DRAWINGS SHOW CONCEPTUAL STRUCTURAL DESIGN

GENERAL NOTES:

1. STRUCTURAL DESIGN TO BE IN ACCORDANCE WITH PART 9 OF THE NATIONAL BUILDING CODE UNLESS OTHERWISE NOTED.
2. STRUCTURAL DESIGN REQUIRING DESIGN INPUT FROM A PROFESSIONAL ENGINEER TO BE IN ACCORDANCE WITH PART 4 OF THE NATIONAL BUILDING CODE.

WOOD

3. LUMBER: UNLESS SPECIFIED OTHERWISE, SOFTWOOD LUMBER, SPF NO. 1 AND NO. 2, S4S, SPF MOISTURE CONTENT 19% OR LESS, IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
   A. CAN/CSA-O141
   B. NLGA STANDARD GRADING RULES FOR CANADIAN LUMBER
4. FURRING, BLOCKING, NAILING STRIPS, GROUNDS, ROUGH BUCKS AND SLEEPERS:
   A. BOARD SIZES: "STANDARD" OR BETTER GRADE
   B. DIMENSION SIZES: "STANDARD" LIGHT FRAMING OR BETTER GRADE
   C. POST AND TIMBERS SIZE: "STANDARD" OR BETTER GRADE
5. PLYWOOD: DOUGLAS FIR PLYWOOD, T&G EXTERIOR SHEATHING GRADE, TO CSA O121 - DOUGLAS FIR PLYWOOD, THICKNESS AS SPECIFIED.
6. ALL SHEATHING TO BE A MINIMUM 19 mm (3/4") OSB, O-2 GRADE. THE GRAIN OF SUBFLOOR TO BE INSTALLED PERPENDICULAR TO THE FRAMING.
7. INSTALL BLOCKING BEHIND SHEATHING JOINTS TO MINIMIZE DEFLECTION.
8. ALL LOAD BEARING WOOD STUD WALLS TO BE A MINIMUM OF 38x140 mm (2x6) AT 400 mm (16") O/C UNLESS STATED OTHERWISE AND HAVE A MAXIMUM WALL HEIGHT OF 3.0 m.
9. ALL NON LOAD BEARING WOOD STUD WALLS TO BE A MINIMUM OF 38x89 mm (2x4) AT 400 mm (16") O/C UNLESS STATED OTHERWISE AND HAVE A MAXIMUM WALL HEIGHT OF 3.6 m.

