



Job Title	45147	Builder	Gold Park Homes	Sheet	1 of 4
Layout No.	343077-346144*	Project	Pine Valley Ph2	Date	Jul. 18, 2022
Plan Log	118158	Model	5013 A CU - Lot 88, 129	Designer	TL
THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALFA ROOF TRUSSES INC. AND WILL BE REINACTED BY ALFA ROOF TRUSSES INC. IF UTILIZED FOR ANY OTHER PURPOSE.					
Mark V. 6.5.223					

GROUND FLOOR FRAMING
UNIT 5013 - THE RIVERVIEW
ELEVATION A
CORNER UPGRADE
LOT 88, 129

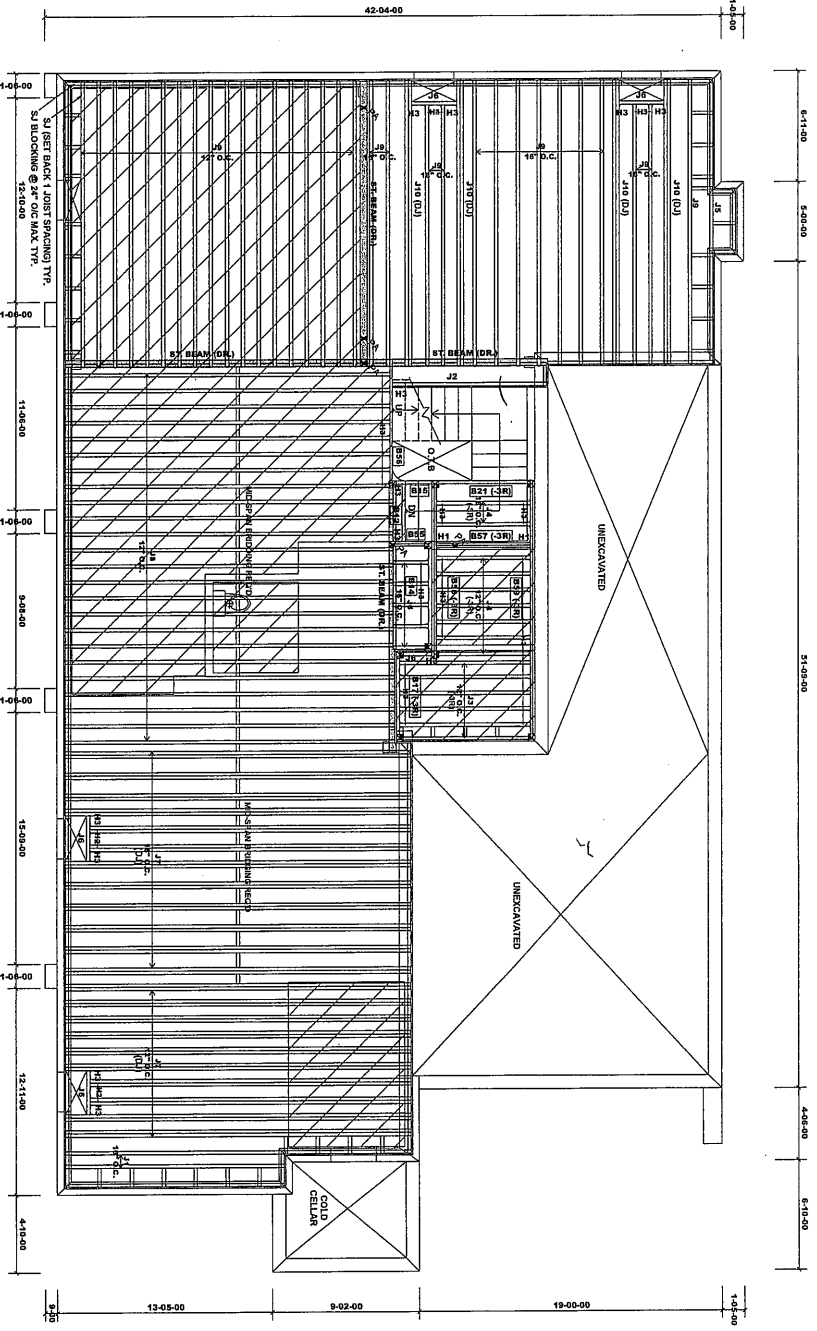
SE046658 - SE046701
SE049384 - SE049449

FLOOR LOADING
LIVE LOAD: 40 PSF
DEAD LOAD: 10 PSF
DEAD LOAD (TILE): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
GT - GIRDER TRUSS
RT - ROOF TRUSS
RUMPOLO
1-1/8" X 11-7/8" O.S.B
SUPERLOOR 3/4" NAILED & GLUED*

Blocking panels are required over all interior
Squash blocks are required under concentrated
loads.
Ceramic Tile Application as per O.S.C. 9.30.6
Provide 1x6 blocking between cantilevered
ends (along bearing) and finished concrete at
ends.
Do not scale - refer to architectural plans for
dimensions.



Connector Summary			
PlatID	Qty	Manuf	Product
H1	2		HGUS410
H2	4		HU312-2
H3	55		LT251188

Product	Material	Quantity
B12	11.75" N-20	1
B14	11.75" N-20	1
B16	11.75" N-20	1
B18	11.75" N-20	1
B20	11.75" N-20	1
B22	11.75" N-20	1
B24	11.75" N-20	1
B26	11.75" N-20	1
B28	11.75" N-20	1
B30	11.75" N-20	1
B32	11.75" N-20	1
B34	11.75" N-20	1
B36	11.75" N-20	1
B38	11.75" N-20	1
B40	11.75" N-20	1
B42	11.75" N-20	1
B44	11.75" N-20	1
B46	11.75" N-20	1
B48	11.75" N-20	1
B50	11.75" N-20	1
B52	11.75" N-20	1
B54	11.75" N-20	1
B56	11.75" N-20	1
B58	11.75" N-20	1
B60	11.75" N-20	1
B62	11.75" N-20	1
B64	11.75" N-20	1
B66	11.75" N-20	1
B68	11.75" N-20	1
B70	11.75" N-20	1
B72	11.75" N-20	1
B74	11.75" N-20	1
B76	11.75" N-20	1
B78	11.75" N-20	1
B80	11.75" N-20	1
B82	11.75" N-20	1
B84	11.75" N-20	1
B86	11.75" N-20	1
B88	11.75" N-20	1
B90	11.75" N-20	1
B92	11.75" N-20	1
B94	11.75" N-20	1
B96	11.75" N-20	1
B98	11.75" N-20	1
B100	11.75" N-20	1



Job Title: 45147
Project: 343077-346144*
Plan Log: 118158

Builder: Gold Park Homes
Project: Pine Valley Ph2
Model: 5013 A CU - Lot 88, 129

Location: Vaughan ON
Salesperson: Derek F.
Vendor: Home Lumber Inc.

Sheet: 2 of 4
Date: Jul. 18, 2022
Designer: TL

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Mark V. 453233

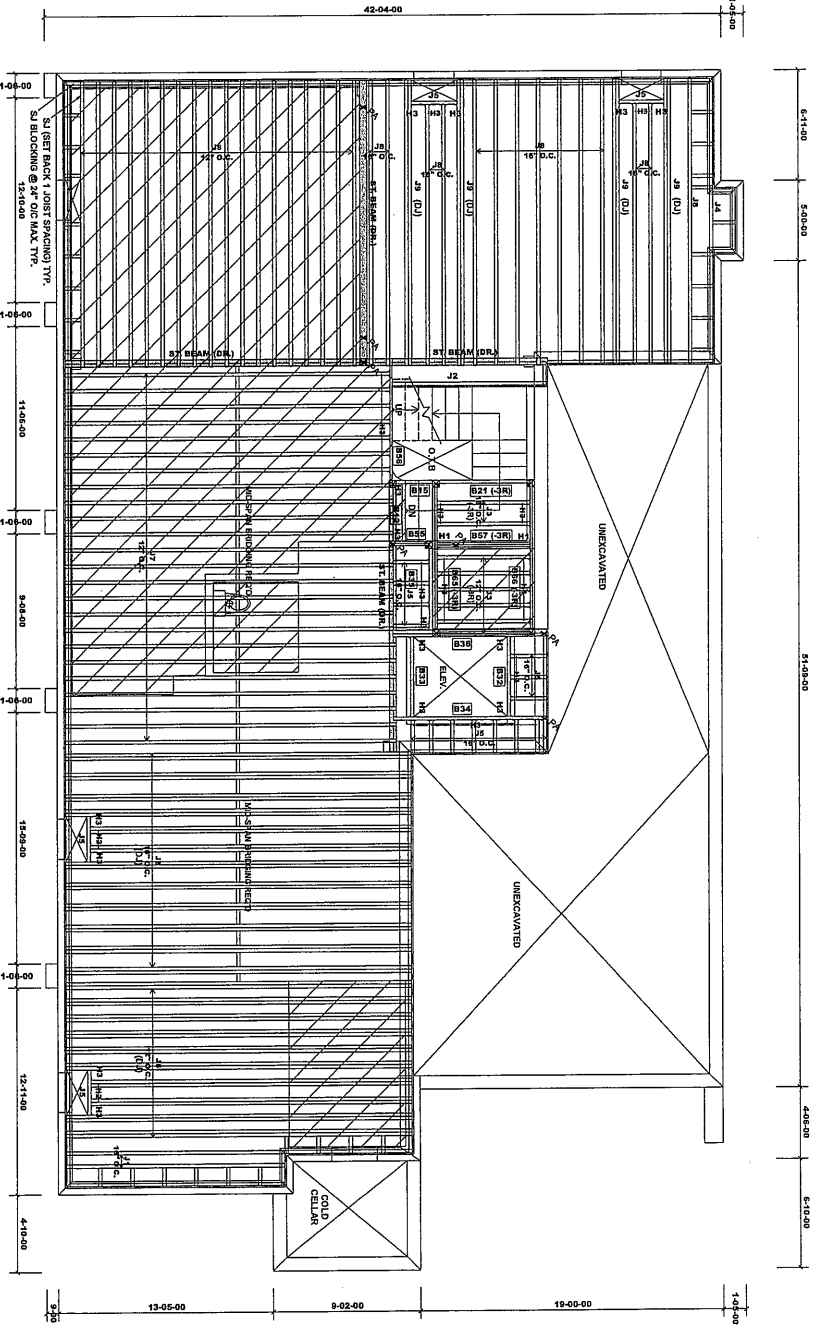
GROUND FLOOR FRAMING
UNIT 5013 - THE RIVERVIEW
ELEVATION A
CORNER UPGRADE
W/ ELEVATOR
LOT 88, 129

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

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
RT - ROOF TRUSS
RIBBON - RIBBON
SUBFLOOR 3/4" NAILED & GULFED

Bricklaying panels are required over all interior supports.
Ceramic tile application as per O.B.C. 9.30.6
Provide L-shaped blocking between cantilevered joists (strong bearing) and structural closure at ends.
Do not scale - refer to architectural plans for dimensions.



Item	Length	Product	Notes
B12	4'-00-00	11/78" N-20	1
B15	3'-00-00	11/78" N-20	1
B16	11'-00-00	11/78" N-20	1
B22 (C/R)	5'-00-00	11/78" N-20	1
B23	5'-00-00	11/78" N-20	1
B24	10'-00-00	11/78" N-20	1
B25	3'-00-00	11/78" N-20	1
B26	3'-00-00	11/78" N-20	1
B27 (C/R)	10'-00-00	11/78" N-20	1
B28 (C/R)	10'-00-00	11/78" N-20	1
B29	10'-00-00	11/78" N-20	1
B30	10'-00-00	11/78" N-20	1
B31	10'-00-00	11/78" N-20	1
B32	10'-00-00	11/78" N-20	1
B33	10'-00-00	11/78" N-20	1
B34	10'-00-00	11/78" N-20	1
B35	10'-00-00	11/78" N-20	1
B36	10'-00-00	11/78" N-20	1
B37 (C/R)	10'-00-00	11/78" N-20	1
B38 (C/R)	10'-00-00	11/78" N-20	1
B39	10'-00-00	11/78" N-20	1
B40	10'-00-00	11/78" N-20	1
B41	10'-00-00	11/78" N-20	1
B42	10'-00-00	11/78" N-20	1
B43	10'-00-00	11/78" N-20	1
B44	10'-00-00	11/78" N-20	1
B45	10'-00-00	11/78" N-20	1
B46	10'-00-00	11/78" N-20	1
B47	10'-00-00	11/78" N-20	1
B48	10'-00-00	11/78" N-20	1
B49	10'-00-00	11/78" N-20	1
B50	10'-00-00	11/78" N-20	1
B51	10'-00-00	11/78" N-20	1
B52	10'-00-00	11/78" N-20	1
B53	10'-00-00	11/78" N-20	1
B54	10'-00-00	11/78" N-20	1
B55	10'-00-00	11/78" N-20	1
B56	10'-00-00	11/78" N-20	1
B57 (C/R)	10'-00-00	11/78" N-20	1
B58 (C/R)	10'-00-00	11/78" N-20	1
B59	10'-00-00	11/78" N-20	1
B60	10'-00-00	11/78" N-20	1
B61	10'-00-00	11/78" N-20	1
B62	10'-00-00	11/78" N-20	1
B63	10'-00-00	11/78" N-20	1
B64	10'-00-00	11/78" N-20	1
B65	10'-00-00	11/78" N-20	1
B66	10'-00-00	11/78" N-20	1
B67 (C/R)	10'-00-00	11/78" N-20	1
B68 (C/R)	10'-00-00	11/78" N-20	1
B69	10'-00-00	11/78" N-20	1
B70	10'-00-00	11/78" N-20	1
B71	10'-00-00	11/78" N-20	1
B72	10'-00-00	11/78" N-20	1
B73	10'-00-00	11/78" N-20	1
B74	10'-00-00	11/78" N-20	1
B75	10'-00-00	11/78" N-20	1
B76	10'-00-00	11/78" N-20	1
B77 (C/R)	10'-00-00	11/78" N-20	1
B78 (C/R)	10'-00-00	11/78" N-20	1
B79	10'-00-00	11/78" N-20	1
B80	10'-00-00	11/78" N-20	1
B81	10'-00-00	11/78" N-20	1
B82	10'-00-00	11/78" N-20	1
B83	10'-00-00	11/78" N-20	1
B84	10'-00-00	11/78" N-20	1
B85	10'-00-00	11/78" N-20	1
B86	10'-00-00	11/78" N-20	1
B87 (C/R)	10'-00-00	11/78" N-20	1
B88 (C/R)	10'-00-00	11/78" N-20	1
B89	10'-00-00	11/78" N-20	1
B90	10'-00-00	11/78" N-20	1
B91	10'-00-00	11/78" N-20	1
B92	10'-00-00	11/78" N-20	1
B93	10'-00-00	11/78" N-20	1
B94	10'-00-00	11/78" N-20	1
B95	10'-00-00	11/78" N-20	1
B96	10'-00-00	11/78" N-20	1
B97 (C/R)	10'-00-00	11/78" N-20	1
B98 (C/R)	10'-00-00	11/78" N-20	1
B99	10'-00-00	11/78" N-20	1
B100	10'-00-00	11/78" N-20	1
B101	10'-00-00	11/78" N-20	1
B102	10'-00-00	11/78" N-20	1
B103	10'-00-00	11/78" N-20	1
B104	10'-00-00	11/78" N-20	1
B105	10'-00-00	11/78" N-20	1
B106	10'-00-00	11/78" N-20	1
B107 (C/R)	10'-00-00	11/78" N-20	1
B108 (C/R)	10'-00-00	11/78" N-20	1
B109	10'-00-00	11/78" N-20	1
B110	10'-00-00	11/78" N-20	1
B111	10'-00-00	11/78" N-20	1
B112	10'-00-00	11/78" N-20	1
B113	10'-00-00	11/78" N-20	1
B114	10'-00-00	11/78" N-20	1
B115	10'-00-00	11/78" N-20	1
B116	10'-00-00	11/78" N-20	1
B117 (C/R)	10'-00-00	11/78" N-20	1
B118 (C/R)	10'-00-00	11/78" N-20	1
B119	10'-00-00	11/78" N-20	1
B120	10'-00-00	11/78" N-20	1
B121	10'-00-00	11/78" N-20	1
B122	10'-00-00	11/78" N-20	1
B123	10'-00-00	11/78" N-20	1
B124	10'-00-00	11/78" N-20	1
B125	10'-00-00	11/78" N-20	1
B126	10'-00-00	11/78" N-20	1
B127 (C/R)	10'-00-00	11/78" N-20	1
B128 (C/R)	10'-00-00	11/78" N-20	1
B129	10'-00-00	11/78" N-20	1
B130	10'-00-00	11/78" N-20	1
B131	10'-00-00	11/78" N-20	1
B132	10'-00-00	11/78" N-20	1
B133	10'-00-00	11/78" N-20	1
B134	10'-00-00	11/78" N-20	1
B135	10'-00-00	11/78" N-20	1
B136	10'-00-00	11/78" N-20	1
B137 (C/R)	10'-00-00	11/78" N-20	1
B138 (C/R)	10'-00-00	11/78" N-20	1
B139	10'-00-00	11/78" N-20	1
B140	10'-00-00	11/78" N-20	1
B141	10'-00-00	11/78" N-20	1
B142	10'-00-00	11/78" N-20	1
B143	10'-00-00	11/78" N-20	1
B144	10'-00-00	11/78" N-20	1
B145	10'-00-00	11/78" N-20	1
B146	10'-00-00	11/78" N-20	1
B147 (C/R)	10'-00-00	11/78" N-20	1
B148 (C/R)	10'-00-00	11/78" N-20	1
B149	10'-00-00	11/78" N-20	1
B150	10'-00-00	11/78" N-20	1
B151	10'-00-00	11/78" N-20	1
B152	10'-00-00	11/78" N-20	1
B153	10'-00-00	11/78" N-20	1
B154	10'-00-00	11/78" N-20	1
B155	10'-00-00	11/78" N-20	1
B156	10'-00-00	11/78" N-20	1
B157 (C/R)	10'-00-00	11/78" N-20	1
B158 (C/R)	10'-00-00	11/78" N-20	1
B159	10'-00-00	11/78" N-20	1
B160	10'-00-00	11/78" N-20	1
B161	10'-00-00	11/78" N-20	1
B162	10'-00-00	11/78" N-20	1
B163	10'-00-00	11/78" N-20	1
B164	10'-00-00	11/78" N-20	1
B165	10'-00-00	11/78" N-20	1
B166	10'-00-00	11/78" N-20	1
B167 (C/R)	10'-00-00	11/78" N-20	1
B168 (C/R)	10'-00-00	11/78" N-20	1
B169	10'-00-00	11/78" N-20	1
B170	10'-00-00	11/78" N-20	1
B171	10'-00-00	11/78" N-20	1
B172	10'-00-00	11/78" N-20	1
B173	10'-00-00	11/78" N-20	1
B174	10'-00-00	11/78" N-20	1
B175	10'-00-00	11/78" N-20	1
B176	10'-00-00	11/78" N-20	1
B177 (C/R)	10'-00-00	11/78" N-20	1
B178 (C/R)	10'-00-00	11/78" N-20	1
B179	10'-00-00	11/78" N-20	1
B180	10'-00-00	11/78" N-20	1
B181	10'-00-00	11/78" N-20	1
B182	10'-00-00	11/78" N-20	1
B183	10'-00-00	11/78" N-20	1
B184	10'-00-00	11/78" N-20	1
B185	10'-00-00	11/78" N-20	1
B186	10'-00-00	11/78" N-20	1
B187 (C/R)	10'-00-00	11/78" N-20	1
B188 (C/R)	10'-00-00	11/78" N-20	1
B189	10'-00-00	11/78" N-20	1
B190	10'-00-00	11/78" N-20	1
B191	10'-00-00	11/78" N-20	1
B192	10'-00-00	11/78" N-20	1
B193	10'-00-00	11/78" N-20	1
B194	10'-00-00	11/78" N-20	1
B195	10'-00-00	11/78" N-20	1
B196	10'-00-00	11/78" N-20	1
B197 (C/R)	10'-00-00	11/78" N-20	1
B198 (C/R)	10'-00-00	11/78" N-20	1
B199	10'-00-00	11/78" N-20	1
B200	10'-00-00	11/78" N-20	1
B201	10'-00-00	11/78" N-20	1
B202	10'-00-00	11/78" N-20	1
B203	10'-00-00	11/78" N-20	1
B204	10'-00-00	11/78" N-20	1
B205	10'-00-00	11/78" N-20	1
B206	10'-00-00	11/78" N-20	1
B207 (C/R)	10'-00-00	11/78" N-20	1
B208 (C/R)	10'-00-00	11/78" N-20	1
B209	10'-00-00	11/78" N-20	1
B210	10'-00-00	11/78" N-20	1
B211	10'-00-00	11/78" N-20	1
B212	10'-00-00	11/78" N-20	1
B213	10'-00-00	11/78" N-20	1
B214	10'-00-00	11/78" N-20	1
B215	10'-00-00	11/78" N-20	1
B216	10'-00-00	11/78" N-20	1
B217 (C/R)	10'-00-00	11/78" N-20	1
B218 (C/R)	10'-00-00	11/78" N-20	1
B219	10'-00-00	11/78" N-20	1
B220	10'-00-00	11/78" N-20	1
B221	10'-00-00	11/78" N-20	1
B222	10'-00-00	11/78" N-20	1
B223	10'-00-00	11/78" N-20	1
B224	10'-00-00	11/78" N-20	1
B225	10'-00-00	11/78" N-20	1
B226	10'-00-00	11/78" N-20	1
B227 (C/R)	10'-00-00	11/78" N-20	1
B228 (C/R)	10'-00-00	11/78" N-20	1
B229	10'-00-00	11/78" N-20	1
B230	10'-00-00	11/78" N-20	1
B231	10'-00-00	11/78" N-20	1
B232	10'-00-00	11/78" N-20	1
B233	10'-00-00	11/78" N-20	1
B234	10'-00-00	11/78" N-20	1
B235	10'-00-00	11/78" N-20	1
B236	10'-00-00	11/78" N-20	1
B237 (C/R)	10'-00-00	11/78" N-20	1
B238 (C/R)	10'-00-00	11/78" N-20	1
B239	10'-00-00	11/78" N-20	1
B240	10'-00-00	11/78" N-20	1
B241	10'-00-00	11/78" N-20	1
B242	10'-00-00	11/78" N-20	1
B243	10'-00-00	11/78" N-20	1
B244	10'-00-00	11/78" N-20	1
B245	10'-00-00	11/78" N-20	1
B246	10'-00-00	11/78" N-20	1
B247 (C/R)	10'-00-00	11/78" N-20	1
B248 (C/R)	10'-00-00	11/78" N-20	1
B249	10'-00-00	11/78" N-20	1
B250	10'-00-00	11/78" N-20	1
B251	10'-00-00	11/78" N-20	1
B252	10'-00-00	11/78" N-20	1
B253	10'-00-00	11/78" N-20	1
B254	10'-00-00	11/78" N-20	1
B255	10'-00-00	11/78" N-20	1
B256	10'-00-00	11/78" N-20	1
B257 (C/R)	10'-00-00	11/78" N-20	1
B258 (C/R)	10'-00-00	11/78" N-20	1
B259	10'-00-00	11/78" N-20	1
B260	10'-00-00	11/78" N-20	1
B261	10'-00-00	11/78" N-20	1
B262	10'-00-00	11/78" N-20	1
B263	10'-00-00	11/78" N-20	1
B264	10'-00-00	11/78" N-20	1
B265	10'-00-00	11/78" N-20	1

