CITY OF WAUKESHA, WISCONSIN

201 DELAFIELD STREET * ROOM 200 * WAUKESHA, WI 53188 * PH: (262)524-3750 * FAX: (262)524-3751

PERMANENT SIGN PERMIT APPLICATION

Office Use Only 925 Highway 154 South SITE ADDRESS: ☐ PICTURE/Drawing/Site Plan 25,000.00 Total Number of signs applying for today: _____ Value of Sign(s) \$ _ ☐ FEE FEE: \$40 min. or \$1 per sq. ft. Required in full at time of submittal. FEE IS NON-REFUNDABLE ☐ ELECTRICAL PERMIT Location of THIS sign: 925 Highway 154 South Initials: Permit copy will be mailed to this address UHaul Doyle Signs, Inc **Business Name:** Sign Contractor: UHaul 232 W Interstate Road Owner Name: Address: Addison, IL 60101 **Business Phone:** City/State/Zip: For questions call:
Business Sign Contractor 630-543-9490 Phone: IF THIS IS AREA IS LEFT EMPTY, PERMIT WILL NOT BE MAILED. (MANDATORY FIELD; application will be returned if left blank.) You must submit an electrical permit signed by a licensed electrician with all illuminated sign permit applications. HAS THIS BEEN DONE? YES, Permit No. BL -X NO NOT APPLICABLE ATTACH A COLOR PHOTO, DRAWING, AND/OR SITE PLAN. Show dimensions to scale, colors, and location of sign. CHECK ONE: TYPE OF SIGN (Circle all that apply): New Sign ☐ Existing Sign ☐ Face Change Only Wall Door Projecting Window Roof Billboard Awning Freestanding Yard Flat **Double Face** Horizontal Width of Sign 12' Vertical dimension of Sign 11' 2" TOTAL Square Footage: 129 sq. ft. If Sign is detached or projecting, please supply: Total Height 20' Clearance: 8' Setback: 20' Premise Data: Street Frontage:______ Building or Tenant Space Width:_____ Other Street Frontage:___ PLEASE LIST ALL EXISTING SIGNAGE ON THE BACK OF THIS SHEET. By my signature, I state and agree, that I have carefully examined the completed application and do hereby certify that all information herein is true and correct, and I further certify that any and all work performed shall be done in accordance with the Ordinances of the City of Waukesha. and the Laws of the State of Wisconsin pertaining to the work described herein Lisa Neal (agent) Legal Signature Print Name 12/28/2016 Date OFFICE USE ONLY Zoning District: Gross sign area for premises: Area used by other signs: Approved Conditions (if any): Must submit electrical permit within 30 days of meeting or permit shall be voided. Denied Does not conform to: Height ☐ Architecturally compatible ☐ Not to face R-district ☐ Clearance ☐ Corner Vision Area Avoid needless elaboration □ Projection ☐ Distracting sign ☐ Consolidation of signs ☐ Setback Authorized Signature Date of Review

INCOMPLETE APPLICATIONS MAY NOT BE PROCESSED.

10/19/16 City, State: Waukesha, WI SHEET: 1 OF 3 Date: Overall Height: 20'-0" Client: **U-Haul/Amerco Real Estate** Sean M. McFarland, PE McFarland Engineering U-Haul #750073 Wind Speed 90 mph Sign: Sign Description 925 Hwy 164 S **Table of Contents**

Columns: 2
ME Job: 37011

E-SIGNED by Sean McFarlar Content:

Support Design Loads. 1

Support Design. 1-2

Height: 10'-2"

General Notes 3

Width: 12'-0"

Design Drawing. (Numbered)

Structural Variables and Code Loading Specifications

Code: 2009 IBC

Wind Speed: 90

Wind Exposure: C

▼

Wind Loads Per ASCE 7-05

Separately)

Cabinet Type: Miscellaneous ▼

Structural Section: Tube Steel - 46000psi ▼

Number of Zones: 3

Sign Sections:

| Zone | | net Wt. Sq. Ft. | Weight | Transition (Y or N) |
|------|----|--------------------|-----------|------------------------|
| 1 | 20 | • | 12.2 #/FT | |
| 2 | 15 | | 12.2 #/FT | У |
| 3 | 0 | ~ | 39.4 #/FT | У |
| 4 | 0 | ~ | | |
| 5 | 0 | ~ | | |
| 6 | 0 | ~ | | |
| 7 | 0 | ~ | | |
| 8 | 0 | - | | |

