4 1/2"	1.25D + 1.5L	1.00	2374 lb ft	39797 lb ft	Passed - 6%
Factored Shear:	1'- 5 3/8"	1.25D + 1.5L	1.00	6076 lb	21621 lb	Passed - 28%
Live Load (LL) Pos. Defl.:	6'- 3 7/16"	L		0.155"	L/360	Passed - L/898
Total Load (TL) Pos. Defl.:	6'- 2 1/4"	D + L		0.294"	L/240	Passed - L/472

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	19166 lb		37838 lb	22205 lb	Passed - 86%
2	1-08	1.25D + 1.5L	1.00	5995 lb		10319 lb	-	Passed - 58%

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'	12'- 1/2"	Self Weight	Top	19 lb/ft	-	-	-
Uniform	0'- 10 3/4"	11'- 9 1/4"	-	Front	23 lb/ft	47 lb/ft	-	-
Tapered	0'- 10 3/4"	6'- 9 1/4"	Smoothed Load	Back	214 To 237 lb/ft	-	-	-
Point	0'- 2 1/8"	0'- 2 1/8"	-	Front	2511 lb	5910 lb	-	-
Point	0'- 10 1/2"	0'- 10 1/2"	J11(i59749)	Back	239 lb	436 lb	-	-
Point	1'- 10 1/2"	1'- 10 1/2"	J11(i59715)	Back	-	405 lb	-	-
Point	2'- 10 1/2"	2'- 10 1/2"	J11(i59664)	Back	481 lb	405 lb	-	-
Point	3'- 10 1/2"	3'- 10 1/2"	J11(i59571)	Back	-	367 lb	-	-
Point	4'- 8 1/4"	4'- 8 1/4"	J12(i59511)	Back	488 lb	417 lb	-	-
Point	5'- 9 1/2"	5'- 9 1/2"	J11(i59658)	Back	-	396 lb	-	-
Point	6'- 9 1/2"	6'- 9 1/2"	J11(i59683)	Back	264 lb	404 lb	-	-
Point	7'- 11 1/4"	7'- 11 1/4"	J12(i59739)	Back	224 lb	433 lb	-	-
Point	8'- 9 1/2"	8'- 9 1/2"	J11(i59753)	Back	187 lb	375 lb	-	-
Point	9'- 9 1/2"	9'- 9 1/2"	J11(i59463)	Back	202 lb	405 lb	-	-
Point	10'- 9 1/2"	10'- 9 1/2"	J11(i59643)	Back	185 lb	371 lb	-	-
Point	11'- 7 1/2"	11'- 7 1/2"	J11(i59666)	Back	157 lb	317 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.)(i41691)	4993 lb	8739 lb	-	-
2	12'- 1/2"	12'- 1/2"	B26(i59653)	1759 lb	2409 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.

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

SE047066



Customer: **Gold Park Homes**
 Job Address: **Pine Valley Ph2**
 City: **Vaughan**
 Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
 Level: **Ground Floor**
 Label: **B26 - i59653**
 Type: **Beam**

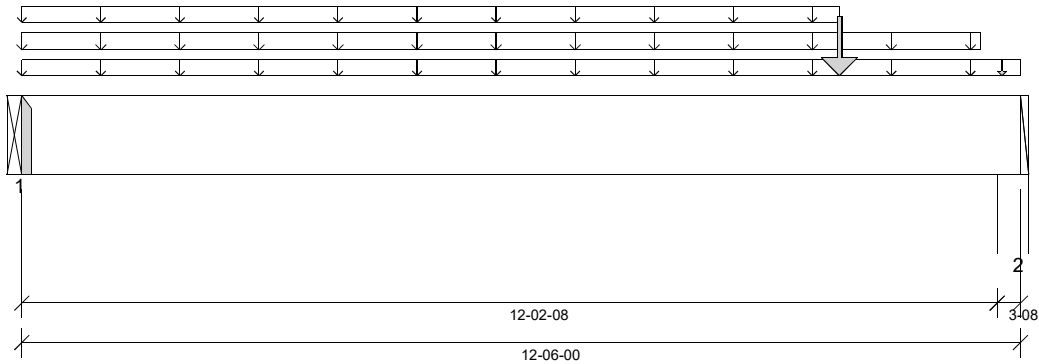
4 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/26/2022 10:34



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: 10'- 1/4"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 615 psi Wall @ 12'- 3 1/2"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	10'- 2 3/4"	1.25D + 1.5L	1.00	26418 lb ft	53063 lb ft	Passed - 50%
Factored Shear:	11'- 2 5/8"	1.25D + 1.5L	1.00	12832 lb	28828 lb	Passed - 45%
Live Load (LL) Pos. Defl.:	6'- 11 3/16"	L		0.156"	L/360	Passed - L/938
Total Load (TL) Pos. Defl.:	6'- 10 3/16"	D + L		0.274"	L/240	Passed - L/534

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	3470 lb		13759 lb	-	Passed - 25%
2	3-08	1.25D + 1.5L	1.00	13130 lb		32105 lb	15072 lb	Passed - 87%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories		
			Top	Face	Member			
1	HGUS7.25/10	-	-	-	-	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'	12'- 6"	Self Weight	Top	26 lb/ft	-	-	-
Uniform	0'	12'- 6"	FC2 Floor Decking (Plan View Fill)	Top	7 lb/ft	17 lb/ft	-	-
Uniform	0'	12'	User Load	Top	60 lb/ft	-	-	-
Uniform	0'	10'- 2 7/8"	FC2 Floor Decking (Plan View Fill)	Top	5 lb/ft	14 lb/ft	-	-
Point	10'- 2 13/16"	10'- 2 13/16"	-	Front	3726 lb	6463 lb	-	-
Point	12'- 3 1/4"	12'- 3 1/4"	1(i41626)	Top	50 lb	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B27(i59631)	1235 lb	1278 lb	-	-
2	12'- 2 1/2"	12'- 6"	W21(i41603)	3764 lb	5622 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.

SDW22634 SIMPSON WOOD SCREW @ 12" O/C, STAGGERED IN 2 ROWS.

SE047067



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A (1,**
Level: **Ground Floor**
Label: **B27 - i59631**
Type: **Beam**

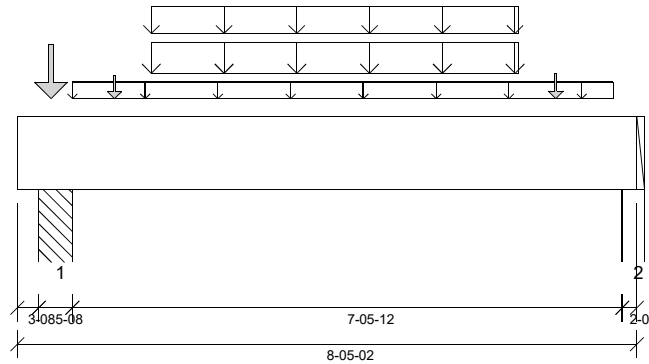
2 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/26/2022 10:34



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 5/8"

Factored Resistance of Support Material:

- 1334 psi Column @ 0'- 6 1/4"
- 615 psi Wall @ 8'- 3 3/4"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	4'- 3 7/8"	1.25D + 1.5L	1.00	7806 lb ft	26531 lb ft	Passed - 29%
Factored Neg. Moment:	0'- 6 1/4"	1.25D + 1.5L	1.00	219 lb ft	26531 lb ft	Passed - 1%
Factored Shear:	1'- 8 7/8"	1.25D + 1.5L	1.00	3598 lb	14414 lb	Passed - 25%
Live Load (LL) Pos. Defl.:	4'- 5 1/8"	L		0.050"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	4'- 5 1/8"	D + L		0.082"	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	7161 lb		25225 lb	25687 lb	Passed - 28%
2	2-06	1.25D + 1.5L	1.00	3624 lb		10892 lb	5114 lb	Passed - 71%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	8'- 5 1/8"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'- 9"	8'- 1 1/4"	User Load	Top	60 lb/ft	-	-	-
Uniform	1'- 9 7/8"	6'- 9 7/8"	Smoothed Load	Front	124 lb/ft	251 lb/ft	-	-
Uniform	1'- 9 7/8"	6'- 9 7/8"	Smoothed Load	Back	96 lb/ft	196 lb/ft	-	-
Point	0'- 5 1/2"	0'- 5 1/2"	B2(i59653)	Front	1235 lb	1278 lb	-	-
Point	1'- 3 7/8"	1'- 3 7/8"	-	Front	198 lb	407 lb	-	-
Point	7'- 3 7/8"	7'- 3 7/8"	-	Front	232 lb	480 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'- 3 1/2"	0'- 9"	Pt1(i59780)	2284 lb	2852 lb	-	-
2	8'- 2 3/4"	8'- 5 1/8"	W2(i41598)	1039 lb	1568 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.
- 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.
- Bearing capacity of member at support 1, 2 was verified for the effect of concentrated load applied near the support. At support 1. Required Load Area: L=3.500", W=3.500". LDF=1.00, Pf=3461 lb, Q'r=13759 lb, Result=25.15%.

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.

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 10" O/C,
STAGGERED IN 2 ROWS

SE047068



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A W Sunken M...**
Level: **Ground Floor**
Label: **B28 - i61095**
Type: **Beam**

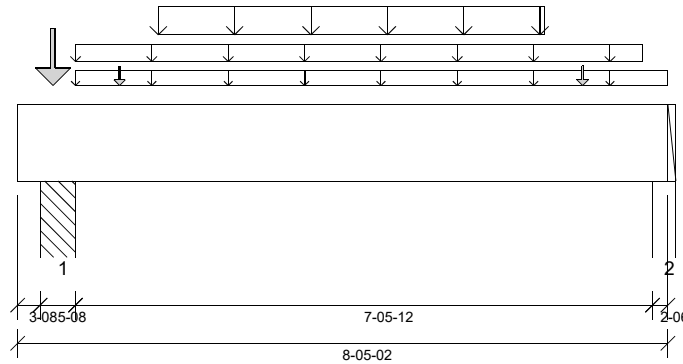
2 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/26/2022 10:55



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 5/8"

Factored Resistance of Support Material:

- 1334 psi Column @ 0'- 6 1/4"
- 615 psi Wall @ 8'- 3 3/4"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	4'- 3 7/8"	1.25D + 1.5L	1.00	3823 lb ft	26531 lb ft	Passed - 14%
Factored Neg. Moment:	0'- 6 1/4"	1.25D + 1.5L	1.00	212 lb ft	26531 lb ft	Passed - 1%
Factored Shear:	1'- 8 7/8"	1.25D + 1.5L	1.00	1745 lb	14414 lb	Passed - 12%
Live Load (LL) Pos. Defl.:	4'- 5 1/4"	L		0.022"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	4'- 5 1/4"	D + L		0.040"	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	5191 lb		25225 lb	25687 lb	Passed - 21%
2	2-06	1.25D + 1.5L	1.00	1803 lb		10893 lb	5114 lb	Passed - 35%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	8'- 5 1/8"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'- 9"	8'- 5 1/8"	FC2 Floor Decking (Plan View Fill)	Top	-	6 lb/ft	-	-
Uniform	0'- 9"	8'- 1 1/4"	User Load	Top	60 lb/ft	-	-	-
Uniform	1'- 9 7/8"	6'- 9 7/8"	Smoothed Load	Back	96 lb/ft	196 lb/ft	-	-
Point	0'- 5 1/2"	0'- 5 1/2"	B26(i61209)	Front	1203 lb	1211 lb	-	-
Point	1'- 3 7/8"	1'- 3 7/8"	J4(i61591)	Back	84 lb	172 lb	-	-
Point	7'- 3 7/8"	7'- 3 7/8"	J4(i61585)	Back	103 lb	215 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'- 3 1/2"	0'- 9"	Pt1(i61616)	1825 lb	1922 lb	-	-
2	8'- 2 3/4"	8'- 5 1/8"	W2(i41598)	615 lb	707 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.
- 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.
- User loads assume a bearing length of 3.5" in determining member capacity for loads near supports.
- Bearing capacity of member at support 1, 2 was verified for the effect of concentrated load applied near the support. At support 1. Required Load Area: L=3.500", W=3.500". LDF=1.00, Pf=3320 lb, Q'=13759 lb, Result=24.13%.

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.

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 10" O/C,
STAGGERED IN 2 ROWS

SE047069



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A...**
Level: **Second Floor**
Label: **B29 - i65066**
Type: **Beam**

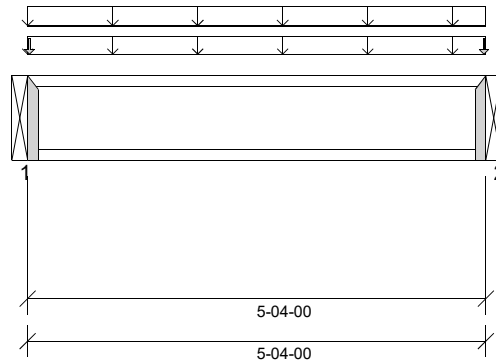
1 Ply Member
11 7/8" NI-20

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 04/26/2022 17:26



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'- 4"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 769 psi Beam @ 5'- 4"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 8"	1.25D + 1.5L	0.79	478 lb ft	4425 lb ft	Passed - 11%
Factored Shear:	5'- 3 15/16"	1.25D + 1.5L	0.79	362 lb	1776 lb	Passed - 20%
Total Load (TL) Pos. Defl.:	2'- 8"	D + L		0.013"	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	0.79	362 lb		1970 lb	-	Passed - 18%
2	1-12	1.25D + 1.5L	0.79	362 lb		1970 lb	-	Passed - 18%

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	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'	5'- 4"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	5'- 4"	27(i60970)	Top	61 lb/ft	-	-	-
Uniform	0'	5'- 4"	FC3 Floor Decking (Plan View Fill)	Top	11 lb/ft	28 lb/ft	-	-
Point	0'- 1/4"	0'- 1/4"	FC3 Floor Decking (Plan View Fill)	Top	-	2 lb	-	-
Point	5'- 3 3/4"	5'- 3 3/4"	FC3 Floor Decking (Plan View Fill)	Top	-	2 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B31(i188)	198 lb	76 lb	-	-
2	5'- 4"	5'- 4"	B30(i83)	198 lb	76 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.

