



City of Chicago



Or2014-6

Office of the City Clerk

Document Tracking Sheet

Meeting Date:	1/15/2014
Sponsor(s):	Waguespack (32)
Type:	Order
Title:	Issuance of permits for sign(s)/signboard(s) at 1030 W North Ave - North Ave elevation
Committee(s) Assignment:	Committee on Zoning, Landmarks and Building Standards

Committee on Buildings

(signs)

ORDERED, That the Commissioner of Buildings is hereby directed to
issue a sign permit to: (Contractor's name and address)

Landmark Sign Group
7424 Industrial Ave.
Chesterton, IN 46304

for the erection of a sign/signboard over 24 feet in height and/or over
100 square feet (in area of one face) at: (Business NAME & ADDRESS)

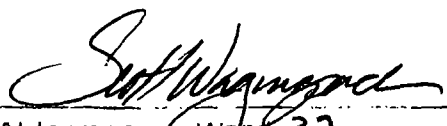
Life Storage - Permit # 100520212 (North Ave.)
1030 W. North Ave.
Chicago IL 60642

Dimensions: length 10' height 22'

height above grade/roof to top of sign 40

TOTAL SQUARE FOOT AREA 220

Such sign(s) shall comply with all applicable provisions of TITLE
17 of the Chicago Zoning Ordinance and all other applicable provisions
of the Municipal Code of the City of Chicago governing the construction
and maintenance of outdoor signs, signboards and structures.


Alderman, Ward 32
Waguespack

12255 West 187th Street
Mokena, Illinois 60448
(708) 479-8385

File : LandmrkSgn039c.mcd

Site : Life Storage
1030 West North Avenue
Chicago, Illinois

Sign Type : 22'-0" x 10'-0" two piece single face sign for installation on 18" thick brick wall using thru bolts and back-up plates. The upper ID section is 10'-0" x 10" x 12" deep with a 12'-0" x 10'-0" lower multi tenant section that is 8" deep.
Drawing No. 1311126 rev. A

Design Wind Load : (PSF) $WL := 30.0$ Based on the Chicago Building Code 16 (13-52-310) (f) 1a.

Design Snow Load : (PSF) $SL := 25.0$ Based on the Chicago Building Code 16 (13-52-280) (a) for flat roofs.

Reference : Manual of Steel Construction, AISC 13th Edition.

Mounting Bolts : ASTM A-307 $F_u = 60.0 \text{ ksi.}$; $F_t = 20.00 \text{ ksi.}$; $F_v = 10.00 \text{ ksi.}$

Design Loads for the Upper ID Section :

Dead Load :

Based on 4.5 lbs. per Square Foot : $\text{ShrUpDL} := (10.0 \cdot 10.0) \cdot 4.5$ $\text{ShrUpDL} = 450 \text{ lbs.}$

Wind Load :

Suction : $\text{ShrUpWL} := (10.0 \cdot 10.0) \cdot WL$ $\text{ShrUpWL} = 3000 \text{ lbs.}$

Snow Load :

All Exposed Surfaces : $\text{ShrUpSL} := \left[10.0 \cdot \left(\frac{12.0}{12} \right) \right] \cdot SL$ $\text{ShrUpSL} = 250 \text{ lbs.}$

Combined Shear :

Summation : (lbs.) $\text{ShrUpSgn} := \sqrt{(\text{ShrUpDL} + \text{ShrUpWL})^2 + (\text{ShrUpSL} + \text{ShrUpWL})^2}$
 $\text{ShrUpSgn} = 4739.726$

Design of Mounting Bolts for the Upper ID Section :

Mounting Bolt Diameter : (in.) $\text{MntBltDia} := 0.75$

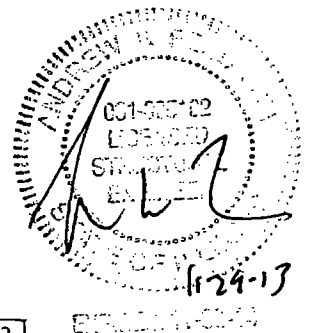
Stress Area : (in.²) $\text{MntBltArea} := \frac{\pi \cdot \text{MntBltDia}^2}{4}$ $\text{MntBltArea} = 0.442$
(Based on nominal diameter per AISC 4-3)

