Project Description:

Renovation and addition to an existing single family dwelling. Scope includes minor changes on the first floor (cooking area, and a small front porch). Demo the presently unfinished attic portion of the second floor and replace with two bedrooms under a new roof with dormers.

Existing stairwell, and a new front porch. Demo the presently-unfinished attic portion of the second floor and replace with two bedrooms under a new roof with dormers.
1. INFORMATION SHOWN ON THIS PLAN IS THE RESULT OF A
FIELD SURVEY PERFORMED BY PETER NOLAN & ASSOCIATES
LLC AS OF 12-08-2011.

2. USE REFERENCE BOOK 5891 PAGE 33,7
   PLAN REFERENCE BOOK 5890 PAGE 279.
   SUFFOLK COUNTY REGISTRY OF DEEDS.

3. THIS PLAN IS NOT INTENDED TO BE REPRODUCED.

4. I CERTIFY THAT THE BUILDING SHOWN IS NOT LOCATED
   WITHIN A special FLOOD HAZARD ZONE, IT IS LOCATED IN ZONE
   A, ON FLOOD HAZARD ZONE MAP NUMBER: F2005005243.
   SOUTH SHORE COMMUNITY NUMBER: 250285, DATED
   SEPTEMBER 25, 2009.

5. THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN
   EASEMENTS WHERE MAY EXIT A REASONABLE AND USEFUL
   TITLE TO THE LAND. NO GUARANTEE THAT NO SUCH EASEMENTS
   EXIST.

6. FIRST FLOOR ELEVATIONS ARE TAKEN AT MRESH.

7. NO RESPONSIBILITY IS TAKEN FOR ZONING AS PETER
   NOLAN & ASSOCIATES LLC ARE NOT ZONING EXPERTS. TABLE IS
   TAKEN FROM TABLE PROVIDED BY LOCAL ZONING OFFICE.
   CITY AND/OR ARCHITECT TO VERIFY THE ACCURACY OF
   ZONING ANALYSIS.

8. ZONING DISTRICT - NT-REDO NEITROBD NEIGHBORHOOD.

MOUNT VERNON STREET
(PUBLIC WAY-VARIABLE WIDTH)

EXISTING PROFILE
NOT TO SCALE
NOTES:
1. INFORMATION SHOWN ON THIS PLAN IS THE RESULT OF A FIELD SURVEY PERFORMED BY PETER NOLAN & ASSOCIATES LLC AS OF 12-06-2021.
2. DEED REFERENCE: BOOK 553 PAGE 337, PLAN REFERENCE: BOOK 553 PAGE 279.
3. THIS PLAN IS NOT INTENDED TO BE RECORDABLE.
5. THIS PLAN DOES NOT SHOW ANY UNCONSTRUCTED OR UNFINISHED ELEVATIONS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT USES OF THE LAND, HOWEVER THAT NOT CONSTITUTE A GUARANTEE THAN NO SUCH USES EXIST.
6. FIRST FLOOR ELEVATIONS ARE TAKEN AT TRIMLEVEL.
7. NO RESPONSIBILITY IS TAKEN FOR ZONING TABLE AS PETER NOLAN & ASSOCIATES LLC ARE NOT ZONING EXPERTS. TABLE IS TAKEN FROM TABLE PROVIDED BY LOCAL ZONING ORDINANCE CLIENT AND/OR ARCHITECT TO VERIFY THE ACCURACY OF ZONING ANALYSIS.
8. ZONING DISTRICT - 07-8000 WEST ROSEBURY NEIGHBORHOOD.

PROPOSED PROFILE
NOT TO SCALE
IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

D. IN ACCORDANCE WITH THE MASSACHUSETTS STATE BUILDING CODE, IBC CITY/TOWN OF DESIGN CRITERIA: BOSTON, MA

7. NOTIFY BUILDING DEPARTMENT FOR INSPECTION AT LEAST 24 HOURS PRIOR TO SCHEDULED PLACEMENT OF CONCRETE.

5. NO FOUNDATION SHALL BE PLACED IN WATER OR ON FROZEN GROUND.

8. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

B. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

A. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

3. LIVE LOAD REDUCTION SHALL BE IN ACCORDANCE WITH ASCE 7-10.

6. FOOTINGS SHALL BE PROTECTED AGAINST FROST UNTIL PROJECT IS COMPLETE.

2. IN ADDITION TO THE BUILDING DEAD LOADS, THE STRUCTURE IS DESIGNED TO SUPPORT ADDITIONAL LIVE LOADS AS RECORDED ON THE DRAWINGS. NO ADJUSTMENTS TO THE STRUCTURE SHOULD BE MADE UNLESS APPROVED BY THE ENGINEER.

1. REINFORCING BARS SHALL CONFORM TO ASTM A615 OR A706 GRADE 60.

4. BUILT-UP BEAMS SHALL BE SPIKED AS FOLLOWS:

4x4"GIRDER: SINGLE NW BOLT & #32 SCREWS @ 12" O.C. OR AS OTHERWISE NOTED ON THE DRAWINGS; OR AS RECOMMENDED BY THE ASSEMBLY. MINIMUM TIMBER FRAMING MATERIAL PROPERTIES:

B. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

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C. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

D. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

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F. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

G. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

H. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

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J. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

K. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

L. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

M. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

N. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

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P. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

Q. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

R. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.

S. IN ACCORDANCE WITH GENERALLY ACEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.
FOUNDATION PLAN

DRAWING NOTES:

1. FOUNDATION DESIGN IS BASED UPON AN ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF. SOIL BEARING MATERIAL CAPACITY TO BE DETERMINED BY SOIL TESTS PRIOR TO CONSTRUCTION. MINIMUM MATERIAL CAPACITY TO BE EARTH DENSITY PER ASTM D1557. USE LALLY LOCK SADDLE TOP PLATE BY DEAN COLUMN, OR USE TOP PLATES SPECIFIED IN SCHEDULE ABOVE.

2. PROVIDE 6" MINIMUM CRUSHED STONE UNDER CONCRETE SLAB. CRUSHED STONE REQUIRES COMPACTION BY MAKING AT LEAST THREE PASSES PER 6-INCH THICK LIFT (OR THINNER) BY A VIBRATORY PLATE COMPACTOR OR VIBRATORY ROLLER WITH MINIMUM STATIC WEIGHT OF 200 POUNDS. NO FROST WALL GRADE BEAMS DURING THE OPERATIONS OF BACKFILLING AND COMPACTION.

3. PROVIDE SHEETING, BRACING AND UNDERPINNING TO PROTECT ADJACENT UTILITY STRUCTURES, AS REQUIRED.

4. PROVIDE 6" MINIMUM CRUSHED STONE UNDER CONCRETE SLAB. CRUSHED STONE REQUIRES COMPACTION BY MAKING AT LEAST THREE PASSES PER 6-INCH THICK LIFT (OR THINNER) BY A VIBRATORY PLATE COMPACTOR OR VIBRATORY ROLLER WITH MINIMUM STATIC WEIGHT OF 200 POUNDS. NO FROST WALL GRADE BEAMS DURING THE OPERATIONS OF BACKFILLING AND COMPACTION.

5. PROVIDE STRESS RELIEF JOINTS. USE LALLY COLUMN CONNECTIVE SLAB OR HOLLOW CORE CONNECTIVE SLAB.

6. SHORING AND BRACING FOR THE LATERAL SUPPORT OF EXCAVATION SHALL REMAIN IN PLACE UNTIL ALL PERMANENT STRUCTURAL SYSTEMS ARE COMPLETE AS APPROVED BY THE ENGINEER.

7. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR ALL FOUNDATION ELEMENTS, BEAMS OR SLABS TO BE PLACED ON FROZEN GRADE OR IN WATER.

8. NO FOUNDATION ELEMENT, BEAMS OR SLABS SHALL BE PLACED ON FROZEN GRADE OR IN WATER.

9. OPEN EXCAVATIONS AROUND BUILDING PERIMETER MUST REMAIN DRY. WATER FROM OPEN EXCAVATION PRIOR TO CONSTRUCTION.

FOUNDATION LEGEND

FOOTING / COLUMN SCHEDULE

<table>
<thead>
<tr>
<th>#</th>
<th>LALLY PLATE SIZE</th>
<th>PLATE DEPTH</th>
<th>FOOTING SCHEDULE</th>
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<th>FOOTING SCHEDULE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a</td>
<td>4&quot; x 16 ga. 30&quot; (wide) x 15&quot; (deep) (3) GRADE 60 #4 BARS E.W.</td>
<td>8&quot;</td>
<td>4&quot; x 16 ga. 30&quot; (wide) x 15&quot; (deep) (3) GRADE 60 #4 BARS E.W.</td>
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FLOORING / COLUMN SCHEDULE

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</tbody>
</table>

FOUNDATION PLAN

DATE: 19-95-1-111-2-117-4" = 1'-0"-2'-10"-8"

STRUCTURAL ENGINEER: SSB Engineering, LLC
146 Front Street, Scituate MA 02066
www.ssbengineering.com

ENGINEER STAMP: TARA LYNN STRASSBURG, P.E.
857.504.1065
POST UP FROM EXISTING FOUNDATION. CONTRACTOR TO VERIFY FOUNDATION CONDITION AND BEARING CAPACITY WITH ENGINEER PRIOR TO CONSTRUCTION.

EXISTING FRAMING TO REMAIN, NO MODIFICATIONS.

EXISTING FIRST FLOOR BEAM UP.

EXISTING LALLY COLUMN DOWN (SOLID BLOCK).

EXISTING CONCRETE SLAB BETWEEN FOUNDATIONS.

EXISTING HOUSE FOUNDATION BELOW. (FROST WALL / SLAB ON GRADE).

EXISTING HOUSE NOT BEAR NEW POSTS FOUNDATION BELOW.

6x6 PT SYP POSTS DOWN TO OUTLINE OF ROOF ABOVE.

SONOTUBES, USE SIMPSON HDG POST CAP. ALL POSTS TO SONOTUBE CONNECTION USE SIMPSON PBS POST BASE OR EQUIVALENT. (TYP @ FRONT PORCH)

WEST ROXBURY MA 02132

KATIE & ALFONSO RESIDENCE

170 MOUNT VERNON STREET,

PROJECT:

FIRST FLOOR FRAMING PLAN

SCALE:

2/1" = 1'-0"

DRAWING NOTES:

1. REFER TO ARCHITECTURAL PLANS FOR ELEVATIONS AND FLOOR LAYOUTS. NOTIFY ENGINEER IF CONDITIONS VARY FROM SHOWN ON THESE PLANS. REFER TO GENERAL STRUCTURAL NOTES (SHEET S1) FOR ADDITIONAL INFORMATION AND SPECIFICATIONS.

2. TIMBER FRAMING MEETING STANDARD SPECIFICATIONS, IN GENERAL, WILL BE ABBREVIATED ON THESE STRUCTURAL PLANS, UNLESS NOTED SPECIFICALLY OTHERWISE ON STRUCTURAL PLANS - ALL TIMBER FRAMING MATERIALS ARE TO MEET THE FOLLOWING SPECIFICATIONS:

   a. BOARDS & BEAMS:
      - INTERIOR (UNTREATED): LAMINATED VENEER LUMBER (LVL) SOUTHERN-PINE (SP) , GRADE 1.8E 2650 1/4" - DOUGLAS-FIR-LARCH (DFL), GRADE #2.
      - EXTERIOR (TREATED): SOUTHERN YELLOW PINE (SYP) PRESSURE TREATED (PT), GRADE #2.
      - EXTERIOR (TREATED): PARALLEL STRAND LUMBER (PSL) w/ PRESERVATIVE TREATMENT. (BEAM SIZE EXTERIOR (TREATED): PARALLEL STRAND LUMBER (PSL) w/ PRESERVATIVE TREATMENT. (POST SIZE)

   b. POSTS:
      - INTERIOR (UNTREATED) - SPECIES AS NOTED ON DRAWING.
      - EXTERIOR (UNTREATED):  LAMINATED VENEER LUMBER (LVL) SOUTHERN-PINE (SP) , GRADE 2.1E 3100 SP, WIDTH 13-3100 SP, WIDTH 13
      - EXTERIOR (TREATED): SOUTHERN YELLOW PINE (SYP) PRESSURE TREATED (PT), GRADE #2.

3. LVLs THAT FRAME AROUND STAIR OPENING MAY USE NAILED LVL HANGERS INSTEAD OF SCREWED HANGERS AS SHOWN IN HANGER SCHEDULE.

