

SERVICEABILITY CONSIDERATIONS

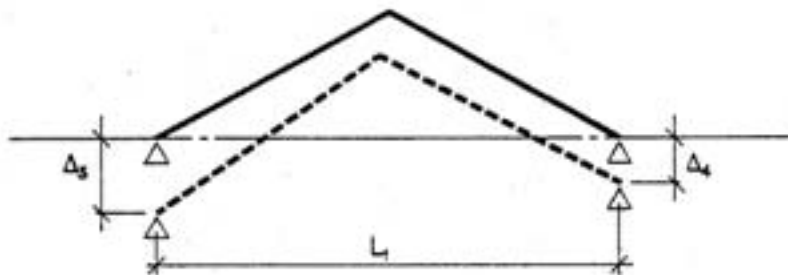
ROOFING

<i>ROOFING TYPE</i>	<i>STRUCTURAL ELEMENT</i>	<i>DEFORMATION</i>	<i>RECOMMEN- DATION</i>	<i>LOADING</i>
MEMBRANE ROOFS	ROOFING EXPAN- SION JOINTS	HORIZONTAL MOVEMENT	150' TO 200' MAXIMUM	THERMAL
	METAL DECK (TWO SPAN)	VERTICAL DEFLECTION	$L / 200$ MAXIMUM	300-LB LOAD
	METAL DECK	VERTICAL DEFLECTION	$L / 240$ MAXIMUM	LL
	METAL DECK	VERTICAL DEFLECTION	$L / 240$ MAXIMUM	200-LB LOAD
	METAL DECK	-	PER SDI TABLE	MAINTENANCE & CONSTRUCTION
	PURLINS	VERTICAL DEFLECTION	PURLIN DEPTH ? $(F_y/1000) \times \text{SPAN}$	-
	STEEL JOISTS	VERTICAL DEFLECTION	$L / 240$ MAXIMUM	LL
	JOIST GIRDERS	VERTICAL DEFLECTION	$L / 240$ MAXIMUM	LL
	ROOF DECKS	VERTICAL DEFLECTION.	$L / 240$ MAXIMUM	DL + DL
	ROOFS	SLOPE	1 / 4 IN. PER FOOT MINIMUM	DRAINAGE
METAL ROOFS THROUGH FASTENER TYPE	EXPANSION JOINTS	HORIZONTAL MOVEMENT	100' TO 200' MAXIMUM	THERMAL
	ROOF	SLOPE	1 / 2 IN. PER FOOT MINIMUM	DRAINAGE
	PURLIN	VERTICAL DEFLECTION	$L / 240$ MAXIMUM	SNOW LOAD
	PURLIN	VERTICAL DEFLECTION	POSITIVE DRAINAGE	$DL + 0.5 \times S$ DL + 5 PSF
METAL ROOFS STANDING SEAM	EXPANSION JOINTS	HORIZONTAL MOVEMENT	150' TO 200' MAXIMUM	THERMAL
	ROOF	SLOPE	1 / 4 IN. PER FOOT MINIMUM	DRAINAGE
	PURLIN	VERTICAL DEFLECTION	$L / 150$ MAXIMUM	SNOW LOAD
	PURLIN	VERTICAL DEFLECTION.	POSITIVE DRAINAGE	$DL + 0.5 \times S$ DL + 5 PSF

SERVICEABILITY CONSIDERATIONS

SKYLIGHT SUPPORTS

<i>DEFORMATION</i>	<i>RECOMMEN- DATION</i>	<i>LOADING</i>
SKYLIGHT FRAME RACKING	1 / 4 IN. GASKETED MULLIONS	<i>DL + LL</i>
SKYLIGHT FRAME RACKING	1 / 8 IN. FLUSH GLAZING	<i>DL + LL</i>
DEFLECTION NORMAL TO GLAZING	$L / 300 \leq 1 \text{ IN.}$ MAXIMUM	<i>DL + LL</i>
$\Delta_1 + \Delta_2$	$\pm 1 / 8 \text{ IN.}$ $\alpha \geq 25 \text{ DEGREES}$	<i>DL + LL</i>
$\Delta_1 + \Delta_2$	$\pm 5 / 16 \text{ IN.}$ $25 < \alpha < 45 \text{ DEG.}$	<i>DL + LL</i>
$\Delta_1 + \Delta_2$	$\pm 1 / 2 \text{ IN.}$ $\alpha \geq 45 \text{ DEGREES}$	<i>DL + LL</i>
$\Delta_3 - \Delta_4$	$L / 240 \leq 1 / 2 \text{ IN.}$ MAXIMUM	<i>DL + LL</i>