Allowable Tension : (lbs.) $\text{AllwTen} := 20000 \cdot \text{MntBltArea}$ $\text{AllwTen} = 8836$

Allowable Shear : (lbs.) $\text{AllwShr} := 10000 \cdot \text{MntBltArea}$ $\text{AllwShr} = 4418$

Number of Mounting Bolts : $\text{NoBlts} := 8$

Shear per Mounting Bolt : (lbs.) $\text{ShrMntBlt} := \frac{\text{ShrUpSgn}}{\text{NoBlts}}$ $\text{ShrMntBlt} = 592.466$



$$\text{Tension Load per Mounting Bolt : (lbs.)} \quad \text{TenMntBlt} := \frac{\text{ShrUprWL}}{\text{NoBlts}} \quad \text{TenMntBlt} = 375$$

$$\text{Unity Check :} \quad \text{UCMntBlt} := \frac{\text{ShrMntBlt}}{\text{AllwShr}} + \frac{\text{TenMntBlt}}{\text{AllwTen}} \quad \text{UCMntBlt} = 0.177 < 1.00 \quad \text{OK}$$

Mounting Bolts

Note : Use 3/4" diameter ASTM A-307 all thread rod, nuts and washers with 1/4" thick x 4" x 4" steel plate washers on the inside of the building.

Design Loads for the Lower Tenant Section :

Dead Load :

$$\text{Based on 4.5 lbs. per Square Foot :} \quad \text{ShrLwrDL} := (12.0 \cdot 10.0) \cdot 4.5 \quad \text{ShrLwrDL} = 540 \quad \text{lbs.}$$

Wind Load :

$$\text{Suction :} \quad \text{ShrLwrWL} := (12.0 \cdot 10.0) \cdot \text{WL} \quad \text{ShrLwrWL} = 3600 \quad \text{lbs.}$$

Combined Shear :

$$\text{Summation : (lbs.)} \quad \text{ShrLwrSgn} := \sqrt{(\text{ShrLwrDL} + \text{ShrLwrWL})^2 + (\text{ShrLwrWL})^2}$$

$$\text{ShrLwrSgn} = 5486.31$$

Design of Mounting Bolts for the Lower Tenant Section :

$$\text{Mounting Bolt Diameter : (in.)} \quad \text{MntBltDia} := 0.75$$

$$\text{Stress Area : (in.}^2\text{)} \quad \text{MntBltArea} := \frac{\pi \cdot \text{MntBltDia}^2}{4} \quad \text{MntBltArea} = 0.442$$

(Based on nominal diameter per AISC 4-3)

$$\text{Allowable Tension : (lbs.)} \quad \text{AllwTen} := 20000 \cdot \text{MntBltArea} \quad \text{AllwTen} = 8836$$

$$\text{Allowable Shear : (lbs.)} \quad \text{AllwShr} := 10000 \cdot \text{MntBltArea} \quad \text{AllwShr} = 4418$$

$$\text{Number of Mounting Bolts :} \quad \text{NoBlts} := 12$$

$$\text{Shear per Mounting Bolt : (lbs.)} \quad \text{ShrMntBlt} := \frac{\text{ShrLwrSgn}}{\text{NoBlts}} \quad \text{ShrMntBlt} = 457.193$$

$$\text{Tension Load per Mounting Bolt : (lbs.)} \quad \text{TenMntBlt} := \frac{\text{ShrLwrWL}}{\text{NoBlts}} \quad \text{TenMntBlt} = 300$$

$$\text{Unity Check :} \quad \text{UCMntBlt} := \frac{\text{ShrMntBlt}}{\text{AllwShr}} + \frac{\text{TenMntBlt}}{\text{AllwTen}} \quad \text{UCMntBlt} = 0.137 < 1.00 \quad \text{OK}$$

Mounting Bolts

Note : Use 3/4" diameter ASTM A-307 all thread rod, nuts and washers with 1/4" thick x 4" x 4" steel plate washers on the inside of the building.