SEAN M.
McFARLAND
E-36555
SPRING
TEXAS
ONAL
State License: Wisconsin - 38555-006

Geometry:

| Тор | | | * Approx. Width | Approx. | | |
|------|-----------|---------|-----------------|-----------|--------|---------|
| Zone | Elevation | Height | Width | Pressure | Force | Weight |
| 1 | 20.00 FT | 4.08 FT | 12.00 FT * | 23.17 PSF | 1.13 K | 1,079 # |
| 2 | 15.92 FT | 6.08 FT | 12.00 FT * | 21.43 PSF | 1.56 K | 1,243# |
| 3 | 9.84 FT | 9.84 FT | 2.00 FT * | 16.41 PSF | 0.32 K | 776# |

Date:10/19/16City, State:Waukesha, WISHEET:2 OF 3Client:U-Haul/Amerco Real EstateOverall Height:20'-0"Sean M. McFarland, PESign:U-Haul #750073Wind Speed90 mphMcFarland Engineering

925 Hwy 164 S

ME Job: 37011

Moments at Transitions:

| 1 | Lateral | 3 | 2 | |
|------|---------|----------|----------|---|
| Zone | Force | Mom. Arm | Mom. Arm | |
| 1 | 1.13 K | 17.96 FT | 8.12 FT | = |
| 2 | 1.56 K | 12.88 FT | 3.04 FT | |
| 3 | 0.32 K | 4.92 FT | | |
| | | | | |

42.11 K-FT

13.97 K-FT

Section Properties:

8.32 IN³

2.76 IN^3

Structural Sections to be used:

| Sxx 45 IN^3 | d/t 48.00 | 8.32 IN^3 |
|-----------------------|--------------|------------|
| 45 IN^3 | 48.00 | 8 32 INIA3 |
| | | 0.02 IN 3 |
| 86 IN^3 | 16.00 | 2.76 IN^3 |
| | | |
| | | |
| | | |

Structure Required

| # | | Wall | 9 |
|-------|----------|-----------|---|
| Req'd | Size | Thickness | |
| 2 | 12.00 IN | 0.250 IN | |
| 2 | 4.00 IN | 0.250 IN | |
| | | | |
| f 2 | | | |
| | Ä | | |

Date: 10/19/16 City, State: Waukesha, WI SHEET: 3 OF 3
Client: U-Haul/Amerco Real Estate Overall Height: 20'-0" Sean M. McFarland, PE
Sign: U-Haul #750073 Wind Speed 90 mph McFarland Engineering

