

FASTENER SCHEDULE (DM Logo)

| HARDWARE | DIAM. | QTY. | MASONRY (CMU-Block) | EIFSDRYVIT OVER min. 3/4" PLYWOOD | EIFSDRYVIT OVER GYPSUM/ METAL PANEL |
|-----------------------------|-------|------|-----------------------|-----------------------------------|-------------------------------------|
| THRU-BOLT | 3/8" | 4 | YES | YES (MIN. 3/4" ONLY WITH BACKER) | YES |
| POWERS DBL EXPANSION ANCHOR | 3/8" | 4 | YES? | NO | NO |
| LAG BOLT | 3/8" | 4 | NO | YES | NO |
| SNAP TOGGLE BOLT TYPE BC | 3/8" | 4 | IF THROUGH BLOCK FACE | YES | ONLY WITH MIN. 3/4" PLYWOOD BACKER |
| 1/4" Tek-Screw | 1/4" | N/A | NO | NO | NO |

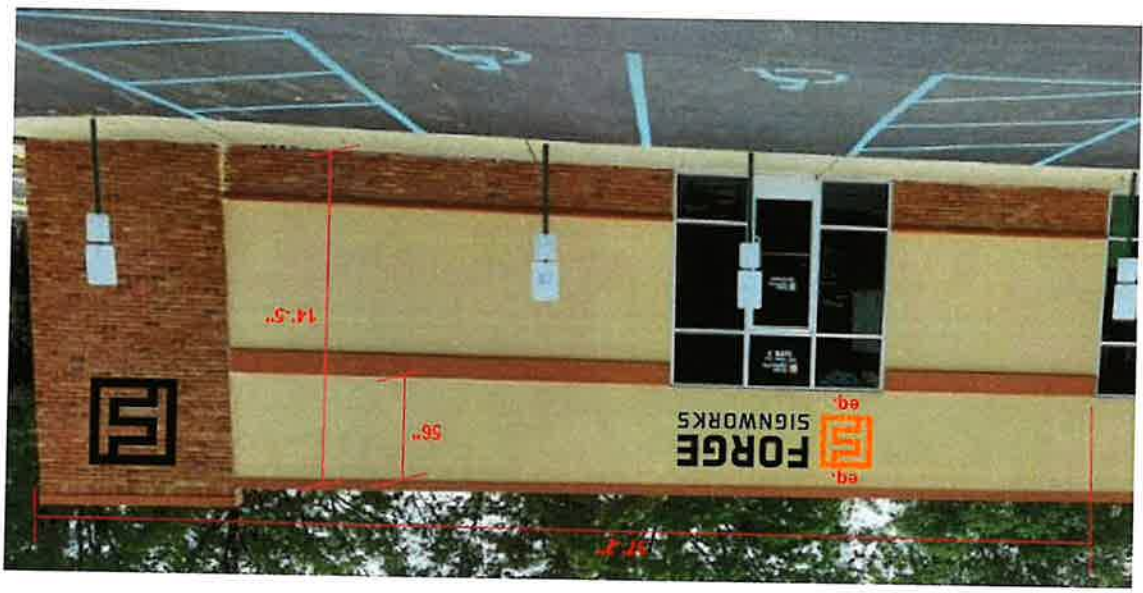
WALL CONSTRUCTION

- Engineers Channel Letter Connection Note:**
Provide fasteners through fender washer, Min. 3/16" Lexan letter back, fender washer and Sch40 Alum. pipe spacers top and bottom, using the fastener type and quantity per/letter to install.
- Letter 1; Provide Two(2), One(1) top and bottom.
 - 30" Logo; Provide Four(4), Two(2) top and bottom, using the corresponding 3/8" fastener schedule at left.
 - 48" Logo; Provide Eight(8) evenly spaced around the perimeter, using the corresponding 3/8" fastener schedule at left.
 - All fasteners must be installed per manufacturer's Tech Guide.
 - Contact Murdoch Engineering for revision if field conditions vary.

