Joe Frogge

Digitally signed by Joe Frogge
DN: CN=Joe Frogge, OU=Development, OU=LS Users, DC=COLS, DC=LOC
Reason: release for construction
Date: 2022.01.12 15:24:00-06'00'

RELEASED FOR CONSTRUCTION
As Noted on Plans Review

Development Services Department
Lee's Summit, Missouri
01/12/2022

ADCON
3725 Canal Drive
Fort Collins, CO 80524
970 484 3637
www.adconsigns.com

Design Proposal for:
Chipotle Mexican Grill
South Lee's Summit
Store #4098
1103 SW Oldham Parkway
Lee's Summit, MO 64081

Sign Type: Schedule Complete

Date: October 26, 2021
Drawn by: Charles L.
Account Manager: Kristi M.
Project Manager:
File Name: Site Plan

Client Approval

Signature

Date

NOTE: Please ensure all red line changes are noted on this drawing prior to returning it to ADCON. Subsequent to ADCON incorporating the red line changes requested on this drawing, any further changes will result in additional billing at the rate of $86 per hour.

- ☐ Approved
- ☐ Approved As Noted
- ☐ Revise And Resubmit

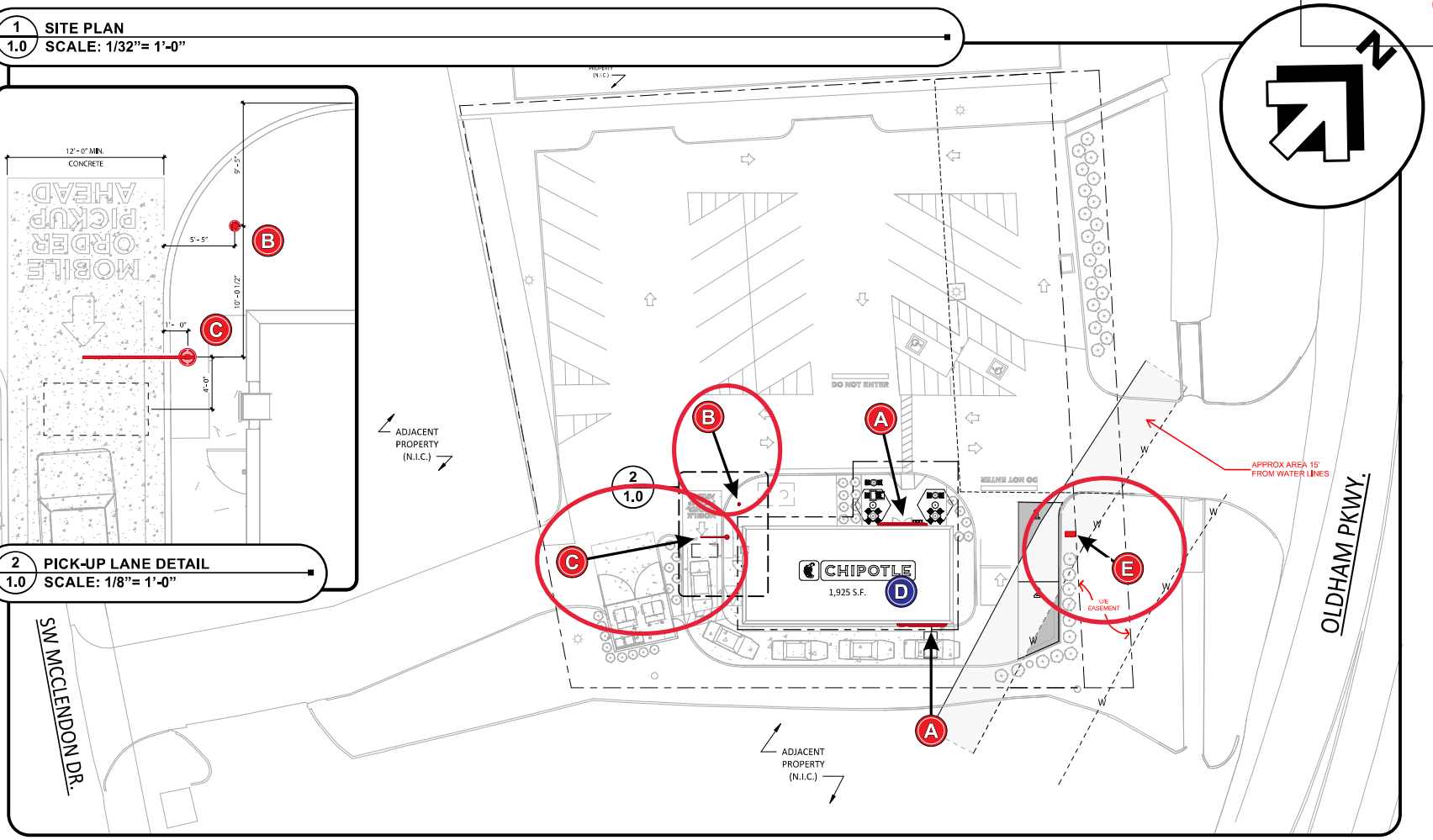
Production Mgr. Approval	Date
Project Mgr. Approval	Date
Account Mgr. Approval	Date
P&D Mgr. Approval	Date

Revision Notes:
Moved placement of pylon and added details for easement and water line locations

Shifted clearance bar location 1' to the left on pick up lane detail

Dot No.
W.O. No. 4203
Rev. No. B Date:12-01-21 By:CCL
Sheet No. 1.0

1 / 1.0 **SITE PLAN**
SCALE: 1/32"= 1'-0"



2 / 1.0 **PICK-UP LANE DETAIL**
SCALE: 1/8"= 1'-0"

A BW-3 WALL SIGN
Quantity (2)

B DIGITAL PICK-UP
Quantity (1)

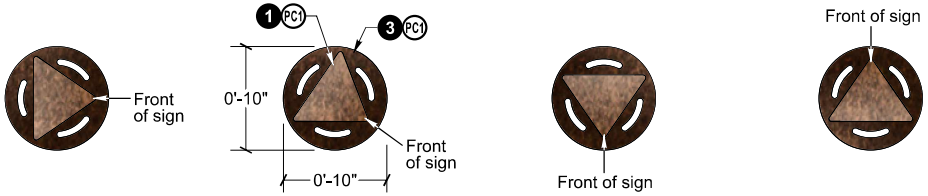
C VALUE CLEARANCE BAR
Quantity (1)

D INTERIOR PICK-UP DISC
Flush Wall mounted
Quantity (1)

New "Cigar Style" pylon sign by Adcon for LL. Pylon faces only for Chipotle under this W.O.

