


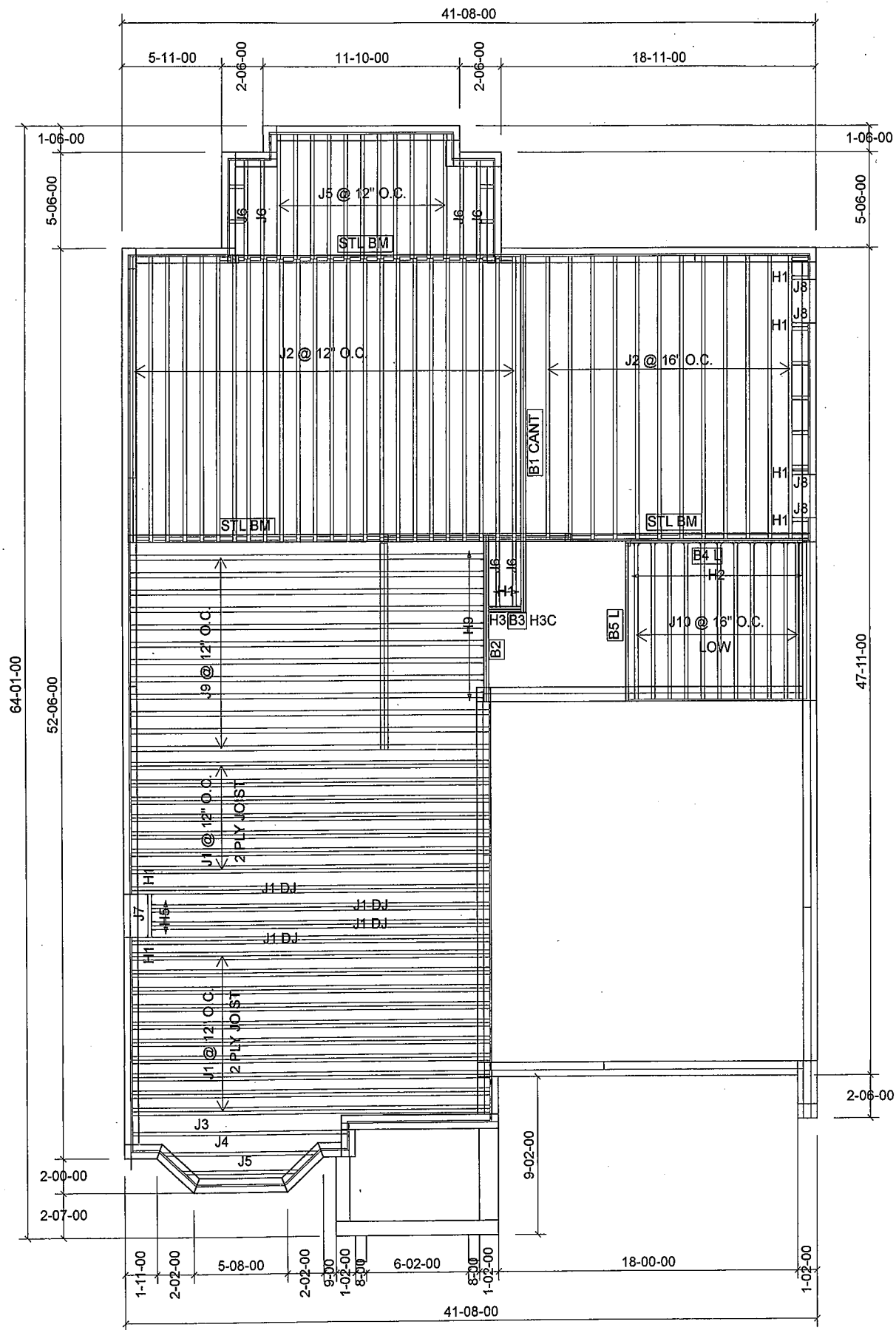
Products				
PlotID	Length	Product	Plies	Net Qty
J5	10-00-00	9 1/2" NI-40x	1	11
J1	22-00-00	11 7/8" NI-40x	2	34
J1 DJ	22-00-00	11 7/8" NI-40x	2	6
J1 DJ	22-00-00	11 7/8" NI-40x	2	2
J2	18-00-00	11 7/8" NI-40x	1	36
J3	14-00-00	11 7/8" NI-40x	1	1
J4	12-00-00	11 7/8" NI-40x	1	1
J6	8-00-00	11 7/8" NI-40x	1	11
J7	6-00-00	11 7/8" NI-40x	1	6
J8	4-00-00	11 7/8" NI-40x	1	1
J9	2-00-00	11 7/8" NI-40x	1	4
J9	22-00-00	11 7/8" NI-80	1	12
B4 L ✓	12-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1
B5 L ✓	10-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1
B1 CANT ✓	22-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2 ✓	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3 ✓	2-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

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



TAMARACK
LUMBER INC
ALPA LUMBER GROUP

DATE 8-26-17



Products				
PlotID	Length	Product	Plies	Net Qty
J10	10-00-00	9 1/2" NI-40x	1	11
J1	22-00-00	11 7/8" NI-40x	2	34
J1 DJ	22-00-00	11 7/8" NI-40x	2	4
J1 DJ	22-00-00	11 7/8" NI-40x	2	4
J2	18-00-00	11 7/8" NI-40x	1	36
J3	14-00-00	11 7/8" NI-40x	1	1
J4	10-00-00	11 7/8" NI-40x	1	1
J5	8-00-00	11 7/8" NI-40x	1	12
J6	6-00-00	11 7/8" NI-40x	1	6
J7	4-00-00	11 7/8" NI-40x	1	1
J8	2-00-00	11 7/8" NI-40x	1	4
J9	22-00-00	11 7/8" NI-80	1	12
B4 L	12-00-00	1-3/4" x 9-1/2" VERSA-LAM@ 2.0 3100 SP	1	1
B5 L	10-00-00	1-3/4" x 9-1/2" VERSA-LAM@ 2.0 3100 SP	1	1
B1 CANT	22-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2
B2	10-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2
B3	2-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
2	H1	IUS2.56/11.88
2	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
11	H2	IUS2.56/9.5
1	H3C	HUC410
1	H3	HGUS410
2	H5	HU312-2
9	H9	IUS3.56/11.88

REFER TO THE NORDIC
INSTALLATION GUIDE FOR PROPER
STORAGE AND INSTALLATION.
SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2
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UNIFORM LOAD BEARING WALLS.
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SEE FIGURE 4 & 5 FOR
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FIGURE 7 TABLES 1 & 2 OF THE
INSTALLATION GUIDE. CERAMIC TILE
APPLICATION AS PER O.B.C. 9.30.6.

LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 20.0 lb/ft²
TILED AREAS: 20 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE 5/26/17

BCIN: 26064; FIRM: 29991

ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS DAS PER PLAN WORK DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL. INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGTHS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

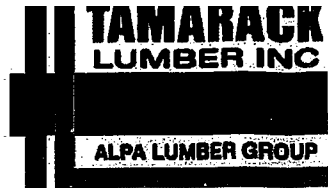
DWG# TAM 26605-17 THROUGH DWG# TAM 26609-17, INCLUSIVE DATED 5/26/17

SEALED STRUCTURAL COMPONENTS ONLY:
SEALED, THIRD PARTY LVL TYPE BEAMS, BUILT-UP CONVENTIONAL BEAMS, HEADERS, AND CONCENTRATED LOADED NORDIC WOOD-I JOIST ONLY. 2 X 6 SQUASH BLOCK REQUIRED AT ALL EXTERIOR SUPPORTS OR AS PER PROJECT ENGINEER'S SPECIFICATIONS. WEB FILLER REINFORCEMENT REQUIRED AT ALL HANGER SUPPORTED JOIST EXCEEDING A REACTION OF 1500 LBS (FACTORED)-SEE DETAILS.
A COMPLETE FRAMING PLAN REQUIRES THE NORDIC PUBLISHED LITERATURE, WHICH INCLUDES INSTALLATION REQUIREMENTS, HANDLING AND STORAGE GUIDELINES, AND FORMS AN INTEGRAL PART OF THIS SEALED DOCUMENT. INSTALL SQUASH BLOCKS FOR TRANSFERRING POINT LOADS FROM GIRDER TRUSSES, HEADERS, AND BEAMS DOWN TO FOUNDATION COMPONENTS. FOR PROPER INSTALLATION, SEE NORDIC LITERATURE. PROVIDE 2 X 4 OR 2 X 6 STUD GRADE OR BETTER SQUASH BLOCKS, MATCHING SUPPORTED WALL WIDTH ABOVE BLOCKS. INSTALL SQUASH BLOCKS ON EACH SIDE OF JOIST. BLOCKING TO BE 1/160 DEEPER THAN JOIST DEPTH. SEE NORDIC LITERATURE FOR NAILING REQUIREMENT.

I REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF THE FIRM
REGISTERED UNDER SUBSECTION 3.2.5 OF THE ONTARIO BUILDING CODE. I AM QUALIFIED AND
HE FIRM IS REGISTERED, IN APPROPRIATE CLASSES AND/OR CATEGORIES

REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM 26621-17
BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL
COMPONENTS ONLY



FROM PLAN DATED:
APR 2017

BUILDER:
GREENYORK HOMES

SITE:
DEGREY DR

MODEL: YORK 3

ELEVATION: B

LOT:

CITY: BRAMPTON

SALESMAN: R D

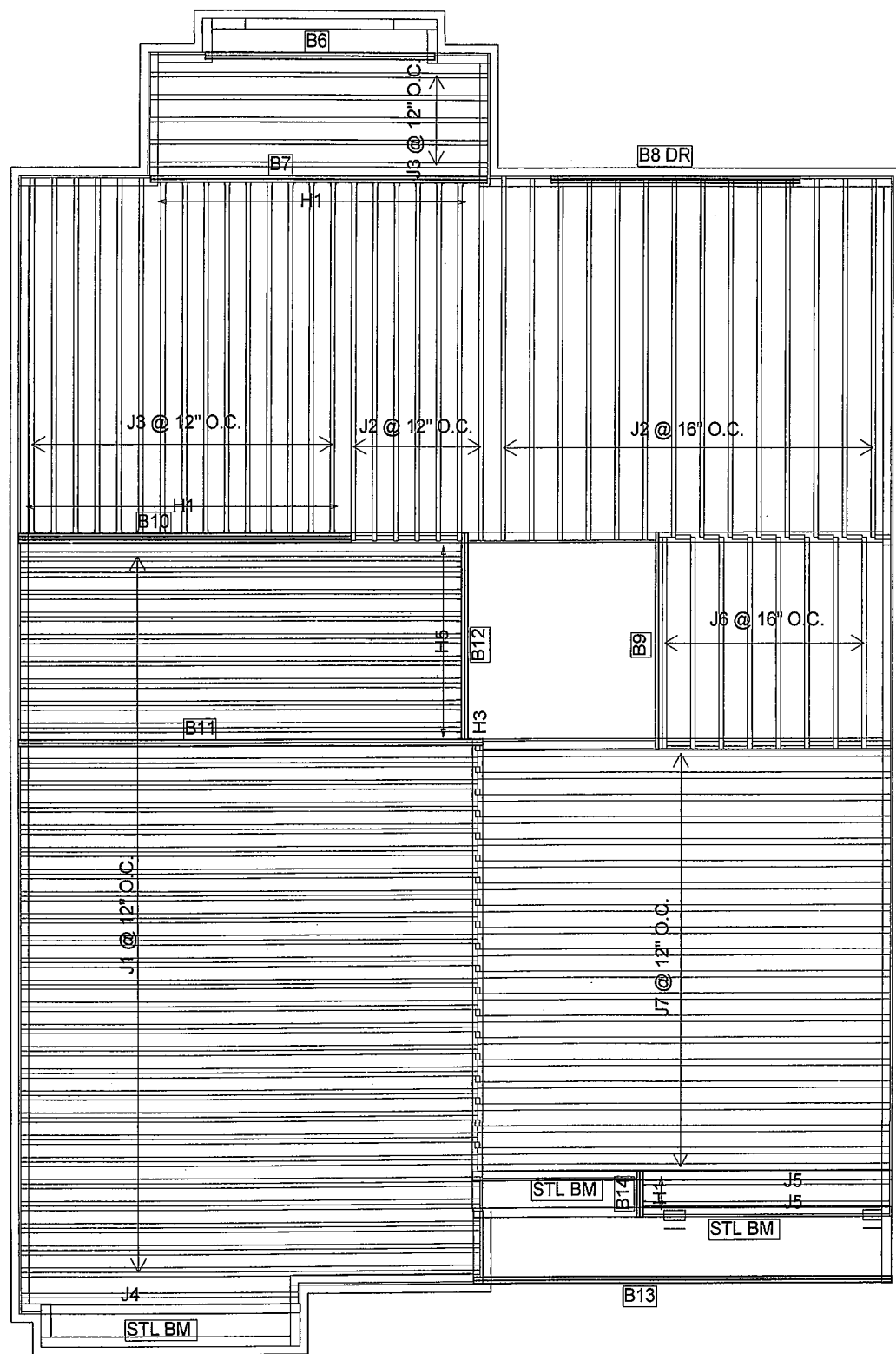
DESIGNER: PL

REVISION:

DATE: 2017-05-19

1st FLOOR





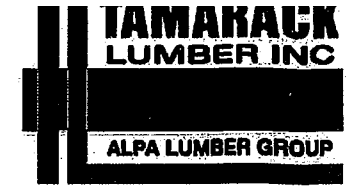
Products				
PlotID	Length	Product	Plies	Net Qty
J1	22-00-00	11 7/8" NI-40x	2	66
J2	18-00-00	11 7/8" NI-40x	1	21
J3	16-00-00	11 7/8" NI-40x	1	20
J4	14-00-00	11 7/8" NI-40x	1	1
J5	12-00-00	11 7/8" NI-40x	1	2
J6	10-00-00	11 7/8" NI-40x	1	8
J7	20-00-00	11 7/8" NI-80	1	20
B8 DR	12-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B11	22-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B13	20-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B7	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B6	12-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B9	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B12	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B14	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
17	H1	IUS2.56/11.88
15	H1	IUS2.56/11.88
1	H3	HGUS410
9	H5	HU312-2

REFER TO THE NORDIC
INSTALLATION GUIDE FOR PROPER
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SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2
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UNIFORM LOAD BEARING WALLS.
MULTIPLE SQUASH BLOCKS REQ'D
UNDER CONCENTRATED LOADS. SEE
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INCLUDING CANT' OVER BRICK REQ. 1-
JOIST BLOCKING ALONG BEARING
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INSTALLATION GUIDE. CERAMIC TILE
APPLICATION AS PER O.B.C. 9.30.6.

LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 20.0 lb/ft²
TILED AREAS: 20 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED



FROM PLAN DATED:
APR 2017

BUILDER:
GREENYORK HOMES

SITE:
DEGREY DR

MODEL: YORK 3

ELEVATION: A

LOT:

CITY: BRAMPTON

SALESMAN: R D

DESIGNER: PL

REVISION:

DATE: 2017-05-15

2nd FLOOR

DATE 5/26/17
BCIN: 26064; FIRM: 29991

ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS (AS PER PLAN WORK) DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL. INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGTHS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

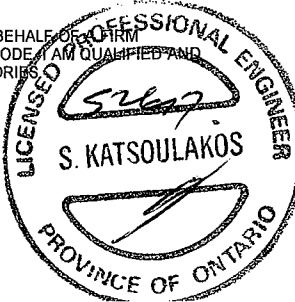
DWG# TAM 26610-17 THROUGH DWG# TAM 26618-17, INCLUSIVE DATED 5/26/17

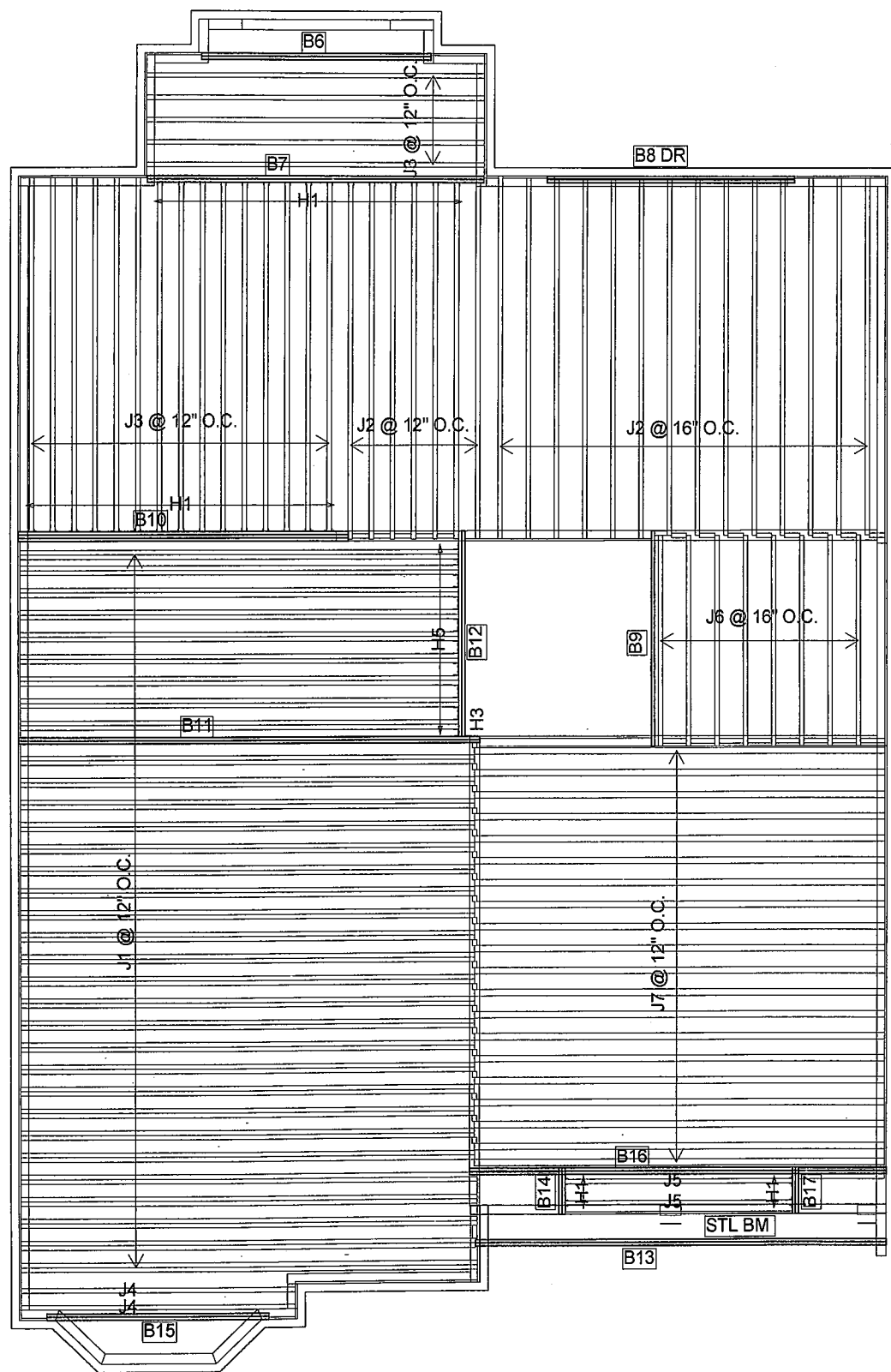
SEALED STRUCTURAL COMPONENTS ONLY:
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I REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF THE FIRM
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HE FIRM IS REGISTERED, IN APPROPRIATE CLASSES AND/OR CATEGORIES.

REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM 26628-17
BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL
COMPONENTS ONLY





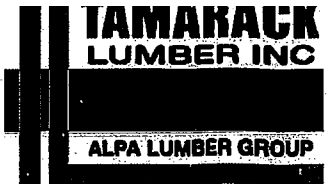
Products					
PlotID	Length	Product	Plies	Net Qty	
J1	22-00-00	11 7/8" NI-40x	2	66	
J2	18-00-00	11 7/8" NI-40x	1	21	
J3	16-00-00	11 7/8" NI-40x	1	20	
J4	14-00-00	11 7/8" NI-40x	1	2	
J5	12-00-00	11 7/8" NI-40x	1	2	
J6	10-00-00	11 7/8" NI-40x	1	8	
J7	20-00-00	11 7/8" NI-80	1	20	
B8 DR	12-00-00	1-3/4" x 9-1/2" VERSA-LAM@ 2.0 3100 SP	2	2	
B11	22-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B13	20-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B7	16-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B10	16-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	3	3	
B15	12-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B6	12-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B9	10-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	1	1	
B12	10-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B14	4-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B17	4-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	

Connector Summary		
Qty	Manuf	Product
19	H1	IUS2.56/11.88
15	H1	IUS2.56/11.88
1	H3	HGUS410
9	H5	HU312-2

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APPLICATION AS PER O.B.C. 9.30.6.

LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 20.0 lb/ft²
TILED AREAS: 20 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED



FROM PLAN DATED:
APR 2017

BUILDER:
GREENYORK HOMES

SITE:
DEGREY DR

MODEL: YORK 3
ELEVATION: B

LOT:

CITY: BRAMPTON

SALESMAN: R D
DESIGNER: PL
REVISION:

DATE: 2017-05-15

2nd FLOOR

DATE 5/26/17

BCIN: 26064; FIRM: 29991

ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS (AS PER PLAN WORK) DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL. INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGTHS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

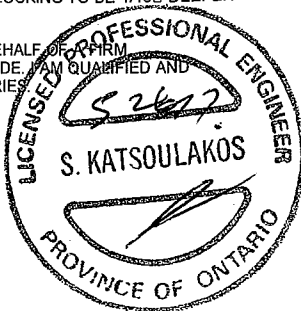
DWG# TAM 26610-17 THROUGH DWG# TAM 26625-17, INCLUSIVE DATED 5/26/17

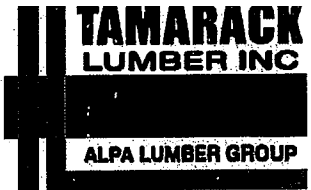
SEALED STRUCTURAL COMPONENTS ONLY: - 26624-17
SEALED, THIRD PARTY LVL TYPE BEAMS, BUILT-UP CONVENTIONAL BEAMS, HEADERS, AND CONCENTRATED LOADED NORDIC WOOD-JOIST ONLY. 2 X 6 SQUASH BLOCK REQUIRED AT ALL EXTERIOR SUPPORTS OR AS PER PROJECT ENGINEER'S SPECIFICATIONS. WEB FILLER REINFORCEMENT REQUIRED AT ALL HANGER SUPPORTED JOIST EXCEEDING A REACTION OF 1500 LBS (FACTORED)-SEE DETAILS.
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I REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF THE FIRM
REGISTERED UNDER SUBSECTION 3.2.5 OF THE ONTARIO BUILDING CODE. I AM QUALIFIED AND
THE FIRM IS REGISTERED, IN APPROPRIATE CLASSES AND/OR CATEGORIES.

REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM 26629-17
BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL
COMPONENTS ONLY





FROM PLAN DATED: APR 2017

BUILDER: GREENYORK HOMES

SITE: DEGREY DR

MODEL: YORK 3

ELEVATION: A

LOT:

CITY: BRAMPTON

SALESMAN: R D

DESIGNER: PL

REVISION:

NOTES:

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

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

LOADING:

DESIGN LOADS: L/480.000

LIVE LOAD: 40.0 lb/ft²

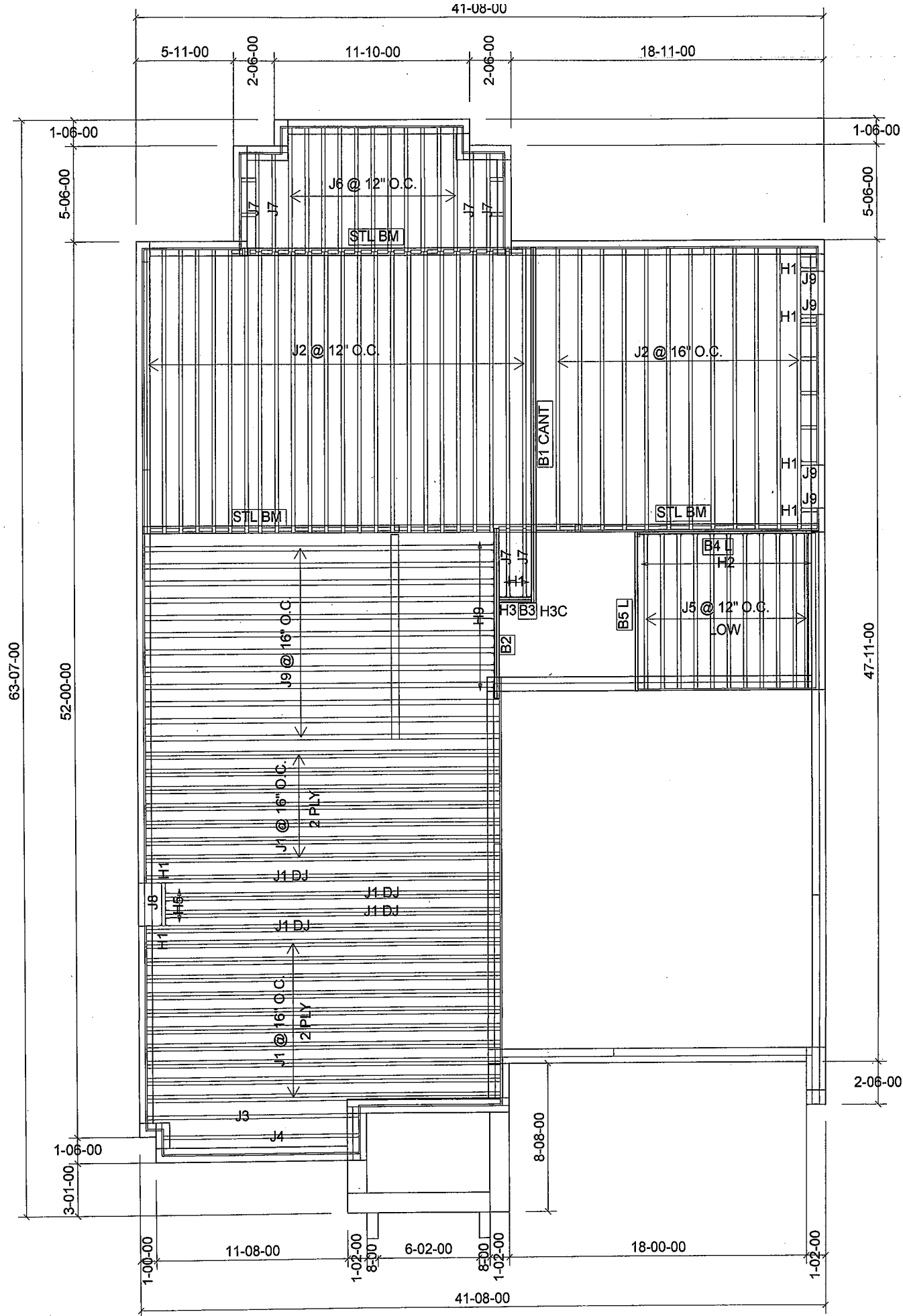
DEAD LOAD: 20.0 lb/ft²

TILED AREAS: 20 lb/ft

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2017-05-19

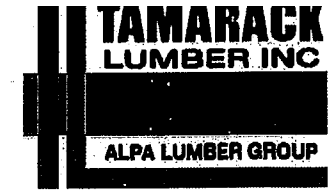
1st FLOOR



Products				
PlotID	Length	Product	Plies	Net Qty
J5	10-00-00	9 1/2" NI-40x	1	11
J1	22-00-00	11 7/8" NI-40x	2	34
J1 DJ	22-00-00	11 7/8" NI-40x	2	6
J1 DJ	22-00-00	11 7/8" NI-40x	2	2
J2	18-00-00	11 7/8" NI-40x	1	36
J3	14-00-00	11 7/8" NI-40x	1	1
J4	12-00-00	11 7/8" NI-40x	1	1
J6	8-00-00	11 7/8" NI-40x	1	11
J7	6-00-00	11 7/8" NI-40x	1	6
J8	4-00-00	11 7/8" NI-40x	1	1
J9	2-00-00	11 7/8" NI-40x	1	4
J9	22-00-00	11 7/8" NI-80	1	12
B4 L	12-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1
B5 L	10-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1
B1 CANT	22-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3	2-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
2	H1	IUS2.56/11.88
2	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
11	H2	IUS2.56/9.5
1	H3C	HUC410
1	H3	HGUS410
2	H5	HU312-2
9	H9	IUS3.56/11.88

UPDATED



FROM PLAN DATED: APR 2017

BUILDER: GREENYORK HOMES

SITE: DEGREY DR

MODEL: YORK 3

ELEVATION: A

LOT:

CITY: BRAMPTON

SALESMAN: R D

DESIGNER: PL

REVISION:

NOTES:

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

LOADING:

DESIGN LOADS: L/480.000

LIVE LOAD: 40.0 lb/ft²

DEAD LOAD: 20.0 lb/ft²

TILED AREAS: 20 lb/ft

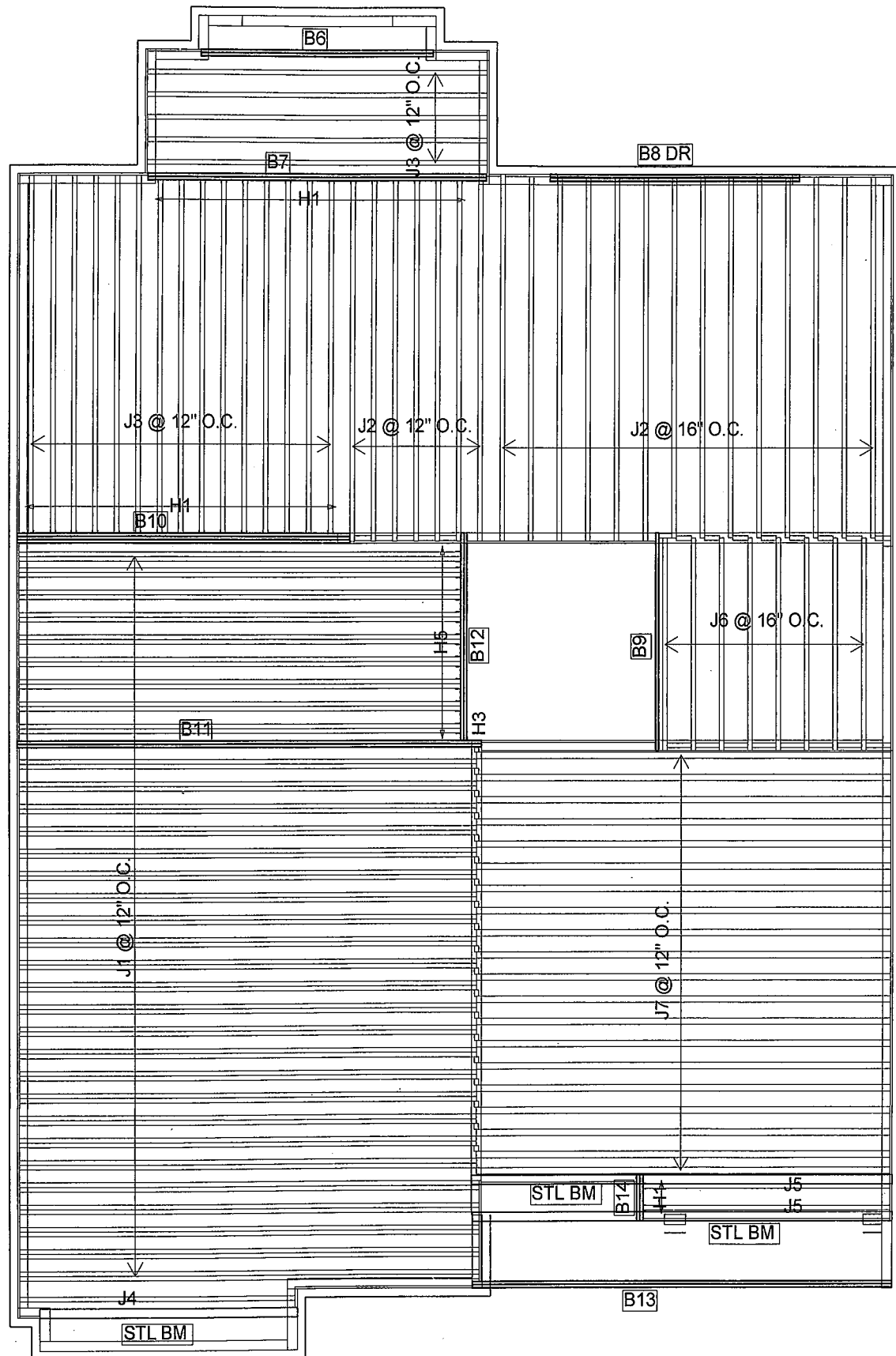
SUBFLOOR: 3/4" GLUED AND NAILED

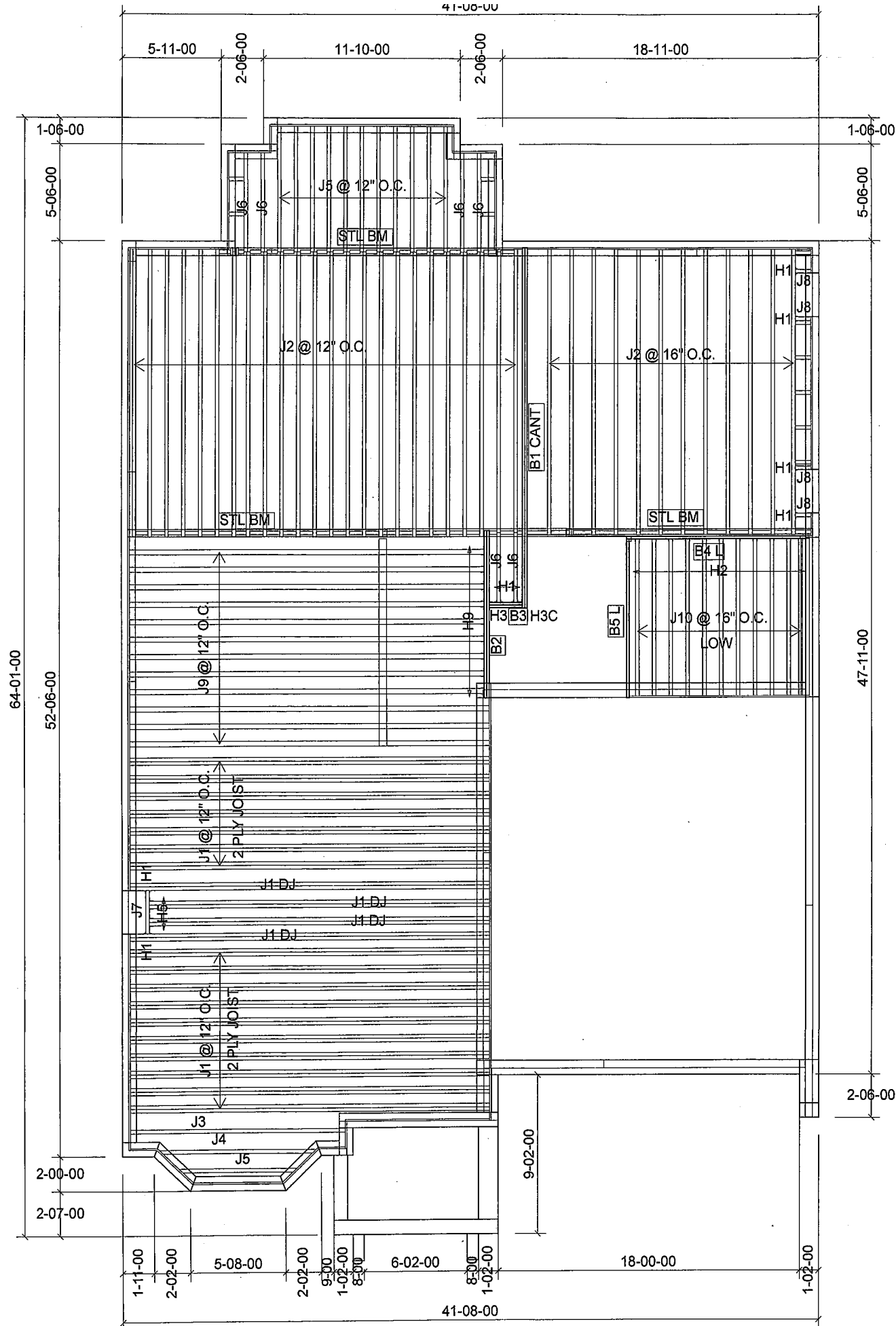
DATE: 2017-05-15

2nd FLOOR

Products				
PlotID	Length	Product	Plies	Net Qty
J1	22-00-00	11 7/8" NI-40x	2	66
J2	18-00-00	11 7/8" NI-40x	1	21
J3	16-00-00	11 7/8" NI-40x	1	20
J4	14-00-00	11 7/8" NI-40x	1	1
J5	12-00-00	11 7/8" NI-40x	1	2
J6	10-00-00	11 7/8" NI-40x	1	8
J7	20-00-00	11 7/8" NI-80	1	20
B8 DR	12-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B11	22-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B13	20-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B7	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B6	12-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B9	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B12	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B14	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

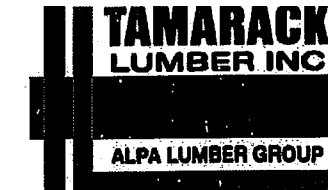
Connector Summary		
Qty	Manuf	Product
17	H1	IUS2.56/11.88
15	H1	IUS2.56/11.88
1	H3	HGUS410
9	H5	HU312-2





Products				
PlotID	Length	Product	Plies	Net Qty
J10	10-00-00	9 1/2" NI-40x	1	11
J1	22-00-00	11 7/8" NI-40x	2	34
J1 DJ	22-00-00	11 7/8" NI-40x	2	4
J1 DJ	22-00-00	11 7/8" NI-40x	2	4
J2	18-00-00	11 7/8" NI-40x	1	36
J3	14-00-00	11 7/8" NI-40x	1	1
J4	10-00-00	11 7/8" NI-40x	1	1
J5	8-00-00	11 7/8" NI-40x	1	12
J6	6-00-00	11 7/8" NI-40x	1	6
J7	4-00-00	11 7/8" NI-40x	1	1
J8	2-00-00	11 7/8" NI-40x	1	4
J9	22-00-00	11 7/8" NI-80	1	12
B4 L	12-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1
B5 L	10-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1
B1 CANT	22-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3	2-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
2	H1	IUS2.56/11.88
2	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
11	H2	IUS2.56/9.5
1	H3C	HUC410
1	H3	HGUS410
2	H5	HU312-2
9	H9	IUS3.56/11.88



FROM PLAN DATED: APR 2017

BUILDER: GREENYORK HOMES

SITE: DEGREY DR

MODEL: YORK 3

ELEVATION: B

LOT:

CITY: BRAMPTON

SALESMAN: R D

DESIGNER: PL

REVISION:

NOTES:

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

SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.F

REQ'D UNDER INTERIOR UNIFORM LOAD

BEARING WALLS. **MULTIPLE SQUASH**

BLOCKS REQ'D UNDER CONCENTRATED

LOADS. SEE FIGURE 1. **CANTILEVERED**

JOISTS INCLUDING CANT' OVER BRICK REQ.