FASTENERS

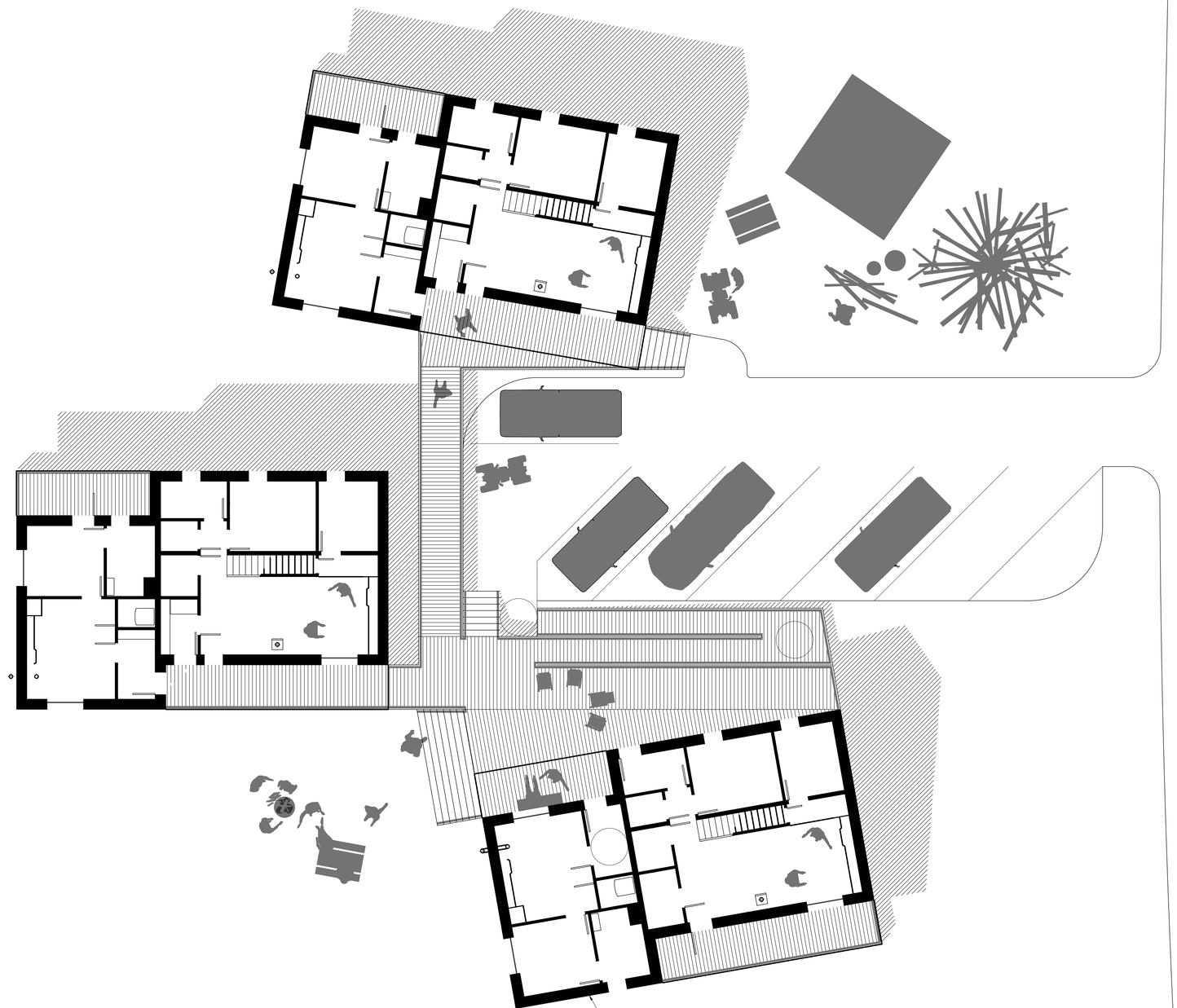
10. NAILS, SPIKES AND STAPLES SHALL CONFORM TO CSA B111.
11. WOOD SCREWS: STAINLESS STEEL ARE TO BE TYPE 304 OR 316.
12. DIAMETER OF NAILS SHALL BE AS FOLLOWS:
    12.1. MIN. LENGTH OF NAIL = 57 mm, MIN. DIAMETER OF NAIL = 2.87 mm
    12.2. MIN. LENGTH OF NAIL = 63 mm, MIN. DIAMETER OF NAIL = 3.25 mm
    12.3. MIN. LENGTH OF NAIL = 76 mm, MIN. DIAMETER OF NAIL = 3.66 mm
    12.4. MIN. LENGTH OF NAIL = 82 mm, MIN. DIAMETER OF NAIL = 3.66 mm
    12.5. MIN. LENGTH OF NAIL = 101 mm OR GREATER, MIN. DIAMETER OF NAIL = 4.88 mm

NAILING FOR FRAMING

CONSTRUCTION DETAIL	MIN. LENGTH OF NAILS (mm)	MIN. NUMBER OR MAX. SPACING OF NAILS
FLOOR JOIST OR BLOCKING PERPENDICULAR TO SILL PLATE OR TOP WALL PLATE BELOW - TOE NAIL	82	2 PER FLOOR JOIST OR BLOCKING
WOOD STRAPPING TO UNDERSIDE OF FLOOR JOIST	57	2
CROSS BRIDGING TO JOISTS	57	2 AT EACH END
FLOOR JOIST TO STUD	76	2
JOIST TO JOIST SPLICE	76	2 AT EACH END
STUD TO WALL PLATE (EACH END) TOE NAIL	63	4
DOUBLE STUDS AT OPENINGS, OR STUDS AT WALLS OR WALL INTERSECTIONS AND CORNERS	76	750 mm O/C
DOUBLE TOP WALL PLATES	76	600 mm O/C
BOTTOM WALL PLATE TO FLOOR JOISTS, RIM JOISTS, OR BLOCKING	82	400 mm O/C
INTERIOR WALLS TO FRAMING OR SUBFLOORING	82	600 mm O/C
LINTELS TO STUDS	82	2 AT EACH END
CEILING JOISTS TO PLATE - TOE NAIL EACH END	82	2
ROOF RAFTER, ROOF TRUSS, OR ROOF JOIST TO PLATE - TOE NAIL	82	3