925 Hwy 164 S

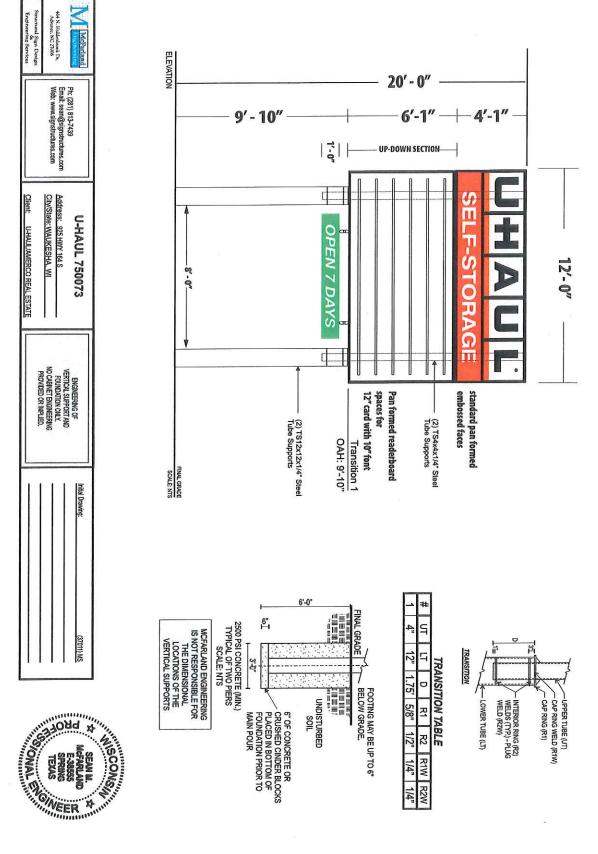
ME Job: 37011

Pier Footings

| Pier Footing Design: | | Select the foo | ting and soil type: | |
|----------------------------|---------------------------|------------------------------|-------------------------|--|
| d = A / 2 * (1 + | (1 + (4.36 * h) / A)^1/2) | Footing | Round | |
| where | A = (2.34 * P) / (S1 * b |) Vert. Soil Bearing (psf) | 1500 | |
| | | Lat. Soil Bearing (psf) | 200 | |
| Mmax = | 21,053 #-FT | | | |
| Pmax (Lateral) = | 1,511# | | | |
| 0.50 3.50 | 200 PCF | | | |
| LSBP = | | . | | |
| S1 = | 760 PCF > | k d | | |
| d = | 3.000 FT | | | |
| | | | | |
| A = | 1.55 FT^2 | | | |
| h = | 13.937 FT | | | |
| d = | 5.690 FT | | | |
| USE: | 3.00 F | T. RND. X 6.00 FT | DEEP PIERS | |
| Construction of the second | | | V | |
| Soil Bearing Check: | | | | |
| DLmax = | 3,098 LBS | | | |
| Area of Footing = | 7.07 FT^2 | | | |
| Actural SBP = | 438 PSF | | | |
| Allowable SBP = | 1,500 PSF | (Includes code allowed 20% | increase for every foot | |
| / illowable obi | 1,000 7 01 | of footing below 12" into na | | |
| | | - | | |
| | 438 PSF < | 1,500 PSF THEREFORE | OK | |

General Notes

- 1 Contractor shall verify all dimensions and conditions on job site
- 2 Structural steel pipe shall conform to ASTM A53 grade B type E or S, Fy=35 ksi min.
- 3 Structural steel tube shall conform to ASTM A500 grade B, Fy=46 ksi min.
- 4 Structural steel shapes and plates shall conform to ASTM A36.
- 5 Welding shall conform to AISC specs or local codes and performed by certified welder using arc process E70XX electrodes.
- 6 Isolate Aluminum from Steel
- 7 All bolt holes to be drilled or punched.
- 8 2500 psi (min) 28-day Concrete Compressive Strength
- All electrical work to conform to the requirements of UL48 and section 600 of NEC.
- 10 UL and Data labels required
- 11 Sign to be a minimum of 6-ft horizontal & 12-ft vertical from high voltage wires.
- 12 If there is no stub pipe to be used in the top cabinet, the supporting member immediately below the stub pipe shown can be extended to the top of the uppermost cabinet.
- 13 All Pipe sizes shown are minimum sizes. Pipe with a larger diameter and/or greater Sxx may be substituted
- 14 All structural lengths required are approximations only. Actual length may vary slightly depending on sign cabinet conditions.



The electronic seal appearing on this document was submired by Sean M. McFathard, PC on October 19, 2016.

Date: 10-19-2016

Sheet #: 1 OF 1

Sheet #: 1 OF 1
NC Fim Registration: F-11365
Wisconsin Legres Number, E-38555
Wisconsin Expiration Date: 7/31/2018

| # Column | is:2 F_S | IGNED by Se | an McEarla | Content: | Page |
|----------|--------------|---------------|-----------------|-------------------|-----------------------|
| Sign Des | cription | 925 Hwy 164 S | | Table of Contents | |
| Sign: | U-Haul #75 | 0073 | Wind Speed | 90 mph | McFarland Engineering |
| Client: | U-Haul/Amero | o Real Estate | Overall Height: | 20'-0" | Sean M. McFarland, PE |
| Date: | 10/19/16 | | City, State: | Waukesha, WI | SHEET: 1 OF 3 |

Width: 12'-0" Design Drawing......(Numbered

Structural Variables and Code Loading Specifications

Miscellaneous

Cabinet Type:

Code: 2009 IBC

Wind Speed: 90

Wind Exposure: C

Separately)

Structural Section: Tube Steel - 46000psi Wind Speed: 90

Number of Zones: 3 Wind Exposure: C

Wind Loads Per ASCE 7-05

Sign Sections:

| Zone | Cabinet Wt. Per Sq. Ft. | | Weight | Transition (Y or N) |
|------|----------------------------|---|-----------|------------------------|
| 1 | 20 | ~ | 12.2 #/FT | |
| 2 | 15 | ~ | 12.2 #/FT | У |
| 3 | 0 | ~ | 39.4 #/FT | У |
| 4 | 0 | ~ | | |
| 5 | 0 | ~ | | |
| 6 | 0 | ~ | | |
| 7 | 0 | • | | |
| R | 0 | _ | | |

SEAN M.