Copy for Alderman



CITY OF CHICAGO

DEPARTMENT OF BUILDINGS

Sign Permit Application

APPROVAL NUMBER	APPLICATION NUMBER 100520212	ANNUAL FEE	WORK CODE	DRAWINGS ATTACHED <input type="checkbox"/> YES <input type="checkbox"/> NO					
DATE OF APPLICATION 12/05/2013			TYPE OF SIGN FLAT OR BOX						
ADDRESS OF SIGN 1030 W NORTH AVE, 60642-			LENGTH	FT. 10	IN. 0	HEIGHT	FT. 22	IN. 0	
BUILDING	ORIGINAL PERMIT NUMBER		AREA	SQ. FT. 220	WEIGHT		LBS. 1,000		
TYPE OF PERMIT NEW CONSTRUCTION (SIGN)			SIGN HEIGHT ABOVE GRADE/ROOF			FT. 40			
PAYER OF ANNUAL INSPECTION LIFESTORAGE, . 1030 W NORTH AVE CHICAGO, IL 60642 (312)397-0001			SHAPE OF SIGN REGULAR						
SIGN MANUFACTURER LANDMARK SIGN			SIGN WILL READ LIFESTORAGE & THREE TENANT PANELS						
ADDRESS WHERE SIGN CAN BE SEEN PRIOR TO ERECTION			NO. OF LAMPS 20			TOTAL WATTAGE 1200			
TICKET NUMBER 0			TYPE OF LAMP FLUORESCENT			NO. OF BALLAST/TRANSFORMERS 3			INPUT OF TRANSFORMERS 120
TYPE OF SUPPORT FOR SIGN BUILDING			CONTRACTOR WILL INSTALL			<input checked="" type="checkbox"/> FEEDERS <input checked="" type="checkbox"/> CUSTOMER LEADS			
SIGN BOARD SUPPORT MEMBERS STEEL			TYPE OF SWITCH SPECIAL						
ANNUAL FEE			LOCATION OF SWITCH OUTSIDE SIGN						
CONSTRUCTION FEE 700.00			SIGN LOCATION NORTH AVE. ELEVATION: ILLUMINATED WALL SIGN - "LIFESTORAGE" & (3) TENANT PANELS.						
1017 B FEE									
TOTAL FEE 700.00									
AMOUNT PAID 200.00									
BALANCE DUE \$ 500.00									

The undersigned certify that the statements in this application are true and correct and that all work done under the proposed permit will conform to the requirements of the Chicago Municipal Code

REG. NO.	E94065	BOND. NO.	REG. NO.	N90730
ELECT CONTR VIP TECH ELECTRIC, INC.	ELECTR	SIGN ERECTOR LANDMARK OUTD'R ADVERTIS'	SIGNER	
ADDRESS 10225 W. PACIFIC FRANKLIN PARK, IL 60131-		ADDRESS 7424 INDUSTRIAL AVE CHESTERTON XXX IN, 46304		
SUPERVISOR SIGNATURE		SIGNATURE		