(Reference W.O. #4571 for full pylon frame)

E PYLON SIGN FACES
Quantity (2)



1 / 4.0 **ROTATED PLAN VIEWS**
SCALE: 1"=1'-0"

2 / 4.0 **DIGITAL PICKUP SIGN- ROTATED VIEWS**
SCALE: 1"=1'-0"

SPECIFICATIONS FOR (1) ILLUMINATED D/F DIGITAL PICKUP SIGN

1 **POST=** Brake-formed 1/8" aluminum body w/ welded & finished top cap

1a **Text Graphics:** CNC Routed and backed w/ white acrylic

1b **Logo Graphic:** CNC Routed and backed w/ white acrylic and opaque vinyl logo overlay

2 **ACCESS PANEL=** Removable full length 1/8" aluminum back panel

ILLUMINATION= Internally illuminated via Sloan Prism Mini White LEDs

3 **MOUNTING=** 1/4" Aluminum plate w/ mounting slots to allow rotational adjustment of 25° each direction

CAISSON= Sonotube formed concrete caisson and (3) 1/2" dia. expansion anchors w/ washers and leveling nuts as req.

COLORS AND FINISHES

PC1 Powder coat IFS Rustic SRBM 90146

V3 Arlon cast vinyl #2100-3651 "Adobo Brown"

3 / 4.0 **ILLUMINATION RENDERING TYP.**
SCALE: N.T.S.

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3725 Canal Drive
Fort Collins, CO 80524
970 484 3637
www.adconsigns.com

Design Proposal for:
Chipotle Mexican Grill
South Lee's Summit
Store #4098
1103 SW Oldham Parkway
Lee's Summit, MO 64081

Sign Type: Digital Pickup

Date: October 26, 2021
Drawn by: Charles L.
Account Manager: Kristi M.
Project Manager:
File Name: DPU

Client Approval

Signature

Date

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☐ Approved
☐ Approved As Noted
☐ Revise And Resubmit

Production Mgr. Approval	Date
Project Mgr. Approval	Date
Account Mgr. Approval	Date
P&D Mgr. Approval	Date

Revision Notes:

Dot No.
W.O. No. 4203
Rev. No. A Date: By:
Sheet No. 4.0

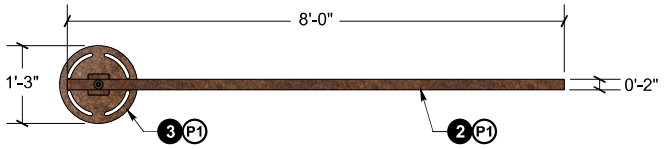
SPECIFICATIONS FOR (1) NON-ILLUMINATED S/F BREAKAWAY CLEARANCE BAR

1. **POST=** 4" x 4" x 1/4" Alum. sq. tube w/ 3/8" alum top plate and pivot
2. **CLEARANCE BAR=** 2" x 4" x 1/8" Alum. rec. tube w/ black PVC end caps
   - 2a **Graphics:** Reflective vinyl overlay
   - **Breakaway:** To minimize damage from impact, the top beam will give way and rotate when struck. Beam can then be manually rotated back to original position
   - **Note:** Rotation from fixed position will break shear/alignment pin which can be easily serviced during realignment of clearance bar
3. **MOUNTING=** Slotted 1/2" alum. base plate attaches to embedded bolts in caisson

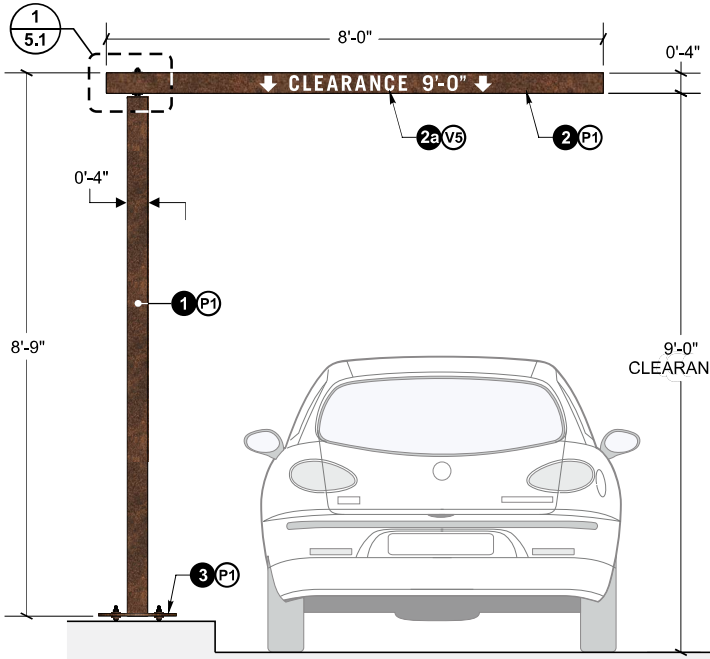
CAISSON= Sonotube formed concrete caisson w/ embedded mounting hardware (four 1/2" All-thread welded to 1/8" steel spacer plates w/ washers and leveling nuts).

COLOR SPECIFICATIONS

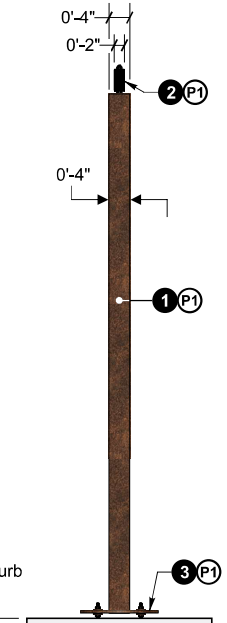
P1 Powder coat IFS Rustic SRBM 90146 V5 Reflective White Vinyl



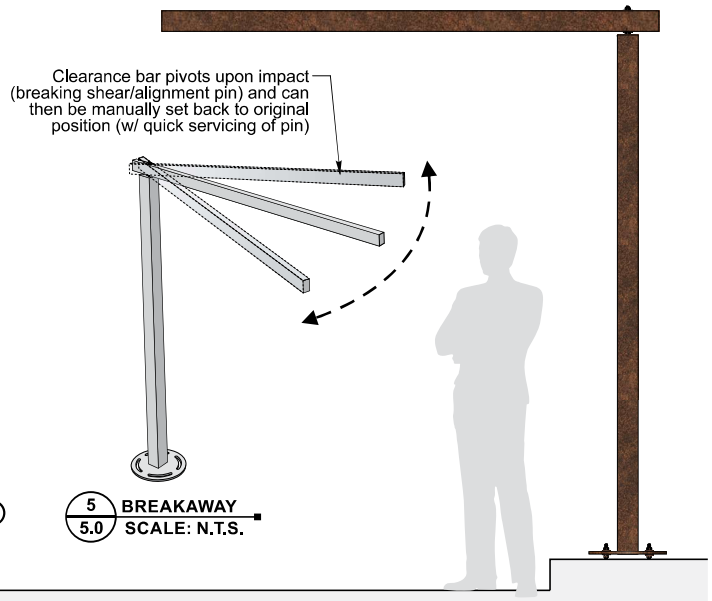
1 / 5.0 PLAN VIEW
SCALE: 1/2"=1'-0"



2 / 5.0 ELEVATION
SCALE: 1/2"=1'-0"



3 / 5.0 END VIEW
SCALE: 1/2"=1'-0"



5 / 5.0 BREAKAWAY
SCALE: N.T.S.

