


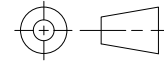
# OES INSTALLATION DRAWINGS OUTDOOR SCOREBOARDS

CONTENTS	
DOCUMENT	PAGE
MOUNTING TO I-BEAM POSTS	2
MOUNTING TO HSS SQUARE POSTS	3

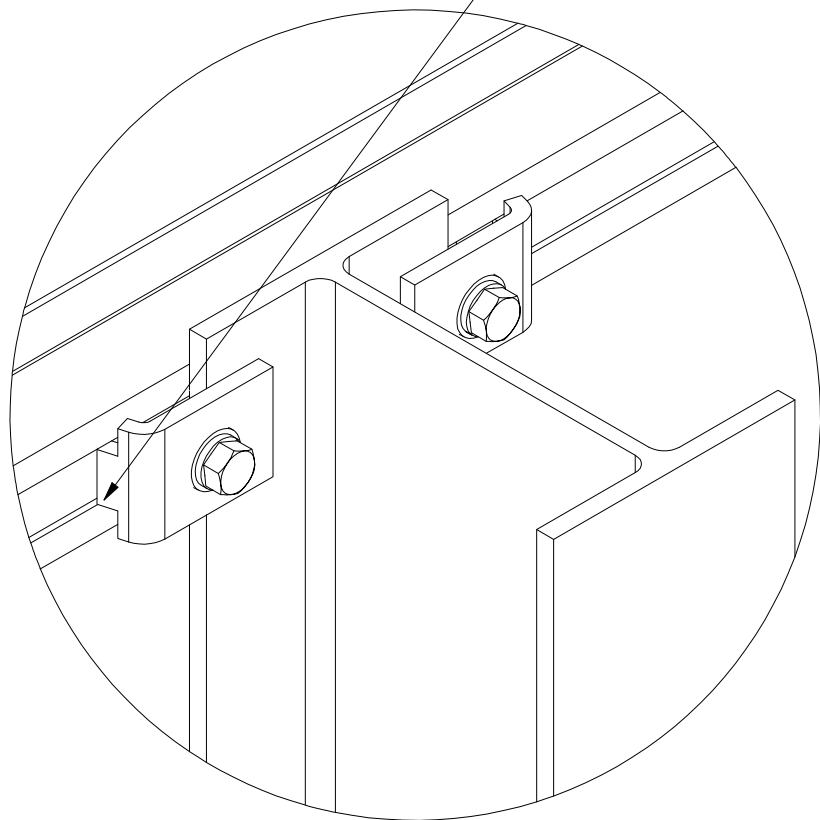
## GENERAL NOTES:

1. THIS PACKAGE CONTAINS GENERIC INSTRUCTIONS FOR COMMON OUTDOOR LIFTING AND MOUNTING METHODS. THESE INSTRUCTIONS MAY NOT BE APPROPRIATE FOR ALL INSTALL CONDITIONS. OES RECOMMENDS THAT YOU CONTACT A PROFESSIONAL STRUCTURAL ENGINEER TO VALIDATE YOUR PLANNED INSTALL METHOD AND HARDWARE FOR YOUR FACILITY PRIOR TO INSTALLATION.
2. ALL SCOREBOARD INSTALLATIONS MUST BE PERFORMED BY QUALIFIED PERSONS WITH APPROPRIATE CERTIFICATIONS TO PERFORM THE WORK. THE INSTALLER IS RESPONSIBLE FOR USING APPROPRIATELY RATED EQUIPMENT AND HARDWARE.
3. HARDWARE TYPICALLY PROVIDED BY OES IS LISTED IN EACH DRAWING. ADDITIONAL INSTALL HARDWARE MAY BE AVAILABLE ON REQUEST. CONTACT OES FOR MORE INFORMATION.
4. FOR SCOREBOARD-SPECIFIC INFORMATION (WEIGHT, POWER REQUIREMENTS, ETC.), REFERENCE THE SCOREBOARD INFO DRAWING.
5. FOR GENERAL I-BEAM OR HSS POST SPEC GUIDELINES, REFERENCE THE POST SPEC DOCUMENT FOR YOUR SCOREBOARD'S WIDTH. OES POST SPECIFICATIONS ARE FOR QUOTING AND PLANNING PURPOSES ONLY. MOUNTING POSTS FOR OUTDOOR SCOREBOARDS MUST BE APPROVED BY A PROFESSIONAL ENGINEER.
6. FOR CUSTOM INSTALL OPTIONS NOT COVERED IN THIS PACKAGE, CONTACT OES.