SERVICE DESIGN LOADS

LOCATION (EXAMPLE, GIMLI, MB)		
SNOW LOAD (1:50)	Ss =	1.9 kPa
RAIN LOAD (1:50)	Sr =	0.2 kPa
WIND LOAD (1:50)	q =	0.40 kPa
SEISMIC LOAD	Sa(0.2) =	0.055
	Sa(0.5) =	0.032
	Sa(1.0) =	0.017
	Sa(2.0) =	0.0067
	PGA =	0.032



REMOVE ALL ORGANIC MATERIAL FROM BELOW THE FOOTPRINT OF THE BUILDING AND 2000 mm AROUND (A MIN. OF 300 mm DEEP). REPLACE WITH FREE-DRAINING, GRANULAR 'A' FILL ENSURING A POSITIVE SLOPE AWAY FROM BUILDING.

1 / S-00 SITE PLAN NOTES
1:100

NOTES

All dimensions in Metric

REV#	YYYY-MM-DD	DESCRIPTION
1	YYYY-MM-DD	SUBMISSION INFORMATION

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PROFESSIONAL SEALS

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PROJECT
TECHNICAL GUIDE FOR NORTHERN HOUSING

DRAWING
FORT SEVERN BUILDING STRUCTURAL AND SITE PLAN NOTES

DESIGN	DATE	SCALE
JAB	2020-03-31	As Shown
DRAWN: JAB	PROJECT NO.: 1901150.01	
CHECKED: MM	DRAWING NO: S-00	VERSION: 01
APPROVED: MM		

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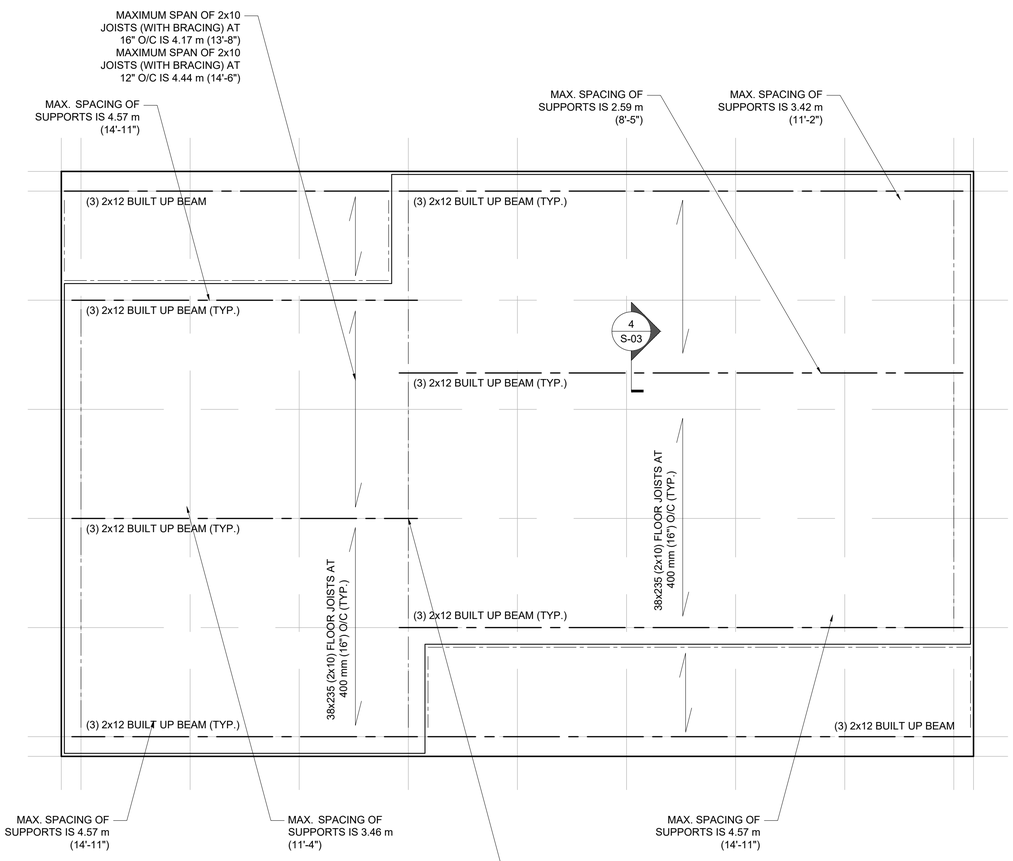
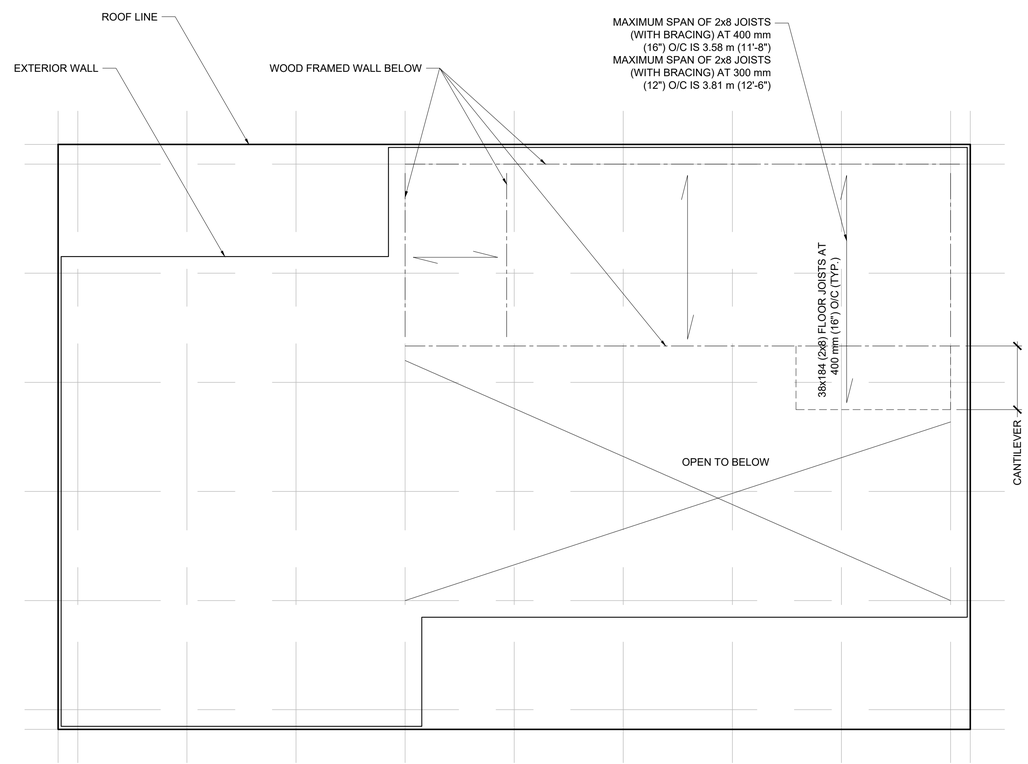