4. I-JOISTS
   - REFER TO STRUCTURAL PLANS, UNLESS NOTED SPECIFICALLY OTHERWISE ON STRUCTURAL PLANS - ALL TIMBER FRAMING MEMBERS SHOWN ON THIS PLAN HAVE BEEN DESIGNED TO MEET THE STANDARD FRAMING SPECIFICATIONS, NOTED IN THE GENERAL STRUCTURAL NOTES ON SHEET S1 OF THIS PLAN. INTERIOR (UNTREATED): SPRUCE-PINE-FIR (SPF), GRADE #2.

   a. JOIST HANGERS SHALL BE METAL AND ARE TO BE OF SUFFICIENT LOAD RATING TO CARRY DESIGN LOADS AS SHOWN ON THESE STRUCTURAL PLANS.

   b. BOARDS & BEAMS:
      - INTERIOR (UNTREATED): LAMINATED VENEER LUMBER (LVL) SOUTHERN-PINE (SP), GRADE 2.1E 3100 SP CONTINUOUS HEADER w/ (2) 2x6TIMBER FRAMING MATERIALS: STRUCTURAL POST ABOVE BEARING WALL ABOVE

   c. POSTS:
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)

   d. STRUCTURAL POST: LVL
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)

5. TIMBER FRAMING MATERIALS SHOWN ON THIS PLAN HAVE BEEN DESIGNED TO MEET THE STANDARD FRAMING SPECIFICATIONS, NOTED IN THE GENERAL STRUCTURAL NOTES ON SHEET S1 OF THIS PLAN.

   a. STRUCTURAL POST ABOVE BEARING WALL BELOW
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)

   b. STRUCTURAL BEAM: LVL
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)

   c. STRUCTURAL POST: CONVENTIONAL LUMBER
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)

   d. STRUCTURAL BEAM: CONVENTIONAL LUMBER
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)

   e. STRUCTURAL POST: STEEL HSS
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)

6. POST UP / LALLY COLUMN
   - EXISTING LALLY COLUMN TO BE REMOVED, NO MODIFICATIONS.

   a. LALLY COLUMN TO SEE FOUNDATION PLAN
      - LALLY COLUMN TO SEE FOUNDATION PLAN
      - LALLY COLUMN TO SEE FOUNDATION PLAN

   b. LALLY COLUMN TO SEE FOUNDATION PLAN
      - LALLY COLUMN TO SEE FOUNDATION PLAN
      - LALLY COLUMN TO SEE FOUNDATION PLAN

7. TRUSJOIST® 2.0E PARALLAM® PLUS PSL SL2 MOIST USE RATED; OR AN APPROVED EQUIVALENT BY ENGINEER.

   a. TRUSJOIST® 2.0E PARALLAM® PLUS PSL SL2 MOIST USE RATED; OR AN APPROVED EQUIVALENT BY ENGINEER.
      - TRUSJOIST® 2.0E PARALLAM® PLUS PSL SL2 MOIST USE RATED; OR AN APPROVED EQUIVALENT BY ENGINEER.
      - TRUSJOIST® 2.0E PARALLAM® PLUS PSL SL2 MOIST USE RATED; OR AN APPROVED EQUIVALENT BY ENGINEER.

8. HANGER SCHEDULE
   - STRUCTURAL POST: LVL
      - STRUCTURAL POST: LVL
      - STRUCTURAL POST: LVL

   a. HANGER SCHEDULE
      - HANGER SCHEDULE
      - HANGER SCHEDULE

   b. HANGER SCHEDULE
      - HANGER SCHEDULE
      - HANGER SCHEDULE

9. ENGINEER STAMP:

   a. DRAFT
      - DRAFT
      - DRAFT

   b. TARA LYNN STRASSBURG, P.E.
SECOND FLOOR FRAMING PLAN

1. REFER TO ARCHITECTURAL PLANS FOR ELEVATIONS AND FLOOR LAYOUTS. NOTIFY ENGINEER IF CONDITIONS VARY FROM SHOWN ON THESE PLANS. REFER TO GENERAL STRUCTURAL NOTES (SHEET S1) FOR ADDITIONAL INFORMATION AND SPECIFICATIONS.

2. ALL STRUCTURAL POSTS SHALL BE METAL AND ARE TO BE OF SUFFICIENT LOAD RATING TO CARRY DESIGN LOADS, HANGER TYPE/STYLE IS CONTRACTOR PREFERENCE. FOLLOW INSTALLATION REQUIREMENTS BY MANUFACTURER (FASTENERS, STIFFENERS, ETC) TO OBTAIN PROPER JOIST HANGER CAPACITY.

3. FOR ALL LVL HANGERS, USE SCREWS LONG ENOUGH TO ENGAGE ALL PLYS OF THE LVL BEING CONNECTED INTO. JOIST HANGERS SHALL BE METAL AND ARE TO BE OF SUFFICIENT LOAD RATING TO CARRY DESIGN LOAD, HANGER TYPE/STYLE IS CONTRACTOR PREFERENCE. FOLLOW INSTALLATION REQUIREMENTS BY MANUFACTURER (FASTENERS, STIFFENERS, ETC) TO OBTAIN PROPER JOIST HANGER CAPACITY.

4. ALL CONVENTIONAL LUMBER TO USE FULLY NAILED METAL JOIST HANGERS. TIMBER FRAMING MEMBERS SHOWN ON THIS PLAN HAVE BEEN DESIGNED TO MEET THE STANDARD FRAMING SPECIFICATIONS, NOTED IN THE GENERAL STRUCTURAL NOTES ON SHEET S1 OF THE PLAN SET. EXCEPT FOR BEARING WALLS BELOW, USE OF STANDARD FRAMING MEMBERS IS REQUIRED. ALL TIMBER FRAMING MATERIALS ARE TO MEET THE FOLLOWING SPECIFICATIONS:

   a. INTERIOR (UNTREATED): LAMINATED VENEER LUMBER (LVL) SOUTHERN-PINE (SP), GRADE 1.8E 2650 - DOUGLAS-FIR-LARCH (DFL), GRADE #2.
   b. INTERIOR (TREATED): SOUTHERN YELLOW PINE (SYP) PRESSURE TREATED (PT), GRADE #2.
   c. EXTERIOR (TREATED): PARALLEL STRAND LUMBER (PSL) w/ PRESERVATIVE TREATMENT. (POST SIZE SHOWN IN HANGER SCHEDULE.
   d. EXTERIOR (TREATED): TRUSJOIST® 2.0E PARALLAM® PLUS PSL SL2 MOIST USE RATED; OR AN APPROVED EQUIVALENT BY ENGINEER.
   e. EXTERIOR: LAMINATED WOOD LUMBER, S4S SOUTHERN PINE (SP), GRADE 2.0E PHI 2000 PARALLAM® PLUS; OR AN APPROVED EQUIVALENT BY ENGINEER.

5. SEE TO ENGINEERING PLANS FOR SPECIFICATIONS, EVENTUALLY HANDS, PINS TO JOIN NECKLACE (JOINING INTERCTIONS AS WELL AS STRUCTURAL PLANS AND CALCULATIONS) FOR PRESENTATION (NOT BRACING) ENGINEER, WHEN CONSTRUCTED.

6. FOR EXISTING WALLS OR CEILINGS, FOLLOW INSTALLATION REQUIREMENTS BY MANUFACTURER (STICKS, LAG SCREWS, ETC) TO OBTAIN PROPER JOIST HANGER CAPACITY.

7. CONSULT PROFESSIONAL STAFF ON EXTENSIVE USE OF MASONRY MATERIALS.
DRIBING NOTES:
1. REFER TO ARCHITECTURAL PLAN FOR ELEVATIONS AND FLOOR LAYOUTS. ADEQUATE DIMENSIONAL AND ELEVATIONAL MARKINGS SHALL BE IN THIS PLAN.
2. TIMBER FRAMING MEETING STANDARD SPECIFICATIONS, IN GENERAL, WILL BE ABBREVIATED ON THESE STRUCTURAL PLANS, UNLESS NOTED SPECIFICALLY OTHERWISE ON STRUCTURAL PLANS - ALL TIMBER FRAMING MATERIALS ARE TO MEET THE FOLLOWING SPECIFICATIONS:
   a. BOARDS & BEAMS:
      - EXTERIOR (UNTREATED): SPRUCE-PINE-FIR (SPF), GRADE #2
      - EXTERIOR (TREATED): SOUTHERN YELLOW PINE (SYP) PRESSURE TREATED (PT), GRADE #2.
      - INTERIOR (UNTREATED): LAMINATED VENEER LUMBER (LVL) SOUTHERN-PINE (SP), GRADE 2.1E
      - INTERIOR (UNTREATED) - SPECIES AS NOTED ON DRAWING.
   b. POSTS:
      - STRUCTURAL POST: LVL
      - STRUCTURAL POST: STEEL HSS
      - STRUCTURAL POST ABOVE BEARING WALL BELOW
      - STRUCTURAL POST ABOVE BEARING WALL ABOVE
      - STRUCTURAL POST: LALLY COLUMN
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)
   c. HEADER(S):
      - INTERIOR (UNTREATED): LAMINATED VENEER LUMBER (LVL) SOUTHERN-PINE (SP), GRADE 1.8E 2650 SP, WIDTH 13" - DOUGLAS-FIR-LARCH (DFL), GRADE #2.
      - INTERIOR (UNTREATED): SOUTHERN YELLOW PINE (SYP) PRESSURE TREATED (PT), GRADE #2.
   d. POSTS:
      - ROOF RAFTER: CONVENTIONAL LUMBER
      - FLOOR CEILING JOIST: CONVENTIONAL LUMBER
      - STRUCTURAL BEAM: LVL
      - STRUCTURAL BEAM: CONVENTIONAL LUMBER
      - STRUCTURAL POST: LALLY COLUMN
      - STANDARD HEADER (REFER TO STRUCTURAL NOTES, SHEET S1)
   e. HANGER SCHEDULE:
      - ALL TIMBER HANGER TYPES TO BE METAL AND ARE TO BE OF SUFFICIENT LOAD RATING TO CARRY DESIGN LOADS, HANGER TYPE/STYLE IS CONTRACTOR PREFERENCE.
      - FOR ALL LVL HANGERS, USE SCREWS LONG ENOUGH TO ENGAGE ALL PLYS OF THE LVL BEING CONNECTED INTO.
      - ALL CONVENTIONAL LUMBER TO USE FULLY NAILED METAL JOIST HANGERS.
      - LVLs THAT FRAME AROUND STAIR OPENING MAY USE NAILED LVL HANGERS INSTEAD OF SCREWED HANGERS AS NOTED IN HANGER SCHEDULE.
      - LVLs THAT FRAME AROUND STAIR OPENING MAY USE NAILED LVL HANGERS INSTEAD OF SCREWED HANGERS AS SHOWN IN HANGER SCHEDULE.
      - FOR ELEVATIONS AND FLOOR LAYOUTS, NOTIFY ENGINEER IF CONDITIONS VARY FROM SHOWN ON THESE PLANS.
      - REFER TO GENERAL STRUCTURAL NOTES (SHEET S1) FOR ADDITIONAL INFORMATION AND SPECIFICATIONS.
      - FOR STRUCTURAL LUMBER OF SPECIFIC GRADE OR GRADE AND SIZE AS SHOWN, NOTIFY ENGINEER IF CONDITIONS VARY FROM SHOWN ON THESE PLANS.
      - REFER TO ENGINEERING PLANS FOR SPECIFICATIONS - (CAST PROTOTYPE MATERIALS AS NOTED ON ENGINEERING PLANS). REFER TO MANUFACTURER INSTRUCTIONS (AS WELL AS STRUCTURAL PLANS AND CALCULATIONS) FOR MANUFACTURER INSTRUCTIONS (FASTENERS, STIFFENERS, ETC) TO OBTAIN PROPER JOIST HANGER CAPACITY.

2. REFER TO ARCHITECTURAL PLANS FOR ELEVATIONS AND FLOOR LAYOUTS. NOTIFY ENGINEER IF CONDITIONS VARY FROM SHOWN ON THESE PLANS. REFER TO GENERAL STRUCTURAL NOTES (SHEET S1) FOR ADDITIONAL INFORMATION AND SPECIFICATIONS.
1. REFER TO ARCHITECTURAL PLANS FOR ELEVATIONS AND FLOOR LAYOUTS. NOTIFY ENGINEER IF CONDITIONS VARY FROM SHOWN ON THESE PLANS. REFER TO GENERAL STRUCTURAL NOTES (SHEET S1) FOR ADDITIONAL INFORMATION AND SPECIFICATIONS.

2. TIMBER FRAMING MEMBERS SHOWN ON THIS PLAN HAVE BEEN DESIGNED TO MEET THE STANDARD FRAMING SPECIFICATIONS, IN GENERAL, WILL BE ABBREVIATED ON THESE STRUCTURAL PLANS, UNLESS NOTED SPECIFICALLY OTHERWISE ON STRUCTURAL PLANS - ALL TIMBER FRAMING MATERIALS ARE TO MEET THE FOLLOWING SPECIFICATIONS:

- INTERIOR (UNTREATED): LAMINATED VENEER LUMBER (LVL) SOUTHERN-PINE (SP), GRADE 1.8E 2650 SP, WIDTH 13". LVLs THAT FRAME AROUND STAIR OPENING MAY USE NAILED LVL HANGERS INSTEAD OF SCREWED HANGERS AS SHOWN IN HANGER SCHEDULE.
- EXTERIOR (TREATED): PARALLEL STRAND LUMBER (PSL) w/ PRESERVATIVE TREATMENT. (BEAM SIZE AS NOTED ON STRUCTURAL FRAMING PLANS). EXTERIOR PSL HORIZONTAL MEMBERS TO BE TRUSJOIST® 2.0E PARALLAM® PLUS PSL SL2 MOIST USE RATED; OR AN APPROVED EQUIVALENT BY ENGINEER.