FASTENER SCHEDULE (DM Letters)

| HARDWARE | DIAM. | QTY. | MASONRY (CMU-Block) | EIFSDRYVIT OVER min. 3/4" PLYWOOD | EIFSDRYVIT OVER GYPSUM/ METAL PANEL |
|-----------------------------|-------|------|-----------------------|-----------------------------------|-------------------------------------|
| THRU-BOLT | 1/4" | 3 | YES | YES (MIN. 3/4" ONLY WITH BACKER) | YES |
| SS Tapcon Concrete Screws | 1/4" | 3 | YES? | NO | NO |
| POWERS DBL EXPANSION ANCHOR | 1/4" | 3 | YES? | NO | NO |
| LAG BOLT | 1/4" | 3 | NO | YES | NO |
| SNAP TOGGLE BOLT TYPE BB | 1/4" | 3 | IF THROUGH BLOCK FACE | YES | ONLY WITH MIN. 3/4" PLYWOOD BACKER |
| 1/4" Tek-Screw | 1/4" | 3 | NO | NO | NO |

WALL CONSTRUCTION



INSTALLATION NOTICE
All Signs Are To Be Installed / Positioned In Accordance With The Drawings Provided. Deviations Suggested By The General Contractor, Landlord, Etc. Are Not Permitted. Unless Approved By Forge Signworks In Writing.

INDOOR SIGN
 OUTDOOR SIGN

DESIGN SPECIFICATIONS

| | | | | |
|-----------|--------|---|----|------------|
| IBC | 2021 | with | NI | amendments |
| ASCE | 7-16 | Minimum Design Loads for Buildings & Other Structures | | |
| ACI | 318-19 | Building Code Requirements for Structural Concrete | | |
| ANSI/MISC | 360-16 | Specification for Structural Steel Buildings | | |

DESIGN LOADS

| | |
|------------|-------------|
| Wind | V = 115 mph |
| Exposure | C |
| Risk Cat. | II |
| Grnd. Snow | Pg = 25 psf |

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PN 240221

Exp. 4/30/2024
N.J. Lic. #48980
Professional Engineer
1/26/2024

MURDOCH ENGINEERING
SIGN STRUCTURE PROFESSIONALS
2399 A-2 NJ-34
MANASQUAN, NJ 08736
(973) 570-8215

Installation Address:
1115 Globe Ave,
Mountainside, NJ 07092



PREPARED FOR:
Manasquan, NJ 08736
2399 NJ-34 A-2
(973) 570-8215
murdochenengineering.com



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Deviations from this drawing shall not be made without consulting Murodoch Engineering. In case of incongruities between drawings, specifications, and details included in contract documents, Murodoch Engineering shall decide which indication must be followed and their decision shall be final.

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- GENERAL:**
1. ALL MATERIALS AND WORK SHALL CONFORM TO THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL BUILDING CODE (IBC).
 2. CONSTRUCTION METHODS AND PROJECT SAFETY: DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE METHODS, PROCEDURES, OR SEQUENCE OF CONSTRUCTION. TAKE NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE DURING CONSTRUCTION. THE EOR WILL NOT ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
 3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES THAT ARE FOUND. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS.
 4. ALL OMISSIONS AND/OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND FIELD INSPECTOR. THE ENGINEER SHALL PROVIDE A SOLUTION PRIOR TO PROCEEDING WITH ANY WORK AFFECTED BY THE CONFLICT OR OMISSION.
 5. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, CONSTRUCT IN ACCORDANCE WITH THE STEEL CONSTRUCTION MANUAL, 14TH EDITION OR 2010 ALUMINIUM DESIGN MANUAL.
 6. WHEN A DETAIL IS IDENTIFIED AS TYPICAL, THE CONTRACTOR IS TO APPLY THIS DETAIL IN ESTIMATING AND CONSTRUCTION TO EVERY LIKE CONDITION WHETHER OR NOT THE REFERENCE IS REPEATED IN EVERY INSTANCE.
 7. ANY CHANGE TO THE DESIGN AS SHOWN ON THE DRAWINGS REQUIRES PRIOR WRITTEN APPROVAL FROM DESIGN ENGINEER OF RECORD BEFORE CONSTRUCTION.
 8. WORK PERFORMED IN CONFLICT WITH THE STRUCTURAL DRAWINGS OR APPLICABLE BUILDING CODE REQUIREMENTS SHALL BE CORRECTED AT THE EXPENSE OF THE CONTRACTOR.
 9. VERIFICATION: VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK. NOTIFY THE EOR IMMEDIATELY OF ANY DISCREPANCIES.
- EXISTING CONDITIONS:**
1. IF EXISTING CONDITIONS ARE NOT AS DETAILED IN THIS DESIGN, THE INSTALLER SHALL CEASE WORK AND NOTIFY MURDOCH ENGINEERING IMMEDIATELY.
 2. MURDOCH ENGINEERING WILL NOT BE PERFORMING ON-SITE INSPECTIONS OR VERIFICATIONS. IT IS THE RESPONSIBILITY OF THE INSTALLER, STRUCTURE OWNER, AND PROPERTY OWNER TO IDENTIFY EXISTING CONDITIONS AND CONTACT MURDOCH ENGINEERING WITH ANY DISCREPANCIES OR CONCERNS.
 3. INSTALLER SHALL CONFIRM THE DIAMETER AND THICKNESS OF EXISTING MEMBERS AND NOTIFY MURDOCH ENGINEERING OF ANY DISCREPANCIES.
 4. INSTALLER SHALL INSPECT AND CONFIRM THE QUALITY OF EXISTING STRUCTURE AS "IN GOOD REPAIR". IF THERE ARE ANY INDICATIONS THAT THIS IS NOT THE CASE, INSTALLER SHALL CEASE WORK IMMEDIATELY AND NOTIFY MURDOCH ENGINEERING.
 5. ANY EXISTING INFORMATION SHOWN HAS BEEN FURNISHED BY THE PERSON(S) OR COMPANY THIS DOCUMENT WAS PREPARED FOR.
- (SEE TITLE BLOCK). MURDOCH ENGINEERING IN NO WAY CERTIFIES THIS INFORMATION AS "AS-BUILT". IF THERE IS ANY REASON TO BELIEVE THE EXISTING CONDITIONS DETAILED HEREIN ARE NOT ACCURATE, MURDOCH ENGINEERING SHALL BE NOTIFIED IMMEDIATELY.