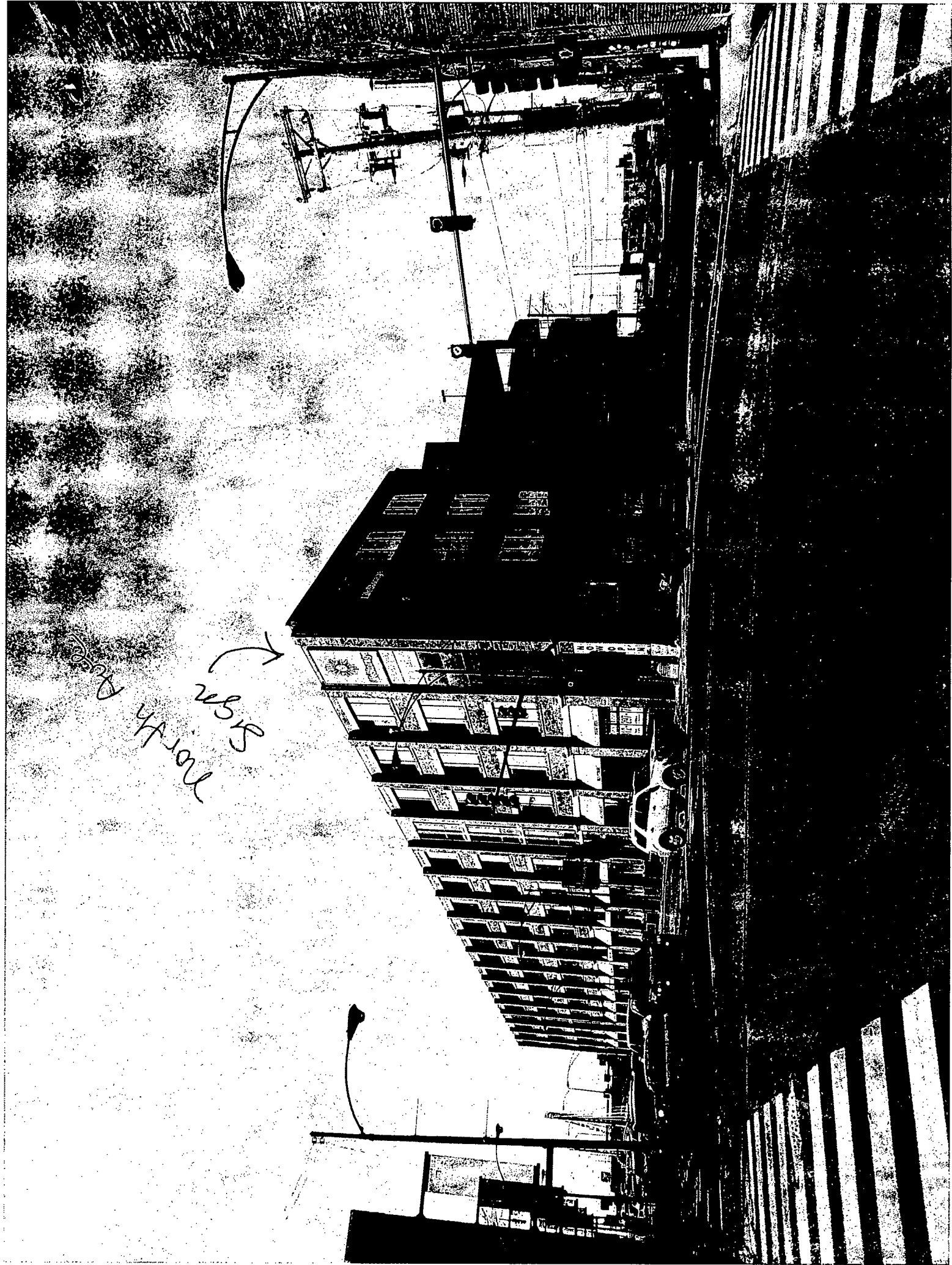
The permit issued on this application will authorize only signs here applied for. If other signs are to be erected they must be covered by additional permits