3. LVLs THAT FRAME AROUND STAIR OPENING MAY USE NAILED LVL HANGERS INSTEAD OF SCREWED HANGERS AS SHOWN IN HANGER SCHEDULE.

TIMBER FRAMING MATERIALS:

- INTERIOR (UNTREATED): LAMINATED VENEER LUMBER (LVL) SOUTHERN-PINE (SP), GRADE 2.1E 3100 SP, WIDTH 13"
- INTERIOR (UNTREATED) - SPECIES AS NOTED ON DRAWING.
- EXTERIOR (TREATED): SOUTHERN YELLOW PINE (SYP) PRESSURE TREATED (PT), GRADE #2.
- EXTERIOR (TREATED):  SOUTHERN YELLOW PINE (SYP) PRESSURE TREATED (PT), GRADE #2 - DOUGLAS-FIR-LARCH (DFL), GRADE #2.

HANGER SCHEDULE:

<table>
<thead>
<tr>
<th>DRAWING NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOTES</td>
</tr>
<tr>
<td>- USE IT ENGINEERING PLANS FOR SPECIFICATIONS, (CAST TYPE, PLATE NUMBER, PART, COST STRUCTURAL CONNECTORS AS WELL AS STRUCTURAL PLANS AND CALCULATIONS) FOR PRESENTED (CAST MATERIAL) SPECIFICATIONS, UNLESS NOTED SPECIFICALLY ON SHEET S1 OF THIS PLAN.</td>
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</tbody>
</table>

CONSTRUCTION NOTES:

- INTERIOR (UNTREATED) - SPECIES AS NOTED ON DRAWING.
- EXTERIOR (TREATED): LAMINATED WOOD LUMBER (LVL) SOUTHERN-PINE (SP), GRADE 2.1E 3100 SP, WIDTH 13". LVLs THAT FRAME AROUND STAIR OPENING MAY USE NAILED LVL HANGERS INSTEAD OF SCREWED HANGERS. USE SCREWED HANGERS FOR ALL LVL HANGERS AS SHOWN IN HANGER SCHEDULE. FOR STAIR KIT, USE SCREWED HANGERS INSTEAD OF NAILED HANGERS. USE SCREWED HANGERS FOR ALL LVL HANGERS AS SHOWN IN HANGER SCHEDULE. FOR STAIR KIT, USE SCREWED HANGERS INSTEAD OF NAILED HANGERS. USE SCREWED HANGERS FOR ALL LVL HANGERS AS SHOWN IN HANGER SCHEDULE. FOR STAIR KIT, USE SCREWED HANGERS INSTEAD OF NAILED HANGERS. USE SCREWED HANGERS FOR ALL LVL HANGERS AS SHOWN IN HANGER SCHEDULE. FOR STAIR KIT, USE SCREWED HANGERS INSTEAD OF NAILED HANGERS. USE SCREWED HANGERS FOR ALL LVL HANGERS AS SHOWN IN HANGER SCHEDULE. FOR STAIR KIT, USE SCREWED HANGERS INSTEAD OF NAILED HANGERS. USE SCREWED HANGERS FOR ALL LVL HANGERS AS SHOWN IN HANGER SCHEDULE. FOR STAIR KIT, USE SCREWED HANGERS INSTEAD OF NAILED HANGERS. USE SCREWED HANGERS FOR ALL LVL HANGERS AS SHOWN IN HANGER SCHEDULE. FOR STAIR KIT, USE SCREWED HANGERS INSTEAD OF NAILED HANGERS. USE SCREWED HANGERS FOR ALL LVL HANGERS AS SHOWN IN HANGER SCHEDULE. FOR STAIR KIT, USE SCREWED HANGERS INSTEAD OF NAILED HANGERS. USE SCREWED HANGERS FOR ALL LVL HANGERS AS SHOWN IN HANGER SCHEDULE. FOR STAIR KIT, USE SCREWED HANGERS INSTEAD OF NAILED HANGERS. USE SCREWED HANGERS FOR ALL LVL HANGERS AS SHOWN IN HANGER SCHEDULE. FOR STAIR KIT, USE SCREWED HANGERS INSTEAD OF NAILED HANGERS. USE SCREWED HANGERS FOR ALL LVL HANGERS AS SHOWN IN HANGER SCHEDULE. FOR STAIR KIT, USE SCREWED HANGERS INSTEAD OF NAILED HANGERS. USE SCREWED HANGERS FOR ALL LVL HANGERS AS SHOWN IN HANGER SCHEDULE.
- USE IT ENGINEERING PLANS FOR SPECIFICATIONS, (CAST TYPE, PLATE NUMBER, PART, COST STRUCTURAL CONNECTORS AS WELL AS STRUCTURAL PLANS AND CALCULATIONS) FOR PRESENTED (CAST MATERIAL) SPECIFICATIONS, UNLESS NOTED SPECIFICALLY ON SHEET S1 OF THIS Plan.

- POSTS |
| - INTERIOR (UNTREATED) - SPECIES AS NOTED ON DRAWING. |
| - EXTERIOR (TREATED): SOUTHERN YELLOW PINE (SYP) PRESSURE TREATED (PT), GRADE #2. |

- DOORS & WINDOWS |
| - LAMINATED WOOD LUMBER (LVL) SOUTHERN-PINE (SP), GRADE 2.1E 3100 SP, WIDTH 13". LVLs THAT FRAME AROUND STAIR OPENING MAY USE NAILED LVL HANGERS INSTEAD OF SCREWED HANGERS.

- STRUCTURAL POST: LALLY COLUMN |
| - STRUCTURAL POST: STEEL HSS |
| - STRUCTURAL POST: LVL |
TABLE RW2.2(3) REQUIREMENTS FOR WOOD STRUCTURAL PANEL WALL SHEATHING USED TO RESIST WIND PressURES

<table>
<thead>
<tr>
<th>PANEL NAIL SPACING</th>
<th>MINIMUM NAIL SPACING</th>
<th>STRUCTURAL PANEL SPAN RATING</th>
<th>MINIMUM NOMINAL PANEL THICKNESS</th>
<th>MAXIMUM WALL STUD SPACING</th>
<th>ULTIMATE DESIGN WIND SPEED (MPH)</th>
<th>WIND EXPOSURE CATEGORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 6 12 140 115 110</td>
<td>6D COMMON (2.0&quot; x 0.113&quot;)</td>
<td>1.5</td>
<td>24/0</td>
<td>3/8</td>
<td>16</td>
<td>Category B</td>
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<tr>
<td>24 6 12 170 140 135</td>
<td>8D COMMON (2.5&quot; x 0.131&quot;)</td>
<td>1.75</td>
<td>24/16</td>
<td>7/16</td>
<td>16</td>
<td>Category C</td>
</tr>
<tr>
<td>24 6 12 140 115 110</td>
<td>10D COMMON (2.5&quot; x 0.131&quot;)</td>
<td>2.0</td>
<td>24/16</td>
<td>7/16</td>
<td>16</td>
<td>Category C</td>
</tr>
</tbody>
</table>

For SI: 1 INCH = 25.4 MM, 1 FOOT = 304.8 MM, 1 MILE PER HOUR = 0.447 M/S; 1 KSI = 6.895 MPA.

1. PANEL STRENGTH AXIS PARALLEL OR PERPENDICULAR TO SUPPORTS. THREE-PLY PLYWOOD SHEATHING WITH STUDS SPACED MORE THAN 16 INCHES ON CENTER SHALL BE APPLIED WITH PANEL STRENGTH AXIS PERPENDICULAR TO SUPPORTS.

2. TABLE IS BASED ON WIND PressURES ACTING TOWARD AND AWAY FROM BUILDING SURFACES IN ACCORDANCE WITH SECTION R301.2. LATERAL BRACING REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION R602.10.

3. WOOD STRUCTURAL PANELS WITH SPAN RATINGS OF WALL-16 OR WALL-24 SHALL BE PERMITTED AS AN ALTERNATE TO PANELS WITH A 24/0 SPAN RATING. PLYWOOD SIDING RATED 16 O.C. OR 24 O.C. SHALL BE PERMITTED AS AN ALTERNATE TO PANELS WITH A 24/16 SPAN RATING. WALL-16 AND PLYWOOD SIDING 16 O.C. SHALL BE USED WITH STUDS SPACED NOT MORE THAN 16 INCHES ON CENTER.
EXCAVATE AND REMOVE (UNDERMINE) SUBGRADE BENEATH THE EXISTING FOUNDATION TO THE REQUIRED DEPTH, BUT NO MORE THAN 2'-0", WITH MAXIMUM LENGTH OF EXCAVATION EQUAL TO 3'-0" ALONG EXISTING FOUNDATION. THE UNDERMINED PITS MAY BE REPEATED TO THE REQUIRED EXTENT WHILE MAINTAINING 3'-0" MINIMUM LENGTH OF SUBGRADE INTACT BETWEEN PITS. THEN REPLACE EXCAVATED SUBGRADE WITH 3000 PSI CONCRETE FILLED TO THE BOTTOM OF LALLY COLUMN, SEE PLAN EXISTING FOUNDATION WITH NO GAPS OR VOIDS TO ACHIEVE FULL BEARING. WAIT AT LEAST 3 DAYS BEFORE PROCEEDING.

HDG SIMPSON PBS POST BASE.

EXISTING 10" WIDE x ~24" DEEP FOUNDATION WALL (HEIGHT VARIES) REQUIRED DEPTH ≤ 8" SUBGRADE 4'-0" MINIMUM BARS, MIN 5" EMBED INTO BOTTOM OF EXISTING FOUNDATION WALL, WITH SIMPSON EPOXYITE OR EQUIVALENT EPOXY.

VERIFY ELEVATIONS IN FIELD EXISTING AND PROJECT CIVIL ENGINEER.

STAGGER 6" ALLOWED HOLE ZONE SUITABLE FOR HEADERS AND BEAMS WITH UNIFORM LOADS ONLY. NO Holes IN CANTILEVERS.

STAKING TWO 6" ANY PENETRATIONS AND LOADING CONDITIONS MAY BE ACCEPTABLE, CONTACT ENGINEER FOR APPROVAL.

OTHER PENETRATIONS AND LOADING CONDITIONS MAY BE ACCEPTABLE, CONTACT ENGINEER FOR APPROVAL.
DEMO INTERIOR WALLS AND DOORS ONLY AS INDICATED.
EXISTING CHIMNEY TO REMAIN.
DEMO PART OF WALL IN PREPARATION FOR NEW OPENING.
COORDINATE WITH STRUCTURAL.
EXISTING BATH TO REMAIN.
GC TO INSPECT EXISTING FOUNDATION FOR PROPOSED SECOND FLOOR ADDITION. COORDINATE WITH STRUCTURAL FOR MIN. FOUNDATION REQUIREMENTS.
DEMOLISH ROOF INCLUDING STRUCTURE, FINISHES AND GUTTER SYSTEM. TO BE COORDINATED WITH STRUCTURAL.

DEMO FLOOR PLANS

1. THIS DRAWING IS DIAGRAMMATIC AND SHOULD BE USED FOR REFERENCE ONLY. REFER TO SPECIFICATIONS FOR ADDITIONAL DEMOLITION NOTES AND INSTRUCTIONS. COORDINATE LOCATIONS OF PENETRATIONS WITH MEP FLOOR PLANS.
2. COORDINATE THE LOCATION OF CONSTRUCTION TRASH DUMPSTERS WITH THE OWNER.
3. VERIFY INTEGRITY OF FIRE RATED DEMISING PARTITIONS. ANY EXISTING OR NEW HOLES ARE TO BE PATCHED TO MATCH EXISTING AND FIRESTOPPED. ANY EXISTING OR NEW PENETRATIONS ARE TO BE SEALED TO MAINTAIN FIRE RATING.
4. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL SCOPE.
5. PATCH AND REPAIR ALL AREAS DAMAGED OF FIRESTOPPING TO MATCH EXISTING. MAINTAIN ALL FIRE RATINGS.
6. PROVIDE A CLEAN, SMOOTH AND LEVEL SUBFLOOR READY TO RECEIVE NEW FINISH FLOORING. ANY HIGH POINTS ARE TO BE KNOCKED/GROUND DOWN, ANY CRACKS, HOLES OR OTHER DEPRESSIONS ARE TO BE FLASH PATCHED.
7. REPAIR ANY DAMAGE TO BUILDING'S FACADE, SIDEWALK, FINISHES, AND DEMISING PARTITIONS PER OWNER'S DIRECTION.
8. VERIFY WIDTH, DEPTH, HEIGHT, ITEMS TO REMAIN AND ANYTHING THAT MAY BE CONSIDERED AN UN-ANTICIPATED FIELD CONDITION WHICH WOULD ALTER THE INTENT OF THESE DRAWINGS.
CONSTRUCTION PLAN KEY NOTES

1. Go to inspect existing foundation for proposed second floor addition. Coordinate with structural.

2. Do structural modifications to the existing structure if necessary.

3. The existing foundation is to be removed and replaced with new foundation to code requirements.

4. Coordination with structural for minimum foundation requirements.

5. Provide existing floor plan as needed. Match existing trim/finish.

CONSTRUCTION NOTES

A. GENERAL

1. GC to inspect existing foundation for proposed second floor addition. Coordinate with structural for minimum foundation requirements.