I-JOIST BLOCKING ALONG BEARING AND

RIMBOARD CLOSURE AT ENDS. SEE

FIGURES 4 & 5 FOR REINFORCEMENT

REQUIREMENTS. FOR **HOLES** INCLUDING

DUCT CHASE AND **FIELD CUT OPENINGS**

SEE FIGURE 7, TABLES 1 & 2. **CERAMIC TILE**

APPLICATION AS PER O.B.C 9.30.6.

LOADING:

DESIGN LOADS: L/480.000

LIVE LOAD: 40.0 lb/ft²

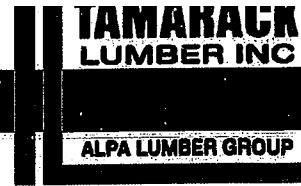
DEAD LOAD: 20.0 lb/ft²

TILED AREAS: 20 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2017-05-19

1st FLOOR



FROM PLAN DATED: APR 2017

BUILDER: GREENYORK HOMES

SITE: DEGREY DR

MODEL: YORK 3

ELEVATION: B

LOT:

CITY: BRAMPTON

SALESMAN: R D

DESIGNER: PL

REVISION:

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

LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 20.0 lb/ft²
TILED AREAS: 20 lb/ft

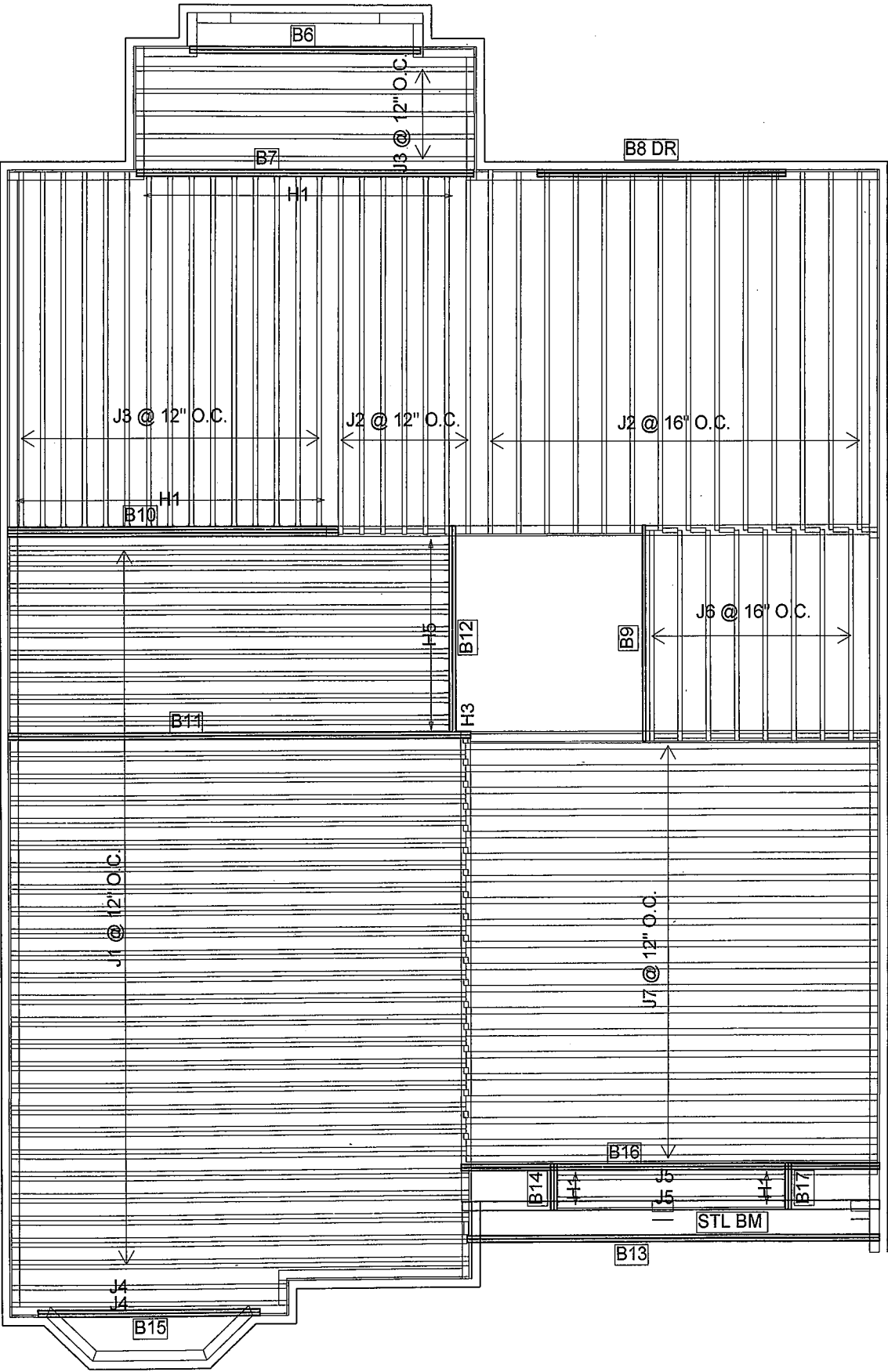
SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2017-05-15

2nd FLOOR

Products				
PlotID	Length	Product	Plies	Net Qty
J1	22-00-00	11 7/8" NI-40x	2	66
J2	18-00-00	11 7/8" NI-40x	1	21
J3	16-00-00	11 7/8" NI-40x	1	20
J4	14-00-00	11 7/8" NI-40x	1	2
J5	12-00-00	11 7/8" NI-40x	1	2
J6	10-00-00	11 7/8" NI-40x	1	8
J7	20-00-00	11 7/8" NI-80	1	20
B8 DR	12-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B11	22-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B13	20-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B7	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B15	12-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B6	12-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B9	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B12	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B14	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B17	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
19	H1	IUS2.56/11.88
15	H1	IUS2.56/11.88
1	H3	HGUS410
9	H5	HU312-2



T-170284

12" FINISH O.H
R.T.M.C
2X6 EXTERIOR WALLS
ASPHALT SHINGLES
2X6 FASCIA BOARD

DESIGN CONFORMS WITH
THE RELEVANT SECTION
OF THE LATEST EDITION
OF O.B.C. PART.9

DENOTES
CONVENTIONAL
FRAMING 

HARDWARE
LUS24(O)
LUS24-2(OO)
LJS26DS(V)
LUS26-2(VV)
HGUS26-2(XX)

SUPPORTING STRUCTURE TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER
ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO TRUSS INSTALLATION: ALL NOTES DESIGNATING PER PLAN WORK DO NOT REPRESENT A PART OF THE SCOPE OF THIS SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT.
ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY THE BUILDING DESIGNER AND/OR
PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNERS PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE ROOF TRUSS COMPONENTS REVIEWED IN THIS SUBMISSION.

DWG #TAM  THROUGH DWG #TAM,  INCLUSIVE, DATED ; 

STRUCTURAL COMPONENTS ONLY; THIS LAYOUT MUST BE READ TOGETHER WITH REFERENCED TRUSS COMPONENT DRAWINGS AND SEALED HARDWARE DRAWINGS. HANGERS AND HARDWARE SPECIFIED ON THIS LAYOUT ONLY. REFER TO ATTACHED SEALED REFERENCED DRAWINGS FOR ADDITIONAL BRACING REQUIREMENTS; (IF BRACING IS SHOWN TO BE REQUIRED PROVIDE THE FOLLOWING BRACING):

PROVIDE 1 ROW OF 2 X 4 #2 SFP CONTINUOUS LATERAL BRACES ALONG WEB MEMBERS SPECIFIED ON REFERENCED BEAM TRUSS COMPONENT DRAWINGS USING 2 - 3/16" COMMON WEB NAILS PER WEB MEMBER, THEN PROVIDE 2 X 4 #2 SFP "X-BRACING" ALONG THESE SAME WEB MEMBERS AT LOCATIONS INDICATED ("1" USING THE SAME NAILING, PROVIDE BLOCKING IF REQUIRED (DO NOT ARCH BRACING). PROVIDE 2 X 4 #2 SFP-T-RACE ALONG FULL LENGTH OF Laterally Braced Web Members of 1 PLY TRUSSES COMPONENTS REQUIRING "T-BRACE" USING 1 ROW OF 3/16" COMMON WEB NAILS AT 6" O/C. SIMILARLY PROVIDE 2 X 6 BRACE WITH 2 ROWS OF NAILING FOR 2 PLY TRUSS COMPONENTS AND 2 X 8 BRACE WITH 3 ROWS OF NAILING FOR 3 PLY TRUSS COMPONENTS.

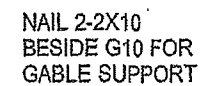
(1) 2 X 6 #2 SPF ON FLAT OVER PLYWOOD SHEATHING.
(2) 2 X 6 #2 SPF RIDGE BEAM SUPPORTED AT EACH END OVER BASE TRUSS COMPONENTS AND AT LOCATIONS MARKED BY "X".
(3) 2 X 6 #2 SPF ROOF RAFTERS AT 24" O/C WITH MAXIMUM SUPPORT SPAN 6'-0" (ADD 2 X 4 VERTICAL SUPPORTS TO TRUSS BASE BELOW WHERE NECESSARY).

ALL CONVENTIONAL FRAMING TO BE DISTRIBUTED UNIFORMLY ALONG BASE TRUSS COMPONENTS. PROVIDE 2 X 4 KNEE-WALLS WHERE NECESSARY WITH STUDS AT 24" O/C.

ALL CONVENTIONAL FRAMING TO CONFORM TO ONTARIO BUILDING CODE
(CURRENT EDITION).

I REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF A FIRM REGISTERED UNDER SUBSECTION 3.2.5 OF THE ONTARIO BUILDING CODE, I AM QUALIFIED AND THE FIRM IS REGISTERED, IN THE APPROPRIATE CLASSES AND/OR CATEGORIES,
REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

A circular professional seal for a Licensed Professional Engineer in the Province of Ontario. The outer ring contains the text "LICENSED PROFESSIONAL ENGINEER" at the top and "PROVINCE OF ONTARIO" at the bottom. In the center, the license number "5277" is written in a stylized font, followed by the name "S. KATSOULAROS" below it. A diagonal line is drawn across the bottom half of the seal.



TAMARACK
- LUMBER INC.
ALP LUMBER GROUP

Builder: GREENYORK HOMES		
Project: DEGREY DRIVE		
Date: 4/27/2017	Designer: JG	

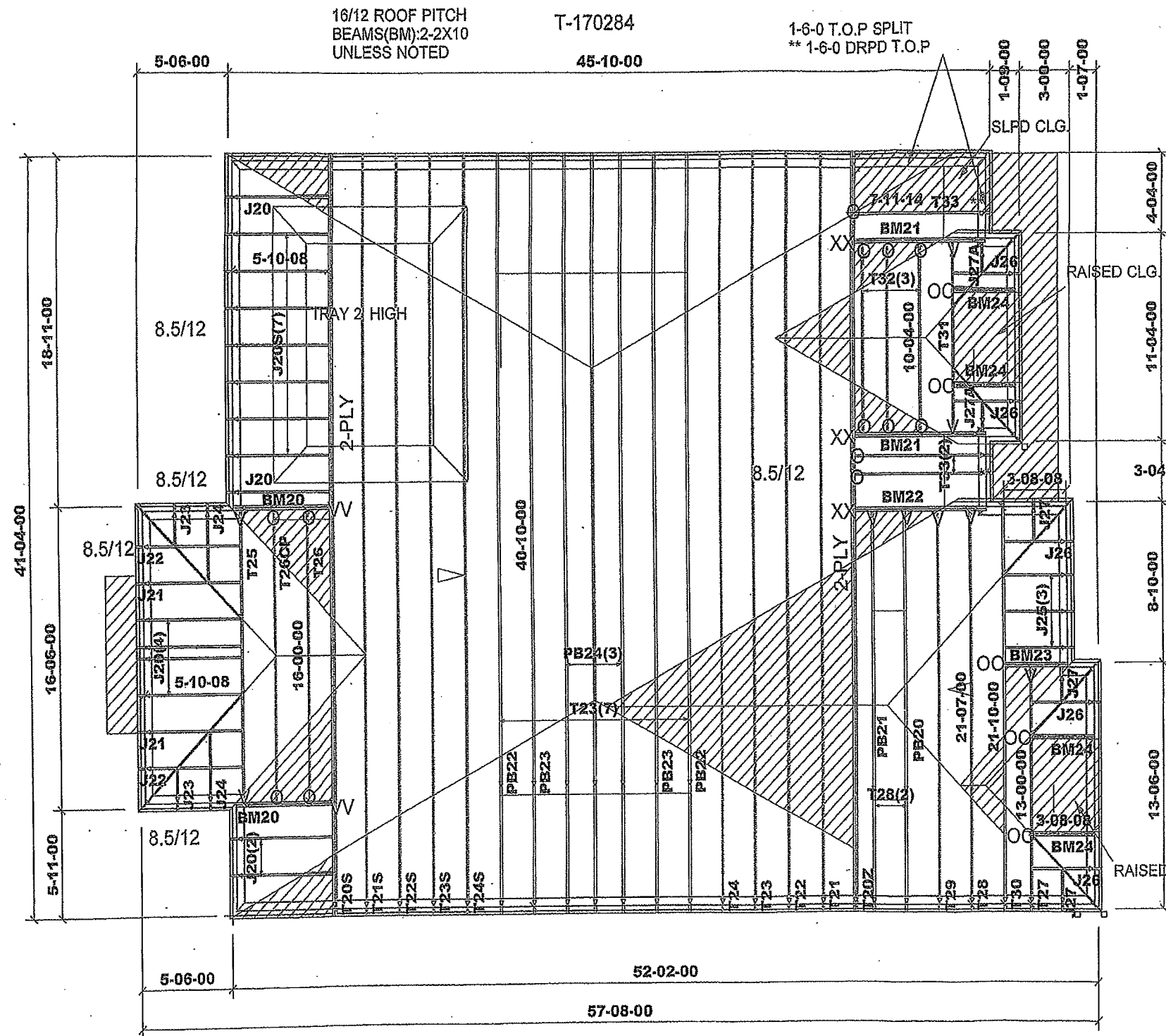
BRAMPTON

YORK 3 / A

C:\MTEK\CA742\AJOB.S
B13000000000

THESE DRAWINGS CONSTITUTE THE PROPERTY OF TAMARACK ROOF TRUSSES INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY TAMARACK ROOF TRUSSES INC AND WILL BE RETRACTED BY TAMARACK ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.

MiTek ver 7.5.0



MAY 1, 2017
 THE FOLLOWING DRAWING NUMBERS REPRESENT THE IDENTIFIERS OF THE SEALED DRAWINGS OF THE TRUSS COMPONENTS IDENTIFIED ON THIS LAYOUT:
 (LAYOUT:44080/281488)
 DWG #TAM20287-17 THROUGH DWG #TAM20312-17; INCLUSIVE, AND ALL DATED 5-01-17;
 DWG #TAM6305-14 DATED 3-05-14 (CONVENTIONAL FRAMED VALLEY STANDARD)
 (STRUCTURAL COMPONENTS ONLY)

12" FINISH O.H.
 BELL CURVE
 3' STUCCO
 2X6 EXTERIOR WALLS
 ASPHALT SHINGLES
 2X6 FASCIA BOARD

ALL CONVENTIONAL ROOF FRAMING TO CONFORM TO PART9 OF THE O.B.C.LATEST EDITION ROOF RAFTERS THAT MEET OR CROSS OVER TRUSSES ARE TO BE 2"x4"SPF @24"o.c. WITH A 2"x4"SPF VERTICAL POST TO THE TRUSS UNDER AT EACH CROSS POINT. POSTS LONGER THAN 6' TO BE Laterally BRACED SO THAT THE DISTANCE BETWEEN END POINTS AND BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'.

DESIGN CONFORMS WITH THE RELEVANT SECTION OF THE LATEST EDITION OF O.B.C.PART.9

DESIGN LOADS:
 GROUND SNOW LOAD
 $S_s = 1.3 \text{ kPa}$
 TC DEAD 3 PSF
 BC LIVE 10.5 PSF
 BC DEAD 7 PSF

DENOTES CONVENTIONAL FRAMING

HARDWARE
 LUS24(O)
 LUS24-2(OO)
 LJS26DS(V)
 LUS26-2(VV)
 HGUS26-2(XX)

DATE: 5-01-17
 BCIN:26064; FIRM:BCIN #29991
 ENGINEERING ONLY-DIMENSIONS TO BE VERIFIED ON SITE

SUPPORTING STRUCTURE TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER
 ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO TRUSS INSTALLATION. ALL NOTES DESIGNATING PER PLAN WORK DO NOT REPRESENT A PART OF THE SCOPE OF THIS SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT.
 ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY THE BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNERS PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE ROOF TRUSS COMPONENTS REVIEWED IN THIS SUBMISSION.

LOT SPECIFIC SCHEDULE 1 REQUIRED FOR EACH INDIVIDUAL LOT.

DWG #TAM THROUGH DWG #TAM, INCLUSIVE, DATED;

STRUCTURAL COMPONENTS ONLY); THIS LAYOUT MUST BE READ TOGETHER WITH REFERENCED TRUSS COMPONENT DRAWINGS AND SEALED HARDWARE DRAWINGS. HANGERS AND HARDWARE SPECIFIED ON THIS LAYOUT ONLY. REFER TO ATTACHED SEALED REFERENCED DRAWINGS FOR ADDITIONAL BRACING REQUIREMENTS: (IF BRACING IS SHOWN TO BE REQUIRED PROVIDE THE FOLLOWING BRACING):

PROVIDE 1 ROW OF 2 X 4 #2 SPF CONTINUOUS LATERAL BRACES ALONG WEB MEMBERS SPECIFIED ON REFERENCED SEALED TRUSS COMPONENT DRAWINGS USING 2 - 3-1/4" COMMON WIRE NAILS PER WEB MEMBER. THEN PROVIDE 2 X 4 #2 SPF "X-BRACING" ALONG THESE SAME WEB MEMBERS AT LOCATIONS INDICATED (*) USING THE SAME NAILING. PROVIDE BLOCKING IF REQUIRED (DO NOT ARCH BRACING).
 PROVIDE 2 X 4 #2 SPF T-BRACE ALONG FULL LENGTH OF Laterally BRACED WEB MEMBERS OF 1 PLY TRUSSES COMPONENTS REQUIRING "T-BRACE" USING 1 ROW OF 3-1/4" COMMON WIRE NAILS AT 6" O/C. SIMILARLY PROVIDE 2 X 6 BRACE WITH 2 ROWS OF NAILING FOR 2 PLY TRUSS COMPONENTS AND 2 X 6 BRACE WITH 3 ROWS OF NAILING FOR 3 PLY TRUSS COMPONENTS.

(1) 2 X 6 #2 SPF ON FLAT OVER PLYWOOD SHEATHING.
 (2) 2 X 6 #2 SPF RIDGE BEAM SUPPORTED AT EACH END OVER BASE TRUSS COMPONENTS AND AT LOCATIONS MARKED BY "X".
 (3) 2 X 6 #2 SPF ROOF RAFTERS AT 24" O/C WITH MAXIMUM SUPPORT SPAN 6'-0" (ADD 2 X 4 VERTICAL SUPPORTS TO TRUSS BASE BELOW WHERE NECESSARY).