McFARLAND
E-38555
SPRING
TEXAS

ONAL

State License: Wisconsin - 38555-006

3,098#

Geometry:

| | Тор | | * Approx. Width | 1 | Approx. | | |
|------|-----------|---------|-----------------|-----------|---------|--------|--|
| Zone | Elevation | Height | Width | Pressure | Force | Weight | |
| 1 | 20.00 FT | 4.08 FT | 12.00 FT * | 23.17 PSF | 1.13 K | 1,079# | |
| 2 | 15.92 FT | 6.08 FT | 12.00 FT * | 21.43 PSF | 1.56 K | 1,243# | |
| 3 | 9.84 FT | 9.84 FT | 2.00 FT * | 16.41 PSF | 0.32 K | 776 # | |

Total Wind Force = 3.02 K

Date:10/19/16City, State:Waukesha, WISHEET:2 OF 3Client:U-Haul/Amerco Real EstateOverall Height:20'-0"Sean M. McFarland, PESign:U-Haul #750073Wind Speed90 mphMcFarland Engineering

925 Hwy 164 S

ME Job: 37011

Moments at Transitions:

| | Lateral | 3 | 2 | |
|------|---------|----------|----------|--|
| Zone | Force | Mom. Arm | Mom. Arm | |
| 1 | 1.13 K | 17.96 FT | 8.12 FT | |
| 2 | 1.56 K | 12.88 FT | 3.04 FT | |
| 3 | 0.32 K | 4.92 FT | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

42.11 K-FT

13.97 K-FT

Section Properties:

8.32 IN³

2.76 IN³

Structural Sections to be used:

| # | | Tubes | | | | | |
|------|--------|----------|----------|---------|------------|-------|-----------|
| Zone | Option | Dim. | Wall t. | Weight | Sxx | d/t | Sxx Req'd |
| 3 | Tubes | 12.00 IN | 0.250 IN | 39 #/FT | 41.45 IN^3 | 48.00 | 8.32 IN^3 |
| 2 | Tubes | 4.00 IN | 0.250 IN | 12 #/FT | 3.86 IN^3 | 16.00 | 2.76 IN^3 |
| | | | | | | | |
| | | | | | | | |
| | ñ2 | | | | | | |
| | | | | | | | |
| | | | | | | | |

Structure Required

| # | | Wall | |
|-------|----------|-----------|--|
| Req'd | Size | Thickness | |
| 2 | 12.00 IN | 0.250 IN | |
| 2 | 4.00 IN | 0.250 IN | |
| | | | |
| | | | |
| | | | |

Date: 10/19/16 City, State: Waukesha, WI SHEET: 3 OF 3
Client: U-Haul/Amerco Real Estate Overall Height: 20'-0" Sean M. McFarland, PE
Sign: U-Haul #750073 Wind Speed 90 mph McFarland Engineering