2. All new windows and exterior doors are to meet the requirements of the relevant stretch energy code.


4. G.C. to verify that all existing demising walls are plumb, if not, G.C. to provide and install new drywall.

5. All stud plates on the basement floor should be P.T.

6. All GWB within 24" of the basement floor should be M.R.

7. Refer to partition type schedule for partition types.

8. Refer to electrical drawings for junction boxes.

9. G.C. to control and coordinate all mechanical specifications and requirements, notify architect if any discrepancies are found.

10. All new windows and exterior doors are to meet the requirements of the relevant stretch energy code.

B. LAYOUT

1. Typical interior partitions to be 1/2" GWB on either side.

2. PROVIDE DOWNSPOUTS.

3. PROVIDE OG-TRADITIONAL DURAGUTTER SYSTEM AND DOWNSPOUTS.

C. COORDINATION

1. Review additional info on front elevation.

2. Final tile selection per owner.

3. G.C. to coordinate with owner's vendors to allow for proper installation of all owner supplied items. G.C. to schedule delivery/installation dates at the beginning of the job to guarantee compliance with construction schedule.

D. ACCESS

1. Provide full cleaning, if necessary of project site, interior and exterior, prior to commencement of work.

2. Provide All windows weatherstripping unless already applied.

3. Provide OGP Traditional Duragutter system and downspouts.

4. GC to control and coordinate all mechanical specifications and requirements, notify architect if any discrepancies are found.

10. All new windows and exterior doors are to meet the requirements of the relevant stretch energy code.

11. Coordination with structural for minimum foundation requirements.

12. Provide SWG system per owner selection.

13. Provide SWG system per owner selection at low ceiling areas/under roof.

14. PROVIDE DOWNSPOUTS.

15. PROVIDE ROOF TO MATCH EXISTING ROOF PITCH. FINISH WITH CERTAINTEED ARCHITECTURAL ASPHALT SHINGLES, COLOR AND SHAPE TO MATCH EXISTING.

16. Construct roof to match existing roof pitch. Finish with CertainTeed Architectural Asphalt Shingles, color and shape to match existing.


18. GC to inspect existing foundation for proposed second floor addition. Coordinate with structural for minimum foundation requirements.

19. GC to verify that all existing demising walls are plumb, if not, G.C. to provide and install new drywall.

20. All stud plates on the basement floor should be P.T.

21. All GWB within 24" of the basement floor should be M.R.

22. Refer to partition type schedule for partition types.

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1. G.C. to verify that all existing demising walls are plumb, if not, G.C. to provide and install new drywall.

2. All stud plates on the basement floor should be P.T.

3. All GWB within 24" of the basement floor should be M.R.

CONSTRUCTION PLAN KEY NOTES

1. TO REMOVE EXISTING FOUNDATION FOR PROPOSED ROOF WITH AXIAL WALLS TO FACILITATE GROUND LEVEL ENTRY. ROD SEGMENTS TO BE SECURED ON OPPOSITE END TO SLAB EDGE. USE ONE 2" X 4" AND TWO 2" X 6" (COUPLING железо) TO SECURE SECTIONS. ENSURE SECTIONS ARE SECURED ONCE FINAL INSTALLATION IS COMPLETED.

2. REMOVE EXISTING ROOF MEMBRANE, INCLUDING ICE & WATER SHIELD, AND REPLACE WITH CERTAINTEED ARCHITECTURAL SHINGLES, COLOR AND SHAPE TO MATCH EXISTING. meaningful content

3. VERIFY INTEGRITY OF FIRE RATED DEMISING PARTITIONS. DEMOLISH ROOF INCLUDING STRUCTURE, FINISHES AND EXISTING CHIMNEY TO REMAIN. PERMIT SEQUENCE NEEDS TO BE GRANTED BY Ago. This drawing indicates the location of proposed roof with walls and dimensions. Area of work

DEMO AND PROPOSED ROOF PLANS

DEMO INTERIOR WALLS AND DOORS ONLY AS INDICATED.
EXISTING CHIMNEY TO REMAIN.
EXISTING ROOF TO REMAIN.
EXISTING PARTITIONS TO BE 1/2" GWB ON EITHER SIDE OF 2X4 STUDS. COORDINATE WITH STRUCTURAL FOR REQUIRED COLUMN LOCATIONS.
TYPICAL INTERIOR PARTITIONS TO BE 1/2" GWB ON EITHER SIDE OF 2X4 STUDS. COORDINATE WITH STRUCTURAL FOR REQUIRED COLUMN LOCATIONS.
TYPICAL: PROVIDE HARDWOOD FLOORING TO MATCH EXISTING THROUGHOUT, EXCEPT AT BATHROOMS.
INTO ANY UNINSULATED EXTERIOR WALL CAVITIES R-VALUE 3.5 PER INCH OR BETTER, MIN. R-20.

4. PROVIDE HARDWOOD FLOORING TO MATCH EXISTING THROUGHOUT. SELECT AT LOW CEILING AREAS/UNDER ROOF.

5. PROVIDE SHEETING SYSTEM FOR EXISTING WALLS.

6. PROVIDE ALL WALLS WITH A FIRE-RATED TRIM TO MATCH EXISTING. MAINTAIN ALL FIRE RATINGS.

7. REPAIR ANY DAMAGE TO BUILDING'S FACADE, SIDEWALK, EXISTING TO REMAIN. FOR ROOF PITCH LESS THAN 3'/12" SLOPE PROVIDE TWO LAYERS OF UNDERLAYMENT. REVIEW MANUFACTURER RECOMMENDATIONS. MATCH EXISTING ROOFING FINISH.

8. VERIFY WIDTH, DEPTH, HEIGHT, ITEMS TO REMAIN AND ANYTHING THAT MAY BE CONSIDERED AN UN-ANTICIPATED FIELD CONDITION WHICH WOULD ALTER THE INTENT OF THESE DRAWINGS.

9. PROVIDE A CLEAN, SMOOTH AND LEVEL SUBFLOOR READY TO RECEIVE NEW FINISH FLOORING. ANY HIGH POINTS ARE TO BE KNOCKED/GROUNDED DOWN, ANY CRACKS, HOLES OR OTHER DEPRESSIONS ARE TO BE FLASH PATCHED.

10. PROVIDE A CLEAN, SMOOTH AND LEVEL SUBFLOOR READY TO RECEIVE NEW FINISH FLOORING. ANY HIGH POINTS ARE TO BE KNOCKED/GROUNDED DOWN, ANY CRACKS, HOLES OR OTHER DEPRESSIONS ARE TO BE FLASH PATCHED.

11. IMAGE OF CONSTRUCTION TRASH DUMPSTERS WITH THE OWNER.

12. PROVIDE ALL WALLS WITH A FIRE-RATED TRIM TO MATCH EXISTING. MAINTAIN ALL FIRE RATINGS.

13. VERIFY INTEGRITY OF FIRE RATED DEMISING PARTITIONS. DEMOLISH ROOF INCLUDING STRUCTURE, FINISHES AND EXISTING CHIMNEY TO REMAIN. PERMIT SEQUENCE NEEDS TO BE GRANTED BY Ago.

DEMOLITION NOTES

1. DEMOLITION IS DIAGRAMMATIC AND SHOULD BE USED FOR GUIDANCE ONLY. FURTHER DETAIL REQUIREMENTS MUST BE OBTAINED FROM THE CONTRACTOR. DEMOLITION LOCATIONS OF PERFORATION WITH AN ENGRAVED PLATE TO IDENTIFY THE SPECIFIC LOCATION OF DIFFERENT MATERIALS TO BE REMOVED.

DEMO AND PROPOSED ROOF PLANS

DEMO INTERIOR WALLS AND DOORS ONLY AS INDICATED.
EXISTING CHIMNEY TO REMAIN.
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EXISTING PARTITIONS TO BE 1/2" GWB ON EITHER SIDE OF 2X4 STUDS. COORDINATE WITH STRUCTURAL FOR REQUIRED COLUMN LOCATIONS.
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INTO ANY UNINSULATED EXTERIOR WALL CAVITIES R-VALUE 3.5 PER INCH OR BETTER, MIN. R-20.

4. PROVIDE HARDWOOD FLOORING TO MATCH EXISTING THROUGHOUT. SELECT AT LOW CEILING AREAS/UNDER ROOF.

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7. REPAIR ANY DAMAGE TO BUILDING'S FACADE, SIDEWALK, EXISTING TO REMAIN. FOR ROOF PITCH LESS THAN 3'/12" SLOPE PROVIDE TWO LAYERS OF UNDERLAYMENT. REVIEW MANUFACTURER RECOMMENDATIONS. MATCH EXISTING ROOFING FINISH.

8. VERIFY WIDTH, DEPTH, HEIGHT, ITEMS TO REMAIN AND ANYTHING THAT MAY BE CONSIDERED AN UN-ANTICIPATED FIELD CONDITION WHICH WOULD ALTER THE INTENT OF THESE DRAWINGS.

9. PROVIDE A CLEAN, SMOOTH AND LEVEL SUBFLOOR READY TO RECEIVE NEW FINISH FLOORING. ANY HIGH POINTS ARE TO BE KNOCKED/GROUNDED DOWN, ANY CRACKS, HOLES OR OTHER DEPRESSIONS ARE TO BE FLASH PATCHED.

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EXISTING CHIMNEY TO REMAIN.
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EXISTING PARTITIONS TO BE 1/2" GWB ON EITHER SIDE OF 2X4 STUDS. COORDINATE WITH STRUCTURAL FOR REQUIRED COLUMN LOCATIONS.
TYPICAL INTERIOR PARTITIONS TO BE 1/2" GWB ON EITHER SIDE OF 2X4 STUDS. COORDINATE WITH STRUCTURAL FOR REQUIRED COLUMN LOCATIONS.
TYPICAL: PROVIDE HARDWOOD FLOORING TO MATCH EXISTING THROUGHOUT, EXCEPT AT BATHROOMS.
INTO ANY UNINSULATED EXTERIOR WALL CAVITIES R-VALUE 3.5 PER INCH OR BETTER, MIN. R-20.
WALL OUTLETS SHOULD BE PLACED NO FURTHER THAN 12' APART, AT A HEIGHT OF BETWEEN 12"-18" AFF.

3-WAY SWITCH TO FIRST/SECOND FLOOR.

CATHEDRAL CEILING ON SECOND FLOOR. PROVIDE "COLD ROOF" INSULATION IN THIS AREA. R-VALUE 49 MIN.

ELECTRICAL FIXTURE LEGEND

- 3-WAY SWITCH
- DATA CONNECTOR
- SINGLE SWITCH
- 2 DOUBLE SWITCH
- OUTLET DUPLEX
- OUTLET GFI
- OUTLET RANGE
- DSWITCH ON DIMMER
- THERMOSTAT
- DOUBLE-DUPLEX OUTLET
- OUTDOOR OUTLET
- OUTLET DRYER
- 3D 3-WAY SWITCH ON DIMMER

CONSTRUCTION CEILING PLAN KEY NOTES

1. WALL OUTLETS SHOULD BE PLACED NO FURTHER THAN 12' APART, AT A HEIGHT OF BETWEEN 12"-18" AFF.
2. 3-WAY SWITCH TO FIRST/SECOND FLOOR.
3. CATHEDRAL CEILING ON SECOND FLOOR. PROVIDE "COLD ROOF" INSULATION IN THIS AREA. R-VALUE 49 MIN.

Proposed RCPs

A-2.3
CONSTRUCTION ELEVATION KEY NOTES

1. PROVIDE WOOD SIDING AND TRIM TO MATCH EXISTING (PTD CEDAR SHINGLES).
2. PROVIDE WOOD SIDING AND TRIM TO MATCH EXISTING (PTD CEDAR SHINGLES).
3. PROVIDE WOOD SIDING AND TRIM TO MATCH EXISTING (PTD CEDAR SHINGLES).
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6. PROVIDE WOOD SIDING AND TRIM TO MATCH EXISTING (PTD CEDAR SHINGLES).
7. PROVIDE WOOD SIDING AND TRIM TO MATCH EXISTING (PTD CEDAR SHINGLES).
8. PROVIDE WOOD SIDING AND TRIM TO MATCH EXISTING (PTD CEDAR SHINGLES).