4 / 5.0 OPPOSITE ELEVATION
SCALE: 1/2"=1'-0"

ADCON
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Fort Collins, CO 80524
970 484 3637
www.adconsigns.com

Design Proposal for:
Chipotle Mexican Grill
South Lee's Summit
Store #4098
1103 SW Oldham Parkway
Lee's Summit, MO 64081

Sign Type: Clearance Bar

Date: October 26, 2021
Drawn by: Charles L.
Account Manager: Kristi M.
Project Manager:
File Name: VALUE Clearance Bar

Client Approval

Signature

Date

NOTE: Please ensure all red line changes are noted on this drawing prior to returning it to ADCON. Subsequent to ADCON incorporating the red line changes requested on this drawing, any further changes will result in additional billing at the rate of $86 per hour.

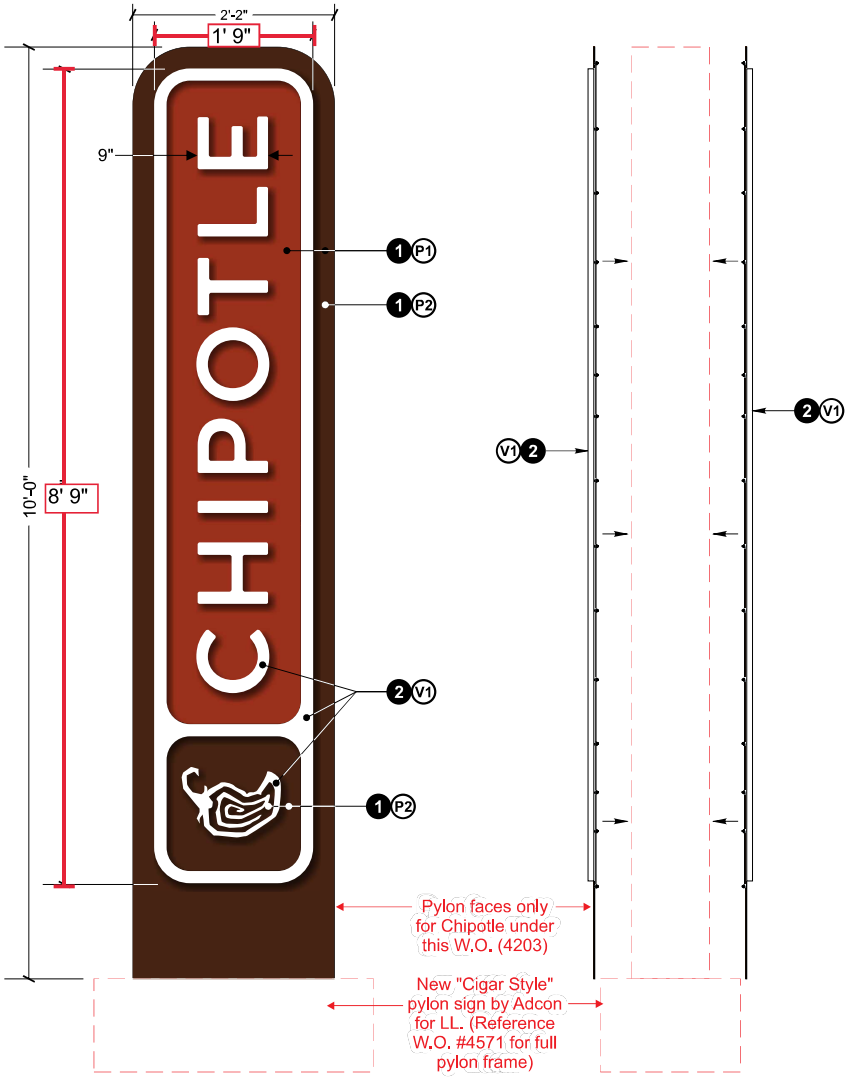
- ☐ Approved
- ☐ Approved As Noted
- ☐ Revise And Resubmit

Production Mgr. Approval	Date
Project Mgr. Approval	Date
Account Mgr. Approval	Date
P&D Mgr. Approval	Date

Revision Notes:

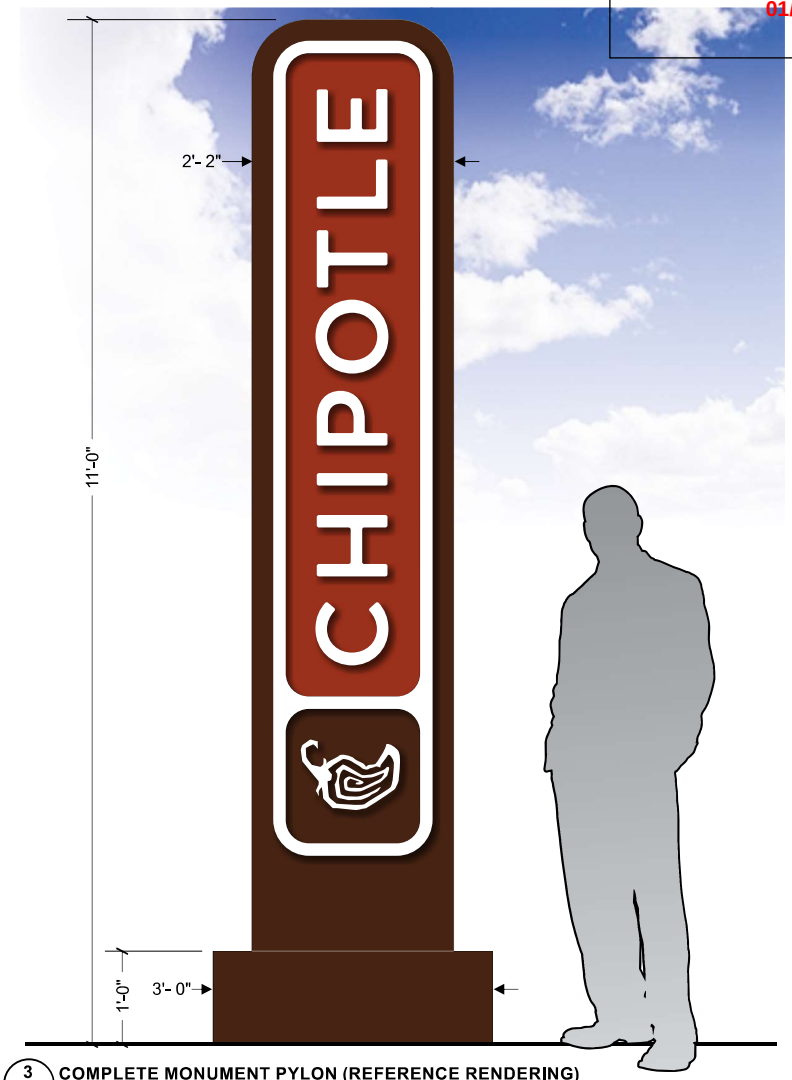
Dot No.
W.O. No. 4203
Rev. No. A Date: By:
Sheet No. 5.0

