

City of Detroit  
OFFICE OF THE CITY CLERK

Janice M. Winfrey  
City Clerk

Vivian A. Hudson  
Deputy City Clerk

DEPARTMENTAL REFERENCE COMMUNICATION

Friday, December 12, 2008

To: The Department or Commission Listed Below

From: Janice M. Winfrey, Detroit City Clerk

The following petition is herewith referred to you for report and recommendation to the City Council.

In accordance with that body's directive, kindly return the same with your report in duplicate within four (4) weeks.

DRW  
RECEIVED  
DIRECTOR'S OFFICE  
08 DEC 12 PM 2:02

BUILDINGS & SAFETY ENGINEERING BUSINESS LICENSE CENTER  
CITY PLANNING COMMISSION PLANNING AND DEVELOPMENT DEPARTMENT

**3100** Michael Symon's Roast, permit to install over head signage on the new Roast Restaurant at 1114 Washington Blvd. in the Book Cadillac Hotel

**NOTE:** The Detroit City Council is on recess from:  
DECEMBER 10, 2008 through JANUARY 6, 2009

The City Clerk requests that Departments directly handle requests which fall within those dates.

**PLEASE EXPEDITE!!!**

28B

3100

The Honorable City Council  
Attn: Office of the City Clerk  
200 Coleman A. Young Municipal Center  
Detroit, MI 48226

RE: Michael Symon's Roast  
Westin Book Cadillac Hotel  
1114 Washington Blvd.  
Detroit, MI 48226

To Whom It May Concern:

Enclosed you will find information regarding the signage proposed for the new Roast Restaurant in the Book Cadillac Hotel.

We would like to install this sign as soon as we receive approval. Michael Symon is looking forward to opening his new restaurant in your City, and is hoping to be bringing job opportunities and additional money to your City.

Thank you for your time in reviewing this matter.

Mr. Kal Mansour

248-941-8215

248.941.8215

DEC 03 12 55

CITY CLERK

Structural Engineering Calculations for:

*Signature Signs*

Roast

JOB # 8194



NOV 12 2008

## SPECIFICATIONS

Project: *Signature Signs*  
Descript: *Roast*

### **Steel...**

Design and fabrication according to AISC-ASD, 9th edition.  
Plate, angle, channel, tee and wide flange: ASTM A36.  
Round pipe: ASTM A53 Grade B or equivalent.  
Square and rectangular tube: ASTM A500 Grade B.  
High strength bolts: ASTM A325, bearing type connections (snug tight).  
Machine bolts: ASTM A307.  
Anchor bolts or threaded rod: ASTM A36.  
Steel for reinforced concrete: Grade 60.

### **Welding...**

Design and fabrication according to AWS D1.1.  
AWS certification required for all structural welders.  
E70XX electrodes for SMAW processes.  
F7X-EXXX electrodes for SAW processes.

### **Concrete...**

Design and construction according to ACI 318-99  
Compressive strength at 28 days,  $f'c = 4,000$  psi minimum.  
Concrete poured into constrained earth excavations must cure under proper conditions for 4 days prior to sign box installation. ( Exception: if the overall height of the sign is less than 20 feet and the sign pole is adequately braced against wind loads for a minimum of 4 days, the box may be installed the same day as the as the footing is poured. )  
For pier and caisson footings, concrete must be poured against undisturbed earth.  
Maintain a minimum 3" concrete cover over all embedded steel.

### **Electrical...**

New underground electrical feed, 24" deep. Direct buried conduit, 1/2" PVC, #12 copper & connected to disconnect installed in sign.  
Grounding per NEC Section 600.  
Electrical work in accordance with NEC, with special attention to Sections 300 & 600 .  
Verify all local codes, ordinances and permit fees with the authority having jurisdiction.  
Feed to run from new sign to disconnect in Customer's building.

### **Miscellaneous...**

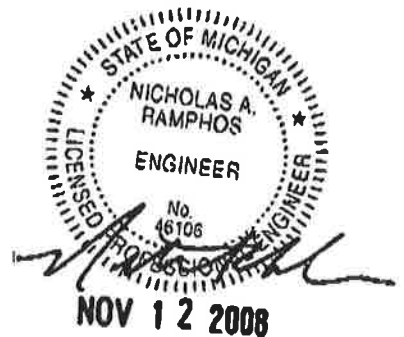
Sign Cabinet Design by others

\*\*\*\*\* Per MI/ Ohio Building Code 1609.3, Basic Wind

Speed = 90 MPH

OR 2007 INTERNATIONAL BLDG CODE

OR 2007 OBC



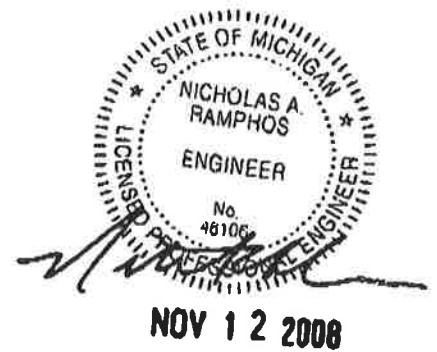
**Specifications (Continued)**

Project: *Signature Signs*

Descript: *Roast*

**Soil Reports...**

- A. Report furnished with all applicable information.
- B. Report furnished, but lacking some information.
- C. Report not furnished---no parameters specified. The engineer has not inspected the site. It shall be the owner's or his agent's responsibility to alert the engineer of poor soil conditions, obstructions or other conditions that appear to affect the structural integrity of the installation. The installer will notify the engineer or obstructions or other conditions that appear to affect the structural owner of any potential problem he may note, but he is not employed as an engineer or soil expert and his ability to note problems may be limited.