NEW WINDOWS PER ENERGY CODE REQUIREMENTS IN CODE SUMMARY. WINDOWS AND EXTERIOR TRIM TO MATCH EXISTING.

NEW ROOF FINISH TO MATCH EXISTING.

PROVIDE NEW GUTTER AND DOWNSPOUT. OG-TRADITIONAL DURAGUTTER SYSTEM.

EXTEND CHIMNEY WALLS AS NEEDED, MATCH EXISTING. TOP OF CHIMNEY MIN. 3' FROM TOP OF ROOF.

CONSTRUCT COLUMNS TO BE COORDINATED WITH STRUCTURAL. FINISH WITH DSI COLUMNS, SQUARE RECESSED PANEL PEDESTAL POSTS, OR SIMILAR.

CONSTRUCT DEMI ROOF RAKE, PROVIDE ARCHITECTURAL ASPHALT SHINGLES TO MATCH EXISTING.

ALL TRIMS TO BE IN PVC.

PLAN LEGEND

EXISTING PARTITION
TO BE DEMOLISHED
NEW PARTITION
First Floor
Second Floor
Roof
PROPOSED CANOPY
PROPOSED DORMER
PROPOSED SHED DORMER
Median Grade

AREA OF WORK
First Floor
Second Floor
Roof

PROPOSED ADDITION
11' - 3 3/4"
9" / 12"
8 3/8" / 12"
W5

3' - 0"
1' - 3 3/8""%3C
1' - 9 3/4"
PROPOSED SHED DORMER
12' - 4 3/4" 1' - 11 3/4"

PROPOSED ROOF ADDITION
28' - 1 1/4"
2 3/8" / 12"
8 3/8" / 12"

PROPOSED ADDITION
17' - 7 5/8"

EXISTING TO REMAIN
32' - 2"

PROPOSED DORMER
11' - 9"

PROPOSED ROOF ADDITION
28' - 1 1/4"
W3
BC CALC® Member Report
Build 8381

Job name: Katie & Alfonso Residence
Address: 170 Mount Vernon Street
City, State, Zip: West Roxbury, MA, 02132
Customer: Derek Rubinoff
Code reports: ESR-1040

Total Horizontal Product Length = 11-06-00

Reaction Summary (Down / Uplift) (lbs)

<table>
<thead>
<tr>
<th>Bearing</th>
<th>Load Type</th>
<th>Ref.</th>
<th>Start</th>
<th>End</th>
<th>Loc.</th>
<th>Live</th>
<th>Dead</th>
<th>Snow</th>
<th>Wind</th>
<th>Roof Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1, 3-1/2&quot;</td>
<td>Self-Weight</td>
<td>L</td>
<td>00-00-00</td>
<td>11-06-00</td>
<td>Top</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B2, 3-1/2&quot;</td>
<td>WALL</td>
<td>L</td>
<td>00-00-00</td>
<td>11-06-00</td>
<td>Top</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Conc. Pt. (lbs)</td>
<td>L</td>
<td>09-03-00</td>
<td>09-03-00</td>
<td>Top</td>
<td>558</td>
<td>1182</td>
<td>0</td>
<td>0</td>
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Load Summary

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
<th>Load Type</th>
<th>Ref.</th>
<th>Start</th>
<th>End</th>
<th>Loc.</th>
<th>Live</th>
<th>Dead</th>
<th>Snow</th>
<th>Wind</th>
<th>Roof Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Self-Weight</td>
<td>Unf. Lin. (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td>11-06-00</td>
<td>Top</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>WALL</td>
<td>Trapezoidal (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td>11-06-00</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>CB02</td>
<td>Conc. Pt. (lbs)</td>
<td>L</td>
<td>09-03-00</td>
<td>09-03-00</td>
<td>Top</td>
<td>558</td>
<td>1182</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>SECOND</td>
<td>Unf. Area (lb/ft²)</td>
<td>L</td>
<td>00-00-00</td>
<td>11-06-00</td>
<td>Top</td>
<td>0</td>
<td>0</td>
<td>0</td>
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Controls Summary

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
<th>Value</th>
<th>% Allowable</th>
<th>Duration</th>
<th>Case</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>Pos. Moment</td>
<td>3592 ft-lbs</td>
<td>35.5%</td>
<td>115%</td>
<td>3</td>
<td>08-02-07</td>
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<tr>
<td>1</td>
<td>End Shear</td>
<td>1898 lbs</td>
<td>22.8%</td>
<td>115%</td>
<td>2</td>
<td>10-07-04</td>
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<tr>
<td>2</td>
<td>Total Load Deflection</td>
<td>L/589 (0.225&quot;)</td>
<td>40.7%</td>
<td>n/a</td>
<td>3</td>
<td>06-02-15</td>
</tr>
<tr>
<td>3</td>
<td>Live Load Deflection</td>
<td>L/999 (0.108&quot;)</td>
<td>n/a</td>
<td>n/a</td>
<td>6</td>
<td>06-02-15</td>
</tr>
<tr>
<td>4</td>
<td>Max Defl.</td>
<td>0.225&quot;</td>
<td>22.5%</td>
<td>n/a</td>
<td>3</td>
<td>06-02-15</td>
</tr>
<tr>
<td>5</td>
<td>Span / Depth</td>
<td>18.3</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Minimum bearing length for B1 is 1-1/2".
Minimum bearing length for B2 is 1-1/2".
Design based on Dry Service Condition.
BC CALC® analysis is based on IBC 2018.
Calculations assume member is braced at all supports. See engineering report for the unbraced length.

Connection Diagram: Full Length of Member
Connection Diagram: Full Length of Member

a minimum = 2”  
c = 3-1/4”

b minimum = 2-1/2”  
d = 24”

Calculated Side Load = 0.0 lb/ft

Bolts are assumed to be Grade A307 or Grade 2 or higher.

Connectors are: 1/2 in. Staggered Through Bolt

Disclosure

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

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

Build 8381

Job name: Katie & Alfonso Residence
Address: 170 Mount Vernon Street
City, State, Zip: West Roxbury, MA, 02132
Customer: Derek Rubinoff
Code reports: ESR-1040

Total Horizontal Product Length = 11-09-00

Reaction Summary (Down / Uplift) (lbs)

<table>
<thead>
<tr>
<th>Bearing</th>
<th>Live</th>
<th>Dead</th>
<th>Snow</th>
<th>Wind</th>
<th>Roof Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1, 2&quot;</td>
<td>310 / 0</td>
<td>3458 / 0</td>
<td>7208 / 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2, 3-1/2&quot;</td>
<td>317 / 0</td>
<td>187 / 0</td>
<td>92 / 0</td>
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Load Summary

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
<th>Load Type</th>
<th>Ref.</th>
<th>Start</th>
<th>End</th>
<th>Loc.</th>
<th>100%</th>
<th>90%</th>
<th>115%</th>
<th>160%</th>
<th>Live</th>
<th>Dead</th>
<th>Snow</th>
<th>Wind</th>
<th>Roof Live</th>
<th>Tributary</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Self-Weight</td>
<td>Unf. Lin. (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td>11-09-00</td>
<td>Top</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td>00-00-00</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>SECONDS</td>
<td>Unf. Area (lb/ft²)</td>
<td>L</td>
<td>00-00-00</td>
<td>11-09-00</td>
<td>Top</td>
<td>40</td>
<td>10</td>
<td></td>
<td></td>
<td>01-04-00</td>
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<tr>
<td>2</td>
<td>CB02</td>
<td>Conc. Pt. (lbs)</td>
<td>L</td>
<td>00-03-00</td>
<td>00-03-00</td>
<td>Front</td>
<td>3359</td>
<td>7300</td>
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<td></td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
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Controls Summary

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
<th>Value</th>
<th>% Allowable</th>
<th>Duration</th>
<th>Case</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pos. Moment</td>
<td>1783 ft-lbs</td>
<td>18.6%</td>
<td>115%</td>
<td>3</td>
<td>04-00-15</td>
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<tr>
<td></td>
<td>End Shear</td>
<td>1458 lbs</td>
<td>17.5%</td>
<td>115%</td>
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<td>00-09-04</td>
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<tr>
<td></td>
<td>Total Load Deflection</td>
<td>L/1079 (0.127&quot;)</td>
<td>22.3%</td>
<td>n/a</td>
<td>3</td>
<td>05-05-00</td>
</tr>
<tr>
<td></td>
<td>Live Load Deflection</td>
<td>L/999 (0.079&quot;)</td>
<td>n/a</td>
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<td>05-05-00</td>
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<tr>
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<td>Max Defl.</td>
<td>0.127&quot;</td>
<td>12.7%</td>
<td>n/a</td>
<td>3</td>
<td>05-05-00</td>
</tr>
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<td>Span / Depth</td>
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Bearing Supports

<table>
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<tr>
<th>Dim. (LxW)</th>
<th>Value</th>
<th>% Allow Support</th>
<th>% Allow Member</th>
<th>Material</th>
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<tbody>
<tr>
<td>B1</td>
<td></td>
<td>n/a</td>
<td>n/a</td>
<td>Hanger</td>
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</table>

Cautions

Concentrated side load(s) 2 are closer than 18" from end of member. Please consult a technical representative or Professional of Record.

Header for the hanger Hanger is a Triple 1-3/4" x 7-1/4" LVL beam.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Minimum bearing length for B1 is 2-11/16".
Minimum bearing length for B2 is 1-1/2".
Hanger Manufacturer: Simpson Strong-Tie, Inc.
Design based on Dry Service Condition.
BC CALC® analysis is based on IBC 2018.
Calculations assume member is braced at all supports. See engineering report for the unbraced length.
Connection Diagram: Full Length of Member

![Diagram of VERSA-LAM® LVL with dimensions labeled: a minimum = 2" c = 3-1/4" b minimum = 2-1/2" d = 12"

Calculated Side Load = 0.0 lb/ft

Bolts are assumed to be Grade A307 or Grade 2 or higher.

Connectors are: 1/2 in. Staggered Through Bolt
Quadruple 1-3/4" x 11-1/4" VERSA-LAM® LVL 2.1E 3100 SP

2B03 (Flush Beam)

BC CALC® Member Report

Build 8381

Job name: Katie & Alfonso Residence
Address: 170 Mount Vernon Street
City, State, Zip: West Roxbury, MA, 02132
Customer: Derek Rubinoff
Code reports: ESR-1040

File name: 170 Mount Vernon Street, West Roxbury
Description: 170 Mount Vernon Street, West Roxbury
Specifier: David Guerrero
Designer: David Guerrero
Company: SSB Engineering

Load Summary

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
<th>Load Type</th>
<th>Ref.</th>
<th>Start</th>
<th>End</th>
<th>Loc.</th>
<th>100%</th>
<th>90%</th>
<th>115%</th>
<th>160%</th>
<th>125%</th>
<th>Tributary</th>
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<tbody>
<tr>
<td>0</td>
<td>Self-Weight</td>
<td>Unf. Lin. (lb/ft)</td>
<td>L</td>
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<td>17-03-00</td>
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<td>00-00-00</td>
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<td></td>
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<tr>
<td>1</td>
<td>SECOND</td>
<td>Unf. Area (lb/ft²)</td>
<td>L</td>
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<td>17-03-00</td>
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<td>2B01</td>
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<td>01-00-00</td>
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<td>310</td>
<td>3458</td>
<td>7208</td>
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<td>2B02</td>
<td>Conc. Pt. (lbs)</td>
<td>R</td>
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<td>01-00-00</td>
<td>Front</td>
<td>307</td>
<td>963</td>
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Controls Summary

<table>
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<tr>
<th>Value</th>
<th>% Allowable</th>
<th>Duration</th>
<th>Case</th>
<th>Location</th>
</tr>
</thead>
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<tr>
<td>Pos. Moment</td>
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<td>100%</td>
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<tr>
<td>End Shear</td>
<td>11549 lbs</td>
<td>67.1%</td>
<td>115%</td>
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</tr>
<tr>
<td>Total Load Deflection</td>
<td>L/272 (0.74&quot;)</td>
<td>88.1%</td>
<td>n/a</td>
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<tr>
<td>Live Load Deflection</td>
<td>L/384 (0.524&quot;)</td>
<td>93.7%</td>
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<tr>
<td>Max Defl.</td>
<td>0.74&quot;</td>
<td>74.0%</td>
<td>n/a</td>
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<tr>
<td>Span / Depth</td>
<td>17.9</td>
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</table>

