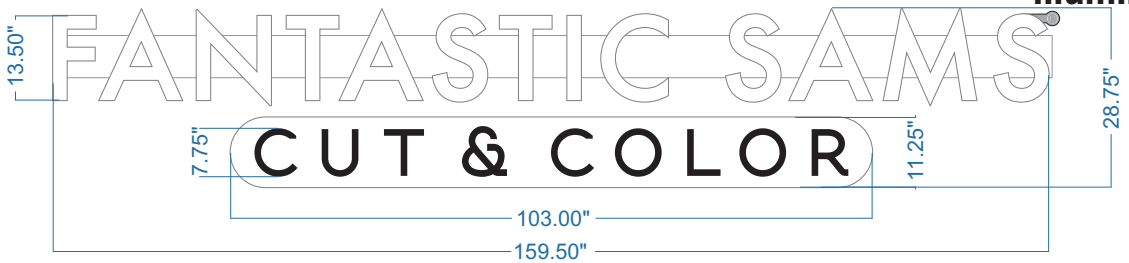
Fantastic Sams
299-B Pascack Rd.
Washington Twp, NJ 07676



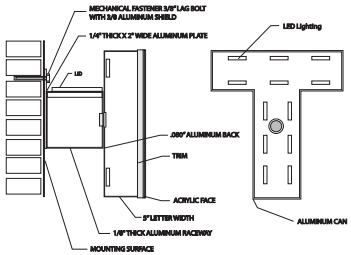
Illuminated Channel Letters on Raceways

Quantity:
1
Trim:
1" White Gemtrim
Return Color:
White
Face:
1/8" White Acrylic w/ Applied Vinyl
Vinyl Color:
Black
Letter Interior:
Gloss White
Internal Illumination:
White LED's
Raceway Color:
To Match Facade
Raceway Size:
4" x 7" 0.125 Extruded Aluminum
Mounting:
Hanging Bars Flush to Fascia

Sq. Ft. Signage:
31.84
Sq. Ft. Allowance:
T.B.D.

EXISTING CONDITIONS

Detail



Claude Ballbe	claude@signsunlimitedusa.com
919-552-8689	www.signsunlimitedusa.com
05.08.20	Underwriters Laboratories Inc.® UL File #E225670

Approval Signature:

Please check all spelling, quantities, colors, and materials before approving

Notes: **NEED SURVEY TO CONFIRM SCALE PRIOR TO MANUFACTURE**

SIGNS UNLIMITED
communicate your identity
6801 Mount Hermon Church Rd, Building C
Durham, NC 27705

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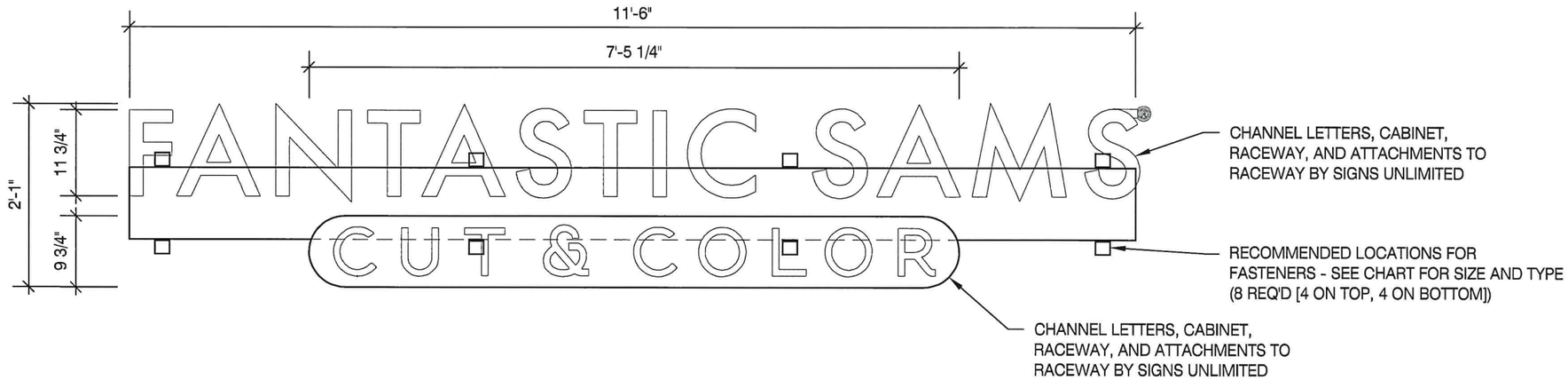
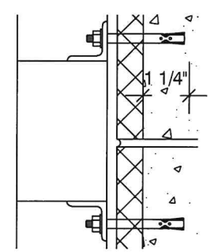
NOTES

1.) SEE MANUFACTURERS DRAWINGS FOR ADDITIONAL DETAILS AND DIMENSIONS.