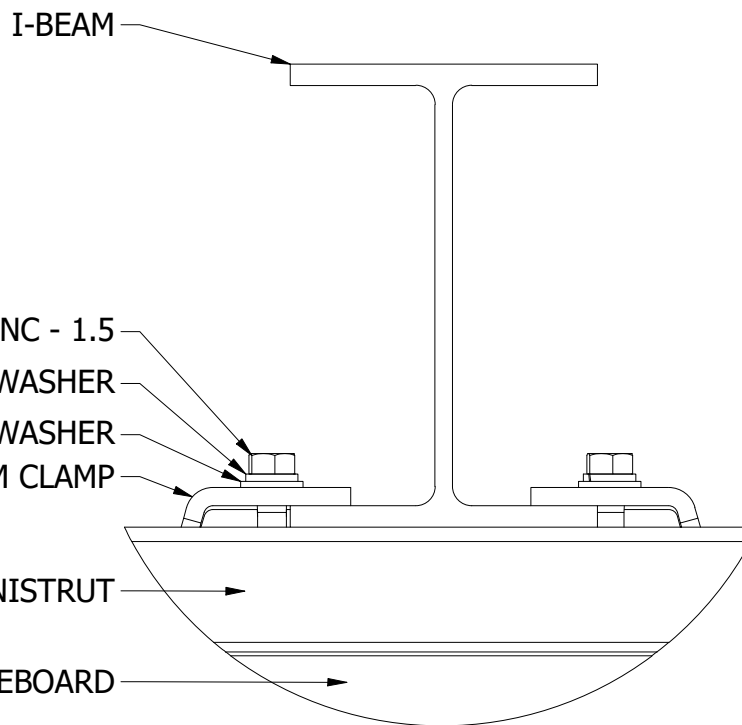
REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-12-13	RD
B	ADD NOTES	2022-3-1	M.LI

PART NUMBER: N/A		 4096 Blakie Road, London, ON, N6L 1P7 Tel: (519) 652-5833 Fax: (519) 652-3795 Email: oes@oes-inc.com	
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TOLERANCE INFORMATION Dimensions are in inches Fractional ± 1/16" Two Place Decimals ± 0.02" Three Place Decimals ± 0.005" Four Place Decimals ± 0.0005" Angular 30°		DESCRIPTION <b>INSTALL DRAWINGS - OUTDOOR OES ELECTRONIC SCOREBOARDS</b>	
SIZE <b>B</b>	FILENAME Installation Drawings - Outdoor.idw	INIT DRAWING DATE 12/13/2021	REV <b>B</b>
THIRD ANGLE PROJECTION 		USAGE <b>USE FOR CONSTRUCTION</b>	
SCALE	NTS	DRAWN BY	rdonald
		PAGE	1 OF 3

BEAM CLAMP TABS MUST BE ENGAGED WITH THE UNISTRUT CHANNEL AS SHOWN.



ISOMETRIC VIEW



TOP VIEW

3/8-16 UNC - 1.5  
3/8" LOCK WASHER  
3/8" FLAT WASHER  
BEAM CLAMP

UNISTRUT

SCOREBOARD

## OUTDOOR SCOREBOARD INSTALLATION: MOUNTING TO I-BEAM

1. INSERT CLAMPING NUTS INTO THE UNISTRUT. TURN CLAMPING NUTS TO VERTICAL POSITION TO LOCK IN PLACE. CLAMPING NUTS ARE TO BE USED IN PAIRS AT ALL BEAM LOCATIONS ALONG ALL INSTALLED UNISTRUT CHANNELS.

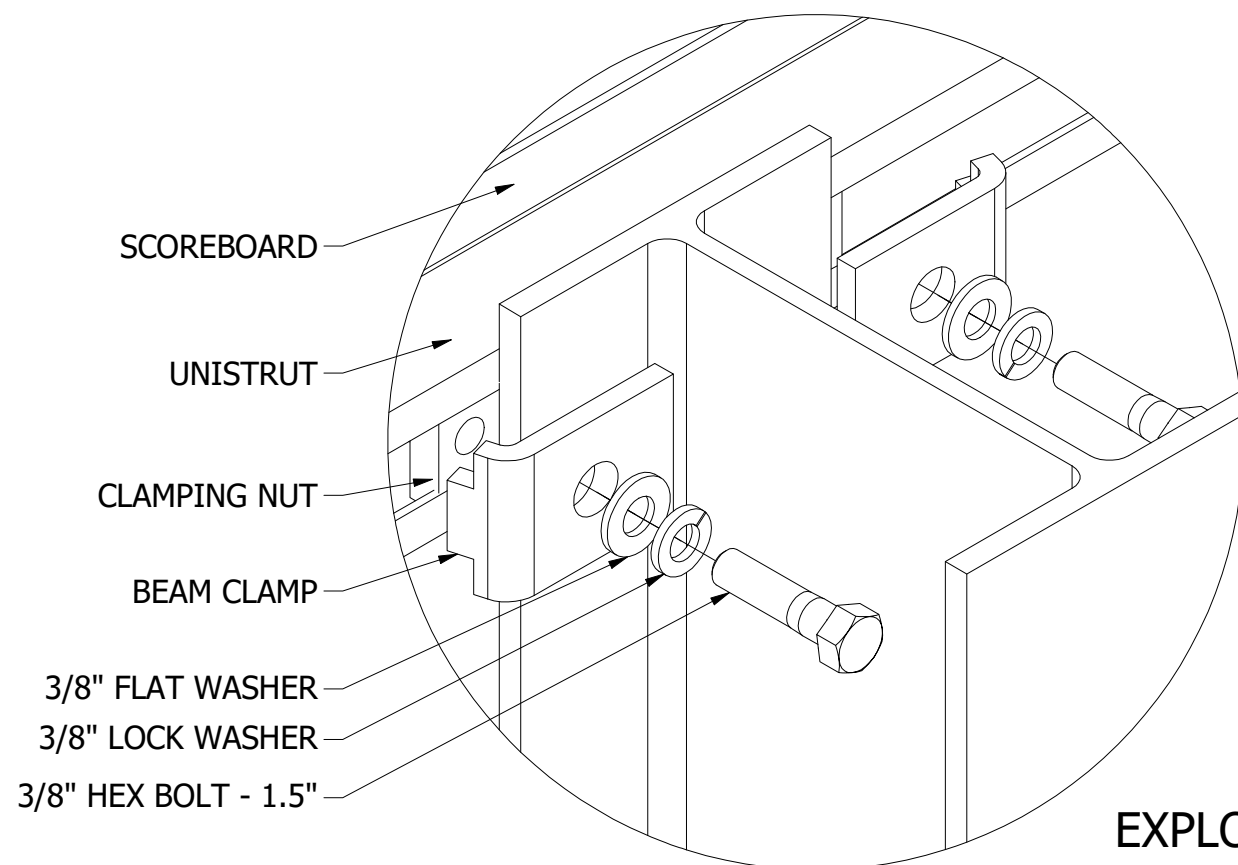
2. LIFT SCOREBOARD INTO POSITION. ASSEMBLE THE BEAM CLAMP, WASHERS, AND BOLT. ADJUST CLAMPING NUT LOCATION IF NEEDED TO MOVE THE BOLT CLOSER TO THE I-BEAM.