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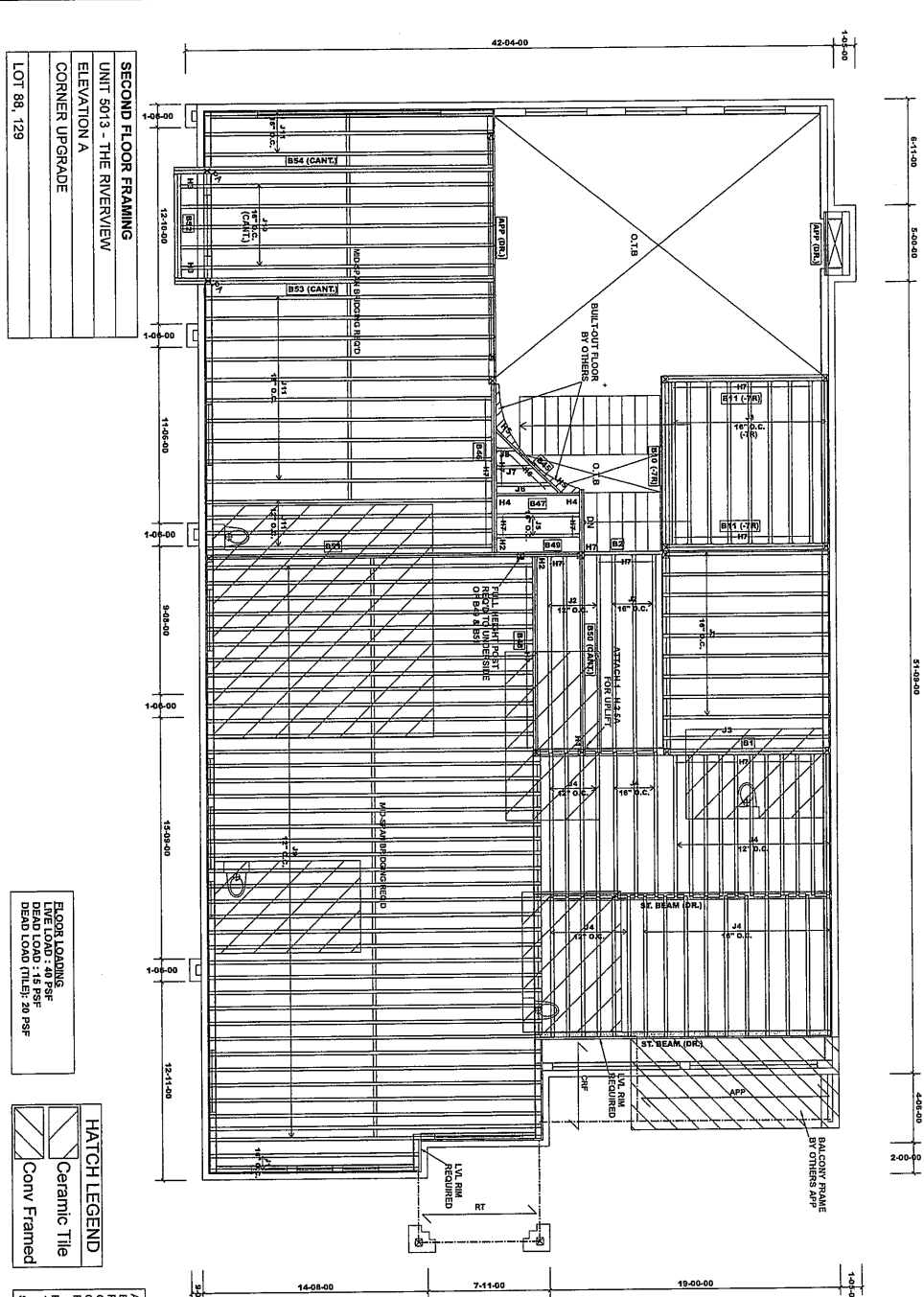
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Make V. 6.5.3.23



SECOND FLOOR FRAMING
UNIT 5013 - THE RIVERVIEW
ELEVATION A
CORNER UPGRADE
LOT 88, 129

FLOOR LOADING
LIVE LOAD : 40 PSF
DEAD LOAD : 15 PSF
DEAD LOAD TRUSS : 20 PSF

HATCH LEGEND

Ceramic Tile

Conv Framed

APP - AS PER PLAN
BBO - BEAM BY OTHERS
PA - POST ABOVE
OTB - OVER TRUSS BELOW
RT - ROOF TRUSS
RUMBOARD
1-1/8" X 11-7/8" O.S.B
SUBFLOOR: 3/4" NAILED & GULFED

Blocking panels are required over all interior support
Squash blocks are required under concentrated loads.
Ceramic tile application as per O.S.C. 5.30.6
Provide 1x6 blocking between cantilevered joists (during setting and finished above it and).
Do not scale - refer to architectural plans for dimensions.

ITEM	QTY	UNIT	PRODUCT
B1	1	EA	12X8
B2	1	EA	12X8
B3	1	EA	12X8
B4	1	EA	12X8
B5	1	EA	12X8
B6	1	EA	12X8
B7	1	EA	12X8
B8	1	EA	12X8
B9	1	EA	12X8
B10	1	EA	12X8
B11	1	EA	12X8
B12	1	EA	12X8
B13	1	EA	12X8
B14	1	EA	12X8
B15	1	EA	12X8
B16	1	EA	12X8
B17	1	EA	12X8
B18	1	EA	12X8
B19	1	EA	12X8
B20	1	EA	12X8
B21	1	EA	12X8
B22	1	EA	12X8
B23	1	EA	12X8
B24	1	EA	12X8
B25	1	EA	12X8
B26	1	EA	12X8
B27	1	EA	12X8
B28	1	EA	12X8
B29	1	EA	12X8
B30	1	EA	12X8
B31	1	EA	12X8
B32	1	EA	12X8
B33	1	EA	12X8
B34	1	EA	12X8
B35	1	EA	12X8
B36	1	EA	12X8
B37	1	EA	12X8
B38	1	EA	12X8
B39	1	EA	12X8
B40	1	EA	12X8
B41	1	EA	12X8
B42	1	EA	12X8
B43	1	EA	12X8
B44	1	EA	12X8
B45	1	EA	12X8
B46	1	EA	12X8
B47	1	EA	12X8
B48	1	EA	12X8
B49	1	EA	12X8
B50	1	EA	12X8
B51	1	EA	12X8
B52	1	EA	12X8
B53	1	EA	12X8
B54	1	EA	12X8
B55	1	EA	12X8
B56	1	EA	12X8
B57	1	EA	12X8
B58	1	EA	12X8
B59	1	EA	12X8
B60	1	EA	12X8
B61	1	EA	12X8
B62	1	EA	12X8
B63	1	EA	12X8
B64	1	EA	12X8
B65	1	EA	12X8
B66	1	EA	12X8
B67	1	EA	12X8
B68	1	EA	12X8
B69	1	EA	12X8
B70	1	EA	12X8
B71	1	EA	12X8
B72	1	EA	12X8
B73	1	EA	12X8
B74	1	EA	12X8
B75	1	EA	12X8
B76	1	EA	12X8
B77	1	EA	12X8
B78	1	EA	12X8
B79	1	EA	12X8
B80	1	EA	12X8
B81	1	EA	12X8
B82	1	EA	12X8
B83	1	EA	12X8
B84	1	EA	12X8
B85	1	EA	12X8
B86	1	EA	12X8
B87	1	EA	12X8
B88	1	EA	12X8
B89	1	EA	12X8
B90	1	EA	12X8
B91	1	EA	12X8
B92	1	EA	12X8
B93	1	EA	12X8
B94	1	EA	12X8
B95	1	EA	12X8
B96	1	EA	12X8
B97	1	EA	12X8
B98	1	EA	12X8
B99	1	EA	12X8
B100	1	EA	12X8



Job Title: 45147
Project: 343077-346144*
Phase: 118158

Subcontractor: Gold Park Homes
Project: Pine Valley Ph2
Model: 5013 A CU - Lot 88, 129

Location: Vaughan ON
Salesperson: Derek F.
Vendor: Home Lumber Inc.

Sheet: 4 of 4
Date: Jul. 18, 2022
Designer: TL

THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALUM ROOF TRUSSES INC. OR UTILIZED BY ANY OTHER WITHOUT PERMISSION OF ALUM ROOF TRUSSES INC. AND WILL BE RETAINED BY ALUM ROOF TRUSSES INC. IF UTILIZED FOR ANY OTHER PURPOSE.

MM Y. 8.5.23

SECOND FLOOR FRAMING
UNIT 5013 - THE RIVERVIEW
ELEVATION A
CORNER UPGRADE
W/ ELEVATOR
LOT 88, 129

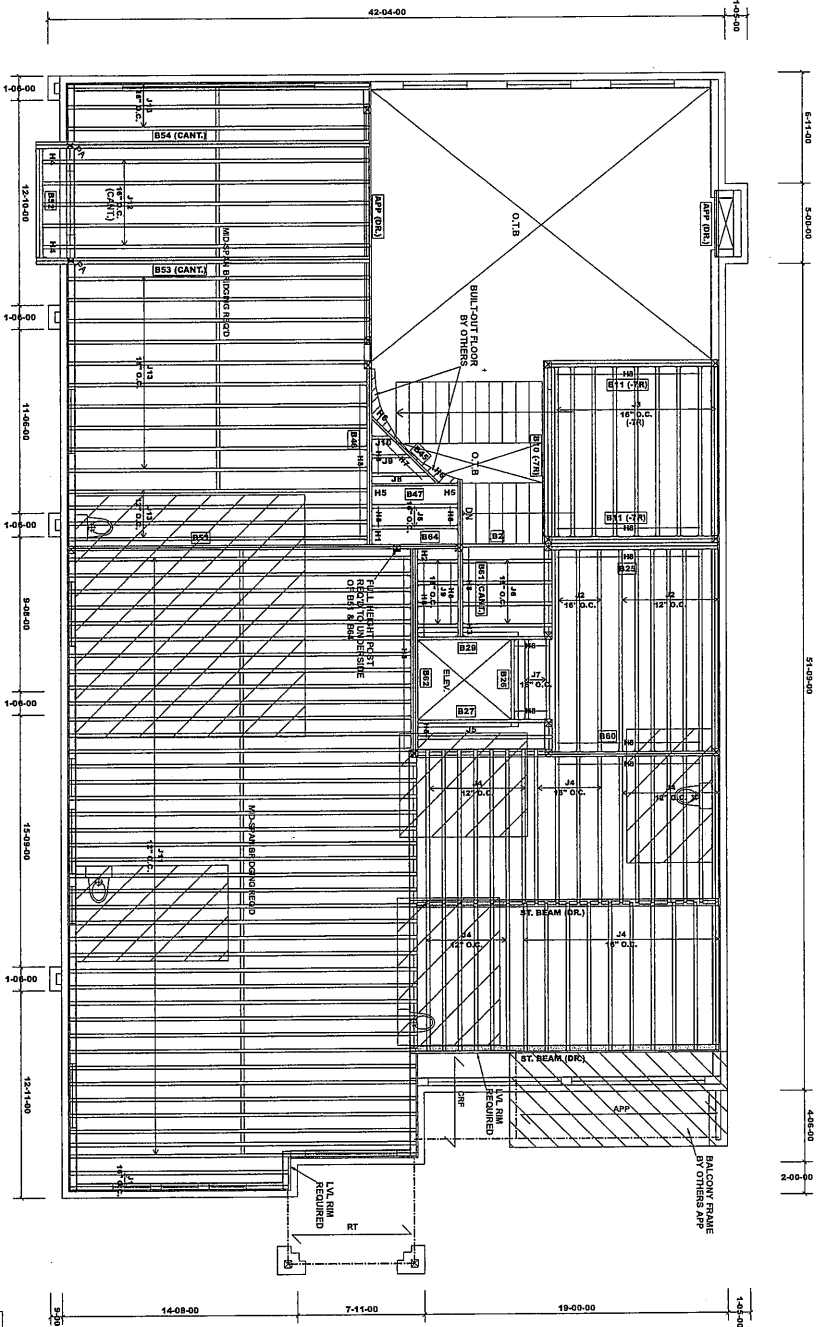
FLOOR LOADING
LIVE LOAD: 40 PSF
DEAD LOAD: 15 PSF
DEAD LOAD (TYP): 20 PSF

HATCH LEGEND
Ceramic Tile
Conv Framed

APP - AS PER PLAN
BBD - BEAM BY OTHERS
PA - POST ABOVE
OT - GORDER TRUSS
RT - ROOF TRUSS
RIMBOARD
1-1/2" X 11-7/8" O.S.B
SUBFLOOR: 3/4" NAILED & GULFED

Blocking panels are required over all interior support Squash blocks are required under concentrated loads.
Ceramic Tile Application as per O.B.C. 8.3.6
Provide 1:10 blocking between cantilevered framing beams and interior blocking at ends.
Do not scale - refer to architectural plans for dimensions.

Field	Qty	Material	Notes
H1	1	HEXUS 5010	
H2	1	HEXUS 5010	
H3	1	HEXUS 5010	
H4	1	HEXUS 5010	
H5	2	HEXUS 5010	
H6	2	HEXUS 5010	
H7	2	HEXUS 5010	
H8	2	HEXUS 5010	
H9	2	HEXUS 5010	
H10	2	HEXUS 5010	
H11	2	HEXUS 5010	
H12	2	HEXUS 5010	
H13	2	HEXUS 5010	
H14	2	HEXUS 5010	
H15	2	HEXUS 5010	
H16	2	HEXUS 5010	
H17	2	HEXUS 5010	
H18	2	HEXUS 5010	
H19	2	HEXUS 5010	
H20	2	HEXUS 5010	
H21	2	HEXUS 5010	
H22	2	HEXUS 5010	
H23	2	HEXUS 5010	
H24	2	HEXUS 5010	
H25	2	HEXUS 5010	
H26	2	HEXUS 5010	
H27	2	HEXUS 5010	
H28	2	HEXUS 5010	
H29	2	HEXUS 5010	
H30	2	HEXUS 5010	
H31	2	HEXUS 5010	
H32	2	HEXUS 5010	
H33	2	HEXUS 5010	
H34	2	HEXUS 5010	
H35	2	HEXUS 5010	
H36	2	HEXUS 5010	
H37	2	HEXUS 5010	
H38	2	HEXUS 5010	
H39	2	HEXUS 5010	
H40	2	HEXUS 5010	
H41	2	HEXUS 5010	
H42	2	HEXUS 5010	
H43	2	HEXUS 5010	
H44	2	HEXUS 5010	
H45	2	HEXUS 5010	
H46	2	HEXUS 5010	
H47	2	HEXUS 5010	
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H62	2	HEXUS 5010	
H63	2	HEXUS 5010	
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H91	2	HEXUS 5010	
H92	2	HEXUS 5010	
H93	2	HEXUS 5010	
H94	2	HEXUS 5010	
H95	2	HEXUS 5010	
H96	2	HEXUS 5010	
H97	2	HEXUS 5010	
H98	2	HEXUS 5010	
H99	2	HEXUS 5010	
H100	2	HEXUS 5010	



Field	Length	Product	Spec	Qty
B1	6'-0"	11-7/8" N-20	1	1
B2	12'-0"	11-7/8" N-20	2	2
B3	12'-0"	11-7/8" N-20	2	2
B4	12'-0"	11-7/8" N-20	2	2
B5	12'-0"	11-7/8" N-20	2	2
B6	12'-0"	11-7/8" N-20	2	2
B7	12'-0"	11-7/8" N-20	2	2
B8	12'-0"	11-7/8" N-20	2	2
B9	12'-0"	11-7/8" N-20	2	2
B10	12'-0"	11-7/8" N-20	2	2
B11	12'-0"	11-7/8" N-20	2	2
B12	12'-0"	11-7/8" N-20	2	2
B13	12'-0"	11-7/8" N-20	2	2
B14	12'-0"	11-7/8" N-20	2	2
B15	12'-0"	11-7/8" N-20	2	2
B16	12'-0"	11-7/8" N-20	2	2
B17	12'-0"	11-7/8" N-20	2	2
B18	12'-0"	11-7/8" N-20	2	2
B19	12'-0"	11-7/8" N-20	2	2
B20	12'-0"	11-7/8" N-20	2	2
B21	12'-0"	11-7/8" N-20	2	2
B22	12'-0"	11-7/8" N-20	2	2
B23	12'-0"	11-7/8" N-20	2	2
B24	12'-0"	11-7/8" N-20	2	2
B25	12'-0"	11-7/8" N-20	2	2
B26	12'-0"	11-7/8" N-20	2	2
B27	12'-0"	11-7/8" N-20	2	2
B28	12'-0"	11-7/8" N-20	2	2
B29	12'-0"	11-7/8" N-20	2	2
B30	12'-0"	11-7/8" N-20	2	2
B31	12'-0"	11-7/8" N-20	2	2
B32	12'-0"	11-7/8" N-20	2	2
B33	12'-0"	11-7/8" N-20	2	2
B34	12'-0"	11-7/8" N-20	2	2
B35	12'-0"	11-7/8" N-20	2	2
B36	12'-0"	11-7/8" N-20	2	2
B37	12'-0"	11-7/8" N-20	2	2
B38	12'-0"	11-7/8" N-20	2	2
B39	12'-0"	11-7/8" N-20	2	2
B40	12'-0"	11-7/8" N-20	2	2
B41	12'-0"	11-7/8" N-20	2	2
B42	12'-0"	11-7/8" N-20	2	2
B43	12'-0"	11-7/8" N-20	2	2
B44	12'-0"	11-7/8" N-20	2	2
B45	12'-0"	11-7/8" N-20	2	2
B46	12'-0"	11-7/8" N-20	2	2
B47	12'-0"	11-7/8" N-20	2	2
B48	12'-0"	11-7/8" N-20	2	2
B49	12'-0"	11-7/8" N-20	2	2
B50	12'-0"	11-7/8" N-20	2	2
B51	12'-0"	11-7/8" N-20	2	2
B52	12'-0"	11-7/8" N-20	2	2
B53	12'-0"	11-7/8" N-20	2	2
B54	12'-0"	11-7/8" N-20	2	2
B55	12'-0"	11-7/8" N-20	2	2
B56	12'-0"	11-7/8" N-20	2	2
B57	12'-0"	11-7/8" N-20	2	2
B58	12'-0"	11-7/8" N-20	2	2
B59	12'-0"	11-7/8" N-20	2	2
B60	12'-0"	11-7/8" N-20	2	2
B61	12'-0"	11-7/8" N-20	2	2
B62	12'-0"	11-7/8" N-20	2	2
B63	12'-0"	11-7/8" N-20	2	2
B64	12'-0"	11-7/8" N-20	2	2
B65	12'-0"	11-7/8" N-20	2	2
B66	12'-0"	11-7/8" N-20	2	2
B67	12'-0"	11-7/8" N-20	2	2
B68	12'-0"	11-7/8" N-20	2	2
B69	12'-0"	11-7/8" N-20	2	2
B70	12'-0"	11-7/8" N-20	2	2
B71	12'-0"	11-7/8" N-20	2	2
B72	12'-0"	11-7/8" N-20	2	2
B73	12'-0"	11-7/8" N-20	2	2
B74	12'-0"	11-7/8" N-20	2	2
B75	12'-0"	11-7/8" N-20	2	2
B76	12'-0"	11-7/8" N-20	2	2
B77	12'-0"	11-7/8" N-20	2	2
B78	12'-0"	11-7/8" N-20	2	2
B79	12'-0"	11-7/8" N-20	2	2
B80	12'-0"	11-7/8" N-20	2	2
B81	12'-0"	11-7/8" N-20	2	2
B82	12'-0"	11-7/8" N-20	2	2
B83	12'-0"	11-7/8" N-20	2	2
B84	12'-0"	11-7/8" N-20	2	2
B85	12'-0"	11-7/8" N-20	2	2
B86	12'-0"	11-7/8" N-20	2	2
B87	12'-0"	11-7/8" N-20	2	2
B88	12'-0"	11-7/8" N-20	2	2
B89	12'-0"	11-7/8" N-20	2	2
B90	12'-0"	11-7/8" N-20	2	2
B91	12'-0"	11-7/8" N-20	2	2
B92	12'-0"	11-7/8" N-20	2	2
B93	12'-0"	11-7/8" N-20	2	2
B94	12'-0"	11-7/8" N-20	2	2
B95	12'-0"	11-7/8" N-20	2	2
B96	12'-0"	11-7/8" N-20	2	2
B97	12'-0"	11-7/8" N-20	2	2
B98	12'-0"	11-7/8" N-20	2	2
B99	12'-0"	11-7/8" N-20	2	2
B100	12'-0"	11-7/8" N-20	2	2



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

Job Name: **343077 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B1 - I50389**
Type: **Beam**

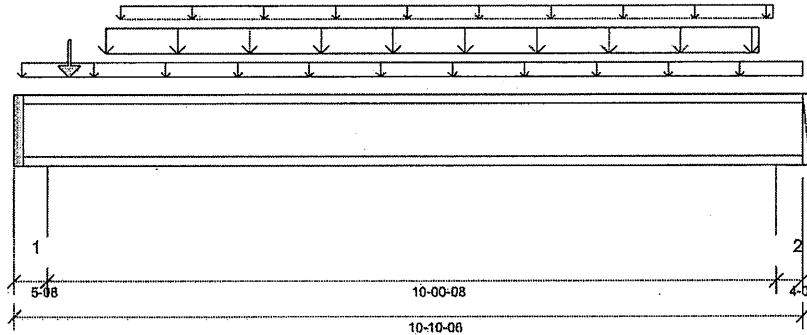
2 Ply Member
11 7/8" NI-20

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 05/02/2022 17:05



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)

Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

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

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

Factored Resistance of Support Material:

- 615 psi Wall @ 0'- 4 1/2"
- 615 psi Wall @ 10'- 7"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 9 1/8"	1.25D + 1.5L	1.00	5751 lb ft	11160 lb ft	Passed - 52%
Factored Shear:	0'- 5 9/16"	1.25D + 1.5L	1.00	2310 lb	4480 lb	Passed - 52%
Live Load (LL) Pos. Defl.:	5'- 5 3/4"	L		0.122"	L/360	Passed - L/990
Total Load (TL) Pos. Defl.:	5'- 5 3/4"	D + L		0.182"	L/240	Passed - L/663

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	2326 lb		4480 lb	16918 lb	Passed - 52%
2	4-06	1.25D + 1.5L	1.00	2135 lb		4480 lb	13458 lb	Passed - 48%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	10'- 10 3/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'- 1 1/4"	10'- 10 3/8"	FC3 Floor Decking (Plan View Fill)	Top	7 lb/ft	18 lb/ft	-	-
Uniform	1'- 3 1/8"	10'- 3 1/8"	Smoothed Load	Front	87 lb/ft	189 lb/ft	-	-
Uniform	1'- 5 1/2"	10'- 5 1/2"	FC3 Floor Decking (Plan View Fill)	Top	2 lb/ft	-	-	-
Point	0'- 9 1/8"	0'- 9 1/8"	J4(I50378)	Front	82 lb	216 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	9(I41702)	528 lb	1111 lb	-	-
2	10'- 6"	10'- 10 3/8"	E25(I41701)	500 lb	1007 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.