Cautions

Concentrated side load(s) 2,3 are closer than 18" from end of member. Please consult a technical representative or Professional of Record.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Minimum bearing length for B1 is 1-1/2".
Minimum bearing length for B2 is 2-13/16".
Design based on Dry Service Condition.
BC CALC® analysis is based on IBC 2018.
Calculations assume member is fully braced.
Connection Diagram: Full Length of Member

a minimum = 2''  c = 7-1/4''
b minimum = 2-1/2''  d = 24''

Calculated Side Load = 0.0 lb/ft
Bolts are assumed to be Grade A307 or Grade 2 or higher.
Connectors are: 1/2 in. Staggered Through Bolt
Double 1-3/4" x 11-1/4" VERSA-LAM® LVL 2.1E 3100 SP

BC CALC® Member Report
Build 8381

Job name: Katie & Alfonso Residence
Address: 170 Mount Vernon Street
City, State, Zip: West Roxbury, MA, 02132
Customer: Derek Rubinoff
Code reports: ESR-1040

Double 1-3/4" x 11-1/4" VERSA-LAM® LVL 2.1E 3100 SP
2B04 (Drop Beam)

File name: 170 Mount Vernon Street, West Roxbury
Description: Katie & Alfonso Residence
Specifier: David Guerrero
Company: SSB Engineering

Load Summary

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
<th>Load Type</th>
<th>Ref.</th>
<th>Start</th>
<th>End</th>
<th>Loc.</th>
<th>100%</th>
<th>90%</th>
<th>115%</th>
<th>160%</th>
<th>125%</th>
<th>Tributary</th>
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<tbody>
<tr>
<td>0</td>
<td>Self-Weight</td>
<td>Unf. Lin. (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td>07-00-00</td>
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<td>11</td>
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<td></td>
<td></td>
<td>00-00-00</td>
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<tr>
<td>1</td>
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<td>L</td>
<td>04-03-00</td>
<td>04-03-00</td>
<td>Top</td>
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<td>5210</td>
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<tr>
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<td>2B03</td>
<td>Conc. Pt. (lbs)</td>
<td>L</td>
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<td>04-06-00</td>
<td>Top</td>
<td>500</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>3</td>
<td>WALL</td>
<td>Trapezoidal (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td></td>
<td>Top</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>03-06-00</td>
</tr>
<tr>
<td>4</td>
<td>WALL</td>
<td>Trapezoidal (lb/ft)</td>
<td>R</td>
<td>00-00-00</td>
<td></td>
<td>Top</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>03-06-00</td>
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Controls Summary

<table>
<thead>
<tr>
<th>Pos. Moment</th>
<th>12499 ft-lbs</th>
<th>67.4%</th>
<th>115%</th>
<th>2</th>
<th>04-03-00</th>
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<tbody>
<tr>
<td>End Shear</td>
<td>5023 lbs</td>
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<td>115%</td>
<td>2</td>
<td>05-09-04</td>
</tr>
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<td>Total Load Deflection</td>
<td>L/999 (0.12&quot;)</td>
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<td>n/a</td>
<td>2</td>
<td>04-00-12</td>
</tr>
<tr>
<td>Live Load Deflection</td>
<td>L/999 (0.077&quot;)</td>
<td>n/a</td>
<td>n/a</td>
<td>5</td>
<td>04-00-12</td>
</tr>
<tr>
<td>Max Defl.</td>
<td>0.12&quot;</td>
<td>n/a</td>
<td>n/a</td>
<td>2</td>
<td>04-00-12</td>
</tr>
<tr>
<td>Span / Depth</td>
<td>7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Minimum bearing length for B1 is 1-1/2".
Minimum bearing length for B2 is 1-15/16".
Design based on Dry Service Condition.
BC CALC® analysis is based on IBC 2018.
Calculations assume member is braced at all supports. See engineering report for the unbraced length.
Connection Diagram: Full Length of Member

![Diagram showing connection points and dimensions]

- a minimum = 2"  
- b minimum = 2-1/2"  
- c = 7-1/4"  
- d = 24"

Calculated Side Load = 0.0 lb/ft
Bolts are assumed to be Grade A307 or Grade 2 or higher.
Connectors are: 1/2 in. Staggered Through Bolt

---

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**Reaction Summary (Down / Uplift) (lbs)**

<table>
<thead>
<tr>
<th>Bearing</th>
<th>Live</th>
<th>Dead</th>
<th>Snow</th>
<th>Wind</th>
<th>Roof Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1, 3-1/2&quot;</td>
<td>1077 / 0</td>
<td>1058 / 0</td>
<td>913 / 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2, 3-1/2&quot;</td>
<td>1302 / 0</td>
<td>1191 / 0</td>
<td>979 / 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Load Summary**

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
<th>Load Type</th>
<th>Ref.</th>
<th>Start</th>
<th>End</th>
<th>Loc.</th>
<th>Loc. %</th>
<th>Loc. %</th>
<th>Loc. %</th>
<th>Loc. %</th>
<th>Tributary</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Self-Weight</td>
<td>Unf. Lin. (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td>07-06-00</td>
<td>Top</td>
<td>100</td>
<td>90</td>
<td>115</td>
<td>160</td>
<td>125</td>
</tr>
<tr>
<td>1</td>
<td>WALL</td>
<td>Unf. Lin. (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td>07-06-00</td>
<td>Front</td>
<td>100</td>
<td>n/a</td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>2</td>
<td>SECOND</td>
<td>Unf. Area (lb/ft²)</td>
<td>L</td>
<td>00-00-00</td>
<td>07-06-00</td>
<td>Top</td>
<td>40</td>
<td>10</td>
<td></td>
<td></td>
<td>06-00-00</td>
</tr>
<tr>
<td>3</td>
<td>CEILING</td>
<td>Unf. Area (lb/ft²)</td>
<td>L</td>
<td>00-00-00</td>
<td>07-06-00</td>
<td>Top</td>
<td>10</td>
<td>5</td>
<td></td>
<td></td>
<td>03-06-00</td>
</tr>
<tr>
<td>4</td>
<td>ROOF</td>
<td>Unf. Area (lb/ft²)</td>
<td>L</td>
<td>00-00-00</td>
<td>07-06-00</td>
<td>Top</td>
<td>15</td>
<td>40</td>
<td></td>
<td></td>
<td>06-00-00</td>
</tr>
<tr>
<td>5</td>
<td>2B02</td>
<td>Conc. Pt. (lbs)</td>
<td>R</td>
<td>01-03-00</td>
<td>01-03-00</td>
<td>Front</td>
<td>317</td>
<td>187</td>
<td>92</td>
<td></td>
<td>n/a</td>
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**Controls Summary**

<table>
<thead>
<tr>
<th>Value</th>
<th>% Allowable</th>
<th>Duration</th>
<th>Case</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pos. Moment</td>
<td>4353 ft-lbs</td>
<td>45.2%</td>
<td>115%</td>
<td>03-09-14</td>
</tr>
<tr>
<td>End Shear</td>
<td>2309 lbs</td>
<td>41.6%</td>
<td>115%</td>
<td>06-07-04</td>
</tr>
<tr>
<td>Total Load Deflection</td>
<td>L/452 (0.187&quot;)</td>
<td>53.0%</td>
<td>n/a</td>
<td>03-09-14</td>
</tr>
<tr>
<td>Live Load Deflection</td>
<td>L/999 (0.11&quot;)</td>
<td>n/a</td>
<td>n/a</td>
<td>03-09-14</td>
</tr>
<tr>
<td>Max Defl.</td>
<td>0.187&quot;</td>
<td>18.7%</td>
<td>n/a</td>
<td>03-09-14</td>
</tr>
<tr>
<td>Span / Depth</td>
<td>11.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes**

- Design meets Code minimum (L/240) Total load deflection criteria.
- Design meets Code minimum (L/360) Live load deflection criteria.
- Design meets arbitrary (1") Maximum Total load deflection criteria.
- Minimum bearing length for B1 is 1-1/2".
- Minimum bearing length for B2 is 1-1/2".
- Design based on Dry Service Condition.
- BC CALC® analysis is based on IBC 2018.
- Calculations assume member is fully braced.
Connection Diagram: Full Length of Member

a minimum = 2"  c = 3-1/4"
b minimum = 2-1/2"  d = 24"

Calculated Side Load = 252.0 lb/ft
Bolts are assumed to be Grade A307 or Grade 2 or higher.
Connectors are: 1/2 in. Staggered Through Bolt
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**BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,**

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**BC CALC® Member Report**

**Build 8381**

**Job name:** Katie & Alfonso Residence  
**File name:** 170 Mount Vernon Street, West Roxbury  
**Address:** 170 Mount Vernon Street  
**Description:**  
**City, State, Zip:** West Roxbury, MA, 02132  
**Specifier:**  
**Customer:** Derek Rubinoff  
**Designer:** David Guerrero  
**Code reports:** NLGA  
**Company:** SSB Engineering

---

**Reaction Summary (Down / Uplift) (lbs)**

<table>
<thead>
<tr>
<th>Bearing</th>
<th>Live</th>
<th>Dead</th>
<th>Snow</th>
<th>Wind</th>
<th>Roof Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1, 2&quot;</td>
<td>875 / 0</td>
<td>755 / 0</td>
<td>389 / 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2, 2&quot;</td>
<td>476 / 0</td>
<td>416 / 0</td>
<td>211 / 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Load Summary**

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
<th>Load Type</th>
<th>Ref.</th>
<th>Start</th>
<th>End</th>
<th>Loc.</th>
<th>Live</th>
<th>Dead</th>
<th>Snow</th>
<th>Wind</th>
<th>Roof Live</th>
<th>Tributary</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Self-Weight</td>
<td>Unf. Lin. (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td>02-09-00</td>
<td>Top</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>00-00-00</td>
</tr>
<tr>
<td>1</td>
<td>R01 Conc. Pt. (lbs)</td>
<td>L</td>
<td>01-00-00</td>
<td>01-00-00</td>
<td>Top</td>
<td>1351</td>
<td>920</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>ROOF Conc. Lin. (lb/ft)</td>
<td>L</td>
<td>01-00-00</td>
<td>01-00-00</td>
<td>Top</td>
<td>115</td>
<td>300</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>02-00-00</td>
</tr>
</tbody>
</table>

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**Controls Summary**

<table>
<thead>
<tr>
<th>Value</th>
<th>% Allowable</th>
<th>Duration</th>
<th>Case</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pos. Moment</td>
<td>1456 ft-lbs</td>
<td>42.8%</td>
<td>100%</td>
<td>1</td>
</tr>
<tr>
<td>End Shear</td>
<td>1624 lbs</td>
<td>55.3%</td>
<td>100%</td>
<td>1</td>
</tr>
<tr>
<td>Total Load Deflection</td>
<td>L/999 (0.007&quot;)</td>
<td>n/a</td>
<td>n/a</td>
<td>3</td>
</tr>
<tr>
<td>Live Load Deflection</td>
<td>L/999 (0.004&quot;)</td>
<td>n/a</td>
<td>n/a</td>
<td>6</td>
</tr>
<tr>
<td>Max Defl.</td>
<td>0.007&quot;</td>
<td>n/a</td>
<td>n/a</td>
<td>3</td>
</tr>
</tbody>
</table>

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**Bearing Supports**

<table>
<thead>
<tr>
<th>Dim. (LxW)</th>
<th>Value</th>
<th>% Allow Support</th>
<th>% Allow Member</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1 Hanger</td>
<td>2&quot; x 4-1/2&quot;</td>
<td>n/a</td>
<td>n/a</td>
<td>Hanger</td>
</tr>
<tr>
<td>B2 Hanger</td>
<td>2&quot; x 4-1/2&quot;</td>
<td>n/a</td>
<td>n/a</td>
<td>Hanger</td>
</tr>
</tbody>
</table>

---

**Cautions**

Header for the hanger Hanger is a Triple 1-1/2" x 7-1/4" LVL beam.

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**Notes**

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

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

Design meets arbitrary (1") Maximum Total load deflection criteria.

Minimum bearing length for B1 is 1-1/2".

Minimum bearing length for B2 is 1-1/2".

Hanger Manufacturer: Simpson Strong-Tie, Inc.

Design based on Dry Service Condition.

The analysis of solid sawn wood members is in accordance with the NDS and is limited to the output shown above. All other support and design for these products, including but not limited to notching, connections, installation, and engineer/architect certification is the responsibility of the project's design professional of record.

BC CALC® analysis is based on IBC 2018.