ALL CONVENTIONAL FRAMING TO BE DISTRIBUTED UNIFORMLY ALONG BASE TRUSS COMPONENTS. PROVIDE 2 X 4 KNEE-WALLS WHERE NECESSARY WITH STUDS AT 24" O/C.

ALL CONVENTIONAL FRAMING TO CONFORM TO ONTARIO BUILDING CODE (CURRENT EDITION).

REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF A FIRM REGISTERED UNDER SUBSECTION 3.2.5 OF THE ONTARIO BUILDING CODE. I AM QUALIFIED AND THE FIRM IS REGISTERED, IN THE APPROPRIATE CLASSES AND/OR CATEGORIES.
 REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

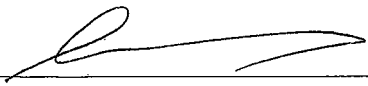
DWG #TAM 20314-17
 BCIN: 26064
 FIRM: 29991
 SEALED STRUCTURAL COMPONENTS ONLY



Job Track: 44080		Builder: GREENYORK HOMES /		Location: BRAMPTON		Model: YORK 3 / B	
Layout ID: 281488		Project: DEGREY DRIVE		THESE DRAWINGS CONSTITUTE THE PROPERTY OF TAMARACK ROOF TRUSSES INC. SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY TAMARACK ROOF TRUSSES INC AND WILL BE RETRACTED BY TAMARACK ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.			
Plan Log: 91851		Date: 4/28/2017		Designer: JG		MITek ver 7.5.0	

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information		Application number:	
Building number, street name		Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description	
B. Individual who reviews and takes responsibility for design activities			
Name SAM KATSOULAKOS, P. ENG.		Firm MICRO CITY ENGINEERING SERVICES INC.	
Street address R.R #1, PO BOX 61		Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail
Telephone number (519) 287-2242 Business	Fax number (519) 287-5750	Cell number	
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]			
<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings </div> <div> <input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection </div> <div> <input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems </div> </div>			
Description of designer's work GREENYORK HOMES – DEGREY DR – MODEL: YORK 3 – ELEV. A 1ST FLOOR (SCHEDULE IS NOT ISSUED AS LOT SPECIFIC) REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK ROOF TRUSSES INC. (SEE DWG #TAM26626-17 DATED 5-26-17). SUPPORTING STRUCTURE TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.			
D. Declaration of Designer			
I, <u>SAM KATSOULAKOS, P. ENG</u> declare that (choose one as appropriate): <div style="text-align: center;">(print name)</div> <div> <input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: <u>26064</u> Firm BCIN: <u>29991</u> </div> <div> <input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. Individual BCIN: _____ Basis for exemption from registration: _____ </div> <div> <input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____ </div>			
I certify that: 1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm.			
Date <u>5/26/17</u>		Signature of Designer 	

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

DWG#TAM 26626 17-S-26 17
 DWG#TAM 26630 17-S

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information			Application number:	
Building number, street name			Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design activities				
Name SAM KATSOULAKOS, P. ENG.		Firm MICRO CITY ENGINEERING SERVICES INC.		
Street address R.R #1, PO BOX 61			Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail	
Telephone number (519) 287-2242 Business	Fax number (519) 287-5750	Cell number		
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]				
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings </div> <div style="width: 30%;"> <input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection </div> <div style="width: 30%;"> <input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems </div> </div>				
Description of designer's work GREENYORK HOMES – DEGREY DR – MODEL: YORK 3 – ELEV. B 1ST FLOOR (SCHEDULE IS NOT ISSUED AS LOT SPECIFIC) REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK ROOF TRUSSES INC. (SEE DWG #TAM26627-17 DATED 5-26-17). SUPPORTING STRUCTURE TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.				
D. Declaration of Designer				
I, <u>SAM KATSOULAKOS, P. ENG</u> declare that (choose one as appropriate): <div style="text-align: center;">(print name)</div> <div style="margin-left: 40px;"> <input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. </div> <div style="margin-left: 40px;"> Individual BCIN: <u>26064</u> </div> <div style="margin-left: 40px;"> Firm BCIN: <u>29991</u> </div> <div style="margin-left: 40px;"> <input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. </div> <div style="margin-left: 40px;"> Individual BCIN: _____ </div> <div style="margin-left: 40px;"> Basis for exemption from registration: _____ </div> <div style="margin-left: 40px;"> <input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code. </div> <div style="margin-left: 40px;"> Basis for exemption from registration and qualification: _____ </div>				
I certify that: <ol style="list-style-type: none"> 1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm. 				
Date		Signature of Designer		

NOTE:

1. For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
2. Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

DWG#TAM26627-17-S
 DWG#TAM 26631-17-S

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information			Application number:	
Building number, street name			Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design activities				
Name SAM KATSOULAKOS, P. ENG.		Firm MICRO CITY ENGINEERING SERVICES INC.		
Street address R.R #1, PO BOX 61			Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail	
Telephone number (519) 287-2242 Business	Fax number (519) 287-5750	Cell number		
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]				
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings </div> <div style="width: 30%;"> <input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection </div> <div style="width: 30%;"> <input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems </div> </div>				
Description of designer's work GREENYORK HOMES – DEGREY DR – MODEL: YORK 3 – ELEV. A 2ND FLOOR (SCHEDULE IS NOT ISSUED AS LOT SPECIFIC) REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK ROOF TRUSSES INC. (SEE DWG #TAM26628-17 DATED 5-26-17). SUPPORTING STRUCTURE TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.				
D. Declaration of Designer				
I, <u>SAM KATSOULAKOS, P. ENG</u> declare that (choose one as appropriate):				
(print name)				
<input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.				
Individual BCIN: <u>26064</u>				
Firm BCIN: <u>29991</u>				
<input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code.				
Individual BCIN: _____				
Basis for exemption from registration: _____				
<input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code.				
Basis for exemption from registration and qualification: _____				
I certify that:				
1. The information contained in this schedule is true to the best of my knowledge.				
2. I have submitted this application with the knowledge and consent of the firm.				
Date		Signature of Designer		

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

DWG#TAM26628-17-S
DWG#TAM26632-17-S

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information		Application number:	
Building number, street name		Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description	
B. Individual who reviews and takes responsibility for design activities			
Name SAM KATSOULAKOS, P. ENG.		Firm MICRO CITY ENGINEERING SERVICES INC.	
Street address R.R #1, PO BOX 61		Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail
Telephone number (519) 287-2242 Business	Fax number (519) 287-5750	Cell number	
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]			
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings </div> <div style="width: 33%;"> <input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection </div> <div style="width: 33%;"> <input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems </div> </div>			
Description of designer's work GREENYORK HOMES – DEGREY DR – MODEL: YORK 3 – ELEV. B 2ND FLOOR (SCHEDULE IS NOT ISSUED AS LOT SPECIFIC) REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK ROOF TRUSSES INC. (SEE DWG #TAM26629-17 DATED 5-26-17). SUPPORTING STRUCTURE TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.			
D. Declaration of Designer			
I, <u>SAM KATSOULAKOS, P. ENG</u> declare that (choose one as appropriate): <div style="text-align: center;">(print name)</div> <div> <input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. </div> <div style="margin-top: 10px;"> Individual BCIN: <u>26064</u> Firm BCIN: <u>29991</u> </div> <div> <input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. </div> <div style="margin-top: 10px;"> Individual BCIN: _____ Basis for exemption from registration: _____ </div> <div> <input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code. </div> <div style="margin-top: 10px;"> Basis for exemption from registration and qualification: _____ </div>			
I certify that: 1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm.			
Date		Signature of Designer	

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

DWG#TAM26629-17-S 5-26-17
 DWG#TAM 26633-17-S

NORDIC STRUCTURES

COMPANY
TAMARACK LUMBER INC.
3269 NORTH SERVICE ROAD
BURLINGTON ONTARIO
May 8, 2017 11:06

PROJECT
J2 1ST FLOOR

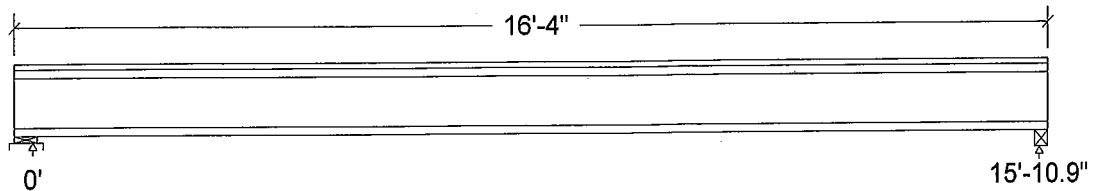
Design Check Calculation Sheet

Nordic Sizer – Canada 6.4

Loads:

Load	Type	Distribution	Pat- tern	Location [ft] Start End	Magnitude Start End	Unit
Load1	Dead	Full Area			20.00	psf
Load2	Live	Full Area			40.00	psf

Maximum Reactions (lbs), Bearing Resistances (lbs) and Bearing Lengths (in) :

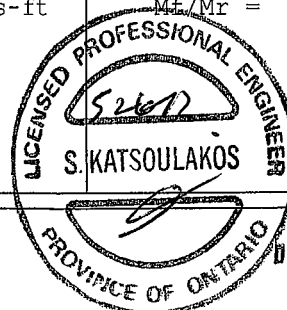


Unfactored:			
Dead	212		212
Live	424		424
Factored:			
Total	901		901
Bearing:			
Resistance			
Joist	2336		2117
Support	6726		-
Des ratio			
Joist	0.39		0.43
Support	0.13		-
Load case	#2		#2
Length	4-3/8		2-1/2
Min req'd	1-3/4		1-3/4
Stiffener	No		No
Kd	1.00		1.00
KB support	1.00		-
fcp sup	769		-
Kzcp sup	1.00		-

Nordic Joist 11-7/8" NI-40x Floor joist @ 16" o.c.
Supports: 1 - Lumber Sill plate, No.1/No.2; 2 - Steel Beam, W;
Total length: 16'-4.0"; 3/4" nailed and glued OSB sheathing
This section PASSES the design code check.

Limit States Design using CSA O86-14 and Vibration Criterion:

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 901	Vr = 2336	lbs	Vf/Vr = 0.39
Moment (+)	Mf = 3585	Mr = 6255	lbs-ft	Mf/Mr = 0.57
Perm. Defl'n	0.10 = <L/999	0.53 = L/360	in	0.18
Live Defl'n	0.19 = L/987	0.40 = L/480	in	0.49
Total Defl'n	0.29 = L/658	0.80 = L/240	in	0.36
Bare Defl'n	0.23 = L/818	0.53 = L/360	in	0.44
Vibration	Lmax = 15'-11	Lv = 18'-1	ft	
Defl'n	= 0.027	= 0.041	in	0.67



DWG NO. TAM26602-17
STRUCTURAL
COMPONENT ONLY

Beam7

Nordic Sizer – Canada 6.4

Page 2

Additional Data:

FACTORS:	f/E	KD	KH	KZ	KL	KT	KS	KN	LC#
Vr	2336	1.00	1.00	-	-	-	-	-	#2
Mr+	6255	1.00	1.00	-	1.000	-	-	-	#2
EI	371.1 million	-	-	-	-	-	-	-	#2

CRITICAL LOAD COMBINATIONS:

Shear : LC #2 = 1.25D + 1.5L

Moment(+) : LC #2 = 1.25D + 1.5L

Deflection: LC #1 = 1.0D (permanent)

LC #2 = 1.0D + 1.0L (live)

LC #2 = 1.0D + 1.0L (total)

LC #2 = 1.0D + 1.0L (bare joist)

Bearing : Support 1 - LC #2 = 1.25D + 1.5L

Support 2 - LC #2 = 1.25D + 1.5L

Load Types: D=dead W=wind S=snow H=earth,groundwater E=earthquake
L=live(use,occupancy) Ls=live(storage,equipment) f=fire

Load Patterns: s=S/2 L=L+Ls _=no pattern load in this span

All Load Combinations (LCs) are listed in the Analysis output

CALCULATIONS:Deflection: E_{IEff} = 460e06 lb-in² K= 6.18e06 lbs

"Live" deflection = Deflection from all non-dead loads (live, wind, snow...)

Design Notes:

CONFORMS TO OBC 2012

1. WoodWorks analysis and design are in accordance with the 2010 National Building Code of Canada (NBC Part 4) and the CSA O86-14 Engineering Design in Wood standard (May 2014 edition).

2. Please verify that the default deflection limits are appropriate for your application.

3. Refer to technical documentation for installation guidelines and construction details.

4. Nordic I-joists are listed in CCMC evaluation report 13032-R.

5. Joists shall be laterally supported at supports and continuously along the compression edge.

6. The design assumptions and specifications have been provided by the client. Any damages resulting from faulty or incorrect information, specifications, and/or designs furnished, and the correctness or accuracy of this information is their responsibility. This analysis does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of this component based on the design criteria and loadings shown.



perh
 DWG NO. TAM 26602-17
 STRUCTURAL
 COMPONENT ONLY

NORDIC STRUCTURES

COMPANY
TAMARACK LUMBER INC.
3269 NORTH SERVICE ROAD
BURLINGTON ONTARIO
May 8, 2017 11:08

PROJECT
J7 ABOVE GARAGE 2ND
FLOOR

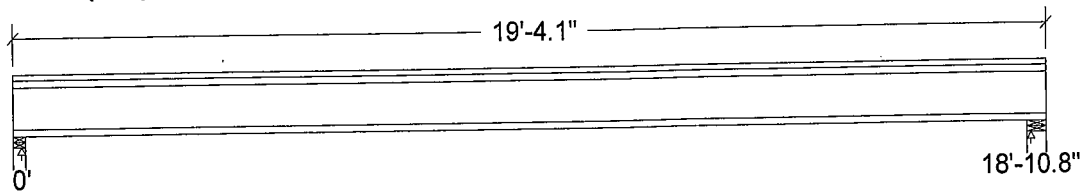
Design Check Calculation Sheet

Nordic Sizer – Canada 6.4

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start End	Magnitude Start End	Unit
Load1	Dead	Full Area			20.00	psf
Load2	Live	Full Area			40.00	psf

Maximum Reactions (lbs), Bearing Resistances (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	189		189
Live	378		378
Factored:			
Total	803		803
Bearing:			
Resistance			2336
Joist	2220		10829
Support	6659		
Des ratio			0.34
Joist	0.36		0.07
Support	0.12		#2
Load case	#2		4-3/8
Length	2-3/4		1-3/4
Min req'd	1-3/4		No
Stiffener	No		1.00
Kd	1.00		1.00
KB support	1.00		769
fcpsup	769		1.15
Kzcp sup	1.13		

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

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

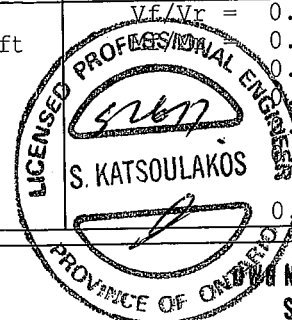
Supports: All - Lumber Wall, No.1/No.2

Total length: 19'-4.1"; 3/4" nailed and glued OSB sheathing

This section PASSES the design code check.

Limit States Design using CSA O86-14 and Vibration Criterion:

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 803	Vr = 2336	lbs	Vf/Vr = 0.34
Moment (+)	Mf = 3794	Mr = 11609	lbs-ft	0.33
Perm. Defl'n	0.11 = <L/999	0.63 = L/360	in	0.17
Live Defl'n	0.21 = <L/999	0.47 = L/480	in	0.45
Total Defl'n	0.32 = L/715	0.94 = L/240	in	0.34
Bare Defl'n	0.24 = L/954	0.63 = L/360	in	0.38
Vibration	Lmax = 18'-11	Lv = 21'-3	ft	
Defl'n	= 0.025	= 0.033	in	0.75



Beam8

Nordic Sizer – Canada 6.4

Page 2

Additional Data:

FACTORS:	f/E	KD	KH	KZ	KL	KT	KS	KN	LC#
Vr	2336	1.00	1.00	-	-	-	-	-	#2
Mr+	11609	1.00	1.00	-	1.000	-	-	-	#2
EI	547.1 million	-	-	-	-	-	-	-	#2

CRITICAL LOAD COMBINATIONS:

Shear : LC #2 = 1.25D + 1.5L

Moment(+) : LC #2 = 1.25D + 1.5L

Deflection: LC #1 = 1.0D (permanent)

LC #2 = 1.0D + 1.0L (live)

LC #2 = 1.0D + 1.0L (total)

LC #2 = 1.0D + 1.0L (bare joist)

Bearing : Support 1 - LC #2 = 1.25D + 1.5L

Support 2 - LC #2 = 1.25D + 1.5L

Load Types: D=dead W=wind S=snow H=earth,groundwater E=earthquake
L=live(use,occupancy) Ls=live(storage,equipment) f=fire

Load Patterns: s=S/2 L=L+Ls _=no pattern load in this span

All Load Combinations (LCs) are listed in the Analysis output

CALCULATIONS:Deflection: E_Ieff = 625e06 lb-in² K= 6.18e06 lbs

"Live" deflection = Deflection from all non-dead loads (live, wind, snow...)

Design Notes:

CONFORMS TO OBC 2012

1. WoodWorks analysis and design are in accordance with the 2010 National Building Code of Canada (NBC Part 4) and the CSA O86-14 Engineering Design in Wood standard (May 2014 edition).
2. Please verify that the default deflection limits are appropriate for your application.
3. Refer to technical documentation for installation guidelines and construction details.
4. Nordic I-joists are listed in CCMC evaluation report 13032-R.
5. Joists shall be laterally supported at supports and continuously along the compression edge.
6. The design assumptions and specifications have been provided by the client. Any damages resulting from faulty or incorrect information, specifications, and/or designs furnished, and the correctness or accuracy of this information is their responsibility. This analysis does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of this component based on the design criteria and loadings shown.



DWG NO. TAM 26603-17
STRUCTURAL
COMPONENT ONLY

NORDIC STRUCTURES

COMPANY
TAMARACK LUMBER INC.
3269 NORTH SERVICE ROAD
BURLINGTON ONTARIO
May 8, 2017 11:10

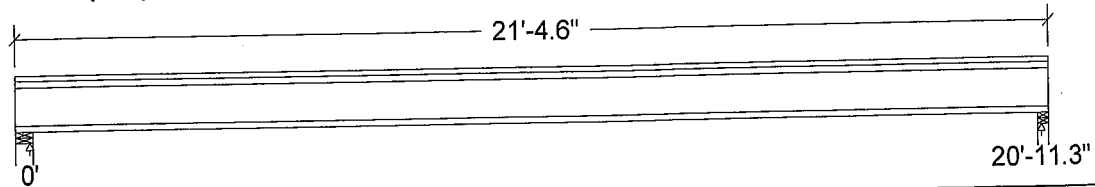
PROJECT
J1 2ND FLOOR

Design Check Calculation Sheet Nordic Sizer – Canada 6.4

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start End	Magnitude Start End	Unit
Load1	Dead	Full Area			20.00	psf
Load2	Live	Full Area			40.00	psf

Maximum Reactions (lbs), Bearing Resistances (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	209		209
Live	419		419
Factored:			890
Total	890		
Bearing:			
Resistance			
Joist	4672		4306
Support	15470		9513
Des ratio			0.21
Joist	0.19		0.09
Support	0.06		#2
Load case	#2		2-3/4
Length	4-3/8		1-3/4
Min req'd	1-3/4		No
Stiffener	No		1.00
Kd	1.00		1.00
KB support	1.00		769
fcp sup	769		1.13
Kzcp sup	1.15		

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

Nordic Joist 11-7/8" NI-40x 2-ply Floor joist @ 12" o.c.

