

VICINITY MAP

N.T.S.



AERIAL VIEW

ROGER GHANTOUS - 613-889-8135

RGhantous@pattisonid.com

BRIAN HEAD - 210-349-3804

BHead@pattisonid.com



Design #

0629178AR7

Sheet 1 of 28

Client

#5391

Address

3310 WASHTENAW AVE,
ANN ARBOR, MI

Account Rep. ROGER GHANTOUS

BRIAN HEAD

Designer ANGELICA

Date 04/16/2024

Approval / Date

Client

Sales

Estimating

Engineering

Landlord

Revision/Date

- R1(06/10/2024)AM: UPDATED ICON SIGN TO SCRIPT IN ARTWORK. RELOCATED FLAGPOLE LOCATION. ADDED VESTIBULE DOOR VINYL "ORDER" AND "PICK UP"
- R2(07/24/2024)AM: UPDATED SP. FLOOR PLAN AND ELEVATIONS
- R3(08/19/2024)AM: ADDED BLADE SIGN 0 TO SCOPE
- R4(08/22/2024)AM: UPDATED SIGN J1-2 TO BRONZE PANELS
- R5-REDTAG(01/24/2025)AM: UPDATED SPECS PER MARKED REDTAG
- R6(02/21/2025)AM: ADDED STAMPED ENGINEERING FOR SIGN A
- R7(02/27/25)LL: UPDATED N3 TO Q2. ADDED STAMPED ENGINEERING FOR CL. ADDED DOOR VINYL TO FRONT ELEVATION



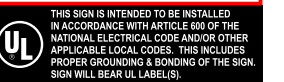
National Headquarters 14201 Sovereign Road #101
Fort Worth, TX 76155
(214)902-2000 Fax:(214)902-2044

San Antonio 17319 San Pedro Ave
Ste. 200
San Antonio, TX 78232
(210)349-3804 Fax (210)349-8724

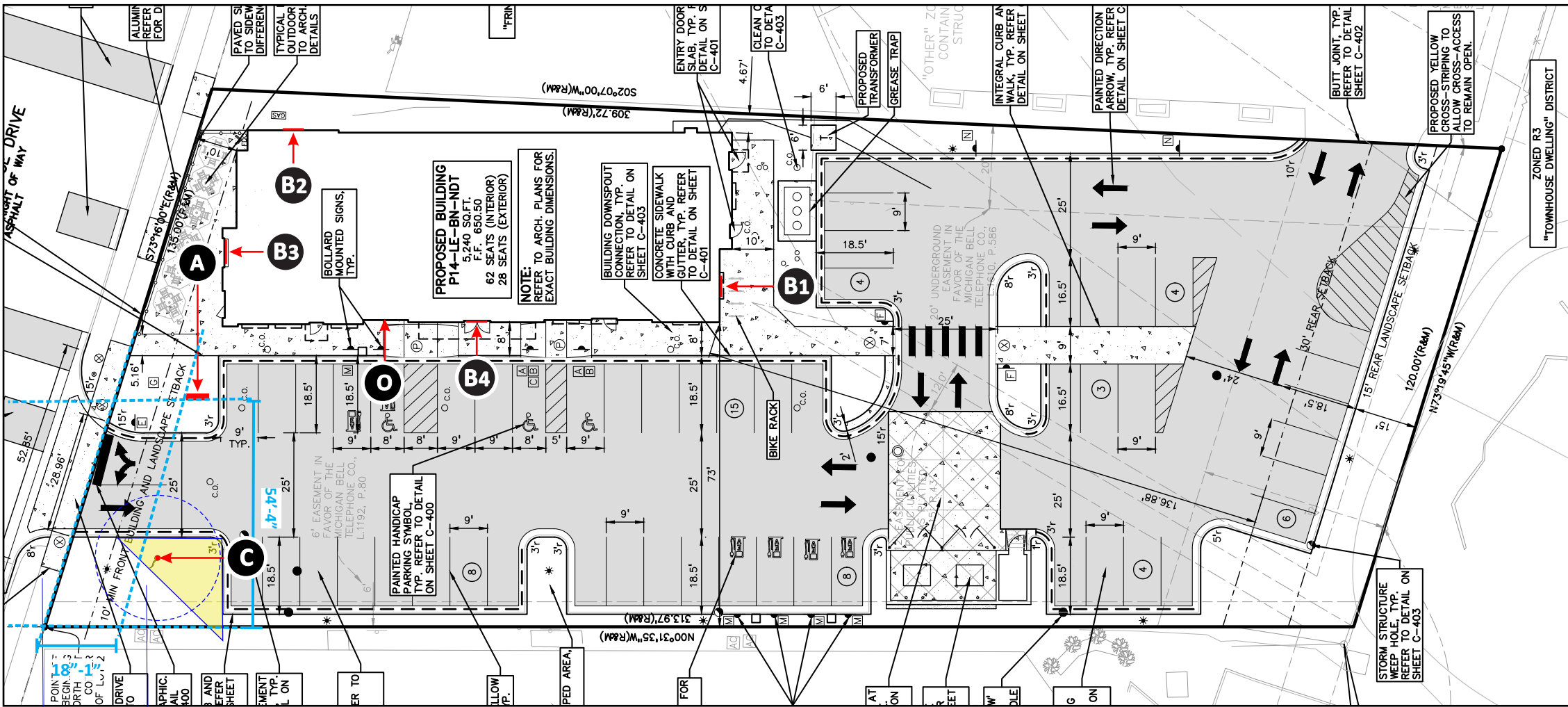
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FINAL ELECTRICAL CONNECTION BY CUSTOMER



AERIAL VIEW



25'-0"

SITE PLAN 1

SCALE: 1/32" = 1'-0"

SIGN I-D LETTER	FACE A	FACE B
A		
B1-4	5'-0"	N/A
C	18'	N/A
O		N/A

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Sheet 2 of 28

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R7(2/27/25)LL: UPDATED N3 TO C2. ADDED STAMPED ENGINEERING FOR CL. ADDED DOOR VINYL TO FRONT ELEVATION



