Office of the City Clerk

City Hall
121 N. LaSalle St.
Room 107
Chicago, IL 60602
www.chicityclerk.com

Legislation Details (With Text)

File #:	Or2017-567				
Type:	Order	**Status:**		Passed	
File created:	11/8/2017	**In control:**		City Council	
		Final action:		11/21/2017	
Title:	Issuance of permits for sign(s)/signboard(s) at 7601 S Cicero Ave - 870 sq. ft.				
Sponsors:	Curtis, Derrick G.				
Indexes:	SIGNS/SIGNBOARDS				
Attachments:	1. Or2017-567.pdf				

Date	Ver.	Action By	Action	Result
11/21/2017	1	City Council	Passed	Pass
11/14/2017	1	Committee on Zoning, Landmarks and Building Standards		
11/8/2017	1	City Council	Referred	

CITY COUNCIL
COMMITTEE ON ZONING, LANDMARKS AND BUILDING STANDARDS

COUNCIL ORDER

RE: Approval of sign over 100 square feet in area or over 24 feet above grade

ORDERED, that the City Council hereby approves the following sign application submitted by:

Applicant*: pOtf*   t^CUU ~ PffcA,^ U(T DVl
(* The Applicant is the owner of tne real property or the business tenant of the real property. Do not list the sign contractor, sign erector, sign company or advertising entity in the above space.)

This Order approves the following sign in accordance with Municipal Code of Chicago Section 13-20-680:

Address of Sign: ~7(f?Ol   I5.   C\Cf^YO   (oVf^^d-   Chicago, IL 606

Zoning District:

DOB Sign Permit Application #:

Sign Details: \y
1. On-premise   /*   OR Off-premise

2. Static sign   OR   Dynamic-image display sign

3. Number of sign faces ^

4. Projecting over the public way   hJ (Yes or No)   If yes. Public Way Use #:

5. Dimensions: Length?)^) feet Lo inches   Height   feet inches

Total square feet in area^l^. feet   inches   SJlQ CkjJrOJiJKSiCi

6. Height above grade: ~"7 feet   inches

7. *Elevation (side of building or lot where the sign will be erected): CDmCr   'JM"ᴷᵒ4 CI CC TO*

8. Name of Sign Contractor/Erector: Aril   (k.rjhf   &LPjY\ Inc

To be legal, such sign shall comply with all provisions of Title 17 of the Chicago Municipal Code ("Zoning Ordinance") and all other provisions of the Municipal Code governing the permitting, construction and maintenance and removal of signs and sign structures. Failure of the applicant and the applicant's sijeeassors to comply shall be grounds for invalidation or revocation of the sign permit.

/Zth

Alderman Ward

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LT
13"

4<'-10" EXISTING SLA3

6'-3"
~C '0 C   C TO C |

12'-6"
EXISTING SLAB
9'-D"
EXISTING SLAB

»3'-0"
CONCRETE "
»3'-0' CONCRETE

PLAN VIEW

Qn. CONCRETE: 2.3 CU. TOS.

PLAN VIEW

QTY. CONCRETE: 2.0 CU. YDS. EACH
ELEVATION VIEW

FOUNDATION NOTE'S:
1. Concrete shall have a minimum compressive strength of 3,000 PSI at 28 days.
2. Caisson footing designed using a soil bearing force of 250 PSF per foot Lateral.

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

SITE:
Ford Cify Mall
7601 South Cicero Avenue
Chicago, Illinois 60652

A   08 Uay 17   RELEASED FOR PERMITTING   J.
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KV   txsatrnoN

Robert-James & Associates, Inc.

12255 West 187th Street. Mokena Illinois 60448-9737 piione: 708-479-83B5 (ax: 708-479-8395 emoil: rjn379comcasl.net <http://rjn379comcasl.net>

FOUR 31'-6" OAH DIRECT BURY POLES FOR REPLACEMENT ID & TENANT SIGNS

DRAWING NUMBER

1705040

SHEET
1 OF 1

5-05-17   **ROBERT-JAMES & ASSOCIATES, Inc.**   **Sht 1 of 5**

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

File: QuantumSgn&FabQ12a.mcd

Site: Ford City Mall
  7601 South Cicero Avenue Chicago, Illinois
  60652

Project: Design of direct bury pole structures and caisson footings for replacement signage and base trim. Caisson footings will be set placed in cored holes thru existing l'-2" thick slab footing where top of slab is 3-0" below grade. This will be done for both the South and North elevation sign pylons. Drawing No. 1705040 rev. A

Design Wind Load : (PSF) WL := 30.0 Based on the Chicago BuildingCode 16 (13-52-310)(f) la.

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

Tube: ASTMA-500 Gr. B Fy = 46.0ksi.; Fb = 30.36 ksi.; Fv = 18.40ksi.

Reference : American Concrete Institute, Code 318.10 Rebar. ASTMA-615

Qade60 Fy =60.0 ksi. Concrete : 3,000 psi. compressive strength at 28 days.