3. TIGHTEN ALL BOLTS TO 19 FT-LBS OF TORQUE.

**CLAMPING NUTS, BEAM CLAMPS, WASHERS, AND BOLTS ARE PROVIDED WITH THE ENCLOSURE BY OES.**

### IMPORTANT NOTES:

- DO NOT USE LUBRICANT ON ANY MOUNTING HARDWARE.
- SCOREBOARD MUST BE ATTACHED AT ALL LOCATIONS WHERE AN I-BEAM CROSSES A ROW OF UNISTRUT. I-BEAM CLAMPS MUST BE USED IN PAIRS.
- MAXIMUM FLANGE THICKNESS IS 1/2" FOR BEAM CLAMPS. CONTACT OES FOR MOUNTING OPTIONS IF I-BEAM FLANGES ARE OVER 1/2" THICK.
- I-BEAMS AND FOOTINGS SHOULD BE APPROVED BY A PROFESSIONAL ENGINEER FAMILIAR WITH LOCAL BUILDING CODES. OES-PROVIDED POST SPECIFICATIONS ARE FOR COST ESTIMATION PURPOSES ONLY.



EXPLODED VIEW

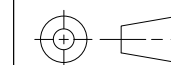
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Angular 30°

THIRD ANGLE PROJECTION



4096 Blakie Road,  
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Tel: (519) 652-5833  
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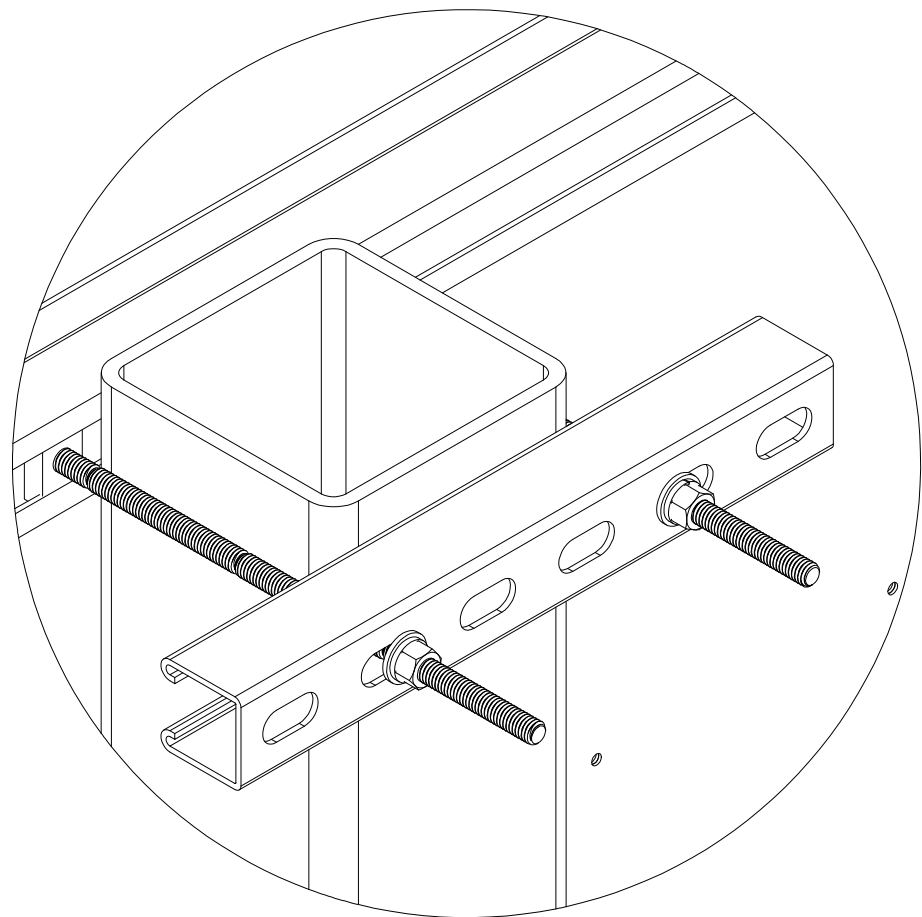
DESCRIPTION