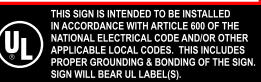
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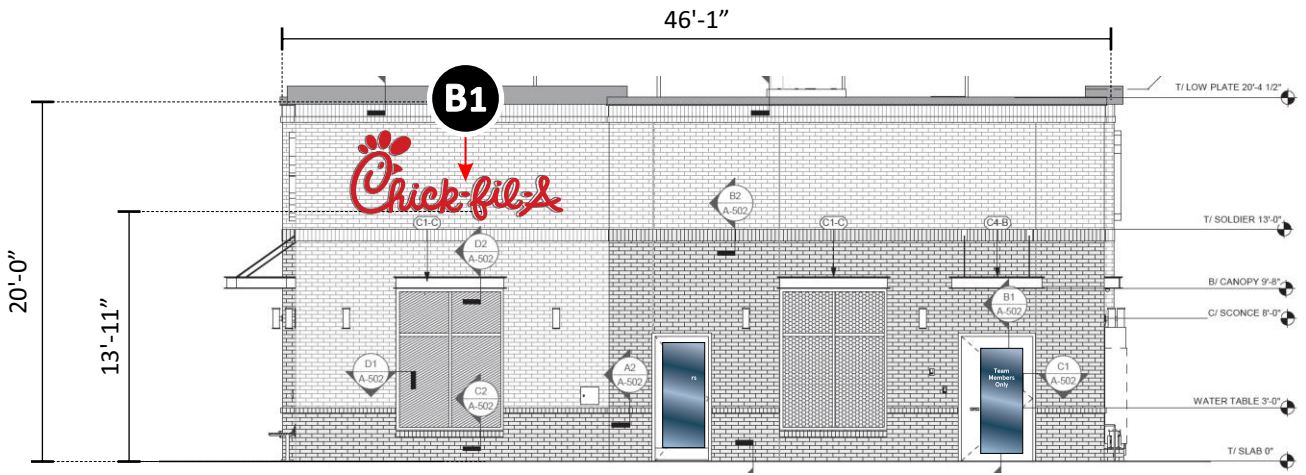
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FINAL ELECTRICAL CONNECTION BY CUSTOMER



SITE PLAN/KEY

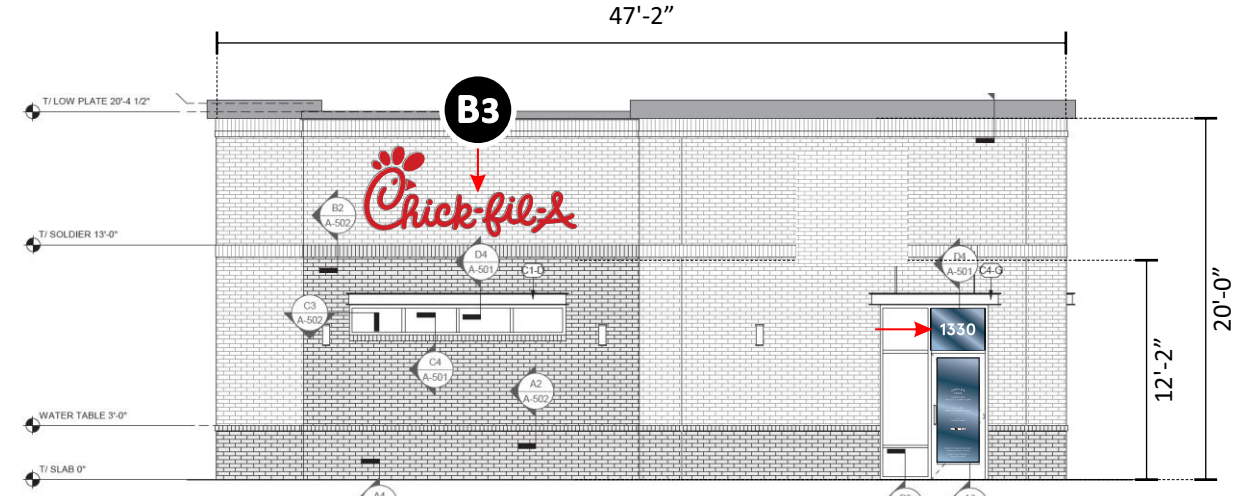


REAR BLDG. ELEVATION

SIGN: 38 SQ. FT.

SCALE: 3/32" = 1'-0"

BLDG. SQ. FT. 912.41

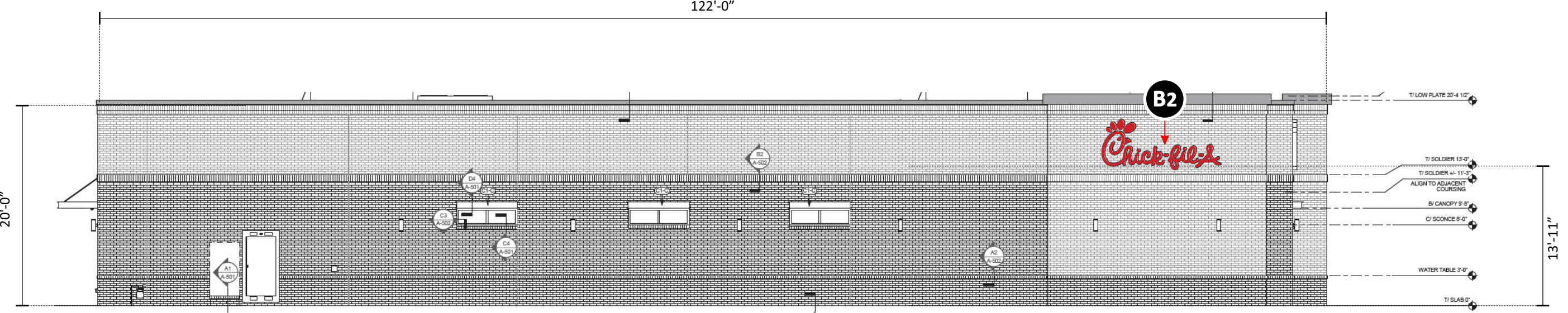


FRONT BLDG. ELEVATION

SIGN: 38 SQ. FT.

SCALE: 3/32" = 1'-0"

BLDG. SQ. FT. 946.42

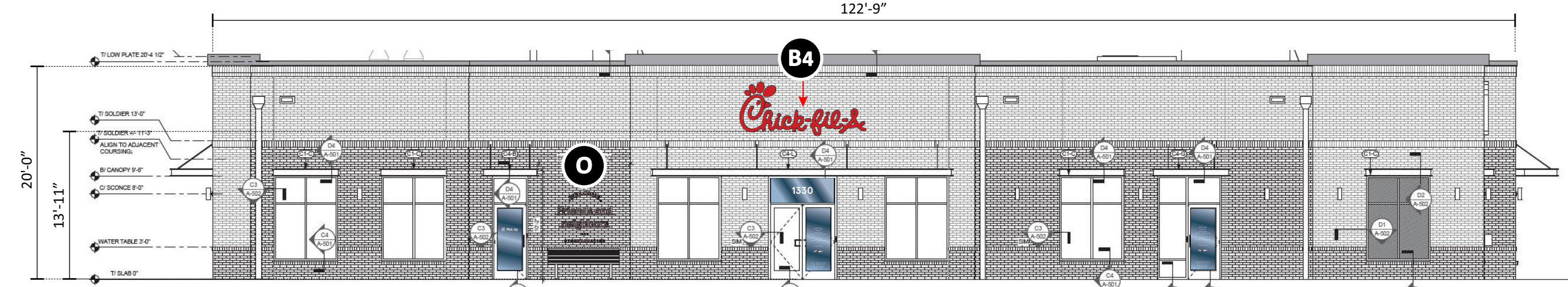


DRIVE THRU ELEVATION

SIGN: 38 SQ. FT.