# WIND LOADS

Project: *Signature Signs*  
 Descript: *Roast*  
 Ref: *2007 INTL BLDG CODE OR VA/MI/PA/OBC 2003*

**Note # 1 Basic Wind Speed is the 3 second gust @ 33 ft.above ground, exposure**

Basic Wind Speed= 90 mph  
 Exposure= C flat terrain, generally open for 1/2 mile.  
 Cq= 1.2 signs, flagpoles and lightpoles

**Note #4 Cq= Pressure Coefficient**

### Calculation of Design Wind Pressures

Height (ft):	(qs)	(G)	(Cf)	= Wind Pressure	Kz
15	17.6	0.85	1.2	18.0 psf	0.85
20	18.7	0.85	1.2	19.0 psf	0.9
25	19.5	0.85	1.2	19.9 psf	0.94
30	20.3	0.85	1.2	20.7 psf	0.98
40	21.6	0.85	1.2	22.0 psf	1.04
60	23.4	0.85	1.2	23.9 psf	1.09
80	25.1	0.85	1.2	25.6 psf	1.13
100	21.3	0.85	1.2	21.8 psf	1.17
120	21.9	0.85	1.2	22.3 psf	1.21
160	22.2	0.85	1.2	22.7 psf	1.24
200	23.1	0.85	1.2	23.6 psf	1.26
300	15.0	0.85	1.2	15.3 psf	1.31
400	15.0	0.85	1.2	15.3 psf	

**Note # 5 Design Wind Pressu**

### Seismic Load Comparison

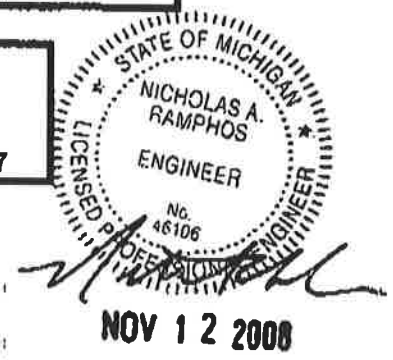
Seismic Zone= 1  
 Z= 0.1  
 I= 1.0 standard structures  
 Cp= 2.0  
 Wp= 15.0 psf, typical sign box with structure  
 Fp= (Z)(I)(Cp)(Wp)= 2.3 psf **Design Base Shear**

**Note:** Less than wind pressure above, so seismic notia factor and wind governs calculations

**Note # 2 Signs use a Wind Importance Factor, (Iw) of 1.0**

**Note # 3 Not Applicable**

Seismic Use Group  
 Spectral response coefficients Sds = .17 Sd1 = .04  
 Site class D  
 Basic seismic force resisting system from Table 1617.6 #7



## STEEL COLUMN DESIGN

Project: *Signature Signs*  
 Descript: *Roast*  
 Ref: *Manual of Steel Construction, AISC 9th Edition*

### Areas Subject to Wind Forces

Description	Height (ft)	Width (ft)	Area (sqft)	Centroid (ft)	Wind (psf)
1) Sign	5.67	5.67	32.15	3.8	18.0
2) POLE COVER					19.0
3) bottom sign					
4)					
5) POLE COVER					
6)					
7)					
8)					

### Calculation of Design Forces at Critical Heights

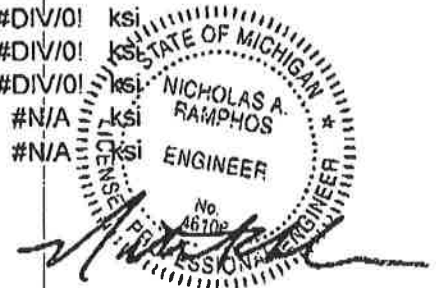
y (ft)	M (#')	V (#)	y (ft)	M (#')	V (#)
@ grade	2,216	579	59.00		
6.67			71.00		
23.00			71.00		

### Column Support Design Table

# of Cols	Column Type (P, TS)	Column Size	Length (ft)	Start Elev (ft)	End Elev (ft)	Sleeve Depth (in)	S act (in <sup>3</sup> )	fb (ksi)
1	ts	3XX.19	6.67		6.67	N/A	1.73	15.4
	p	#DIV/0!	5.00	18.00	23.00	#DIV/0!	#DIV/0!	#DIV/0!
	p	#DIV/0!	19.50	39.50	59.00	#DIV/0!	#DIV/0!	#DIV/0!
	p	#DIV/0!	13.00	58.00	71.00	#DIV/0!	#DIV/0!	#DIV/0!
		FALSE		71.00	71.00		FALSE	#DIV/0!
		FALSE		71.00	71.00		FALSE	#DIV/0!

