## OLLMANN ERNEST MARTIN ARCHITECTS

509 South State Street Belvidere, Illinois 61008 815-544-7790 Phone 815-544-7792 Fax WAUKEZHA

Job No. 15-093
Sheet No. 1 of 4

By Date 3-17-2016

815-544-7792 Fax ADDITION PARAPET. Strase 16015 251# 6A. Stry 189 pur (7) 27psf +2. M= 251 (3,5) = 0,879 kg. 5980 = 9.35 N.C. 13' 108 M= 0.162 CF+ 5980 = 1,72 2×6 0k. 72 113 1 221 EA Sho. = 166 PLF Sepport Joist SPAN = 17' LOAD = 166 pur V= 1411 M = 5.99 KFF 5980= 63.8 USE (3) 2x/2's @ KICKER LINE

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Job Warkegus		Job No			
Sheet No	Z	of 4	h		
By		Date			

	CARASED PAPS	gper		
3' 81 pie	27 PSF	2	7(3)= 81 pu	
4			M= 81(1.5') =  22 +1 =5/	ff.
EXIST.			8thps@24"0 C. M= 8.244 kff.	
			S980 = 3	
1	81	27 p#	2×63 ok	
- 30 +	4' 15	PUF		
24°0, c. +24558	3			
22 7 /222		(z) (55) <u>;</u>	110 PG	
1222			toral COAD = 3960 # 9	
1980	36'	1980 19	5% max = 198# inch	LASE
5 7			127# too MUCH	
198	99 MAX PUF			
30" INCAGASE	- 2.5 '(27	psp) = 67.8	89 py ok.	
ok.	IVV-X /	-enuropy -	81 / 7	

#### **Ollmann Ernest Martin Architects**

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JOB TITLE	Waukesl	na Culvers

JOB NO.	2015-093	SHEET NO.3	14
CALCULATED BY		DATE	2/4/16
CHECKED BY		DATE .	

### Snow Loads: ASCE 7-05

Roof slope = 1.2 deg Horiz. eave to ridge dist (W) = 25.0 ft Roof length parallel to ridge (L) = 26.0 ft

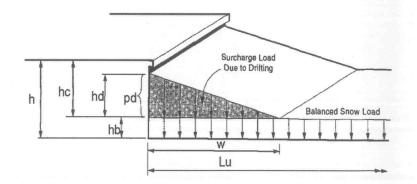
Type of Roof Ground Snow Load	Pq	=	Monoslope 30.0 psf
	ı g		
Occupancy Category		=	
Importance Factor	1	=	1.0
Thermal Factor	Ct	=	1.00
Exposure Factor	Ce	=	1.0
		¥	
Pf = 0.7*Ce*Ct*I*Pg		=	21.0 psf
Unobstructed Slippery Surface	e		yes
,			
Sloped-roof Factor	Cs	=	1.00
Balanced Snow Load	Ps	=	21.0 psf
Rain on Snow Surcharge And	rle		0.50 deg
Code Maximum Rain Surchai			5.0 psf
	igo		
Rain on Snow Surcharge		=	0.0 psf
Ps plus rain surcharge		=	21.0 psf
Minimum Snow Load	Pfmin	=	20.0 psf
Uniform Roof Design Snow	Load	=	21.0 psf

Nominal Snow Forces

NOTE: Alternate spans of continuous beams and other areas shall be loaded with half the design roof snow load so as to produce the greatest possible effect - see code.

#### Windward Snow Drifts 1 - Against walls, parapets, etc more than 15' long

Upwind fetch lu = 115.0 ft Projection height h = 4.0 ft g = Snow density 17.9 pcf Balanced snow height hb =1.17 ft hd = 2.82 ft hc = 2.83 ft hc/hb > 0.2 = 2.4Therefore, design for drift Drift height (hd) 2.82 ft Drift width 11.28 ft w = Surcharge load: pd = y\*hd =50.5 psf Balanced Snow load: 21.0 psf 71.5 psf



#### Windward Snow Drifts 2 - Against walls, parapets, etc > 15'

Surcharge load:

Upwind fetch lu = 115.0 ft Projection height h = 7.0 ft g = Snow density 17.9 pcf Balanced snow height hb = 1.17 ft hd = 2.82 ft hc = 5.83 ft hc/hb > 0.2 = 5.0Therefore, design for drift Drift height (hd) 2.82 ft Drift width w = 11.28 ft

pd = y\*hd =

50.5 psf

#### **Ollmann Ernest Martin Architects**

509 South State St Belvidere, Illinois 61008 Ph 815-544-7790 Fax 815-544-7792

#### JOB TITLE Waukesha Culvers

JOB NO. 2015-093 SHEET NO. 4/4

CALCULATED BY DATE 2/4/16

CHECKED BY DATE .

## Snow Loads: ASCE 7-05

Roof slope = 1.2 deg Horiz. eave to ridge dist (W) = 25.0 ft Roof length parallel to ridge (L) = 26.0 ft

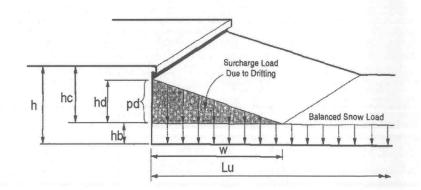
Type of Roof Ground Snow Load Occupancy Category Importance Factor Thermal Factor Exposure Factor	Pg I Ct Ce	=	Monoslope 30.0 psf II 1.0 1.00
Pf = 0.7*Ce*Ct*I*Pg Unobstructed Slippery Surface	Э	=	21.0 psf yes
Sloped-roof Factor Balanced Snow Load	Cs <b>Ps</b>		1.00 <b>21.0 psf</b>
Rain on Snow Surcharge Angl Code Maximum Rain Surcharg			0.50 deg 5.0 psf
Rain on Snow Surcharge Ps plus rain surcharge Minimum Snow Load F	Pfmin	= = =	0.0 psf 21.0 psf 20.0 psf
Uniform Roof Design Snow I	oad	=	21.0 psf

Nominal Snow Forces

NOTE: Alternate spans of continuous beams and other areas shall be loaded with half the design roof snow load so as to produce the greatest possible effect - see code.

### Windward Snow Drifts 1 - Against walls, parapets, etc more than 15' long

Upwind fetch	lu	=	42.0 ft
Projection height	h	=	4.0 ft
Snow density	g	=	17.9 pcf
Balanced snow height	hb	=	1.17 ft
	hd	=	1.69 ft
	hc	=	2.83 ft
hc/hb > 0.2 = 2.4	Therefor	e,	design for drift
Drift height (hd)		=	1.69 ft
Drift width	W	=	6.78 ft
Surcharge load:	$pd = \gamma^*hd$	=	30.3 psf
Balanced Snow load:		=	21.0 psf
			51.3 psf
10 5 10 6 1			1 1 1 1 1 1 1 1



Windward Snow Drifts 2 - Against walls	par	apets,	etc > 15'
Upwind fetch	lu	=	42.0 ft
Projection height	h	=	7.0 ft
Snow density	g	=	17.9 pcf
Balanced snow height	hb	=	1.17 ft
	hd	=	1.69 ft
	hc	=	5.83 ft
	-		

hc/hb > 0.2 = 5.0	Therefore, de	esign for drift
Drift height (hd)	- = 1	1.69 ft
Drift width	w =	6.78 ft
Surcharge load:	pd = v*hd =	30.3 psf