SCALE: 3/32" = 1'-0"

BLDG. SQ. FT. 2450.35



MAIN ENTRY ELEVATION

SIGN: 38 SQ. FT.

SCALE: 3/32" = 1'-0"

BLDG. SQ. FT. 2459.63

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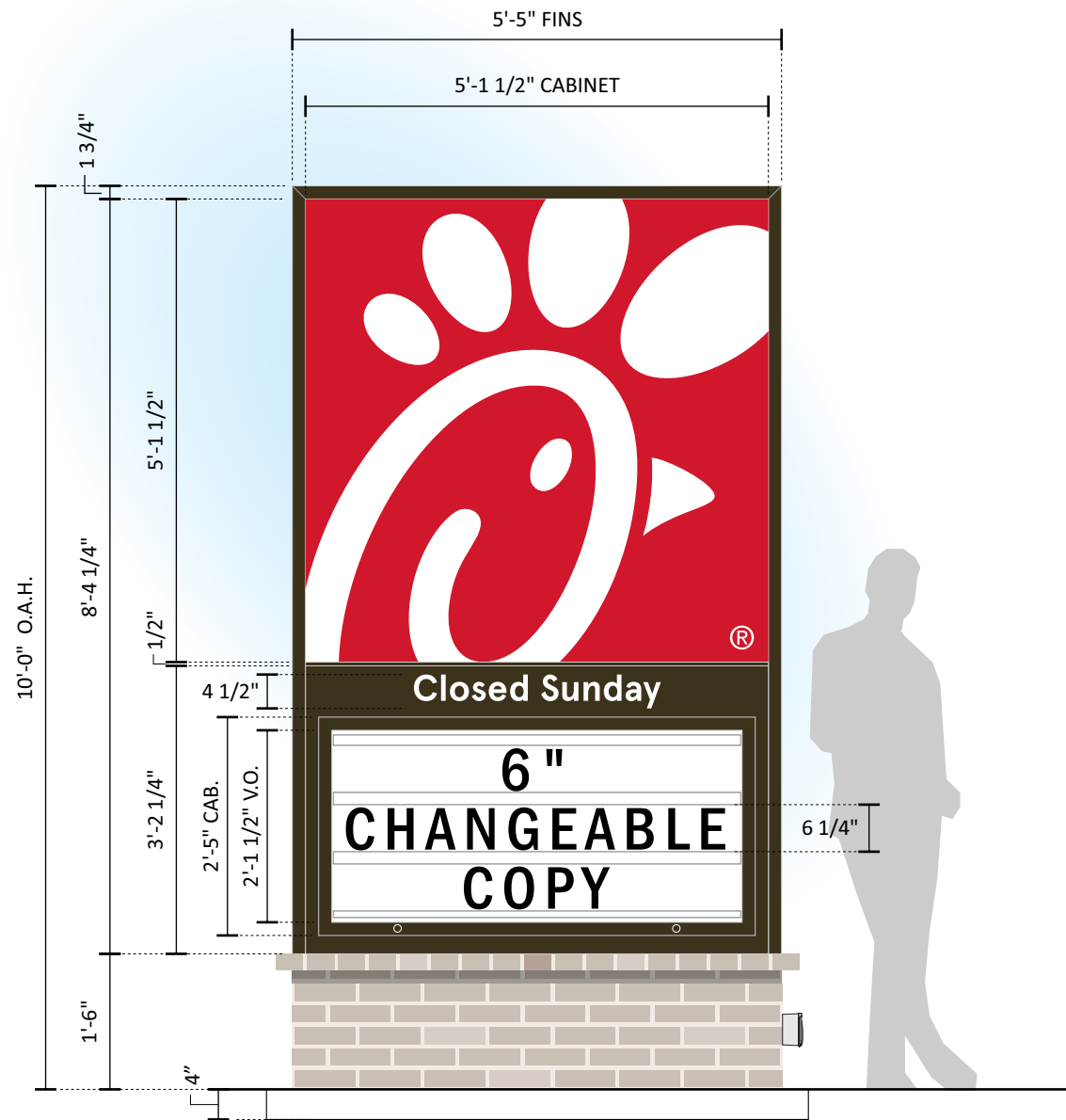
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FINAL ELECTRICAL CONNECTION BY CUSTOMER



ELEVATIONS



A D/F MONUMENT SIGN SCALE: 1/2" = 1'-0"
 ONE (1) REQUIRED - MANUFACTURE AND INSTALL 46 SQ. FT.

SPECS:
 MONUMENT IS EXTRUDED ALUM. FRAME WITH ALUMINUM TUBE FRAME BASE. .080" ALUM. CLADDING PAINTED MATTHEWS #20181 EQUUS BRONZE, SATIN.

MAIN ID LOGO FACES
 EXTRUDED ALUM. CABINET PAINTED MATTHEWS #74155 DARK BRONZE, SEMI- GLOSS. WHITE BLEED 3M PANOGRAPHIC III FACES WITH 3M #3630-53 CARDINAL RED TRANSLUCENT VINYL APPLIED 1ST SURFACE. TENSION FRAME RETAINER TO BE PAINTED GENESIS M SINGLE STAGE (G2-SERIES) RED #48247. CABINET IS INTERNALLY ILLUMINATED WITH 7100K WHITE LEDS AS REQUIRED.

READER BOARD DISPLAY
 .125" ALUM. FACE PAN PANEL WITH ROUTED OUT OPENING FOR READER BOARD AND R.O.S.T. COPY READING "CLOSED SUNDAY", WITH HINGED LOCKABLE F-TRACK VANDAL COVER PAINTED MATTHEWS #20181 EQUUS BRONZE, SATIN CLEAR LEXAN FACE WITH HINGED VANDAL COVER FRAME. INSET 3/16" #7328 WHITE PLEX. TRACK TO ACCOMMODATE THREE (3) LINES OF 6" CHICK-FIL-A COMMERCIAL CHANGEABLE ZIP LETTER SET OF 334. INTERNALLY ILLUMINATED SAME AS ABOVE.