53046658



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

Job Name: **343077 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B2 - i50409**
Type: **Beam**

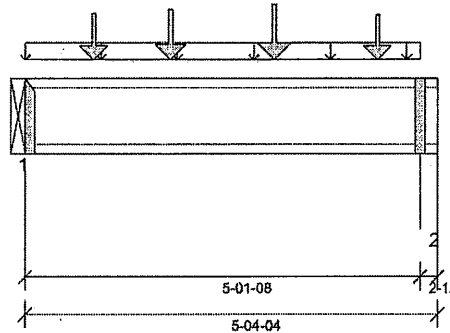
1 Ply Member
11 7/8" NI-20

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 05/02/2022 17:06



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: 1'- 1 1/2"

Factored Resistance of Support Material:

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

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 9 9/16"	1.25D + 1.5L	1.00	1932 lb ft	5580 lb ft	Passed - 35%
Factored Shear:	5'- 1 7/16"	1.25D + 1.5L	1.00	1392 lb	2240 lb	Passed - 62%
Live Load (LL) Pos. Defl.:	2'- 7 1/8"	L		0.030"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	2'- 7 3/16"	D + L		0.048"	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	1359 lb		1970 lb	-	Passed - 69%
2	2-12	1.25D + 1.5L	1.00	1396 lb		2090 lb	4230 lb	Passed - 67%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Top	Face	Member	Other Information or Requirement for Reinforcement Accessories
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'	5'- 4 1/4"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	-0'	5'- 1 1/2"	User Load	Top	60 lb/ft	-	-	-
Point	0'- 10 3/4"	0'- 10 3/4"	J2(i50074)	Front	105 lb	269 lb	-	-
Point	1'- 10 3/4"	1'- 10 3/4"	J2(i50075)	Front	115 lb	307 lb	-	-
Point	3'- 2 3/4"	3'- 2 3/4"	J2(i50504)	Front	132 lb	351 lb	-	-
Point	4'- 6 3/4"	4'- 6 3/4"	J2(i50340)	Front	99 lb	263 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B8 (CANT)(i50483)	386 lb	584 lb	-	-
2	5'- 1 1/2"	5'- 4 1/4"	9(i41702)	388 lb	607 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.



CG046659



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

Job Name: **343077 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B10 (-7R) - i49990**
Type: **Beam**

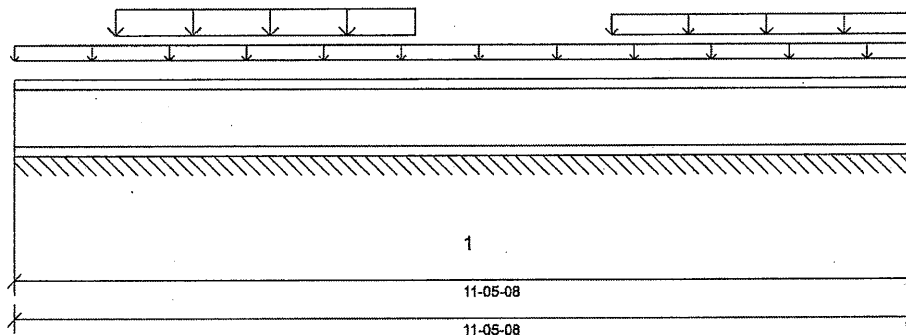
1 Ply Member
11 7/8" NI-20

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 05/02/2022 17:09



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018,
ABC 2019, OBC 2012 (2019
Amendment)

Design Methodology: LSD

Service Condition: Dry

LL Deflection Limit: ,

TL Deflection Limit: ,

Lateral Restraint Requirements:

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

Top: 0' Bottom: 0'

Factored Resistance of Support Material:

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
	N/A	1.25D + 1.5L	1.00	396 lb/ft		3300 lb/ft	-	Passed - 12%
	N/A	1.4D	0.65	59 lb/ft		2145 lb/ft	-	Passed - 3%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	11'- 5 1/2"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	11'- 5 1/2"	FC4 Floor Decking (Plan View Fill)	Top	6 lb/ft	15 lb/ft	-	-
Uniform	1'- 3 1/2"	5'- 1 1/2"	User Load	Top	69 lb/ft	184 lb/ft	-	-
Uniform	7'- 7 1/2"	11'- 5 1/2"	FC4 Floor Decking (Plan View Fill)	Top	34 lb/ft	89 lb/ft	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	11'- 5 1/2"	-	189 lb	487 lb	-	-
++>	0'	1'- 9 1/2"	2(i41666)	8 lb/ft	15 lb/ft	-	-
++>	1'- 3 1/2"	1'- 9 1/2"	2(i41666)	69 lb/ft	184 lb/ft	-	-
++>	1'- 9 1/2"	5'- 1 1/2"	5(i41694)	69 lb/ft	184 lb/ft	-	-
++>	1'- 9 1/2"	11'- 5 1/2"	5(i41694)	8 lb/ft	15 lb/ft	-	-
++>	7'- 7 1/2"	11'- 5 1/2"	5(i41694)	34 lb/ft	89 lb/ft	-	-

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.



83046667



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

Job Name: **343077 Ground A + Second A (1.**
Level: **Second Floor**
Label: **B11 (-7R) - i49912**
Type: **Beam**

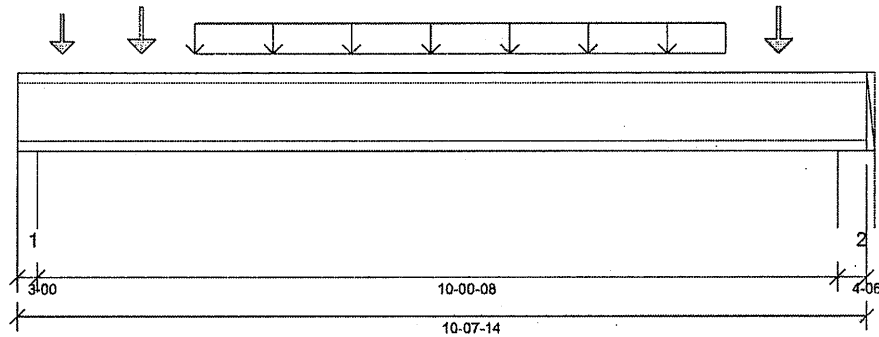
2 Ply Member
11 7/8" NI-20

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 05/02/2022 17:10



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

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 6 5/8"	1.25D + 1.5L	1.00	5996 lb ft	11160 lb ft	Passed - 54%
Factored Shear:	0'- 3 1/16"	1.25D + 1.5L	1.00	2350 lb	4480 lb	Passed - 52%
Live Load (LL) Pos. Defl.:	5'- 3 1/4"	L		0.133"	L/360	Passed - L/903
Total Load (TL) Pos. Defl.:	5'- 3 1/4"	D + L		0.187"	L/240	Passed - L/645

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	2352 lb		4240 lb	9228 lb	Passed - 55%
2	4-06	1.25D + 1.5L	1.00	2198 lb		4480 lb	13457 lb	Passed - 49%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	10'- 7 7/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	2'- 2 5/8"	8'- 10 5/8"	Smoothed Load	Front	86 lb/ft	230 lb/ft	-	-
Point	0'- 6 5/8"	0'- 6 5/8"	J3(i50278)	Front	78 lb	208 lb	-	-
Point	1'- 6 5/8"	1'- 6 5/8"	J3(i50478)	Front	100 lb	287 lb	-	-
Point	9'- 6 5/8"	9'- 6 5/8"	J3(i50507)	Front	100 lb	267 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 3"	2(i41666)	471 lb	1175 lb	-	-
2	10'- 3 1/2"	10'- 7 7/8"	E24(i41700)	442 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.
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- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- When the applied loads are coming from a member/post/wall above that does not sit directly on this beam, adequate load transfer elements, such as squash blocks, wall studs, or beveled plates are required to transfer the loads to this beam.

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.



32046668



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

Job Name: **343077 Ground A + Second A (1**
Level: **Ground Floor**
Label: **B12 - i50356**
Type: **Beam**

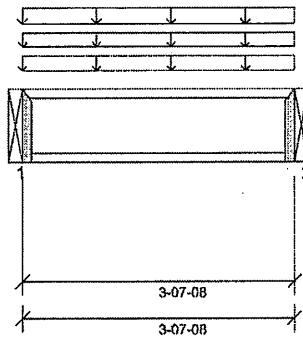
1 Ply Member
11 7/8" NI-20

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 05/02/2022 17:10



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'- 7 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 769 psi Beam @ 3'- 7 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	1'- 9 3/4"	1.25D + 1.5L	1.00	164 lb ft	5580 lb ft	Passed - 3%
Factored Shear:	3'- 7 7/16"	1.25D + 1.5L	1.00	181 lb	2240 lb	Passed - 8%

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	187 lb		1970 lb	-	Passed - 10%
2	1-12	1.25D + 1.5L	1.00	181 lb		1970 lb	-	Passed - 9%

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

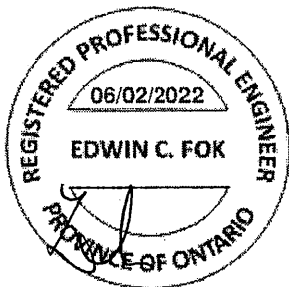
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	3'- 7 1/2"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	3'- 7 1/2"	User Load	Top	13 lb/ft	34 lb/ft	-	-
Uniform	0'	3'- 7 1/2"	FC2 Floor Decking (Plan View Fill)	Top	5 lb/ft	14 lb/ft	-	-
Uniform	0'	3'- 7 1/2"	FC2 Floor Decking (Plan View Fill)	Top	2 lb/ft	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B15(i50756)	43 lb	89 lb	-	-
2	3'- 7 1/2"	3'- 7 1/2"	B13(i50410)	41 lb	87 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.



86046669



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

Job Name: **343077 Ground A + Second A (1**
Level: **Ground Floor**
Label: **B14 - I49988**
Type: **Beam**

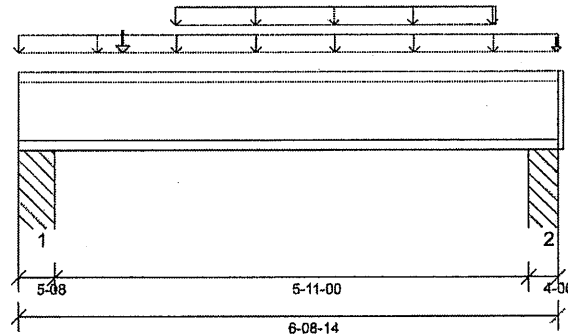
1 Ply Member
11 7/8" NI-20

Status:
Design Passed

Illustration Not to Scale. Pitch: 0/12

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

Report Version: 2021.03.26 05/02/2022 17:10



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 @ 6'- 5 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 6 3/4"	1.25D + 1.5L	0.86	814 lb ft	4780 lb ft	Passed - 17%
Factored Shear:	0'- 5 9/16"	1.25D + 1.5L	0.86	504 lb	1919 lb	Passed - 26%
Live Load (LL) Pos. Defl.:	3'- 5"	L		0.010"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	3'- 5"	D + L		0.025"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	5-08	1.25D + 1.5L	0.86	540 lb		1919 lb	15718 lb	Passed - 28%
2	4-06	1.25D + 1.5L	0.86	527 lb		1919 lb	12503 lb	Passed - 27%

SPECIFIED LOADS

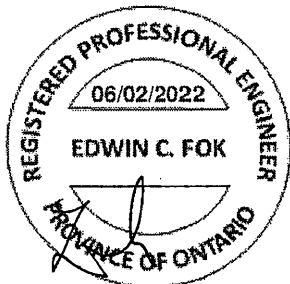
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	6'- 8 7/8"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	6'- 8 7/8"	User Load	Top	60 lb/ft	-	-	-
Uniform	1'- 11 5/8"	5'- 11 5/8"	Smoothed Load	Front	20 lb/ft	51 lb/ft	-	-
Point	1'- 3 5/8"	1'- 3 5/8"	J8(I50551)	Front	24 lb	64 lb	-	-
Point	6'- 8 5/8"	6'- 8 5/8"	FC2 Floor Decking (Plan View Fill)	Top	-	5 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	Pt1(I49863)	267 lb	138 lb	-	-
2	6'- 4 1/2"	6'- 8 7/8"	Pt1(I49863)	260 lb	135 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.



SE046671


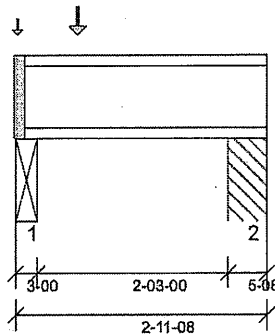
	Customer: Gold Park Homes Job Address: Pine Valley Ph2 City: Vaughan Job Track: 45147	Job Name: 343077 Ground A + Second A (1, Level: Ground Floor Label: B15 - I50756 Type: Beam	1 Ply Member 11 7/8" NI-20	Status: Design Passed
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Illustration Not to Scale. Pitch: 0/12

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

Report Version: 2021.03.26 05/02/2022 17:11



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

Factored Resistance of Support Material:

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

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	0'- 8 3/4"	1.25D + 1.5L	1.00	82 lb ft	5580 lb ft	Passed - 1%
Factored Shear:	0'- 3 1/16"	1.25D + 1.5L	1.00	148 lb	2240 lb	Passed - 7%

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	3-00	1.25D + 1.5L	1.00	151 lb		2120 lb	5770 lb	Passed - 7%
2	5-08	1.25D + 1.5L	1.00	49 lb		2240 lb	18348 lb	Passed - 2%

SPECIFIED LOADS

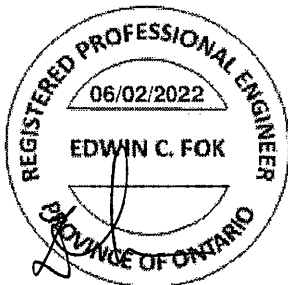
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	2'- 11 1/2"	Self Weight	Top	3 lb/ft	-	-	-
Point	0'- 8 3/4"	0'- 8 3/4"	B12(I50356)	Front	43 lb	89 lb	-	-
Point	0'- 1/4"	0'- 1/4"	FC2 Floor Decking (Plan View Fill)	Top	1 lb	1 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 3"	ST. BEAM (DR.) (I41671)	38 lb	70 lb	-	-
2	2'- 6"	2'- 11 1/2"	P13(I49948)	15 lb	21 lb	-	-

DESIGN NOTES

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



SC046672



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

Job Name: **343077 Ground A + Second A (1,**
Level: **Ground Floor**
Label: **B17 (-3R) - i49970**
Type: **Beam**

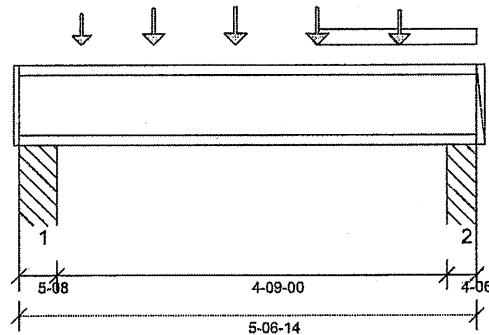
1 Ply Member
11 7/8" NI-20

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 05/02/2022 17:11



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 @ 5'- 3 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 7 5/8"	1.25D + 1.5L	1.00	1118 lb ft	5580 lb ft	Passed - 20%
Factored Shear:	0'- 5 9/16"	1.25D + 1.5L	1.00	869 lb	2240 lb	Passed - 39%
Live Load (LL) Pos. Defl.:	2'- 10"	L		0.017"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	2'- 10"	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	5-08	1.25D + 1.5L	1.00	880 lb		2240 lb	18348 lb	Passed - 39%
2	4-06	1.25D + 1.5L	1.00	826 lb		2240 lb	14595 lb	Passed - 37%

SPECIFIED LOADS

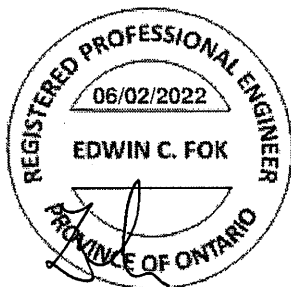
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	5'- 6 7/8"	Self Weight	Top	3 lb/ft	-	-	-
Tapered	3'- 7 5/8"	5'- 6 7/8"	FC1 Floor Decking (Plan View Fill)	Top	4 To 3 lb/ft	11 To 8 lb/ft	-	-
Point	0'- 9 1/8"	0'- 9 1/8"	J3(i49975)	Back	62 lb	123 lb	-	-
Point	1'- 7 5/8"	1'- 7 5/8"	J3(i50443)	Back	80 lb	181 lb	-	-
Point	2'- 7 5/8"	2'- 7 5/8"	J3(i49874)	Back	86 lb	172 lb	-	-
Point	3'- 7 5/8"	3'- 7 5/8"	J3(i50377)	Back	83 lb	166 lb	-	-
Point	4'- 7 5/8"	4'- 7 5/8"	J3(i50332)	Back	74 lb	148 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	Pt2(i49962)	213 lb	409 lb	-	-
2	5'- 2 1/2"	5'- 6 7/8"	Pt2(i49898)	200 lb	384 lb	-	-

DESIGN NOTES

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



SE046674


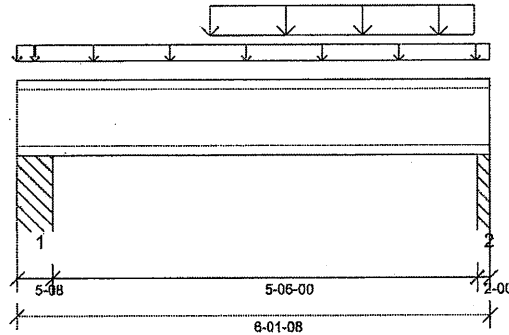
	Customer: Gold Park Homes Job Address: Pine Valley Ph2 City: Vaughan Job Track: 45147	Job Name: 343077 Ground A + Second A (1 Level: Ground Floor Label: B21 (-3R) - i50402 Type: Beam	1 Ply Member 11 7/8" NI-20	Status: Design Passed
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Illustration Not 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 05/02/2022 17:13



DESIGN INFORMATION

Building Code: NBCC 2015, Part 9, 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'- 10"

Factored Resistance of Support Material:

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

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 6 3/4"	1.25D + 1.5L	1.00	1831 lb ft	5580 lb ft	Passed - 29%
Factored Shear:	5'- 11 7/16"	1.25D + 1.5L	1.00	1256 lb	2240 lb	Passed - 56%
Live Load (LL) Pos. Defl.:	3'- 3 7/8"	L		0.031"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	3'- 3 7/8"	D + L		0.043"	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	751 lb		2240 lb	18349 lb	Passed - 34%
2	2-00	1.25D + 1.5L	1.00	1283 lb		2000 lb	6672 lb	Passed - 64%

SPECIFIED LOADS

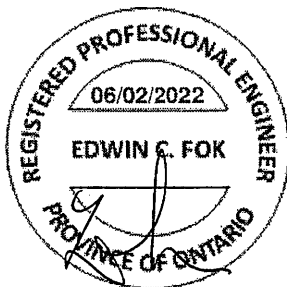
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	6'- 1 1/2"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	6'- 1 1/2"	FC1 Floor Decking (Plan View Fill)	Top	11 lb/ft	29 lb/ft	-	-
Uniform	2'- 6"	5'- 11"	User Load	Top	90 lb/ft	240 lb/ft	-	-
Point	0'- 2 3/4"	0'- 2 3/4"	Pt3(49948)	Top	13 lb	12 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	Pt2(i50280)	153 lb	360 lb	-	-
2	5'- 11 1/2"	6'- 1 1/2"	Pt2(i50383)	254 lb	656 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.



SC0206678



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

Job Name: **343077 Ground A + Second A...**
Level: **Second Floor**
Label: **B25 - i54388**
Type: **Beam**

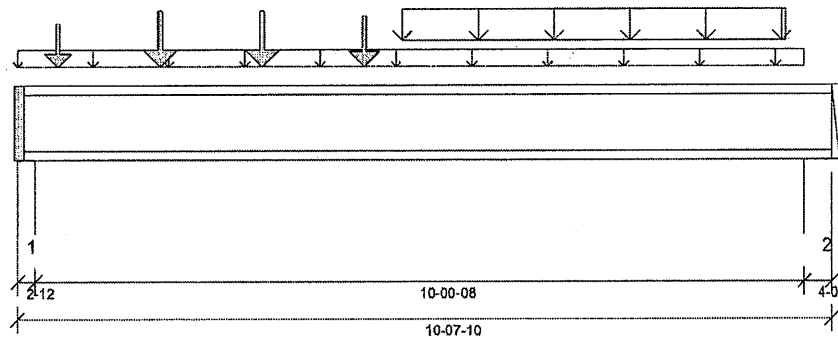
2 Ply Member
11 7/8" NI-20

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 05/03/2022 19:44



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)

Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240.