Calculations assume member is fully braced.
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Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets User specified (L/480) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Minimum bearing length for B1 is 1-1/2".
Minimum bearing length for B2 is 1-1/2".
Composite EI value based on 3/4" thick OSB sheathing glued and nailed to member.
Design based on Dry Service Condition.
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BC CALC® Member Report
Build 8381
Job name: Katie & Alfonso Residence
Address: 170 Mount Vernon Street
City, State, Zip: West Roxbury, MA, 02132
Customer: Derek Rubinoff
Code reports: NLGA

File name: 170 Mount Vernon Street, West Roxbury
Description: 170 Mount Vernon Street
Specifier: David Guerrero
Designer: Company: SSB Engineering

Reaction Summary (Down / Uplift) (lbs)

<table>
<thead>
<tr>
<th>Bearing</th>
<th>Live</th>
<th>Dead</th>
<th>Snow</th>
<th>Wind</th>
<th>Roof Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1, 3-1/2&quot;</td>
<td>362 / 0</td>
<td>632 / 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2, 3-1/2&quot;</td>
<td>363 / 0</td>
<td>632 / 0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Load Summary

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
<th>Load Ref.</th>
<th>Start</th>
<th>End</th>
<th>Loc.</th>
<th>100%</th>
<th>90%</th>
<th>115%</th>
<th>160%</th>
<th>125%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Self-Weight</td>
<td>Unf. Lin. (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td>06-00-00</td>
<td>Top</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>RB01</td>
<td>Conc. Pt. (lbs)</td>
<td>L</td>
<td>03-00-00</td>
<td>03-00-00</td>
<td>Top</td>
<td>530</td>
<td>1264</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>2</td>
<td>WALL</td>
<td>Trapezoidal (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td></td>
<td>Top</td>
<td>0</td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>3</td>
<td>WALL</td>
<td>Trapezoidal (lb/ft)</td>
<td>R</td>
<td>00-00-00</td>
<td></td>
<td>Top</td>
<td>0</td>
<td></td>
<td></td>
<td>n/a</td>
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Controls Summary

<table>
<thead>
<tr>
<th>Controls</th>
<th>Value</th>
<th>% Allowable</th>
<th>Duration</th>
<th>Case</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pos. Moment</td>
<td>2646 ft-lbs</td>
<td>70.5%</td>
<td>115%</td>
<td>4</td>
<td>03-00-00</td>
</tr>
<tr>
<td>End Shear</td>
<td>988 lbs</td>
<td>29.2%</td>
<td>115%</td>
<td>4</td>
<td>03-01-04</td>
</tr>
<tr>
<td>Total Load Deflection</td>
<td>L/999 (0.059&quot;)</td>
<td>n/a</td>
<td>n/a</td>
<td>4</td>
<td>03-00-00</td>
</tr>
<tr>
<td>Live Load Deflection</td>
<td>L/999 (0.039&quot;)</td>
<td>n/a</td>
<td>n/a</td>
<td>5</td>
<td>03-00-00</td>
</tr>
<tr>
<td>Max Defl.</td>
<td>0.059&quot;</td>
<td>n/a</td>
<td>n/a</td>
<td>4</td>
<td>03-00-00</td>
</tr>
<tr>
<td>Span / Depth</td>
<td>9.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cautions

For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.
For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

Notes

Design meets Code minimum (L/180) Total load deflection criteria.
Design meets Code minimum (L/240) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Minimum bearing length for B1 is 1-1/2".
Minimum bearing length for B2 is 1-1/2".
Design based on Dry Service Condition.
The analysis of solid sawn wood members is in accordance with the NDS and is limited to the output shown above. All other support and design for these products, including but not limited to notching, connections, installation, and engineer/architect certification is the responsibility of the project's design professional of record.

BC CALC® analysis is based on IBC 2018.
Calculations assume member is fully braced.
Total Horizontal Product Length = 03-02-00

<table>
<thead>
<tr>
<th>Bearing</th>
<th>Live</th>
<th>Dead</th>
<th>Snow</th>
<th>Wind</th>
<th>Roof Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1, 5-1/2&quot;</td>
<td>3359 / 0</td>
<td>7300 / 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2, 3-1/2&quot;</td>
<td>558 / 0</td>
<td>1182 / 0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Load Summary

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
<th>Load Type</th>
<th>Ref.</th>
<th>Start</th>
<th>End</th>
<th>Loc.</th>
<th>Live 100%</th>
<th>Dead 90%</th>
<th>Snow 115%</th>
<th>Wind 160%</th>
<th>Roof Live 125%</th>
<th>Tributary</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Self-Weight</td>
<td>Unf. Lin. (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td>03-02-00</td>
<td>Top 11</td>
<td>00-00-00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>RB03</td>
<td>Conc. Pt. (lbs)</td>
<td>L</td>
<td>00-09-00</td>
<td>00-09-00</td>
<td>Top</td>
<td>3882</td>
<td>8482</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
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</table>

### Controls Summary

<table>
<thead>
<tr>
<th>Value</th>
<th>% Allowable</th>
<th>Duration</th>
<th>Case</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pos. Moment 3776 ft-lbs</td>
<td>26.6%</td>
<td>115%</td>
<td>1</td>
<td>00-09-00</td>
</tr>
<tr>
<td>End Shear 4252 lbs</td>
<td>51.1%</td>
<td>115%</td>
<td>1</td>
<td>01-00-12</td>
</tr>
<tr>
<td>Total Load Deflection L/999 (0.017&quot;)</td>
<td>n/a</td>
<td>n/a</td>
<td>1</td>
<td>01-01-11</td>
</tr>
<tr>
<td>Live Load Deflection L/999 (0.012&quot;)</td>
<td>n/a</td>
<td>n/a</td>
<td>2</td>
<td>01-01-07</td>
</tr>
<tr>
<td>Max Defl. 0.017&quot;</td>
<td>n/a</td>
<td>n/a</td>
<td>1</td>
<td>01-01-11</td>
</tr>
<tr>
<td>Span / Depth 4.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Notes
- Design meets Code minimum (L/240) Total load deflection criteria.
- Design meets Code minimum (L/360) Live load deflection criteria.
- Design meets arbitrary (1") Maximum Total load deflection criteria.
- Minimum bearing length for B1 is 2-11/16".
- Minimum bearing length for B2 is 1-1/2".
- Design based on Dry Service Condition.
- BC CALC® analysis is based on IBC 2018.
- Calculations assume unbraced length of Top: 03-02-00, Bottom: 03-02-00.
Connection Diagram: Full Length of Member

Calculated Side Load = 0.0 lb/ft
Nailing applies to both sides of the member
Connectors are: 3-1/4 in. Pneumatic Gun Nails

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MEMBER REPORT
Level, PB01

1 piece(s) 5 1/4" x 11 7/8" 2.0E Parallam® Plus PSL2 - Moist Use (16% < MC <= 28%)

Overall Length: 16'

---

Weyerhaeuser warrants that the sizing of its products will be in accordance with Weyerhaeuser product design criteria and published design values. Weyerhaeuser expressly disclaims any other warranties related to the software. Use of this software is not intended to circumvent the need for a design professional as determined by the authority having jurisdiction. The designer of record, builder or framer is responsible to assure that this calculation is compatible with the overall project. Accessories (Rim Board, Blocking Panels and Squash Blocks) are not designed by this software. Products manufactured at Weyerhaeuser facilities are third-party certified to sustainable forestry standards. Weyerhaeuser Engineered Lumber Products have been evaluated by ICC-ES under evaluation reports ESR-1153 and ESR-1387 and/or tested in accordance with applicable ASTM standards. For current code evaluation reports, Weyerhaeuser product literature and installation details refer to www.weyerhaeuser.com/woodproducts/document-library.

---

System: Roof
Member Type: Drop Beam
Building Use: Residential
Building Code: IBC 2018
Design Methodology: ASD
Member Pitch: 0/12

‡ Deflection criteria: LL (L/240) and TL (L/180).
‡ Allowed moment does not reflect the adjustment for the beam stability factor.

---

**Design Results**

<table>
<thead>
<tr>
<th>Actual @ Location</th>
<th>Allowed</th>
<th>Result</th>
<th>LDF</th>
<th>Load: Combination (Pattern)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member Reaction (lbs)</td>
<td>3159 @ 4&quot;</td>
<td>9745 (5.50&quot;)</td>
<td>Passed (32%)</td>
<td>--</td>
</tr>
<tr>
<td>Shear (lbs)</td>
<td>2755 @ 1' 5 3/8&quot;</td>
<td>8196</td>
<td>Passed (34%)</td>
<td>1.00</td>
</tr>
<tr>
<td>Moment (Ft-lbs)</td>
<td>10884 @ 8' 1 3/4&quot;</td>
<td>18808</td>
<td>Passed (58%)</td>
<td>1.00</td>
</tr>
<tr>
<td>Live Load Defl. (in)</td>
<td>0.253 @ 7' 11 15/16&quot;</td>
<td>0.767</td>
<td>Passed (L/727)</td>
<td>--</td>
</tr>
<tr>
<td>Total Load Defl. (in)</td>
<td>0.693 @ 7' 11 15/16&quot;</td>
<td>1.022</td>
<td>Passed (L/266)</td>
<td>--</td>
</tr>
</tbody>
</table>

---

**System: Roof**
Member Type: Drop Beam
Building Use: Residential
Building Code: IBC 2018
Design Methodology: ASD
Member Pitch: 0/12

---

**Lateral Bracing**

<table>
<thead>
<tr>
<th>Bracing Intervals</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Edge (Lu)</td>
<td>16' o/c</td>
</tr>
<tr>
<td>Bottom Edge (Lu)</td>
<td>16' o/c</td>
</tr>
</tbody>
</table>

---

**Weyerhaeuser Notes**

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The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

---

**ForteWEB Software Operator**
William Green
SSB Engineering
(781) 689-6133
william@ssbengineering.com

**Job Notes**
Ceiling beam without lateral bracing
Build 8381

Job name: Katie & Alfonso Residence
Address: 170 Mount Vernon Street
City, State, Zip: West Roxbury, MA, 02132
Customer: Derek Rubinoff
Code reports: ESR-1040

Total Horizontal Product Length = 13-00-00

**Reaction Summary (Down / Uplift) (lbs)**

<table>
<thead>
<tr>
<th>Bearing</th>
<th>Live</th>
<th>Dead</th>
<th>Snow</th>
<th>Wind</th>
<th>Roof Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1, 3-1/2&quot;</td>
<td>956 / 0</td>
<td>1398 / 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2, 3-1/2&quot;</td>
<td>958 / 0</td>
<td>1889 / 0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Load Summary**

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
<th>Load Type</th>
<th>Ref.</th>
<th>Start</th>
<th>End</th>
<th>Loc.</th>
<th>100%</th>
<th>90%</th>
<th>115%</th>
<th>160%</th>
<th>125%</th>
<th>Tributary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ROOF</td>
<td>Unf. Area (lb/ft²)</td>
<td>L</td>
<td>00-00-00</td>
<td>13-00-00</td>
<td>Top</td>
<td>15</td>
<td>40</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>RB02</td>
<td>Conc. Pt. (lbs)</td>
<td>R</td>
<td>01-08-00</td>
<td>01-08-00</td>
<td>Top</td>
<td>556</td>
<td>1116</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>VB01</td>
<td>Conc. Pt. (lbs)</td>
<td>R</td>
<td>07-07-00</td>
<td>07-07-00</td>
<td>Top</td>
<td>302</td>
<td>582</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>ROOF</td>
<td>Unf. Lin. (lb/ft)</td>
<td>R</td>
<td>00-00-00</td>
<td>01-08-00</td>
<td>Top</td>
<td>39</td>
<td>105</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>WALL</td>
<td>Trapezoidal (lb/ft)</td>
<td>R</td>
<td>07-07-00</td>
<td>13-00-00</td>
<td>Top</td>
<td>13-00-00</td>
<td>100</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>ROOF</td>
<td>Unf. Lin. (lb/ft)</td>
<td>R</td>
<td>07-07-00</td>
<td>13-00-00</td>
<td>Top</td>
<td>50</td>
<td>130</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Controls Summary**

| Pos. Moment | 7044 ft-lbs | 46.9% | 115% | 4 | 05-05-00 |
| End Shear    | 2772 lbs | 33.3% | 115% | 4 | 12-08-08 |
| Total Load Deflection | L/219 (0.839") | 82.3% | n/a | 4 | 06-04-02 |
| Live Load Deflection | L/340 (0.54") | 70.6% | n/a | 5 | 06-05-10 |
| Max Defl. | 0.839" | 83.9% | n/a | 4 | 06-04-02 |

**Slope and Cut Length**

<table>
<thead>
<tr>
<th>Slope</th>
<th>Fascia Depth</th>
<th>Horiz. Length</th>
<th>Product Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.37/12</td>
<td>8-13/16&quot;</td>
<td>13-00-00</td>
<td>16-03-04</td>
</tr>
</tbody>
</table>

**Notes**

- Design meets Code minimum (L/180) Total load deflection criteria.
- Design meets Code minimum (L/240) Live load deflection criteria.
- Design meets arbitrary (1") Maximum Total load deflection criteria.
- Minimum bearing length for B1 is 1-1/2".
- Minimum bearing length for B2 is 1-1/2".
- Design based on Dry Service Condition.
- BC CALC® analysis is based on IBC 2018.
- Calculations assume member is fully braced.
Connection Diagram: Full Length of Member