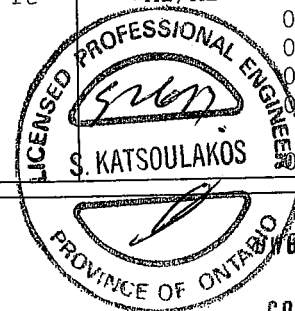
Supports: All - Lumber Wall, No.1/No.2

Total length: 21'-4.6"; 3/4" nailed and glued OSB sheathing with 1/2" gypsum ceiling

This section PASSES the design code check.

Limit States Design using CSA O86-14 and Vibration Criterion:

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 890	Vr = 4672	lbs	Vf/Vr = 0.19
Moment (+)	Mf = 4659	Mr = 12509	lbs-ft	Mf/Mr = 0.37
Perm. Defl'n	0.11 = <L/999	0.70 = L/360	in	0.16
Live Defl'n	0.23 = <L/999	0.52 = L/480	in	0.43
Total Defl'n	0.34 = L/739	1.05 = L/240	in	0.32
Bare Defl'n	0.25 = <L/999	0.70 = L/360	in	0.36
Vibration	Lmax = 20'-11	Lv = 23'-7	ft	
Defl'n	= 0.023	= 0.031	in	0.74



NO. TAM26604-17
STRUCTURAL
COMPONENT ONLY

Beam9

Nordic Sizer – Canada 6.4

Page 2

Additional Data:

FACTORS:	f/E	KD	KH	KZ	KL	KT	KS	KN	LC#
Vr	2336	1.00	1.00	-	-	-	-	-	#2
Mr+	6255	1.00	1.00	-	1.000	-	-	-	#2
EI	371.1 million	-	-	-	-	-	-	-	#2

CRITICAL LOAD COMBINATIONS:

Shear : LC #2 = 1.25D + 1.5L
 Moment (+) : LC #2 = 1.25D + 1.5L
 Deflection: LC #1 = 1.0D (permanent)
 LC #2 = 1.0D + 1.0L (live)
 LC #2 = 1.0D + 1.0L (total)
 LC #2 = 1.0D + 1.0L (bare joist)

Bearing : Support 1 - LC #2 = 1.25D + 1.5L
 Support 2 - LC #2 = 1.25D + 1.5L

Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake
 L=live (use, occupancy) Ls=live (storage, equipment) f=fire

Load Patterns: s=S/2 L=L+Ls _=no pattern load in this span

All Load Combinations (LCs) are listed in the Analysis output

CALCULATIONS:

Deflection: $EI_{eff} = 413e06 \text{ lb-in}^2/\text{ply}$ $K = 6.18e06 \text{ lbs/ply}$
 "Live" deflection = Deflection from all non-dead loads (live, wind, snow...)

Design Notes:**CONFORMS TO OBC 2012**

1. WoodWorks analysis and design are in accordance with the 2010 National Building Code of Canada (NBC Part 4) and the CSA O86-14 Engineering Design in Wood standard (May 2014 edition).
2. Please verify that the default deflection limits are appropriate for your application.
3. Refer to technical documentation for installation guidelines and construction details.
4. Nordic I-joists are listed in CCMC evaluation report 13032-R.
5. Joists shall be laterally supported at supports and continuously along the compression edge.
6. The design assumptions and specifications have been provided by the client. Any damages resulting from faulty or incorrect information, specifications, and/or designs furnished, and the correctness or accuracy of this information is their responsibility. This analysis does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of this component based on the design criteria and loadings shown.



DWG NO. TAM26604-17
 STRUCTURAL
 COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP Basement\...\B1 CANT (i4666)

Dry | 2 spans | Left cantilever | 0/12 slope (deg)

May 15, 2017 14:26:26

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

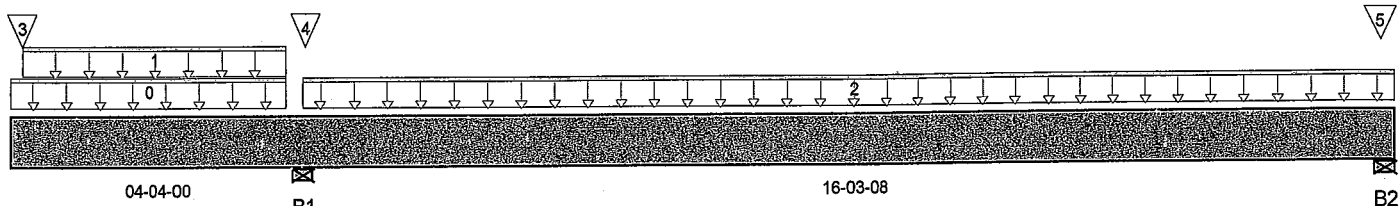
Description: Designs\Flush Beams\Basement\Flush Beams\B1 CANT (

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 20-07-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	1,720 / 0	1,053 / 0		
B2, 5-1/2"	443 / 171	279 / 0	29 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0 User Load	Unf. Lin. (lb/ft)	L	00-00-00	04-01-04	240	120			n/a
1 FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-02-02	04-01-04	14	7			n/a
2 FC1 Floor Material	Unf. Lin. (lb/ft)	L	04-04-00	20-07-08	40	20			n/a
3 B3(i4637)	Conc. Pt. (lbs)	L	00-02-02	00-02-02	85	54			n/a
4 6(i304)	Conc. Pt. (lbs)	L	04-04-09	04-04-09	103	75			n/a
5 E9(i219)	Conc. Pt. (lbs)	L	20-04-12	20-04-12	105	105	29		n/a

Controls Summary	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	2,313 ft-lbs	38,727 ft-lbs	6%	3	13-05-02
Neg. Moment	-5,979 ft-lbs	-38,727 ft-lbs	15.4%	1	04-04-00
End Shear	577 lbs	14,464 lbs	4%	3	19-02-02
Cont. Shear	1,916 lbs	14,464 lbs	13.2%	1	03-01-06
Uplift	6 lbs	n/a	n/a	35	20-07-08
Total Load Defl.	2xL/621 (0.167")	0.433"	38.6%	79	00-00-00
Live Load Defl.	2xL/777 (0.134")	0.289"	46.4%	117	00-00-00
Total Neg. Defl.	L/999 (-0.076")	n/a	n/a	79	10-02-13
Max Defl.	-0.076"	n/a	n/a	79	10-02-13
Span / Depth	16.1	n/a	n/a		00-00-00

Bearing Supports	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B1 Wall/Plate	5-1/2" x 3-1/2"	3,897 lbs	47.4%	16.6%	Unspecified
B2 Wall/Plate	5-1/2" x 3-1/2"	1,027 lbs	12.5%	4.4%	Unspecified

Notes



DWG NO. TAM 26605-17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP Basement...B1 CANT (i4666)

Dry | 2 spans | Left cantilever | 0/12 slope (deg)

May 15, 2017 14:26:26

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

Description: Designs\Flush Beams\Basement\Flush Beams\B1 CAN

Specifier:

Designer:

Company:

Misc:

Design meets User specified (2xL/240) Total load deflection criteria.

Design meets User specified (2xL/360) Live load deflection criteria.

Calculations assume member is fully braced.

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

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

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

Design based on Dry Service Condition.

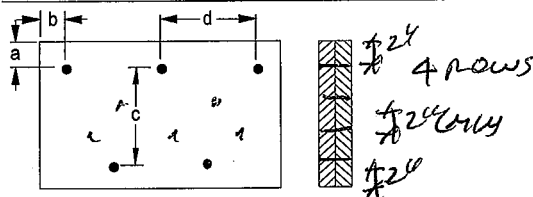
Importance Factor: Normal Part code: Part 9

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

Disclosure

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

Connection Diagram



a minimum = 2" c = 7-7/8"
b minimum = 3" d = 6"

Calculated Side Load = 9.5 lb/ft

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Connectors are: 16d Nails

3 1/2" ARDOX SPIRAL

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



DWG NO. TAM 26605-17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP Basementl...B2(i4687)

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

May 15, 2017 14:26:27

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

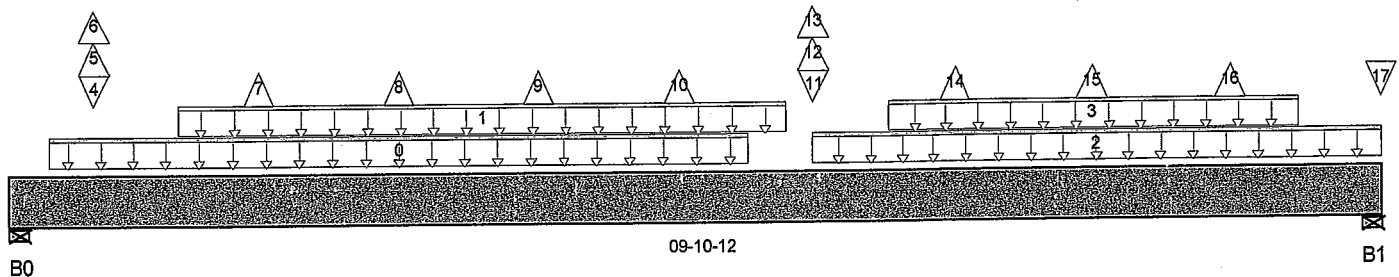
Description: Designs\Flush Beams\Basement\Flush Beams\B2(i4687)

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 09-10-12

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 10-1/4"	4,059 / 652	2,006 / 0		
B1, 2-3/4"	950 / 534	293 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	Smoothed Load	Unf. Lin. (lb/ft)	L	00-03-08	05-03-08	122				n/a
1	User Load	Unf. Lin. (lb/ft)	L	01-02-12	05-06-12	240	120			n/a
2	FC 1 Floor Material	Unf. Lin. (lb/ft)	L	05-08-14	09-10-12	14	7			n/a
3	Smoothed Load	Unf. Lin. (lb/ft)	L	06-03-08	09-03-08	118				n/a
4	-	Conc. Pt. (lbs)	L	00-07-06	00-07-06	2,667	1,568			n/a
5	-	Conc. Pt. (lbs)	L	00-07-06	00-07-06		-5			n/a
6	-	Conc. Pt. (lbs)	L	00-07-06	00-07-06	-131				n/a
7	J1(i4533)	Conc. Pt. (lbs)	L	01-09-08	01-09-08	-131	-4			n/a
8	J1(i4533)	Conc. Pt. (lbs)	L	02-09-08	02-09-08	-131	-4			n/a
9	J1(i4533)	Conc. Pt. (lbs)	L	03-09-08	03-09-08	-131	-4			n/a
10	J1(i4570)	Conc. Pt. (lbs)	L	04-09-08	04-09-08	-131	-5			n/a
11	-	Conc. Pt. (lbs)	L	05-08-15	05-08-15	190	47			n/a
12	-	Conc. Pt. (lbs)	L	05-08-15	05-08-15		-7			n/a
13	-	Conc. Pt. (lbs)	L	05-08-15	05-08-15	-131				n/a
14	J1(i4564)	Conc. Pt. (lbs)	L	06-09-08	06-09-08	-131	-7			n/a
15	J1(i4564)	Conc. Pt. (lbs)	L	07-09-08	07-09-08	-131	-7			n/a
16	J1(i4716)	Conc. Pt. (lbs)	L	08-09-08	08-09-08	-138	-10			n/a
17	6(i304)	Conc. Pt. (lbs)	L	09-10-08	09-10-08	78	63			n/a



NO. TAM 26606-17

STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP Basement...B2(i4687)

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

May 15, 2017 14:26:27

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

Description: Designs\Flush Beams\Basement\Flush Beams\B2(i4687

Specifier:

Designer:

Company:

Misc:

Controls Summary	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	5,320 ft-lbs	38,727 ft-lbs	13.7%	1	04-09-08
Neg. Moment	-1,227 ft-lbs	-38,727 ft-lbs	3.2%	4	05-09-08
End Shear	2,413 lbs	14,464 lbs	16.7%	1	01-10-02
Uplift	537 lbs	n/a	n/a	4	09-10-12
Total Load Defl.	L/999 (0.052")	n/a	n/a	6	05-02-02
Live Load Defl.	L/999 (0.04")	n/a	n/a	8	05-02-02
Total Neg. Defl.	L/999 (-0.007")	n/a	n/a	7	05-08-14
Max Defl.	0.052"	n/a	n/a	6	05-02-02
Span / Depth	9	n/a	n/a		00-00-00

Disclosure

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

Bearing Supports	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	10-1/4" x 3-1/2"	8,596 lbs	56.1%	19.6%	Unspecified
B1 Wall/Plate	2-3/4" x 3-1/2"	1,791 lbs	43.6%	15.3%	Unspecified

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Cautions

Uplift of 537 lbs found at span 1 - Right. *(SIMPSON 1-R2-54 @ 0.31)*

Notes

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

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

Calculations assume member is fully braced.

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

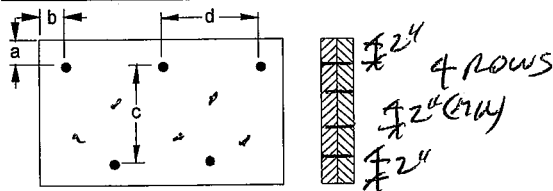
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.

CONFORMS TO OBC 2012

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Connection Diagram



a minimum = 2" c = 7-7/8"
b minimum = 3" d = 6"

Calculated Side Load = 39.2 lb/ft

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Connectors are: *3 1/2" ARDOX SPIRAL*



DWG NO. TAM 26006-17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP Basement\...\B3(i4637)

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

May 15, 2017 14:26:27

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK3.mmdl

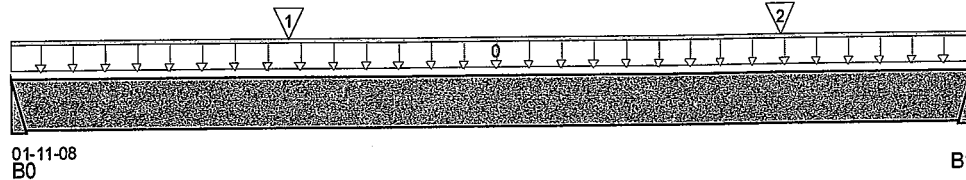
Description: Designs\Flush Beams\Basement\Flush Beams\B3(i4637)

Specifier:

Designer:

Company:

Misc:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0	71 / 0	47 / 0		
B1	84 / 0	54 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0 FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	01-11-08	7	4			n/a
1 J7(i4624)	Conc. Pt. (lbs)	L	00-06-12	00-06-12	71	35			n/a
2 J7(i4652)	Conc. Pt. (lbs)	L	01-06-12	01-06-12	70	35			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	71 ft-lbs	38,727 ft-lbs	0.2%	1	00-06-15
End Shear	44 lbs	14,464 lbs	0.3%	1	00-09-10
Span / Depth	1.8	n/a	n/a		00-00-00

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Hanger	2" x 3-1/2"	165 lbs	n/a	1.9%	HGUS410
B1 Hanger	2" x 3-1/2"	193 lbs	n/a	2.3%	HUC410

Notes

Calculations assume member is fully braced.

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 2010 and CSA O86.

CONFORMS TO OBC 2012

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



DWG NO. TAM 26607-17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP Basement...B3(i4637)

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

May 15, 2017 14:26:27

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

Description: Designs\Flush Beams\Basement\Flush Beams\B3(i4637

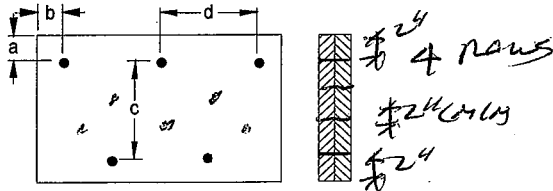
Specifier:

Designer:

Company:

Misc:

Connection Diagram



a minimum = 2" c = 7-7/8"
b minimum = 3" d = 4"

Calculated Side Load = 152.7 lb/ft

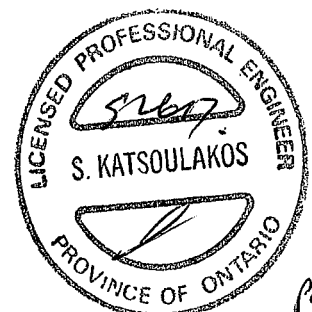
Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Connectors are: 3 1/2" ARDOX SPIRAL

Disclosure

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

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DWG NO. YAM 26607-17
STRUCTURAL
COMPONENT ONLY



Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP Basementl...B4 L(i5197)

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

May 19, 2017 08:58:53

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3 ELEVB.mmdl

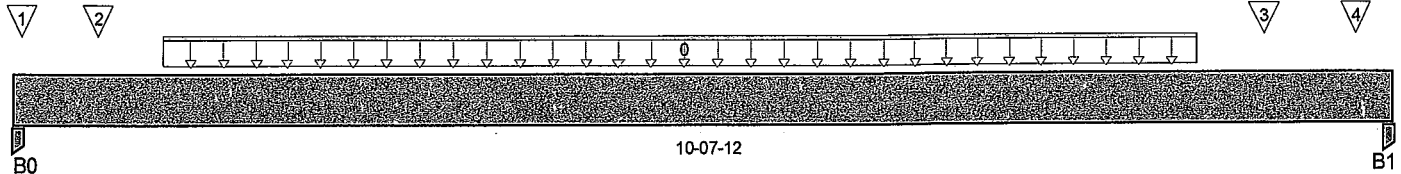
Description: Designs\Flush Beams\Basement\Flush Beams\B4 L(i5197

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 10-07-12

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/4"	935 / 0	491 / 0		
B1, 3-1/2"	965 / 0	506 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0 Smoothed Load	Unf. Lin. (lb/ft)	L	01-01-12	09-01-12	181	90			n/a
1 User Load	Conc. Pt. (lbs)	L	00-00-12	00-00-12	32	16			n/a
2 J10(i5204)	Conc. Pt. (lbs)	L	00-07-12	00-07-12	149	74			n/a
3 J10(i5196)	Conc. Pt. (lbs)	L	09-07-12	09-07-12	154	77			n/a
4 J10(i5192)	Conc. Pt. (lbs)	L	10-04-04	10-04-04	117	58			n/a

Controls Summary	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	5,070 ft-lbs	12,704 ft-lbs	39.9%	1	05-07-12
End Shear	1,792 lbs	5,785 lbs	31%	1	09-06-12
Total Load Defl.	L/457 (0.268")	0.51"	52.5%	4	05-03-04
Live Load Defl.	L/696 (0.176")	0.34"	51.7%	5	05-03-04
Max Defl.	0.268"	n/a	n/a	4	05-03-04
Span / Depth	12.9	n/a	n/a		00-00-00

Disclosure

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

Bearing Supports	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Post	3-1/4" x 1-3/4"	2,016 lbs	43.7%	29.1%	Unspecified
B1 Post	3-1/2" x 1-3/4"	2,081 lbs	41.8%	27.8%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Calculations assume member is fully braced.
 Resistance Factor phi has been applied to all presented results per CSA O86.
 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor: Normal Part code: Part 9

CONFORMS TO QBC 2Q12



DRY END, TAN 2600-19
 STRUCTURAL
 COMPONENT ONLY



Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP Basement\...\B5 L(i5203)

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

May 19, 2017 08:58:53

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK3 ELEV.B.mmdl

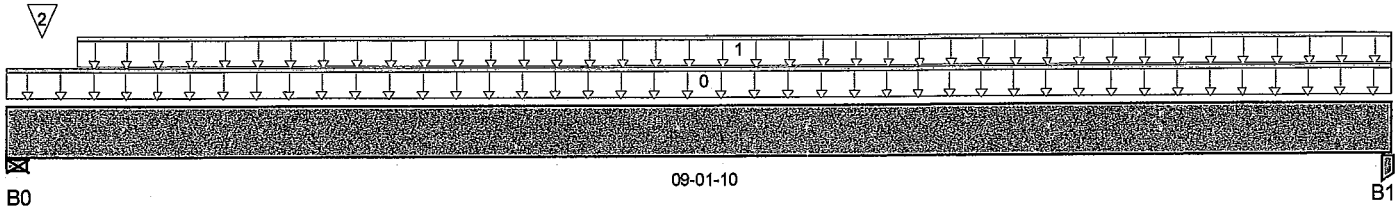
Description: Designs\Flush Beams\Basement\Flush Beams\B5 L(i5203

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 09-01-10

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 5-1/2"	1,112 / 0	651 / 0		
B1, 1-7/8"	1,117 / 0	580 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	09-01-10	13	6			n/a
1	User Load	Unf. Lin. (lb/ft)	L	00-05-08	09-01-10	240	120			n/a
2	3(i253)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	28	87			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	5,078 ft-lbs	12,704 ft-lbs	40%	1	04-08-10
End Shear	1,885 lbs	5,785 lbs	32.6%	1	01-03-00
Total Load Defl.	L/537 (0.193")	0.432"	44.7%	4	04-08-10
Live Load Defl.	L/816 (0.127")	0.288"	44.1%	5	04-08-10
Max Defl.	0.193"	n/a	n/a	4	04-08-10
Span / Depth	10.9	n/a	n/a		00-00-00

Disclosure

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

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0	5-1/2" x 1-3/4"	2,482 lbs	48.3%	21.1%	Unspecified
B1	1-7/8" x 1-3/4"	2,400 lbs	90.1%	60%	Unspecified

Notes

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

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

Calculations assume member is fully braced.