DFW TECHNICAL DESIGNERS, PLEASE NOTE THAT ALL READERBOARD COVERS NEED 2 LOCKS, ONE NEAR THE CORNERS ON THE OUTSIDE OR BOTTOM OF THE DOOR. INCLUDE ONE KICKER BAR PER HINGED FACE. LOCKS TO BE KEYED ALIKE.

FABRICATED BASE FRAME
 .1" x 1" x .125" ALUMINUM SQ TUBE WITH 1/2" CEMENT BOARD.

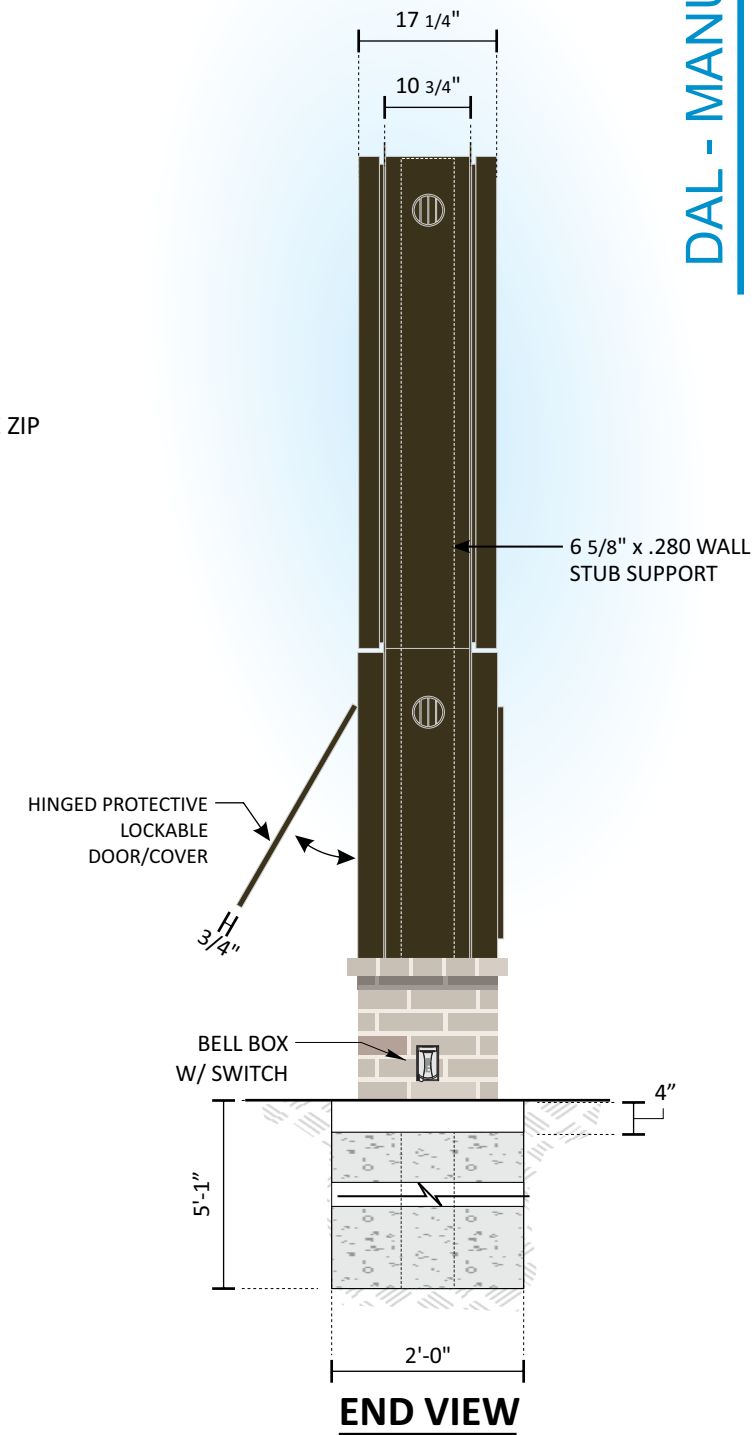
FOUNDATION SYSTEM
 ONE (1) 6 5/8" O.D. x .280" WALL STEEL SUPPORT
 ONE (1) 24" x 5'-1" DEEP CONCRETE PIER.

MOWPAD TO BE INCLUDED WITH CONCRETE PIER.

MODULAR BRICK: 2 1/4" x 3 5/8" x 7 5/8"

MASONRY / BRICK: BY G.C.
 THE MONUMENT BRICK MATERIAL AND DESIGN SHALL MATCH THE BUILDING MATERIAL AND MORTAR FINISH.

PRIMARY ELECTRIC RUN THRU NEC APPROVED WEATHER PROOF CONDUIT - COORDINATE PRIOR TO CONCRETE FOUNDATION / PAD POUR.



DAL - MANUFACTURING
 NEW RB FONT

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CHANDLER SIGNS

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FINAL ELECTRICAL CONNECTION BY CUSTOMER