![Connection Diagram](image)

a minimum = 2"  
c = 3-1/4"

b minimum = 2-1/2"  
d = 24"

Calculated Side Load = 0.0 lb/ft
Bolts are assumed to be Grade A307 or Grade 2 or higher.
Connectors are: 1/2 in. Staggered Through Bolt

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BC CALC®, BC FRAMER®, AJS™, ALLIOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,
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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,
Double 1-3/4" x 9-1/4" VERSA-LAM® LVL 2.1E 3100 SP

RB01 (Roof Beam)

BC CALC® Member Report
Build 8381

Job name: Katie & Alfonso Residence
File name: 170 Mount Vernon Street, West Roxbury

Address: 170 Mount Vernon Street
Description:

City, State, Zip: West Roxbury, MA, 02132
Specifier: Derek Rubinoff

Customer: Designer: David Guerrero
Code reports: Company: SSB Engineering

Reaction Summary (Down / Uplift) (lbs)

<table>
<thead>
<tr>
<th>Bearing</th>
<th>Live</th>
<th>Dead</th>
<th>Snow</th>
<th>Wind</th>
<th>Roof Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1, 3-1/2&quot;</td>
<td>300</td>
<td>0</td>
<td>650</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>B2, 3-1/2&quot;</td>
<td>530</td>
<td>0</td>
<td>1264</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Load Summary

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
<th>Load Type</th>
<th>Ref.</th>
<th>Start</th>
<th>End</th>
<th>Loc.</th>
<th>100%</th>
<th>90%</th>
<th>115%</th>
<th>160%</th>
<th>125%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Self-Weight</td>
<td>Unf. Lin. (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td>11-10-00</td>
<td>Top</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>ROOF</td>
<td>Trapezoidal (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td>11-10-00</td>
<td>Top</td>
<td>0</td>
<td>79</td>
<td>210</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>ROOF</td>
<td>Unf. Area (lb/ft²)</td>
<td>L</td>
<td>07-06-00</td>
<td>11-10-00</td>
<td>Top</td>
<td>15</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Controls Summary

<table>
<thead>
<tr>
<th>Value</th>
<th>% Allowable</th>
<th>Duration</th>
<th>Case</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>4002 ft-lbs</td>
<td>26.2%</td>
<td>115%</td>
<td>4</td>
<td>06-10-01</td>
</tr>
<tr>
<td>1405 lbs</td>
<td>19.9%</td>
<td>115%</td>
<td>4</td>
<td>10-09-04</td>
</tr>
<tr>
<td>L/679 (0.201&quot;)</td>
<td>26.5%</td>
<td>n/a</td>
<td>4</td>
<td>06-02-11</td>
</tr>
<tr>
<td>L/971 (0.141&quot;)</td>
<td>24.7%</td>
<td>n/a</td>
<td>5</td>
<td>06-02-11</td>
</tr>
<tr>
<td>0.201&quot;</td>
<td>20.1%</td>
<td>n/a</td>
<td>4</td>
<td>06-02-11</td>
</tr>
<tr>
<td>Span / Depth</td>
<td>14.8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cautions

For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.
For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

Notes

Design meets Code minimum (L/180) Total load deflection criteria.
Design meets Code minimum (L/240) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Minimum bearing length for B1 is 1-1/2".
Minimum bearing length for B2 is 1-1/2".
Design based on Dry Service Condition.
BC CALC® analysis is based on IBC 2018.
Calculations assume member is fully braced.
Connection Diagram: Full Length of Member

\[ a \text{ minimum } = 2" \quad c = 5-1/4" \]
\[ b \text{ minimum } = 2-1/2" \quad d = 24" \]

Calculated Side Load = 0.0 lb/ft
Bolts are assumed to be Grade A307 or Grade 2 or higher.
Connectors are: 1/2 in. Staggered Through Bolt

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Double 1-3/4" x 9-1/4" VERSA-LAM® LVL 2.1E 3100 SP

RB02 (Roof Beam)

Total Horizontal Product Length = 10-10-00

Reaction Summary (Down / Uplift) (lbs)

<table>
<thead>
<tr>
<th>Bearing</th>
<th>Live</th>
<th>Dead</th>
<th>Snow</th>
<th>Wind</th>
<th>Roof Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1, 3-1/2&quot;</td>
<td>556 / 0</td>
<td>1116 / 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2, 3-1/2&quot;</td>
<td>552 / 0</td>
<td>1108 / 0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Load Summary

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
<th>Load Type</th>
<th>Ref.</th>
<th>Start</th>
<th>End</th>
<th>Loc.</th>
<th>100%</th>
<th>90%</th>
<th>115%</th>
<th>160%</th>
<th>125%</th>
<th>Tributary</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Self-Weight</td>
<td>Unf. Lin. (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td>10-10-00</td>
<td>Top</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>00-00-00</td>
</tr>
<tr>
<td>1</td>
<td>RB01</td>
<td>Conc. Pt. (lbs)</td>
<td>L</td>
<td>05-04-08</td>
<td>05-04-08</td>
<td>Top</td>
<td>300</td>
<td>650</td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>2</td>
<td>VB01</td>
<td>Conc. Pt. (lbs)</td>
<td>L</td>
<td>05-04-08</td>
<td>05-04-08</td>
<td>Top</td>
<td>161</td>
<td>272</td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>3</td>
<td>VB01</td>
<td>Conc. Pt. (lbs)</td>
<td>L</td>
<td>05-04-08</td>
<td>05-04-08</td>
<td>Top</td>
<td>161</td>
<td>272</td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>4</td>
<td>ROOF</td>
<td>Unf. Area (lb/ft²)</td>
<td>L</td>
<td>00-00-00</td>
<td>10-10-00</td>
<td>Top</td>
<td>15</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td>01-00-00</td>
</tr>
<tr>
<td>5</td>
<td>ROOF</td>
<td>Trapezoidal (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td>Top</td>
<td>41</td>
<td>110</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>6</td>
<td>ROOF</td>
<td>Trapezoidal (lb/ft)</td>
<td>L</td>
<td>05-04-08</td>
<td>Top</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
</tbody>
</table>

Controls Summary

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
<th>% Allowable</th>
<th>Duration</th>
<th>Case</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pos. Moment</td>
<td>6225 ft-lbs</td>
<td>40.8%</td>
<td>115%</td>
<td>4</td>
<td>05-04-08</td>
</tr>
<tr>
<td>End Shear</td>
<td>1561 lbs</td>
<td>22.1%</td>
<td>115%</td>
<td>4</td>
<td>01-00-12</td>
</tr>
<tr>
<td>Total Load Deflection</td>
<td>L/531 (0.234&quot;)</td>
<td>33.9%</td>
<td>n/a</td>
<td>4</td>
<td>05-04-08</td>
</tr>
<tr>
<td>Live Load Deflection</td>
<td>L/804 (0.155&quot;)</td>
<td>29.8%</td>
<td>n/a</td>
<td>5</td>
<td>05-04-08</td>
</tr>
<tr>
<td>Max Defl.</td>
<td>0.234&quot;</td>
<td>23.4%</td>
<td>n/a</td>
<td>4</td>
<td>05-04-08</td>
</tr>
<tr>
<td>Span / Depth</td>
<td>13.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cautions

For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.
For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.
Notes
Design meets Code minimum (L/180) Total load deflection criteria.
Design meets Code minimum (L/240) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Minimum bearing length for B1 is 1-1/2".
Minimum bearing length for B2 is 1-1/2".
Design based on Dry Service Condition.
BC CALC® analysis is based on IBC 2018.
Calculations assume member is fully braced.

Connection Diagram: Full Length of Member

a minimum = 2"  c = 5-1/4"
b minimum = 2-1/2"  d = 24"

Calculated Side Load = 0.0 lb/ft
Bolts are assumed to be Grade A307 or Grade 2 or higher.
Connectors are: 1/2 in. Staggered Through Bolt
Reaction Summary (Down / Uplift) (lbs)

<table>
<thead>
<tr>
<th>Bearing</th>
<th>Live</th>
<th>Dead</th>
<th>Snow</th>
<th>Wind</th>
<th>Roof Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1, 3-1/2&quot;</td>
<td>2422 / 0</td>
<td>5210 / 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2, 3-1/2&quot;</td>
<td>2369 / 0</td>
<td>5123 / 0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Controls Summary

<table>
<thead>
<tr>
<th>Value</th>
<th>% Allowable</th>
<th>Duration</th>
<th>Case</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pos. Moment</td>
<td>23452 ft-lbs</td>
<td>70.8%</td>
<td>115%</td>
<td>4</td>
</tr>
<tr>
<td>End Shear</td>
<td>6800 lbs</td>
<td>52.7%</td>
<td>115%</td>
<td>4</td>
</tr>
<tr>
<td>Total Load Deflection</td>
<td>L/208 (0.923&quot;)</td>
<td>86.3%</td>
<td>n/a</td>
<td>4</td>
</tr>
<tr>
<td>Live Load Deflection</td>
<td>L/305 (0.632&quot;)</td>
<td>78.8%</td>
<td>n/a</td>
<td>5</td>
</tr>
<tr>
<td>Max Defl.</td>
<td>0.923&quot;</td>
<td>92.3%</td>
<td>n/a</td>
<td>4</td>
</tr>
</tbody>
</table>

Cautions

For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.

For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

Notes

Design meets Code minimum (L/180) Total load deflection criteria.
Design meets Code minimum (L/240) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Minimum bearing length for B1 is 1-15/16".
Minimum bearing length for B2 is 1-7/8".
Design based on Dry Service Condition.
BC CALC® analysis is based on IBC 2018.
Calculations assume member is fully braced.
BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,
Total Horizontal Product Length = 09-06-00

Reaction Summary (Down / Uplift) (lbs)

<table>
<thead>
<tr>
<th>Bearing</th>
<th>Live</th>
<th>Dead</th>
<th>Snow</th>
<th>Wind</th>
<th>Roof Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1, 3-1/2&quot;</td>
<td>922 / 0</td>
<td>2280 / 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2, 3-1/2&quot;</td>
<td>922 / 0</td>
<td>2280 / 0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Load Summary

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
<th>Load Type</th>
<th>Ref.</th>
<th>Start</th>
<th>End</th>
<th>Loc.</th>
<th>100%</th>
<th>90%</th>
<th>115%</th>
<th>160%</th>
<th>125%</th>
<th>Tributary</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Self-Weight</td>
<td>Unf. Lin. (lb/ft)</td>
<td>L</td>
<td>00-00-00</td>
<td>09-06-00</td>
<td>Top</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>00-00-00</td>
</tr>
<tr>
<td>1</td>
<td>ROOF</td>
<td>Unf. Area (lb/ft²)</td>
<td>L</td>
<td>00-00-00</td>
<td>09-06-00</td>
<td>Top</td>
<td>15</td>
<td>40</td>
<td></td>
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<td></td>
<td>12-00-00</td>
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</tbody>
</table>

Controls Summary

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
<th>% Allowable</th>
<th>Duration</th>
<th>Case</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pos. Moment</td>
<td>6888 ft-lbs</td>
<td>30.1%</td>
<td>115%</td>
<td>4</td>
<td>04-09-00</td>
</tr>
<tr>
<td>End Shear</td>
<td>2486 lbs</td>
<td>23.4%</td>
<td>115%</td>
<td>4</td>
<td>01-00-12</td>
</tr>
<tr>
<td>Total Load Deflection</td>
<td>L/700 (0.155&quot;)</td>
<td>25.7%</td>
<td>n/a</td>
<td>4</td>
<td>04-09-00</td>
</tr>
<tr>
<td>Live Load Deflection</td>
<td>L/999 (0.11&quot;)</td>
<td>n/a</td>
<td>n/a</td>
<td>5</td>
<td>04-09-00</td>
</tr>
<tr>
<td>Max Defl.</td>
<td>0.155&quot;</td>
<td>15.5%</td>
<td>n/a</td>
<td>4</td>
<td>04-09-00</td>
</tr>
<tr>
<td>Span / Depth</td>
<td>11.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cautions

For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.
For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

Notes

Design meets Code minimum (L/180) Total load deflection criteria.
Design meets Code minimum (L/240) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Minimum bearing length for B1 is 1-1/2".
Minimum bearing length for B2 is 1-1/2".
Design based on Dry Service Condition.
BC CALC® analysis is based on IBC 2018.
Calculations assume member is fully braced.
Connection Diagram: Full Length of Member

```
 a minimum = 2"   c = 5-1/4"
 b minimum = 2-1/2"  d = 24"
```

Calculated Side Load = 0.0 lb/ft
Bolts are assumed to be Grade A307 or Grade 2 or higher.
Connectors are: 1/2 in. Staggered Through Bolt
BC CALC® Member Report
Build 8381
Job name: Katie & Alfonso Residence
Address: 170 Mount Vernon Street
City, State, Zip: West Roxbury, MA, 02132
Customer: Derek Rubinoff
Code reports: NLGA

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

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