SERVICEABILITY CONSIDERATIONS

CLADDING

<i>CLADDING SUPPORT TYPE</i>	<i>STRUCTURAL ELEMENT</i>	<i>DEFORMATION</i>	<i>RECOMMEN- DATION</i>	<i>LOADING</i>
FOUNDATION	METAL PANELS / BARE FRAME	DRIFT PERPENDICULAR TO WALL	$H / 60$ TO $H / 100$ MAXIMUM	10 YEAR WIND
	METAL PANELS / GIRTS	HORIZONTAL DEFLECTION	$L / 120$ MAXIMUM	10 YEAR WIND
	METAL PANELS / WIND COLUMNS	HORIZONTAL DEFLECTION	$L / 120$ MAXIMUM	10 YEAR WIND
	PRECAST WALLS / BARE FRAME	DRIFT PERPENDICULAR TO WALL	$H / 100$ MAXIMUM	10 YEAR WIND
	UNRIENFORCED MASONRY WALLS / BARE FRAME	DRIFT PERPENDICULAR TO WALL	1 / 16 IN. CRACK BASE OF WALL	10 YEAR WIND
	RIENFORCED MASONRY WALLS / BARE FRAME	DRIFT PERPENDICULAR TO WALL	$H / 200$ MAXIMUM	10 YEAR WIND
	MASONRY WALLS / GIRTS	HORIZONTAL DEFLECTION	$L / 240 \leq 1.5$ IN. MAXIMUM	10 YEAR WIND
	MASONRY WALLS / WIND COLUMNS	HORIZONTAL DEFLECTION	$L / 240 \leq 1.5$ IN. MAXIMUM	10 YEAR WIND
	MASONRY WALLS / LINTEL	VERTICAL DEFLECTION	$L / 600 \leq 0.3$ IN. MAXIMUM	$DL + LL$
	MASONRY WALLS / LINTEL	ROTATION	≤ 1 DEGREE MAXIMUM	$DL + LL$
COLUMN	PRE-ASSEMBLED UNITS / COLUMNS	RELATIVE SHORTENING	1 / 4 IN. MAXIMUM	$0.5 \times LL$
	PRE-ASSEMBLED UNITS / BARE FRAME	RACKING	$H / 500$	10 YEAR WIND
SPANDREL	CURTAIN WALLS / BARE FRAME	RACKING	$H / 500$	10 YEAR WIND
	CURTAIN WALLS / SPANDRELS	VERTICAL DEFLECTION	3 / 8 IN. MAXIMUM	DL PRIOR TO CLADDING
	CURTAIN WALLS / SPANDRELS	VERTICAL DEFLECTION	$L / 480 \leq 5 / 8$ IN. MAXIMUM	TOTAL DL
	CURTAIN WALLS / SPANDRELS	VERTICAL DEFLECTION	$L / 360$ $\leq 1 / 4 - 1 / 2$ IN. MAXIMUM	$0.5 \times LL$
	CURTAIN WALLS / SPANDRELS	VERTICAL DEFLECTION	$L / 600 \leq 3 / 8$ IN. MAXIMUM	DL INCL. CLADDING WEIGHT

SERVICEABILITY CONSIDERATIONS

CEILINGS AND PARTITIONS

<i>FINISH TYPE</i>	<i>STRUCTURAL ELEMENT</i>	<i>DEFORMATION</i>	<i>RECOMMEN- DATION</i>	<i>LOADING</i>
PLASTERED CEILING	ROOF MEMBER	VERTICAL DEFLECTION	$L / 360$ MAXIMUM	$0.5 \times LL$ OR 50 YEAR SNOW
NON-PLASTERED CEILING	ROOF MEMBER	VERTICAL DEFLECTION	$L / 240$ MAXIMUM	$0.5 \times LL$ OR 50 YEAR SNOW
	FLOOR BEAM / GIRDER	VERTICAL DEFLECTION	$L / 360 \leq 1$ IN. MAXIMUM	DL
PARTITION	FRAME	HORIZONTAL MOVEMENT	$H / 500$ MAXIMUM	10 YEAR WIND
	ROOF MEMBER	VERTICAL DEFLECTION	$3 / 8$ IN. TO 1 IN. MAXIMUM	$0.5 \times LL$ OR 50 YEAR SNOW
	FLOOR BEAM / GIRDER	VERTICAL DEFLECTION	$L / 360 \leq 3 / 8$ IN. TO 1 IN., MAXIMUM	$0.5 \times LL$

SERVICEABILITY CONSIDERATIONS EQUIPMENT

<i>EQUIPMENT TYPE</i>	<i>STRUCTURAL ELEMENT</i>	<i>DEFORMATION</i>	<i>RECOMMEN- DATION</i>	<i>LOADING</i>
TOP RUNNING CRANES	RUNWAY SUPPORTS	TOTAL INWARD MOVEMENT	1 / 2 IN. MAXIMUM	LL OR 50 YEAR SNOW
	RUNWAY SUPPORTS	TOAL OUTWARD MOVEMENT	1 IN. MAXIMUM	SNOW
	RUNWAY BEAM	HORIZONTAL DEFLECTION	$L / 400$ MAXIMUM	CRANE LATERAL
	RUNWAY BEAM CMAA 'A', 'B' & 'C'	VERTICAL DEFLECTION	$L / 600$ MAXIMUM	CRANE LATERAL STATIC LOAD
	RUNWAY BEAM CMAA 'D'	VERTICAL DEFLECTION	$L / 800$ MAXIMUM	CRANE LATERAL STATIC LOAD
	RUNWAY BEAM CMAA 'E' & 'F'	VERTICAL DEFLECTION	$L / 1000$ MAXIMUM	CRANE LATERAL STATIC LOAD
TOP RUNNING CAB OPERATED	BARE FRAME	DRIFT AT RUNWAY ELEVATION	$H / 100 \leq 1$ -IN. MAXIMUM	CRANE LATERAL OR 10 YR. WIND
TOP RUNNING PENDANT OPERATED	BARE FRAME	DRIFT AT RUNWAY ELEVATION	$H / 240 \leq 1$ -IN. MAXIMUM	CRANE LATERAL OR 10 YR. WIND
UNDERHUNG CRANE	RUNWAY BEAM CMAA 'A', 'B' & 'C'	VERTICAL DEFLECTION	$L / 450$ MAXIMUM	CRANE VERTICAL
JIB CRANE	BOOM	VERTICAL DEFLECTION	$H / 225$ MAXIMUM	CRANE VERTICAL
ELEVATORS	BARE FRAME	DRIFT	$H / 500$ MAXIMUM	10 YEAR WIND
	MACHINE / SHEAVE BEAMS	VERTICAL DEFLECTION	$L / 1666$ MAXIMUM	$DL + LL$
	MACHINE / SHEAVE BEAMS SUPPORTS	VERTICAL DEFLECTION	$H / 1666$ MAXIMUM	$DL + LL$