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UL

Chick-fil-A

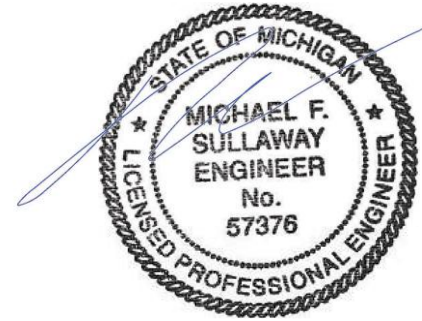
A



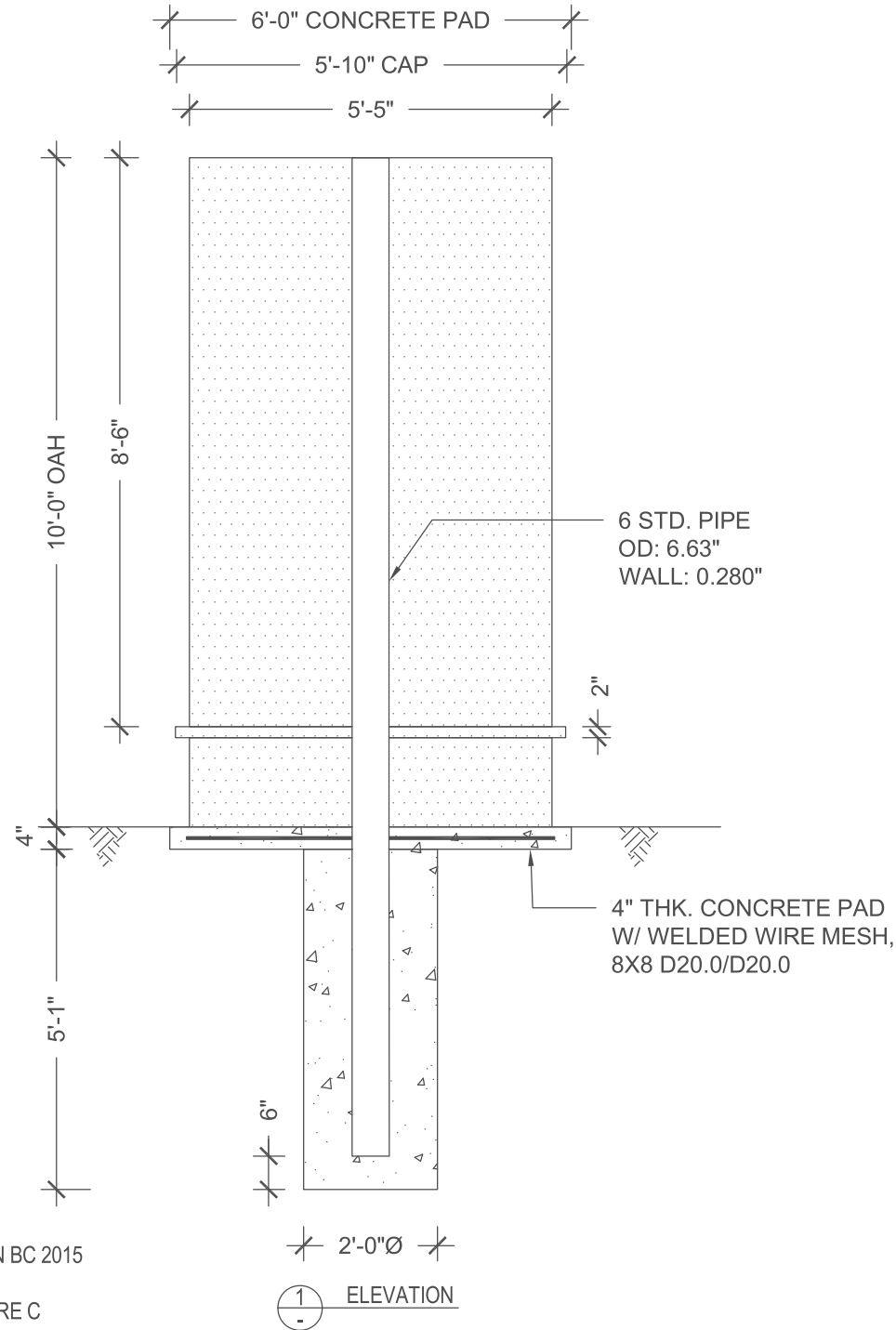
12396 WORLD TRADE DRIVE, SUITE 312,
SAN DIEGO, CA 92128
PROJECTMANAGER@SULLAWAYENG.COM
PHONE: 1-858-312-5150 FAX: 1-858-777-3534

PROJECT: CHICK-FIL-A, 3310 WASHTENAW AVE., ANN ARBOR, MI
PROJECT #: 50107
CLIENT: PATTISON ID

DATE: 02/17/2025
ENGINEER: TH
LAST REVISED:



2/19/2025



GENERAL NOTES

- DESIGN CODE: IBC 2015, MICHIGAN BC 2015
- DESIGN LOADS: ASCE 7-10
- WIND VELOCITY 115 MPH EXPOSURE C
- CONCRETE 2500 PSI MINIMUM
- PIPE STEEL ASTM A53 GR. B, F_y = 35 KSI MIN.
- STEEL REINFORCEMENT IN CONCRETE ASTM A615 GR 60
- PROVIDE MIN. 3" CLEAR COVER ON ALL STEEL EMBEDDED IN CONCRETE WHEN CAST AGAINST SOIL
- LATERAL SOIL BEARING PER IBC CLASS 4 (150 PSF/FT)
- PROVIDE PROTECTION AGAINST DISSIMILAR METALS
- ALL DIMENSIONS TO BE VERIFIED PRIOR TO FABRICATION



PROJECT: CHICK-FIL-A
PROJ. NO.: 50107
CLIENT: PATTISON ID

DATE: 2/17/2023
ENGINEER: TH

v5.5

units; pounds, feet unless noted otherwise

Applied Wind Loads; from ASCE 7-10 (LRFD):

$P = q_z * G * C_f * A_f$ with $q_z = 0.00256 K_z K_{zt} K_d V^2$ (29.3.2 & 29.4)
 $C_f = 1.559$ (Fig. 29.4-1) max. height = 10.33
 $K_{zt} = 1.0$ (26.8.2) (=1.0 unless unusual landscape)
 $K_z =$ from table 28.3-1 Exposure = c
 $K_d = 0.85$ for signs (table 26.6-1)
 $V = 115$ mph
 $G = 0.85$ (26.9) weight = 0.542 kips
 $s/h = 0.968$ $M_{DL} = 0.00$ k-ft
 $B/s = 0.54$

Pole Loads	structure component	height at section c.g.	K_z	q_z	pressure $q_z * G * C_f$	A_f	shear	Wind Moment M_w	
	1	0.17	0.850	24.5	32.42	0.00	0	0	
	2	1.00	0.850	24.5	32.42	7.22	234	234	
	3	1.75	0.850	24.5	32.42	0.97	32	55	
	4	6.08	0.850	24.5	32.42	46.04	1493	9080	
					sums:	54.24	1758	9.37	(M_w) k-ft arm = 5.3
					for $s/h=1$, add 10% (asce fig. 29.4-1):	x 1.10		10.31	
					$P_u = 0.65$ kip			$M = 10.31$ k-ft	$M = \sqrt{M_{DL}^2 + M_w^2}$
					$M_u = \sqrt{1.2 M_{DL}^2 + 1.0 M_w^2} = 10.31$ k-ft				

Pole Design section; Pipe

$M_u \leq \phi M_n$ with $M_n = f_y Z$ $f_y = 35$ ksi $\phi = 0.9$

H	M_u (k-ft)	Z req'd. (in)	Size(in)	t (in)	Z	USE
at 4" below grade	10.31	3.93	4	0.237	4.1	6 Std. Pipe, $\phi M_n = 27.8$ k-ft