Sign Area: 1' 9" x 8' 9" = 15.3 sq ft



1/7.0 FACE ELEVATION
SCALE: 3/4"= 1'-0"

2/7.0 END VIEW
SCALE: 3/4"= 1'-0"



3/7.0 COMPLETE MONUMENT PYLON (REFERENCE RENDERING)
SCALE: 3/4"= 1'-0"

SPECIFICATIONS FOR (2) FACES FOR D/F ILLUMINATED CIGAR PYLON SIGN

1. **FACES=** 1/8" Alum. faces attach w/ counter sink screws.
2. **GRAPHICS=** 1" Clear acrylic push-thru w/ routed ledge, vinyl overlay, and 2nd surface diffuser film

COLOR SPECIFICATIONS

P1 P.T.M. PMS #484C "Roasted Red" P2 P.T.M. PMS #4625C "Adobo Brown"
V1 First surface 3M Scotchcal vinyl overlay #3630-20 white

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Design Proposal for:
Chipotle Mexican Grill
South Lee's Summit
Store #4098
1103 SW Oldham Parkway
Lee's Summit, MO 64081

Sign Type: Cigar Pylon Sign

Date: October 26, 2021
Drawn by: Charles L.
Account Manager: Kristi M.
Project Manager:
File Name: Pylon Sign Faces

Client Approval

Signature

Date

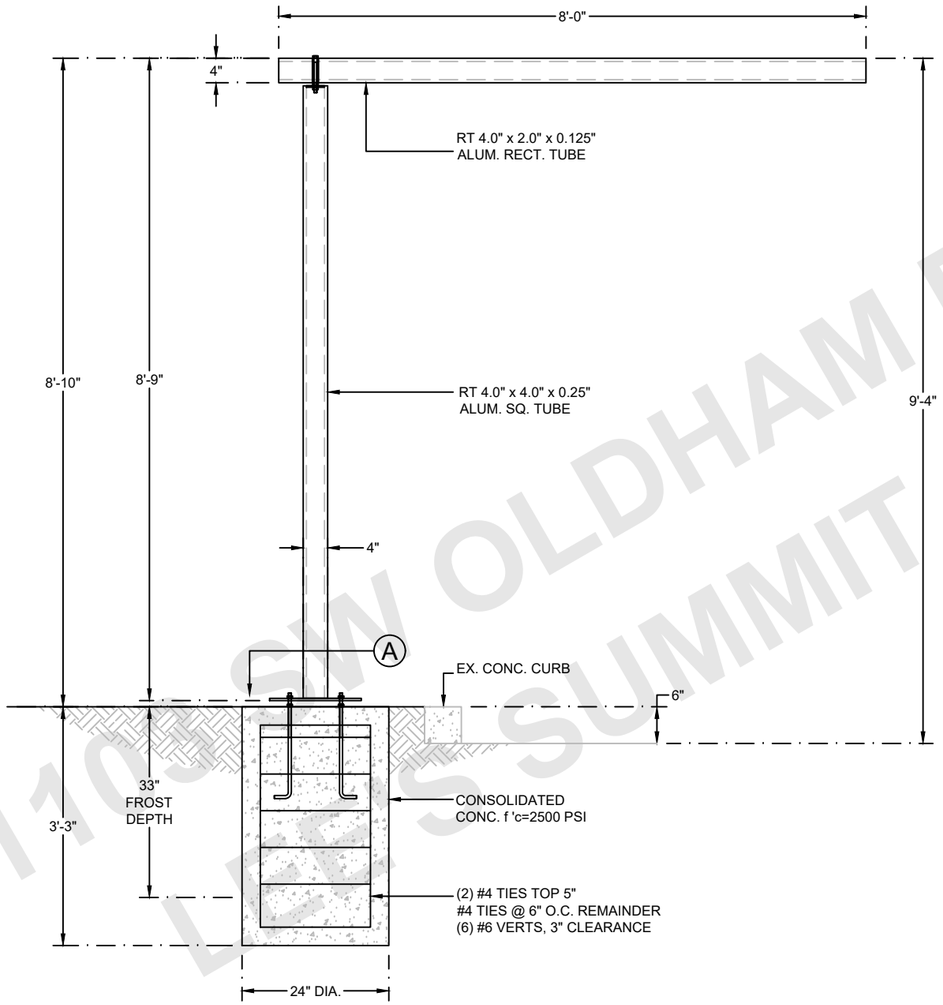
NOTE: Please ensure all red line changes are noted on this drawing prior to returning it to ADCON. Subsequent to ADCON incorporating the red line changes requested on this drawing, any further changes will result in additional billing at the rate of $86 per hour.

- ☐ Approved
- ☐ Approved As Noted
- ☐ Revise And Resubmit

Production Mgr. Approval	Date
Project Mgr. Approval	Date
Account Mgr. Approval	Date
P&D Mgr. Approval	Date

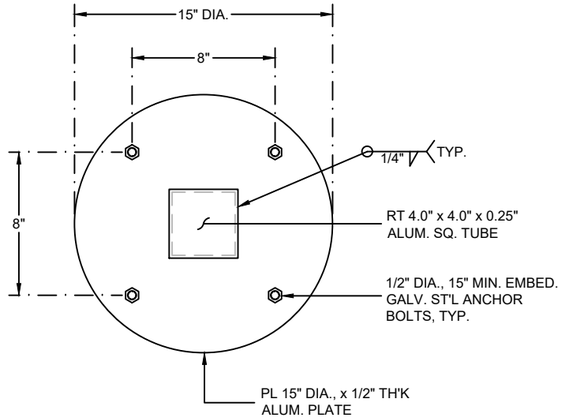
Revision Notes:
Resized for 11' pylon size

Dot No.
W.O. No. 4203
Rev. No. B Date:12-01-21 By:CCL
Sheet No. 7.0



ELEVATION

N.T.S.



(A) BASE PLATE

t=1/2" N.T.S.