1 S-01 MAIN LEVEL
NTS



NOTES:
1. JOIST CANTILEVERS SHALL NOT BE MORE THAN 400 mm (16") BEYOND THEIR SUPPORTS WHERE 38x184 (2x8) JOISTS ARE USED AND MUST NOT BE MORE THAN 600 mm (24") BEYOND THEIR SUPPORTS WHERE 38x235 (2x10) JOISTS OR LARGER ARE USED.
2. JOIST CANTILEVERS BEYOND WHAT IS DESCRIBED ABOVE REQUIRE THE REVIEW AND DESIGN OF A PROFESSIONAL ENGINEER.

2 S-01 SECOND LEVEL
NTS

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DRAWING
FORT SEVERN BUILDING STRUCTURAL LAYOUT MAIN AND SECOND LEVEL

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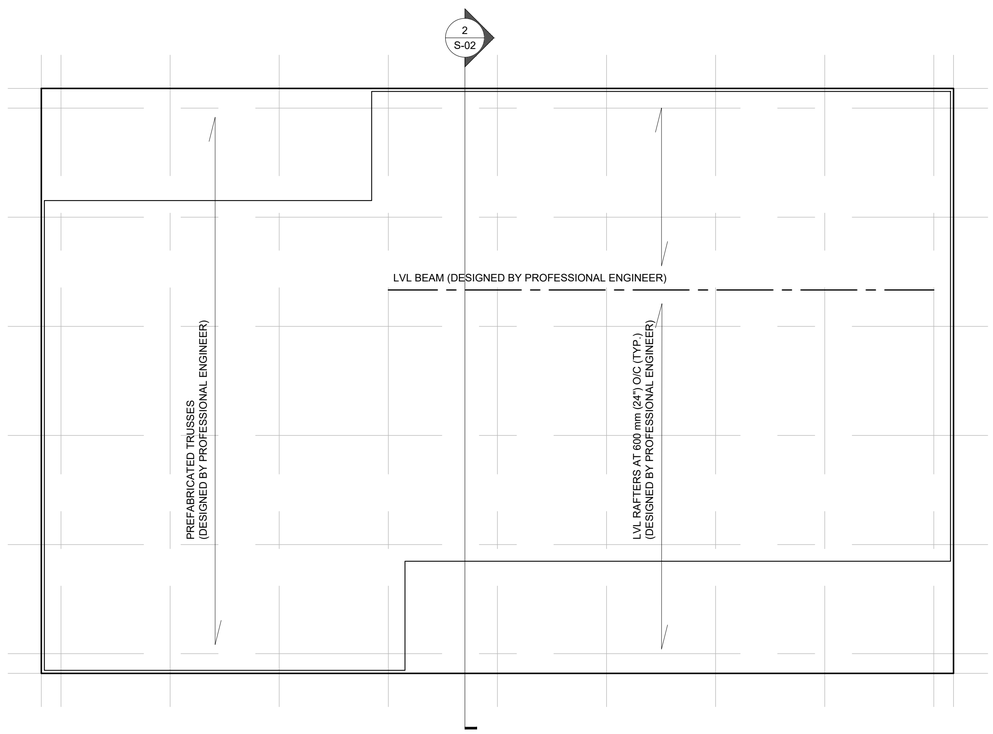
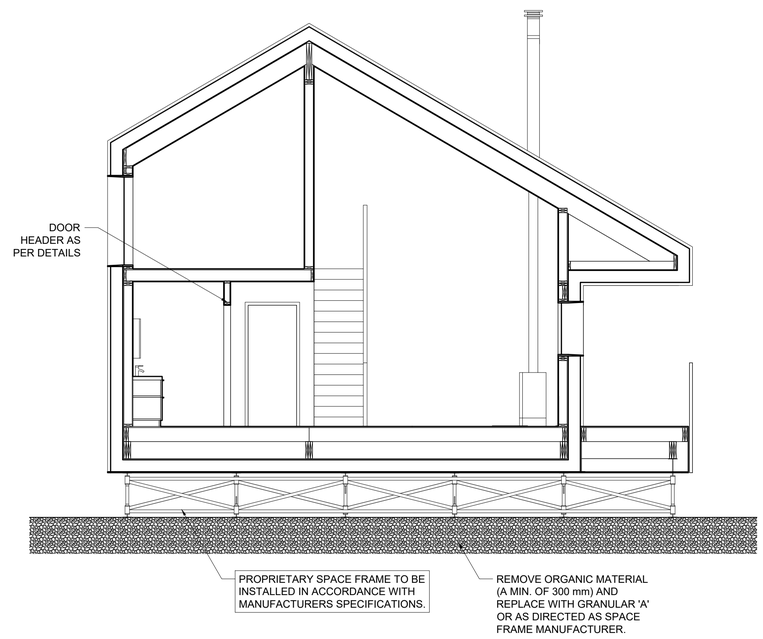


1 S-02 ROOF FRAMING
1:50



2 S-02 BUILDING SECTION
1:50

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TECHNICAL GUIDE FOR NORTHERN HOUSING