SCOPE OF WORK:

1. LIMITS OF LIABILITY TO EXTEND ONLY TO THE QUANTITY INDICATED. ATTEMPTS IN PART OR IN WHOLE TO INSTALL GREATER QUANTITIES THAN THOSE SPECIFIED WITHOUT CONSULTING MURDOCH ENGINEERING SHALL VOID ALL PROFESSIONAL LIABILITY AND COVERAGE. ENGINEERING LIABILITY IS LIMITED TO BUILDING CONNECTIONS.

- ALUMINIUM:**
1. FABRICATE AND ERECT ALUMINIUM IN COMPLIANCE WITH THE ALUMINIUM ASSOCIATION (AA) 2010 (A535), AND IBC CHAPTER 20.
 2. PIPE AND TUBE SHALL BE 6061-T6 PER ASTM B241 OR B429 WITH FTU=38 KSI MIN, FTW=24 KSI MIN, FTY=15 KSI MIN.
 3. STD STRUCTURAL PROFILES SHALL BE 6061-T6 PER ASTM B209 WITH KSI MIN, FTY=15 KSI MIN.
 4. SHEET AND PLATE SHALL BE 6061-T6 PER ASTM B209 WITH FTU=42 KSI MIN, FTW=24 KSI MIN, FTY=15 KSI MIN.
 5. EXTRUSIONS SHALL BE 6061-T6 PER ASTM B241 OR B429 WITH FTU=38 KSI MIN, FTW=24 KSI MIN, FTY=15 KSI MIN.
 6. ALL SHOP AND FIELD WELDS SHALL BE PERFORMED BY AN AWS OR ICC CERTIFIED WELDER WITH CURRENT STATUS AT TIME OF WELDING.
 7. UNLESS A LARGER WELD SIZE IS INDICATED, PROVIDE MINIMUM WELD PER ADM. ALL ALUMINIUM WELDED JOINTS SHALL HAVE WELD SIZES OF AT LEAST 1/4 INCH.
 8. FILLET WELDS SHALL NOT EXCEED THINNESS MEMBER WALL THICKNESS JOINED.
 9. ALUMINIUM WELD FILLER SHALL BE 5356 ALLOY.
 10. WELDING PROCESS GMAW OR GTAW SHALL BE IN ACCORDANCE WITH AWS D1.2 - MINIMUM CHANNEL LETTERS SHALL BE CONSTRUCTED OF 0.090" RETURNS AND 0.125" BACKS DRAWING DETAILS.
 11. ALUMINIUM SHALL BE CONSTRUCTED ON DRAWINGS. THIS NOTE SHALL SUPERCEDE MINIMUM, UNLESS A LARGER SIZE IS INDICATED.
 12. PROVIDE NEOPRENE GASKET BETWEEN DISSIMILAR METALS TO PREVENT GALVANIC CORROSION.
 13. ALUMINIUM DIRECTLY EMBEDDED INTO CONCRETE SHALL BE CAPPED AT BOTTOM AND COATED WITH BITUMINOUS COATING OR POLYURETHANE WHERE IN CONTACT WITH CONCRETE.
 14. FASTENERS BETWEEN DISSIMILAR METALS SHALL BE STAINLESS STEEL 316.

