

**WARNING:** The following drawing is published as guideline only to assist the building designer in the preparation of the building design drawings. The scope of application and adaptation of the drawing is under the responsibility of the building designer.

**LOADS**

**ITEM A.1**

**DEAD LOAD**

- ROOF & DECK = 17.0 psf
- MECH. & ELECTRICAL STRUCTURE = 2.0 psf
- JOISTS = 2.0 psf
- SUSPENDED CEILING = 1.0 psf
- TOTAL DEAD LOAD = 25.0 psf**

**LIVE LOAD**

- SNOW = 51.4 psf

**ITEM A.2**

GROSS UPLIFT = 20 psf  
DEAD LOAD FOR UPLIFT = 18 psf

**GROSS UPLIFT DIAGRAM**

|   |   |   |              |
|---|---|---|--------------|
| 3 | 1 | 3 | 1 = 27.0 psf |
|   | 2 |   | 2 = 22.0 psf |
| 3 |   | 3 | 3 = 30.0 psf |

Z = 10'-0"

**ITEM A.3**

**JOIST DESIGNER NOTES**

DESIGN ALL ROOF JOISTS FOR A MINIMUM UNFACTORED ADDITIONAL POINT LOAD (DEAD LOAD) OF 200 lb. APPLIED AT ANY TOP OR BOTTOM CHORD PANEL POINT.

**ITEM A.4**

55 psf  
25 psf  
12'-0"  
SPU1

JOIST 32" TYP.

MECHANICAL UNIT

**ITEM A.5**

MECHANICAL UNIT  
3,000 lb. MAX.  
DIMENSIONS  
13'-0" x 6'-0"

POINT LOAD (SPECIFIED)

|    |         |
|----|---------|
| P1 | 0.3 kip |
| P2 | 0.5 kip |
| P3 | 1.0 kip |

MECHANICAL UNIT

**ITEM A.6**

**FOR PRICING PURPOSES**

- 40 SPRINKLER JOISTS ONE 0.5 kip POINT LOAD AT 1ST PANEL POINT (IN 40'-0" SPAN).
- 20 SPRINKLER JOISTS WITH ADDITIONAL U.D.L. OF 50 plf (IN 35'-0" SPAN)

**JOIST DESIGNER NOTE**

SPRINKLER LINES TO BE HUNG FROM EVERY JOIST AT TOP CHORD PANEL POINTS ONLY U/N.

**ITEM A.7**

**BRICK LOAD**

ON JOIST = 0.5 kip/ft.  
△ MAX. = A/"XXX"

**ITEM A.8**

6"  
7" = 38 psf  
6"  
1" = 5.3 psf

JOIST 32" TYP.

PONDING LOAD

**ITEM A.9**

**CRANE LOADS**

- CAPACITY = 6.0 kips
- CRANE WEIGHT = 7.5 kips
- HOIST WEIGHT = 1.0 kip
- MAX. WHEEL LOAD (DYNAMIC) = 6.8 kips
- MIN. WHEELS SPACING = 6'-0"
- IMPACT FACTOR = 1.25

**FORCES**

**ITEM B.1**

Af = 20 kips  
Af = 40 kips  
Af = 20 kips

JOIST 32" TYP.

**ITEM B.2**

GRID  
A  
BEAM  
Af = X kips

GRID  
JOIST GIRDER  
Af = X kips

**ITEM B.3**

M<sub>w</sub> M<sub>LL</sub>\* M<sub>LL</sub>\* M<sub>w</sub>

SEE PLAN FOR JOIST LOCATION  
\* IF APPLICABLE

**ITEM B.4**

Af = X kips  
WIND COLUMN

Af = X kips  
WIND COLUMN

**DESIGN CRITERIA**

**ITEM C.1**

**LIVE LOAD DEFLECTION**

- ROOF JOISTS = L/240
- FLOOR JOISTS = L/360

**SPECIAL LIMITED DEFLECTION**

SEE INDICATIONS ON DRAWING BESIDE THE CORRESPONDING JOIST ("X" inches or L/"XXX")

**ITEM C.2**

**JOIST DESIGNER NOTE**

JOISTS IN HATCHED SECTORS INDICATED ON FLOOR PLAN MUST HAVE A MINIMUM INERTIA OF "X" inches<sup>4</sup>

**ITEM C.3**

ELEV. 100'-0"

JOIST 32" TYP.

ROOF INSULATION (BY OTHERS)

JOIST 32" TYP.

W12 x 14 W12 x 14 W12 x 14

JOIST 32" TYP.

JOIST GIRDER 36"

VARIABLE SEAT HEIGHTS

JOIST 40" @ 40" @ 40"  
JOIST 40" @ 39" @ 40"  
JOIST 40" @ 38" @ 40"  
JOIST 40" @ 38" @ 40"  
JOIST 40" @ 39" @ 40"  
JOIST 40" @ 40" @ 40"

**ITEM C.4**

4"  
4"  
JOIST 32" TYP.

W16' x 36

SPECIAL CAMBER  
"X" inches

W16' x 36

**ITEM C.5**

**FIRE RESISTANCE**

- FLOOR CONSTRUCTION TO COMPLY WITH ULC F818. DECK TO BE STAMPED TO COMPLY WITH ULC U18.19.
- ROOF CONSTRUCTION TO COMPLY WITH ULC R801.

**ITEM C.6**

MAXIMUM CLEAR OPENING

THICKNESS VARIES

FIRE PROTECTION

LOCATION MUST BE GREATER THAN

2.5 x H

4" MINIMUM

14" MINIMUM

**ITEM C.7**

**GENERAL NOTE**

THE MINIMAL THICKNESS OF TOP/BOTTOM CHORD ("X" inches) AND WEB MEMBERS ("Y" inches) MATERIAL MUST BE RESPECTED FOR WEATHER OR CORROSIVE EXPOSURE AND/OR GALVANIZATION PROCESS (IF APPLICABLE).

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