SE047070



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A...**
Level: **Second Floor**
Label: **B30 - i83**
Type: **Beam**

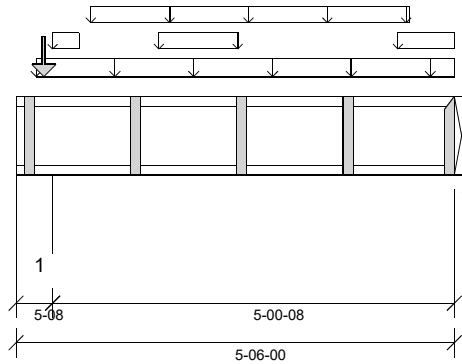
1 Ply Member
11 7/8" NI-20

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 04/26/2022 17:26



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"
- 769 psi Beam @ 5'- 6"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 11 1/4"	1.25D + 1.5L	0.77	445 lb ft	4322 lb ft	Passed - 10%
Factored Shear:	5'- 5 15/16"	1.25D + 1.5L	0.77	333 lb	1735 lb	Passed - 19%
Total Load (TL) Pos. Defl.:	2'- 11 1/8"	D + L		0.011"	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	0.77	727 lb		1735 lb	6551 lb	Passed - 42%
2	1-12	1.25D + 1.5L	0.77	334 lb		1970 lb	-	Passed - 17%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
2	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'	5'- 6"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'- 3"	5'- 6"	24(i60967)	Top	61 lb/ft	-	-	-
Uniform	0'- 5 1/2"	0'- 9 1/2"	FC3 Floor Decking (Plan View Fill)	Top	-	25 lb/ft	-	-
Uniform	0'- 11 1/4"	4'- 11 1/4"	Smoothed Load	Back	8 lb/ft	20 lb/ft	-	-
Uniform	1'- 9 1/2"	2'- 9 1/2"	FC3 Floor Decking (Plan View Fill)	Top	10 lb/ft	25 lb/ft	-	-
Uniform	4'- 9 1/2"	5'- 6"	FC3 Floor Decking (Plan View Fill)	Top	10 lb/ft	25 lb/ft	-	-
Point	0'- 4 3/16"	0'- 4 3/16"	-	Front	211 lb	76 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	35(i61140)	407 lb	143 lb	-	-
2	5'- 6"	5'- 6"	B32 (CONT.)(i222)	188 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.

SE047071



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A...**
Level: **Second Floor**
Label: **B32 (CONT.) - i222**
Type: **Beam**

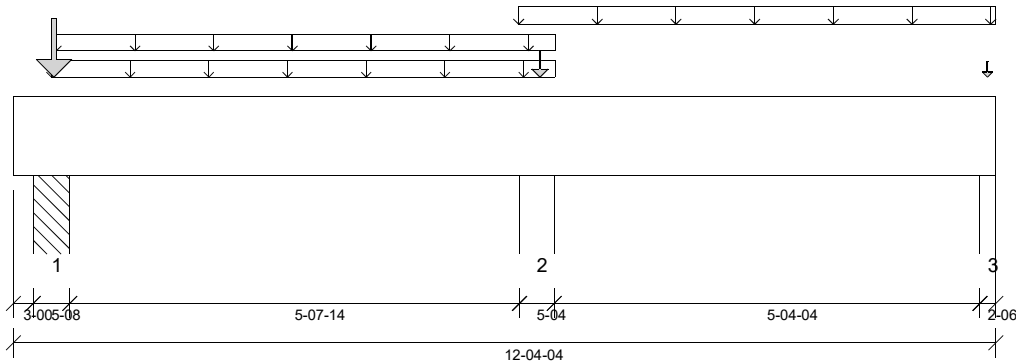
3 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/26/2022 17:26



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'- 6 3/8"

Factored Resistance of Support Material:

- 1334 psi Column @ 0'- 5 3/4"
- 615 psi Wall @ 6'- 7"
- 615 psi Wall @ 12'- 2 7/8"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 1 1/16"	1.25D + 1.5L	1.00	664 lb ft	39797 lb ft	Passed - 2%
Factored Neg. Moment:	6'- 7"	1.25D + 1.5L	1.00	787 lb ft	18894 lb ft	Passed - 4%
Factored Shear:	5'- 4 1/2"	1.25D + 1.5L	1.00	455 lb	21621 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	5'-08	1.25D + 1.5L	1.00	16196 lb		37838 lb	38531 lb	Passed - 43%
2	5'-04	1.25D + 1.5L	0.81	5038 lb		29017 lb	13623 lb	Passed - 37%
3	2'-06	1.4D	0.65	569 lb		10647 lb	4998 lb	Passed - 11%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	12'- 4 1/4"	Self Weight	Top	19 lb/ft	-	-	-
Uniform	0'- 5 3/4"	6'- 9 3/4"	FC3 Floor Decking (Plan View Fill)	Top	10 lb/ft	26 lb/ft	-	-
Uniform	0'- 6 1/2"	6'- 9 3/4"	FC3 Floor Decking (Plan View Fill)	Top	11 lb/ft	29 lb/ft	-	-
Uniform	6'- 4 1/4"	12'- 4 1/4"	25(i60969)	Top	61 lb/ft	-	-	-
Point	0'- 6 1/8"	0'- 6 1/8"	-	Front	3463 lb	7763 lb	-	-
Point	6'- 7 7/16"	6'- 7 7/16"	-	Front	974 lb	2040 lb	-	-
Point	12'- 3"	12'- 3"	B30(i83)	Back	188 lb	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'- 3"	0'- 8 1/2"	Pt1(i607)	3554 lb	7910/-5 lb	-	-
2	6'- 4 3/8"	6'- 9 5/8"	33(i61141)	1466 lb	2319 lb	-	-
3	12'- 1 7/8"	12'- 4 1/4"	34(i61138)	412 lb	112/-24 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.
- 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.
- Bearing capacity of member at support 1, 2, 3 was verified for the effect of concentrated load applied near the support.
At support 1. Required Load Area: L=3.500", W=5.250". LDF=1.00, Pf=8052 lb, Q'r=20639 lb, Result=39.01%.
At support 2. Required Load Area: L=3.500", W=5.250". LDF=0.81, Pf=3553 lb, Q'r=20035 lb, Result=17.73%.

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.

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

SE047073



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A...**
Level: **Ground Floor**
Label: **B33 - i65480**
Type: **Beam**

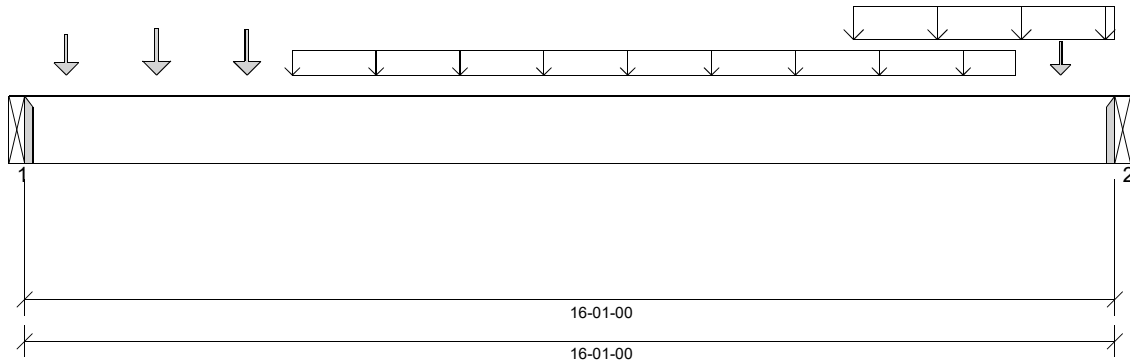
2 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/26/2022 17:27



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 @ 16'- 1"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	8'- 7 3/8"	1.25D + 1.5L	1.00	10979 lb ft	26531 lb ft	Passed - 41%
Factored Shear:	15'- 1 1/8"	1.25D + 1.5L	1.00	2976 lb	14414 lb	Passed - 21%
Live Load (LL) Pos. Defl.:	8'- 2 3/8"	L		0.344"	L/360	Passed - L/561
Total Load (TL) Pos. Defl.:	8'- 2 5/16"	D + L		0.499"	L/240	Passed - L/386

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	2664 lb		6880 lb	-	Passed - 39%
2	1-08	1.25D + 1.5L	1.00	3739 lb		6880 lb	-	Passed - 54%

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.
2	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'	16'- 1"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	3'- 11 3/8"	14'- 7 3/8"	Smoothed Load	Front	49 lb/ft	130 lb/ft	-	-
Uniform	12'- 2 3/4"	16'- 1"	User Load	Top	90 lb/ft	240 lb/ft	-	-
Point	0'- 7 3/8"	0'- 7 3/8"	J5(i350)	Front	72 lb	192 lb	-	-
Point	1'- 11 3/8"	1'- 11 3/8"	J5(i351)	Front	90 lb	239 lb	-	-
Point	3'- 3 3/8"	3'- 3 3/8"	J5(i352)	Front	86 lb	230 lb	-	-
Point	15'- 3 3/8"	15'- 3 3/8"	J5(i627)	Front	53 lb	142 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B36(i108)	588 lb	1286 lb	-	-
2	16'- 1"	16'- 1"	B17(i200)	792 lb	1833 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.

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

SE047074



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A...**
Level: **Ground Floor**
Label: **B34 - i65098**
Type: **Beam**

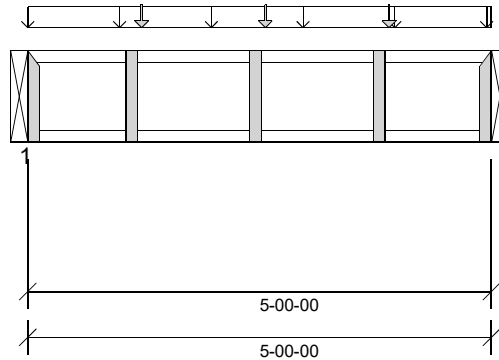
1 Ply Member
11 7/8" NI-20

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 04/26/2022 17:27



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 @ 5'



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 6 3/4"	1.25D + 1.5L	0.75	473 lb ft	4157 lb ft	Passed - 11%
Factored Shear:	4'- 11 15/16"	1.25D + 1.5L	0.75	346 lb	1669 lb	Passed - 21%
Total Load (TL) Pos. Defl.:	2'- 6"	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	1-12	1.25D + 1.5L	0.75	341 lb		1970 lb	-	Passed - 17%
2	1-12	1.25D + 1.5L	0.75	346 lb		1970 lb	-	Passed - 18%

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	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'	5'	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	5'	20(i60963)	Top	68 lb/ft	-	-	-
Point	1'- 2 3/4"	1'- 2 3/4"	Bk1(i530)	Back	16 lb	42 lb	-	-
Point	2'- 6 3/4"	2'- 6 3/4"	Bk1(i531)	Back	15 lb	41 lb	-	-
Point	3'- 10 3/4"	3'- 10 3/4"	Bk1(i532)	Back	15 lb	41 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B37(i65465)	200 lb	61 lb	-	-
2	5'	5'	B36(i108)	201 lb	63 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.

SE047075



Customer: **Gold Park Homes**
 Job Address: **Pine Valley Ph2**
 City: **Vaughan**
 Job Track: **45147**

Job Name: **343076 Ground A + Second A...**
 Level: **Ground Floor**
 Label: **B35 - i541**
 Type: **Beam**

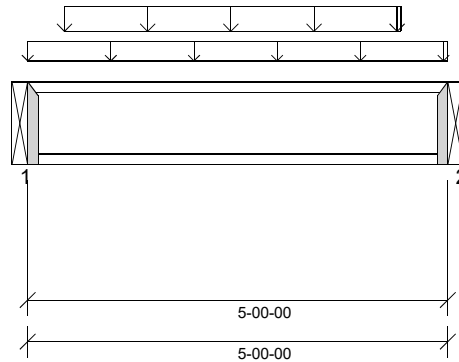
1 Ply Member
11 7/8" NI-20

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 04/26/2022 17:27



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 @ 5'



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 5 1/4"	1.25D + 1.5L	0.99	1094 lb ft	5507 lb ft	Passed - 20%
Factored Shear:	0'- 1/16"	1.25D + 1.5L	0.99	738 lb	2211 lb	Passed - 33%
Live Load (LL) Pos. Defl.:	2'- 6"	L		0.013"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	2'- 6"	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	0.99	739 lb		1970 lb	-	Passed - 38%
2	1-12	1.25D + 1.5L	0.99	723 lb		1970 lb	-	Passed - 37%

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	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'	5'	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	5'	30(i61136)	Top	68 lb/ft	-	-	-
Uniform	0'- 5 1/4"	4'- 5 1/4"	Smoothed Load	Front	49 lb/ft	129 lb/ft	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B37(i65465)	276 lb	263 lb	-	-
2	5'	5'	B36(i108)	273 lb	254 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.