  Design Loads at Top of Footing, for the 16'-0" x 25'-0" Sign Section : (3*-0" Below Grade.)

Signage:
+ 10.0
 SgnTrm := (17.0-25.67-WL>
Base = 38793.3 ft.Ibs.
+ 3.0

(Including 1 -0" of base trim and 8" of side trim.)

      '7.0
Base : Base := (7.0-28.42-WL)-

Moment: (ft.Ibs.) MtTOF := SgnTrm + Base MtTOF = 280989.75

Shear: (lbs.) ShrTOF := (17.0-25.67'WL) + (7.0-28.42-WL) ShrTOF = 19059.9

$\sqrt{}$\x»»·,¡""/∕

MtPoIeTOF = 93663.25

  Design of Pole Structures at Top of Footing for the 16'-0" x25'-0" Sign Section Section Modulus of Tube : (in.*) HSS 10" x 10" x 3/8"

wall - TubeSM := 40.4

         MtTOF
Moment per Pole: (ft.Ibs.) MtPoIeTOF :=

o j o / ■x c MtPoIeTOF-12 ,,
Bending Stress : (psi.) fi, :=   fi, = 27820.767
        TubeSM

ShrPoleTOF = 6353.3

Area of Tube : (in.2) HSS 10" x 10" x 3/8" wall - TubeArea := 13.2

$$\frac{ShrTOF}{}$$

Shear per Pole: (lbs.) ShrPoleTOF:

Shear Stress : (psi.) $f_v :=$

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Unity Check - Poles : UCPoles :

Design of Caisson Footings : Overturning Moment: (ft.Ibs.) Shear: (lbs.)

Applied Lateral Force ■ (lbs.)

Allowable Lateral Soil Pressure: (lbs.'ft.² per ft.)

Diameter of Round Footing: (ft.)

Distance in Feet From Ground Surface to Point of Application of "P"

Depth of Footing Below the Top of the Existing Slab : (ft.) (3'-0" below grade.)

Ma = 93663.25 Va= 6353.3 P = 6353.3 LP := 250

bl := 3.0

h = 14.742

dl := 8.5

Allowable Lateral Soil Bearing Pressure Pursuant to the 2012 International Building Code Section 1807.3 .2.2 and Table 1806.2.

d2 = 7.902   <   dl = 8.5

  Check Tensile Stress in Footing:

Overturning Moment About Heel Point: (ft.Ibs.) Mh := Ma + (Va-dl) Treat as a cantilever at bottom.
$_c$ Ji-(bll2)
Sw := -:   -
         32

4>Ft:= 0.65-(5-Vfc) (Mh-12)"

Compressive Strength of Concrete: (psi.) Yield Strength of Rebar: (psi.)

Section Modulus of Footing: (in.³)

Allowable Concrete Stress: (psi.)
Sw

Tensile Stress in Concrete: (psi.)
                              ft:=

(bl 121 - 10.0

Design of Reinforcing Steel in Caisson : Moment for USD Design : $Mu := 1\ 7{-}Mh$

coeff := •
coeff = 0.112

$$d := [(bll2){-}80)\ Mul2$$

To Plot for "ju ":

Mh = 147666.3

fc := 3000 fy := 60000

Sw = 4580.442

o>Ft= 178.01

ft = 386.861 > dtFt = 178.01 REBAR REQUIRED FOR STRESS

Mu = 251032.71 d = 15.8

ju := 0.88

fc-bl-12-d

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Required Area : (in.^{2}) Reinforcement Requirment:

Use yield strength of direct bury tube to check. Yield Strength of Tube (psi.)

$$As := \frac{Mu{-}12}{jufyd{-}0.90}$$

As = 5.233 < TubeArea = 13.2 No rebar required with the direct bury tube.

fy := 46000 As = 5.233

{
  Tt-bl dl ^ 4-27 j

$$0.83\ {-}(dl - 0.25)\ 27$$

Note :   Keep bottom of tube 3" from bottom of footing to create concrete cover for water exclusion.

Design Loads at Top of Footing for the 23'-6" x 9'-l 0" Section :   (3'-0" Below Grade.)
  2

Base = 15588.3 ft.Ibs

Signage: $\qquad$ SgnTrm := (24.5-9.83 WL)

7.0 ,
$\qquad$ **+ 3.0**

2

(Including l'-0" of base trim.)