Lateral Restraint Requirements:

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

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

Factored Resistance of Support Material:

- 615 psi Wall @ 0'-1 3/4"
- 615 psi Wall @ 10'-4 1/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'-6 3/8"	1.25D + 1.5L	1.00	7975 lb ft	11160 lb ft	Passed - 71%
Factored Shear:	0'-2 13/16"	1.25D + 1.5L	1.00	3054 lb	4480 lb	Passed - 68%
Live Load (LL) Pos. Defl.:	5'-3 1/16"	L		0.156"	L/360	Passed - L/769
Total Load (TL) Pos. Defl.:	5'-3 1/16"	D + L		0.254"	L/240	Passed - L/475

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	3073 lb		4180 lb	8459 lb	Passed - 74%
2	4-06	1.25D + 1.5L	1.00	2946 lb		4480 lb	13457 lb	Passed - 66%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	10'-7 5/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	10'-3 1/4"	User Load	Top	60 lb/ft	-	-	-
Uniform	5'-3/8"	10'-3/8"	Smoothed Load	Front	101 lb/ft	269 lb/ft	-	-
Point	0'-6 3/8"	0'-6 3/8"	J2(I54765)	Front	94 lb	249 lb	-	-
Point	1'-10 3/8"	1'-10 3/8"	J2(I54839)	Front	135 lb	359 lb	-	-
Point	3'-2 3/8"	3'-2 3/8"	J2(I54852)	Front	135 lb	359 lb	-	-
Point	4'-6 3/8"	4'-6 3/8"	J2(I54657)	Front	118 lb	314 lb	-	-

UNFACTORED REACTIONS

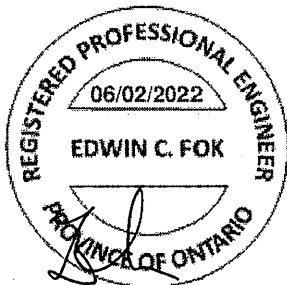
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'-2 3/4"	9(I41702)	849 lb	1341 lb	-	-
2	10'-3 1/4"	10'-7 5/8"	E25(I41701)	815 lb	1285 lb	-	-

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.



Signature



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

Job Name: **343077 Ground A + Second A...**
Level: **Second Floor**
Label: **B26 - i54803**
Type: **Beam**

1 Ply Member

11 7/8" NI-20

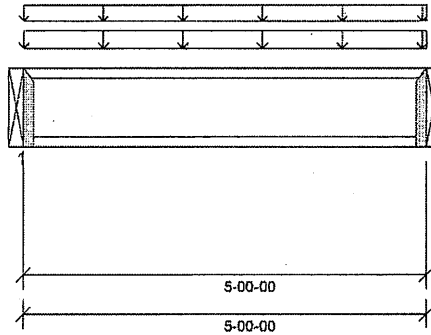
Status:

**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 05/03/2022 19:44



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018,
ABC 2019, OBC 2012 (2019
Amendment)

Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

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

Top: 0' Bottom: 5'

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"	1.25D + 1.5L	0.72	369 lb ft	4021 lb ft	Passed - 9%
Factored Shear:	0'-1/16"	1.25D + 1.5L	0.72	294 lb	1614 lb	Passed - 18%

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	0.72	295 lb		1970 lb	-	Passed - 15%
2	1-12	1.25D + 1.5L	0.72	295 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

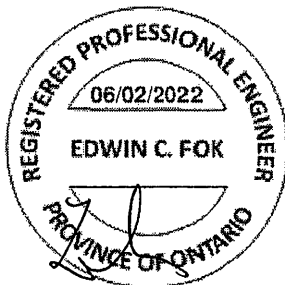
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	5'	Self Weight	Top	3 lb/ft	-	-	-
Uniform	-0'	5'	19(i51781)	Top	61 lb/ft	-	-	-
Uniform	0'	5'	FC3 Floor Decking (Plan View Fill)	Top	7 lb/ft	20 lb/ft	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B29(i54286)	177 lb	49 lb	-	-
2	5'	5'	B27(i54263)	177 lb	49 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.



820746083



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

Job Name: **343077 Ground A + Second A...**
Level: **Second Floor**
Label: **B27 - I54263**
Type: **Beam**

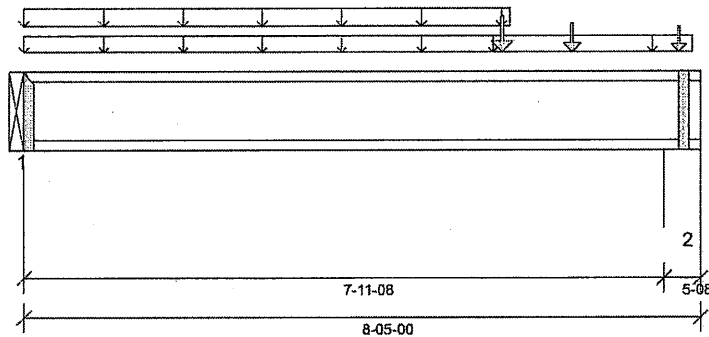
1 Ply Member
11 7/8" NI-20

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 05/03/2022 19:45



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)

Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240.

Lateral Restraint Requirements:

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

Top: 0' Bottom: 5'- 10"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 615 psi Wall @ 8'- 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	4'- 7 1/16"	1.4D	0.65	1062 lb ft	3627 lb ft	Passed - 29%
Factored Shear:	7'- 11 7/16"	1.25D + 1.5L	0.89	786 lb	1991 lb	Passed - 40%
Live Load (LL) Pos. Defl.:	4'- 2 7/8"	L		0.019"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	4'- 1 7/8"	D + L		0.066"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-12	1.4D	0.65	463 lb		1970 lb	-	Passed - 23%
2	5-08	1.25D + 1.5L	0.89	974 lb		1991 lb	7519 lb	Passed - 49%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements	Other Information or Requirement for Reinforcement Accessories
1	LT251188		Top Face Member	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

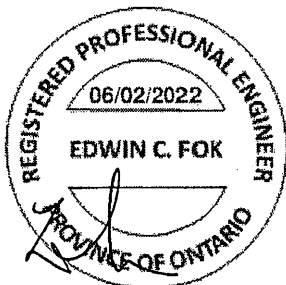
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	8'- 5"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	6'- 1/2"	22(I51778)	Top	61 lb/ft	-	-	-
Uniform	0'	5'- 10"	FC3 Floor Decking (Plan View Fill)	Top	8 lb/ft	22 lb/ft	-	-
Uniform	5'- 10"	8'- 3 3/4"	FC3 Floor Decking (Plan View Fill)	Top	8 lb/ft	20 lb/ft	-	-
Point	5'- 11 5/16"	5'- 11 5/16"	-	Back	190 lb	49 lb	-	-
Point	6'- 9 3/4"	6'- 9 3/4"	J7(I54649)	Back	44 lb	118 lb	-	-
Point	8'- 1 3/4"	8'- 1 3/4"	J7(I54650)	Back	33 lb	87 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B30(I54763)	338 lb	120 lb	-	-
2	7'- 11 1/2"	8'- 5"	24(I51833)	390 lb	316 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.



SE041684



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

Job Name: **343077 Ground A + Second A...**
Level: **Second Floor**
Label: **B29 - i54286**
Type: **Beam**

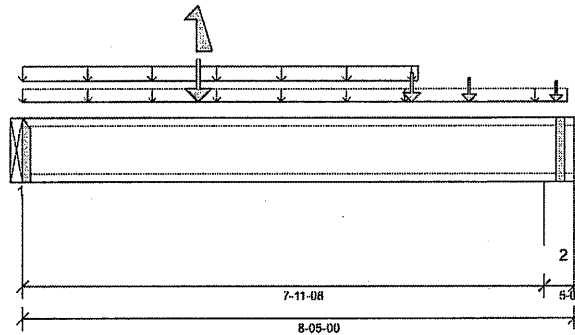
1 Ply Member
11 7/8" NI-20

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 05/03/2022 19:45



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)

Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240.

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:
Top: 0' Bottom: 3'

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 615 psi Wall @ 8'-1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 1"	1.25D + 1.5L	1.00	2183 lb ft	5580 lb ft	Passed - 39%
Factored Neg. Moment:	2'- 8 1/4"	0.9D + 1.5L	0.91	684 lb ft	5053 lb ft	Passed - 14%
Factored Shear:	0'- 1/16"	1.25D + 1.5L	1.00	962 lb	2240 lb	Passed - 43%
Live Load (LL) Pos. Defl.:	3'- 10 3/16"	L		0.055"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	3'- 11 13/16"	D + L		0.097"	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	1-12	1.25D + 1.5L	1.00	963 lb		1970 lb	-	Passed - 49%
1	1-12	0.9D + 1.5L	0.91		-170 lb	-	-	
2	5-08	1.25D + 1.5L	1.00	1142 lb		2240 lb	8459 lb	Passed - 51%

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

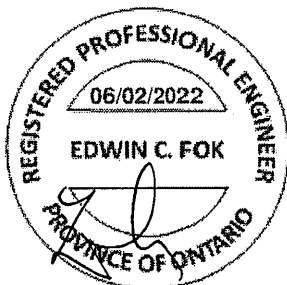
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	8'- 5"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'	6'- 1/2"	20(i51780)	Top	61 lb/ft	-	-	-
Uniform	0'	5'- 10"	FC3 Floor Decking (Plan View Fill)	Top	7 lb/ft	18 lb/ft	-	-
Uniform	5'- 10"	8'- 3 3/4"	FC3 Floor Decking (Plan View Fill)	Top	6 lb/ft	16 lb/ft	-	-
Point	5'- 11 5/16"	5'- 11 5/16"	-	Front	191 lb	49 lb	-	-
Point	6'- 9 3/4"	6'- 9 3/4"	J7(i54649)	Front	44 lb	118 lb	-	-
Point	8'- 1 3/4"	8'- 1 3/4"	J7(i54650)	Front	33 lb	87 lb	-	-
Point	2'- 8 1/4"	2'- 8 1/4"	B28 (CANT.) (i54890)	Back	-19 lb	422/-450 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B30(i54783)	317 lb	385/-300 lb	-	-
2	7'- 11 1/2"	8'- 5"	25(i51910)	379 lb	439/-150 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.



83046686



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

Job Name: **343077 Ground A + Second A...**
Level: **Ground Floor**
Label: **B32 - I54376**
Type: **Beam**

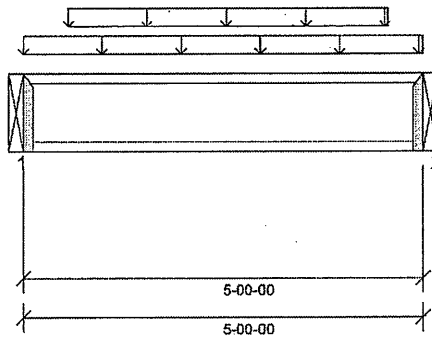
1 Ply Member
11 7/8" NI-20

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 05/03/2022 19:46



DESIGN INFORMATION

Building Code: NBCC 2015, Part 9, 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	0.84	605 lb ft	4679 lb ft	Passed - 13%
Factored Shear:	4'- 11 15/16"	1.25D + 1.5L	0.84	427 lb	1878 lb	Passed - 23%
Total Load (TL) Pos. Defl.:	2'- 6"	D + L		0.015"	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	0.84	423 lb		1970 lb	-	Passed - 21%
2	1-12	1.25D + 1.5L	0.84	428 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

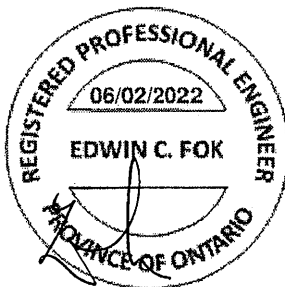
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	5'	Self Weight	Top	3 lb/ft	-	-	-
Uniform	-0'	5'	15(I51774)	Top	68 lb/ft	-	-	-
Tapered	0'- 6 3/4"	4'- 6 3/4"	Smoothed Load	Back	21 To 18 lb/ft	54 To 49 lb/ft	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B36(I54820)	216 lb	102 lb	-	-
2	5'	5'	B34(I54292)	217 lb	104 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.



SC046689



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

Job Name: **343077 Ground A + Second A...**
Level: **Ground Floor**
Label: **B33 - i54203**
Type: **Beam**

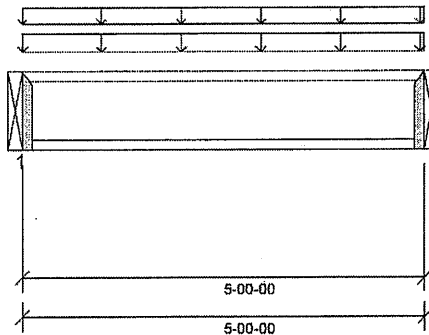
1 Ply Member
11 7/8" NI-20

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 05/03/2022 19:46



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)

Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

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

Top: 0' Bottom: 5'

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"	1.25D + 1.5L	0.74	424 lb ft	4109 lb ft	Passed - 10%
Factored Shear:	4'- 11 15/16"	1.25D + 1.5L	0.74	338 lb	1650 lb	Passed - 21%
Total Load (TL) Pos. Defl.:	2'- 6"	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	0.74	339 lb		1970 lb	-	Passed - 17%
2	1-12	1.25D + 1.5L	0.74	339 lb		1970 lb	-	Passed - 17%

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'	17(I51776)	Top	68 lb/ft	-	-	-
Uniform	0'	5'	FC2 Floor Decking (Plan View Fill)	Top	9 lb/ft	24 lb/ft	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B36(I54820)	200 lb	60 lb	-	-
2	5'	5'	B34(I54292)	200 lb	59 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.



25046690



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

Job Name: **343077 Ground A + Second A...**
Level: **Ground Floor**
Label: **B34 - i54292**
Type: **Beam**

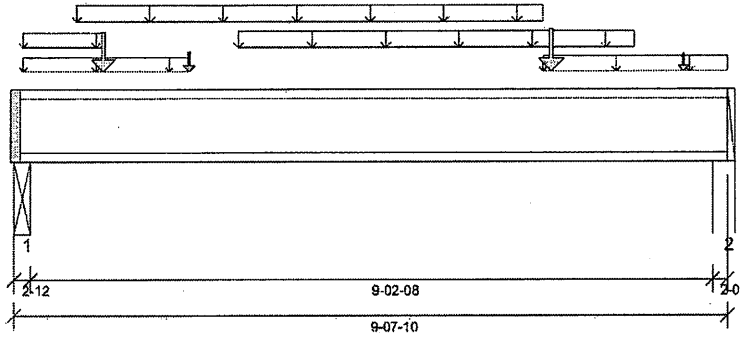
1 Ply Member
11 7/8" NI-20

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 05/03/2022 19:47



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, CBC 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'- 1 3/4"
- 615 psi Wall @ 9'- 6 1/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	5'- 1/2"	1.25D + 1.5L	0.88	2621 lb ft	4927 lb ft	Passed - 53%
Factored Shear:	0'- 2 13/16"	1.25D + 1.5L	0.88	1156 lb	1978 lb	Passed - 58%
Live Load (LL) Pos. Defl.:	4'- 11 1/8"	L		0.055"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	4'- 10 5/8"	D + L		0.155"	L/240	Passed - L/711

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	0.88	1161 lb		1845 lb	4669 lb	Passed - 63%
2	2'-06"	1.25D + 1.5L	0.88	1130 lb		1806 lb	3225 lb	Passed - 63%

SPECIFIED LOADS

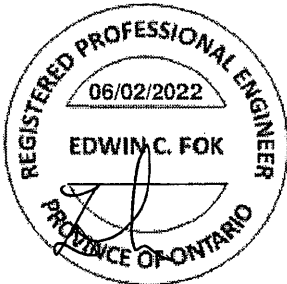
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	9'- 7 5/8"	Self Weight	Top	3 lb/ft	-	-	-
Uniform	0'- 1 1/2"	2'- 4 1/2"	FC2 Floor Decking (Plan View Fill)	Top	-	4 lb/ft	-	-
Uniform	0'- 1 1/2"	1'- 2 7/8"	FC2 Floor Decking (Plan View Fill)	Top	-	15 lb/ft	-	-
Uniform	0'- 10 1/4"	7'- 1 3/4"	18(I51777)	Top	68 lb/ft	-	-	-
Uniform	7'- 1 3/4"	9'- 7 5/8"	FC2 Floor Decking (Plan View Fill)	Top	9 lb/ft	24 lb/ft	-	-
Tapered	3'- 1/2"	8'- 4 1/2"	Smoothed Load	Front	18 To 16 lb/ft	48 To 42 lb/ft	-	-
Point	1'- 2 9/16"	1'- 2 9/16"	-	Front	215 lb	100 lb	-	-
Point	2'- 4 1/2"	2'- 4 1/2"	J5(I55176)	Front	21 lb	55 lb	-	-
Point	9'- 1/2"	9'- 1/2"	J5(I55181)	Front	14 lb	39 lb	-	-
Point	7'- 3 1/8"	7'- 3 1/8"	-	Back	248 lb	104 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/4"	ST. BEAM (DR.)(41671)	583 lb	289 lb	-	-
2	9'- 5 1/4"	9'- 7 5/8"	W41(I51905)	495 lb	340 lb	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
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- 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.



860246091



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

Job Name: **343077 Ground A + Second A...**
Level: **Ground Floor**
Label: **B35 - I54409**
Type: **Beam**

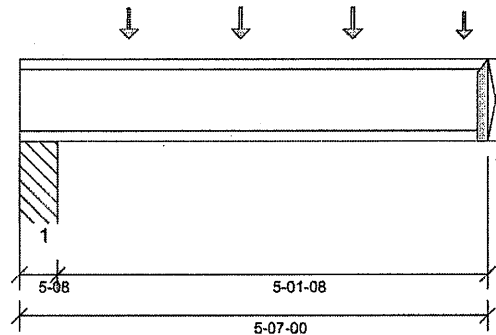
1 Ply Member
11 7/8" NI-20

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 05/03/2022 19:47



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)

Design Methodology: LSD
Service Condition: Dry
LL Deflection Limit: L/360,
TL Deflection Limit: L/240,

Lateral Restraint Requirements:

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

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

Factored Resistance of Support Material:

- 1334 psi Column @ 0'- 4 1/2"
- 769 psi Beam @ 5'- 7"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	2'- 7 5/8"	1.25D + 1.5L	0.90	614 lb ft	5002 lb ft	Passed - 12%
Factored Shear:	5'- 6 15/16"	1.25D + 1.5L	0.90	469 lb	2008 lb	Passed - 23%
Total Load (TL) Pos. Defl.:	2'- 11 5/8"	D + L		0.016"	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	0.90	410 lb		2008 lb	16447 lb	Passed - 20%
2	1-12	1.25D + 1.5L	0.90	469 lb		1970 lb	-	Passed - 24%

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

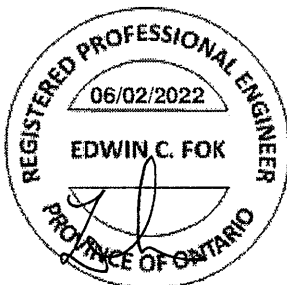
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	5'- 7"	Self Weight	Top	3 lb/ft	-	-	-
Point	1'- 3 5/8"	1'- 3 5/8"	J5(I54973)	Front	103 lb	64 lb	-	-
Point	2'- 7 5/8"	2'- 7 5/8"	J5(I54974)	Front	106 lb	68 lb	-	-
Point	3'- 11 5/8"	3'- 11 5/8"	J5(I54975)	Front	106 lb	68 lb	-	-
Point	5'- 3 5/8"	5'- 3 5/8"	J5(I54976)	Front	72 lb	50 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 5 1/2"	Pt1(I54293)	186 lb	112 lb	-	-
2	5'- 7"	5'- 7"	B36(I54820)	217 lb	138 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.



83046092



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

Job Name: **343077 Ground A + Second A...**
Level: **Ground Floor**
Label: **B36 - i54820**
Type: **Beam**

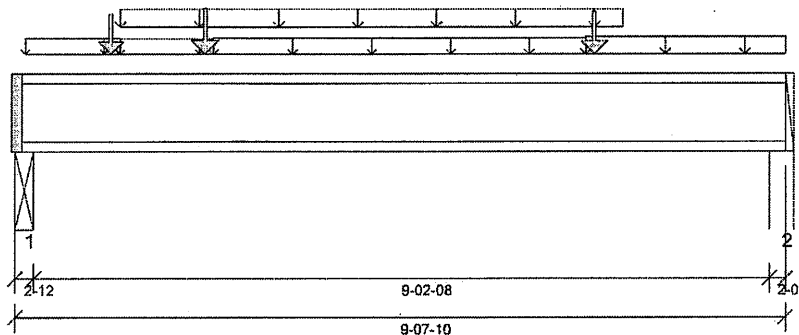
2 Ply Member
11 7/8" NI-20

Status:
Design Passed

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in Mitek® Structure Version
8.5.3.233.Update6.15

Report Version: 2021.03.26 05/03/2022 19:47



DESIGN INFORMATION

Building Code: NBCC 2015, Part9, BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment)

Design Methodology: LSD

Service Condition: Dry

LL Deflection Limit: L/360,

TL Deflection Limit: L/240,

Lateral Restraint Requirements:

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

Top: 0' Bottom: 4'- 8"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'- 1 3/4"
- 615 psi Wall @ 9'- 6 1/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	4'- 5 1/4"	1.25D + 1.5L	0.81	2576 lb ft	9086 lb ft	Passed - 28%
Factored Shear:	0'- 2 13/16"	1.25D + 1.5L	0.81	1295 lb	3647 lb	Passed - 36%
Live Load (LL) Pos. Defl.:	4'- 9 7/16"	L		0.022"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	4'- 9 3/16"	D + L		0.079"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	2-12	1.25D + 1.5L	0.81	1301 lb		3403 lb	8610 lb	Passed - 38%
2	2-06	1.25D + 1.5L	0.81	1025 lb		3330 lb	5948 lb	Passed - 31%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	9'- 7 5/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'- 1 1/2"	1'- 3 3/4"	FC2 Floor Decking (Plan View Fill)	Top	-	18 lb/ft	-	-
Uniform	1'- 3 3/4"	7'- 7 1/4"	16(I51775)	Top	68 lb/ft	-	-	-
Uniform	1'- 3 3/4"	2'- 5 3/4"	FC2 Floor Decking (Plan View Fill)	Top	-	14 lb/ft	-	-
Uniform	2'- 5 3/4"	7'- 1 3/4"	FC2 Floor Decking (Plan View Fill)	Top	7 lb/ft	18 lb/ft	-	-
Uniform	7'- 1 3/4"	9'- 7 5/8"	FC2 Floor Decking (Plan View Fill)	Top	15 lb/ft	39 lb/ft	-	-
Point	1'- 2 3/8"	1'- 2 3/8"	-	Front	228 lb	60 lb	-	-
Point	7'- 3"	7'- 3"	B32(I54376)	Front	216 lb	102 lb	-	-
Point	2'- 4 1/2"	2'- 4 1/2"	B35(I54409)	Back	217 lb	138 lb	-	-

UNFACTORED REACTIONS

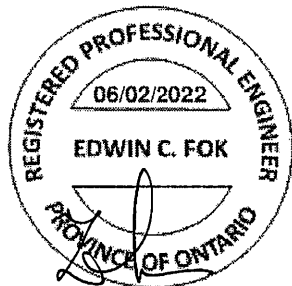
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'- 2 3/4"	ST. BEAM (DR.)(I41671)	712 lb	270 lb	-	-
2	9'- 5 1/4"	9'- 7 5/8"	W41(I51905)	520 lb	253 lb	-	-

DESIGN NOTES

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



SE-026693



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

PASSED

Second Floor\Flush Beams\B45(i53331) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 11:16:09

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A (1,3).mmdl

Address: Pine Valley Ph2

Description: Second Floor\Flush Beams\B45(i53331)

City, Province, Postal Code: Vaughan, ON

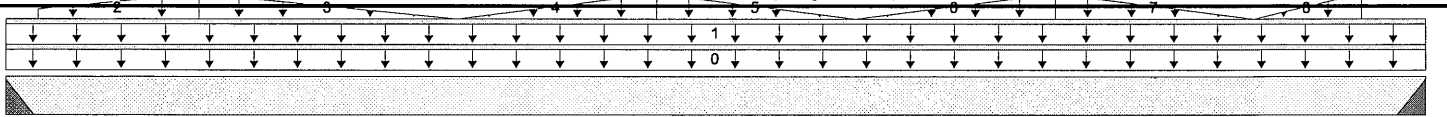
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses Inc.