DRAWING
FORT SEVERN BUILDING STRUCTURAL ROOF LAYOUT AND BUILDING SECTION

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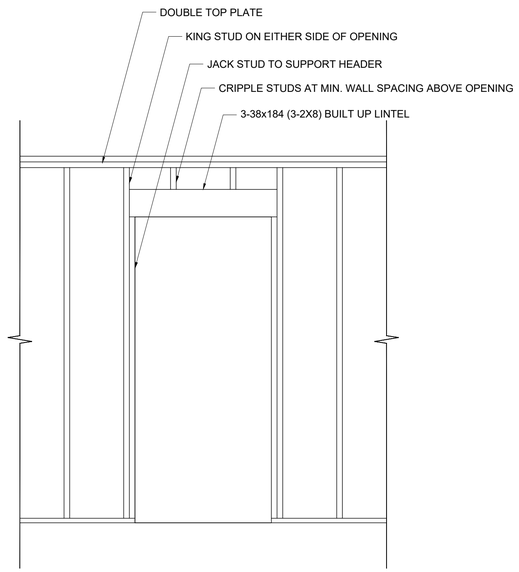
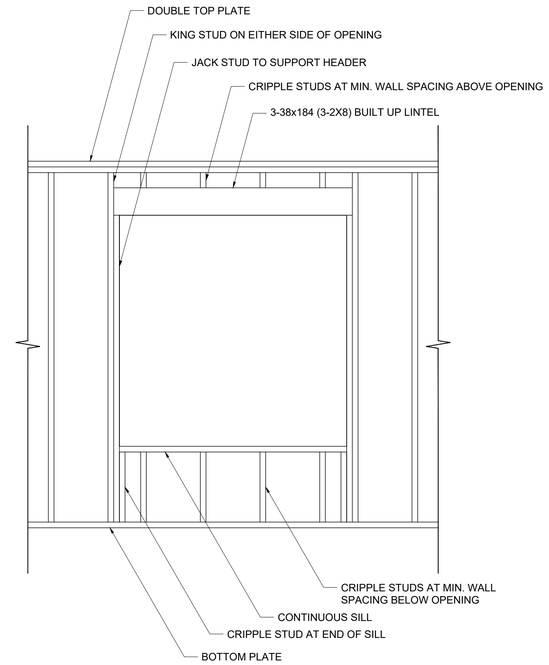
NOTES:
1. A 3 PLY 38x184 (2x8) BUILT UP LINTEL SHALL
   1.1. SPAN A MAXIMUM OF 1.82 m (6'-0").
   1.2. NOT SUPPORT JOISTS WITH A SPAN EXCEEDING 4.90 m (16'-0").
   1.3. NOT SUPPORT ROOF TRUSSES WITH A SPAN EXCEEDING 9.80 m (32'-0").

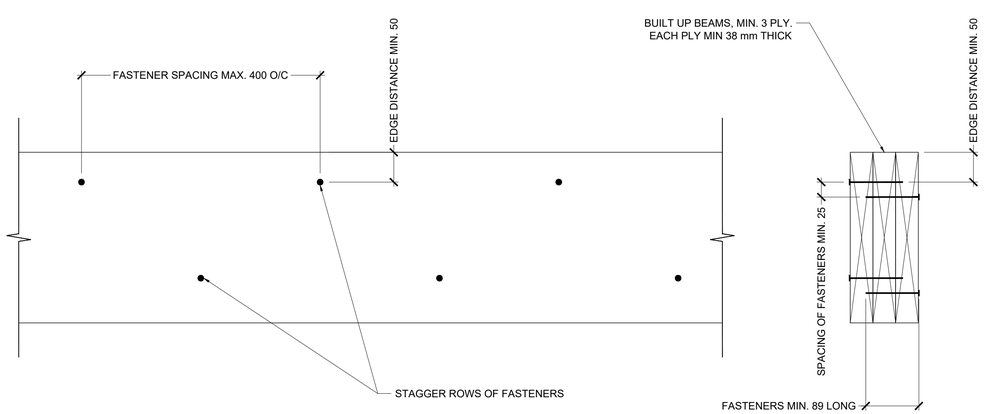


1 / S-03 DOOR FRAMING DETAIL
1:20

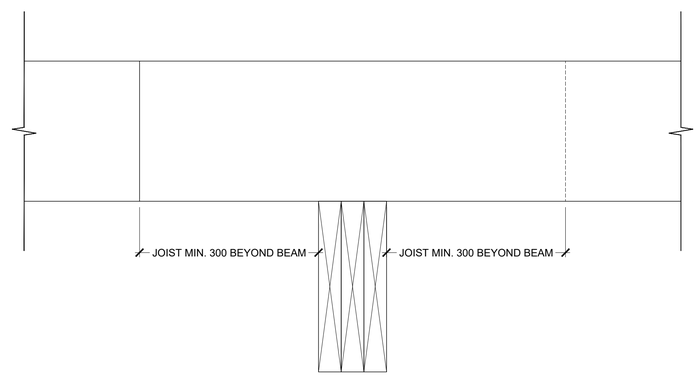
NOTES:
1. A 3 PLY 38x184 (2x8) BUILT UP LINTEL SHALL
   1.1. SPAN A MAXIMUM OF 1.82 m (6'-0").
   1.2. NOT SUPPORT JOISTS WITH A SPAN EXCEEDING 4.90 m (16'-0").
   1.3. NOT SUPPORT ROOF TRUSSES WITH A SPAN EXCEEDING 9.80 m (32'-0").



2 / S-03 WINDOW FRAMING DETAIL
1:20



3 / S-03 BUILT-UP BEAM DETAIL
1:5



4 / S-03 JOIST ON BEAM DETAIL
1:5

NOTES

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