SE047076



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A...**
Level: **Ground Floor**
Label: **B36 - i108**
Type: **Beam**

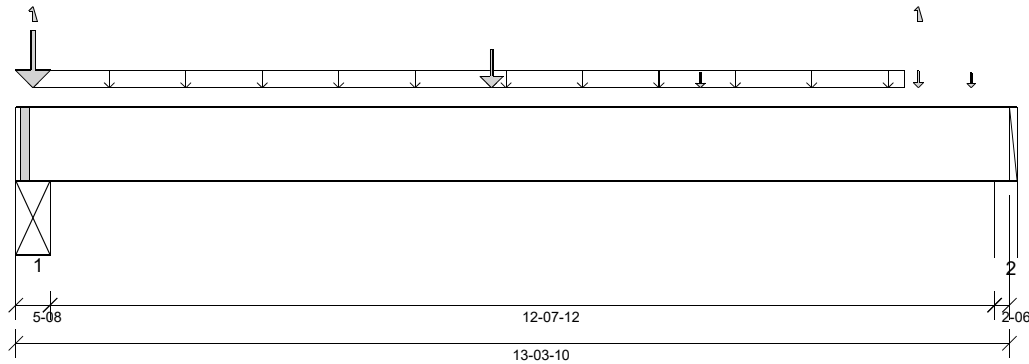
3 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/26/2022 17:28



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'- 9 3/4"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'- 4 1/2"
- 615 psi Wall @ 13'- 2 1/4"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	6'- 4"	1.25D + 1.5L	1.00	30673 lb ft	39797 lb ft	Passed - 77%
Factored Neg. Moment:	0'- 4 1/2"	1.25D + 1.5L	1.00	2281 lb ft	17982 lb ft	Passed - 13%
Factored Shear:	12'- 1 3/8"	1.25D + 1.5L	1.00	6032 lb	21621 lb	Passed - 28%
Live Load (LL) Pos. Defl.:	6'- 8 3/4"	L		0.282"	L/360	Passed - L/538
Total Load (TL) Pos. Defl.:	6'- 9 1/16"	D + L		0.488"	L/240	Passed - L/311
Permanent Deflection:	6'- 9 9/16"			-	L/360	Passed - L/759

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	21515 lb		37837 lb	22205 lb	Passed - 97%
2	2-06	1.25D + 1.5L	1.00	6357 lb		16343 lb	7673 lb	Passed - 83%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	13'- 3 5/8"	Self Weight	Top	19 lb/ft	-	-	-
Uniform	0'- 2 3/4"	6'- 6 3/4"	FC2 Floor Decking (Plan View Fill)	Top	17 lb/ft	46 lb/ft	-	-
Uniform	6'- 6 3/4"	11'- 10 3/4"	21(i60965)	Top	68 lb/ft	-	-	-
Point	12'- 1"	12'- 1"	-	Back	652 lb	-24 lb	-	-
Point	0'- 2 3/4"	0'- 2 3/4"	Pt1(i607)	Top	3459 lb	7532/-5 lb	-	-
Point	6'- 4 7/16"	6'- 4 7/16"	-	Top	2357 lb	3859 lb	-	-
Point	9'- 2"	9'- 2"	User Load	Top	92 lb	244 lb	-	-
Point	12'- 9 1/2"	12'- 9 1/2"	User Load	Top	-	145 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.)(i41689)	5216 lb	10103/-8 lb	-	-
2	13'- 1 1/4"	13'- 3 5/8"	W22(i41602)	2191 lb	2305/-21 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.
- Bearing capacity of member at support 1, 2 was verified for the effect of concentrated load applied near the support. At support 1. Required Load Area: L=5.500", W=4.999". LDF=1.00, Pf=15614 lb, Q'r=24018 lb, Result=65.01%.

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.

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

SE047077



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground A + Second A...**
Level: **Ground Floor**
Label: **B37 - i65465**
Type: **Beam**

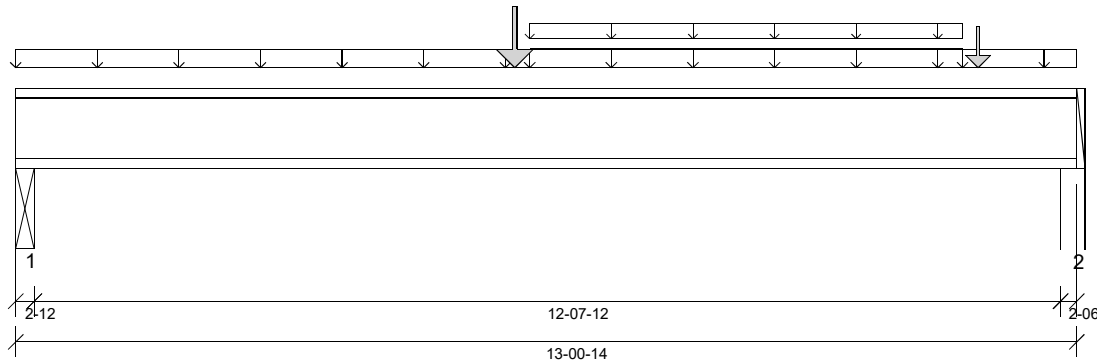
2 Ply Member
11 7/8" NI-20

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 04/26/2022 17:28



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 7/8"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'- 1 3/4"
- 615 psi Wall @ 12'- 11 1/2"

Reinforcement Accessories Required

- Critical Load Web Stiffener @ 6'- 2"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	6'- 1 1/4"	1.25D + 1.5L	0.90	9080 lb ft	10063 lb ft	Passed - 90%
Factored Shear:	12'- 10 7/16"	1.25D + 1.5L	0.90	2634 lb	4040 lb	Passed - 65%
Live Load (LL) Pos. Defl.:	6'- 5 1/4"	L		0.165"	L/360	Passed - L/920
Total Load (TL) Pos. Defl.:	6'- 6 11/16"	D + L		0.397"	L/240	Passed - L/382
Permanent Deflection:	6'- 7 11/16"			-	L/360	Passed - L/751

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	0.90	1799 lb		3769 lb	9534 lb	Passed - 48%
2	2-06	1.25D + 1.5L	0.90	2661 lb		3688 lb	6589 lb	Passed - 72%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	13'- 7/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	-0'	6'- 4"	FC2 Floor Decking (Plan View Fill)	Top	15 lb/ft	41 lb/ft	-	-
Uniform	6'- 4"	11'- 8"	23(i60964)	Top	68 lb/ft	-	-	-
Uniform	6'- 4"	11'- 8"	FC2 Floor Decking (Plan View Fill)	Top	-	8 lb/ft	-	-
Uniform	11'- 8"	13'- 7/8"	FC2 Floor Decking (Plan View Fill)	Top	16 lb/ft	44 lb/ft	-	-
Point	6'- 1 13/16"	6'- 1 13/16"	-	Front	795 lb	706 lb	-	-
Point	11'- 10 5/16"	11'- 10 5/16"	-	Front	651 lb	211 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/4"	-	707 lb	602 lb	-	-
+++	0'- 9/16"	0'- 9/16"	ST. BEAM (DR.)(i41688)	283 lb	241 lb	-	-
+++	0'- 13/16"	0'- 13/16"	ST. BEAM (DR.)(i41689)	424 lb	361 lb	-	-
2	12'- 10 1/2"	13'- 7/8"	W22(i41602)	1316 lb	685 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.

SE047078



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground B + Second B (\$**
Level: **Second Floor**
Label: **B38 - i62897**
Type: **Beam**

1 Ply Member
11 7/8" NI-20

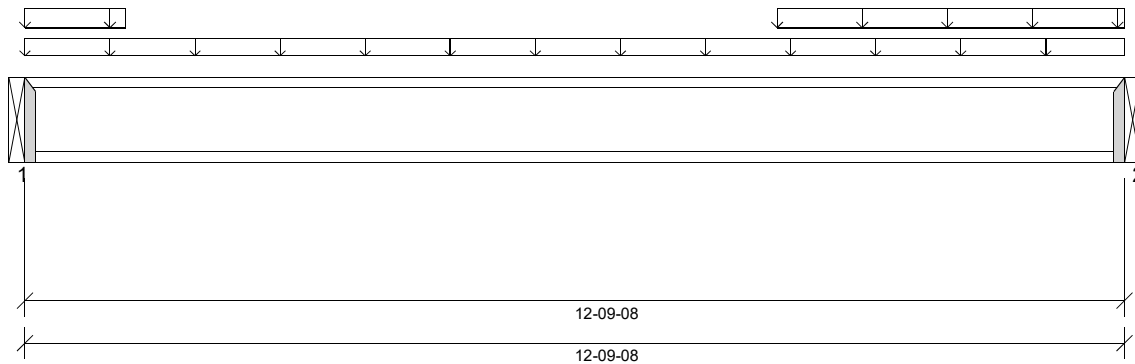
Status:
Design Passed

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

04/27/2022 15:06



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'- 9 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 769 psi Beam @ 12'- 9 1/2"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	7'- 3 3/16"	1.25D + 1.5L	0.91	1390 lb ft	5073 lb ft	Passed - 27%
Factored Shear:	12'- 9 7/16"	1.25D + 1.5L	0.91	585 lb	2036 lb	Passed - 29%
Live Load (LL) Pos. Defl.:	6'- 4 3/4"	L		0.065"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	6'- 7"	D + L		0.136"	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	0.91	456 lb		1970 lb	-	Passed - 23%
2	1'-12	1.25D + 1.5L	0.91	586 lb		1970 lb	-	Passed - 30%

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	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'	12'- 9 1/2"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	-0'	12'- 9 1/2"	FC3 Floor Decking (Plan View Fill)	Top	9 lb/ft	24 lb/ft	-	-
Uniform	0'	1'- 2"	User Load	Top	60 lb/ft	-	-	-
Uniform	8'- 9"	12'- 9 1/2"	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'	B39(i62935)	181 lb	153 lb	-	-
2	12'- 9 1/2"	12'- 9 1/2"	B40(i63151)	285 lb	153 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.

SE047079



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground B + Second B (\$**
Level: **Second Floor**
Label: **B39 - i62935**
Type: **Beam**

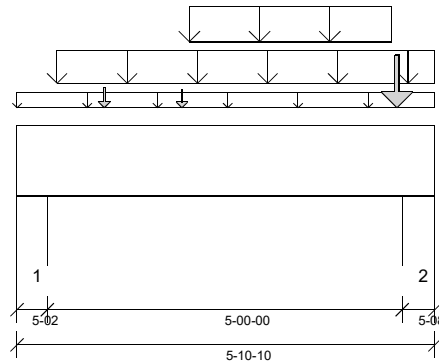
2 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/27/2022 15:07



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 1/8"
- 615 psi Wall @ 5'- 6 1/8"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 7 7/8"	1.25D + 1.5L + S	1.00	4745 lb ft	26531 lb ft	Passed - 18%
Factored Shear:	4'- 5 1/4"	1.25D + 1.5L + S	1.00	3140 lb	14414 lb	Passed - 22%
Live Load (LL) Pos. Defl.:	2'- 10 15/16"	L + 0.5S		0.012"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	2'- 11 3/16"	D + L + 0.5S		0.021"	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	5-02	1.25D + 1.5L + S	1.00	3246 lb		23504 lb	11035 lb	Passed - 29%
2	5-08	1.25D + 1.5S + L	1.00	6675 lb		25226 lb	11843 lb	Passed - 56%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	5'- 10 5/8"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	-0'	5'- 10 5/8"	-	Top	60 lb/ft	-	-	-
Uniform	0'- 6 3/4"	5'- 10 5/8"	Smoothed Load	Front	126 lb/ft	336 lb/ft	-	-
Uniform	2'- 5 1/8"	5'- 3 3/8"	18(i61223)	Top	201 lb/ft	-	314 lb/ft	-
Point	1'- 2 3/4"	1'- 2 3/4"	J2(i63149)	Back	123 lb	328 lb	-	-
Point	2'- 3 7/8"	2'- 3 7/8"	B38(i62897)	Back	181 lb	153 lb	-	-
Point	5'- 4 1/4"	5'- 4 1/4"	18(i61223)	Top	944 lb	-	1448 lb	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/8"	6(i41705)	895 lb	1146 lb	278 lb	-
2	5'- 5 1/8"	5'- 10 5/8"	5(i41704)	2046 lb	1137 lb	2086 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.
- Bearing capacity of member at support 1, 2 was verified for the effect of concentrated load applied near the support. At support 2. Required Load Area: L=1.500", W=3.500". LDF=1.00, Pf=3519 lb, Qr=6880 lb, Result=51.15%.

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.