### Allowable Bending Stresses

Column Type	Column Size	Criteria	Stress increase factor=	1.00
ts	3XX.19	b/t <190/sqr(Fy)	so... Fb= 0.66Fy	30.4 ksi
p	#DIV/0!	d/t #DIV/0!	so... Fb= #DIV/0!	#DIV/0! ksi
p	#DIV/0!	d/t #DIV/0!	so... Fb= #DIV/0!	#DIV/0! ksi
p	#DIV/0!	d/t #DIV/0!	so... Fb= #DIV/0!	#DIV/0! ksi
	FALSE	help #N/A	so... Fb= #N/A	#N/A ksi
	FALSE	help #N/A	so... Fb= #N/A	#N/A ksi



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## WALL SIGN CALCULATIONS

Project: Signature Signs  
 Descript: Roast  
 Ref: 2007 International Bldg Code

**If using common sleeve anchors, in concrete or brick**

	Height (ft)	Width (ft)	Thickness (inches)	Area (sq ft)	Inches from wall (in)		Wind Speed (psf)
	5.67	5.67	14	32.1489	12		18
			Thickness				
	Height (in)	Width (in)	(ft)	Area (sq in)	Sign Wt.	snow	Wind Force (lbs)
	68.04	68.04	1.166667	4629.4416	382	0	578.6802
	Inches between fasteners		Raceway thickness (in)			live	
	8		12			0	
	Feet between fasteners						
	0.666667						
	Pounds of pull out tension across top of sign		Number of supports across top of sign				
	<b>1196.5901</b> lbs.		4				
			Checking bolt size properties				
			Bolt size: 0.5 thread				
			0.5 rod				
	Tension per fastener	<b>299.14753</b> lbs.					
	Shear per fastener	<b>95.5000</b> lbs.					
			Allowable tension =		635	lbs	
			Allowable shear =		530	lbs	

NOTE: Live loading is not a practical requirement of awnings with a slope of 64 degrees, however it has been included here

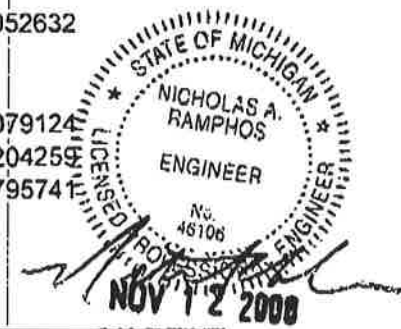
**If using through-bolts,**

Actual tension stress per bolt =	1523.552 psi	1.523552 Ksi	
Actual shear stress per bolt =	486.37947 psi	0.4863795 Ksi	<21Ksi ∴ OK
Allowable tension stress =	43.988197 Ksi	> 1.523552 Ksi	∴ OK

**If using wood lag screws,**

Actual resultant load on screw =	314.02148 lbs.	
Allowable withdrawal =	732 lbs	
Allowable shear =	456 lbs	
Screw penetration =	3 in	
Allowable resultant load on screw =	585.75718 lbs	
314.02148	<	585.75718 ∴ OK

1.6052632  
 Arctangent of  
 1.6052632  
 sin sqrd 0.7204259  
 cos sqrd 0.2795741



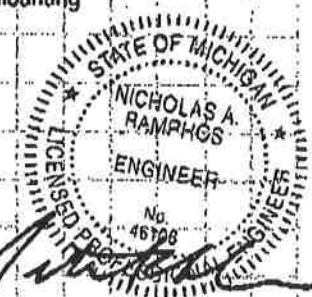
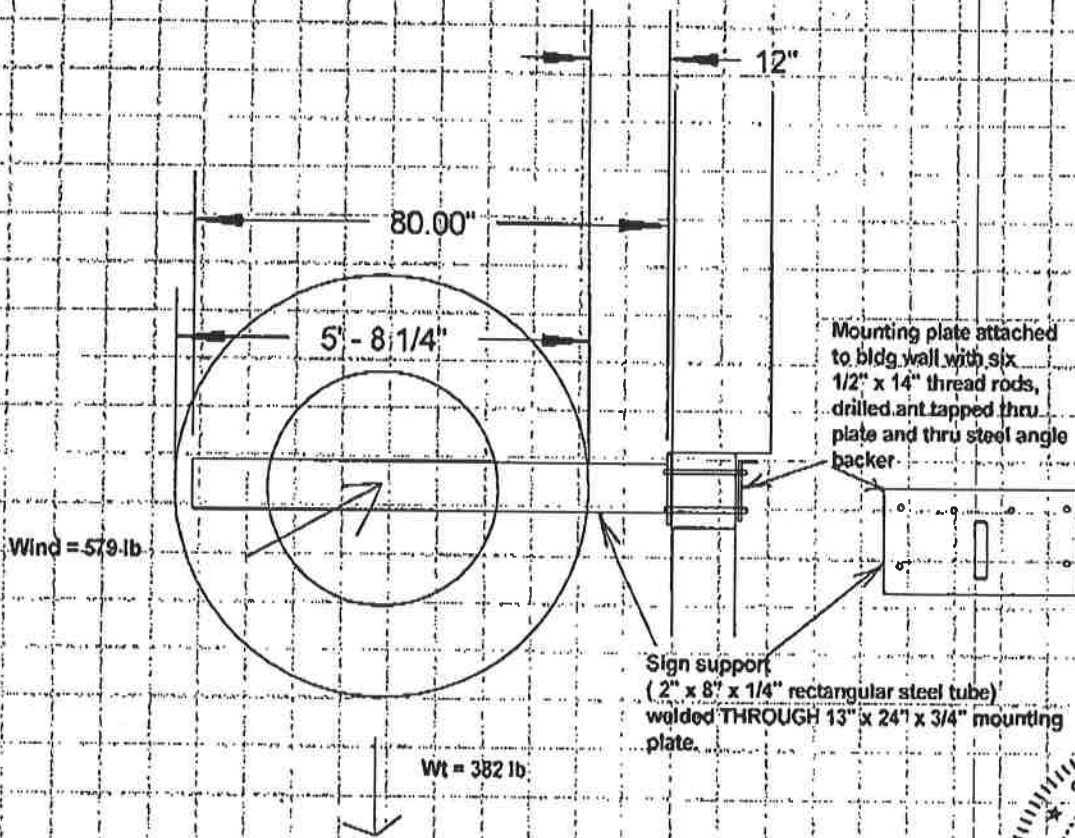