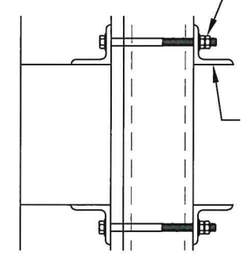
* CLIENT - SIGNS UNLIMITED
* 2018 IBC (NEW JERSEY STATE BUILDING CODE)
* RISK CATEGORY II
* 115 MPH WIND SPEED, EXP. C
* 25 lb/ft² GROUND SNOW LOAD



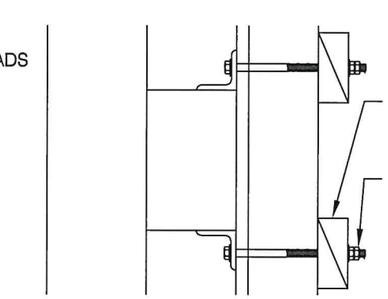
FRONT ELEVATION (A)
SCALE: N.T.S.



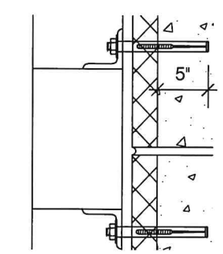
3/8" Ø HILTI HLC ANCHOR (3)
SCALE: N.T.S.



3/8" Ø THRU BOLT (NON WOOD STUD WALL) (4a)
SCALE: N.T.S.



3/8" Ø THRU BOLT (WOOD STUD WALL) (4a)
SCALE: N.T.S.



3/8" Ø EXPANSION ANCHOR (5)
SCALE: N.T.S.

FASTENER CHART (STAINLESS STEEL)		
~~1~~	~~6/8" Ø LIBERTY ANCHOR~~	~~HOLLOW CMU~~
~~2~~	~~6/8" Ø LAG BOLTS~~	~~WOOD ONLY~~
3	3/8" Ø HILTI HLC ANCHOR	MASONRY & CLAY BRICK
4	3/8" Ø THRU BOLTS	MASONRY, WOOD, METAL
5	3/8" Ø EXPANSION BOLTS	SOLID MASONRY ONLY

DESIGNED BY: DSA	DRAWN BY: CNR	CHECKED BY: FCM	CHANNEL LETTERS
APPROVED BY: DSA		REVISIONS NO. / DATE	
DARREN S. ANTLE, P.E.			FANTASTIC SAMS 299-B Pasack Rd. Washington Twp, NJ 07676
N.J. PROFESSIONAL ENGINEER NO. 24GE05111300			MBI COMPANIES INC. 299 N. WEISGARBER RD COA #: 24GA28283400 KNOXVILLE TENNESSEE, 37919
		SCALE N.T.S.	DATE 06/30/20 · DRAWING NO.: 200149.034 · SHEET: 1 of 2

6/30/20

NOTES

1.) SEE MANUFACTURERS DRAWINGS FOR ADDITIONAL DETAILS AND DIMENSIONS.

* CLIENT - SIGNS UNLIMITED
* 2018 IBC (NEW JERSEY STATE BUILDING CODE)
* RISK CATEGORY II
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* 25 lb/ft² GROUND SNOW LOAD