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

SE047080



Customer: **Gold Park Homes**
 Job Address: **Pine Valley Ph2**
 City: **Vaughan**
 Job Track: **45147**

Job Name: **343076 Ground B + Second B (\$**
 Level: **Second Floor**
 Label: **B40 - i63151**
 Type: **Beam**

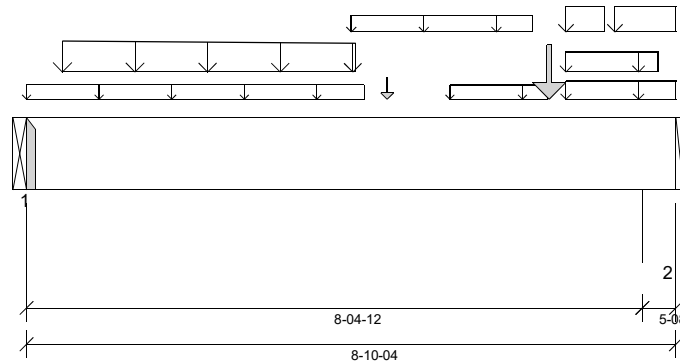
2 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

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 04/27/2022 15:07



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

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 615 psi Wall @ 8'- 5 3/4"



NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 10" O/C, STAGGERED IN 2 ROWS

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	4'- 11"	1.25D + 1.5L + S	0.99	6134 lb ft	24954 lb ft	Passed - 25%
Factored Shear:	7'- 4 7/8"	1.25D + 1.5S + L	1.00	3667 lb	14414 lb	Passed - 25%
Live Load (LL) Pos. Defl.:	4'- 2 9/16"	L + 0.5S		0.039"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	4'- 4"	D + L + 0.5S		0.076"	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	0.88	2160 lb		6040 lb	-	Passed - 36%
2	5-08	1.25D + 1.5S + L	1.00	4604 lb		25224 lb	11842 lb	Passed - 39%

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'	8'- 10 1/4"	Self Weight	Top	13 lb/ft	-	-	-
Uniform	0'	4'- 7 1/4"	FC3 Floor Decking (Plan View Fill)	Top	6 lb/ft	15 lb/ft	-	-
Uniform	4'- 5 1/8"	6'- 10 3/4"	User Load	Top	60 lb/ft	-	-	-
Uniform	5'- 9 1/4"	7'- 1 1/4"	FC3 Floor Decking (Plan View Fill)	Top	-	18 lb/ft	-	-
Uniform	7'- 4 1/4"	8'- 10 1/4"	E53(i61018)	Top	102 lb/ft	-	-	-
Uniform	7'- 4 1/4"	8'- 7 3/8"	E53(i61018)	Top	61 lb/ft	-	89 lb/ft	-
Uniform	7'- 4 1/4"	7'- 10 1/2"	E53(i61018)	Top	101 lb/ft	-	159 lb/ft	-
Uniform	8'- 1/4"	8'- 10 1/4"	E53(i61018)	Top	101 lb/ft	-	159 lb/ft	-
Tapered	0'- 5 7/8"	4'- 5 7/8"	Smoothed Load	Front	104 To 91 lb/ft	278 To 242 lb/ft	-	-
Point	4'- 11"	4'- 11"	B38(i62897)	Front	285 lb	153 lb	-	-
Point	7'- 1 1/2"	7'- 1 1/2"	E52(i61016)	Top	928 lb	-	1372 lb	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B6(i62602)	710 lb	854 lb	272 lb	-
2	8'- 4 3/4"	8'- 10 1/4"	E35(i41645)	1561 lb	441 lb	1428 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

SE047081

Second Floor\Flush Beams\B41(i63774) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

April 28, 2022 10:34:47

Build 8183

Job name: 45147-Model 6002

File name: 343076 Second A W Opt. Floor Plan (14).mmdl

Address: Pine Valley Ph2

Description: Second Floor\Flush Beams\B41(i63774)

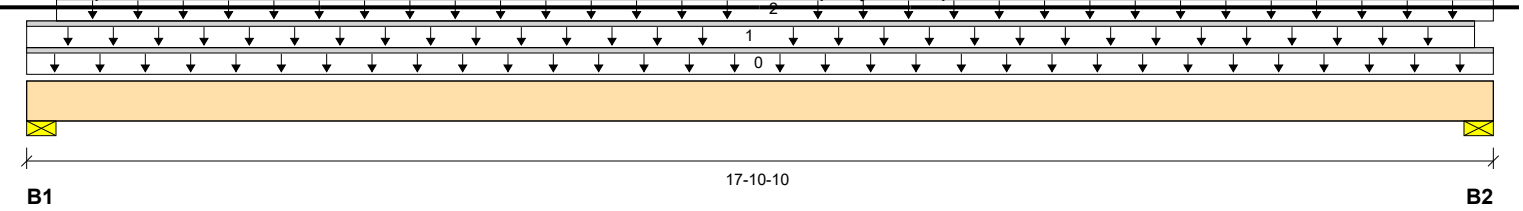
City, Province, Postal Code: Vaughan, ON

Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: GCMC 12472-R Company: Alpa Root Trusses Inc.



Total Horizontal Product Length = 17'-10"

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4-3/8"	3576 / 0	2073 / 0		
B2, 5-1/2"	3663 / 0	2131 / 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	17-10-10	Top		24			00-00-00
1	FC3 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	17-07-14	Top	16	6			n/a
2	WALL	Unf. Lin. (lb/ft)	L	00-04-06	17-10-10	Top		60			n/a
3	Smoothed Load	Unf. Lin. (lb/ft)	L	00-07-04	16-07-04	Back	414	155			n/a
4	J7(i64201)	Conc. Pt. (lbs)	L	17-01-04	17-01-04	Back	328	123			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	35208 ft-lbs	73615 ft-lbs	47.8%	1	09-01-04
End Shear	7592 lbs	28927 lbs	26.2%	1	01-04-04
Total Load Deflection	L/304 (0.679")	n/a	79.0%	4	08-10-04
Live Load Deflection	L/477 (0.432")	n/a	75.4%	5	08-10-04
Max Defl.	0.679"	n/a	n/a	4	08-10-04
Span / Depth	17.4				


Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 4-3/8" x 7"	7956 lbs	42.2%	21.3%	Spruce-Pine-Fir
B2	Wall/Plate 5-1/2" x 7"	8158 lbs	34.4%	17.4%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 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 4
 Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-09-08.

SDW22634 SIMPSON WOOD SCREW @ 12" O/C, STAGGERED IN 2 ROWS.



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground C + Second C (9,**
Level: **Second Floor**
Label: **B42 - i61640**
Type: **Beam**

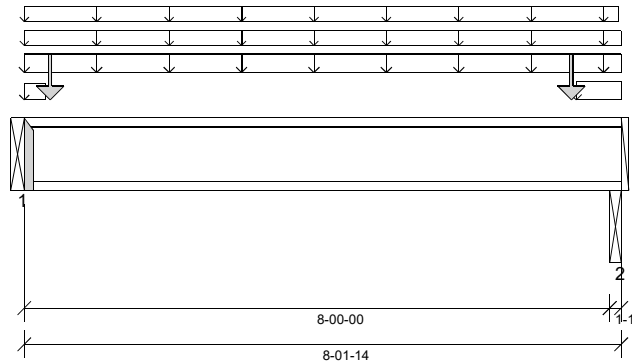
2 Ply Member
11 7/8" NI-20

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 04/28/2022 15:59



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'
- 615 psi Beam @ 8'-1"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	4'- 15/16"	1.25D + 1.5L	0.65	1631 lb ft	7254 lb ft	Passed - 22%
Factored Shear:	0'- 1/16"	1.25D + 1.5L + S	0.77	1318 lb	3462 lb	Passed - 38%
Live Load (LL) Pos. Defl.:	4'- 1 3/16"	S + 0.5L		0.012"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	4'- 3/4"	D + S + 0.5L		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	1-12	1.25D + 1.5L + S	0.77	1320 lb		3940 lb	-	Passed - 34%
2	1-14	1.25D + 1.5L + S	0.77	1345 lb		3068 lb	4457 lb	Passed - 44%

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.

* 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'	8'- 1 7/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	-0'	8'- 1 7/8"	E52(i61037)	Top	101 lb/ft	-	-	-
Uniform	-0'	8'- 1 7/8"	FC3 Floor Decking (Plan View Fill)	Top	7 lb/ft	18 lb/ft	-	-
Uniform	-0'	8'- 1 1/2"	User Load	Top	14 lb/ft	-	21 lb/ft	-
Uniform	-0'	0'- 3 1/2"	E52(i61037)	Top	-	-	63 lb/ft	-
Uniform	7'- 6 1/2"	8'- 1 7/8"	E52(i61037)	Top	41 lb/ft	-	63 lb/ft	-
Point	0'- 4 1/4"	0'- 4 1/4"	E52(i61037)	Top	162 lb	-	228 lb	-
Point	7'- 5 3/4"	7'- 5 3/4"	E52(i61037)	Top	162 lb	-	228 lb	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B43(i61600)	692 lb	74 lb	336 lb	-
2	8'	8'- 1 7/8"	APP (DR.)(i61645)	712 lb	78 lb	348 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.

SE047083



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground C + Second C (9,**
Level: **Second Floor**
Label: **B43 - i61600**
Type: **Beam**

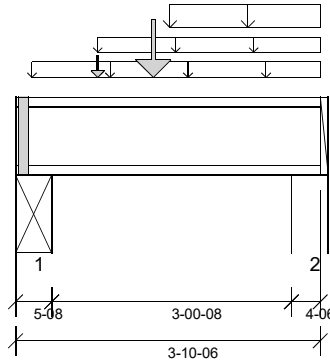
2 Ply Member
11 7/8" NI-20

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 04/28/2022 15:59



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 @ 3'- 7"

Reinforcement Accessories Required

- Critical Load Web Stiffener @ 1'- 8 7/8"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	1'- 9"	1.25D + 1.5S + L	0.86	1473 lb ft	9652 lb ft	Passed - 15%
Factored Shear:	0'- 5 9/16"	1.25D + 1.5L + S	0.84	1184 lb	3748 lb	Passed - 32%
Total Load (TL) Pos. Defl.:	1'- 11 1/8"	D + S + 0.5L		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	5'-08	1.25D + 1.5L + S	0.84	1195 lb		3748 lb	17694 lb	Passed - 32%
2	4'-06	1.25D + 1.5S + L	0.86	1126 lb		3875 lb	11639 lb	Passed - 29%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	3'- 10 3/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'- 2 1/2"	3'- 10 3/8"	FC3 Floor Decking (Plan View Fill)	Top	6 lb/ft	15 lb/ft	-	-
Uniform	1'- 1/2"	3'- 10 3/8"	FC3 Floor Decking (Plan View Fill)	Top	-	8 lb/ft	-	-
Uniform	1'- 11 1/2"	3'- 10 3/8"	E53(i61038)	Top	128 lb/ft	-	42 lb/ft	-
Point	1'- 1/2"	1'- 1/2"	J3(i61386)	Back	54 lb	145 lb	-	-
Point	1'- 9"	1'- 9"	-	Back	751 lb	74 lb	362 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.)(i41747)	498 lb	186 lb	200 lb	-
2	3'- 6"	3'- 10 3/8"	E3(i41621)	603 lb	112 lb	242 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.

SE047084



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground C + Second C (9,**
Level: **Second Floor**
Label: **B44 - i61285**
Type: **Beam**

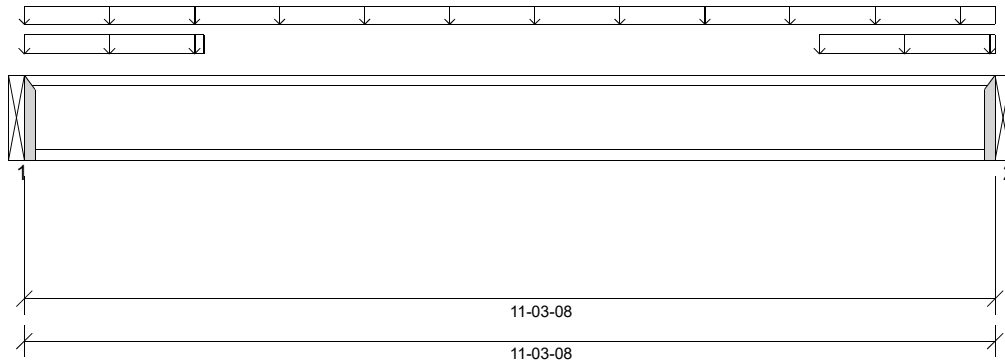
1 Ply Member
11 7/8" NI-20

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 04/28/2022 16:00



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: 11'- 3 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 769 psi Beam @ 11'- 3 1/2"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 7 5/8"	1.25D + 1.5L	0.93	975 lb ft	5172 lb ft	Passed - 19%
Factored Shear:	0'- 1/16"	1.25D + 1.5L	0.93	444 lb	2076 lb	Passed - 21%
Live Load (LL) Pos. Defl.:	5'- 7 3/4"	L		0.041"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	5'- 7 11/16"	D + L		0.077"	L/240	Passed - L/999
Total Load (TL) Neg. Defl.:	11'- 3 1/2"	D + L		0.011"	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	0.93	444 lb		1970 lb	-	Passed - 23%
2	1-12	1.25D + 1.5L	0.93	442 lb		1970 lb	-	Passed - 22%

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	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'	11'- 3 1/2"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	-0'	11'- 3 1/2"	FC3 Floor Decking (Plan View Fill)	Top	9 lb/ft	24 lb/ft	-	-
Uniform	-0'	2'- 1"	User Load	Top	60 lb/ft	-	-	-
Uniform	9'- 3"	11'- 3 1/2"	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'	B45(i61297)	192 lb	136 lb	-	-
2	11'- 3 1/2"	11'- 3 1/2"	B46(i61326)	190 lb	136 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.