# Sign Engineering

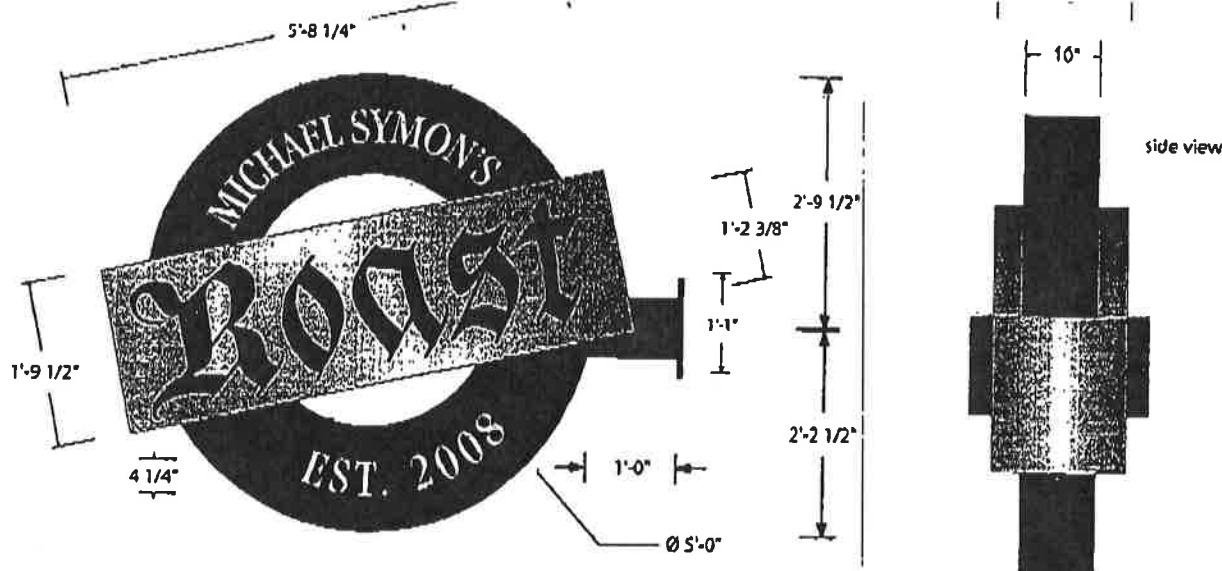
Nicholas A Ramphos, P.E.  
P.O. Box 8018  
Canton, OH 44711  
E-mail: narelmr@aol.com

(330) 454-9190  
(800) 391-0409  
Cell: (330) 495-2311  
Fax: (330) 455-6547

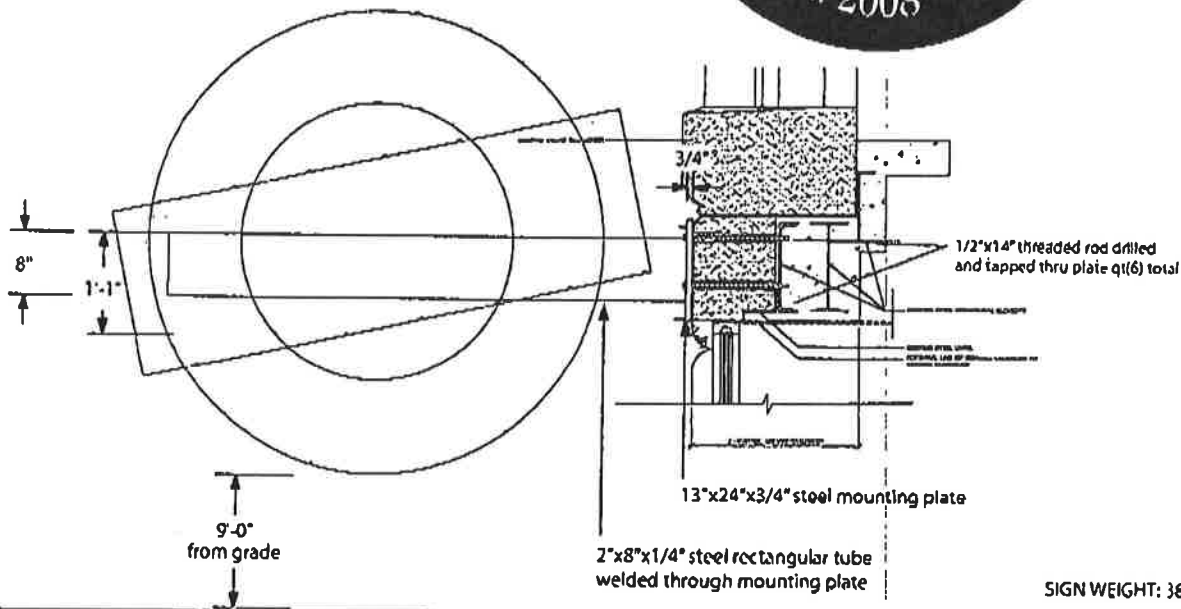
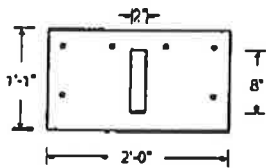
Project: SIGNATURE SIGNS			
Location: ROAST			
Date: 11/12/08	Project No.: 8194		
By:	Ck:	Page	of