Outrigger Design				ALUM. RECT. TUBE				
Sec. Mod. Req'd.				USE	6061-T6 W			
Sy =	0.27	RT	4.0" x	2.0" x	0.125"	Sy =	0.992	(OK)
Base Plate				ALUM. PLATE				
Thickness Req'd.				USE	6061-T6			
t =	0.29	PL 15" DIA., x 1/2" THK.				t =	0.500	(OK)
Anchor Design				GALV. ST'L. ANCHOR BOLT				
Tension Req'd.				USE	F 1554 GR. 36			
T =	530	1/2" DIA., x		15" MIN. EMBED		T =	4260	
Shear Req'd.								
V =	38					V =	2270	
Unity =		(530 /	4260) +	(38 /	2270) =	0.14	< 1 (OK)	

Sign Design Based On 2018 IBC

RELEASED FOR CONSTRUCTION
As Noted on Plans Review
Development Services Department
Lee's Summit, Missouri
01/12/2022

Job #	JTS_248821			
Project	Chipotle Mexican Grill #4098 - Clearance Bar			
Job Location	1103 SW Oldham Parkway			
	Lee's Summit, MO			
INPUT DATA				
Exposure category (B, C or D)		=	C	
Risk Category		=	II	
Ultimate Design Windspeed	V_{ULT}	=	110	MPH
Topographic factor	K_{zt}	=	1	Flat
Height of the sign	h	=	9.33	FT
Average Vertical dimension (for wall, s = h)	s	=	0.69	FT
Horizontal dimension	B	=	8.00	FT
Dimension of return corner	L_r	=	0.17	FT
ANALYSIS				
Velocity pressure				
$q_z = 0.00256\ K_z K_{zt} K_d V^2 K_e$		=	22.38	PSF
where:				
q_z = velocity pressure at height h. (Eq. 26.10-1 page. 268)				
K_z = velocity pressure exposure coefficient		=	0.85	
evaluated at height above gRnd. level, h (Tab. 26.10-1, page 268)				
K_d = wind directionality factor. (Tab. 26.6-1, page 266)		=	0.85	
K_e = ground elevation factor, see (Tab. 26.9-1, page 268)		=	1.00	
Wind Force Case A: resultant force through geometric center				
Max horizontal wind pressure =	$p = q_h G C_f$ =	=	35	PSF
where: G = gust effect factor. (Sec. 26.11-1, page 269).		=	0.85	
C_f = net force coefficient. (Fig. 29.3-1, page 323)			1.86	
A_s = B s = the gross area		=	5.49	FT^2
Estimated sign cabinet weight		=	34	LBS.
DESIGN SUMMARY				
Allowable Stress Design Wind Factor =			0.60	
Design Wind Pressure =		**0.6 x p =**	21.21	PSF
Design Windforce, F =		**21.21 x As =**	0.12	KIPS
Moment Arm =			6.30	FT
Design Moment =		**F x Moment Arm =**	0.73	KIP-FT

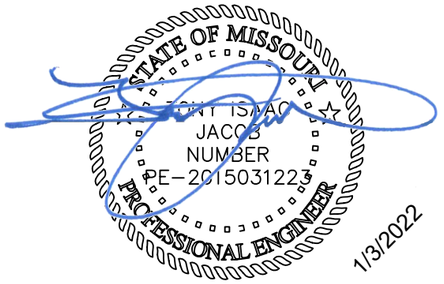
Footing Design (Nonconstrained)

Diameter =	2.00	FT	
Soil Pressure =	150.00	PSF/FT	
S_1 =	232.19	PSF	
A =	0.59	FT	
EMBED. =	2.32	FT	**33" FROST DEPTH**

24"	DIA.	DEPTH = 3' - 3"

Pole Design — ALUM. SQ. TUBE

Sec. Mod. Req'd.				USE	6061-T6 W	F_{ty} =	15.00	KSI
S =	1.03	RT	4.0" x	4.0" x	0.25"	S =	4.41	IN^3
		Torsion =	1.93	KIP-IN		t =	0.250	IN
Torsion constant, C:				b - t =	3.750	d =	4.0	IN
C = 2(b-t)(d-t)t - 4.5(4-3.1416)t^3				d - t =	3.750	b =	4.0	IN
F_s =	9.00	KSI		C =	6.971			
$T_n = F_s C$ =	62.74			a =	14.063			
T_n / Ω =	38.02	KSI						
Torsional stress =	0.27	KSI						
Unity =	(1.03 /	4.41)^2 +	(0 /	38.0)^2 =	0.05	< 1 (OK)		



NOTES :

GENERAL :

- SIGN DESIGN IS BASED ON ADEQUATE EXISTING SUPPORT ELEMENTS.
- PROVIDE ISOLATION OF DISSIMILAR MATERIALS.
- COAT ALUMINUM IN CONTACT WITH CONCRETE WITH ZINC RICH PAINT.
- THERE IS NO PROTECTION ZONE AS DEFINED IN AISC 341-16.
- PROVIDE FULLY WELDED END CAPS AT EXPOSED OPEN ENDS OF STEEL / ALUM. TUBES, MATCH THICKNESS LIKE FOR LIKE.
- SLOPE TOP OF EXPOSED FOOTING AWAY FROM DIRECT BURIAL POSTS
- ALL EXPOSED STEEL TO BE PRIMED & PAINTED (POWDER COAT AS AN OPTION) OR ALTERNATIVELY USE GALVANIZED STEEL.

ANCHORS :

- BRAND NAME APPROVED POST INSTALLED ANCHORS SPECIFIED ON PLANS MAY BE SUBSTITUTED BY APPROVED EQUAL.

STEEL :

DESIGN AND FABRICATION ACCORDING TO 2018 IBC

- PLATE, ANGLE, CHANNEL TEE: ASTM A36
- WIDE FLANGE: ASTM A992
- ROUND PIPE: ASTM A53 GRADE B OR EQUIVALENT.
- HSS ROUND, SQUARE, AND RECTANGULAR TUBE: ASTM A500 GRADE B OR EQUIVALENT.
- ALL ANCHORS BOLTS SHOULD BE: ASTM F1554
- ALL STEEL MACHINED BOLTS SHOULD BE: ASTM A307 OR ASTM A449
- ALL STAINLESS STEEL MACHINED BOLTS SHOULD BE: ASTM A276
- ALL BOLTS TO BE ZINC COATED: ASTM B633
- DEFORMED REINFORCING REBAR: ASTM A615 GRADE 60.

ALUMINUM :

DESIGN AND FABRICATION ACCORDING TO 2015 ALUM. DESIGN MANUAL PLATES, ANGLES, CHANNELS, TEE, AND SQUARE TUBING: ALUMINUM

- ALLOY 6061 - T6 WITH 0.098 LBS PER CUBIC INCH.

WELDING :

STEEL

DESIGN AND FABRICATION ACCORDING TO AWS D1.1. / D1.3

- AWS CERTIFICATION REQUIRED FOR ALL STRUCTURAL WELDERS.
- E70 XX ELECTRODE FOR SMAW PROCESS.
- E70S XX ELECTRODE FOR GMAW PROCESS.
- ER7 XX ELECTRODE FOR GTAW PROCESS.
- E70T XX ELECTRODE FOR FCAW PROCESS.

ALL WELDS SHALL BE MADE WITH A FILLER METAL THAT CAN PRODUCE WELDS THAT HAVE A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20FT-LB AT ZERO 0° AS DETERMINED BY THE APPROPRIATE AWS A5 CLASSIFICATION TEST METHOD OR MFG'S. CERTIFICATION.

ALUMINUM

DESIGN AND FABRICATION ACCORDING TO AWS D1.2. ALL WELDING IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS A.5.10. FILLER ALLOYS PER TABLES M.9.1 & M.9.2 OF 2015 ALUMINUM DESIGN MANUAL.