B1

05-10-07

B2

Total Horizontal Product Length = 05-10-07

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	156 / 0	75 / 0		
B2, 2"	190 / 0	88 / 0		

Load Summary

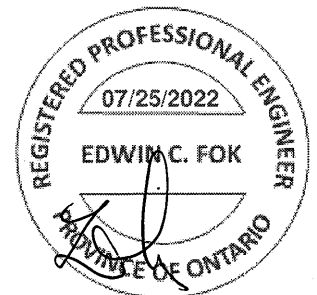
Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	05-10-07	Top		6			00-00-00
1	BUILT-OUT FLOOR	Unf. Lin. (lb/ft)	L	00-00-00	05-10-07	Top	27	10			n/a
2	FC3 Floor Decking (Plan View Fill)	Trapezoidal (lb/ft)	L	00-01-10	00-09-08	Top	4	2			n/a
3	FC3 Floor Decking (Plan View Fill)	Trapezoidal (lb/ft)	L	00-09-08	01-10-06	Top	11	4			n/a
4	FC3 Floor Decking (Plan View Fill)	Trapezoidal (lb/ft)	L	01-10-06	02-08-04	Top	0	0			n/a
5	FC3 Floor Decking (Plan View Fill)	Trapezoidal (lb/ft)	L	02-08-04	03-06-03	Top	17	6			n/a
6	FC3 Floor Decking (Plan View Fill)	Trapezoidal (lb/ft)	L	03-06-03	04-04-01	Top	0	0			n/a
7	FC3 Floor Decking (Plan View Fill)	Trapezoidal (lb/ft)	L	04-04-01	05-01-15	Top	33	12			n/a
8	FC3 Floor Decking (Plan View Fill)	Trapezoidal (lb/ft)	L	05-01-15	05-07-04	Top	17	6			n/a
9	J8(i52945)	Conc. Pt. (lbs)	L	01-07-09	01-07-09	Front	0	0			n/a
10	J7(i53517)	Conc. Pt. (lbs)	L	03-03-06	03-03-06	Front	18	7			n/a
11	J6(i53244)	Conc. Pt. (lbs)	L	04-11-02	04-11-02	Front	28	10			n/a
							49	18			n/a
							53	20			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	545 ft-lbs	17696 ft-lbs	3.1%	1	03-03-06
End Shear	301 lbs	7232 lbs	4.2%	1	04-08-09
Total Load Deflection	L/999 (0.004")	n/a	n/a	4	02-11-13
Live Load Deflection	L/999 (0.003")	n/a	n/a	5	02-11-13
Max Defl.	0.004"	n/a	n/a	4	02-11-13
Span / Depth	5.7				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Hanger 2" x 1-3/4"	328 lbs	n/a	7.7%	LSSR1.81Z
B2	Hanger 2" x 1-3/4"	395 lbs	n/a	9.3%	LSSR1.81Z



SG049384



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

PASSED

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 11:16:36

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A (1,3).mmdl

Address: Pine Valley Ph2

Description: Second Floor\Flush Beams\B46(i52903)

City, Province, Postal Code: Vaughan, ON

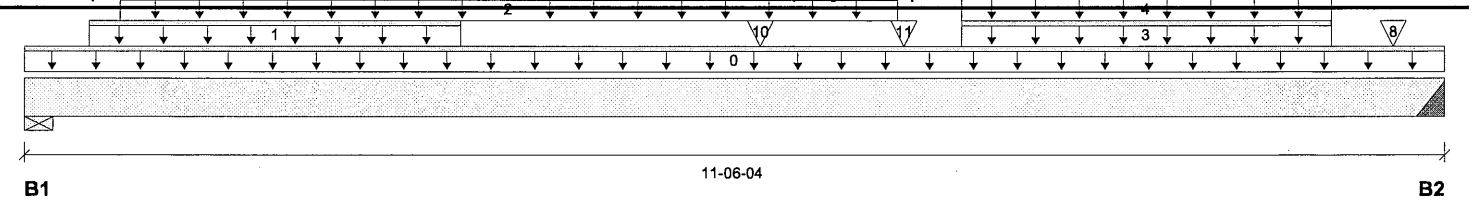
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CCMC 12472-2R

Company: Alpa Roof Trusses Inc.



Total Horizontal Product Length = 11-06-04

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 6-1/4"	2289 / 0	960 / 0		
B2, 2"	2536 / 0	1110 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	11-06-04	Top		12			00-00-00
1	BUILT-OUT FLOOR	Unf. Lin. (lb/ft)	L	00-06-04	03-06-07	Top	27	10			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	00-09-04	07-01-01	Front	395	148			n/a
3	Smoothed Load	Unf. Lin. (lb/ft)	L	07-07-04	10-07-04	Front		169			n/a
4	Smoothed Load	Trapezoidal (lb/ft)	L	07-07-04	10-07-04	Back	163				n/a
5	-	Conc. Pt. (lbs)	L	08-00-10	08-00-10	Front	434	82			n/a
6	-	Conc. Pt. (lbs)	L	09-01-05	09-01-05	Front	372	58			n/a
7	-	Conc. Pt. (lbs)	L	10-01-13	10-01-13	Front	372	54			n/a
8	J11(i52989)	Conc. Pt. (lbs)	L	11-01-04	11-01-04	Front	291	131			n/a
9	B45(i53331)	Conc. Pt. (lbs)	L	03-06-15	03-06-15	Back	153	74			n/a
10	J7(i53517)	Conc. Pt. (lbs)	L	05-11-10	05-11-10	Back	56	21			n/a
11	J6(i53244)	Conc. Pt. (lbs)	L	07-01-10	07-01-10	Back	64	24			n/a

Controls Summary

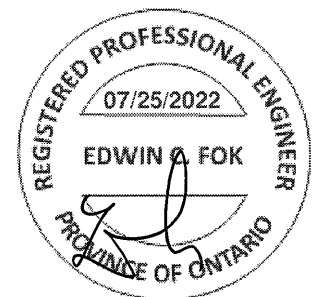
	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	13745 ft-lbs	35392 ft-lbs	38.8%	1	05-11-10
End Shear	4698 lbs	14464 lbs	32.5%	1	10-04-06
Total Load Deflection	L/611 (0.215")	n/a	39.3%	4	05-11-10
Live Load Deflection	L/869 (0.151")	n/a	41.4%	5	05-11-10
Max Defl.	0.215"	n/a	n/a	4	05-11-10
Span / Depth	11.1				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 6-1/4" x 3-1/2"	4633 lbs	34.4%	17.4%	Spruce-Pine-Fir
B2	Hanger 2" x 3-1/2"	5191 lbs	n/a	60.8%	HGUS410

Cautions

Hanger model HGUS410 and seat length were input by the user.

 NAIL ONE PLY TO ANOTHER WITH
 3-1/2" SPIRAL NAILS @ 9" O/C
 STAGGERED IN 2 ROWS


SC049385



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

PASSED

Second Floor\Flush Beams\B47(i53304) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 11:16:51

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A (1,3).mmdl

Address: Pine Valley Ph2

Description: Second Floor\Flush Beams\B47(i53304)

City, Province, Postal Code: Vaughan, ON

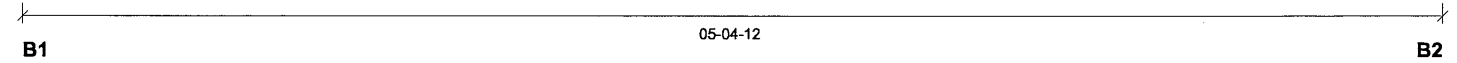
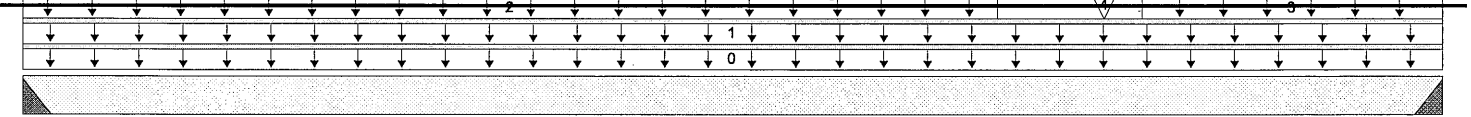
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses Inc.



Reaction Summary (Down / Uplift) (lbs)

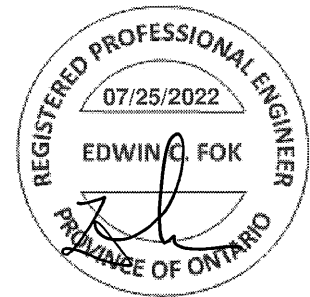
Bearing	Live	Dead	Snow	Wind
B1, 2"	152 / 0	77 / 0		
B2, 2"	268 / 0	130 / 0		

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	05-04-12	Top		6			00-00-00
1	-	Unf. Lin. (lb/ft)	L	00-00-00	05-04-12	Top	27	10			n/a
2	FC3 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	03-08-07	Top	13	5			n/a
3	FC3 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	04-03-01	05-04-12	Top	29	11			n/a
4	B45(i53331)	Conc. Pt. (lbs)	L	04-01-05	04-01-05	Back	192	89			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	577 ft-lbs	17696 ft-lbs	3.3%	1	03-09-10
End Shear	538 lbs	7232 lbs	7.4%	1	04-02-14
Total Load Deflection	L/999 (0.004")	n/a	n/a	4	02-09-15
Live Load Deflection	L/999 (0.003")	n/a	n/a	5	02-09-15
Max Defl.	0.004"	n/a	n/a	4	02-09-15
Span / Depth	5.2				



Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Hanger 2" x 1-3/4"	324 lbs	n/a	7.6%	HUS1.81/10
B2	Hanger 2" x 1-3/4"	565 lbs	n/a	13.2%	HUS1.81/10

Cautions

Hanger model HUS1.81/10 and seat length were input by the user.

Header for the hanger HUS1.81/10 is a Double 1-3/4" x 11-7/8" LVL beam.

Notes

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

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

Hanger Manufacturer: Unassigned

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

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 00-00-00, Bottom: 04-00-09.

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA).

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

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

S2049386

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 11:17:08

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A (1,3).mmdl

Address: Pine Valley Ph2

Description: Second Floor\Flush Beams\B48(i53360)

City, Province, Postal Code: Vaughan, ON

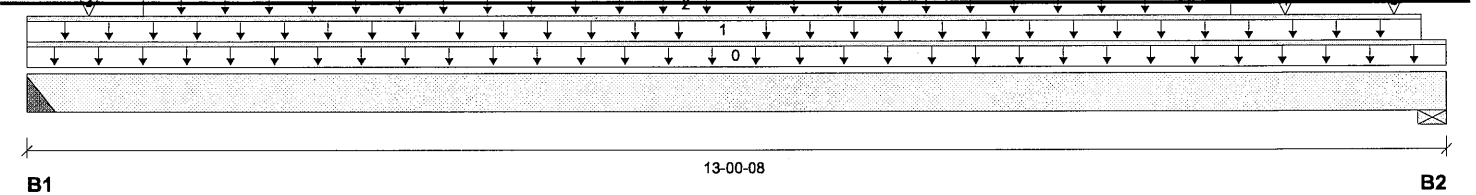
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses Inc.



Total Horizontal Product Length = 13-00-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	2733 / 0	1273 / 0		
B2, 5-1/2"	2944 / 0	1378 / 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	13-00-08	Top		12			00-00-00
1	FC3 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	12-09-12	Top	19	7			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	01-00-12	11-00-12	Front	424	188			n/a
3	J9(i53294)	Conc. Pt. (lbs)	L	00-06-12	00-06-12	Front	362	157			n/a
4	J9(i53095)	Conc. Pt. (lbs)	L	11-06-12	11-06-12	Front	424	184			n/a
5	J9(i53445)	Conc. Pt. (lbs)	L	12-06-12	12-06-12	Front	406	162			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	18195 ft-lbs	35392 ft-lbs	51.4%	1	06-06-12
End Shear	5255 lbs	14464 lbs	36.3%	1	11-07-02
Total Load Deflection	L/407 (0.37")	n/a	59.0%	4	06-04-10
Live Load Deflection	L/599 (0.251")	n/a	60.1%	5	06-04-10
Max Defl.	0.37"	n/a	n/a	4	06-04-10
Span / Depth	12.7				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Hanger 2" x 3-1/2"	5692 lbs	n/a	66.6%	HGUS410
B2	Wall/Plate 5-1/2" x 3-1/2"	6138 lbs	51.8%	26.1%	Spruce-Pine-Fir

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

Cautions

Hanger model HGUS410 and seat length were input by the user.

Header for the hanger HGUS410 is a Double 1-3/4" x 11-7/8" LVL beam.

Notes

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

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

Hanger Manufacturer: Unassigned

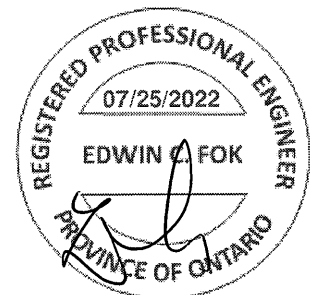
Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-09-08.





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

PASSED

Second Floor\Flush Beams\B49(i53440) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 11:17:28

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A (1,3).mmdl

Address: Pine Valley Ph2

Description: Second Floor\Flush Beams\B49(i53440)

City, Province, Postal Code: Vaughan, ON

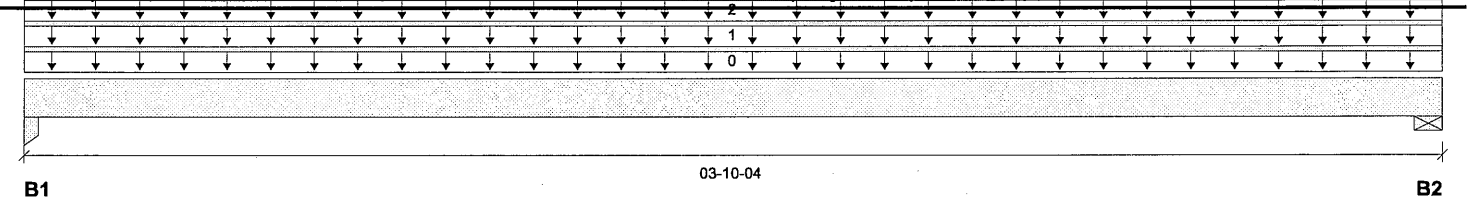
Specifier:

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, 2-3/4"	2407 / 0	1245 / 0		
B2, 2"	946 / 0	553 / 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	03-10-04	Top		12			00-00-00
1	WALL	Unf. Lin. (lb/ft)	L	00-00-00	03-10-04	Top		60			n/a
2	FC3 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	03-10-04	Top	24	9			n/a
3	B48(i53360)	Conc. Pt. (lbs)	L	00-11-00	00-11-00	Front	2718	1266			n/a
4	J2(i52991)	Conc. Pt. (lbs)	L	01-10-08	01-10-08	Front	254	103			n/a
5	J2(i53537)	Conc. Pt. (lbs)	L	02-10-08	02-10-08	Front	275	112			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	3810 ft-lbs	35392 ft-lbs	10.8%	1	00-11-00
End Shear	3265 lbs	14464 lbs	22.6%	1	01-02-10
Total Load Deflection	L/999 (0.006")	n/a	n/a	4	01-09-08
Live Load Deflection	L/999 (0.004")	n/a	n/a	5	01-09-08
Max Defl.	0.006"	n/a	n/a	4	01-09-08
Span / Depth	3.6				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Column 2-3/4" x 3-1/2"	5168 lbs	30.9%	44.0%	Spruce-Pine-Fir
B2	Wall/Plate 2" x 3-1/2"	2110 lbs	49.0%	24.7%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Resistance Factor phi has been applied to all presented results per CSA O86.
 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor : Normal Part code : Part 9
 Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-10-08.

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



SG0493ff



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

Second Floor\Flush Beams\B50 (CANT.)(i53488) (Flush Beam)

PASSED

BC Design Engine Member Report

Dry | 2 spans | L cant.

July 18, 2022 11:17:43

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A (1,3).mmdl

Address: Pine Valley Ph2

Description: Second Floor\Flush Beams\B50 (CANT.)(i53488)

City, Province, Postal Code: Vaughan, ON

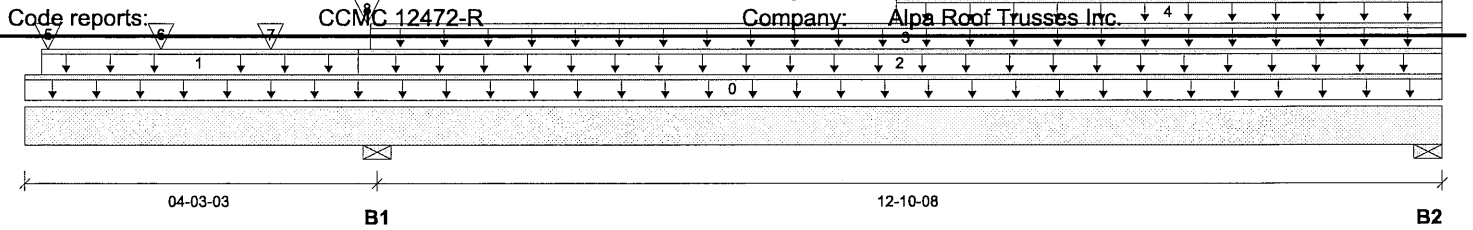
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CCMC 12472-R

Company: Alpha Roof Trusses Inc.



Total Horizontal Product Length = 17'-01-11

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5'-1/2"	2035 / 0	1116 / 0		
B2, 2'-3/4"	283 / 199	119 / 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	17-01-11	Top		12			00-00-00
1	STAIR	Unf. Lin. (lb/ft)	L	00-02-07	04-00-07	Top	100	38			n/a
2	FC3 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	04-00-07	17-01-11	Top	21	8			n/a
3	FC3 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	04-02-03	17-01-11	Top	23	8			n/a
4	TILE	Unf. Lin. (lb/ft)	L	10-06-07	17-01-11	Top		5			n/a
5	B47(i53304)	Conc. Pt. (lbs)	L	00-03-05	00-03-05	Front	270	130			n/a
6	J5(i53496)	Conc. Pt. (lbs)	L	01-07-11	01-07-11	Front	163	61			n/a
7	J5(i52949)	Conc. Pt. (lbs)	L	02-11-11	02-11-11	Front	148	56			n/a
8	B2(i53417)	Conc. Pt. (lbs)	L	04-01-11	04-01-11	Back	584	386			n/a

Controls Summary

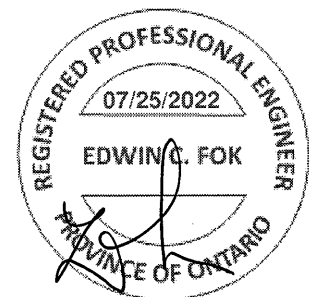
	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	1435 ft-lbs	35392 ft-lbs	4.1%	3	11-08-09
Neg. Moment	-5256 ft-lbs	-16030 ft-lbs	32.8%	1	04-03-03
End Shear	442 lbs	14464 lbs	3.1%	3	15-11-01
Cont. Shear	1789 lbs	14464 lbs	12.4%	1	03-00-09
Total Load Deflection	2xL/784 (0.13")	n/a	30.6%	9	00-00-00
Live Load Deflection	2xL/1998 (0.102")	n/a	n/a	12	00-00-00
Total Neg. Defl.	L/999 (-0.05")	n/a	n/a	9	09-03-04
Max Defl.	-0.05"	n/a	n/a	9	09-03-04
Span / Depth	12.8				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 5'-1/2" x 3'-1/2"	4448 lbs	37.6%	18.9%	Spruce-Pine-Fir
B2	Wall/Plate 2'-3/4" x 3'-1/2"	572 lbs	9.7%	4.9%	Spruce-Pine-Fir
B2	Uplift	191 lbs			

Cautions

Uplift of 191 lbs found at bearing B2. (1-H2.5A)

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


SEA 9389



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

PASSED

Second Floor\Flush Beams\B51(i52809) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 11:17:59

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A (1,3).mmdl

Address: Pine Valley Ph2

Description: Second Floor\Flush Beams\B51(i52809)

City, Province, Postal Code: Vaughan, ON

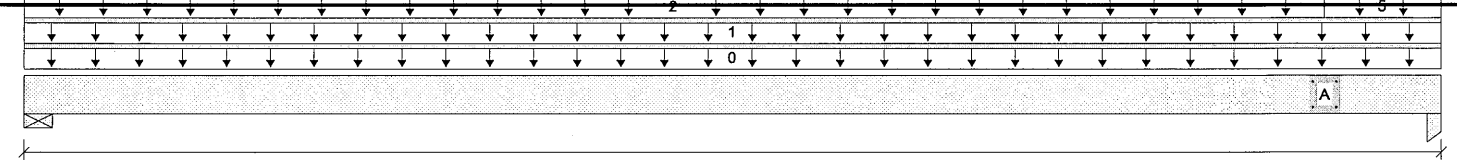
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CMC-12472-R

Company: Alpa Roof Trusses Inc.



B1

20-05-02

B2

Total Horizontal Product Length = 20-05-02

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4-3/8"	454 / 0	381 / 0		
B2, 2-3/4"	2601 / 0	1555 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	20-05-02	Top		12			00-00-00
1	FC3 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	20-05-02	Top	14	5			n/a
2	FC3 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	18-08-14	Top	11	4			n/a
3	TILE	Unf. Lin. (lb/ft)	L	00-04-14	14-08-14	Top		3			n/a
4	WALL	Unf. Lin. (lb/ft)	L	14-08-14	20-05-02	Top		60			n/a
5	FC3 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	18-08-14	20-05-02	Top	24				n/a
6	B46(i52903)	Conc. Pt. (lbs)	L	18-08-14	18-08-14	Back	2514	1100			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	9284 ft-lbs	35392 ft-lbs	26.2%	1	15-08-14
End Shear	5644 lbs	14464 lbs	39.0%	1	19-02-08
Total Load Deflection	L/516 (0.464")	n/a	46.5%	4	11-03-05
Live Load Deflection	L/910 (0.263")	n/a	39.6%	5	11-03-05
Max Defl.	0.464"	n/a	n/a	4	11-03-05
Span / Depth	20.2				

Bearing Supports

	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate 4-3/8" x 3-1/2"	1156 lbs	12.3%	6.2%	Spruce-Pine-Fir
B2	Column 2-3/4" x 3-1/2"	5846 lbs	35.0%	49.8%	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 9

Calculations assume unbraced length of Top: 00-00-00, Bottom: 10-03-12.