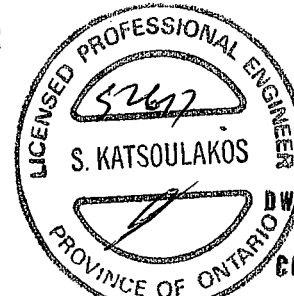
Resistance Factor phi has been applied to all presented results per CSA O86.

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

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

CONFORMS TO QBC 2012



DWG NO. TAM26609-1
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor...B6(i4030)

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

May 15, 2017 14:26:27

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

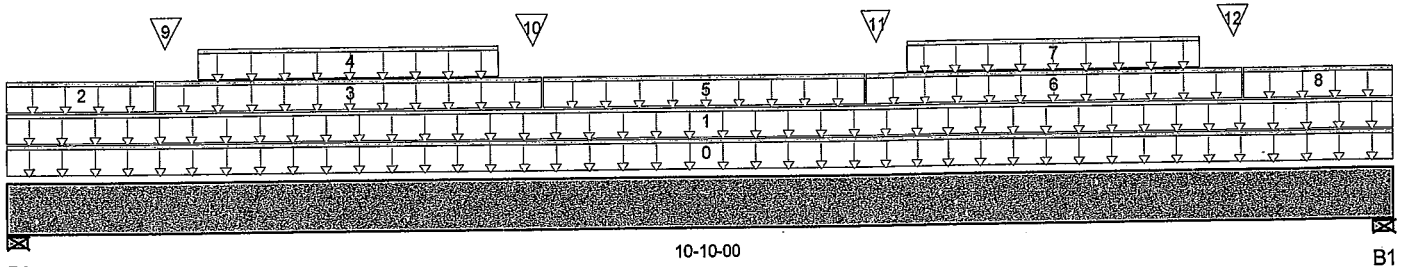
Description: Designs\Flush Beams\1st Floor\Flush Beams\B6(i4030)

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 10-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 4"	387 / 0	781 / 0	677 / 0	
B1, 4"	388 / 0	782 / 0	680 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	User Load	Unf. Lin. (lb/ft)	L	00-00-00	10-10-00	22	20	48		n/a
1	FC3 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	10-10-00	20	10			n/a
2	E40(i3788)	Unf. Lin. (lb/ft)	L	00-00-00	01-02-00		41			n/a
3	E41(i3789)	Unf. Lin. (lb/ft)	L	01-02-00	04-02-00		81			n/a
4	E41(i3789)	Unf. Lin. (lb/ft)	L	01-06-00	03-10-00	29	30	76		n/a
5	E39(i3787)	Unf. Lin. (lb/ft)	L	04-02-00	06-08-00		41			n/a
6	E38(i3786)	Unf. Lin. (lb/ft)	L	06-08-00	09-08-00		81			n/a
7	E38(i3786)	Unf. Lin. (lb/ft)	L	07-00-00	09-04-00	29	30	76		n/a
8	E36(i3784)	Unf. Lin. (lb/ft)	L	09-08-00	10-10-00		41			n/a
9	E41(i3789)	Conc. Pt. (lbs)	L	01-03-00	01-03-00	45	70	118		n/a
10	E41(i3789)	Conc. Pt. (lbs)	L	04-01-00	04-01-00	47	72	123		n/a
11	E38(i3786)	Conc. Pt. (lbs)	L	06-09-00	06-09-00	45	70	118		n/a
12	E38(i3786)	Conc. Pt. (lbs)	L	09-07-00	09-07-00	47	72	123		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	5,293 ft-lbs	38,727 ft-lbs	13.7%	13	05-05-00
End Shear	1,959 lbs	14,464 lbs	13.5%	13	09-06-02
Total Load Defl.	L/999 (0.08")	n/a	n/a	45	05-05-00
Live Load Defl.	L/999 (0.042")	n/a	n/a	61	05-05-00
Max Defl.	0.08"	n/a	n/a	45	05-05-00
Span / Depth	10.4	n/a	n/a		00-00-00

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	4" x 3-1/2"	2,184 lbs	36.5%	12.8%	Unspecified
B1 Wall/Plate	4" x 3-1/2"	2,191 lbs	36.6%	12.8%	Unspecified

Notes

Page 1 of 2



STRUCTURAL COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor...B6(i4030)

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

May 15, 2017 14:26:27

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

Description: Designs\Flush Beams\1st Floor\Flush Beams\B6(i4030)

Specifier:

Designer:

Company:

Misc:

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

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

Calculations assume member is fully braced.

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

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

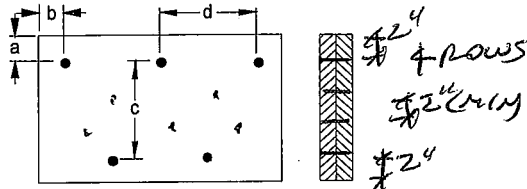
CONFORMS TO OBC 2012

Unbalanced snow loads determined from building geometry were used in selected products verification.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

Connection Diagram



a minimum = 2" c = 7-7/8"
b minimum = 3" d = 6"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Member has no side loads.

Connectors are: 16d Nails

3 1/2" ARDOX SPIRAL

Disclosure

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

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DWG NO. TAM26610-17

**STRUCTURAL
COMPONENT ONLY**



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor...\B7(i4152)

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

May 15, 2017 14:26:27

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

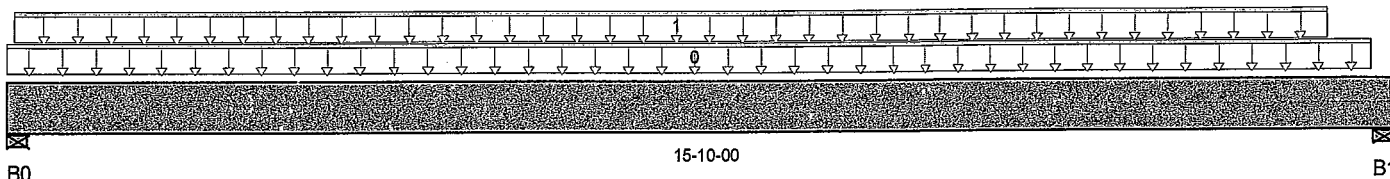
Description: Designs\Flush Beams\1st Floor\Flush Beams\B7(i4152)

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 15-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 4"	2,564 / 0	1,374 / 0		
B1, 4"	2,355 / 0	1,272 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	FC3 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	15-07-00	6	3			n/a
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-01-00	15-01-00	321	160			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	20,784 ft-lbs	38,727 ft-lbs	53.7%	1	07-07-00
End Shear	5,038 lbs	14,464 lbs	34.8%	1	14-06-02
Total Load Defl.	L/290 (0.633")	0.765"	82.8%	4	07-10-00
Live Load Defl.	L/445 (0.412")	0.51"	80.9%	5	07-10-00
Max Defl.	0.633"	n/a	n/a	4	07-10-00
Span / Depth	15.5	n/a	n/a		00-00-00

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	4" x 3-1/2"	5,564 lbs	93%	32.6%	Unspecified
B1 Wall/Plate	4" x 3-1/2"	5,123 lbs	85.7%	30%	Unspecified

Notes

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

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

Calculations assume member is fully braced.

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

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

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

CONFORMS TO OBC 2012



DWG NO. TAM 26611 -17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor...\B7(i4152)

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

May 15, 2017 14:26:27

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

Description: Designs\Flush Beams\1st Floor\Flush Beams\B7(i4152

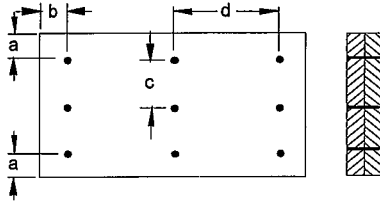
Specifier:

Designer:

Company:

Misc:

Connection Diagram



a minimum = 2" c = 3-15/16"
b minimum = 3" d = 3-1/2"

Calculated Side Load = 646.6 lb/ft

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Connectors are: 16d Nails

3 1/2" ARDOX SPIRAL

Disclosure

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

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DATE: MAY 15 2017
STRUCTURAL
COMPONENT ONLY

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK3.mmdl

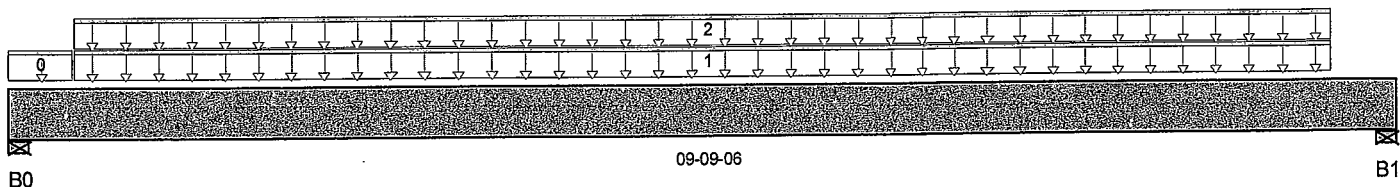
Description: Designs\Flush Beams\1st Floor\Flush Beams\B9(i4133)

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 09-09-06

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 5-1/2"	15 / 0	303 / 0		
B1, 5-1/2"	13 / 0	302 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	FC3 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	00-05-08	4				n/a
1	User Load	Unf. Lin. (lb/ft)	L	00-05-08	09-03-14		60			n/a
2	FC3 Floor Material	Unf. Lin. (lb/ft)	L	00-05-08	09-03-14	3	1			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	954 ft-lbs	12,586 ft-lbs	7.6%	0	04-10-11
End Shear	325 lbs	4,701 lbs	6.9%	0	01-05-06
Total Load Defl.	L/999 (0.021")	n/a	n/a	4	04-10-11
Live Load Defl.	L/999 (0.001")	n/a	n/a	5	04-10-11
Max Defl.	0.021"	n/a	n/a	4	04-10-11
Span / Depth	9.1	n/a	n/a		00-00-00

Disclosure

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Bearing Supports

Sealing Supports						
B0	Wall/Plate	5-1/2" x 1-3/4"	424 lbs	15.9%	5.6%	Unspecified
B1	Wall/Plate	5-1/2" x 1-3/4"	423 lbs	15.8%	5.5%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Calculations assume member is fully braced.
 Resistance Factor phi has been applied to all presented results per CSA O86.
 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor: Normal Part code: Part 9

CONFORMS TO QBC 2012





Triple 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor...B10(i4082)

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

May 15, 2017 14:26:28

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports:

CCMC 12472-R

File Name: YORK 3.mmdl

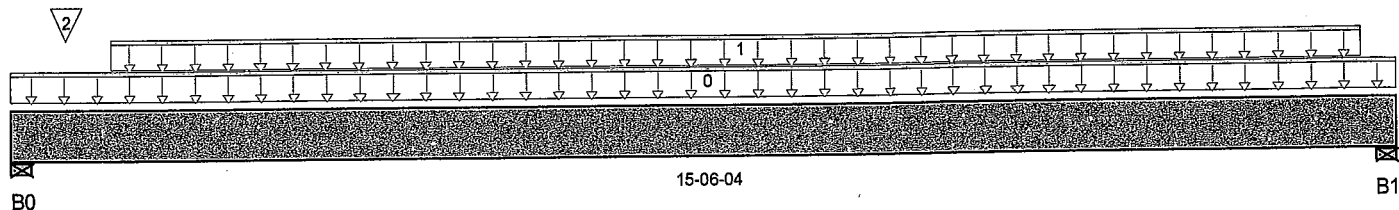
Description: Designs\Flush Beams\1st Floor\Flush Beams\B10(i4082)

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 15-06-04

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 5-1/2"	2,514 / 0	1,398 / 0		
B1, 6-3/4"	2,523 / 0	1,406 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	FC3 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	15-06-04	17	8			n/a
1	Smoothed Load	Unf. Lin. (lb/ft)	L	01-01-08	15-01-08	322	162			n/a
2	J3(i3824)	Conc. Pt. (lbs)	L	00-07-08	00-07-08	261	131			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	19,953 ft-lbs	60,415 ft-lbs	33%	1	07-07-08
End Shear	4,997 lbs	21,696 lbs	23%	1	13-11-10
Total Load Defl.	L/474 (0.37")	0.731"	50.7%	4	07-07-08
Live Load Defl.	L/736 (0.238")	0.488"	48.9%	5	07-07-08
Max Defl.	0.37"	n/a	n/a	4	07-07-08
Span / Depth	14.8	n/a	n/a		00-00-00

Bearing Supports	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	5-1/2" x 5-1/4"	5,519 lbs	44.7%	15.7%	Unspecified
B1 Wall/Plate	6-3/4" x 5-1/4"	5,542 lbs	36.6%	12.8%	Unspecified

Notes

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

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

Calculations assume member is fully braced.

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

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

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

CONFORMS TO OBC 2012



DWG NO. TAM 26613-17
STRUCTURAL
COMPONENT ONLY



Triple 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor...B10(i4082)

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

May 15, 2017 14:26:28

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK3.mmdl

Description: Designs\Flush Beams\1st Floor\Flush Beams\B10(i4082)

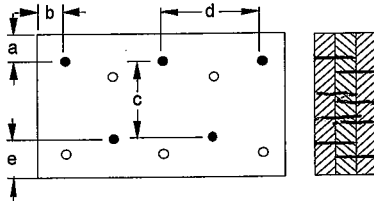
Specifier:

Designer:

Company:

Misc:

Connection Diagram



4 ROWS

a minimum = 2"
b minimum = 3"
c = 6-7/8"
d = 8"
e minimum = 2"

Calculated Side Load = 654.6 lb/ft

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Nailing schedule applies to both sides of the member.

Connectors are: 16d ¹/₄" Nails
3 1/2" ARDOX SPIRAL

Disclosure

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DRW NO. TAM26613-17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B11(i4214)

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

May 15, 2017 14:26:28

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

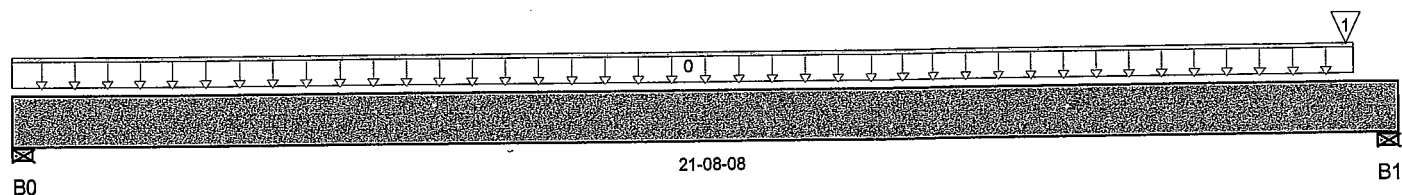
Description: Designs\Flush Beams\1st Floor\Flush Beams\B11(i4214)

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 21-08-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 5-1/2"	386 / 0	325 / 0		
B1, 5-1/2"	2,293 / 0	1,328 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	FC3 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	21-00-04	32	16			n/a
1	B12(i4198)	Conc. Pt. (lbs)	L	20-10-08	20-10-08	2,013	1,059			n/a

Controls Summary	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	5,502 ft-lbs	38,727 ft-lbs	14.2%	1	12-00-06
End Shear	2,381 lbs	14,464 lbs	16.5%	1	20-03-02
Total Load Defl.	L/766 (0.328")	1.046"	31.3%	4	11-01-12
Live Load Defl.	L/1,376 (0.182")	0.697"	26.2%	5	11-01-12
Max Defl.	0.328"	n/a	n/a	4	11-01-12
Span / Depth	21.1	n/a	n/a		00-00-00

Bearing Supports	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	5-1/2" x 3-1/2"	984 lbs	12%	4.2%	Unspecified
B1 Wall/Plate	5-1/2" x 3-1/2"	5,100 lbs	62%	21.7%	Unspecified

Notes

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

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

Calculations assume member is fully braced.

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

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

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

CONFORMS TO QBC 2012



DUO NO. TAM 26614-17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B11(i4214)

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

May 15, 2017 14:26:28

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

Description: Designs\Flush Beams\1st Floor\Flush Beams\B11(i4214)

Specifier:

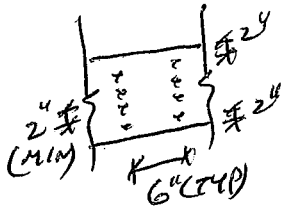
Designer:

Company:

Misc:

Connection Diagram

Concentrated side-load exceeds allowable magnitude for connection design. Please consult a technical representative or Professional Engineer for the design of the connection.