Footing Design footprint: round

$\omega = 1.3$	IBC 1605.3.2	IBC Table 1806.2, sections 1806.3.4, 1807.3.2	$S = (1.3x2x150 \text{ psf/ft})$
$P = 1.37$	kip	$S_1 = S \times d / 3$	$A = 2.34 \times P / (S_1 \times b)$ $S = 400$
$S_1 = 677$		$d = 0.5xA (1 + (1+4.36x h/A)^{.5})$	IBC 1807.3.2.1
$A = 2.37$			

footing: 2' - 0" dia. 5' - 1" deep

Design #
0629178AR7

Sheet 7 of 28

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Designer ANGELICA

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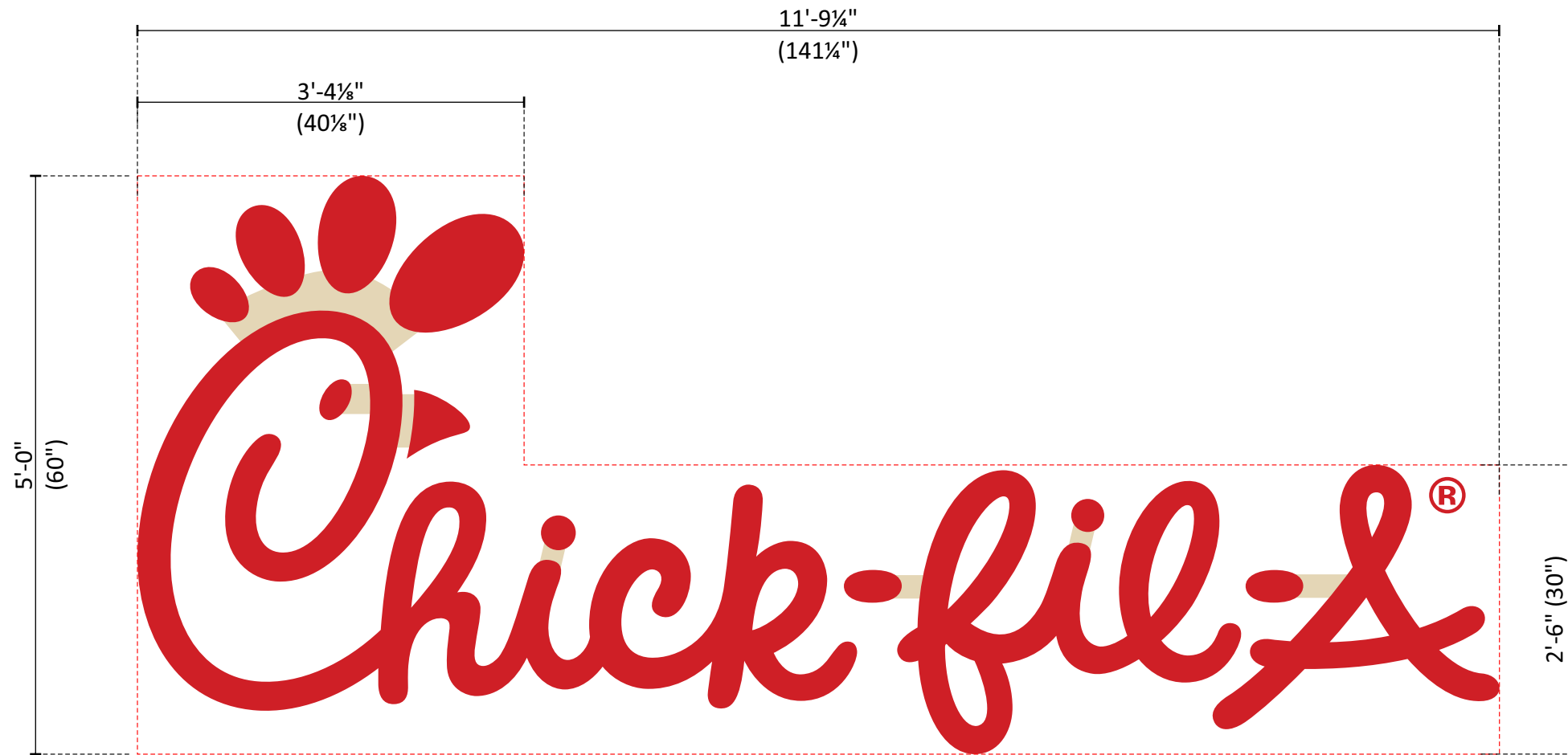
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FINAL ELECTRICAL CONNECTION BY CUSTOMER



A



B1-4

CFA - PCL 5-0

FOUR (4) REQUIRED - MANUFACTURE AND INSTALL

SCALE: 3/4" = 1'-0"

LIVE AREA: 38 SQ. FT.

OVERALL AREA: 59 SQ. FT.

[SEE SECTION DETAIL](#)