- STEEL**
1. STEEL SHAPES SHALL CONFORM TO THE FOLLOWING:
- | | | |
|------------------|-----------------|----------------|
| ROUND HSS | ASTM A500, GR B | FY=42 KSI MIN. |
| SQUARE/RECT HSS | ASTM A500, GR B | FY=46 KSI MIN. |
| THREADED ROD | F1554 GR 55 | FY=55 KSI MIN. |
| STEEL PLATE STD. | ASTM A36 ASTM | FY=36 KSI MIN. |
| PIPE | A53, GR B | FY=35 KSI MIN. |
2. BOLTS SHALL CONFORM TO ASTM A325 UNO.
 3. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 UNO.
 4. BOLTS AND THREADED ROD SHALL BE HOT-DIP GALVANIZED PER ASTM F2329 UNO.
 5. NUTS SHALL CONFORM TO ASTM A563.
 6. WASHERS SHALL CONFORM TO ASTM F844.
 7. STEEL HARDWARE SHALL BE HOT-DIP GALVANIZED PER ASTM A153 UNO.
 8. WELDING:
 - a. WELD STRUCTURAL STEEL IN COMPLIANCE WITH ANS/AWS D1.1 AND AISC SPECIFICATION, CHAPTER 1. WELDERS SHALL BE CERTIFIED AS REQUIRED BY GOVERNING CODE AUTHORITY. WELDING SHALL BE DONE BY ELECTRIC ARC PROCESS USING LOW-HYDROGEN ELECTRODES WITH SPECIFIED TENSILE STRENGTH NOT LESS THAN 70 KSI UNLESS NOTED OTHERWISE.
 - b. ALL SHOP AND FIELD WELDS SHALL BE PERFORMED BY AN AWS OR ICC CERTIFIED WELDER WITH ACTIVE STATUS AT TIME OF WELDING.
 - c. UNLESS A LARGER WELD SIZE IS INDICATED, PROVIDE MINIMUM WELD PER AISC SPECIFICATION, SECTION 12, TABLE 12.4
 - d. BASE PLATES SHALL BE WELDED ON TOP AND BOTTOM WITH CONTINUOUS WELDS OF AT LEAST 1/4" (IF PLATE IS CUT TO FIT TUBE INTO PLATE)

DESIGN SPECIFICATIONS

| | | | | |
|-----------|--------|------|----|------------|
| IBC | 2021 | with | NJ | amendments |
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| ACI | 318-19 | | | |
| ANSI/AISC | 360-16 | | | |

Minimum Design Loads for Buildings & Other Structures
Building Code Requirements for Structural Concrete
Specification for Structural Steel Buildings

DESIGN LOADS

| | | |
|------------|------|---------|
| Wind | V = | 115 mph |
| Exposure | C | |
| Risk Cat. | II | |
| Grnd. Snow | Pg = | 25 psf |

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SIGN STRUCTURE PROFESSIONALS

2399 A-2 N.J-34
MANASQUAN, NJ 08738
(973) 570-8215 X0
MANASQUAN, NJ 08738
(973) 570-8215 X0

Joe Murodoch, PE
Professional Engineer
NJ P.E. Lic. #48980
Exp. 4/30/2024

1/28/2024

PN 240221

Installation Address:
1115 Globe Ave,
Mountainside, NJ 07092



murodochengineering.com
(973) 570-8215
2399 N.J-34 A-2
Manasquan, NJ 08736

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SIGN STRUCTURE PROFESSIONALS

GENERAL NOTES