925 Hwy 164 S

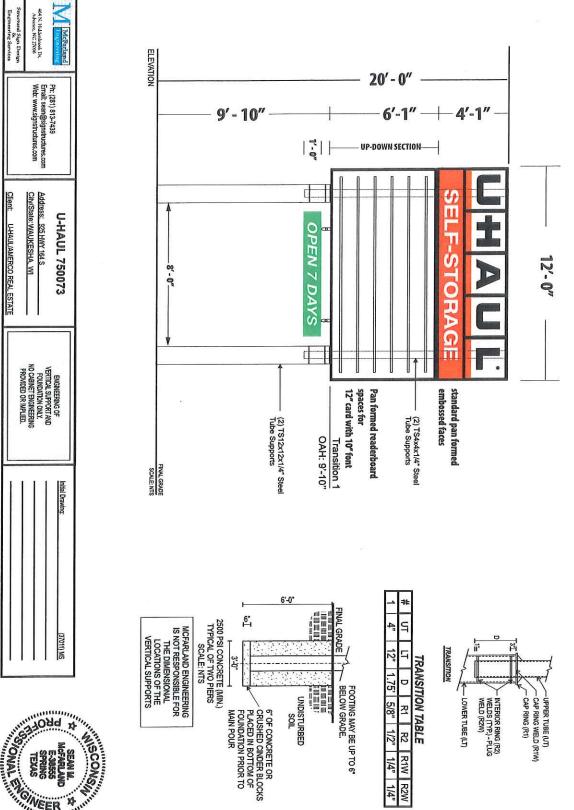
ME Job: 37011

Pier Footings

| Pier Footing Design: | The second secon | riei i ootiiigs | Select the foot | ing and soil ty | pe: |
|----------------------|--|-------------------|--------------------|-----------------|---------------------------------------|
| d = A / 2 * (1 + |)) | Footing: | | | |
| 1943 1943/ | A = (2.34 * P) / (S1 * k | | il Bearing (psf): | | • • • • • • • • • • • • • • • • • • • |
| | date Nedari v di Par Ne | | oil Bearing (psf): | | |
| Mmax = | 21,053 #-FT | | | | |
| Pmax (Lateral) = | 1,511# | | | | |
| LSBP = | 200 PCF | | | | |
| S1 = | 760 PCF 2 | X d | | | |
| d = | 3.000 FT | | | | |
| A = | 1.55 FT^2 | | | | |
| h = | 13.937 FT | | | | |
| d = | 5.690 FT | | | | |
| USE: | 3.00 I | FT. RND. X | 6.00 FT | DEEP PIERS | |
| Soil Bearing Check: | | | | | |
| DLmax = | 3,098 LBS | | | | |
| Area of Footing = | 7.07 FT^2 | | | | |
| Actural SBP = | 438 PSF | | | | |
| Allowable SBP = | 1,500 PSF | (Includes co | de allowed 20% | increase for ev | very foot |
| | of footing be | elow 12" into nat | ural grade.) | | |
| | 438 PSF < | 1,500 PSF | THEREFORE | OK | |

General Notes

- 1 Contractor shall verify all dimensions and conditions on job site
- 2 Structural steel pipe shall conform to ASTM A53 grade B type E or S, Fy=35 ksi min.
- 3 Structural steel tube shall conform to ASTM A500 grade B, Fy=46 ksi min.
- 4 Structural steel shapes and plates shall conform to ASTM A36.
- 5 Welding shall conform to AISC specs or local codes and performed by certified welder using arc process E70XX electrodes.
- 6 Isolate Aluminum from Steel
- 7 All bolt holes to be drilled or punched.
- 8 2500 psi (min) 28-day Concrete Compressive Strength
- 9 All electrical work to conform to the requirements of UL48 and section 600 of NEC.
- 10 UL and Data labels required
- 11 Sign to be a minimum of 6-ft horizontal & 12-ft vertical from high voltage wires.
- 12 If there is no stub pipe to be used in the top cabinet, the supporting member immediately below the stub pipe shown can be extended to the top of the uppermost cabinet.
- 13 All Pipe sizes shown are minimum sizes. Pipe with a larger diameter and/or greater Sxx may be substituted
- 14 All structural lengths required are approximations only. Actual length may vary slightly depending on sign cabinet conditions.





Date: 10-19-2016 Sheet #: 1 OF 1 The electronic seal appearing on this document was nortized by Sean M. McFarland, PE on October 19, 2016. NC Firm Registration: F-11366 Wisconsin Lloense Number: F-38555 Wisconsin Expiration Date: 7/31/2018

| Date: | 10/19/16 | | City, State: | Waukesha, WI | SHEET: 1 OF 3 |
|---------------------------|-----------------|---------------|-----------------|---------------------------------|-----------------------|
| Client: | U-Haul/Amerco f | Real Estate | Overall Height: | 20'-0" | Sean M. McFarland, PE |
| Date: Client: Sign: | U-Haul #75007 | 73 | Wind Speed | 90 mph | McFarland Engineering |
| | scription | 925 Hwy 164 S | | Table of Contents | |
| # Columi | ns:2 E SIC | MED by Se | on McEarla | Content: | Page |
| ME Job: | 37011 | DIVIED BY SE | an wichana | Content: ITO Design Loads | |

Support Design......1-2

Height: 10'-2" Design Drawing..... (Numbered Width: 12'-0"