SE047085



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground C + Second C (9,**
Level: **Second Floor**
Label: **B45 - i61297**
Type: **Beam**

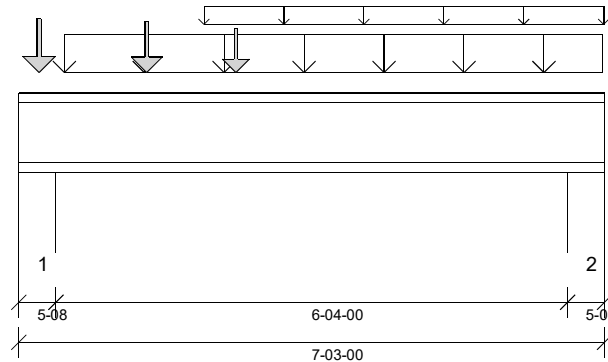
2 Ply Member
11 7/8" NI-20

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 04/28/2022 16:00



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 @ 6'- 10 1/2"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 10 3/8"	1.25D + 1.5L	1.00	4750 lb ft	11160 lb ft	Passed - 43%
Factored Neg. Moment:	0'- 4 1/2"	1.25D + 1.5L	1.00	77 lb ft	11160 lb ft	Passed - 1%
Factored Shear:	0'- 5 9/16"	1.25D + 1.5L	1.00	2945 lb	4480 lb	Passed - 66%
Live Load (LL) Pos. Defl.:	3'- 6 7/8"	L		0.049"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	3'- 6 7/8"	D + L		0.077"	L/240	Passed - L/984

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	3564 lb		4480 lb	16918 lb	Passed - 80%
2	5-08	1.25D + 1.5L	1.00	2949 lb		4480 lb	16918 lb	Passed - 66%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	7'- 3"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'- 6 3/4"	7'- 2 3/4"	Smoothed Load	Front	126 lb/ft	336 lb/ft	-	-
Uniform	2'- 3 1/2"	7'- 3"	User Load	Top	60 lb/ft	-	-	-
Point	0'- 3"	0'- 3"	J2(i61276)	Back	117 lb	313 lb	-	-
Point	1'- 7"	1'- 7"	J2(i61286)	Back	110 lb	293 lb	-	-
Point	2'- 8 1/4"	2'- 8 1/4"	B45(i61285)	Back	192 lb	136 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	6(i41705)	845 lb	1707 lb	-	-
2	6'- 9 1/2"	7'- 3"	5(i41704)	760 lb	1297 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.

SE047086



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground C + Second C (9,**
Level: **Second Floor**
Label: **B46 - i61326**
Type: **Beam**

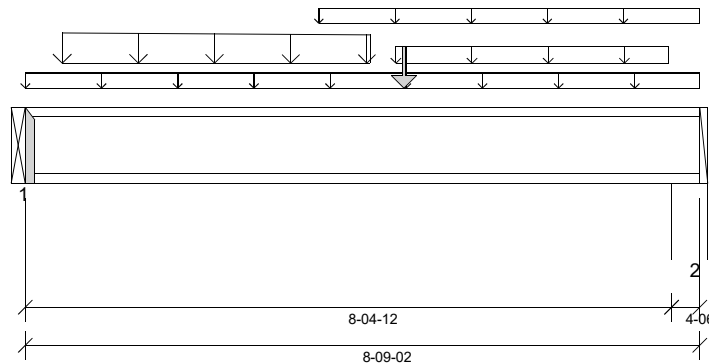
2 Ply Member
11 7/8" NI-20

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 04/28/2022 16:00



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: 3'- 8 7/8"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 615 psi Wall @ 8'- 5 3/4"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 9 3/4"	1.25D + 1.5L	1.00	3838 lb ft	11160 lb ft	Passed - 34%
Factored Shear:	0'- 1/16"	1.25D + 1.5L	1.00	1743 lb	4480 lb	Passed - 39%
Live Load (LL) Pos. Defl.:	4'- 1/2"	L		0.052"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	4'- 1 9/16"	D + L		0.088"	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	1.00	1753 lb		3940 lb	-	Passed - 44%
2	4-06	1.25D + 1.5L	1.00	1244 lb		4480 lb	13457 lb	Passed - 28%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	MIT311.88-2		-	-	-	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'	8'- 9 1/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	8'- 9 1/8"	FC3 Floor Decking (Plan View Fill)	Top	7 lb/ft	18 lb/ft	-	-
Uniform	3'- 9 3/4"	8'- 9 1/8"	FC3 Floor Decking (Plan View Fill)	Top	3 lb/ft	8 lb/ft	-	-
Uniform	4'- 9 3/4"	8'- 4 1/4"	User Load	Top	60 lb/ft	-	-	-
Tapered	0'- 5 3/4"	4'- 5 3/4"	Smoothed Load	Front	92 To 81 lb/ft	246 To 216 lb/ft	-	-
Point	4'- 11"	4'- 11"	B45(i61285)	Front	190 lb	136 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B6(i61283)	427 lb	806 lb	-	-
2	8'- 4 3/4"	8'- 9 1/8"	E46(i61025)	451 lb	461 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.

SE047087

Ground Floor\Flush Beams\B47(i61332) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

April 28, 2022 16:02:17

Build 8183

Job name: 45147-Model 6002

File name: 343076 Ground C + Second C (9,21).mmdl

Address: Pine Valley Ph2

Description: Ground Floor\Flush Beams\B47(i61332)

City, Province, Postal Code: Vaughan, ON

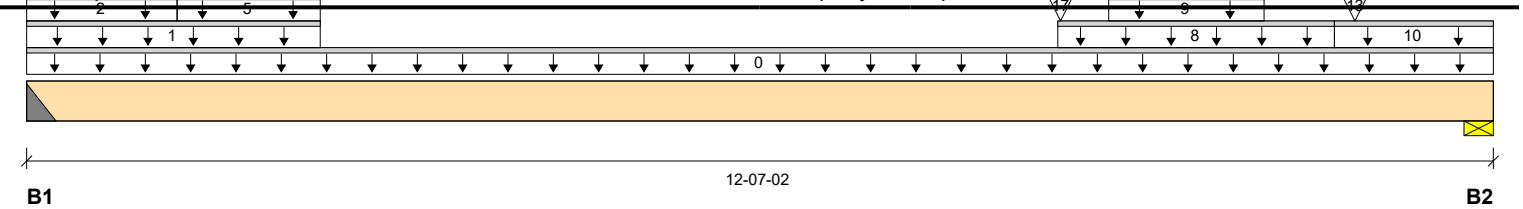
Specifier:

Customer: Gold Park Homes

Designer:

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses Inc.


Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	6561 / 0	3204 / 0		
B2, 8-3/8"	5602 / 0	3110 / 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	12-07-02	Top		24			00-00-00
1	6(i41705)	Unf. Lin. (lb/ft)	L	00-00-00	02-06-04	Top		68			n/a
2	6(i41705)	Unf. Lin. (lb/ft)	L	00-00-00	01-03-08	Top	287	107			n/a
3	6(i41705)	Unf. Lin. (lb/ft)	L	00-00-00	00-03-12	Top	435				n/a
4	6(i41705)	Unf. Lin. (lb/ft)	L	00-03-12	01-07-12	Top	222	83			n/a
5	6(i41705)	Unf. Lin. (lb/ft)	L	01-03-08	02-06-04	Top	359	134			n/a
6	Smoothed Load	Unf. Lin. (lb/ft)	L	01-06-14	07-11-14	Front	349	131			n/a
7	Smoothed Load	Unf. Lin. (lb/ft)	L	01-06-14	07-11-14	Back	267	129			n/a
8	5(i41704)	Unf. Lin. (lb/ft)	L	08-10-04	11-02-12	Top		68			n/a
9	5(i41704)	Unf. Lin. (lb/ft)	L	09-03-08	10-07-08	Top	340	128			n/a
10	E48(i61028)	Unf. Lin. (lb/ft)	L	11-02-12	12-07-02	Top		218			n/a
11	-	Conc. Pt. (lbs)	L	00-08-14	00-08-14	Front	695	286			n/a
12	-	Conc. Pt. (lbs)	L	10-04-01	10-04-01	Front	678	280			n/a
13	-	Conc. Pt. (lbs)	L	11-04-14	11-04-14	Front	730	280			n/a
14	J2(i61320)	Conc. Pt. (lbs)	L	01-05-14	01-05-14	Back	286	138			n/a
15	J4(i61350)	Conc. Pt. (lbs)	L	09-05-14	09-05-14	Back	235	113			n/a
16	6(i41705)	Conc. Pt. (lbs)	L	02-05-04	02-05-04	Top	1707	845			n/a
17	-	Conc. Pt. (lbs)	L	08-10-09	08-10-09	Top	1988	1045			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	33765 ft-lbs	73615 ft-lbs	45.9%	1	06-02-14
End Shear	12311 lbs	28927 lbs	42.6%	1	01-01-14
Total Load Deflection	L/444 (0.32")	n/a	54.0%	4	06-02-14
Live Load Deflection	L/664 (0.214")	n/a	54.2%	5	06-02-14
Max Defl.	0.32"	n/a	n/a	4	06-02-14
Span / Depth	12.0				


Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Hanger 2" x 7"	13846 lbs	n/a	81.1%	HGUS7.25/10
B2	Wall/Plate 8-3/8" x 7"	12290 lbs	34.1%	17.2%	Spruce-Pine-Fir

Cautions

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

Header for the hanger HGUS7.25/10 is a Quadruple 1-3/4" x 11-7/8" LVL beam.

SDW22634 SIMPSON WOOD SCREW @ 12" O/C, STAGGERED IN 2 ROWS.



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **343076 Ground C + Second C (9,**
Level: **Ground Floor**
Label: **B48 - i61325**
Type: **Beam**

4 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

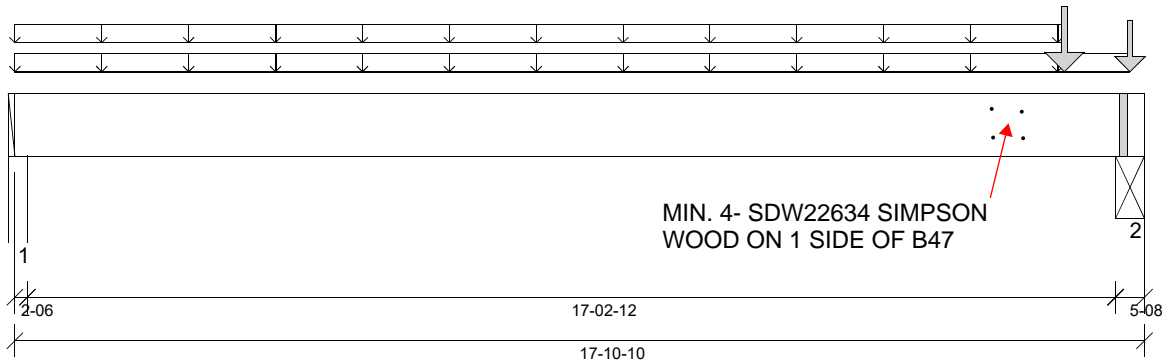
Status:
Design Passed

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

04/28/2022 16:05



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: 16'- 1 1/2"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 1 3/8"
- 769 psi Beam @ 17'- 6 1/8"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	13'- 7 5/16"	1.25D + 1.5L	1.00	12257 lb ft	53063 lb ft	Passed - 23%
Factored Neg. Moment:	17'- 6 1/8"	1.25D + 1.5L	1.00	1475 lb ft	8642 lb ft	Passed - 17%
Factored Shear:	16'- 5 1/4"	1.25D + 1.5L	1.00	14494 lb	28828 lb	Passed - 50%
Live Load (LL) Pos. Defl.:	9'- 7 7/16"	L		0.193"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	9'- 6 1/2"	D + L		0.314"	L/240	Passed - L/658

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	1842 lb		21785 lb	10228 lb	Passed - 18%
2	5-08	1.25D + 1.5L	1.00	24849 lb		50450 lb	29606 lb	Passed - 84%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	17'- 10 5/8"	Self Weight	Top	26 lb/ft	-	-	-
Uniform	0'	17'- 7 7/8"	FC2 Floor Decking (Plan View Fill)	Top	11 lb/ft	28 lb/ft	-	-
Uniform	0'	16'- 7 3/8"	FC2 Floor Decking (Plan View Fill)	Top	9 lb/ft	24 lb/ft	-	-
Point	16'- 7 3/8"	16'- 7 3/8"	-	Front	3295 lb	6738 lb	-	-
Point	17'- 7 7/8"	17'- 7 7/8"	4(i41703)	Top	2485 lb	4655 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/8"	W16(i41596)	572 lb	809 lb	-	-
2	17'- 5 1/8"	17'- 10 5/8"	ST. BEAM (DR.) (i41690)	6015 lb	11497 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.
- Bearing capacity of member at support 1, 2 was verified for the effect of concentrated load applied near the support. At support 2. Required Load Area: L=1.500", W=5.500". LDF=1.00, Pf=10089 lb, Qr=10811 lb, Result=93.32%.

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.