NOV 12 2008



back plate-3/4" thick



FINAL DRAWING

FINAL DRAWING

FINAL DRAWING

APPROVAL

**S**  
signature  
sign company

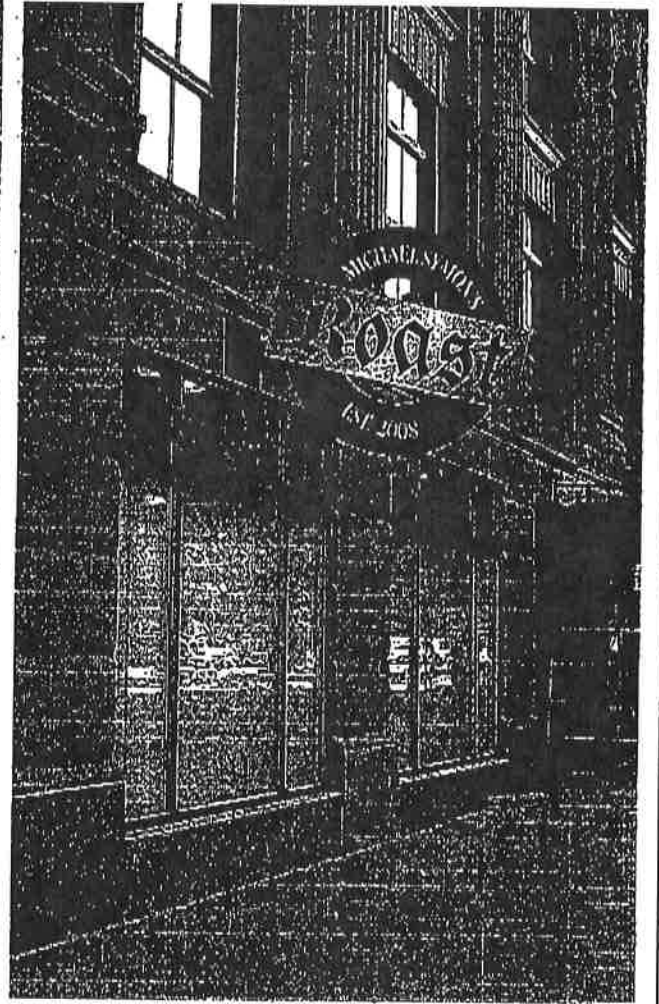
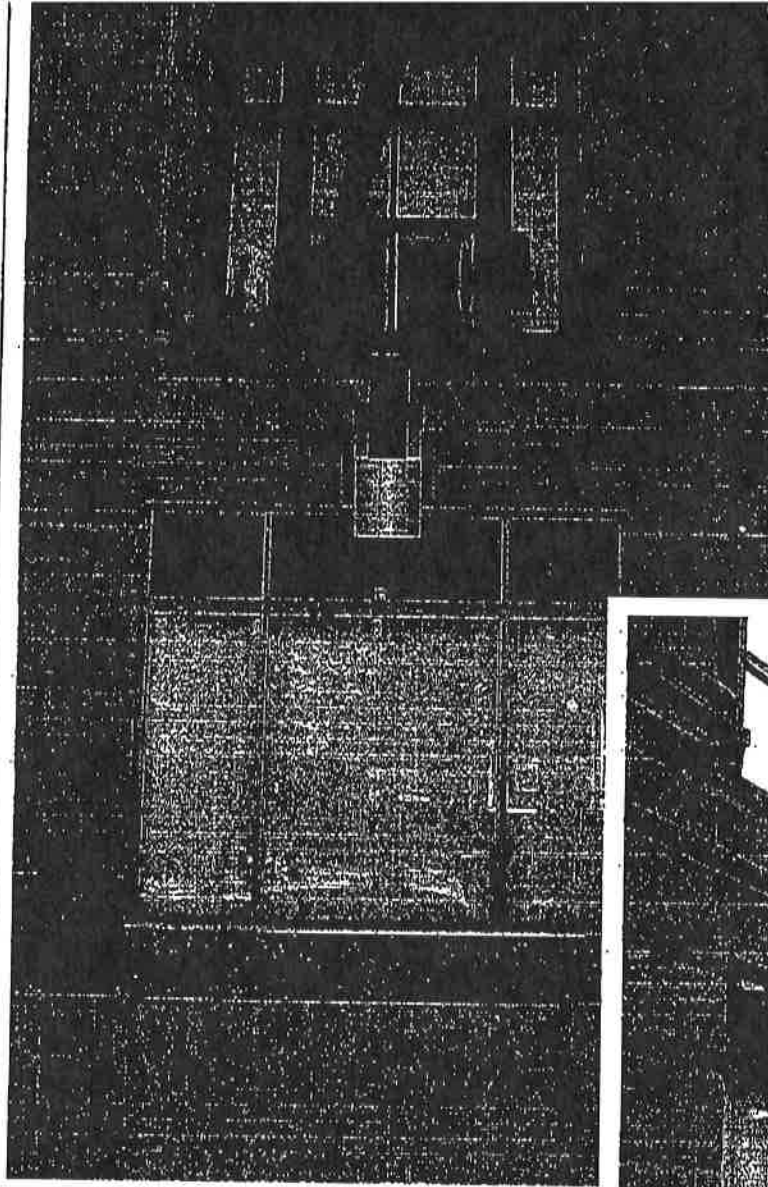
1770 S. 42nd STREET  
CUMBERLAND, OH 44103  
PH 216 486 1328  
FAX 216 486 1261