INSTALL DRAWINGS - OUTDOOR  
OES ELECTRONIC SCOREBOARDS

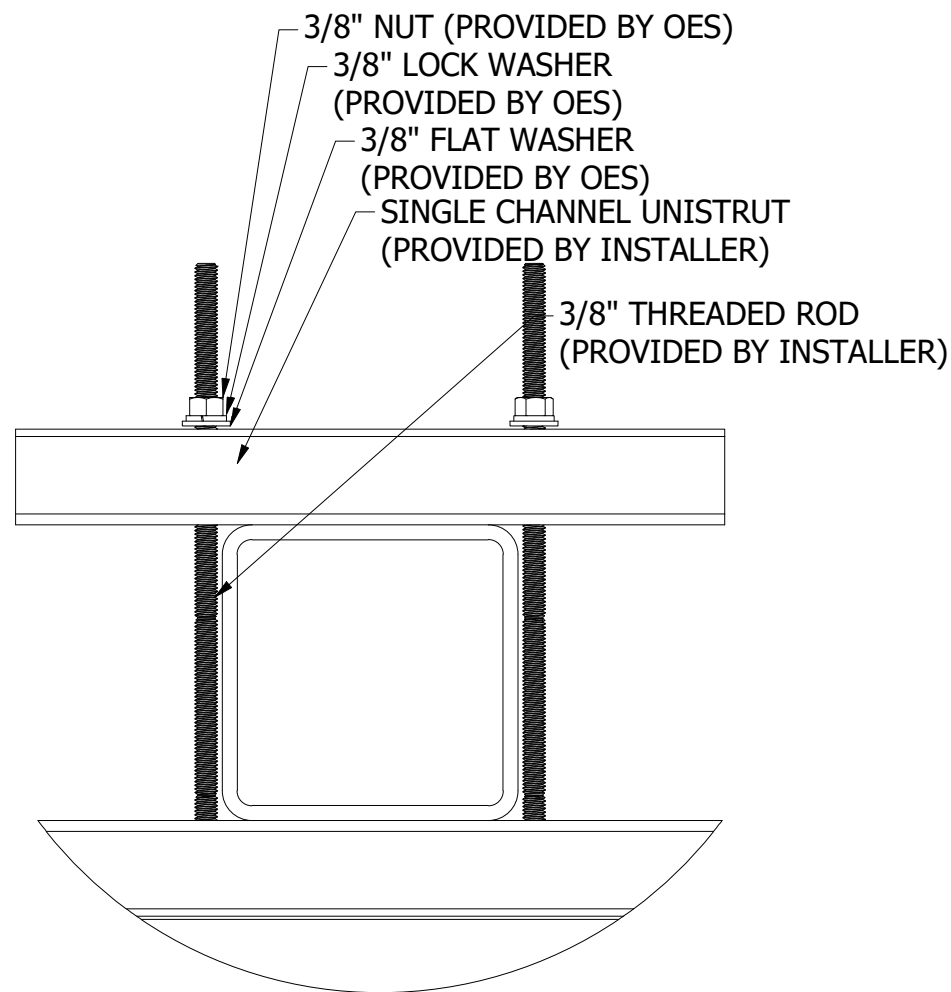
SIZE	FILENAME	INIT DRAWING DATE	REV
B	Installation Drawings - Outdoor.idw	12/13/2021	B

USE FOR CONSTRUCTION

SCALE	NTS	DRAWN BY	rdonald	PAGE	2 OF 3
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ISOMETRIC VIEW