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


S6049390



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

Job Name: **346144 Ground A + Second A (1)**
Level: **Second Floor**
Label: **B52 - i52902**
Type: **Beam**

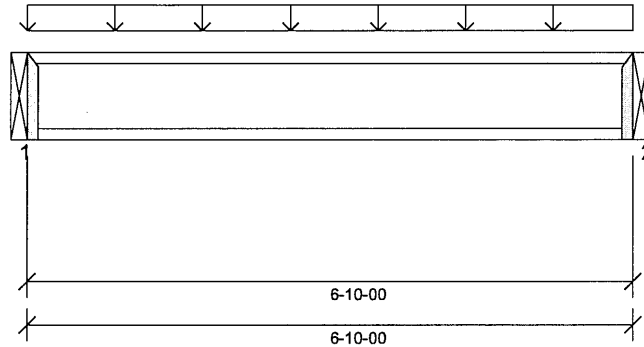
2 Ply Member
11 7/8" NI-20

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 07/18/2022 11:18



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: 1'- 1 1/2"

Factored Resistance of Support Material:

- 769 psi Beam @ 0'
- 769 psi Beam @ 6'- 10"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	3'- 5"	1.25D + 1.5S	0.75	1345 lb ft	8350 lb ft	Passed - 16%
Factored Shear:	0'- 1/16"	1.25D + 1.5S	0.75	786 lb	3352 lb	Passed - 23%
Total Load (TL) Pos. Defl.:	3'- 5"	D + S		0.025"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-12	1.25D + 1.5S	0.75	787 lb		3940 lb	-	Passed - 20%
2	1-12	1.25D + 1.5S	0.75	787 lb		3940 lb	-	Passed - 20%

CONNECTOR INFORMATION

ID	Part No.	Manufacturer	Nailing Requirements			Other Information or Requirement for Reinforcement Accessories
			Top	Face	Member	
1	HUC610	-	-	-	-	Connector manually specified by the user.
2	HUC610	-	-	-	-	Connector manually specified by the user.

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

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	6'- 10"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	-0'	6'- 10"	E32(i51780)	Top	128 lb/ft	-	42 lb/ft	-

UNFACTORED REACTIONS

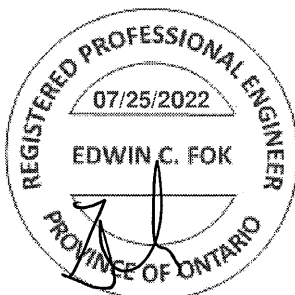
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	0'	0'	B54 (CANT.)(i53212)	458 lb	-	144 lb	-
2	6'- 10"	6'- 10"	B53 (CANT.)(i53195)	458 lb	-	144 lb	-

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.



36049391



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

Job Name: **346144 Ground A + Second A (1**
Level: **Second Floor**
Label: **B53 (CANT.) - i53195**
Type: **Beam**

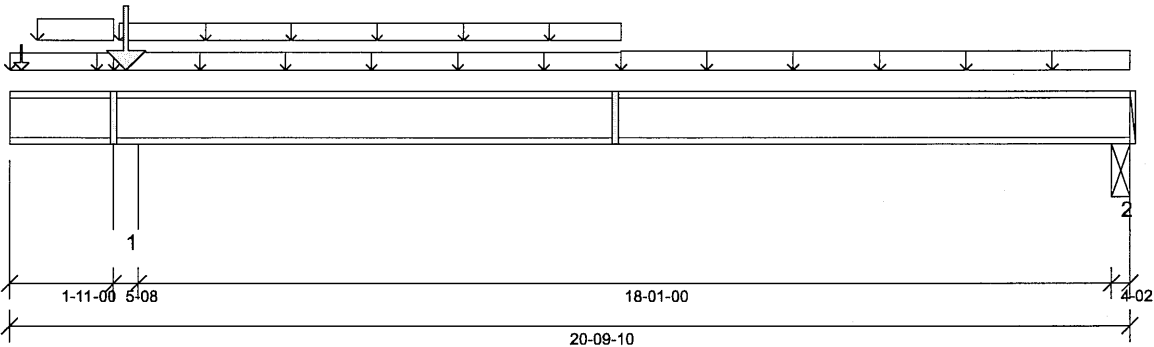
2 Ply Member
11 7/8" NI-40x

Status:
Design Passed

Illustration Not to Scale. Pitch: 0/12

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

Report Version: 2021.03.26 07/18/2022 11:18



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: 9'- 1/16"

Factored Resistance of Support Material:

- 615 psi Wall @ 2'- 1 3/4"
- 1220 psi Beam @ 20'- 6 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	12'- 3 1/16"	1.25D + 1.5L	0.74	2944 lb ft	9273 lb ft	Passed - 32%
Factored Neg. Moment:	2'- 1 3/4"	1.4D	0.65	1617 lb ft	8132 lb ft	Passed - 20%
Factored Shear:	1'- 10 15/16"	1.4D	0.65	952 lb	3042 lb	Passed - 31%
Live Load (LL) Pos. Defl.:	11'- 4 1/8"	L		0.152"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	11'- 9 7/16"	D + L		0.170"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	5-08	1.25D + 1.5S + L	1.00	6790 lb		11180 lb	16918 lb	Passed - 61%
2	4-02	1.25D + 1.5L	0.74	741 lb		3469 lb	18651 lb	Passed - 21%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	20'- 9 5/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	-0'	1'- 11"	FC3 Floor Decking (Plan View Fill)	Top	-	22 lb/ft	-	-
Uniform	0'- 6"	1'- 11"	E33(i51781)	Top	101 lb/ft	-	-	-
Uniform	1'- 11"	11'- 4 3/16"	FC3 Floor Decking (Plan View Fill)	Top	8 lb/ft	23 lb/ft	-	-
Uniform	2'- 1/4"	11'- 4 3/16"	FC3 Floor Decking (Plan View Fill)	Top	7 lb/ft	18 lb/ft	-	-
Uniform	11'- 4 3/16"	20'- 9 5/8"	FC3 Floor Decking (Plan View Fill)	Top	15 lb/ft	40 lb/ft	-	-
Point	0'- 2 1/2"	0'- 2 1/2"	-	Back	511 lb	-	144 lb	-
Point	2'- 1 3/4"	2'- 1 3/4"	E20(i41626)	Top	1397 lb	-	2122 lb	-

UNFACTORED REACTIONS

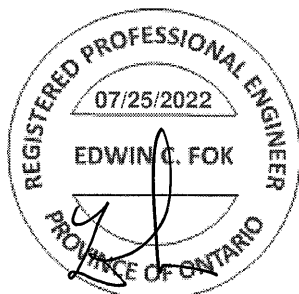
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	1'- 11"	2'- 4 1/2"	E12(i41614)	2339 lb	417 lb	2303 lb	-
2	20'- 5 1/2"	20'- 9 5/8"	APP (DR.) (i53449)	130 lb	382/-2 lb	-19 lb	-

DESIGN NOTES

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

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.



SG049392



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

Job Name: **346144 Ground A + Second A (1,**
Level: **Second Floor**
Label: **B54 (CANT.) - i53212**
Type: **Beam**

2 Ply Member
11 7/8" NI-40x

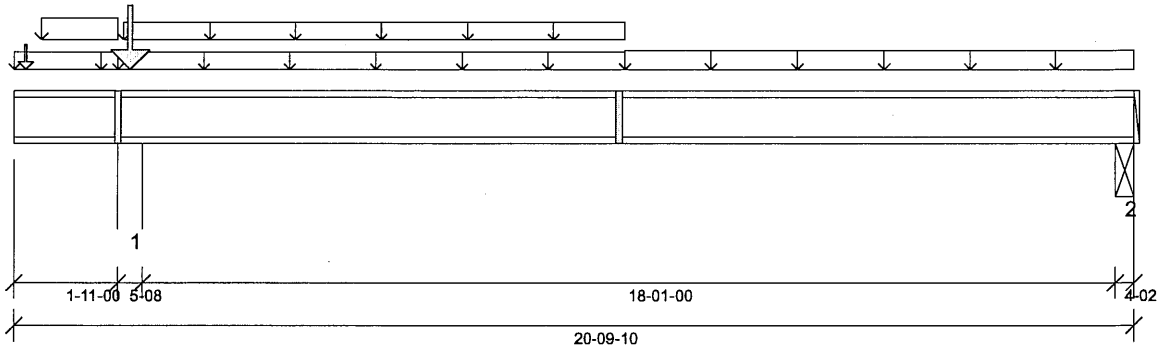
Status:
Design Passed

Illustration Not to Scale. Pitch: 0/12

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

Report Version: 2021.03.26

07/18/2022 11:18



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: 9'- 1/16"

Factored Resistance of Support Material:

- 615 psi Wall @ 2'- 1 3/4"
- 1220 psi Beam @ 20'- 6 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Factored Pos. Moment:	12'- 2 13/16"	1.25D + 1.5L	0.75	3028 lb ft	9354 lb ft	Passed - 32%
Factored Neg. Moment:	2'- 1 3/4"	1.4D	0.65	1621 lb ft	8132 lb ft	Passed - 20%
Factored Shear:	1'- 10 15/16"	1.4D	0.65	956 lb	3042 lb	Passed - 31%
Live Load (LL) Pos. Defl.:	11'- 4 1/8"	L		0.156"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	11'- 9 5/16"	D + L		0.175"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	5'-08"	1.25D + 1.5S + L	1.00	6741 lb		11180 lb	16918 lb	Passed - 60%
2	4'-02"	1.25D + 1.5L	0.75	761 lb		3499 lb	18814 lb	Passed - 22%

SPECIFIED LOADS

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Self Weight	0'	20'- 9 5/8"	Self Weight	Top	6 lb/ft	-	-	-
Uniform	0'	1'- 11"	FC3 Floor Decking (Plan View Fill)	Top	-	25 lb/ft	-	-
Uniform	0'- 6"	1'- 11"	E31(i51782)	Top	101 lb/ft	-	-	-
Uniform	1'- 11"	11'- 4 3/16"	FC3 Floor Decking (Plan View Fill)	Top	8 lb/ft	20 lb/ft	-	-
Uniform	2'- 1/4"	11'- 4 3/16"	FC3 Floor Decking (Plan View Fill)	Top	8 lb/ft	21 lb/ft	-	-
Uniform	11'- 4 3/16"	20'- 9 5/8"	FC3 Floor Decking (Plan View Fill)	Top	15 lb/ft	41 lb/ft	-	-
Point	0'- 2 1/2"	0'- 2 1/2"	-	Front	511 lb	-	144 lb	-
Point	2'- 1 3/4"	2'- 1 3/4"	E34(i51902)	Top	1377 lb	-	2090 lb	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)
1	1'- 11"	2'- 4 1/2"	E12(i41614)	2325 lb	434 lb	2271 lb	-
2	20'- 5 1/2"	20'- 9 5/8"	APP (DR.)(i53449)	134 lb	392/-3 lb	-19 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.
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- 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.

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.



SG049393



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

PASSED

Ground Floor\Flush Beams\B55(i53418) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 11:19:11

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A (1,3).mmdl

Address: Pine Valley Ph2

Description: Ground Floor\Flush Beams\B55(i53418)

City, Province, Postal Code: Vaughan, ON

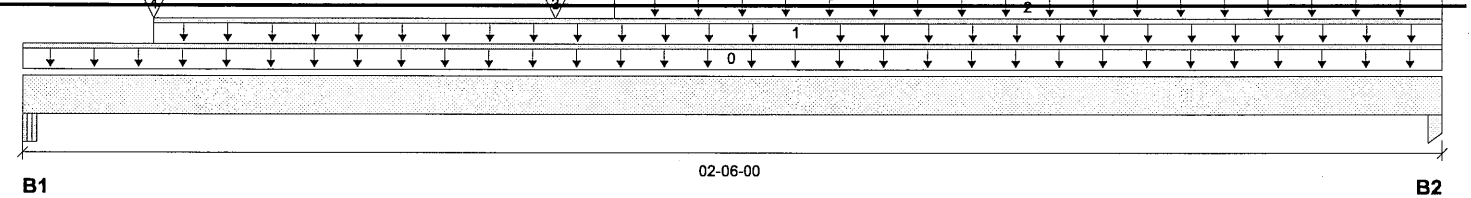
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses Inc.



Total Horizontal Product Length = 02-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	3602 / 0	2145 / 0		
B2, 3"	52 / 0	104 / 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	02-06-00	Top		12			00-00-00
1	WALL	Unf. Lin. (lb/ft)	L	00-02-12	02-06-00	Top		60			n/a
2	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	01-00-08	02-06-00	Top	26				n/a
3	B12(i52824)	Conc. Pt. (lbs)	L	00-11-04	00-11-04	Back	87	41			n/a
4	Pt1(i52780)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	Top	3523	2026			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	118 ft-lbs	35392 ft-lbs	0.3%	1	01-00-03
End Shear	55 lbs	14464 lbs	0.4%	1	01-05-06
Total Load Deflection	L/999 (0")	n/a	n/a	4	01-03-11
Max Defl.	0"	n/a	n/a	4	01-03-11
Span / Depth	1.9				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Beam 5-1/2" x 3-1/2"	8085 lbs	68.3%	34.4%	Unspecified
B2	Column 3" x 3-1/2"	146 lbs	1.2%	1.8%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Resistance Factor phi has been applied to all presented results per CSA O86.
 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor : Normal Part code : Part 9
 Calculations assume unbraced length of Top: 00-00-00, Bottom: 01-05-08.

NAIL ONE PLY TO ANOTHER WITH
 3-1/2" SPIRAL NAILS @ 4" O/C
 STAGGERED IN 2 ROWS



S3049394



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

PASSED

Ground Floor\Flush Beams\B56(i52911) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 11:19:44

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A (1,3).mmdl

Address: Pine Valley Ph2

Description: Ground Floor\Flush Beams\B56(i52911)

City, Province, Postal Code: Vaughan, ON

Specifier:

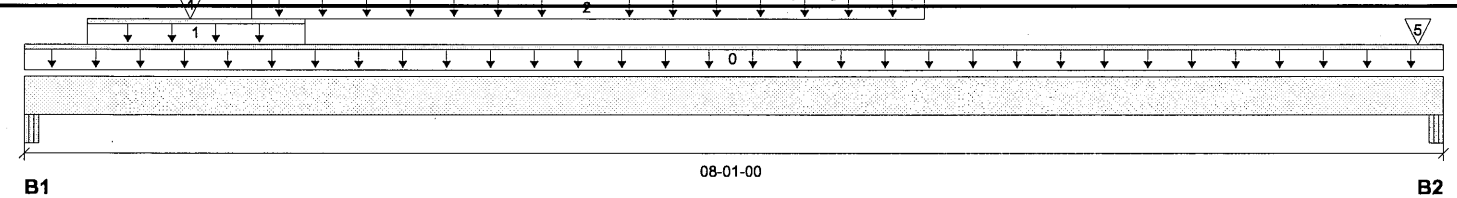
Customer: Gold Park Homes

Designer: TL

Code reports:

CCMG 12472-R

Company: Alpa Roof Trusses Inc.



Total Horizontal Product Length = 08-01-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	1988 / 0	1320 / 0		
B2, 5-1/2"	2091 / 0	1465 / 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	08-01-00	Top		6			00-00-00
1	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-04-04	01-07-02	Top	45				n/a
2	STAIR	Unf. Lin. (lb/ft)	L	01-03-08	05-01-08	Top	184	69			n/a
3	Smoothed Load	Unf. Lin. (lb/ft)	L	01-05-04	07-05-04	Front	408	315			n/a
4	J8(i53724)	Conc. Pt. (lbs)	L	00-11-04	00-11-04	Front	318	245			n/a
5	J8(i53731)	Conc. Pt. (lbs)	L	07-11-04	07-11-04	Front	407	261			n/a
6	J2(i53540)	Conc. Pt. (lbs)	L	01-07-02	01-07-02	Back	113	42			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	8736 ft-lbs	17696 ft-lbs	49.4%	1	03-11-04
End Shear	4114 lbs	7232 lbs	56.9%	1	01-05-06
Total Load Deflection	L/999 (0.12")	n/a	n/a	4	04-00-12
Live Load Deflection	L/999 (0.072")	n/a	n/a	5	03-11-04
Max Defl.	0.12"	n/a	n/a	4	04-00-12
Span / Depth	7.4				



Bearing Supports

	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Beam 5-1/2" x 1-3/4"	4632 lbs	78.2%	39.4%	Unspecified
B2	Beam 5-1/2" x 1-3/4"	4967 lbs	83.9%	42.3%	Unspecified

Notes

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

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

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

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-09-08.

Disclosure

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

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

S2049395



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

PASSED

Ground Floor\Flush Beams\B57 (-3R)(i52845) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 11:20:05

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A (1,3).mmdl

Address: Pine Valley Ph2

Description: Ground Floor\Flush Beams\B57 (-3R)(i52845)

City, Province, Postal Code: Vaughan, ON

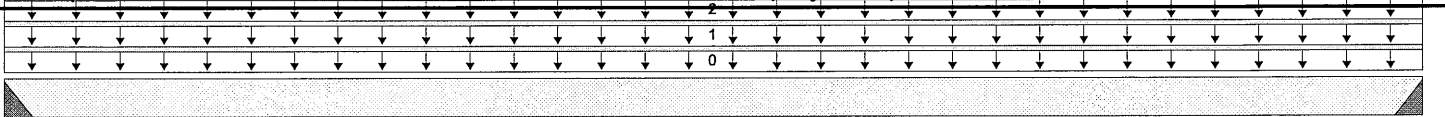
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses Inc.



B1

05-10-00

B2

Total Horizontal Product Length = 05-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	2572 / 0	1660 / 0		
B2, 2"	680 / 0	578 / 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	05-10-00	Top		12			00-00-00
1	WALL	Unf. Lin. (lb/ft)	L	00-00-00	05-10-00	Top		60			n/a
2	FC1 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	05-10-00	Top	42	16			n/a
3	10(i41708)	Conc. Pt. (lbs)	L	01-01-12	01-01-12	Top	3007	1720			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	6071 ft-lbs	35392 ft-lbs	17.2%	1	01-01-12
End Shear	5662 lbs	14464 lbs	39.1%	1	01-01-14
Total Load Deflection	L/999 (0.02")	n/a	n/a	4	02-07-01
Live Load Deflection	L/999 (0.012")	n/a	n/a	5	02-07-01
Max Defl.	0.02"	n/a	n/a	4	02-07-01
Span / Depth	5.7				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Hanger 2" x 3-1/2"	5932 lbs	n/a	69.5%	HGUS410
B2	Hanger 2" x 3-1/2"	1742 lbs	n/a	20.4%	HGUS410

Cautions

Hanger model HGUS410 and seat length were input by the user.

Header for the hanger HGUS410 is a Double 1-3/4" x 11-7/8" LVL beam.

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

Notes

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

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

Hanger Manufacturer: Unassigned

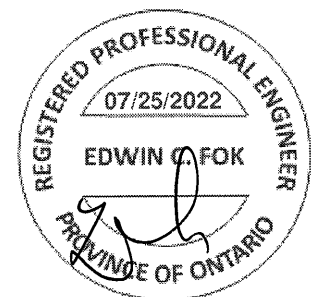
Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 00-00-00, Bottom: 05-10-00.



SE049896



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

PASSED

Ground Floor\Flush Beams\B58 (-3R)(i52888) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 11:20:22

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A (1,3).mmdl

Address: Pine Valley Ph2

Description: Ground Floor\Flush Beams\B58 (-3R)(i52888)

City, Province, Postal Code: Vaughan, ON

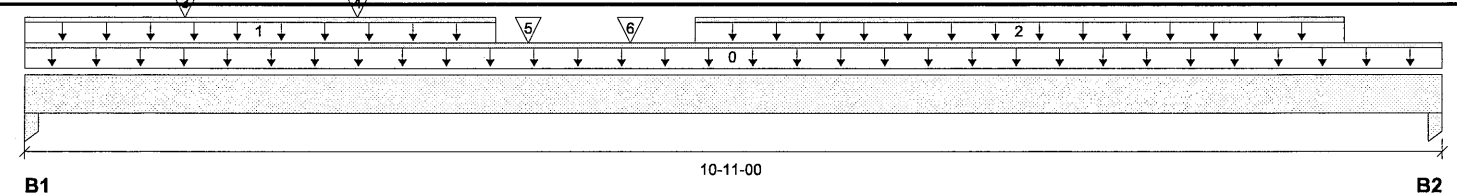
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses Inc.



Total Horizontal Product Length = 10-11-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3"	2287 / 0	1403 / 0		
B2, 5-1/2"	1523 / 0	949 / 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	10-11-00	Top		12			00-00-00
1	STAIR	Unf. Lin. (lb/ft)	L	00-00-00	03-07-08	Top	34	13			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	05-01-15	10-01-15	Back	127	63			n/a
3	J4(i53291)	Conc. Pt. (lbs)	L	01-02-12	01-02-12	Back	178	67			n/a
4	J4(i53241)	Conc. Pt. (lbs)	L	02-06-12	02-06-12	Back	170	64			n/a
5	B57 (-3R)(i52845)	Conc. Pt. (lbs)	L	03-10-08	03-10-08	Back	2551	1646			n/a
6	J4(i53525)	Conc. Pt. (lbs)	L	04-07-15	04-07-15	Back	115	57			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	17038 ft-lbs	35392 ft-lbs	48.1%	1	03-10-08
End Shear	5052 lbs	14464 lbs	34.9%	1	01-02-14
Total Load Deflection	L/616 (0.201")	n/a	39.0%	4	05-00-07
Live Load Deflection	L/999 (0.124")	n/a	n/a	5	05-00-07
Max Defl.	0.201"	n/a	n/a	4	05-00-07
Span / Depth	10.4				

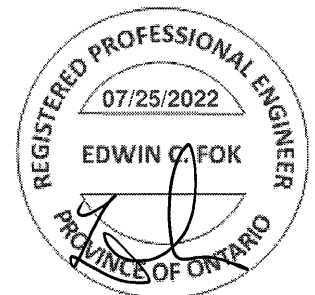
Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Column 3" x 3-1/2"	5184 lbs	28.5%	40.5%	Spruce-Pine-Fir
B2	Column 5-1/2" x 3-1/2"	3471 lbs	10.4%	14.8%	Spruce-Pine-Fir

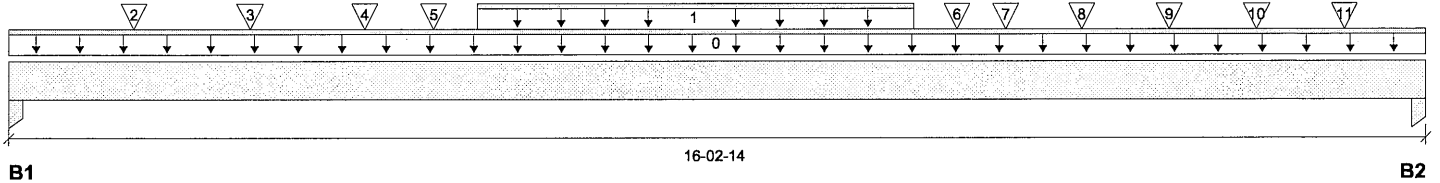
Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Resistance Factor phi has been applied to all presented results per CSA O86.
 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor : Normal Part code : Part 9
 Calculations assume unbraced length of Top: 00-00-00, Bottom: 01-01-08.