PROJECT: Roast  
SITE: Westin Book Cadillac Hotel  
1114 Washington Blvd.  
Detroit, MI 48226  
DATE: 9.8.08  
REVISED: 10.15.08

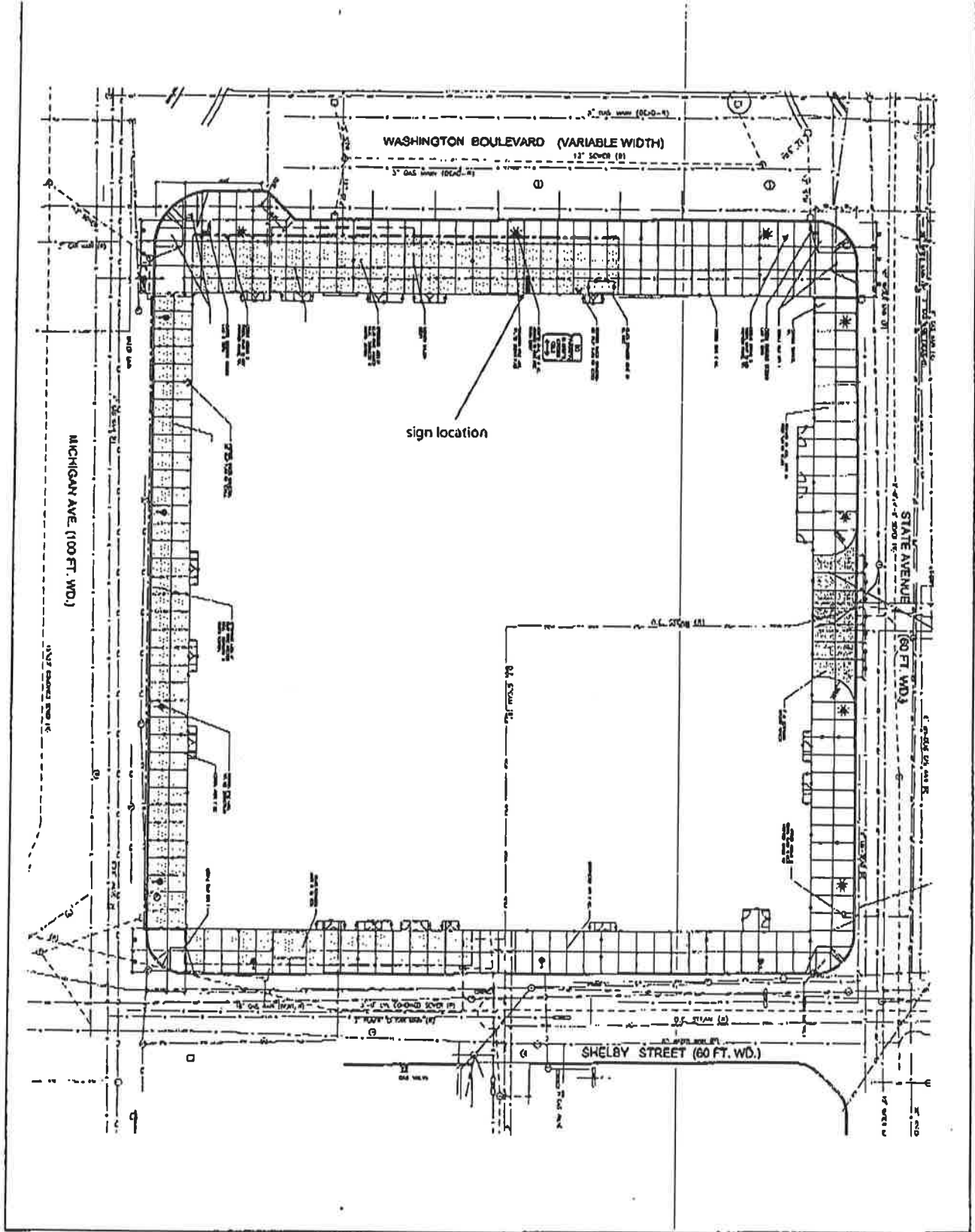
SCALE: 3/8"=1'-0"  
DRAWING #7645-2


**SPECIFICATIONS:**  
fabricated aluminum circular cabinet with jigged out .125 aluminum faces and 2"x2"x3/16" aluminum angle frame. "Roast" cabinet to be fabricated brushed stainless steel. All copy backlit up with 3/16" acrylic panels, white & red respectively. Illumination with white & red LED modules & power packs. Installation with 2"x8" steel rectangular tube & mounting plate with 1/2" threaded rod drilled & tapped into building steel member. All aluminum & steel to be etched primed & painted with acrylic polyurethane epoxy in satin black.