TOP VIEW

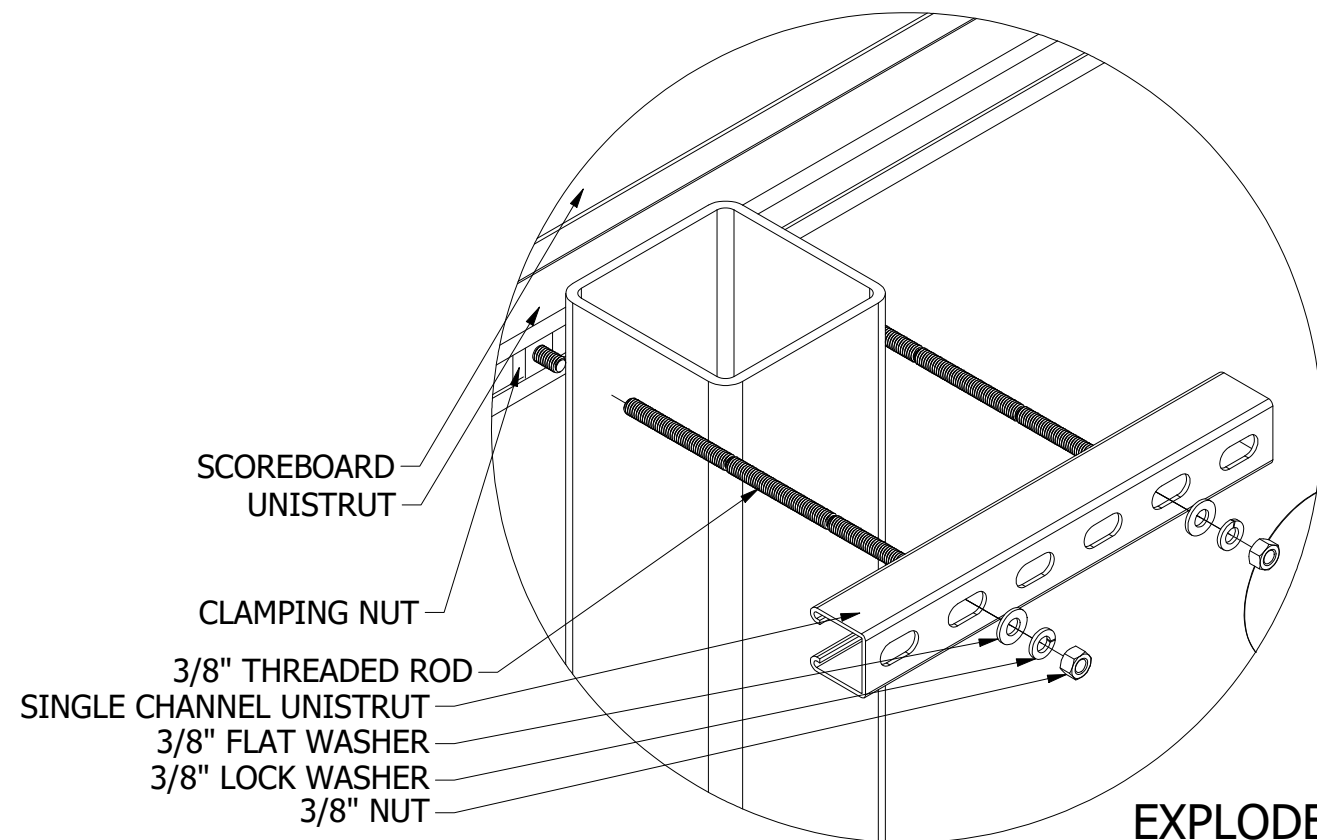
## OUTDOOR SCOREBOARD INSTALLATION: MOUNTING TO HSS POST

1. INSERT CLAMPING NUTS INTO THE UNISTRUT ALONG THE BACK OF THE SCOREBOARD. TURN CLAMPING NUTS TO VERTICAL POSITION TO LOCK IN PLACE. CLAMPING NUTS ARE TO BE USED IN PAIRS AT ALL POST LOCATIONS ALONG ALL INSTALLED UNISTRUT CHANNELS.
2. CUT THREADED ROD TO LENGTH (WILL DEPEND ON POST DIMENSIONS)
3. LIFT SCOREBOARD INTO POSITION. ASSEMBLE THE THREADED ROD, WASHERS, AND 3/8" NUT. ADJUST CLAMPING NUT LOCATION IF NEEDED TO MOVE THE THREADED ROD CLOSER TO THE POST.
4. TIGHTEN ALL NUTS TO 19 FT-LB OF TORQUE.


**MOUNTING HARDWARE FOR HSS POSTS CAN BE SUPPLIED BY OES UPON REQUEST. POST DIMENSIONS MUST BE PROVIDED BY THE CUSTOMER TO DETERMINE UNISTRUT AND THREADED ROD LENGTHS.**