Structural Variables and Code Loading Specifications

Separately)

| Cabinet Type: | Miscellaneous | ~ |
|---------------------|-----------------------|---|
| Structural Section: | Tube Steel - 46000psi | ~ |
| Number of Zones: | 3 | ~ |

Code: 2009 IBC Wind Speed: 90 Wind Exposure: c Wind Loads Per ASCE 7-05

Sian Sections

| Zone | Cabinet Wt. Per Sq. Ft. | | Weight | Transition (Y or N) |
|------|----------------------------|---|-----------|------------------------|
| 1 | 20 | - | 12.2 #/FT | |
| 2 | 15 | ~ | 12.2 #/FT | У |
| 3 | 0 | ~ | 39.4 #/FT | У |
| 4 | 0 | ~ | | |
| 5 | 0 | ~ | | |
| 6 | 0 | ~ | | |
| 7 | 0 | • | | |
| | 1. | | | |



Geometry:

| Тор | | | * Approx. Width | | | Approx. | |
|------|-----------|---------|-----------------|-----------|--------|---------|--|
| Zone | Elevation | Height | Width | Pressure | Force | Weight | |
| 1 | 20.00 FT | 4.08 FT | 12.00 FT * | 23.17 PSF | 1.13 K | 1,079# | |
| 2 | 15.92 FT | 6.08 FT | 12.00 FT * | 21.43 PSF | 1.56 K | 1,243# | |
| 3 | 9.84 FT | 9.84 FT | 2.00 FT * | 16.41 PSF | 0.32 K | 776# | |

Total Wind Force = 3,098# 3.02 K

Date:10/19/16City, State:Waukesha, WISHEET:2 OF 3Client:U-Haul/Amerco Real EstateOverall Height:20'-0"Sean M. McFarland, PESign:U-Haul #750073Wind Speed90 mphMcFarland Engineering

925 Hwy 164 S

ME Job: 37011

Moments at Transitions:

| | Lateral | 3 | 2 | |
|------|---------|----------|----------|--|
| Zone | Force | Mom. Arm | Mom. Arm | |
| 1 | 1.13 K | 17.96 FT | 8.12 FT | |
| 2 | 1.56 K | 12.88 FT | 3.04 FT | |
| 3 | 0.32 K | 4.92 FT | | |
| | | | | |

42.11 K-FT

13.97 K-FT

Section Properties:

8.32 IN^3

2.76 IN³

Structural Sections to be used:

| | Tubes | | | | | |
|--------|----------|----------------------------|---|--|---|---|
| Option | Dim. | Wall t. | Weight | Sxx | d/t | Sxx Req'o |
| Tubes | 12.00 IN | 0.250 IN | 39 #/FT | 41.45 IN^3 | 48.00 | 8.32 IN^3 |
| Tubes | 4.00 IN | 0.250 IN | 12 #/FT | 3.86 IN^3 | 16.00 | 2.76 IN ³ |
| | | | 9: | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | Tubes | Option Dim. Tubes 12.00 IN | Option Dim. Wall t. Tubes 12.00 IN 0.250 IN | Option Dim. Wall t. Weight Tubes 12.00 IN 0.250 IN 39 #/FT | Option Dim. Wall t. Weight Sxx Tubes 12.00 IN 0.250 IN 39 #/FT 41.45 IN^3 | Option Dim. Wall t. Weight Sxx d/t Tubes 12.00 IN 0.250 IN 39 #/FT 41.45 IN^3 48.00 |

Structure Required

| # | | Wall | |
|-------|----------|-----------|--|
| Req'd | Size | Thickness | |
| 2 | 12.00 IN | 0.250 IN | |
| 2 | 4.00 IN | 0.250 IN | |
| | | | |
| | | | |
| | | | |

Date: 10/19/16 City, State: Waukesha, WI SHEET: 3 OF 3
Client: U-Haul/Amerco Real Estate Overall Height: 20'-0" Sean M. McFarland, PE
Sign: U-Haul #750073 Wind Speed 90 mph McFarland Engineering