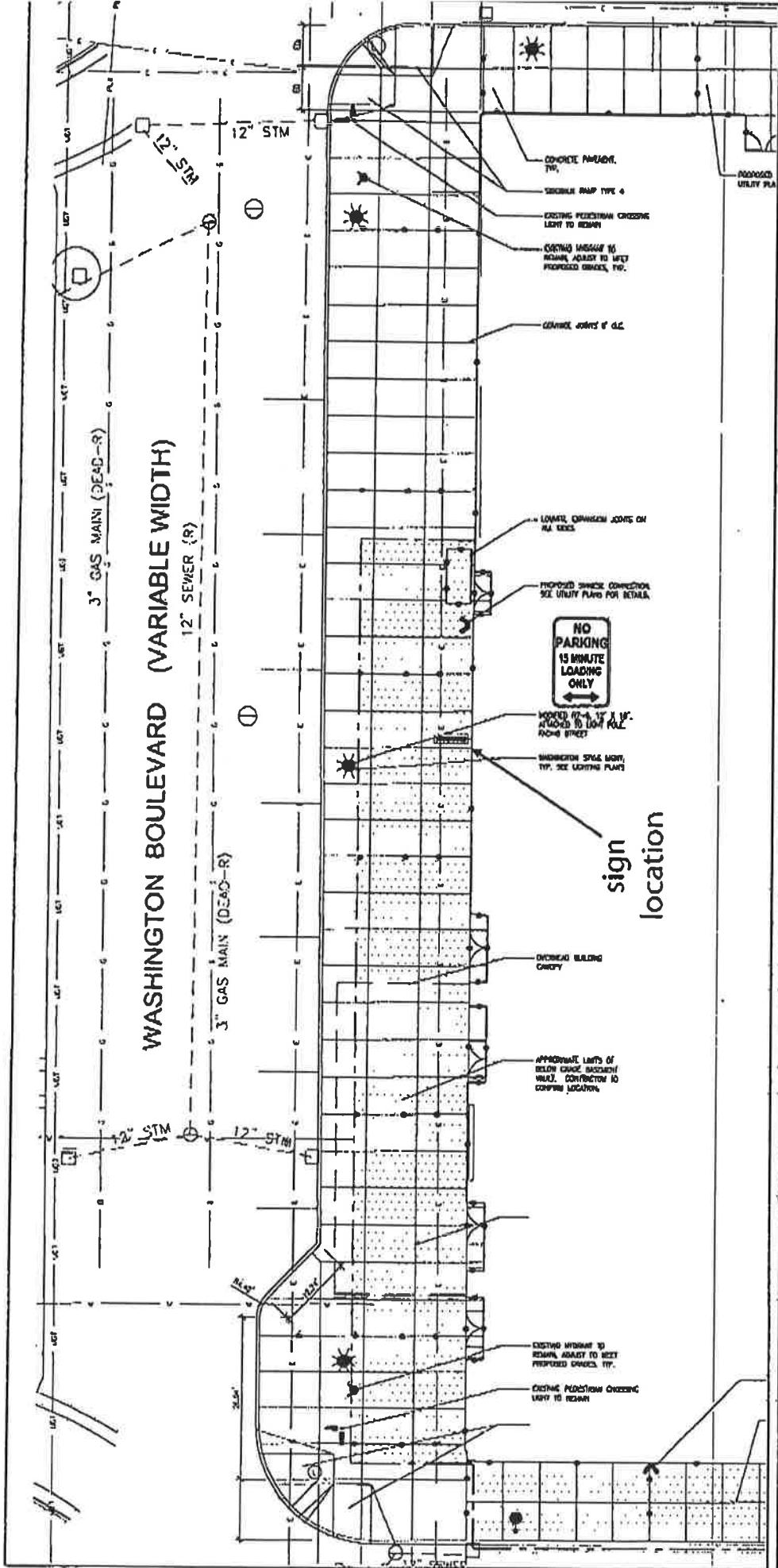
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		APPROVAL _____	
 <p>DESIGN 1770 E. 42ND STREET          MANUFACTURING CLEVELAND, OH 44103          INSTALLATION PH 316 426 7284          MAINTENANCE FX 216 426 1201</p>	<p>PROJECT: Roast          SITE:          DATE: 10.15.08</p>	<p>SCALE: 3/8"=1'0"          DRAWING #7646</p>	<p>SPECIFICATIONS:</p>
	<p><small>These are original designs that are the property of Signature Sign Co., Inc. They may not be copied, reproduced, nor in any way utilized in part or in whole, nor shown to any individuals other than the addressee without the written consent of Signature Sign Co., Inc. Should these designs be applied to any use without the written permission of Signature Sign Co., Inc., no sign charges will apply.</small></p>		



 <p><b>signature sign company</b></p> <p>Division 1775 E. 43rd #10237 CLEVELAND, OH 44103 INSTALLATION PH 216-494-1254 MAINTENANCE FX 330-803-1201</p>	<p>PROJECT: Roadt</p> <p>SITE:</p> <p>DATE: 10.24.08</p>	<p>SCALE: 1/32" = 1'-0"</p> <p>DRAWING #7650</p>	<p>APPROVAL _____</p>
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WASHINGTON BOULEVARD (VARIABLE WIDTH)