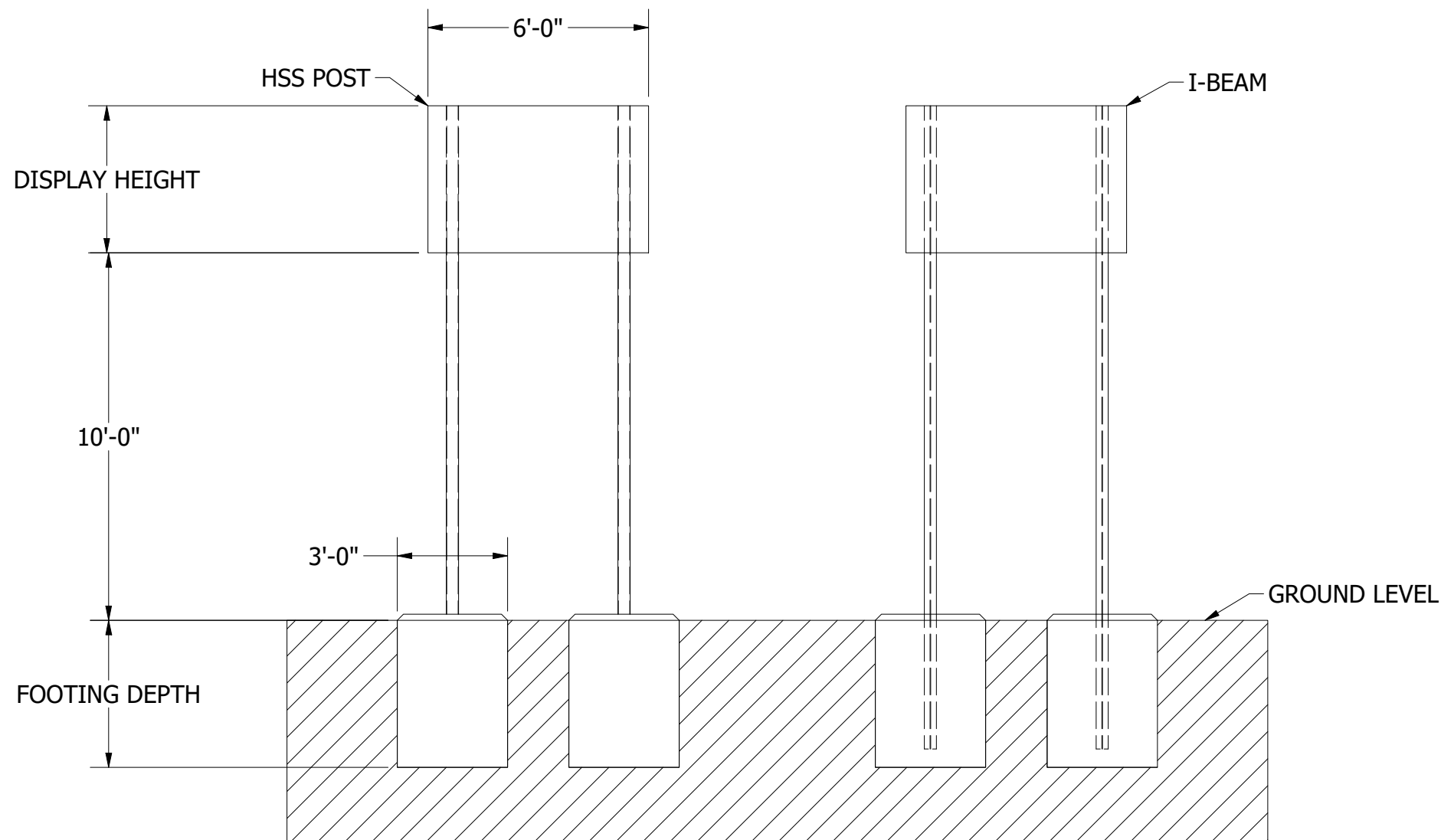
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SIZE <b>B</b>	FILENAME Installation Drawings - Outdoor.idw	INIT DRAWING DATE 12/13/2021	REV <b>B</b>
USAGE <b>USE FOR CONSTRUCTION</b>		SCALE <b>NTS</b> DRAWN BY <b>rdonald</b> PAGE <b>3 OF 3</b>	



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### OTHER NOTES:

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2. FOR DISPLAY HEIGHTS OR WIND SPEEDS BETWEEN THE TABULATED VALUES, ROUND UP TO THE NEXT LARGEST DISPLAY HEIGHT AND/OR WIND SPEED TO ESTIMATE POST REQUIREMENTS.
3. ASSUMPTIONS:
  - SCOREBOARD IS MOUNTED ON TWO POSTS.
  - BOTTOM OF THE SCOREBOARD IS 10' ABOVE GROUND LEVEL.
  - FOOTING DEPTH CALCULATED USING A 3' FOOTING DIAMETER.
  - POSTS ARE ASSUMED TO BE A36 (36KSI) STEEL.
  - SOIL LATERAL BEARING PRESSURE IS TAKEN AS 100 PSF.
4. POST SIZING CALCULATIONS PERFORMED ACCORDING TO ASCE7-10. I-BEAM AND TUBE PROPERTIES FROM AISC VERSION 13.0 CD DATABASE AND AISC 13TH EDITION MANUAL.
5. FOR A POST & FOOTING ESTIMATE USING CUSTOM PARAMETERS, PLEASE CONTACT OES.

### EXPOSURE CATEGORIES - GENERAL DEFINITIONS:

EXPOSURE B: URBAN AND SUBURBAN AREAS, WOODED AREAS, OR OTHER TERRAIN WITH NUMEROUS CLOSELY SPACED OBSTRUCTIONS HAVING THE SIZE OF SINGLE-FAMILY DWELLINGS OR LARGER. THESE AREAS PREVAIL IN THE UPWIND DIRECTION FOR A DISTANCE OF 2600 FT OR 20 TIMES THE STRUCTURE HEIGHT, WHICHEVER IS GREATER.

EXPOSURE C: OPEN TERRAIN WITH SCATTERED OBSTRUCTIONS HAVING HEIGHTS GENERALLY LESS THAN 30 FT. THIS CATEGORY INCLUDES FLAT OPEN COUNTRY, GRASSLANDS, AND ALL WATER SURFACES IN HURRICANE PRONE AREAS.