DAL - MANUFACTURING
NEW CFA LOGO

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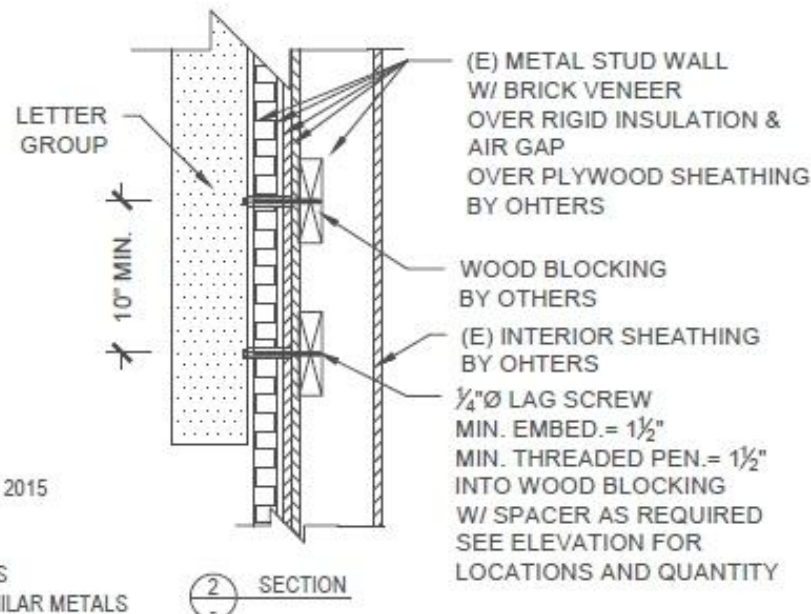
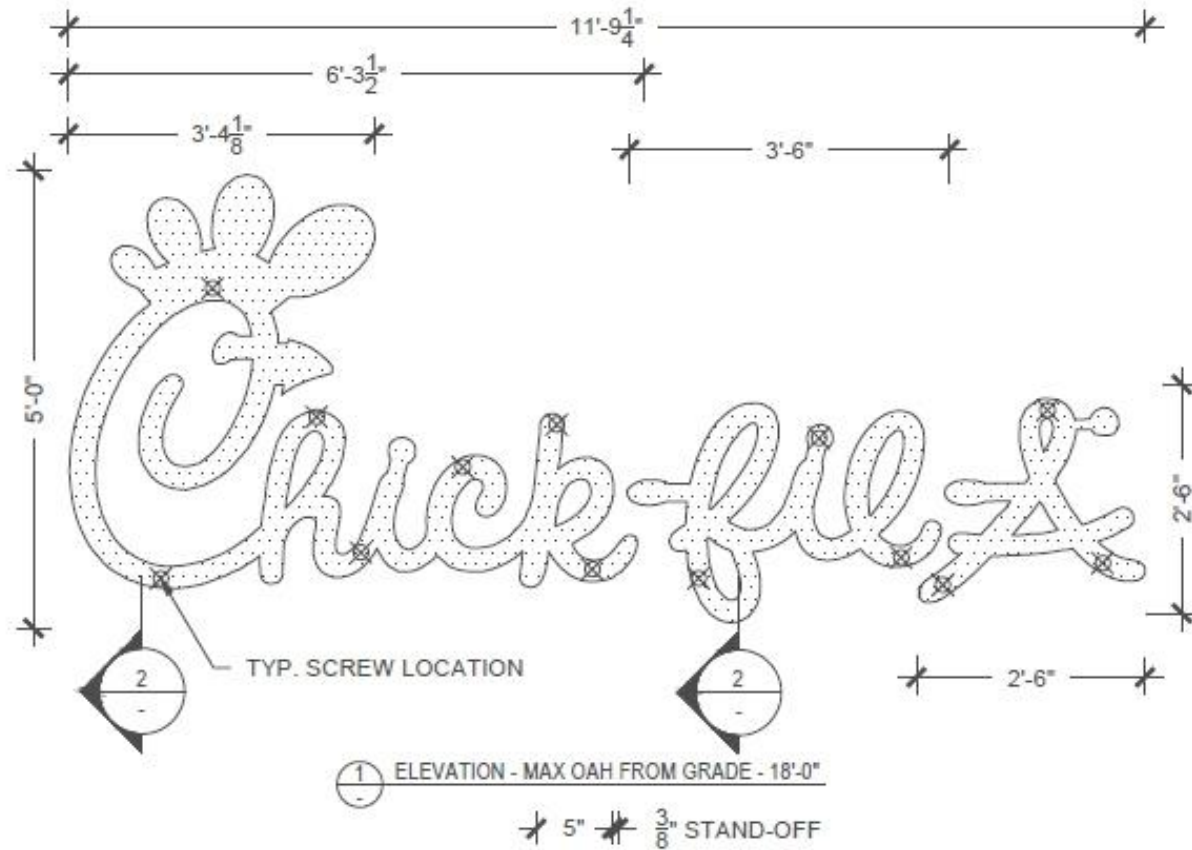
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PROJECT: CHICK-FIL-A, SIGN TYPE: SIGNS B1-4, 3310 WASHTENAW AVE., ANN ARBOR, MI
PROJECT #: 50107B
CLIENT: PATTISON ID

DATE: 2/22/2025
ENGINEER: PRC
LAST REVISED:



GENERAL NOTES

- DESIGN CODE: IBC 2015 & MICHIGAN BC 2015
- DESIGN LOADS: ASCE 7-10
- WIND VELOCITY 115 MPH EXPOSURE C
- LAG SCREWS PER NDS SPECIFICATIONS
- PROVIDE PROTECTION AGAINST DISSIMILAR METALS
- ALL DIMENSIONS TO BE VERIFIED PRIOR TO FABRICATION
- ALL EXISTING ELEMENTS AND DIMENSIONS TO BE VERIFIED IN FIELD



PROJECT: CHICK-FIL-A
PROJ. NO.: 50107B
CLIENT: PATTISON ID

DATE: 2/22/2025
ENGINEER: PRC

VS.8

units; pounds, feet unless noted otherwise

Applied Wind Loads; from ASCE 7-10

$P_{net} = \lambda_z K_{zt} P_{net30}$		(ASCE 30.5-1)	
$\lambda_z =$	1.21	(ASCE Fig. 30.5-1)	
$K_{zt} =$	1.0	(unless unusual landscape)	
$V =$	115 mph	Exposure =	c
Area =	6.25 ft ²		
max. height =	18.00 ft		
$P_{net30} =$	23.80 psf	$P_{net} =$	28.80 psf
$P_{net30} =$	-31.90 psf	$P_{net} =$	-38.60 psf

Loads on 0.25" Dia. Lag Screws - Letter Group to Wall (LRFD):

$P_{net} =$	See Above =	38.60 psf
Trib. Area for Letter Group "Chick" =	$A_{Trib} =$ (Area from Auto CAD) =	8.817 ft ²
Wind Load =	$WL = P_{net} * A_{Trib} =$	340 lbs
Dead Load =	$DL = 1.2 * 10psf * A_{Trib} =$	106 lbs
arm =	$(5")/2 + (0.375") =$	2.875 in
MDL =	$DL * arm =$	304 lbs-in
Spacing =	=	10 in
Additional tension due to DL =	$TDL = MDL / spacing / 2screws =$	15 lbs
#screws =	=	7 screws
dia. =	=	0.250 in
Tension per screw =	$T_u = WL / \#screws + TDL =$	64 lbs (Governs)
Shear per screw =	$V_u = DL / \#screws =$	15 lbs (Governs)

Loads on 0.25" Dia. Lag Screws - Letter Group to Wall (LRFD):

$P_{net} =$	See Above =	38.60 psf
Trib. Area for Letter Group "Fil" =	$A_{Trib} =$ (Area from Auto CAD) =	3.586 ft ²
Wind Load =	$WL = P_{net} * A_{Trib} =$	138 lbs
Dead Load =	$DL = 1.2 * 10psf * A_{Trib} =$	43 lbs
arm =	$(5")/2 + (0.375") =$	2.875 in
MDL =	$DL * arm =$	124 lbs-in
Spacing =	=	10 in
Additional tension due to DL =	$TDL = MDL / spacing / 1screw =$	12 lbs
#screws =	=	3 screws
dia. =	=	0.250 in
Tension per screw =	$T_u = WL / \#screws + TDL =$	59 lbs
Shear per screw =	$V_u = DL / \#screws =$	14 lbs