SDW22634 SIMPSON WOOD SCREWS @ 12" O/C, STAGGERED IN 2 ROWS

SE047089



PASSED

June 18, 2022 13:34:36

Company	Revenue	Profit	Assets	Liabilities	Equity
Company A	100	20	120	80	40
Company B	150	30	180	120	60
Company C	200	40	240	160	80
Company D	250	50	300	200	100
Company E	300	60	360	240	120



13-06-04

B2

Total Horizontal Product Length = 13-06-04

Bearing	Live	Dead	Snow	Wind
B1, 2"	7169 / 4	3860 / 0	226 / 0	
B2, 3-1/2"	5170 / 26	3437 / 0	536 / 0	

Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	13-06-04	Top		24		00-00-00
1	6(i41705)	Unf. Lin. (lb/ft)	L	00-00-00	02-10-04	Top		68		n/a
2	6(i41705)	Unf. Lin. (lb/ft)	L	00-00-00	00-03-12	Top	511			n/a
3	6(i41705)	Unf. Lin. (lb/ft)	L	00-03-14	01-07-14	Top	586	220		n/a
4	Smoothed Load	Unf. Lin. (lb/ft)	L	00-11-14	07-11-14	Front	383	144		n/a
5	Smoothed Load	Unf. Lin. (lb/ft)	L	00-11-14	07-11-14	Back	286	141		n/a
6	6(i41705)	Unf. Lin. (lb/ft)	L	01-07-14	02-10-04	Top	659	247		n/a
7	6(i41705)	Unf. Lin. (lb/ft)	L	02-01-04	02-10-04	Top	1529	958		n/a
8	5(i41704)	Unf. Lin. (lb/ft)	L	07-10-04	13-00-12	Top		68		n/a
9	5(i41704)	Unf. Lin. (lb/ft)	L	07-10-04	08-07-04	Top	1517	926		n/a
10	5(i41704)	Unf. Lin. (lb/ft)	L	08-03-12	11-09-02	Top		64		n/a
11	5(i41704)	Unf. Lin. (lb/ft)	L	08-03-14	10-11-14	Top	340	128		n/a
12	5(i41704)	Unf. Lin. (lb/ft)	L	08-09-06	10-01-06	Top		341	533	n/a
13	Smoothed Load	Unf. Lin. (lb/ft)	L	09-07-14	12-11-14	Back	243	118		n/a
14	5(i41704)	Unf. Lin. (lb/ft)	L	11-10-04	13-00-12	Top		69		n/a
15	J14(i64824)	Conc. Pt. (lbs)	L	08-11-14	08-11-14	Front	448	168		n/a
16	J14(i64467)	Conc. Pt. (lbs)	L	10-03-14	10-03-14	Front	472	177		n/a
17	J1(i64572)	Conc. Pt. (lbs)	L	00-05-14	00-05-14	Back	270	130		n/a
18	J2(i64564)	Conc. Pt. (lbs)	L	08-05-14	08-05-14	Back	280	182	51	n/a
19	J2(i64830)	Conc. Pt. (lbs)	L	09-05-14	09-05-14	Back	269	132		n/a
20	-	Conc. Pt. (lbs)	L	11-09-09	11-09-09	Top	-30	-60		n/a
21	E47(i61010)	Conc. Pt. (lbs)	L	13-03-08	13-03-08	Top		87		n/a

Pos. Moment	47143 ft-lbs	73615 ft-lbs	64.0%	1	07-07-14
End Shear	14968 lbs	28927 lbs	51.7%	1	01-01-14
Total Load Deflection	L/290 (0.545")	n/a	82.6%	58	06-05-14
Live Load Deflection	L/450 (0.352")	n/a	80.0%	85	06-05-14
Max Defl.	0.545"	n/a	n/a	58	06-05-14
Span / Depth	13.3				



B1	Hanger	2" x 7"	15804 lbs	n/a	92.5%	HHGU7.25-SDS5
B2	Wall/Plate	3-1/2" x 7"	12586 lbs	83.5%	42.1%	Spruce-Pine-Fir

SE048435



Customer: **Gold Park Homes**
Job Address: **Pine Valley Ph2**
City: **Vaughan**
Job Track: **45147**

Job Name: **345513 Ground B + Second B (\$**
Level: **Ground Floor**
Label: **B50 - i64828**
Type: **Beam**

4 Ply Member
1 3/4" x 11 7/8" 1.55E
TimberStrand® LSL

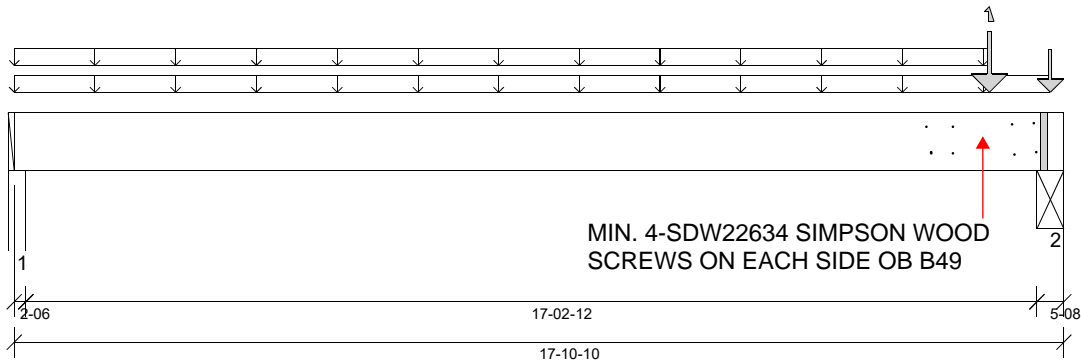
Status:
Design Passed

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

06/18/2022 13:35



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: 16'- 1 1/2"

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 1 3/8"
- 769 psi Beam @ 17'- 6 1/8"



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	14'- 3 3/16"	1.25D + 1.5L + S	1.00	13804 lb ft	53063 lb ft	Passed - 26%
Factored Neg. Moment:	17'- 6 1/8"	1.25D + 1.5L + S	1.00	1446 lb ft	8642 lb ft	Passed - 17%
Factored Shear:	16'- 5 1/4"	1.25D + 1.5L + S	1.00	13615 lb	28828 lb	Passed - 47%
Live Load (LL) Pos. Defl.:	9'- 7 3/4"	L + 0.5S		0.211"	L/360	Passed - L/982
Total Load (TL) Pos. Defl.:	9'- 7"	D + L + 0.5S		0.346"	L/240	Passed - L/596

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 + S	1.00	1977 lb		21785 lb	10228 lb	Passed - 19%
2	5-08	1.25D + 1.5L + S	1.00	26605 lb		50450 lb	29606 lb	Passed - 90%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	17'- 10 5/8"	Self Weight	Top	26 lb/ft	-	-	-
Uniform	0'	17'- 7 7/8"	FC2 Floor Decking (Plan View Fill)	Top	11 lb/ft	28 lb/ft	-	-
Uniform	0'	16'- 7 3/8"	FC2 Floor Decking (Plan View Fill)	Top	10 lb/ft	26 lb/ft	-	-
Point	16'- 7 3/8"	16'- 7 3/8"	-	Front	3965 lb	7384/-4 lb	226 lb	-
Point	17'- 7 7/8"	17'- 7 7/8"	4(i41703)	Top	2444 lb	4548 lb	15 lb	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/8"	W16(i41596)	544 lb	729 lb	8 lb	-
2	17'- 5 1/8"	17'- 10 5/8"	ST. BEAM (DR.)(i41690)	6683 lb	12143/-4 lb	233 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.
- Bearing capacity of member at support 1, 2 was verified for the effect of concentrated load applied near the support. At support 2. Required Load Area: L=1.500", W=5.500". LDF=1.00, Pf=9892 lb, Q'r=10811 lb, Result=91.50%.

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.

SDW22634 SIMPSON WOOD SCREWS @ 12" O/C, STAGGERED IN 2 ROWS

SE048436

Maximum Floor Spans – M3.1, 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:	23/32 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'-9"	14'-10"	14'-4"	13'-5"	16'-2"	15'-4"	14'-6"	13'-5"
	NI-40x	16'-10"	15'-10"	15'-3"	14'-8"	17'-2"	16'-3"	15'-8"	14'-11"
	NI-60	16'-11"	16'-0"	15'-5"	14'-9"	17'-4"	16'-4"	15'-9"	15'-2"
	NI-80	18'-0"	16'-11"	16'-3"	15'-7"	18'-5"	17'-3"	16'-7"	15'-11"
11-7/8"	NI-20	17'-8"	16'-8"	16'-1"	15'-6"	18'-3"	17'-3"	16'-7"	16'-0"
	NI-40x	19'-1"	17'-9"	17'-1"	16'-5"	19'-8"	18'-3"	17'-6"	16'-10"
	NI-60	19'-4"	17'-11"	17'-3"	16'-7"	19'-11"	18'-6"	17'-8"	17'-0"
	NI-80	20'-9"	19'-2"	18'-3"	17'-5"	21'-3"	19'-8"	18'-9"	17'-10"
	NI-90	21'-2"	19'-7"	18'-8"	17'-9"	21'-8"	20'-1"	19'-1"	18'-1"
14"	NI-40x	21'-2"	19'-7"	18'-8"	17'-9"	21'-10"	20'-3"	19'-4"	18'-4"
	NI-60	21'-6"	19'-11"	19'-0"	18'-0"	22'-2"	20'-7"	19'-8"	18'-8"
	NI-80	23'-1"	21'-4"	20'-3"	19'-3"	23'-8"	21'-11"	20'-10"	19'-9"
	NI-90	23'-6"	21'-9"	20'-8"	19'-7"	24'-1"	22'-4"	21'-3"	20'-1"
16"	NI-60	23'-5"	21'-8"	20'-8"	19'-7"	24'-2"	22'-5"	21'-5"	20'-4"
	NI-80	25'-1"	23'-2"	22'-1"	20'-11"	25'-9"	23'-10"	22'-9"	21'-6"
	NI-90	25'-7"	23'-7"	22'-6"	21'-3"	26'-3"	24'-3"	23'-1"	21'-11"

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'-6"	17'-5"	16'-7"	14'-11"	19'-0"	17'-8"	16'-7"	14'-11"
	NI-60	18'-9"	17'-7"	16'-10"	15'-7"	19'-2"	17'-11"	16'-10"	15'-7"
	NI-80	20'-0"	18'-7"	17'-10"	17'-1"	20'-6"	19'-1"	18'-2"	17'-5"
11-7/8"	NI-20	20'-1"	18'-8"	17'-6"	16'-1"	20'-7"	18'-8"	17'-6"	16'-1"
	NI-40x	21'-8"	20'-2"	19'-0"	17'-0"	22'-3"	20'-9"	19'-0"	17'-0"
	NI-60	21'-11"	20'-5"	19'-6"	18'-6"	22'-6"	21'-0"	20'-1"	18'-8"
	NI-80	23'-5"	21'-9"	20'-9"	19'-8"	23'-11"	22'-3"	21'-3"	20'-2"
	NI-90	23'-11"	22'-2"	21'-1"	20'-0"	24'-4"	22'-8"	21'-8"	20'-6"
14"	NI-40x	24'-3"	22'-7"	20'-11"	18'-8"	24'-11"	22'-11"	20'-11"	18'-8"
	NI-60	24'-8"	22'-11"	21'-10"	20'-8"	25'-3"	23'-7"	22'-7"	21'-4"
	NI-80	26'-3"	24'-5"	23'-3"	22'-0"	26'-10"	25'-0"	23'-10"	22'-7"
	NI-90	26'-9"	24'-10"	23'-8"	22'-5"	27'-4"	25'-5"	24'-3"	22'-11"
16"	NI-60	27'-1"	25'-2"	24'-0"	22'-9"	27'-9"	26'-0"	24'-10"	23'-1"
	NI-80	28'-10"	26'-10"	25'-6"	24'-2"	29'-6"	27'-6"	26'-3"	24'-10"
	NI-90	29'-5"	27'-3"	26'-0"	24'-6"	30'-0"	27'-11"	26'-8"	25'-2"

Notes:

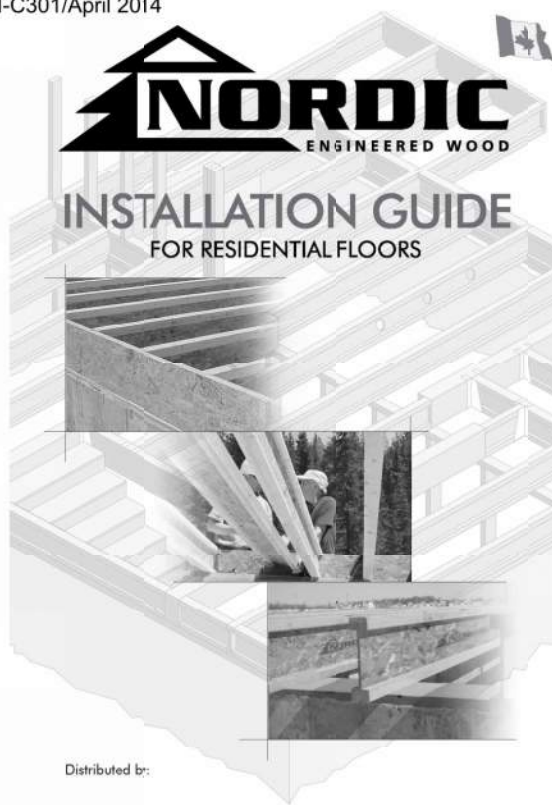
- The tabulated clear spans are based on CSA O86-14 and NBC 2015, and are applicable to residential floor construction meeting the above design criteria.
- For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
- Minimum bearing length shall be 1-3/4 inch for end bearings,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



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SAFETY AND CONSTRUCTION PRECAUTIONS



WARNING

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

Avoid Accidents by Following these Important Guidelines:

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



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

2. When the building is completed, the floor sheathing will provide lateral support for the top flange of the I-joists. Until this sheathing is applied, temporary bracing, 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 1 foot 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 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-briding.

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 on the shipping end. Avoid cutting unbraced 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:

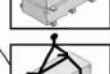
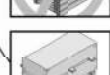
■ Pick I-joists in bundles as shipped by the supplier.

■ 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 CRITY TO REPAIR A DAMAGED I-JOIST.