CONCRETE :

DESIGN AND CONSTRUCTION ACCORDING TO ACI 318-14

- COMPRESSIVE STRENGTH AT 28 DAYS, f 'c= 2500 PSI MINIMUM.
- CEMENT TYPE II OR IV. W/C RATIO 0.45 BY WEIGHT FOR PIER AND CAISSON
- FOOTINGS CONCRETE MUST BE POURED AGAINST UNDISTURBED EARTH.
- MAINTAIN A MINIMUM 3" CONCRETE COVER OVER ALL EMBEDDED STEEL.

SOIL:

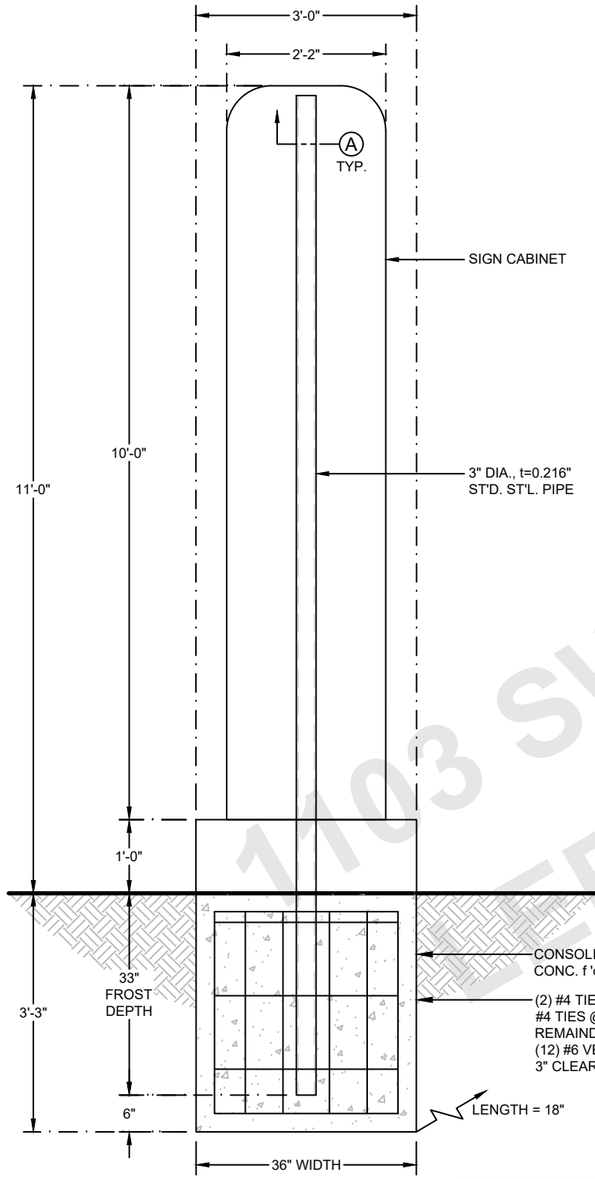
LATERAL SOIL BEARING PER IBC CLASS 4 TABLE 1806.2 (150 PSF/FT). MODIFIED PER SECTION 1806.3.4.

www.yjinc.com
P.O. BOX 802050
SANTA CLARITA, CA. 91380
TEL. (661)259-0700 FAX. (661)259-0900

SHEET TITLE:

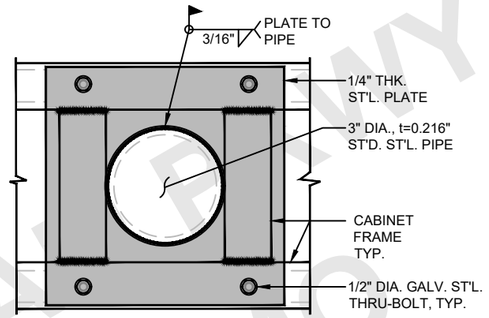
CHIPOTLE MEXICAN GRILL #4098
CLEARANCE BAR

DRN BY: B.B.	DATE LAST REVISED: Dec 29, 2021	REV. NO.	REV. DATE	REVISED BY	PROJECT JOB # : JTS_248821_Chipotle Mexican Grill #4098_Signage_1103 SW Oldham Parkway_Lee's Summit M
CHK BY: T.J.	PROJ. START DATE: DEC. 29, 2021	1	--/--/--	---	PROJECT LOCATION : CHIPOTLE MEXICAN GRILL #4098 1103 SW OLDHAM PARKWAY LEE'S SUMMIT, MO
REV BY: T.J.	SCALE: AS SHOWN	2	--/--/--	---	SHEET # 1 OF 1
PLOTTED BY: Local User	ON 12/29/2021 4:25:45 PM	3	--/--/--	---	



ELEVATION

N.T.S.



A CONNECTION
(3 PLACES)
N.T.S.

(SPECIAL INSPECTION REQUIRED FOR FIELD WELD)

Sign Design Based On 2018 IBC

Job #	JTS_248821
Project	Chipotle Mexican Grill #4098 - Monument
Job Location	1103 SW Oldham Parkway Lee's Summit, MO

INPUT DATA

Exposure category (B, C or D)		=	C	
Risk Category		=	II	
Ultimate Design Windspeed	V_{ULT}	=	110	MPH
Topographic factor	K_{zt}	=	1	Flat
Height of the sign	h	=	11.00	FT
Vertical dimension (for wall, s = h)	s	=	11.00	FT
Average Horizontal dimension	B	=	2.23	FT
Dimension of return corner	L_r	=	0.83	FT

ANALYSIS

Velocity pressure

$q_z = 0.00256\ K_z K_{zt} K_d V^2 K_e$ = **22.38** PSF

where:

q_z = velocity pressure at height h. (Eq. 26.10-1 page. 268)

K_z = velocity pressure exposure coefficient = **0.85**

evaluated at height above gRnd. level, h (Tab. 26.10-1, page 268)

K_d = wind directionality factor. (Tab. 26.6-1, page 266) = **0.85**

K_e = ground elevation factor, see (Tab. 26.9-1, page 268) = **1.00**

Wind Force Case A: resultant force through geometric center

	Max horizontal wind pressure = $p = q_h G C_f$ =	=	31	PSF
where:	G = gust effect factor. (Sec. 26.11-1, page 269).	=	0.85	
	C_f = net force coefficient. (Fig. 29.3-1, page 323)		1.65	
	A_s = B s = the gross area	=	24.51	FT^2
	Estimated sign cabinet weight	=	148	LBS.