PROVIDE 4 ROWS OF 3 1/2" ARDOX SPIRAL NAILS @ 6" O/C FOR MULTI-PLY NAILING. MAINTAIN A MIN. 2" LUMBER EDGE/END DISTANCE. DO NOT USE AIR NAILS

Disclosure

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102/2
DWM NO. TAN 26614-17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor...B12(i4198)

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

May 15, 2017 14:26:28

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

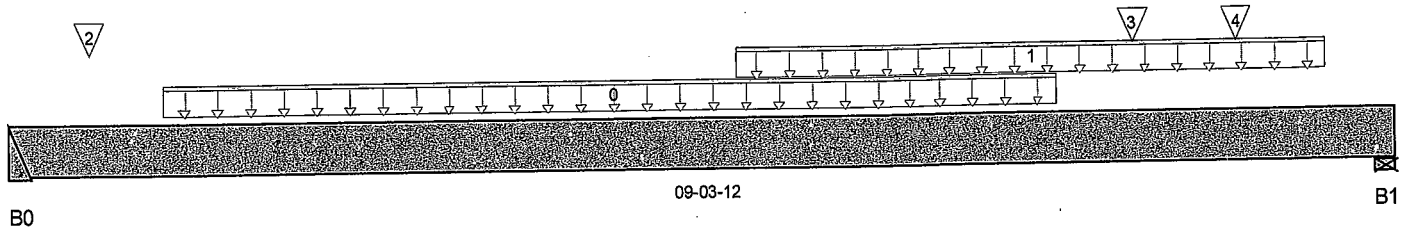
Description: Designs\Flush Beams\1st Floor\Flush Beams\B12(i4198)

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 09-03-12

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0	2,031 / 0	1,069 / 0		
B1, 5'-1/2"	2,478 / 0	1,295 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	Smoothed Load	Unf. Lin. (lb/ft)	L	01-00-08	07-00-08	419	209			n/a
1	User Load	Unf. Lin. (lb/ft)	L	04-10-04	08-10-04	240	120			n/a
2	J1(i3878)	Conc. Pt. (lbs)	L	00-06-08	00-06-08	353	177			n/a
3	J1(i3878)	Conc. Pt. (lbs)	L	07-06-08	07-06-08	358	179			n/a
4	J1(i4001)	Conc. Pt. (lbs)	L	08-03-00	08-03-00	317	158			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	10,952 ft-lbs	38,727 ft-lbs	28.3%	1	04-10-04
End Shear	4,541 lbs	14,464 lbs	31.4%	1	07-10-06
Total Load Defl.	L/999 (0.111")	n/a	n/a	4	04-06-08
Live Load Defl.	L/999 (0.073")	n/a	n/a	5	04-06-08
Max Defl.	0.111"	n/a	n/a	4	04-06-08
Span / Depth	8.9	n/a	n/a		00-00-00

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Hanger	2" x 3-1/2"	4,383 lbs	n/a	51.3%	HGUS4 10
B1 Wall/Plate	5-1/2" x 3-1/2"	5,335 lbs	64.9%	22.7%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-00-00.
 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 2010 and CSA O86.
CONFORMS TO OBC 2012
 Design based on Dry Service Condition.
 Importance Factor: Normal Part code: Part 9



DRW NO. TAM 26618-17
STRUCTURAL COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B12(i4198)

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

May 15, 2017 14:26:28

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

Description: Designs\Flush Beams\1st Floor\Flush Beams\B12(i4198)

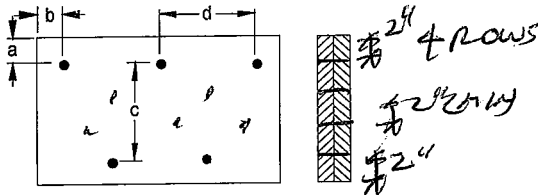
Specifier:

Designer:

Company:

Misc:

Connection Diagram



a minimum = 2" c = 7-7/8"
b minimum = 3" d = 6"

Calculated Side Load = 807.6 lb/ft

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Connectors are: 16d Nails

3 1/2" ARDOX SPIRAL

Disclosure

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DWG NO. YAM 26615-17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B13(i4051)

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

May 15, 2017 14:26:28

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

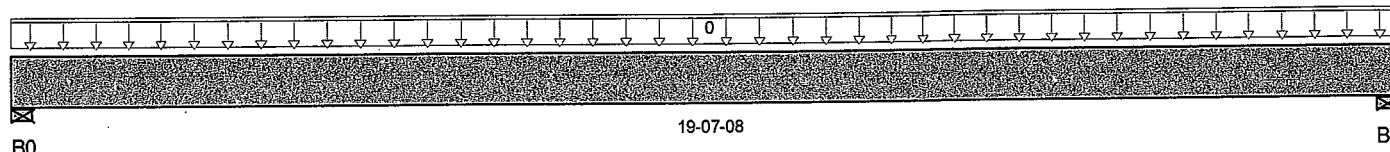
Description: Designs\Flush Beams\1st Floor\Flush Beams\B13(i4051)

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 19-07-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 5-1/2"	324 / 0	412 / 0	707 / 0	
B1, 5-1/2"	324 / 0	412 / 0	707 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0 User Load	Unf. Lin. (lb/ft)	L	00-00-00	19-07-08	33	30	72		n/a

Controls Summary	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	7,850 ft-lbs	10,954 ft-lbs	71.7%	13	09-09-12
End Shear	1,481 lbs	14,464 lbs	10.2%	13	01-05-06
Total Load Defl.	L/597 (0.378")	0.942"	40.2%	45	09-09-12
Live Load Defl.	L/881 (0.256")	0.628"	40.9%	61	09-09-12
Max Defl.	0.378"	n/a	n/a	45	09-09-12
Span / Depth	19	n/a	n/a		00-00-00

Bearing Supports	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	5-1/2" x 3-1/2"	1,737 lbs	21.1%	7.4%	Unspecified
B1 Wall/Plate	5-1/2" x 3-1/2"	1,737 lbs	21.1%	7.4%	Unspecified

Notes

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

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

Calculations assume unbraced length of Top: 18-08-08, Bottom: 18-08-08.

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

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

CONFORMS TO OBC 2012

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

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B13(i4051)

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

May 15, 2017 14:26:28

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

Description: Designs\Flush Beams\1st Floor\Flush Beams\B13(i4051)

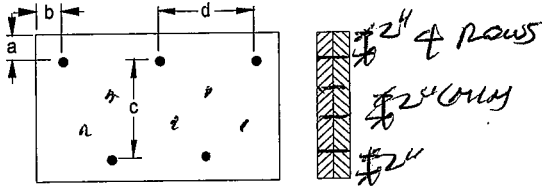
Specifier:

Designer:

Company:

Misc:

Connection Diagram



a minimum = 2" c = 7-7/8"

b minimum = 3" d = 2"

Member has no side loads.

Connectors are: 16d Nails

3 1/2" ARDQX SPIRAL

Disclosure

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Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B14(i3887)

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

May 15, 2017 14:26:28

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

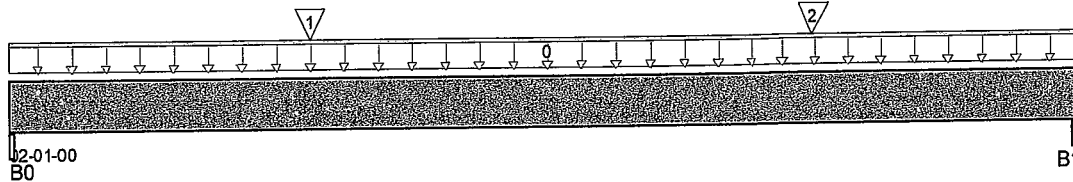
Description: Designs\Flush Beams\1st Floor\Flush Beams\B14(i3887)

Specifier:

Designer:

Company:

Msc:



Total Horizontal Product Length = 02-01-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 5"	242 / 0	251 / 0	174 / 0	
B1, 5"	273 / 0	266 / 0	174 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	E27(i424)	Unf. Lin. (lb/ft)	L	00-00-00	02-01-00	61	143	167		n/a
1	J5(i3935)	Conc. Pt. (lbs)	L	00-07-00	00-07-00	185	93			n/a
2	J5(i3958)	Conc. Pt. (lbs)	L	01-06-12	01-06-12	199	99			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	168 ft-lbs	38,727 ft-lbs	0.4%	1	01-00-01
End Shear	146 lbs	14,464 lbs	1%	13	01-04-14
Total Load Defl.	1/999 (0")	n/a	n/a	35	01-00-08
Max Defl.	0"	n/a	n/a	35	01-00-08
Span / Depth	1.4	n/a	n/a		00-00-00

Bearing Supports	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Beam	5" x 3-1/2"	764 lbs	10.2%	3.6%	Unspecified
B1 Beam	5" x 3-1/2"	828 lbs	11.1%	3.9%	Unspecified

Notes

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

Calculations assume member is fully braced.

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

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

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

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

CONFORMS TO OBC 2012



OWNED BY: TAW26617-17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor...B14(i3887)

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

May 15, 2017 14:26:28

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

Description: Designs\Flush Beams\1st Floor\Flush Beams\B14(i3887

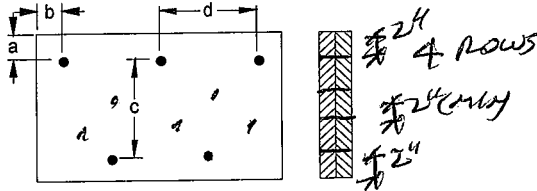
Specifier:

Designer:

Company:

Misc:

Connection Diagram



a minimum = 2" c = 7-7/8"
b minimum = 3" d = 6"

Calculated Side Load = 391.7 lb/ft

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Connectors are: 16d Nails

3 1/2" ARDOX SPIRAL

Disclosure

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DWG NO. TAM 26617-17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B8 DR(i4141)

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

May 15, 2017 14:26:29

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

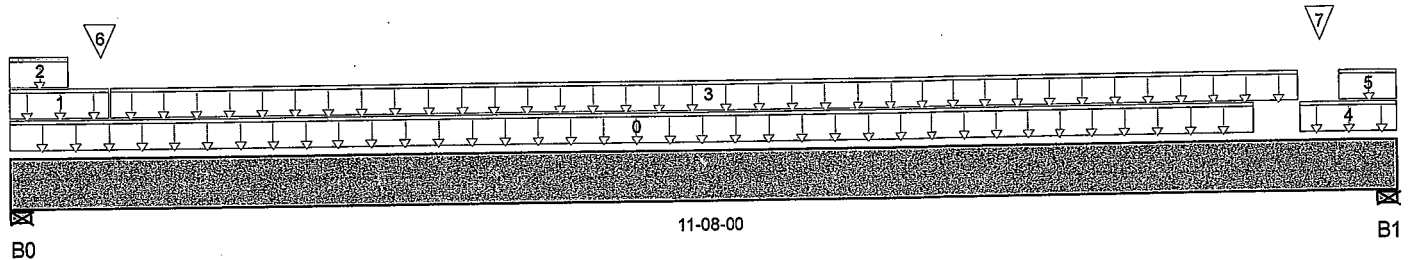
Description: Designs\Dropped Beams\1st Floor\Dropped Beams\B8 D

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 11-08-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 4"	2,154 / 0	1,592 / 0	589 / 0	
B1, 4"	2,123 / 0	1,576 / 0	589 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	Smoothed Load	Unf. Lin. (lb/ft)	L	00-00-00	10-05-08	349	166			n/a
1	R1(i4173)	Unf. Lin. (lb/ft)	L	00-00-00	00-10-00		81			n/a
2	R1(i4173)	Unf. Lin. (lb/ft)	L	00-00-00	00-06-00			101		n/a
3	R1(i4173)	Unf. Lin. (lb/ft)	L	00-10-00	10-10-00		41			n/a
4	R1(i4173)	Unf. Lin. (lb/ft)	L	10-10-00	11-08-00		81			n/a
5	R1(i4173)	Unf. Lin. (lb/ft)	L	11-02-00	11-08-00			101		n/a
6	R1(i4173)	Conc. Pt. (lbs)	L	00-09-00	00-09-00		262	539		n/a
7	-	Conc. Pt. (lbs)	L	11-00-00	11-00-00	600	478	538		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	12,204 ft-lbs	25,408 ft-lbs	48%	1	05-09-08
End Shear	4,276 lbs	11,571 lbs	37%	1	10-06-08
Total Load Defl.	L/343 (0.39")	0.556"	70.1%	35	05-09-08
Live Load Defl.	L/567 (0.236")	0.371"	63.5%	51	05-09-08
Max Defl.	0.39"	n/a	n/a	35	05-09-08
Span / Depth	14.1	n/a	n/a		00-00-00

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	4" x 3-1/2"	5,515 lbs	60.6%	32.3%	Unspecified
B1 Wall/Plate	4" x 3-1/2"	5,450 lbs	59.9%	31.9%	Unspecified

Notes



DWG NO. TAM2661B-17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B8 DR(i4141)

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

May 15, 2017 14:26:29

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3.mmdl

Description: Designs\Dropped Beams\1st Floor\Dropped Beams\B8

Specifier:

Designer:

Company:

Misc:

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

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

Calculations assume member is fully braced.

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

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

Unbalanced snow loads determined from building geometry were used in selected products verification.

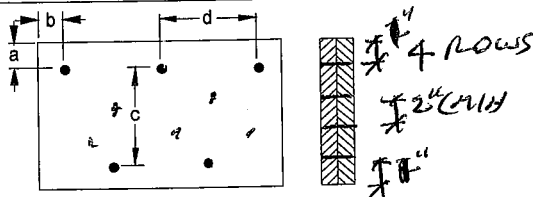
Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

Disclosure

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Connection Diagram



a minimum = 1" c = 1-1/2"
b minimum = 3" d = 6"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Member has no side loads.

Connectors are: 16d ~~Common~~ Nails

3 1/2" ARDOX SPIRAL

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DWG NO. TAM26618-17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor...B15(i4537)

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

May 8, 2017 13:21:20

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3 ELEV B.mmdl

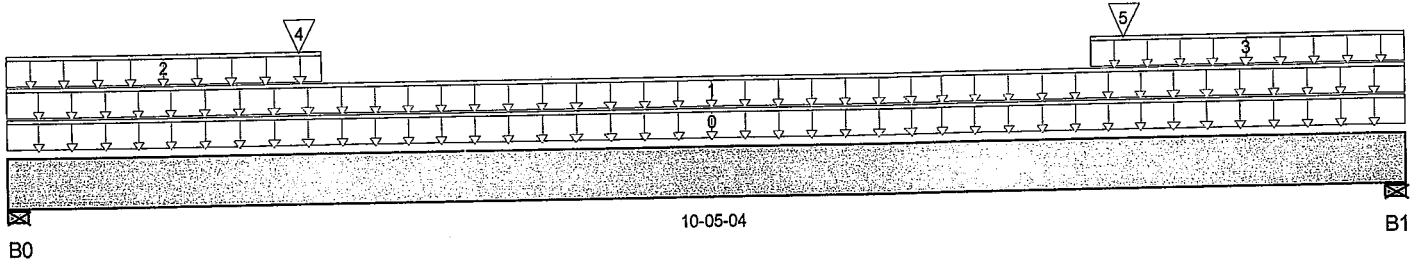
Description: Designs\Flush Beams\1st Floor\Flush Beams\B15(i4537)

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 10-05-04

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 11"	201 / 0	649 / 0	290 / 0	
B1, 10-3/16"	200 / 0	643 / 0	289 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0 E50(i4551)	Unf. Lin. (lb/ft)	L	00-00-00	10-05-04		81			n/a
1 FC3 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	10-05-04	11	6			n/a
2 E50(i4551)	Unf. Lin. (lb/ft)	L	00-00-00	02-04-02	32	28	53		n/a
3 E50(i4551)	Unf. Lin. (lb/ft)	L	08-01-00	10-05-04	32	28	53		n/a
4 E50(i4551)	Conc. Pt. (lbs)	L	02-02-00	02-02-00	67	66	165		n/a
5 E50(i4551)	Conc. Pt. (lbs)	L	08-04-00	08-04-00	67	66	165		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	1,502 ft-lbs	25,173 ft-lbs	6%	0	05-02-09
End Shear	574 lbs	9,401 lbs	6.1%	0	08-07-02
Total Load Defl.	L/999 (0.022")	n/a	n/a	45	05-02-09
Live Load Defl.	L/999 (0.006")	n/a	n/a	61	05-02-09
Max Defl.	0.022"	n/a	n/a	45	05-02-09
Span / Depth	8.9	n/a	n/a		00-00-00

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	11" x 3-1/2"	909 lbs	6.8%	3%	Unspecified
B1 Wall/Plate	10-3/16" x 3-1/2"	900 lbs	7.3%	3.2%	Unspecified

Notes





Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B15(i4537)

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

May 8, 2017 13:21:20

BC CALC® Design Report



Build 5033
Job Name:
Address:
City, Province, Postal Code: BRAMPTON,
Customer:
Code reports: CCMC 12472-R

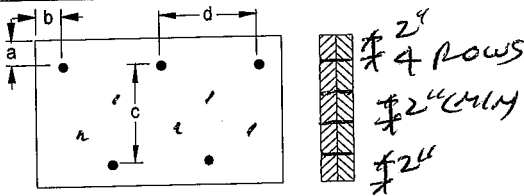
File Name: YORK3 ELEVB.mmdl
Description: Designs\Flush Beams\1st Floor\Flush Beams\B15(i4537)
Specifier:
Designer:
Company:
Misc:

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
CONFORMS TO OBC 2012
Unbalanced snow loads determined from building geometry were used in selected products verification.
Design based on Dry Service Condition.
Importance Factor: Normal Part code: Part 9

Disclosure

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

Connection Diagram



a minimum = 2" c = 7-7/8"
b minimum = 3" d = 6"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.
Member has no side loads.
Connectors are: 16d ¹/₂" ¹/₂" Nails

3 1/2" ARDOX SPIRAL

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





Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B13(i5046)

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

May8, 2017 13:21:20

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3 ELEV.B.mmdl

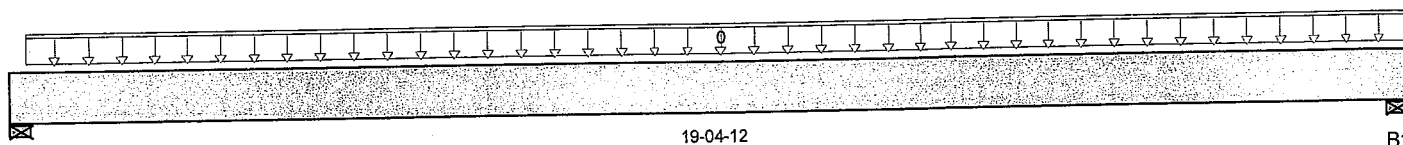
Description: Designs\Flush Beams\1st Floor\Flush Beams\B13(i5046)

Specifier:

Designer:

Company:

Misc:



B0

19-04-12

B1

Total Horizontal Product Length = 19-04-12

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 2-3/4"	262 / 0	349 / 0	561 / 0	
B1, 5-1/2"	275 / 0	363 / 0	589 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0 User Load	Unf. Lin. (lb/ft)	L	00-02-12	19-04-12	28	25	60		n/a

Controls Summary	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	6,663 ft-lbs	10,954 ft-lbs	60.8%	13	09-07-00
End Shear	1,257 lbs	14,464 lbs	8.7%	13	01-02-10
Total Load Defl.	L/702 (0.322")	0.942"	34.2%	45	09-07-00
Live Load Defl.	L/1,054 (0.214")	0.628"	34.2%	61	09-07-00
Max Defl.	0.322"	n/a	n/a	45	09-07-00
Span / Depth	19	n/a	n/a		00-00-00

Bearing Supports	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	2-3/4" x 3-1/2"	1,409 lbs	27.4%	12%	Unspecified
B1 Wall/Plate	5-1/2" x 3-1/2"	1,475 lbs	14.3%	6.3%	Unspecified

Notes

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

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

Calculations assume unbraced length of Top: 18-08-08, Bottom: 18-08-08.

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

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

Unbalanced snow loads determined from building geometry were used in selected products verification.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

CONFORMS TO CBC 2012



P616



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B13(i5046)

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

May 8, 2017 13:21:20

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3 ELEV B.mxd

Description: Designs\Flush Beams\1st Floor\Flush Beams\B13(i504

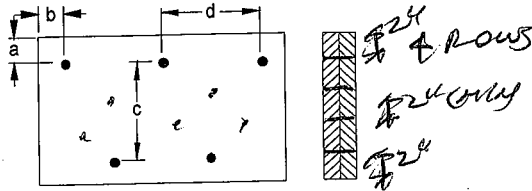
Specifier:

Designer:

Company:

Misc:

Connection Diagram



a minimum = 2" c = 7-7/8"
b minimum = 3" d = 12"

Member has no side loads.