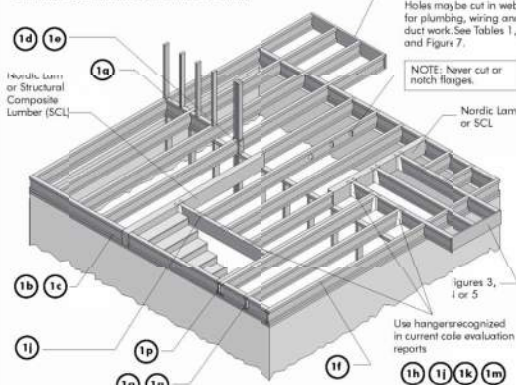


INSTALLING NORDIC I-JOISTS

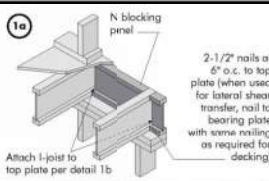
- Before laying out floor system components, verify that I-joist flange widths match hanger widths. If not contact your supplier.
- Except for cutting to length, I-joist flanges should **never** be cut, drilled, or notched.
- Install I-joists so that top and bottom flanges are within 1/2 inch of true vertical alignment.
- I-joists must be anchored securely to supports before floor sheathing is attached, and supports for multiple-span joists must be level.
- Minimum bearing lengths: 1-3/4 inches for end bearings and 3-1/2 inches for intermediate bearings.
- When using hangers, seat I-joists firmly in hanger bottoms to minimize settlement.
- Leave a 1/16-inch gap between the I-joist end and a header.
- Concentrated load greater than those that can normally be expected in residential construction should only be applied to the top surface of the top flange. Normal concentrated loads include track lighting fixtures, audio equipment and security cameras. Never suspend unusual or heavy loads from the I-joist's bottom flange. Whenever possible suspend all concentrated loads from the top of the I-joist. Or, attach the load to blocking that has been securely fastened to the I-joist webs.
- Never install I-joists where they will be permanently exposed to weather, or where they will remain in direct contact with concrete or masonry.
- Restrain ends of floor joists to prevent rollover. Use rim board, rim joists or I-joist blocking panels.
- 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.
- Due to shrinkage, common framing lumber set on edge **must 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.
- Provide permanent lateral support of the bottom flange of all I-joists at interior supports of multiple-span joists. Similarly, support the bottom flange of all cantilevered I-joists at the end support next to the cantilever extension in the completed structure, the gypsum wallboard ceiling provides this lateral support. Until the final finished ceiling is applied, temporary bracing or struts must be used.
- 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.
- Nail spacing: Spacing 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

Some framing requirements such as erection bracing and blocking panels have been omitted for clarity.

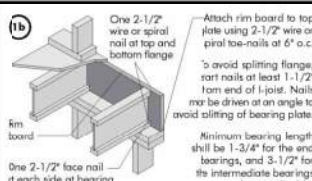


All nails shown in the above details are assumed to be common wire nails unless otherwise noted. 3" (0.122" dia.) common spiral nails may be substituted or 2-1/2" (0.128" dia.) common wire nails. Framing lumber assumed to be Spruce-Pine-Fir No. 2 or better. Individual components not shown to scale for clarity.



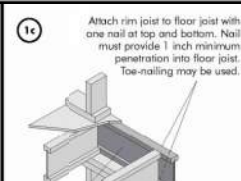
Blocking Panel or Rim Joist	Maximum Factored Uniform Vertical Load* (plf)
Ni Joists	3,300

*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.



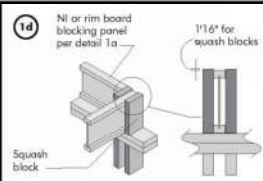
Blocking Panel or Rim Joist	Maximum Factored Uniform Vertical Load* (plf)
1-1/8" Rim Board Plus	8,090

*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.



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.



Pair of Squash Blocks	Maximum Factored Uniform Vertical Load* (plf)
2x Lumber	5,500
1-1/8" Rim Board Plus	4,300

*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.

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.

MAXIMUM FLOOR SPANS

- 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.
- 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 CGS-71.26 Standard. No concrete topping or bridging element was assumed. Increased spans may be achieved with the use of gypsum and/or a row of blocking at mid-span.
- Minimum bearing length shall be 1-3/4 inches for the end bearings, and 3-1/2 inches for the intermediate bearings.
- Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.
- 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.
- Tables are based on Limit States Design per CAN/CSA C86-09 Standard, and NBC 2010.
- SI units conversion: 1 inch = 25.4 mm
1 foot = 0.305 m

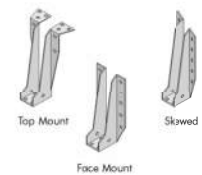
MAXIMUM FLOOR SPANS FOR NORDIC I-JOISTS SIMPLE AND MULTIPLE SPANS

Joist Depth	Joist Series	Simple spans				Multiple spans			
		On centre spacing				On centre spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	Ni-20	15-1"	14-2"	13-5"	13-5"	16-3"	15-4"	14-10"	14-7"
	Ni-40	14-1"	13-2"	12-5"	12-5"	15-6"	14-6"	13-10"	13-5"
	Ni-60	16-3"	15-4"	14-10"	14-11"	17-7"	16-7"	16-0"	16-6"
	Ni-70	17-1"	16-1"	15-6"	15-7"	18-7"	17-4"	16-9"	17-2"
11-7/8"	Ni-20	17-3"	16-3"	15-8"	15-9"	18-10"	17-6"	16-11"	17-5"
	Ni-40x	16-11"	15-0"	13-5"	13-6"	18-4"	17-3"	16-8"	16-7"
	Ni-60	18-11"	17-0"	16-5"	16-6"	20-0"	18-6"	17-9"	17-7"
	Ni-70	19-4"	18-0"	17-4"	17-5"	21-6"	19-11"	19-0"	19-8"
14"	Ni-20	19-9"	18-3"	17-6"	17-7"	21-9"	20-2"	19-3"	19-11"
	Ni-40	20-2"	18-7"	17-10"	17-11"	22-3"	20-7"	19-8"	19-9"
	Ni-60	20-4"	18-9"	17-11"	18-0"	22-5"	20-8"	19-10"	20-4"
	Ni-70	20-5"	19-11"	18-1"	18-2"	22-7"	20-11"	20-0"	20-10"
16"	Ni-20	21-7"	20-0"	19-1"	19-2"	23-10"	22-1"	21-1"	21-10"
	Ni-40	21-11"	20-3"	19-4"	19-5"	24-3"	22-5"	21-5"	22-2"
	Ni-60	22-5"	20-8"	19-9"	19-9"	24-9"	22-10"	21-10"	21-10"
	Ni-70	22-7"	21-11"	19-11"	20-0"	25-0"	23-1"	22-0"	22-9"
18"	Ni-20	22-7"	21-0"	20-2"	20-3"	25-0"	23-1"	22-0"	22-9"
	Ni-40	23-6"	21-9"	20-9"	20-10"	26-0"	24-0"	22-11"	23-9"
	Ni-60	23-11"	22-1"	21-1"	21-2"	26-5"	24-5"	23-3"	24-1"
	Ni-70	24-5"	22-6"	21-5"	21-6"	26-11"	24-10"	23-9"	23-9"
20"	Ni-20	24-8"	22-9"	21-9"	21-10"	27-3"	25-2"	24-0"	24-10"
	Ni-40	24-8"	22-9"	21-9"	21-10"	27-3"	25-2"	24-0"	24-10"

CCAC EVALUATION REPORT 13032-R

I-JOIST HANGERS

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



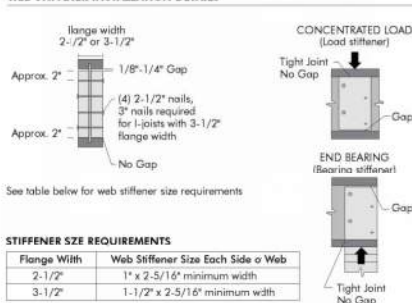
WEB STIFFENER

RECOMMENDATIONS:

- A **bearing stiffener** is required in all engineered applications with factored reactions greater than those in the I-joist properties table found in the I-joist Construction Guide (C101). The gap between the stiffener and the flange is at the top.
- A **bearing stiffener** is required when the I-joist is supported in hanger and the sides of the hanger do not extend up to, and support, the top flange. The gap between the stiffener and the 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 4 WEB STIFFENER INSTALLATION DETAILS



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

Ni-20	Ni-40x	Ni-60	Ni-70	Ni-80	Ni-90	Ni-90x
33 pieces per unit	33 pieces per unit	33 pieces per unit	33 pieces per unit	23 pieces per unit	23 pieces per unit	2 pieces per unit

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.

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

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

Provide backer for siding attachment unless nailable sheathing is used.

Wall sheathing, as required.

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

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

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

Joist attachment per detail 1b.

2-1/2" nails at 6" o.c. top plate.

Ni blocking panel per detail 1a.

13 Backer block (use if hanger load exceeds 360 lbs). Before installing backer block to a double I-joist, drive three additional 3" nails through the webs and filler block when the backer block will fit. Clinch. Install backer right to top flange. Use twelve 3" nails, clinched when possible. Maximum factored resistance for hanger for this detail = 1,620 lbs.

Double I-joist header.

Top- or face-mount hanger.

Filler block per detail 1p.

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

Backer block required (both sides for face-mount hangers).

14 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-PF No. 2 or better for solid saw lumber and wood structural panels conforming to CAN/CSA-O337 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".

15 Top- or face-mount hanger installed per manufacturer's recommendations.

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.

16 2x plate flush with inside face of wall or beam. 1/8" overhang allowed past inside face of wall or beam.

Top-mount hanger installed per manufacturer's recommendations.

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

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

Filler block per detail 1p.

Install hanger per manufacturer's recommendations.

Backer block attached per detail 1h. Nail with twelve 3" nails, clinched when possible.

Maximum support capacity = 1,620 lbs.

18 Do not level-cut joist beyond inside face of wall.

Attach I-joist per detail 1b.

Note: Blocking required at bearing for lateral resistance to roof trusses for clarity.

19 Filler block

Offset nails from opposite face by 6"

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

Notes:

- Support back of I-joist web during nailing to prevent damage to web/flange connection.
- Leave a 1/8" to 1/4" gap between top of filler block and bottom of top I-joist flange.
- Filler block is required between joists for full length of span.
- 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.
- 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"	21/8" x 6"
	11-7/8"	21/8" x 8"
	14"	21/8" x 10"
	16"	21/8" x 12"
2-1/2" 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"

19 Lumber 2x4 min., extend block to face of adjacent webs. Two 2-1/2" spiral nails from each web to lumber piece, alternate on opposite side.

Filler blocking panel.

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

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

Notes:

- In some local codes, blocking is prescriptively required in the first joist space (or first and second joist space) next to the stark 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.

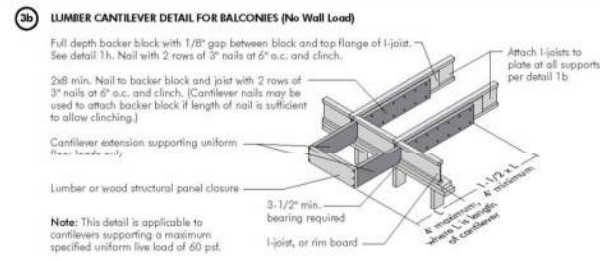
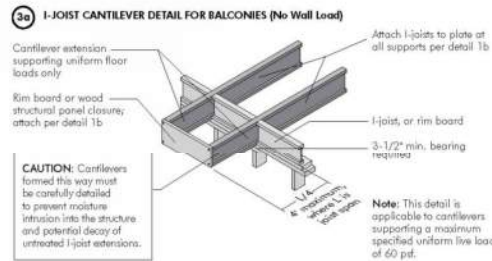
Details released after April 2014 supersedes N-C301

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

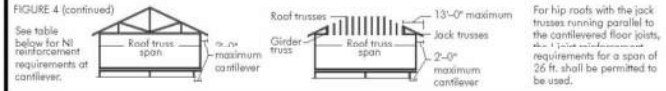
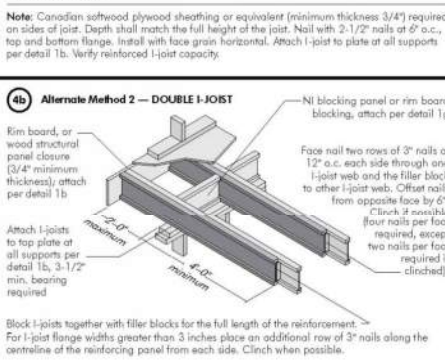
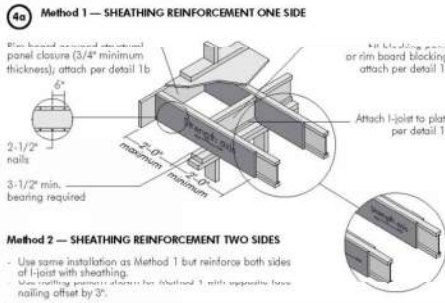
This document does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of its component based on the design criteria and loadings shown on the calculation sheets.