WALL SIGN SPECIFICATIONS

1. REFER TO SIGN COMPANY'S DRAWING(s) FOR MORE DETAILS. ALL DESIGNS, DETAILING, FABRICATION AND CONSTRUCTION SHALL CONFORM TO:
   2018 IBC (NEW JERSEY STATE BUILDING CODE)
   ACI
   AISC
   AMERICAN WELDING SOCIETY
   LOCAL BUILDING CODES & ORDINANCES
2. STD. STEEL PIPE SECTION: ASTM A53 GRADE B (FY=35 KSI), U.N.O.
3. STEEL PIPE SECTION (> 20" Ø): ASTM A252 GRADE 3 (FY=42 KSI MIN.) U.N.O.
4. HSS ROUND SECTION: ASTM A500 GRADE B (FY=42 KSI) U.N.O.
5. HSS SQUARE/RECTANGULAR SECTION: ASTM A500 GRADE B (FY=46 KSI)
6. THREADED ROD: ASTM A193 GRADE B7
7. STEEL ANGLES, CHANNELS, STRUCTURAL SHAPES, & PLATES: ASTM A36
8. WELDING ELECTRODES: E70XX
9. WELDERS SHALL BE CERTIFIED FOR TYPE OF WELDING.
10. THIS ENGINEER DOES NOT WARRANT THE ACCURACY OF DIMENSIONS FURNISHED BY OTHERS.
11. ALL EXPOSED STEEL SHALL BE PAINTED WITH AN ENAMEL PAINT TO PROHIBIT CORROSION.
12. THE CONTRACTOR (INSTALLER) IS RESPONSIBLE FOR THE MEANS & METHODS OF CONSTRUCTION IN REGARDS TO JOB SITE SAFETY.
13. THIS DESIGN IS FOR THE INDICATED ADDRESS ONLY, AND SHOULD NOT BE USED AT OTHER LOCATIONS WITHOUT WRITTEN PERMISSION OF THE ENGINEER.
14. DESIGN OF DETAILS AND STRUCTURAL MEMBERS NOT SHOWN, ARE BY OTHERS.
15. INSTALLED FASTENERS MUST MEET OR EXCEED THE VALUES SHOWN IN THE LIST ON THE CALCULATIONS SHEET.
16. ALL ANCHORS SHALL BE STAINLESS STEEL.
17. WALL SIGNS ATTACHED TO EXTERIOR WALLS OF SOLID MASONRY OR CONCRETE, SHALL BE SAFELY AND SECURELY ATTACHED BY MEANS OF METAL ANCHORS, BOLTS OR EXPANSION BOLTS OF NOT LESS THAN 3/8" DIAMETER AND SHALL BE EMBEDDED AT LEAST 5 INCHES.
18. WOOD BLOCKS SHALL NOT BE USED FOR ANCHORAGE, EXCEPT IN THE CASE OF WALL SIGNS ATTACHED TO BUILDINGS WITH WALLS OF WOOD.
19. A WALL SIGN SHALL NOT BE SUPPORTED BY ANCHORAGE SECURED TO AN UNBRACED PARAPET WALL. LAG BOLT ANCHORAGE INTO WOOD 3" MIN. EMBEDMENT.
20. A THREADED ROD MAY BE USED FOR THRU BOLT CONNECTION (USE WASHER AND DOUBLE NUT OR CRIMP THREADS BOTH ENDS TYP.)
21. SIGN MUST BE ATTACHED TO OR THROUGH SOLID BLOCKING. ATTACHMENT TO SHEATHING ONLY IS NOT ACCEPTABLE.
22. AT E.I.F.S. INSTALLATIONS INSTALL WITH PIPE SLEEVE. SEAL ALL PENETRATIONS.
23. THIS DESIGN FOR ANCHORAGE TO EXISTING STRUCTURE ONLY. BUILDING DESIGNER TO VERIFY ADEQUACY OF STRUCTURE TO RESIST THE ADDITIONAL LOADING. THIS ENGINEER NOT RESPONSIBLE FOR EXISTING STRUCTURE.
24. CHANNEL LETTERS AND WALL SIGNS ARE BY OTHERS
25. ELECTRICAL RACEWAYS ARE BY OTHERS.

WIND DATA

Building Code	2018 IBC (New Jers	Importance Factor, I	1.0	Base Pressure, q_h/K_h	22.1 psf
Wind Load Criteria	ASCE 7-16	Directionality Factor, K_d	0.85	Mean Roof Height, h	20 ft
Wind Speed, V	130 mph	Topography Factor, K_{zt}	1.0	Exposure Coefficient, K_h	0.90
Exposure Category	C	ASD Wind Load Factor, y	0.6	Velocity Pressure, q_h	19.9 psf

FASTENER DATA

Mark	Used Yes/No	Type	Wall Type	Allow. Shear	Allow. Pullout	Anchor Embed	Wood Thicknes	Notes
1	Yes	3/8" Liberty Anchor	Masonry (Hollow), Wood, Cold-Form Steel	300	300	--	--	
2	Yes	3/8" Lag Bolt	Wood	200	300	3	3	
3	Yes	3/8" Hilti HLC Anchor	Masonry & Clay brick	300	300	1 1/4	--	Refer to manufacturers specifications for minimum req's
4	Yes	3/8" Thru Bolt	Masonry (Hollow), Wood, Cold-Form Steel	300	300	--	--	
5	Yes	3/8" Expansion Bolt	Masonry (Filled), Concrete	300	300	5	--	
6	No	None	None	0	0	--	--	--

Raceway Input Parameters

Sign Height, H	2.08 ft
Sign Depth, A	0.42 ft
Raceway Depth, B	0.33 ft
Raceway Height, C	0.83 ft
Fastener Row Spacing, D	0.98 ft
Lower Row from Base, E	0.54 ft
Raceway Length	11.50 ft

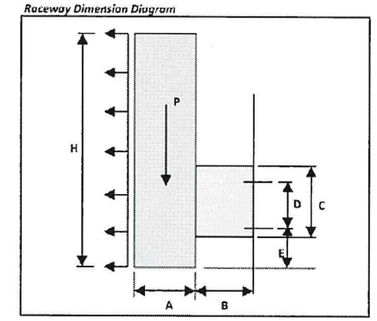
Raceway Prying Action Analysis

Pullout Along Top Row	375 lbs
Per Fastener Along Row	94 lbs
Pullout Along Bottom Row	229 lbs
Per Fastener Along Row	57 lbs
Total Shear Along Each Row	120 lbs
Per Fastener	15 lbs

(+) Denotes Pullout

(-) Denotes Compression

Raceway Dimension Diagram



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SCALE	DATE	DRAWING NO.:	SHEET:
N.T.S.	06/30/20	200149.034	2 of 2