FOOTING DIMENSIONS SHOWN AS DIAMETER X DEPTH (FT)

### POST & FOOTING GUIDE (6' DISPLAY WIDTH)

DISPLAY HEIGHT	WIND SPEED -->	EXPOSURE B 90 MPH	EXPOSURE B 110 MPH	EXPOSURE B 130 MPH	EXPOSURE B 150 MPH	EXPOSURE C 90 MPH	EXPOSURE C 110 MPH	EXPOSURE C 130 MPH	EXPOSURE C 150 MPH
4'	I-BEAM HSS POST FOOTING	W6X9 HSS3X3X1/8 3'X2.71'	W6X9 HSS3-1/2X3-1/2X1/8 3'X3.12'	W6X9 HSS4X4X1/8 3'X3.52'	W6X9 HSS5X5X1/8 3'X3.9'	W6X9 HSS3-1/2X3-1/2X1/8 3'X3.11'	W6X9 HSS4X4X1/8 3'X3.59'	W6X9 HSS5X5X1/8 3'X4.05'	W6X9 HSS5X5X3/16 3'X4.49'
6'	I-BEAM HSS POST FOOTING	W6X9 HSS3-1/2X3-1/2X1/8 3'X3.22'	W6X9 HSS4X4X1/8 3'X3.72'	W6X9 HSS5X5X1/8 3'X4.19'	W6X9 HSS5X5X3/16 3'X4.65'	W6X9 HSS4X4X1/8 3'X3.69'	W6X9 HSS5X5X1/8 3'X4.27'	W6X9 HSS5X5X3/16 3'X4.82'	W6X12 HSS6X6X3/16 3'X5.35'
8'	I-BEAM HSS POST FOOTING	W6X9 HSS4X4X1/8 3'X3.69'	W6X9 HSS5X5X1/8 3'X4.26'	W6X9 HSS5X5X3/16 3'X4.8'	W6X12 HSS6X6X3/16 3'X5.33'	W6X9 HSS5X5X1/8 3'X4.22'	W6X9 HSS5X5X3/16 3'X4.88'	W6X12 HSS6X6X3/16 3'X5.51'	W8X13 HSS7X7X3/16 3'X6.12'
10'	I-BEAM HSS POST FOOTING	W6X9 HSS5X5X1/8 3'X4.12'	W6X9 HSS5X5X3/16 3'X4.75'	W6X12 HSS6X6X3/16 3'X5.37'	W8X13 HSS7X7X3/16 3'X5.96'	W6X9 HSS5X5X3/16 3'X4.7'	W6X12 HSS6X6X3/16 3'X5.43'	W8X13 HSS7X7X3/16 3'X6.14'	W10X15 HSS8X8X3/16 3'X6.82'
12'	I-BEAM HSS POST FOOTING	W6X9 HSS5X5X3/16 3'X4.52'	W6X12 HSS6X6X3/16 3'X5.22'	W8X13 HSS7X7X3/16 3'X5.89'	W10X15 HSS8X8X3/16 3'X6.54'	W6X9 HSS6X6X3/16 3'X5.15'	W8X13 HSS7X7X3/16 3'X5.95'	W10X15 HSS8X8X3/16 3'X6.73'	W12X16 HSS9X9X3/16 3'X7.47'

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-11-10	RD

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 Angular 30"