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- R1(06/10/2024)AM: UPDATED ICON SIGN TO SCRIPT IN ARTWORK. RELOCATED FLAGPOLE LOCATION. ADDED VESTIBULE DOOR VINYL "ORDER" AND "PICK UP"
- R2(07/24/2024)AM: UPDATED SP. FLOOR PLAN AND ELEVATIONS
- R3(08/19/2024)AM: ADDED BLADE SIGN 0 TO SCOPE
- R4(08/22/2024)AM: UPDATED SIGN J1-2 TO BRONZE PANELS
- R5-REDTAG(01/24/2025)AM: UPDATED SPECS PER MARKED REDTAG
- R6(02/21/2025)AM: ADDED STAMPED ENGINEERING FOR SIGN A
- R7(02/27/2025)AM: UPDATED N3 TO Q2. ADDED STAMPED ENGINEERING FOR CL. ADDED DOOR VINYL TO FRONT ELEVATION



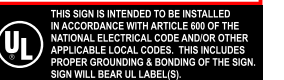
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FINAL ELECTRICAL CONNECTION BY CUSTOMER



B1-4



PROJECT: CHICK-FIL-A
PROJ. NO.: 50107B
CLIENT: PATTISON ID

DATE: 02/22/2025
ENGINEER: PRC

LAG SCREWS (LRFD) - SOLID WOOD TO SOLID ALUMINUM - WITHDRAWAL AND SINGLE SHEAR LATERAL

DESIGN INPUT	FACTORED FASTENER LOADING		MAIN MEMBER		SIDE MEMBER	
		W_u 64 lb	Withdrawal Load	DOUGLAS FIR-LARCH	G 0.5	ALUMINUM
	Z_u 15 lb	Lateral Load		t_m 1.5 in		t_s 0.063 in Thickness
	FASTENER DIMENSIONS		θ 90 deg			
	L_m 1.5 in	Length into Main MBR				
	D 0.250 in	Nominal Diameter				
	w 0 in	Washer				
	g 0.375 in	Gap				

Main Member End Grain (x)

p_{min} 1 in	Minimum dowel penetration for lateral loading [NDS 11.1.3.7]
p 1.5 in	Actual dowel penetration based on selected dowel length

STANDARD HEX LAG SCREWS [NDS Appendix Table L2]

D_r 0.173 in	D 0.25 0.313 0.375 0.438 0.5 0.625 0.75 0.875 1 1.125 1.25
F_{yb} 70000 psi [NDS Table I1]	D_r 0.173 0.227 0.265 0.328 0.371 0.471 0.579 0.683 0.78 0.887 1.012

DOWEL BEARING CALCULATIONS

$F_{e, \perp}$ 5600 psi	Dowel bearing strength, perpendicular to grain [NDS Table 11.3.2 Footnote 2]
$F_{e, \parallel}$ 4465.46 psi	Dowel bearing strength, parallel to grain [NDS Table 11.3.2 Footnote 2]
F_{em} 4465.46 psi	F_e 63000 psi Dowel bearing strength - Hankinson formula [NDS 11.3-11] & Steel [NDS Comm. 12]
L_m 1.5 in	L_e 0.063 in Dowel bearing length
q_m 772.525 lbs/in	q_s 10899 lbs/in Dowel bearing resistance [AWC Technical Report 12] - D, Assumption
M_m 60.4067 in-lbs	M_s 60.4067 in-lbs Dowel moment resistance based [AWC Technical Report 12] - D, Assumption

YIELD MODE DOWEL EQUATIONS [AWC Technical Report 12 Table 1-1]

I_m 415.708 lb	P 1158.79	R_d 2.788	K_D 2.23	θ 90
I_b 246.327 lb	P 686.637	R_d 2.788	K_D 2.23	K_θ 1.25
II 125.081 lb	P 348.664	A 3E-04	B 1.157	C -445.36
III_m 139.911 lb	P 390.002	A 4E-04	B 1.125	C -494.95
III_b 50.9327 lb	P 141.975	A 7E-04	B 0.407	C -71.221
IV 81.4212 lb	P 226.961	A 7E-04	B 0.375	C -120.81

Z 50.9327 lb	Ref Value	Adjustment Factors [NDS Table 10.3.1]										
Z' 110.015 lb	Adj Value	C_{dp}	C_t	C_g	C_D	C_{θ}	C_{eg}	C_{θ}	C_{Tn}	K_f	ϕ	λ
RATIO 0.14 PASS		1	1	1	1	1	1	1	1	3.32	0.65	1

WITHDRAWAL LOADING [NDS 11.2.1]

W 225 lb/in	Reference Value [NDS 11.2-1]	Adjustment Factors [NDS Table 10.3.1]					
W' 486 lb/in	Adj Value	C_{dp}	C_t	C_{eg}	K_f	ϕ	λ
p_{LREQ} 0.13132 in	Required thread penetration for withdrawal	1	1	1	3.32	0.65	1
p_{LREQ} 0.250 in	-->Rounded up to nearest 1/8"						
$p_{L,OV}$ 1.5 in	Override for additional thread penetration						
$p_{L,MIN}$ 1.500 in							

COMBINED LATERAL AND WITHDRAWAL LOADING [NDS 11.4.1]

α 1.33827 rad = 76.68 deg	
Z_u' 65.5891 lb	
Z_u' 561.304 lb	Based on $p_{L,MIN}$
RATIO 0.12 PASS	

Design #
0629178AR7

Sheet 11 of 28

Client
#5391

Address
3310 WASHTEAW AVE,
ANN ARBOR, MI

Account Rep. ROGER GHANTOUS
BRIAN HEAD

Designer ANGELICA

Date 04/16/2024

Approval / Date

Client

Sales

Estimating

Art

Engineering

Landlord

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FINAL ELECTRICAL CONNECTION BY CUSTOMER

THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING & BONDING OF THE SIGN. SIGN WILL BEAR UL LABEL(S).





B1-4

COLORS



MATTHEWS PAINT
EQUUS BRONZE METALLIC
MP20181



EXAMPLE-NOT TO SCALE



CFA- WELCOME F.C.O'S- 5'-6"-ONE LINE SCALE: 1" = 1'-0"
ONE (1) REQUIRED - MANUFACTURE AND INSTALL

SPECIFICATIONS

.5" THK. ALUM. F.C.O'S PAINTED MATTHEWS #20181 EQUUS BRONZE METALLIC
PIN MOUNTED FLUSH TO WALL.

Design #	0629178AR7
Sheet	24 of 28
Client	#5391
Address	3310 WASHTEAW AVE, ANN ARBOR, MI
Account Rep.	ROGER GHANTOUS BRIAN HEAD
Designer	ANGELICA
Date	04/16/2024
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