Base: Base := (7.0-11.42-WL)

Moment: (ft lbs.)   MtTOF := SgnTrm + Base   MtTOF = 176345.663

Shear: (lbs.)   ShrTOF := (24.5-9.83-WL) + (7.011.42 WL)   ShrTOF = 9623.25

Design of Pole Structures at Top of Footing for the 23'-6" x 9'-l 0" Section :

Section Modulus of Tube: (in.^{3})   HSS 14" x 14" x 3/8" wall -   TubeSM := 82.5

d   j- / • \ $\qquad$ MtTOF-12

Bending Stress : (psi.)   ft, := $\qquad$ fi, = 25650.278

TubeSM

Area of Tube : (in.^{2})   HSS 14"x14"x 3/8" wall -   TubeArea := 18.7

ct,   ^   / ■ -v   , ShrTOF

Shear Stress : (psi.) f_v := $\qquad$ f_y = 514.612

TubeArea

fk f

Unity Check - Poles :   UCPoles := $\qquad$ + -- UCPoles = 0 873 < 1 00 OK

30360 18400

Design of Caisson Footing :

Overturning Moment: (ft.Ibs.) $\qquad$ Ma := MtTOF $\qquad$ Ma = 176345.663

Shear: (lbs.) $\qquad$ Va := ShrTOF $\qquad$ Va = 9623.25

Applied Lateral Force : (lbs.) $\qquad$ P := Va $\qquad$ P = 9623.25

Allowable Lateral Soil Pressure : (lbs./ft.^{2} per ft.) $\qquad$ LP := 250

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Diameter of Round Footing: (ft.)

h:-

Distance in Feet From Ground Surface to Point of Application of "P"

Depth of Footing Below the Top of the Existing Slab : (ft.) (3'-0" below grade.)

Ph S3bl

d2:= 4.25-

Allowable Lateral Soil Bearing Pressure Pursuant to the 2012 International Building Code Section 1807.3.2.2 and Table 1806.2.

Required Depth : (ft.)

bl := 3.0 h = 18.325

dl := 10.5 S3 = 2625

d2 = 9.756 < dl = 10.5

  Check Tensile Stress in Footing:

Overturning Moment About Heel Point: (ft.Ibs.) Mh := Ma + (Vadl) Treat as a cantilever at bottom.

Compressive Strength of Concrete: (psi.)
$$\frac{7l(bll2)"}{32}$$

rJ)Ft := 0.65-(5-v/fc)

   (Mh-12)" Sw

Yield Strength of Rebar: (psi.)

Section Modulus of Footing: (in.^{3})   Sw :=

Allowable Concrete Stress : (psi.)

Tensile Stress in Concrete: (psi.)   ft :
(bl-12) - 14.0

   Design of Reinforcing Steel in Caisson .

   Moment for USD Design :   Mu := 1.7-Mh
coeff :=
coeff = 0.165

                            d := [(bl l2)-.80] MuI2
To Plot for "ju":

     Mh = 277389.787

     fc := 3000 fy := 60000

     Sw = 4580.442

     d»Ft = 178.01

ft = 726.715 > 4*Ft = 178.01 REBAR REQUIRED FOR STRESS

     Mu = 471562.639 d = 17.8

     ju:=0.65
                                        fc-bl-12-d

   Use yield strength of direct bury tube to check.

Yield Strength of Tube ■ (psi.) Required Area : (in.^{2})

Reinforcement Requirment

Mu-12
jufy-d-0.90

As= 11.814 < TubeArea= 18.7 No rebar required with the direct bury tube.

fy := 46000 As= 11.814

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CY = 2.229
Quantity of Concrete . (yds.^{3}) CY:=
27

V 4-27

Note . Keep bottom of tube 3" from bottom of footing to create concrete cover for water exclusion.

«4'-10" EXISTING SLAB

1T-2" " C TO C "

6-3" C TO C

6'-3" _ "C TO C

.2-6" EXISTING SLAB

9'-0" EXISTING SLAB

»3'-0"
CONCRETE
»3-0" J
CONCRETE

PLAN VIEW

QTY. CONCRETE: 2.3 CU. YDS.

PLAN VIEW

QTY. CONCRETE: 2.0 CU. YDS. EACH

-42'-5%" BASE --35'-6" SIGNS -

| ।

-9'-IO"--6"-0"-

FQRD

CIT Y

MAI _L

6'-3
C TO C "

HSS 14" x 14" t y₂" ASTM A-500 Gr B · EMBEDDED IN FOUNDATION TO WITHIN 3" OF BOTTOM TO CREATE CONCRETE COVER UNDER POLE.

ELEVATION VIEW
GRADE
S0> .

THREE (3) HSS 10" < 10" < Vg" ASTM A-500 Gr. i -EMBEDDED IN FOUNDATION TO WITHIN 3" OF BOTTOM TO CREATE CONCRETE COVER UNDER POLE.

SITE:
Ford City Mall
7601 South Cicero Avenue
Chicago, Illinois 60652

FOUNDATION NOTES:
1. Concrete shall hove a minimum compressive strength of 3,000 PSI at 28 days.
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DESIGN WIND LOAD: 30.0 PSF
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OV	DATE	DESOaPTUH	APPROVED

Robert-James & Associates, Inc.

12255 West 187th Street, Mokena Illinois 60448-9737 phone: 708-479-8385 fox: 708-479-8395 email: rjo37§comcast.nel

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FOUR 31'-6" OAH DIRECT BURY POLES FOR REPLACEMENT ID & TENANT SIGNS

I May 17

DRAWING NUMBER

1705040