Connectors are: 16d Nails

3 1/2" ARDOX SPIRAL

Disclosure

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

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Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B17(i4942)

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

May 8, 2017 13:21:20

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3 ELEV.B.mmdl

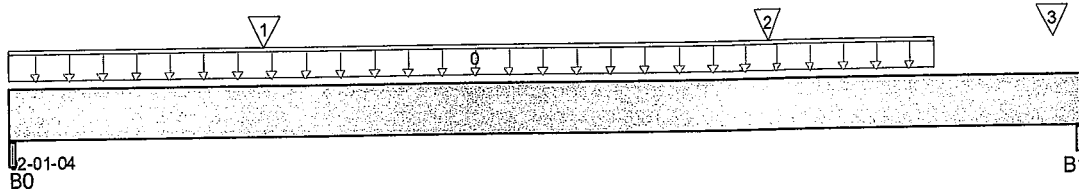
Description: Designs\Flush Beams\1st Floor\Flush Beams\B17(i4942)

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 02-01-04

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 5"	228 / 0	231 / 0	86 / 0	
B1, 3-1/2"	487 / 0	507 / 0	926 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	E49(i4550)	Unf. Lin. (lb/ft)	L	00-00-00	01-09-12	19	103	77		n/a
1	J5(i4967)	Conc. Pt. (lbs)	L	00-06-00	00-06-00	168	84			n/a
2	J5(i5017)	Conc. Pt. (lbs)	L	01-05-12	01-05-12	210	105			n/a
3	E52(i4553)	Conc. Pt. (lbs)	L	02-00-08	02-00-08	302	337	872		n/a

Controls Summary	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	191 ft-lbs	38,727 ft-lbs	0.5%	1	01-05-12
End Shear	64 lbs	14,464 lbs	0.4%	12	01-04-14
Total Load Defl.	L/999 (0")	n/a	n/a	35	01-01-09
Max Defl.	0"	n/a	n/a	35	01-01-09
Span / Depth	1.5	n/a	n/a		00-00-00

Bearing Supports	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Beam	5" x 3-1/2"	674 lbs	7.2%	3.2%	Unspecified
B1 Beam	3-1/2" x 3-1/2"	2,266 lbs	17%	15.2%	Unspecified

Notes

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

Calculations assume member is fully braced.

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

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

Unbalanced snow loads determined from building geometry were used in selected products verification.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9





Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor...B17(i4942)

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

May 8, 2017 13:21:20

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3 ELEV B.mmdl

Description: Designs\Flush Beams\1st Floor\Flush Beams\B17(i4942

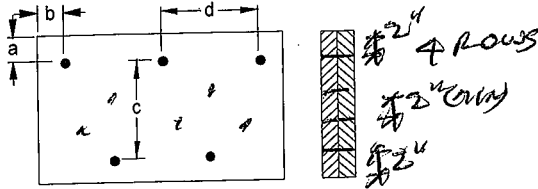
Specifier:

Designer:

Company:

Misc:

Connection Diagram



a minimum = 2" c = 7-7/8"
b minimum = 3" d = 6"

Calculated Side Load = 381.7 lb/ft

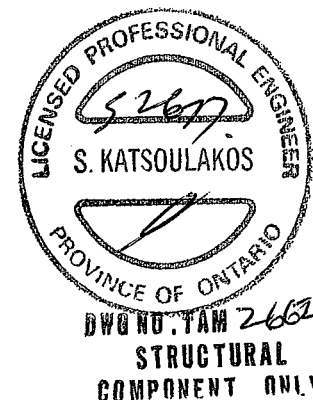
Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Connectors are: 16d Nails
3/2" ARDOX SPIRAL

Disclosure

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

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Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B14(i4899)

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

May8, 2017 13:21:20

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports:

CCMC 12472-R

File Name: YORK 3 ELEV.B.mmdl

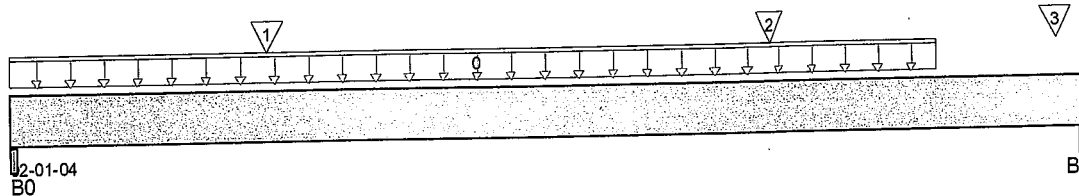
Description: Designs\Flush Beams\1st Floor\Flush Beams\B14(i4899)

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 02-01-04

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 5"	228 / 0	231 / 0	86 / 0	
B1, 3-1/2"	487 / 0	507 / 0	926 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	E27(i424)	Unf. Lin. (lb/ft)	L	00-00-00	01-09-12	19	103	77		n/a
1	J5(i4967)	Conc. Pt. (lbs)	L	00-06-00	00-06-00	168	84			n/a
2	J5(i5017)	Conc. Pt. (lbs)	L	01-05-12	01-05-12	210	105			n/a
3	E51(i4552)	Conc. Pt. (lbs)	L	02-00-08	02-00-08	302	337	872		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	191 ft-lbs	38,727 ft-lbs	0.5%	1	01-05-12
End Shear	64 lbs	14,464 lbs	0.4%	12	01-04-14
Total Load Defl.	L/999 (0")	n/a	n/a	35	01-01-09
Max Defl.	0"	n/a	n/a	35	01-01-09
Span / Depth	1.5	n/a	n/a		00-00-00

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Beam	5" x 3-1/2"	674 lbs	7.2%	3.2%	Unspecified
B1 Beam	3-1/2" x 3-1/2"	2,266 lbs	17%	15.2%	Unspecified

Notes

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

Calculations assume member is fully braced.

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

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

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

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

CONFORMS TO CBC 2012



PROVIDED BY
NO. 26622-17
STRUCTURAL
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BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK3 ELEV B.mmdl

Description: Designs\Flush Beams\1st Floor\Flush Beams\B14(i4899)

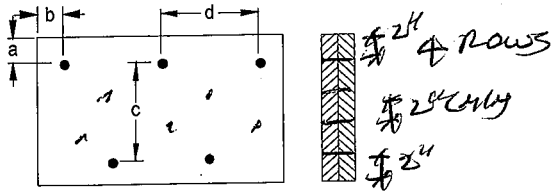
Specifier:

Designer:

Company:

Misc:

Connection Diagram



a minimum = 2" c = 7-7/8"
b minimum = 3" d = 6"

Calculated Side Load = 381.7 lb/ft

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Connectors are: 16d Nails
3 1/2" ARDOX SPIRAL

Disclosure

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DWG NO. TAM 26622-17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B6(i4863)

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

May 8, 2017 13:21:20

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports:

CCMC 12472-R

File Name: YORK 3 ELEV B.mmdl

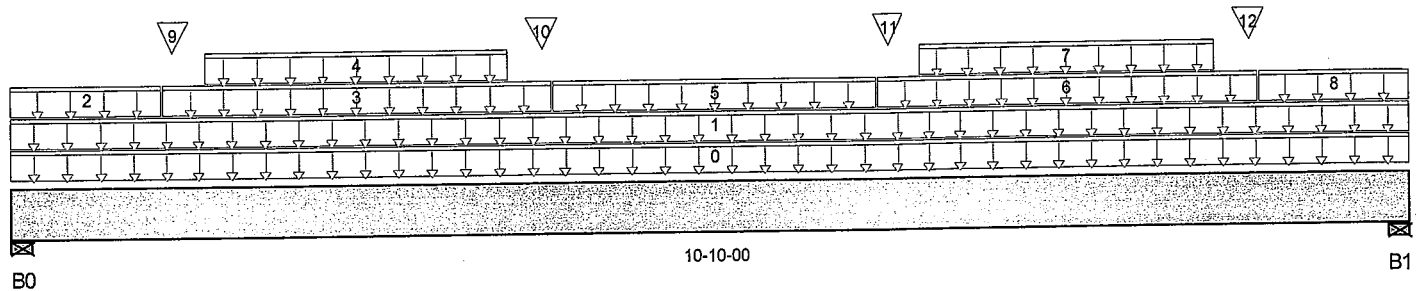
Description: Designs\Flush Beams\1st Floor\Flush Beams\B6(i4863)

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 10-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 4"	544 / 0	932 / 0	1,007 / 0	
B1, 4"	545 / 0	933 / 0	1,010 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	User Load	Unf. Lin. (lb/ft)	L	00-00-00	10-10-00	51	48	109		n/a
1	FC3 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	10-10-00	20	10			n/a
2	E40(i3788)	Unf. Lin. (lb/ft)	L	00-00-00	01-02-00		41			n/a
3	E41(i3789)	Unf. Lin. (lb/ft)	L	01-02-00	04-02-00		81			n/a
4	E41(i3789)	Unf. Lin. (lb/ft)	L	01-06-00	03-10-00	29	30	76		n/a
5	E39(i3787)	Unf. Lin. (lb/ft)	L	04-02-00	06-08-00		41			n/a
6	E38(i3786)	Unf. Lin. (lb/ft)	L	06-08-00	09-08-00		81			n/a
7	E38(i3786)	Unf. Lin. (lb/ft)	L	07-00-00	09-04-00	29	30	76		n/a
8	E36(i3784)	Unf. Lin. (lb/ft)	L	09-08-00	10-10-00		41			n/a
9	E41(i3789)	Conc. Pt. (lbs)	L	01-03-00	01-03-00	45	70	118		n/a
10	E41(i3789)	Conc. Pt. (lbs)	L	04-01-00	04-01-00	47	72	123		n/a
11	E38(i3786)	Conc. Pt. (lbs)	L	06-09-00	06-09-00	45	70	118		n/a
12	E38(i3786)	Conc. Pt. (lbs)	L	09-07-00	09-07-00	47	72	123		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	7,160 ft-lbs	38,727 ft-lbs	18.5%	13	05-05-00
End Shear	2,536 lbs	14,464 lbs	17.5%	13	09-06-02
Total Load Defl.	L/999 (0.107")	n/a	n/a	45	05-05-00
Live Load Defl.	L/999 (0.062")	n/a	n/a	61	05-05-00
Max Defl.	0.107"	n/a	n/a	45	05-05-00
Span / Depth	10.4	n/a	n/a		00-00-00

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0	Wall/Plate 4" x 3-1/2"	2,948 lbs	39.4%	17.3%	Unspecified
B1	Wall/Plate 4" x 3-1/2"	2,954 lbs	39.5%	17.3%	Unspecified

Notes

Page 1 of 2



DWG NO. TAM 26623 17
STRUCTURAL
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BC CALC® Design Report



Build 5033
Job Name:
Address:
City, Province, Postal Code: BRAMPTON,
Customer:
Code reports: CCMC 12472-R

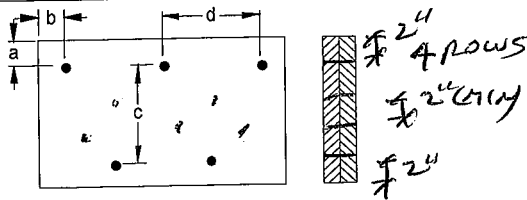
File Name: YORK 3 ELEV B.mmd
Description: Designs\Flush Beams\1st Floor\Flush Beams\B6(i4863)
Specifier:
Designer:
Company:
Misc:

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
CONFIRMS TO OBC 2012
Unbalanced snow loads determined from building geometry were used in selected products verification.
Design based on Dry Service Condition.
Importance Factor: Normal Part code: Part 9

Disclosure

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Connection Diagram



a minimum = 2" c = 7-7/8"
b minimum = 3" d = 6"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.
Member has no side loads.
Connectors are: 16d Nails

3 1/2" ARDOX SPIRAL

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DWG NO. TAM 6623-17
**STRUCTURAL
COMPONENT ONLY**

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3 ELEV B.mmdl

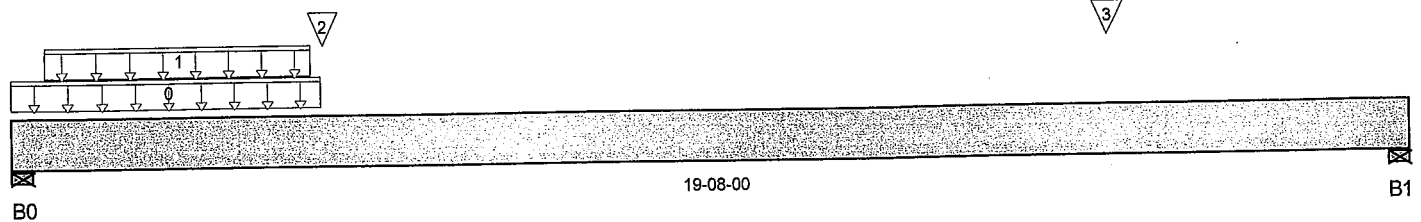
Description: Designs\Dropped Beams\1st Floor\Dropped Beams\B16(

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 19-08-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 5-1/2"	752 / 0	1,148 / 0	1,496 / 0	
B1, 5-1/2"	503 / 0	677 / 0	993 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	User Load	Unf. Lin. (lb/ft)	L	00-00-00	04-04-04	28	25	60		n/a
1	R1(i4840)	Unf. Lin. (lb/ft)	L	00-05-08	04-02-08	52	130	101		n/a
2	B14(i5050)	Conc. Pt. (lbs)	L	04-04-04	04-04-04	469	495	924		n/a
3	B17(i5051)	Conc. Pt. (lbs)	L	15-04-12	15-04-12	470	496	925		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	12,058 ft-lbs	19,063 ft-lbs	63.3%	13	04-04-04
End Shear	3,500 lbs	14,464 lbs	24.2%	13	01-05-06
Total Load Defl.	L/367 (0.618")	0.944"	65.5%	45	09-06-06
Live Load Defl.	L/574 (0.395")	0.629"	62.7%	61	09-08-07
Max Defl.	0.618"	n/a	n/a	45	09-06-06
Span / Depth	19.1	n/a	n/a		00-00-00

Bearing Supports

			Demand/Resistance Support	Demand/Resistance Member	Material
Bearing Supports		Dim. (L x W)	Demand		
B0	Wall/Plate	5-1/2" x 3-1/2"	4,055 lbs	25.9%	17.3% Unspecified
B1	Wall/Plate	5-1/2" x 3-1/2"	2,586 lbs	16.5%	11% Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Calculations assume unbraced length of Top: 10-09-00, Bottom: 10-09-00.
 Resistance Factor phi has been applied to all presented results per CSA O86.
 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
CONFORMS TO DBC 2012
 Unbalanced snow loads determined from building geometry were used in selected product's verification.
 Design based on Dry Service Condition.
 Importance Factor : Normal Part code : Part 9



DWG NO. TAM26624.17
 STRUCTURAL
 COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B16(i5049)

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

May 8, 2017 13:23:49

BC CALCO® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3 ELEVB.mmdl

Description: Designs\Dropped Beams\1st Floor\Dropped Beams\B1

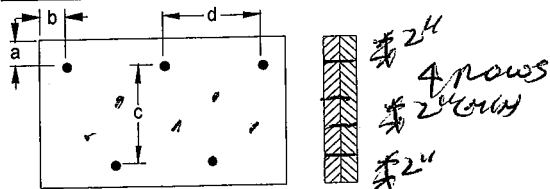
Specifier:

Designer:

Company:

Misc:

Connection Diagram



a minimum = 2" c = 7-7/8"
b minimum = 3" d = 6"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Member has no side loads.

Connectors are: 16d 1" Nails

3 1/2" ARDOX SPIRAL

Disclosure

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DWG NO. TAM26624-17
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1st Floor\...\B8 DR(i4566)

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

May8, 2017 13:21:21

BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3 ELEV.B.mmdl

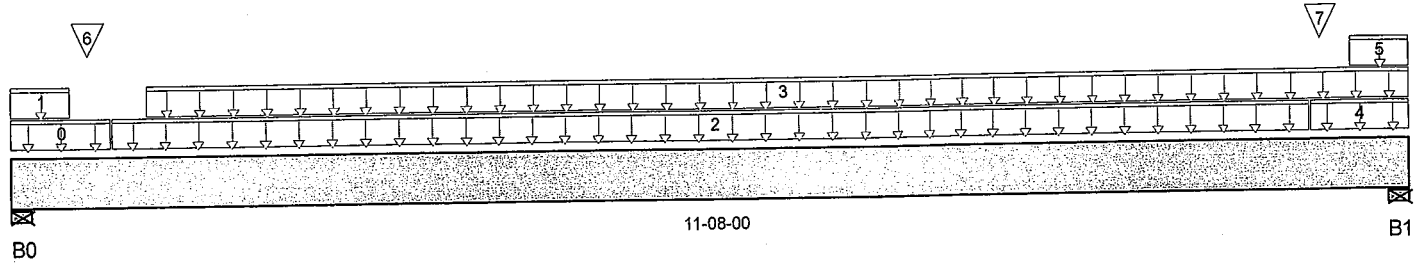
Description: Designs\Dropped Beams\1st Floor\Dropped Beams\B8 D

Specifier:

Designer:

Company:

Misc:



Total Horizontal Product Length = 11-08-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 4"	2,224 / 0	1,632 / 0	554 / 0	
B1, 4"	2,193 / 0	1,617 / 0	554 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Trib.
0	R1(i4860)	Unf. Lin. (lb/ft)	L	00-00-00	00-10-00		81			n/a
1	R1(i4860)	Unf. Lin. (lb/ft)	L	00-00-00	00-06-00			95		n/a
2	R1(i4860)	Unf. Lin. (lb/ft)	L	00-10-00	10-10-00		41			n/a
3	Smoothed Load	Unf. Lin. (lb/ft)	L	01-01-08	11-08-00	352	165			n/a
4	R1(i4860)	Unf. Lin. (lb/ft)	L	10-10-00	11-08-00		81			n/a
5	R1(i4860)	Unf. Lin. (lb/ft)	L	11-02-00	11-08-00			95		n/a
6	-	Conc. Pt. (lbs)	L	00-07-10	00-07-10	665	516	507		n/a
7	R1(i4860)	Conc. Pt. (lbs)	L	10-11-00	10-11-00		298	506		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	12,265 ft-lbs	25,408 ft-lbs	48.3%	1	05-09-08
End Shear	4,346 lbs	11,571 lbs	37.6%	1	10-06-08
Total Load Defl.	L/341 (0.392")	0.556"	70.4%	35	05-09-08
Live Load Defl.	L/564 (0.237")	0.371"	63.9%	51	05-09-08
Max Defl.	0.392"	n/a	n/a	35	05-09-08
Span / Depth	14.1	n/a	n/a		00-00-00

Bearing Supports

B0	Wall/Plate	4" x 3-1/2"	5,653 lbs	49.7%	33.1%	Unspecified
B1	Wall/Plate	4" x 3-1/2"	5,588 lbs	49.2%	32.7%	Unspecified

Notes





BC CALC® Design Report



Build 5033

Job Name:

Address:

City, Province, Postal Code: BRAMPTON,

Customer:

Code reports: CCMC 12472-R

File Name: YORK 3 ELEV.B.mmdl

Description: Designs\Dropped Beams\1st Floor\Dropped Beams\B8

Specifier:

Designer:

Company:

Misc:

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

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

Calculations assume member is fully braced.

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

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

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

Design based on Dry Service Condition.

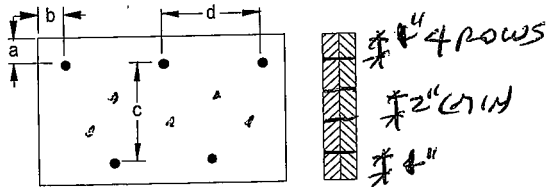
Importance Factor: Normal Part code: Part 9

Disclosure

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Connection Diagram



a minimum = 2" c = 5-1/2"
b minimum = 3" d = 6"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Member has no side loads.

Connectors are: 16d Nails

3 1/2" ARDOX SPIRAL



DWG NO. TAM26625-17
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