City of Chicago
Rahm Emanuel, Mayor

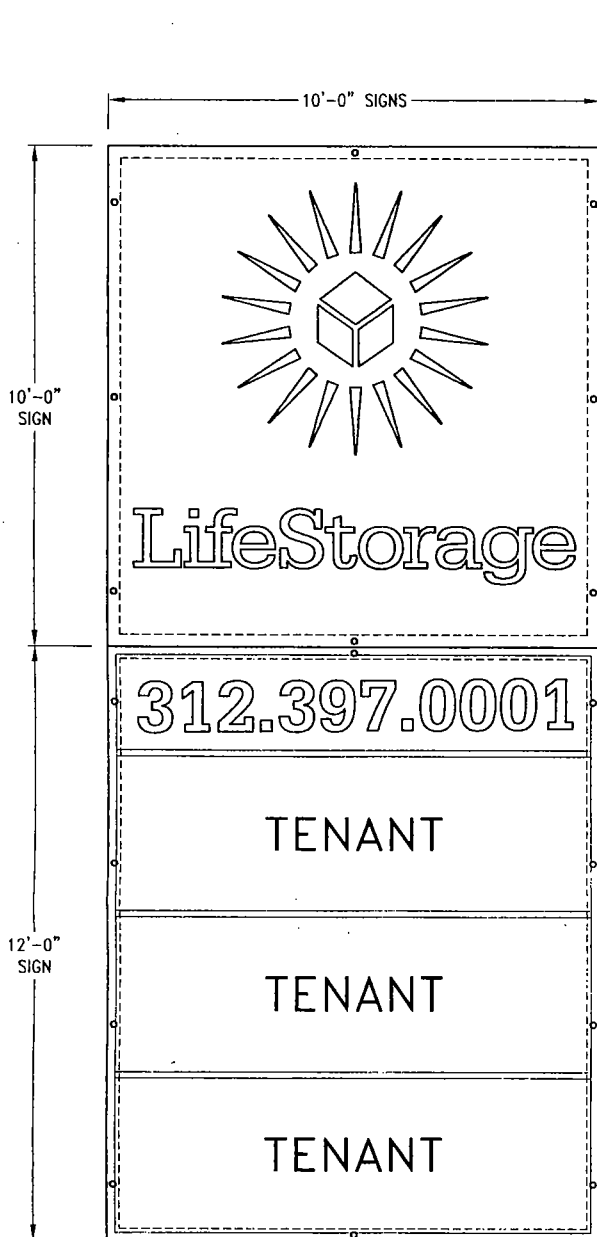


Department of Buildings
Michael Merchant, Commissioner

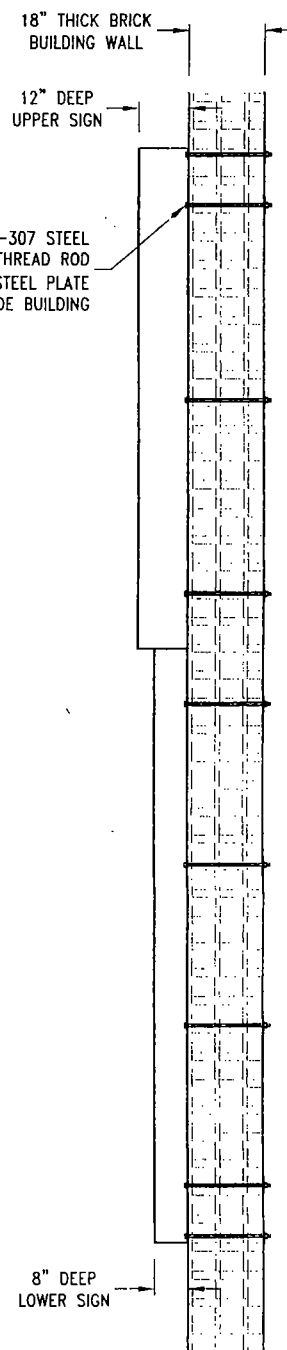
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North Ave
2815
→



ELEVATION VIEW



SIDE VIEW

DESIGN WIND LOAD: 30.0 PSF
Based on the Chicago Building Code
16 (13-52-310) (f) 1a.

DESIGN SNOW LOAD: 25.0 PSF
Based on the Chicago Building Code
16 (13-52-280) (a) for flat roofs.

NOTE:
All electrical to be in accordance
with U.L., the NEC and local code.

SITE:
Life Storage
1030 West North Avenue
Chicago, Illinois

A	26 Nov 13	RELEASED FOR PERMITTING	J. HOGAN
REV	DATE	DESCRIPTION	APPROVED
Robert-James & Associates, Inc. 12255 West 187th Street, Mokena Illinois 60448-9737 phone: 708-479-8385 fax: 708-479-8395 email: rja37@comcast.net			
TITLE 22'-0" x 10'-0" SINGLE FACE SIGN MOUNTED TO BUILDING WALL			
DRAWN BY	D. MUNNS	DATE 26 Nov 13	SCALE NONE
CHECKED BY	J. HOGAN	DATE 26 Nov 13	1311125
		SHEET 1 OF 2	REV. A