CANTILEVER DETAILS FOR BALCONIES (NO WALL LOAD)



CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET (CONCENTRATED WALL LOAD)

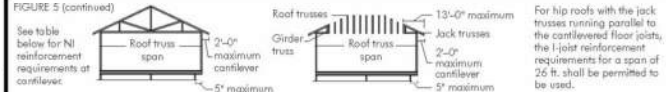
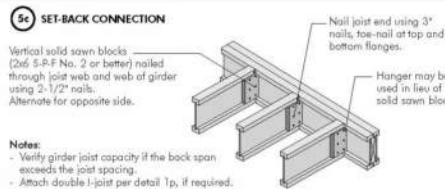
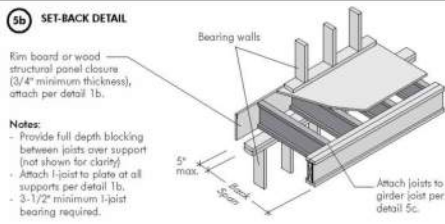
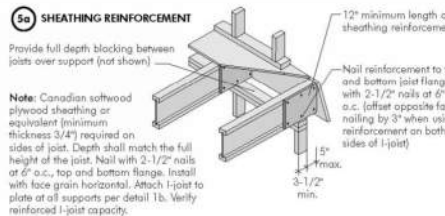


CANTILEVER REINFORCEMENT METHODS ALLOWED

Joist Depth (in.)	Roof Truss Span (ft)	ROOF LOADING (UNFACTORED)							
		LL = 30 psf, DL = 15 psf				LL = 40 psf, DL = 15 psf			
		Joist Spacing (in.)				Joist Spacing (in.)			
		12	16	19.2	24	12	16	19.2	24
9-1/2	26	N	N	1	2	N	1	2	X
	28	N	N	1	X	N	1	2	X
	30	N	1	1	X	N	1	2	X
	32	N	1	2	X	N	2	X	X
	34	N	1	2	X	N	2	X	X
11-7/8	26	N	1	2	X	N	1	2	X
	28	N	1	2	X	N	1	2	X
	30	N	1	2	X	N	1	2	X
	32	N	1	2	X	N	1	2	X
	34	N	1	2	X	N	1	2	X
14	26	N	N	N	N	N	N	N	1
	28	N	N	N	N	N	N	N	1
	30	N	N	N	N	N	N	N	1
	32	N	N	N	1	N	N	N	1
	34	N	N	N	1	N	N	N	1
16	26	N	N	N	1	N	N	N	1
	28	N	N	N	1	N	N	N	1
	30	N	N	N	1	N	N	N	1
	32	N	N	N	N	N	N	N	1
	34	N	N	N	N	N	N	N	1

- N = No reinforcement required.
- Ni reinforced with 3/4" wood structural panel on one side only.
- Ni reinforced with 3/4" wood structural panel on both sides, or double I-joist.
- X = Try a deeper joist or closer spacing.
- Maximum design load shall be: 15 psf roof dead load, 65 psf floor total load, and 80 psf wall load. Wall load is based on 9'-0" maximum width window or door openings.
- For larger openings, or multiple 9'-0" width openings spaced less than 6'-0" o.c., additional joists beneath the opening's cripple studs may be required.
- 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.
- For conventional roof construction using a ridge beam, the Roof Truss Span column above is equivalent to the distance between the supporting wall and the ridge beam. When the roof is framed using a ridge beam, the Roof Truss Span is equivalent to the distance between the supporting walls or if a truss is used.
- Cantilevered joists supporting girder trusses or roof beams may require additional reinforcing.

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



BRICK CANTILEVER REINFORCEMENT METHODS ALLOWED

Joist Depth (in.)	Roof Truss Span (ft)	ROOF LOADING (UNFACTORED)							
		LL = 30 psf, DL = 15 psf				LL = 40 psf, DL = 15 psf			
		Joist Spacing (in.)				Joist Spacing (in.)			
		12	16	19.2	24	12	16	19.2	24
9-1/2	26	1	X	X	X	2	X	X	X
	28	1	X	X	X	2	X	X	X
	30	1	X	X	X	2	X	X	X
	32	2	X	X	X	2	X	X	X
	34	2	X	X	X	2	X	X	X
11-7/8	26	X	2	X	X	X	X	X	X
	28	X	2	X	X	X	X	X	X
	30	X	2	X	X	X	X	X	X
	32	X	2	X	X	X	X	X	X
	34	X	2	X	X	X	X	X	X
14	26	N	2	X	X	1	X	X	X
	28	N	2	X	X	1	X	X	X
	30	N	2	X	X	1	X	X	X
	32	1	X	X	X	2	X	X	X
	34	1	X	X	X	2	X	X	X
16	26	1	X	X	X	2	X	X	X
	28	1	X	X	X	2	X	X	X
	30	1	X	X	X	2	X	X	X
	32	1	X	X	X	2	X	X	X
	34	1	X	X	X	2	X	X	X

- N = No reinforcement required.
- Ni reinforced with 3/4" wood structural panel on one side only.
- Ni reinforced with 3/4" wood structural panel on both sides, or double I-joist.
- X = Try a deeper joist or closer spacing.
- Maximum design load shall be: 15 psf roof dead load, 65 psf floor total load, and 80 psf wall load. Wall load is based on 9'-0" maximum width window or door openings.
- For larger openings, or multiple 9'-0" width openings spaced less than 6'-0" o.c., additional joists beneath the opening's cripple studs may be required.
- 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.
- For conventional roof construction using a ridge beam, the Roof Truss Span column above is equivalent to the distance between the supporting wall and the ridge beam. When the roof is framed using a ridge beam, the Roof Truss Span is equivalent to the distance between the supporting walls or if a truss is used.
- Cantilevered joists supporting girder trusses or roof beams may require additional reinforcing.



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/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 canilevered 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 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
9-1/2"	NI-20	0-7"	1-6"	2-10"	4-3"	5-3"	6-0"	---	---	---	---	---	---
	NI-40x	0-7"	1-6"	3-0"	4-4"	6-3"	6-4"	---	---	---	---	---	---
	NI-60	1-3"	2-6"	4-0"	5-4"	7-3"	7-5"	---	---	---	---	---	---
	NI-80	2-0"	3-4"	4-8"	6-2"	8-1"	8-4"	---	---	---	---	---	---
11-7/8"	NI-20	0-7"	0-8"	1-0"	2-4"	3-3"	4-0"	5-0"	6-6"	7-9"	---	---	---
	NI-40x	0-7"	0-8"	1-3"	2-8"	4-3"	4-4"	5-5"	7-0"	8-4"	---	---	---
	NI-60	0-7"	1-8"	3-0"	4-3"	5-2"	6-0"	7-3"	8-10"	10-0"	---	---	---
	NI-70	1-3"	2-6"	4-0"	5-4"	6-3"	7-2"	8-4"	10-0"	11-2"	---	---	---
14"	NI-80	1-6"	2-10"	4-2"	5-6"	7-3"	7-5"	8-6"	10-3"	11-4"	---	---	---
	NI-90	0-7"	0-8"	0-9"	2-5"	4-4"	4-9"	6-3"	---	---	---	---	---
	NI-40x	0-7"	0-8"	0-8"	1-0"	2-4"	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"
16"	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-90	0-7"	0-8"	0-8"	2-0"	3-2"	4-2"	5-5"	7-3"	8-5"	9-2"	---	---
	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"
18"	NI-70	0-7"	1-0"	2-3	3-6	4-10	3-3	6-3	7-8	8-6	9-2	10-8	12-0
	NI-80	0-7"	1-3"	2-6"	3-10"	5-3"	5-6"	6-6"	8-0"	9-0"	9-8"	11-0"	12-3"
	NI-90	0-7"	0-8"	0-9"	2-0"	3-5"	4-0"	5-0"	6-9"	7-9"	8-4"	10-2"	11-6"
	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"

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

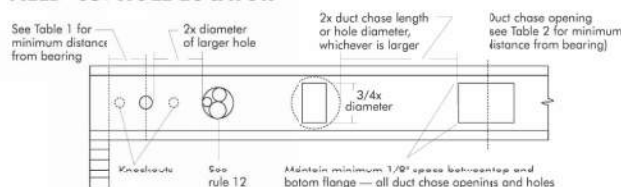
Simple Span Only

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	26	28	30
9-1/2"	NI-20	4-1"	4-5"	4-10"	5-4"	5-8"	6-1"	6-6"	7-1"	7-5"	---	---	---
	NI-40x	5-3"	5-8"	6-0"	6-5"	6-10"	7-3"	7-8"	8-2"	8-6"	---	---	---
	NI-60	5-4"	5-9"	6-2"	6-7"	7-1"	7-5"	8-0"	8-3"	8-9"	---	---	---
	NI-80	6-1"	6-6"	6-10"	7-3"	7-8"	8-2"	8-6"	9-0"	9-4"	---	---	---
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"	---	---	---
14"	NI-80	7-2"	7-7"	8-0"	8-5"	8-10"	9-4"	9-8"	10-2"	10-8"	---	---	---
	NI-90	7-7"	8-1"	8-5"	8-10"	9-4"	9-8"	10-2"	10-8"	11-2"	---	---	---
	NI-40x	8-1"	8-7"	9-0"	9-6"	10-1"	10-7"	11-2"	12-0"	12-8"	---	---	---
	NI-60	8-9"	9-3"	9-8"	10-1"	10-6"	11-1"	11-6"	12-3"	13-0"	---	---	---
16"	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-90	9-4"	9-9"	10-3"	10-7"	11-1"	11-7"	12-1"	12-7"	13-2"	---	---	---
	NI-60	10-3"	10-8"	11-2"	11-6"	12-1"	12-6"	13-2"	14-1"	14-10"	---	---	---
18"	NI-70	10-1"	10-5"	11-0"	11-4"	11-10"	12-3"	12-8"	13-2"	14-0"	---	---	---
	NI-80	10-4"	10-9"	11-3"	11-9"	12-1"	12-7"	13-1"	13-6"	14-4"	---	---	---
	NI-90	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 pre-cored holes provided for the contractor's convenience to install electrical or small plumbing lines. They are 1-1/2 inches in diameter, and are spaced 15 inches on centre along the length of the I-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.

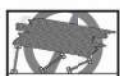
Holes in webs should be cut with a sharp saw.

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 unshathed 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-briding at joist ends. When I-joists are installed 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, when called for, 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-briding.
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.

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1a NI blocking panel

Attach I-joint to top plate per detail 1b

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

Blocking Panel or Rim Joist	Maximum Factored Uniform Vertical Load* (plf)
N 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 Rim board

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

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

*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-joint. Nails may be driven at an angle to avoid splitting of bearing plate.

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

1d NI or rim board blocking panel per detail 1a

Squash block

Pair of Squash Blocks

Pair of Squash Blocks	Maximum Factored Vertical Load per Pair of Squash Blocks (lbs)
2x Lumber	5,500
1-1/8" Kim Board Plus	4,300

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

Provide lateral bracing per detail 1a or 1b

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

1f Joist attachment per detail 1b

2-1/2" nails at 6" o.c. to top plate

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

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

NI blocking panel per detail 1a

1h Backer block (use if hanger load exceeds 360 lbs). Before installing a backer block to a double I-joint, drive three additional 3" nails through the webs 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 wood 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".

Top- or face-mount hanger

Double I-joint header

Filler block - per detail 1p

Backer block required (both sides for face-mount hangers)

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

1i Nordic Lam or Structural Composite Lumber (SCL)

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

Top- or face-mount hanger installed per manufacturer's recommendations

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

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

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

Top-mount hanger installed per manufacturer's recommendations

1m Multiple I-joint header with full depth filler block shown. Nordic Lam or SCL headers may also be used. Verify double I-joint capacity to support concentrated loads.

Backer block attached per detail 1h. Nail with twelve 3" nails, clinch when possible.

Install hanger per manufacturer's recommendations

Maximum support capacity = 1,620 lbs.

1n Do not bevel-cut joist beyond inside face of wall

Attach I-joint per detail 1b

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

1r Lumber 2x4 min., extend blocks to face of adjacent web. Two 2-1/2" spiral nails from each web to lumber piece, alternate on opposite side

NI blocking panel

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

1p FILLER BLOCK REQUIREMENTS FOR DOUBLE I-JOIST CONSTRUCTION

Filler block

Offset nails from opposite face by 6"

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

NOTES:

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

Flange Size	Net Depth	Filler Block Size
2-1/2" x 1-1/2"	1-1/8" x 1-7/8"	2-1/8" x 8"
	4"	2-1/8" x 10"
	6"	2-1/8" x 12"
3-1/2" x 1-1/2"	1-1/2" x 1-7/8"	3" x 6"
	4"	3" x 8"
	6"	3" x 10"
3-1/2" x 2"	1-7/8" x 1-7/8"	3" x 7"
	4"	3" x 9"
	6"	3" x 11"

1s One 2-1/2" nail at top and bottom flange

2x4 min. (1/8" gap minimum)

Two 2-1/2" nails from each web to lumber piece

I-joint blocking panel

One 2-1/2" nail one side only

NOTE:

- In some local codes, blocking is prescriptively required in the first joist space (or first and second joist space) next to the starter joist. Where required, see local code requirements for spacing of the blocking.
- 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" (0.125" 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.

WEB STIFFENERS

RECOMMENDATIONS:

- A **bearing stiffener** is required in all engineered applications with factored reactions greater than shown in the I-joint properties table found in the I-Joint Construction Guide (C101). The gap between the stiffener and the flange is at the top.
- A **bearing stiffener** is required when the I-joint 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 area of a stiffener, anywhere between the stiffener top 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

Flange width 2-1/2" or 3-1/2"

Approx. 2"

1/8" - 1/4" Gap

(4) 2-1/2" nails, 3" nails required for I-joints with 3-1/2" flange width

No Gap

See the adjacent table for web stiffener size requirements

CONCENTRATED LOAD (Load stiffener)

Tight Joint No Gap

Gap

END BEARING (Bearing stiffener)

Gap

Tight Joint No Gap

Flange Width	Web Stiffener Size Each Side of Web
2-1/2"	1" x 2-5/8" 6" minimum width
3-1/2"	1-1/2" x 2-1/8" 6" minimum width

CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET

Method 1 — SHEATHING REINFORCEMENT ONE SIDE

Rim board or wood structural panel closure (3/4" minimum thickness); attach per detail 1b

6"

2-1/2" nails

3-1/2" min. bearing required

NI blocking panel or rim board blocking, attach per detail 1g

Attach I-joint to plate per detail 1b

Strength axis

2-0" minimum

2-0" minimum

Method 2 — SHEATHING REINFORCEMENT TWO SIDES

Use same installation as Method 1 but reinforce both sides of I-joint 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-joint to plate at all supports per detail 1b. Verify reinforced I-joint capacity.

RIM BOARD INSTALLATION DETAILS

8a ATTACHMENT DETAILS WHERE RIM BOARDS ABUT

Rim Board Joint Between Floor Joists

(1) 2-1/2" nail top and bottom (typical)

2-1/2" nails at 6" o.c. (typical)

2-1/2" toe-nails at 6" o.c. (typical)

Rim board joint

Rim Board Joint at Corner

2-1/2" nails

h

1-1/2"

1-1/2"

8b TOE-NAIL CONNECTION AT RIMBOARD

Rim board

Top or sole plate

30°

1/3

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