DESIGN SUMMARY

Allowable Stress Design Wind Factor =		0.60	
Design Wind Pressure =	0.6 x p =	18.82	PSF
Design Windforce, F =	18.82 x As =	0.46	KIPS
Moment Arm =		6.05	FT
Design Moment =	F x Moment Arm =	2.79	KIP-FT

Footing Design (Nonconstrained)

Diagonal =	3.35	FT
Soil Pressure =	150.00	PSF/FT
S_1 =	315.00	PSF
A =	1.02	FT
EMBED. =	3.16	FT **33" FROST DEPTH**

WIDTH = 36" **LENGTH = 18"** **DEPTH = 3' - 3"**

Pole Design

Sec. Mod. Req'd. — STD. STL. PIPE USE A53 GR. B

S = 1.60 — **3" DIA., t = 0.216"** — S = 1.63 **(OK)**

NOTES :

GENERAL :
- SIGN DESIGN IS BASED ON ADEQUATE EXISTING SUPPORT ELEMENTS.
- PROVIDE ISOLATION OF DISSIMILAR MATERIALS.
- COAT ALUMINUM IN CONTACT WITH CONCRETE WITH ZINC RICH PAINT.
- THERE IS NO PROTECTION ZONE AS DEFINED IN AISC 341-16.
- PROVIDE FULLY WELDED END CAPS AT EXPOSED OPEN ENDS OF STEEL / ALUM. TUBES, MATCH THICKNESS LIKE FOR LIKE.
- SLOPE TOP OF EXPOSED FOOTING AWAY FROM DIRECT BURIAL POSTS
- ALL EXPOSED STEEL TO BE PRIMED & PAINTED (POWDER COAT AS AN OPTION) OR ALTERNATIVELY USE GALVANIZED STEEL.

ANCHORS :
- BRAND NAME APPROVED POST INSTALLED ANCHORS SPECIFIED ON PLANS MAY BE SUBSTITUTED BY APPROVED EQUAL.

STEEL :

DESIGN AND FABRICATION ACCORDING TO 2018 IBC
- PLATE, ANGLE, CHANNEL TEE: ASTM A36
- WIDE FLANGE: ASTM A992
- ROUND PIPE: ASTM A53 GRADE B OR EQUIVALENT.
- HSS ROUND, SQUARE, AND RECTANGULAR TUBE: ASTM A500 GRADE B OR EQUIVALENT.
- ALL ANCHORS BOLTS SHOULD BE: ASTM F1554
- ALL STEEL MACHINED BOLTS SHOULD BE: ASTM A307 OR ASTM A449
- ALL STAINLESS STEEL MACHINED BOLTS SHOULD BE: ASTM A276
- ALL BOLTS TO BE ZINC COATED: ASTM B633
- DEFORMED REINFORCING REBAR: ASTM A615 GRADE 60.

ALUMINUM :

DESIGN AND FABRICATION ACCORDING TO 2015 ALUM. DESIGN MANUAL
PLATES, ANGLES, CHANNELS, TEE, AND SQUARE TUBING: ALUMINUM
- ALLOY 6061 - T6 WITH 0.098 LBS PER CUBIC INCH.

WELDING :

STEEL

DESIGN AND FABRICATION ACCORDING TO AWS D1.1. / D1.3
- AWS CERTIFICATION REQUIRED FOR ALL STRUCTURAL WELDERS.
- E70 XX ELECTRODE FOR SMAW PROCESS.
- E70S XX ELECTRODE FOR GMAW PROCESS.
- ER7 XX ELECTRODE FOR GTAW PROCESS.
- E70T XX ELECTRODE FOR FCAW PROCESS.

ALL WELDS SHALL BE MADE WITH A FILLER METAL THAT CAN PRODUCE WELDS THAT HAVE A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20FT-LB AT ZERO 0° AS DETERMINED BY THE APPROPRIATE AWS A5 CLASSIFICATION TEST METHOD OR MFG'S. CERTIFICATION.

ALUMINUM

DESIGN AND FABRICATION ACCORDING TO AWS D1.2. ALL WELDING IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS A.5.10.
FILLER ALLOYS PER TABLES M.9.1 & M.9.2 OF 2015 ALUMINUM DESIGN MANUAL.

CONCRETE :

DESIGN AND CONSTRUCTION ACCORDING TO ACI 318-14
- COMPRESSIVE STRENGTH AT 28 DAYS, f 'c= 2500 PSI MINIMUM.
- CEMENT TYPE II OR IV. W/C RATIO 0.45 BY WEIGHT FOR PIER AND CAISSON
- FOOTINGS CONCRETE MUST BE POURED AGAINST UNDISTURBED EARTH.
- MAINTAIN A MINIMUM 3" CONCRETE COVER OVER ALL EMBEDDED STEEL.

SOIL:

LATERAL SOIL BEARING PER IBC CLASS 4 TABLE 1806.2 (150 PSF/FT). MODIFIED PER SECTION 1806.3.4.

STATE OF MISSOURI
JACOB
NUMBER
PE-2015031223
PROFESSIONAL ENGINEER
1/3/2022

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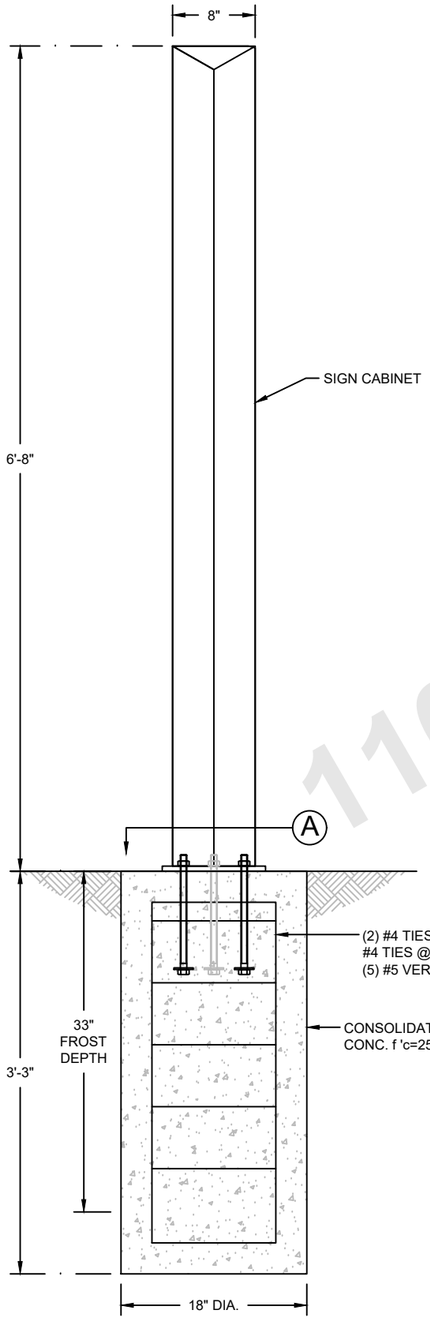
SHEET TITLE:

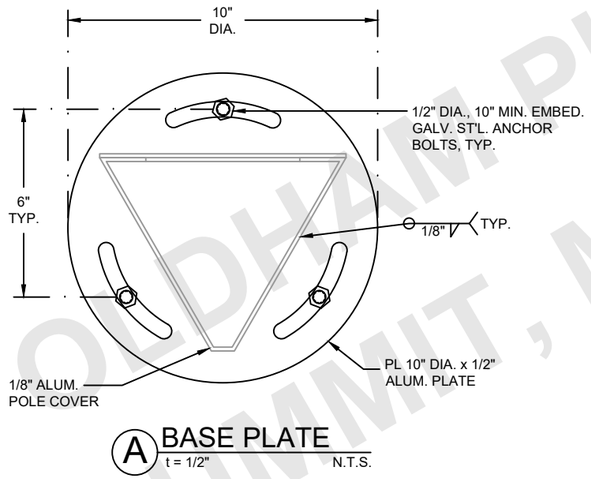
CHIPOTLE MEXICAN GRILL #4098 MONUMENT

DRN BY: B.B.	DATE LAST REVISED: Dec 29, 2021	REV. NO.	REV. DATE	REVISED BY	PROJECT JOB # : JTS_248821_Chipotle Mexican Grill #4098_Signage_1103 SW Oldham Parkway_Lee's Summit M
CHK BY: T.J.	PROJ. START DATE: DEC. 29, 2021	1	--/--/--	---	PROJECT LOCATION : CHIPOTLE MEXICAN GRILL #4098 1103 SW OLDHAM PARKWAY LEE'S SUMMIT, MO
REV BY: T.J.	SCALE: AS SHOWN	2	--/--/--	---	SHEET # 1 OF 1
PLOTTED BY: Local User	ON 12/29/2021 4:26:27 PM	3	--/--/--	---	



ELEVATION

N.T.S.



A BASE PLATE
t = 1/2"
N.T.S.

Sign Design Based On 2018 IBC

Job #	JTS_248821			
Project	Chipotle Mexican Grill #4098 - Directional			
Job Location	1103 SW Oldham Parkway			
	Lee's Summit, MO			
INPUT DATA				
Exposure category (B, C or D)		=	C	
Risk Category		=	II	
Ultimate Design Windspeed	V_{ULT}	=	110	MPH
Topographic factor	K_{zt}	=	1	Flat
Height of the sign	h	=	6.67	FT
Vertical dimension (for wall, s = h)	s	=	6.67	FT
Horizontal dimension	B	=	0.67	FT
Dimension of return corner	L_r	=	0.50	FT
ANALYSIS				
Velocity pressure				
$q_z = 0.00256\ K_z K_{zt} K_d V^2 K_e$		=	**22.38**	PSF
where:				
q_z = velocity pressure at height h. (Eq. 26.10-1 page. 268)				
K_z = velocity pressure exposure coefficient		=	**0.85**	
evaluated at height above gRnd. level, h (Tab. 26.10-1, page 268)				
K_d = wind directionality factor. (Tab. 26.6-1, page 266)		=	**0.85**	
K_e = ground elevation factor, see (Tab. 26.9-1, page 268)		=	**1.00**	
Wind Force Case A: resultant force through geometric center				
Max horizontal wind pressure =	**$p = q_h G C_f$ =**	=	32	PSF
where: G = gust effect factor. (Sec. 26.11-1, page 269).		=	**0.85**	
C_f = net force coefficient. (Fig. 29.3-1, page 323)			**1.70**	
A_s = B s = the gross area		=	**4.47**	FT^2
Estimated sign cabinet weight		=	12	LBS.
DESIGN SUMMARY				
Allowable Stress Design Wind Factor =			**0.60**	
Design Wind Pressure =		**0.6 x p =**	**19.40**	PSF
Design Windforce, F =		**19.40 x As =**	**0.09**	KIPS
Moment Arm =			1.50	FT
Design Moment = F x Moment Arm =			**0.13**	KIP-FT

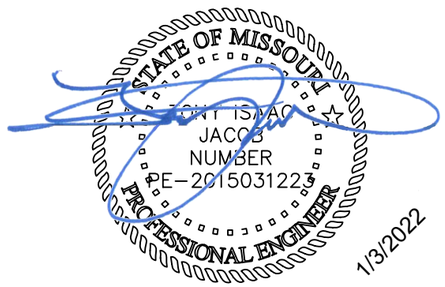
Footing Design (Nonconstrained)

Diameter =	1.50	FT	
Soil Pressure =	150.00	PSF/FT	
S_1 =	165.00	PSF	
A =	0.82	FT	
EMBED. =	1.64	FT	**33" FROST DEPTH**

18	**IN. DIA.**	**DEPTH =**	**3' - 3"**

Anchor Design			GALV. ST'L. ANCHOR BOLT			
Tension Req'd.			USE	F 1554 GR. 36		
T = 130	**1/2" DIA., x**	**10" MIN. EMBED**			T =	4260
Shear Req'd.						
V = 49					V =	2270
Unity =	(130 /	4260) +	(49 /	2270) =	0.05	**< 1 (OK)**

Mounting Plate		Alum. Plate			
Thickness Req'd.		USE	6061-T6		
t = 0.19	**10" DIA. x 1/2"**			t=0.50	



NOTES :

GENERAL :
- SIGN DESIGN IS BASED ON ADEQUATE EXISTING SUPPORT ELEMENTS.
- PROVIDE ISOLATION OF DISSIMILAR MATERIALS.
- COAT ALUMINUM IN CONTACT WITH CONCRETE WITH ZINC RICH PAINT.
- THERE IS NO PROTECTION ZONE AS DEFINED IN AISC 341-16.
- PROVIDE FULLY WELDED END CAPS AT EXPOSED OPEN ENDS OF STEEL / ALUM. TUBES, MATCH THICKNESS LIKE FOR LIKE.
- SLOPE TOP OF EXPOSED FOOTING AWAY FROM DIRECT BURIAL POSTS
- ALL EXPOSED STEEL TO BE PRIMED & PAINTED (POWDER COAT AS AN OPTION) OR ALTERNATIVELY USE GALVANIZED STEEL.

ANCHORS :
- BRAND NAME APPROVED POST INSTALLED ANCHORS SPECIFIED ON PLANS MAY BE SUBSTITUTED BY APPROVED EQUAL.

STEEL :

DESIGN AND FABRICATION ACCORDING TO 2018 IBC
- PLATE, ANGLE, CHANNEL TEE: ASTM A36
- WIDE FLANGE: ASTM A992
- ROUND PIPE: ASTM A53 GRADE B OR EQUIVALENT.
- HSS ROUND, SQUARE, AND RECTANGULAR TUBE: ASTM A500 GRADE B OR EQUIVALENT.
- ALL ANCHORS BOLTS SHOULD BE: ASTM F1554
- ALL STEEL MACHINED BOLTS SHOULD BE: ASTM A307 OR ASTM A449
- ALL STAINLESS STEEL MACHINED BOLTS SHOULD BE: ASTM A276
- ALL BOLTS TO BE ZINC COATED: ASTM B633
- DEFORMED REINFORCING REBAR: ASTM A615 GRADE 60.

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SHEET TITLE:

CHIPOTLE MEXICAN GRILL #4098
DIRECTIONAL

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