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



SC049397


Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	1439 / 0	959 / 0		
B2, 4-3/8"	1287 / 0	789 / 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	16-02-14	Top		12			00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	05-04-07	10-04-07	Front	128	64			n/a
2	J4(i53291)	Conc. Pt. (lbs)	L	01-05-04	01-05-04	Front	178	67			n/a
3	J4(i53241)	Conc. Pt. (lbs)	L	02-09-04	02-09-04	Front	170	64			n/a
4	B57 (-3R)(i52845)	Conc. Pt. (lbs)	L	04-01-00	04-01-00	Front	725	601			n/a
5	J4(i53525)	Conc. Pt. (lbs)	L	04-10-07	04-10-07	Front	115	57			n/a
6	J4(i53227)	Conc. Pt. (lbs)	L	10-10-06	10-10-06	Front	99	46			n/a
7	J3(i53235)	Conc. Pt. (lbs)	L	11-05-02	11-05-02	Front	126	63			n/a
8	J3(i53225)	Conc. Pt. (lbs)	L	12-03-10	12-03-10	Front	164	82			n/a
9	J3(i53224)	Conc. Pt. (lbs)	L	13-03-10	13-03-10	Front	175	88			n/a
10	J3(i53384)	Conc. Pt. (lbs)	L	14-03-10	14-03-10	Front	174	87			n/a
11	J3(i53324)	Conc. Pt. (lbs)	L	15-03-10	15-03-10	Front	160	80			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	12220 ft-lbs	35392 ft-lbs	34.5%	1	06-10-07
End Shear	3332 lbs	14464 lbs	23.0%	1	01-05-06
Total Load Deflection	L/472 (0.395")	n/a	50.8%	4	07-10-07
Live Load Deflection	L/778 (0.24")	n/a	46.3%	5	08-01-07
Max Defl.	0.395"	n/a	n/a	4	07-10-07
Span / Depth	15.7				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Column 5-1/2" x 3-1/2"	3357 lbs	10.1%	14.3%	Spruce-Pine-Fir
B2	Column 4-3/8" x 3-1/2"	2917 lbs	11.0%	15.6%	Spruce-Pine-Fir

Notes

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

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

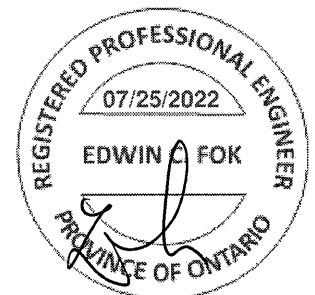
Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 00-00-00, Bottom: 01-01-08.

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




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

PASSED

Second Floor\Flush Beams\B60(i58098) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 14:22:28

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A W Elevator (2,4).mmdl

Address: Pine Valley Ph2

Description: Second Floor\Flush Beams\B60(i58098)

City, Province, Postal Code: Vaughan, ON

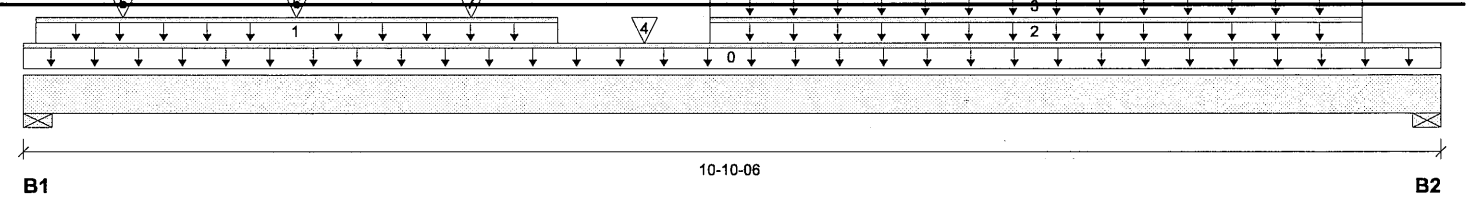
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses Inc.



Total Horizontal Product Length = 10-10-06

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	2303 / 0	970 / 0		
B2, 4-3/8"	2128 / 0	969 / 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	10-10-06	Top		12			00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-01-02	04-01-02	Front	187	70			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	05-03-02	10-03-02	Back	258	104			n/a
3	Smoothed Load	Unf. Lin. (lb/ft)	L	05-03-02	10-03-02	Front	187	91			n/a
4	-	Conc. Pt. (lbs)	L	04-09-02	04-09-02	Front	519	200			n/a
5	J2(i58134)	Conc. Pt. (lbs)	L	00-09-02	00-09-02	Back	252	94			n/a
6	J2(i58215)	Conc. Pt. (lbs)	L	02-01-02	02-01-02	Back	344	129			n/a
7	J2(i58227)	Conc. Pt. (lbs)	L	03-05-02	03-05-02	Back	344	129			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	11829 ft-lbs	35392 ft-lbs	33.4%	1	05-09-02
End Shear	4153 lbs	14464 lbs	28.7%	1	09-06-02
Total Load Deflection	L/776 (0.157")	n/a	30.9%	4	05-06-02
Live Load Deflection	L/999 (0.109")	n/a	n/a	5	05-06-02
Max Defl.	0.157"	n/a	n/a	4	05-06-02
Span / Depth	10.3				

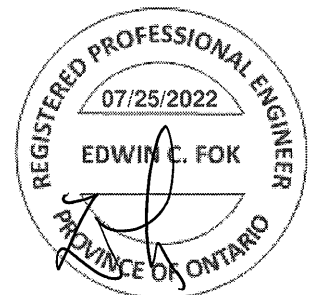
Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 5-1/2" x 3-1/2"	4667 lbs	39.4%	19.9%	Spruce-Pine-Fir
B2	Wall/Plate 4-3/8" x 3-1/2"	4403 lbs	46.7%	23.6%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Resistance Factor phi has been applied to all presented results per CSA O86.
 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor : Normal Part code : Part 9
 Calculations assume unbraced length of Top: 00-00-00, Bottom: 01-01-08.

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



SG049899



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP Second Floor\Flush Beams\B61 (CANT.)(i58261) (Flush Beam)

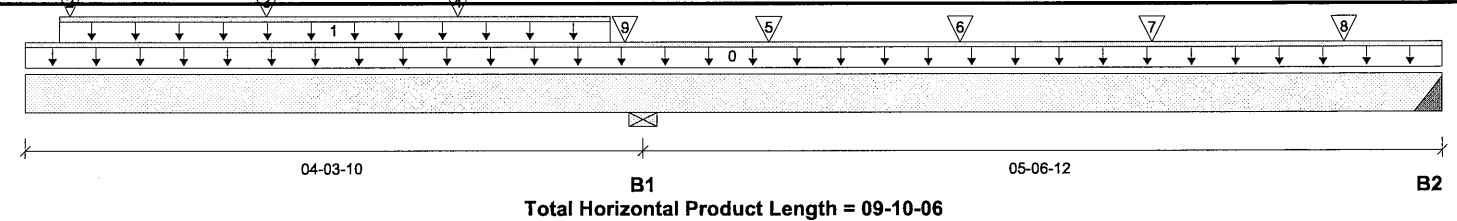
PASSED

 BC Design Engine Member Report
 Build 8183

Dry | 2 spans | L cant.

July 18, 2022 14:22:46

 Job name: 5013 A CU - Lot 88, 129
 Address: Pine Valley Ph2
 City, Province, Postal Code: Vaughan, ON
 Customer: Gold Park Homes
 Code reports: CCMC 12472-R

 File name: 346144 Ground A + Second A W Elevator (2,4).mmdl
 Description: Second Floor\Flush Beams\B61 (CANT.)(i58261)
 Specifier:
 Designer: TL
 Company: Alpa Roof Trusses Inc.


Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	1891 / 0	1028 / 0		
B2, 2"	430 / 462	0 / 20		

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	09-10-06	Top		12			00-00-00
1	STAIR	Unf. Lin. (lb/ft)	L	00-02-14	04-00-14	Top	100	38			n/a
2	B47(i58078)	Conc. Pt. (lbs)	L	00-03-12	00-03-12	Front	270	130			n/a
3	J6(i58268)	Conc. Pt. (lbs)	L	01-08-02	01-08-02	Front	163	61			n/a
4	J6(i57737)	Conc. Pt. (lbs)	L	03-00-02	03-00-02	Front	148	56			n/a
5	-	Conc. Pt. (lbs)	L	05-02-02	05-02-02	Front	197	74			n/a
6	-	Conc. Pt. (lbs)	L	06-06-02	06-06-02	Front	222	83			n/a
7	-	Conc. Pt. (lbs)	L	07-10-02	07-10-02	Front	222	83			n/a
8	-	Conc. Pt. (lbs)	L	09-02-02	09-02-02	Front	184	69			n/a
9	B2(i58189)	Conc. Pt. (lbs)	L	04-02-02	04-02-02	Back	57	183			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	728 ft-lbs	35392 ft-lbs	2.1%	6	07-10-02
Neg. Moment	-5256 ft-lbs	-35392 ft-lbs	14.9%	1	04-03-10
End Shear	673 lbs	14464 lbs	4.7%	5	08-08-08
Cont. Shear	1789 lbs	14464 lbs	12.4%	1	03-01-00
Total Load Deflection	2xL/1998 (0.08")	n/a	n/a	9	00-00-00
Live Load Deflection	2xL/1998 (0.057")	n/a	n/a	12	00-00-00
Total Neg. Defl.	L/999 (-0.011")	n/a	n/a	9	06-06-02
Max Defl.	-0.011"	n/a	n/a	9	06-06-02
Span / Depth	5.5				

Bearing Supports

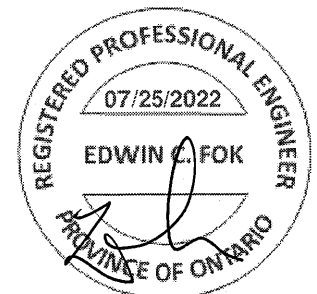
	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 5-1/2" x 3-1/2"	4122 lbs	34.8%	17.6%	Spruce-Pine-Fir
B2	Hanger 2" x 3-1/2"	627 lbs	n/a	7.3%	HU410
B2	Uplift	719 lbs			

Cautions

Uplift of 719 lbs found at bearing B2

Hanger model HU410 and seat length were input by the user.

Long Cantilever: Sheathing required on bottom flange and adjacent back span or bracing designed by the design professional of record. Design professional of record must address uplift at supports.

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


S6049400



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

PASSED

Second Floor\Flush Beams\B62(i58132) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 14:23:05

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A W Elevator (2,4).mmdl

Address: Pine Valley Ph2

Description: Second Floor\Flush Beams\B62(i58132)

City, Province, Postal Code: Vaughan, ON

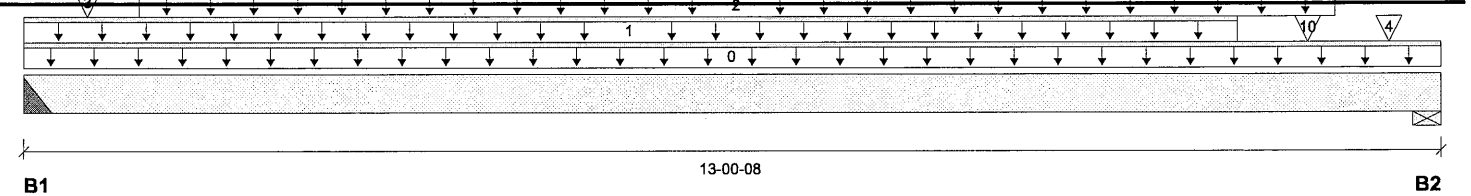
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CCMC 2472-R

Company: Alpa Roof Trusses Inc.



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	3134 / 168	1984 / 0		
B2, 5-1/2"	3405 / 132	2210 / 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	13-00-08	Top		18			00-00-00
1	WALL	Unf. Lin. (lb/ft)	L	00-00-00	11-02-00	Top		60			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	01-00-12	12-00-12	Front	432	186			n/a
3	-	Conc. Pt. (lbs)	L	00-07-02	00-07-02	Front	434	159			n/a
4	J11(i58003)	Conc. Pt. (lbs)	L	12-06-12	12-06-12	Front	411	159			n/a
5	J9(i58169)	Conc. Pt. (lbs)	L	02-01-12	02-01-12	Back	79				n/a
6	J9(i58285)	Conc. Pt. (lbs)	L	03-05-12	03-05-12	Back	79				n/a
7	B29(i57633)	Conc. Pt. (lbs)	L	05-07-04	05-07-04	Back	385	317			n/a
8	B29(i57633)	Conc. Pt. (lbs)	L	05-07-04	05-07-04	Back	-300				n/a
9	B27(i57612)	Conc. Pt. (lbs)	L	10-09-12	10-09-12	Back	120	338			n/a
10	J5(i57957)	Conc. Pt. (lbs)	L	11-09-12	11-09-12	Back	156	72			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	23629 ft-lbs	55211 ft-lbs	42.8%	1	05-07-04
End Shear	6935 lbs	21696 lbs	32.0%	1	11-07-02
Total Load Deflection	L/468 (0.322")	n/a	51.3%	6	06-06-12
Live Load Deflection	L/774 (0.194")	n/a	46.5%	8	06-01-10
Max Defl.	0.322"	n/a	n/a	6	06-06-12
Span / Depth	12.7				

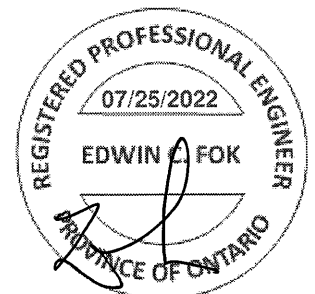
Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Hanger 2" x 5-1/4"	7181 lbs	n/a	56.1%	HGUS5.50/10
B2	Wall/Plate 5-1/2" x 5-1/4"	7870 lbs	44.3%	22.3%	Spruce-Pine-Fir

Cautions

Hanger model HGUS5.50/10 and seat length were input by the user.

Header for the hanger HGUS5.50/10 is a Double 1-3/4" x 11-7/8" LVL beam.

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


SG04940 |



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

PASSED

Second Floor\Flush Beams\B64(i58216) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 14:24:38

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A W Elevator (2,4).mmdl

Address: Pine Valley Ph2

Description: Second Floor\Flush Beams\B64(i58216)

City, Province, Postal Code: Vaughan, ON

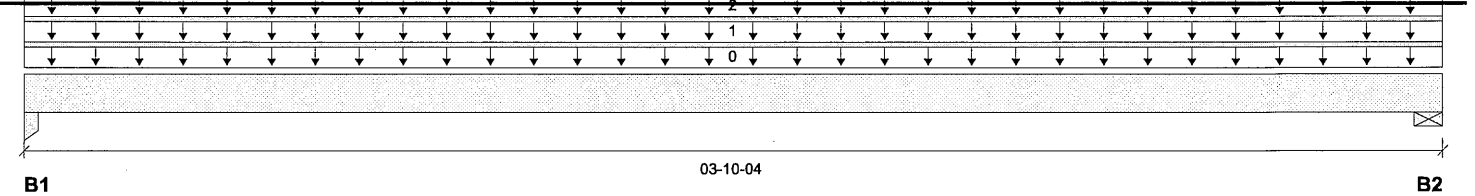
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CCMC 12472-R

Company: Alpha Roof Trusses Inc.



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2-3/4"	2360 / 122	1621 / 0		
B2, 2"	879 / 43	674 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-10-04	Top	1.00	0.65	1.00	1.15	00-00-00
1	WALL	Unf. Lin. (lb/ft)	L	00-00-00	03-10-04	Top		12			n/a
2	FC3 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	03-10-04	Top	24	60			n/a
3	FC3 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	01-01-02	03-10-04	Top	19	9			n/a
4	B62(i58132)	Conc. Pt. (lbs)	L	01-01-02	01-01-02	Front	3077	1957			n/a
5	B62(i58132)	Conc. Pt. (lbs)	L	01-01-02	01-01-02	Front	-165				n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	5065 ft-lbs	35392 ft-lbs	14.3%	1	01-01-02
End Shear	4499 lbs	14464 lbs	31.1%	1	01-02-10
Total Load Deflection	L/999 (0.007")	n/a	n/a	6	01-09-05
Live Load Deflection	L/999 (0.004")	n/a	n/a	8	01-09-05
Max Defl.	0.007"	n/a	n/a	6	01-09-05
Span / Depth	3.6				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Column 2-3/4" x 3-1/2"	5566 lbs	33.3%	47.4%	Spruce-Pine-Fir
B2	Wall/Plate 2" x 3-1/2"	2161 lbs	50.2%	25.3%	Spruce-Pine-Fir

 NAIL ONE PLY TO ANOTHER WITH
 3-1/2" SPIRAL NAILS @ 4" O/C
 STAGGERED IN 2 ROWS

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Resistance Factor phi has been applied to all presented results per CSA O86.
 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor : Normal Part code : Part 9
 Calculations assume unbraced length of Top: 00-00-00, Bottom: 02-06-08.



SE04940L



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

PASSED

Ground Floor\Flush Beams\B65 (-3R)(i57673) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 14:25:12

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A W Elevator (2,4).mmdl

Address: Pine Valley Ph2

Description: Ground Floor\Flush Beams\B65 (-3R)(i57673)

City, Province, Postal Code: Vaughan, ON

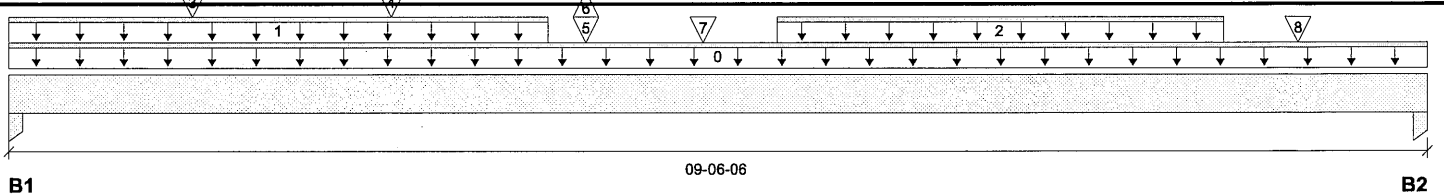
Specifier:

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, 3"	1974 / 21	1288 / 0		
B2, 4-3/8"	1494 / 14	991 / 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	09-06-06	Top		12			00-00-00
1	STAIR	Unf. Lin. (lb/ft)	L	00-00-00	03-07-08	Top	34	13			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	05-01-15	08-01-15	Back	128	64			n/a
3	J3(i58067)	Conc. Pt. (lbs)	L	01-02-12	01-02-12	Back	178	67			n/a
4	J3(i58162)	Conc. Pt. (lbs)	L	02-06-12	02-06-12	Back	170	64			n/a
5	B57 (-3R)(i57730)	Conc. Pt. (lbs)	L	03-10-08	03-10-08	Back	2376	1671			n/a
6	B57 (-3R)(i57730)	Conc. Pt. (lbs)	L	03-10-08	03-10-08	Back	-35				n/a
7	J3(i58301)	Conc. Pt. (lbs)	L	04-07-15	04-07-15	Back	115	57			n/a
8	J3(i58203)	Conc. Pt. (lbs)	L	08-07-15	08-07-15	Back	113	56			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	14779 ft-lbs	35392 ft-lbs	41.8%	1	03-10-08
End Shear	4440 lbs	14464 lbs	30.7%	1	01-02-14
Total Load Deflection	L/814 (0.133")	n/a	29.5%	6	04-05-09
Live Load Deflection	L/999 (0.08")	n/a	n/a	8	04-06-12
Max Defl.	0.133"	n/a	n/a	6	04-05-09
Span / Depth	9.1				

				Demand/ Resistance Support	Demand/ Resistance Member	
Bearing Supports	Dim. (LxW)	Demand				Material
B1	Column	3" x 3-1/2"	4571 lbs	25.1%	35.7%	Spruce-Pine-Fir
B2	Column	4-3/8" x 3-1/2"	3480 lbs	13.1%	18.6%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Resistance Factor phi has been applied to all presented results per CSA O86.
 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor : Normal Part code : Part 9
 Calculations assume unbraced length of Top: 00-00-00, Bottom: 01-01-08.

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



SG049403



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

PASSED

Ground Floor\Flush Beams\B66 (-3R)(i58263) (Flush Beam)

BC Design Engine Member Report

Dry | 1 span | No cant.

July 18, 2022 14:25:28

Build 8183

Job name: 5013 A CU - Lot 88, 129

File name: 346144 Ground A + Second A W Elevator (2,4).mmdl

Address: Pine Valley Ph2

Description: Ground Floor\Flush Beams\B66 (-3R)(i58263)

City, Province, Postal Code: Vaughan, ON

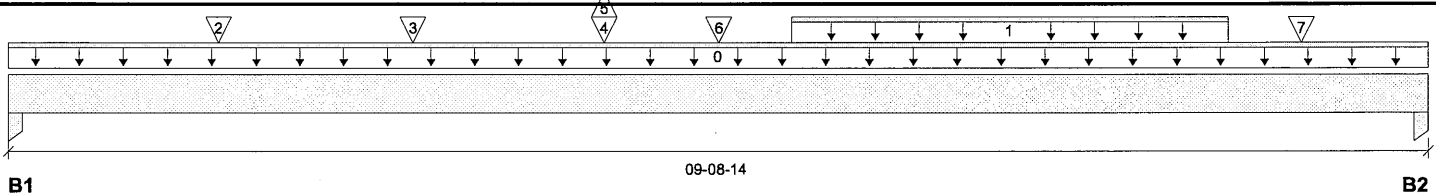
Specifier:

Customer: Gold Park Homes

Designer: TL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses Inc.