sign location

PRELIMINARY DRAWINGS

PRELIMINARY DRAWINGS

PRELIMINARY DRAWINGS

PRELIMINARY DRAWINGS



**signature sign company**

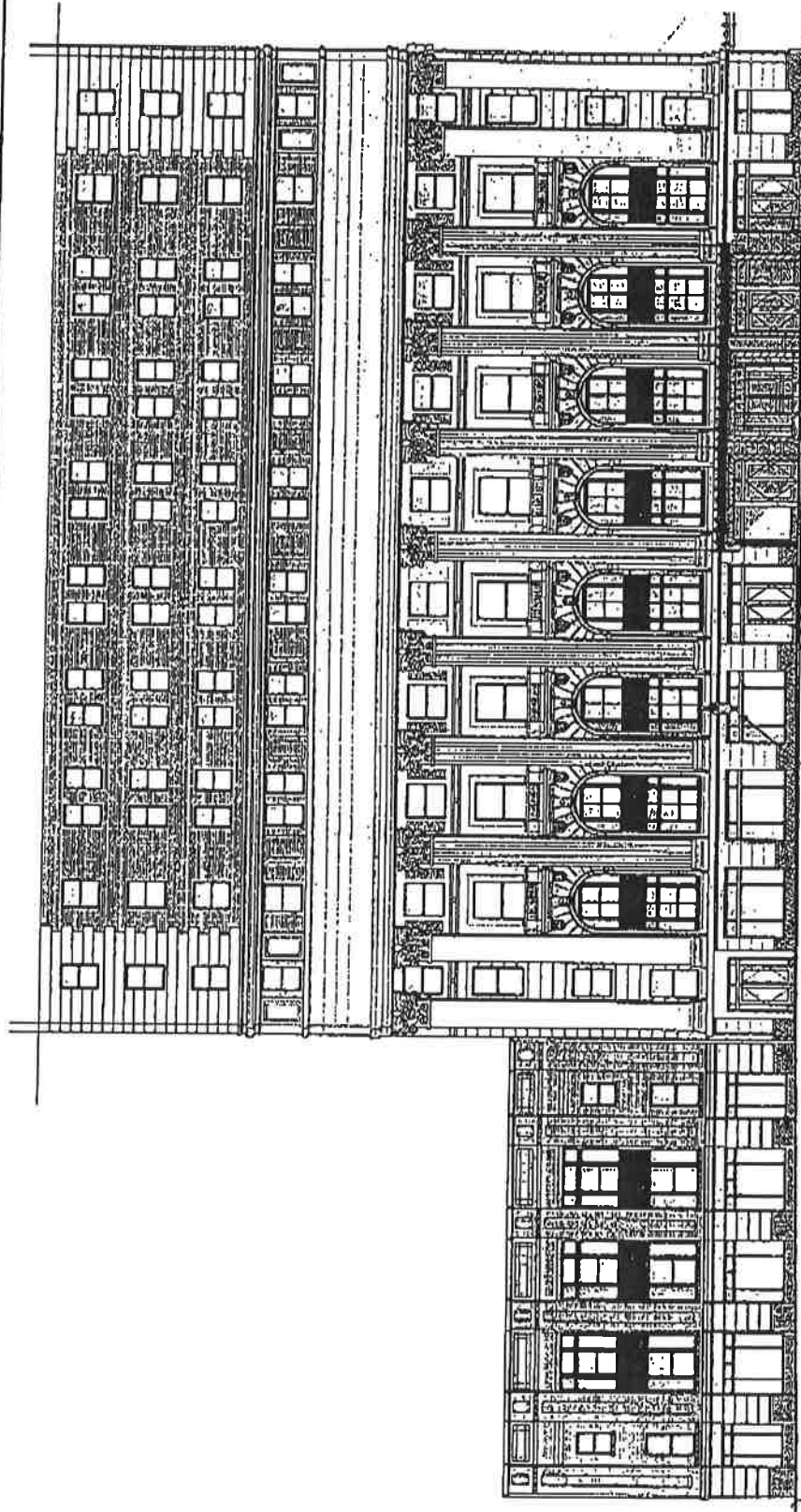
DESIGN 12345 4567 STREET  
 MANUFACTURING CLEVELAND, OH 44103  
 INSTALLATION PH 216 626 1234  
 WAREHOUSE TX 216 626 1201

PROJECT: Roast  
 SITE:  
 DATE: 10.24.08

BUILDING FRONTAGE:  
 SCALE: 1/16"=1'0"  
 DRAWING #7650-b

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ENLARGED WASHINGTON AVE. ELEVATION

sign location

PRELIMINARY DRAWINGS

PRELIMINARY DRAWINGS

PRELIMINARY DRAWINGS

PRELIMINARY DRAWINGS

**signature sign company**  
 DESIGN 1776 E. 47TH STREET  
 MANUFACTURING CLEVELAND, OH 44135  
 METALLURGY PH 216 426 1224  
 MAINTENANCE FX 216 426 1251

PROJECT: Roast  
 SITE:  
 DATE: 10.24.08

BUILDING FRONTAGE:  
 SCALE: 1/16"=1'-0"  
 DRAWING #7650c

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City of Detroit

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Kenneth V. Cockrel, Jr., Mayor  
City of Detroit  
CAYMC  
2 Woodward Avenue, Suite 1126  
Detroit, Michigan 48226  
www.ci.detroit.mi.us

# Fax Transmittal

To: Jessie Warren-Wilson From: Deuse Gardner  
 Company: \_\_\_\_\_ Date: 12/12/08  
 Fax: 224.1464 Fax: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Total # of Pages Including Cover Page: 15 Reference No. \_\_\_\_\_  
 CC: \_\_\_\_\_  
 Subject: Retn. 3100 Michael Simon's Roast

Urgent  For Review  Please Comment  Please Reply  Please Recycle