925 Hwy 164 S

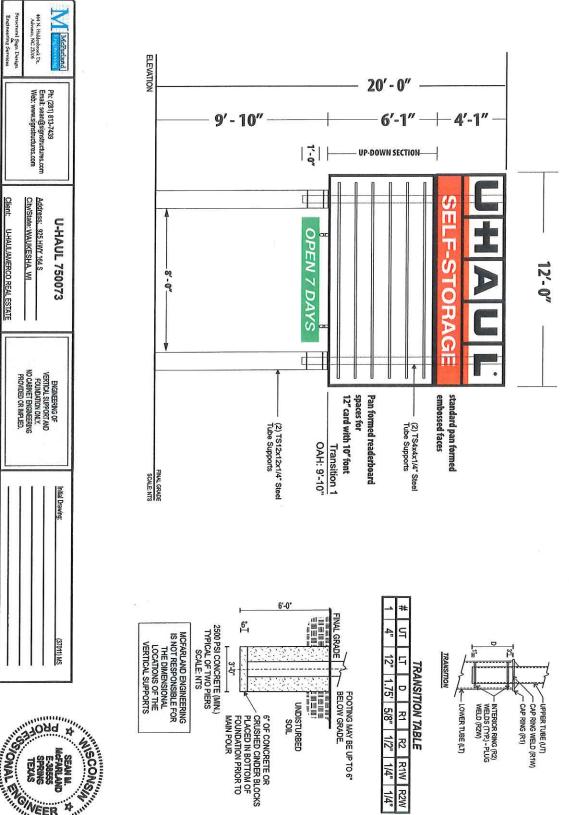
ME Job: 37011

Pier Footings

| Pier Footing Design: | | Select the footing and soil type: |
|----------------------|--------------------------------|--|
| d = A / 2 * (1 + | (1 + (4.36 * h) / A)^1/2) | ?)) Footing: Round |
| where | A = (2.34 * P) / (S1 * I | b) Vert. Soil Bearing (psf): 1500 |
| | | Lat. Soil Bearing (psf): 200 |
| Mmax = | 21,053 #-FT | |
| Pmax (Lateral) = | 1,511# | |
| LSBP = | 200 PCF | |
| S1 = | 760 PCF | Xd |
| d = | 3.000 FT | |
| A = | 1.55 FT^2 | |
| h = | 13.937 FT | |
| d = | 5.690 FT | |
| USE: | 3.00 I | FT. RND. X 6.00 FT DEEP PIERS |
| Soil Bearing Check: | 50 | |
| DLmax = | 3,098 LBS | |
| Area of Footing = | 7.07 FT^2 | |
| Actural SBP = | 438 PSF | |
| Allowable SBP = | 1,500 PSF | (Includes code allowed 20% increase for every foot |
| | 2006-00-00-00-00-00 (2016-040) | of footing below 12" into natural grade.) |
| | 438 PSF < | 1,500 PSF THEREFORE OK |

General Notes

- 1 Contractor shall verify all dimensions and conditions on job site
- 2 Structural steel pipe shall conform to ASTM A53 grade B type E or S, Fy=35 ksi min.
- 3 Structural steel tube shall conform to ASTM A500 grade B, Fy=46 ksi min.
- 4 Structural steel shapes and plates shall conform to ASTM A36.
- 5 Welding shall conform to AISC specs or local codes and performed by certified welder using arc process E70XX electrodes.
- 6 Isolate Aluminum from Steel
- 7 All bolt holes to be drilled or punched.
- 8 2500 psi (min) 28-day Concrete Compressive Strength
- 9 All electrical work to conform to the requirements of UL48 and section 600 of NEC.
- 10 UL and Data labels required
- 11 Sign to be a minimum of 6-ft horizontal & 12-ft vertical from high voltage wires.
- 12 If there is no stub pipe to be used in the top cabinet, the supporting member immediately below the stub pipe shown can be extended to the top of the uppermost cabinet.
- 13 All Pipe sizes shown are minimum sizes. Pipe with a larger diameter and/or greater Sxx may be substituted
- 14 All structural lengths required are approximations only. Actual length may vary slightly depending on sign cabinet conditions.





| | Sh | Date | SUOVAITE |
|--|----------|------------|---|
| NC Firm I Wisconsir Wisconsis | Sheet #: | e: | an by Sean |
| NC Firm Registration: F-11366 Wisconsin License Number: E-3855 Wisconsin Expiration Date: 7/31/20* | 1 OF 1 | 10-19-2016 | MINISTER BY SOM M. WOTHERD, PE ON CORON |