Total Horizontal Product Length = 09-08-14

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	862 / 5	613 / 0		
B2, 4-3/8"	781 / 4	549 / 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	09-08-14	Top		12			00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	05-04-07	08-04-07	Front	128	64			n/a
2	J3(i58067)	Conc. Pt. (lbs)	L	01-05-04	01-05-04	Front	178	67			n/a
3	J3(i58162)	Conc. Pt. (lbs)	L	02-09-04	02-09-04	Front	170	64			n/a
4	B57 (-3R)(i57730)	Conc. Pt. (lbs)	L	04-01-00	04-01-00	Front	683	608			n/a
5	B57 (-3R)(i57730)	Conc. Pt. (lbs)	L	04-01-00	04-01-00	Front	-9				n/a
6	J3(i58301)	Conc. Pt. (lbs)	L	04-10-07	04-10-07	Front	115	57			n/a
7	J3(i58203)	Conc. Pt. (lbs)	L	08-10-07	08-10-07	Front	113	56			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	6096 ft-lbs	35392 ft-lbs	17.2%	1	04-01-00
End Shear	2033 lbs	14464 lbs	14.1%	1	01-05-06
Total Load Deflection	L/999 (0.059")	n/a	n/a	6	04-09-04
Live Load Deflection	L/999 (0.034")	n/a	n/a	8	04-09-04
Max Defl.	0.059"	n/a	n/a	6	04-09-04
Span / Depth	9.1				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Column 5-1/2" x 3-1/2"	2058 lbs	6.2%	8.8%	Spruce-Pine-Fir
B2	Column 4-3/8" x 3-1/2"	1858 lbs	7.0%	9.9%	Spruce-Pine-Fir

Notes

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

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

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

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 00-00-00, Bottom: 01-01-08.

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


S3049404

Maximum Floor Spans – M4.1, L/360

Design Criteria

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



Maximum Floor Spans

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

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

Notes:

- 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.

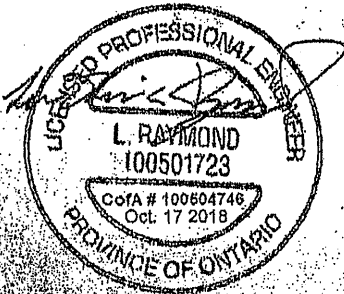
The construction details for residential designs are prone to changes.

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/>

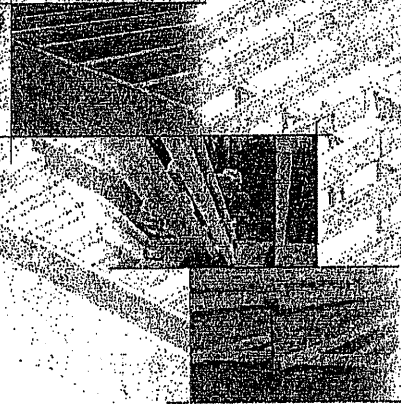
This document does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of its component based on the design criteria and loadings shown on the calculation sheets.

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



NORDIC ENGINEERED WOOD

INSTALLATION GUIDE FOR RESIDENTIAL FLOORS



Distributed by:



SAFETY AND CONSTRUCTION PRECAUTIONS



Do not walk on I-joists until fully fastened and braced, or without proper safety measures can result.



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

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

STORAGE AND HANDLING GUIDELINES

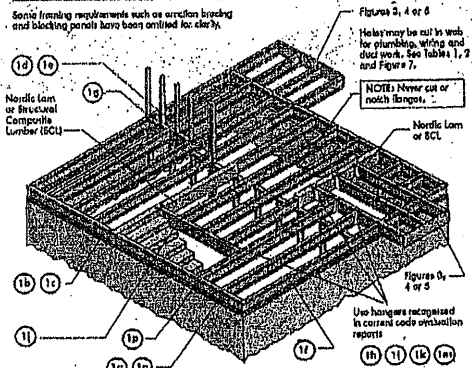
1. Bundle wrap can be slippery when wet. Avoid walking on wrapped bundles.
2. Store, stack, and handle I-joists vertically and level only.
3. Always stack and handle I-joists in the upright position only.
4. Do not store I-joists in direct contact with the ground and/or debris.
5. Protect I-joists from 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-joist 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-joist are vertical.
 - Pick the bundles at the 90° points, using a spreader bar if necessary.
8. Do not handle I-joists in a horizontal orientation.
9. NEVER USE CURTAIN TO REMEDY A DAMAGED I-JOIST.



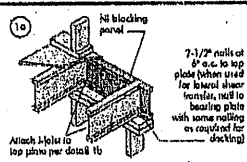
INSTALLING NORDIC I-JOISTS

1. Before laying out floor system components, verify that I-joist spans within a single hanger width. If not, consult your supplier.
2. Except for cutting to length, I-joist flanges should never be cut, drilled, or notched.
3. Install I-joists so that top and bottom flanges are within 1/2 inch of true vertical alignment.
4. I-joists must be anchored securely to supports before floor sheathing is installed, and supports for multiple-span joists must be level.
5. Minimum blocking length: 1-3/4" for end and bearings and 3-1/2" inches for intermediate bearings.
6. When using hangers, seat I-joist flange to hanger bottom to minimize movement.
7. Leave a 1/16-inch gap between the I-joist end and a header.
8. Concentrated loads greater than those that can normally be applied 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.
9. Never install I-joists where they will be permanently exposed to weather, or where they will remain in direct contact with concrete or masonry.
10. Restrain ends of floor joists to prevent rotation. Use rim board, rim joist or I-joist blocking panels.
11. For I-joists installed over and beneath bearing walls, use full depth blocking panels, rim board, or squash blocks (spline members) to transfer gravity loads through the floor system to the wall or foundation below.
12. Due to shrinkage, common framing lumber set on edge may never be used as blocking or rim boards. I-joist blocking panels or other engineered wood products - such as rim board - must be cut to fit between the I-joists, and on I-joist-compatible depth selected.
13. Provide permanent lateral support of the bottom flange of all I-joists at interior supports of multiple-span joists. Slightly 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 wire must be used.
14. If square-edge panels are used, edges must be supported between I-joists with 2x4 blocking. Close panels to blocking to minimize squeaks. Blocking is not required under structural finish flooring, such as wood strip flooring, or if a separate underlayment layer is installed.
15. Nail spacing: Space nails installed to the flange's top face in accordance with the applicable building code requirements or approved building plans.

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

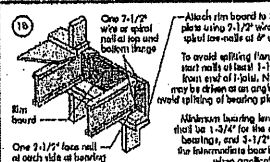


All nails shown in the above details are assumed to be common wire nails unless otherwise noted. 3" (76.2mm) common wire nails may be substituted for 2-1/2" (63.5mm) common wire nails. Framing lumber assumed to be Species-Per-Fit No. 2 or better. Individual components not shown to scale for clarity.



Blocking Panel or Rim Joist	Maximum Fastened Uniform Vertical Load (psf)
2x6	3,300

The uniform vertical load is limited to a joist depth of 14 inches or less and is based on standard term load duration. It shall not be used in the design of a bearing member, such as joist, header, or rafter. For concentrated vertical load transfer, see detail 1d.



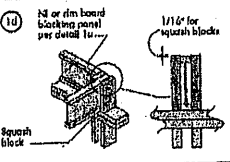
Blocking Panel or Rim Joist	Maximum Fastened Uniform Vertical Load (psf)
1-1/2" Rim Board Plan	3,300

The uniform vertical load is limited to a rim board depth of 14 inches or less and is based on standard term load duration. It shall not be used in the design of a bearing member, such as joist, header, or rafter. For concentrated vertical load transfer, see detail 1d.



Blocking Panel or Rim Joist	Maximum Fastened Uniform Vertical Load (psf)
1-1/2" Rim Board Plan	3,300

The uniform vertical load is limited to a rim board depth of 14 inches or less and is based on standard term load duration. It shall not be used in the design of a bearing member, such as joist, header, or rafter. For concentrated vertical load transfer, see detail 1d.



Blocking Panel or Rim Joist	Maximum Fastened Uniform Vertical Load (psf)
2x6	3,300

The uniform vertical load is limited to a joist depth of 14 inches or less and is based on standard term load duration. It shall not be used in the design of a bearing member, such as joist, header, or rafter. For concentrated vertical load transfer, see detail 1d.

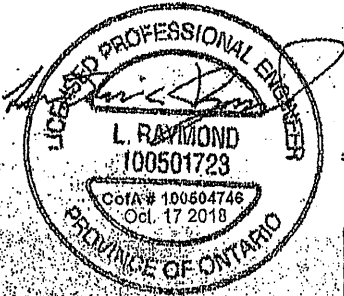
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Details released after April 2014 supersedes N-C301

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

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

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



MAXIMUM FLOOR SPANS	
1. Maximum clear spans applicable to single-span or multiple-span residential floor construction with a design live load of 40 psf and dead load of 10 psf. The ultimate live load values are based on the factored loads of 1.2DL + 1.6SL. 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 spans.	2. Spans are based on a composite floor with precast concrete slabs (CSP) finishing with a minimum thickness of 6.0 inch for joist spacing of 19.2 inches on center, or 3/4 inch for joist spacing of 24 inches. Adhesive shall meet the requirements given in COB-7.1.24 standard. No concrete topping or bridging element was assumed. Increased spans may be achieved with the use of gypcrete and/or a row of blocking at mid-span.
3. Minimum bearing length shall be 1-3/4 inches for the end bearings, and 2-1/2 inches for the intermediate bearings.	4. Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.
5. This span chart is based on uniform loads. For applications with other than uniform loads, an engineering analysis may be required based on the use of the design properties.	6. Tables are based on Unit Stress Design per CAN/CSA C06-07 Standard, and NBC 2010.
7. SI units conversion: 1 inch = 25.4 mm 1 foot = 0.305 m	

I-JOIST HANGERS

- Hangers shown illustrate the three most commonly used metal hangers to support I-joists.
- All hangers must meet the hanger manufacturer's recommendation.
- 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 clear of the hangers do not laterally brace the top flange of the I-joist.

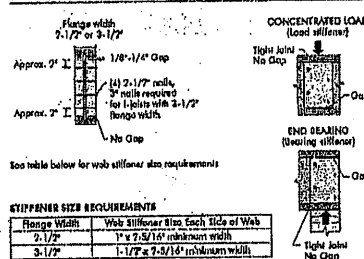


WEB STIFFENERS

RECOMMENDATIONS:

- A bearing stiffener is required in all engineered applications with increased reactions greater than shown in the I-joist properties table found in the I-joist Construction Guide (CUG). The gap between the stiffener and flange is at the top.
- A bearing stiffener is required when the I-joist is supported in a hanger and the stiffener does 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 localized 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. There 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.

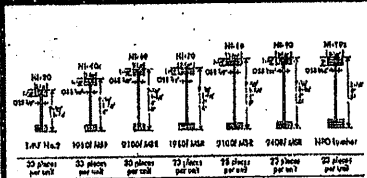
SI units conversion: 1 inch = 25.4 mm

FIGURE 9
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



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

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

1a Transfer load from above to bearing below. Wall or beam below bearing area of blocks below to be above.

1b Wall sheathing, not required. Airtight board may be used in lieu of I-joists. Backer is not required when airtight board is used. Blocking per detail 1b is required.

1c Double I-joist header with full depth filler block shown. Nordic Lamin or SCL headers may also be used. Verify double I-joist capacity to support concentrated loads.

1d Top- or face-mount hanger installed per manufacturer's recommendations. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1e Top-mount hanger installed per manufacturer's recommendations. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1f Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

1g Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

1h Do not level cut joist beyond inside face of wall.

1i Backer block (use if hanger load exceeds 360 lbs). Before installing a hanger block, to a double I-joist, drive three additional 3" nails through the webs and filler block where the backer block will fit. Check backer block tight to top flange. Use twice 2" nails, attached under, over, and between. Minimum required resistance for hanger for this detail = 1,620 lbs.

1j Double I-joist header. Top- or face-mount hanger. Filler block per detail 1b. Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1k Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1l Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1m Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1n Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1o Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1p Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1q Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1r Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1s Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1t Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1u Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1v Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1w Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1x Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1y Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1z Backer block required. Both sides for face-mount hanger. Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

2a Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2b Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2c Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2d Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2e Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2f Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2g Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2h Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2i Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2j Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2k Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2l Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2m Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2n Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2o Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2p Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2q Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2r Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2s Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2t Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2u Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2v Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2w Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2x Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2y Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

2z Filler block per detail 1b. Backer block attached per detail 1b. Note: Backer block required when top flange is not supported by hanger. Maximum support capacity = 1,620 lbs.

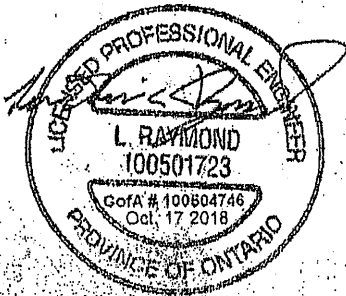
The construction details for residential designs are prone to changes.

Details released after April 2014 supersedes N-C301

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

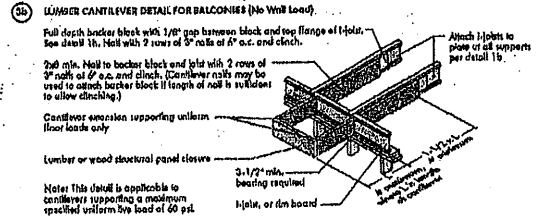
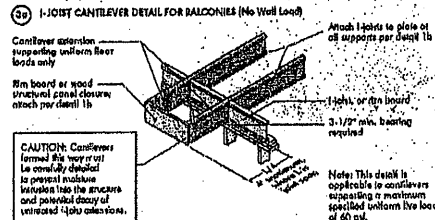
This document does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of its component based on the design criteria and loadings shown on the calculation sheets.

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

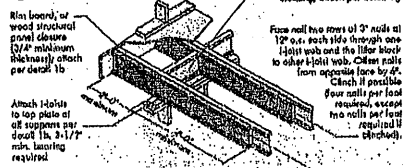
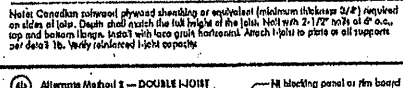
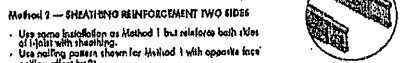
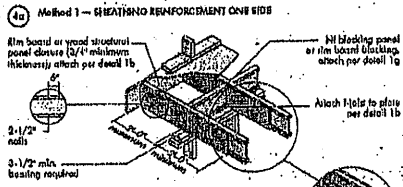


N-C301/April 2014

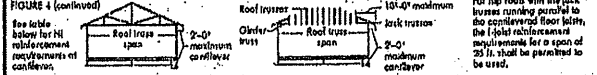
CANTILEVER DETAILS FOR BALCONIES (NO WALL LOAD)



CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET (CONCENTRATED WALL LOAD)



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

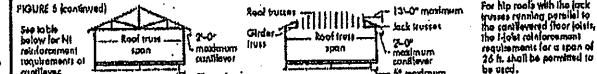
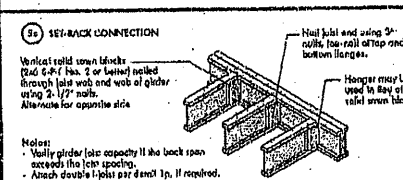
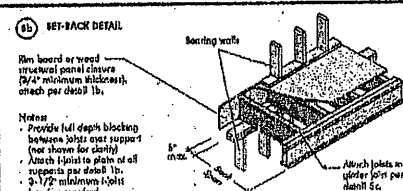
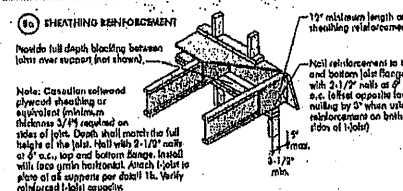


CANTILEVER REINFORCEMENT METHODS ALLOWED

Span (ft)	Method 1				Method 2				Method 3				Method 4				Method 5			
	N	H	W	U	N	H	W	U	N	H	W	U	N	H	W	U	N	H	W	U
0-10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10-15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15-20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20-25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25-30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30-35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
35-40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
40-45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
45-50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
50-55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
55-60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
60-65	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
65-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
70-75	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
75-80	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
80-85	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
85-90	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
90-95	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
95-100	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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

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



BRICK CANTILEVER REINFORCEMENT METHODS ALLOWED

Span (ft)	Method 1				Method 2				Method 3				Method 4				Method 5			
	N	H	W	U	N	H	W	U	N	H	W	U	N	H	W	U	N	H	W	U
0-10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10-15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15-20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20-25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25-30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30-35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
35-40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
40-45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
45-50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
50-55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
55-60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
60-65	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
65-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
70-75	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
75-80	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
80-85	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
85-90	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
90-95	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
95-100	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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

CONSTRUCTION DETAILS FOR RESIDENTIAL FLOORS

N-C303 / September 2013



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, hole-cut holes should be centred on the middle of the web.
4. The maximum size hole of the minimum depth of a duct chase opening that can be cut into an I-joist web shall equal the clear distance between the flanges of the I-joist minus 1/4 inch. A minimum of 1/8 inch should always be maintained between the top or bottom of the hole or opening and the adjacent I-joist flange.

5. The sides of square holes or longest sides of rectangular holes should not exceed 3/4 of the diameter of the maximum round hole permitted at that location.
6. Where more than one hole is necessary, the distance between adjacent hole edges shall exceed twice the diameter of the largest round hole or twice the size of the largest square hole for twice the length of the longest side of the largest 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 camouflaged section of a joist. Holes of greater size may be permitted subject to verification.

9. A 1-1/2 inch hole or smaller can be placed anywhere in the web provided that it meets the requirements of rule number 6 above.
10. All holes and duct chase openings shall be cut in a workmanlike manner in accordance with the restrictions listed above and as illustrated in Figure 7.
11. Limit three maximum size holes per span, of which one may be a duct chase opening.
12. A group of round holes of approximately the same location shall be permitted if they meet the requirements for a single round hole circumscribed around them.

TABLE 1
LOCATION OF CIRCULAR HOLES IN JOIST WEBS
Simple or Multiple Span for Dead Loads up to 15 psf and Live Loads up to 40 psf

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

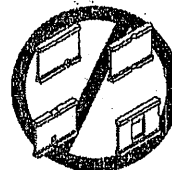
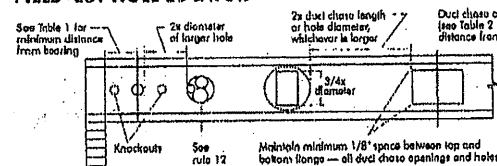
1. Above table may be used for I-joist spacing of 24 inches on centre or less.
2. Hole location distance is measured from inside face of support to centre of hole.
3. Distances in this chart are based on uniformly loaded joists.
4. The above table is based on the I-joist being used at their maximum spans. The minimum distances 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"	NH-20	4-1"	4-5"	4-10"	5-4"	5-8"	6-1"	6-6"	7-1"	7-5"	7-9"	8-3"	8-7"
	NH-40x	5-0"	5-8"	6-0"	6-5"	6-10"	7-5"	7-8"	8-2"	8-6"	9-0"	9-4"	9-8"
	NH-60	6-2"	6-7"	7-1"	7-5"	7-9"	8-3"	8-7"	9-1"	9-5"	9-9"	10-3"	10-7"
	NH-70	5-1"	5-5"	6-0"	6-3"	6-7"	7-1"	7-5"	7-9"	8-3"	8-7"	9-1"	9-5"
	NH-80	5-3"	5-8"	6-0"	6-5"	6-10"	7-5"	7-8"	8-2"	8-6"	9-0"	9-4"	9-8"
11-7/8"	NH-20	5-9"	6-4"	6-8"	7-1"	7-5"	7-9"	8-3"	8-7"	9-1"	9-5"	9-9"	10-3"
	NH-40x	6-8"	7-3"	7-6"	8-0"	8-4"	8-8"	9-2"	9-6"	10-0"	10-4"	10-8"	11-2"
	NH-60	7-9"	8-4"	8-8"	9-2"	9-6"	10-0"	10-4"	10-8"	11-2"	11-6"	12-0"	12-4"
	NH-70	7-1"	7-4"	7-8"	8-2"	8-6"	9-0"	9-4"	9-8"	10-2"	10-6"	11-0"	11-4"
	NH-80	7-2"	7-6"	8-0"	8-4"	8-8"	9-2"	9-6"	10-0"	10-4"	10-8"	11-2"	11-6"
14"	NH-20	6-7"	7-1"	7-5"	7-9"	8-3"	8-7"	9-1"	9-5"	9-9"	10-3"	10-7"	11-1"
	NH-40x	7-6"	8-0"	8-4"	8-8"	9-2"	9-6"	10-0"	10-4"	10-8"	11-2"	11-6"	12-0"
	NH-60	8-7"	9-1"	9-5"	9-9"	10-3"	10-7"	11-1"	11-5"	11-9"	12-3"	12-7"	13-1"
	NH-70	7-8"	8-2"	8-6"	9-0"	9-4"	9-8"	10-2"	10-6"	11-0"	11-4"	11-8"	12-2"
	NH-80	7-9"	8-3"	8-7"	9-1"	9-5"	9-9"	10-3"	10-7"	11-1"	11-5"	11-9"	12-3"
16"	NH-20	10-3"	10-7"	11-1"	11-5"	11-9"	12-3"	12-7"	13-1"	13-5"	13-9"	14-3"	14-7"
	NH-40x	10-4"	10-8"	11-2"	11-6"	12-0"	12-4"	12-8"	13-2"	13-6"	14-0"	14-4"	14-8"
	NH-60	11-5"	11-9"	12-3"	12-7"	13-1"	13-5"	13-9"	14-3"	14-7"	15-1"	15-5"	15-9"
	NH-70	10-4"	10-8"	11-2"	11-6"	12-0"	12-4"	12-8"	13-2"	13-6"	14-0"	14-4"	14-8"
	NH-80	10-4"	10-8"	11-2"	11-6"	12-0"	12-4"	12-8"	13-2"	13-6"	14-0"	14-4"	14-8"

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 configurations, 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-joist being used at their maximum spans. The minimum distances as given above may be reduced for shorter spans; contact your local distributor.

FIGURE 7
FIELD-CUT HOLE LOCATOR



Knockouts are predrilled 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 cross-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 cut 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 unbraced 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, regular cross-bracing at joist ends. When I-joists are applied continuously over interior supports and a load-bearing wall is present at that location, blocking will be required at the interior support.
2. When the building is completed, the floor sheathing will provide lateral support for the top flanges of the I-joists. Until this sheathing is applied, temporary bracing, often called struts, or temporary sheathing must be applied to prevent I-joist rollover or buckling.
 - * Temporary bracing or struts must be 1x4 inch minimum, at least 6 feet long and spaced no more than 6 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. Top ends of adjoining bracing over or level 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 camouflaged I-joists, brace top and bottom flanges, and brace ends with closure panels, rim board, or cross-bracing.
4. Install and fully nail permanent sheathing to each I-joist before placing loads on the floor system. Then, stack building materials over beams or walls only.
5. Never install a damaged I-joist.

Improper storage at 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.



PRODUCT WARRANTY

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

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

The construction details for residential designs are prone to changes.

Details released after September 2013 supersedes N-303

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

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

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