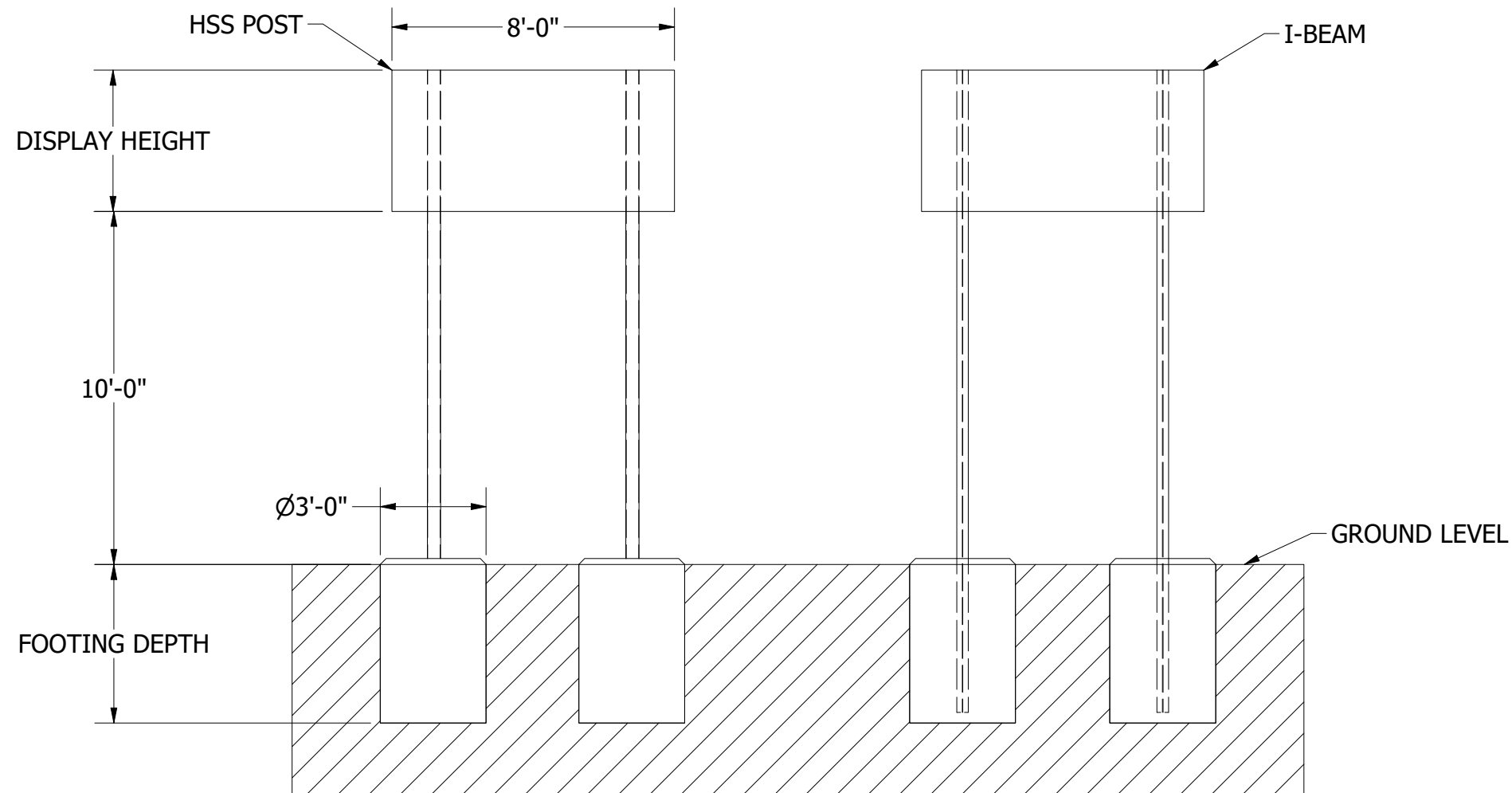
THIRD ANGLE PROJECTION

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 London, ON, N6L 1P7  
 Tel: (519) 652-5833  
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 Email: oes@oes-inc.com

DESCRIPTION  
**POST & FOOTING GUIDE - 6' WIDTH  
 INSTALLATION INSTRUCTIONS**

SIZE	FILENAME	INIT DRAWING DATE	REV
B	Post Guide 6'.idw	2021-11-10	A
USAGE			

SCALE: NTS      DRAWN BY: rdonald      PAGE: 1 OF 1



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FOOTING DIMENSIONS SHOWN AS DIAMETER X DEPTH (FT)

### POST & FOOTING GUIDE (8' DISPLAY WIDTH)

DISPLAY HEIGHT	WIND SPEED -->	EXPOSURE B 90 MPH	EXPOSURE B 110 MPH	EXPOSURE B 130 MPH	EXPOSURE B 150 MPH	EXPOSURE C 90 MPH	EXPOSURE C 110 MPH	EXPOSURE C 130 MPH	EXPOSURE C 150 MPH
4'	I-BEAM	W6X9	W6X9	W6X9	W6X9	W6X9	W6X9	W6X9	W6X9
	HSS POST	HSS3X3X1/8	HSS4X4X1/8	HSS5X5X1/8	HSS5X5X1/8	HSS4X4X1/8	HSS5X5X1/8	HSS5X5X3/16	HSS5X5X3/16
	FOOTING	3'X3'	3'X3.46'	3'X3.9'	3'X4.33'	3'X3.44'	3'X3.98'	3'X4.49'	3'X4.99'
6'	I-BEAM	W6X9	W6X9	W6X9	W6X9	W6X9	W6X9	W6X12	W8X13
	HSS POST	HSS4X4X1/8	HSS5X5X1/8	HSS5X5X3/16	HSS6X6X3/16	HSS5X5X1/8	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16
	FOOTING	3'X3.57'	3'X4.12'	3'X4.65'	3'X5.16'	3'X4.1'	3'X4.74'	3'X5.35'	3'X5.94'
8'	I-BEAM	W6X9	W6X9	W6X12	W8X13	W6X9	W6X12	W8X13	W10X15
	HSS POST	HSS5X5X1/8	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16
	FOOTING	3'X4.09'	3'X4.72'	3'X5.33'	3'X5.92'	3'X4.68'	3'X5.41'	3'X6.12'	3'X6.8'
10'	I-BEAM	W6X9	W6X12	W8X13	W10X15	W6X12	W8X13	W10X15	W12X16
	HSS POST	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16
	FOOTING	3'X4.56'	3'X5.28'	3'X5.96'	3'X6.62'	3'X5.21'	3'X6.03'	3'X6.82'	3'X7.59'
12'	I-BEAM	W6X9	W8X13	W10X15	W12X16	W8X13	W10X15	W12X16	W12X19
	HSS POST	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS6X6X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4
	FOOTING	3'X5.01'	3'X5.79'	3'X6.55'	3'X7.27'	3'X5.71'	3'X6.61'	3'X7.48'	3'X8.32'
14'	I-BEAM	W6X12	W8X13	W10X15	W12X19	W8X13	W12X16	W12X19	W14X22
	HSS POST	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X1/4	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS10X10X1/4
	FOOTING	3'X5.44'	3'X6.29'	3'X7.1'	3'X7.9'	3'X6.18'	3'X7.16'	3'X8.1'	3'X9.01'
16'	I-BEAM	W8X13	W10X15	W12X16	W12X22	W10X15	W12X16	W12X22	W12X26
	HSS POST	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS8X8X3/16	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4
	FOOTING	3'X5.84'	3'X6.76'	3'X7.64'	3'X8.49'	3'X6.63'	3'X7.68'	3'X8.69'	3'X9.67'

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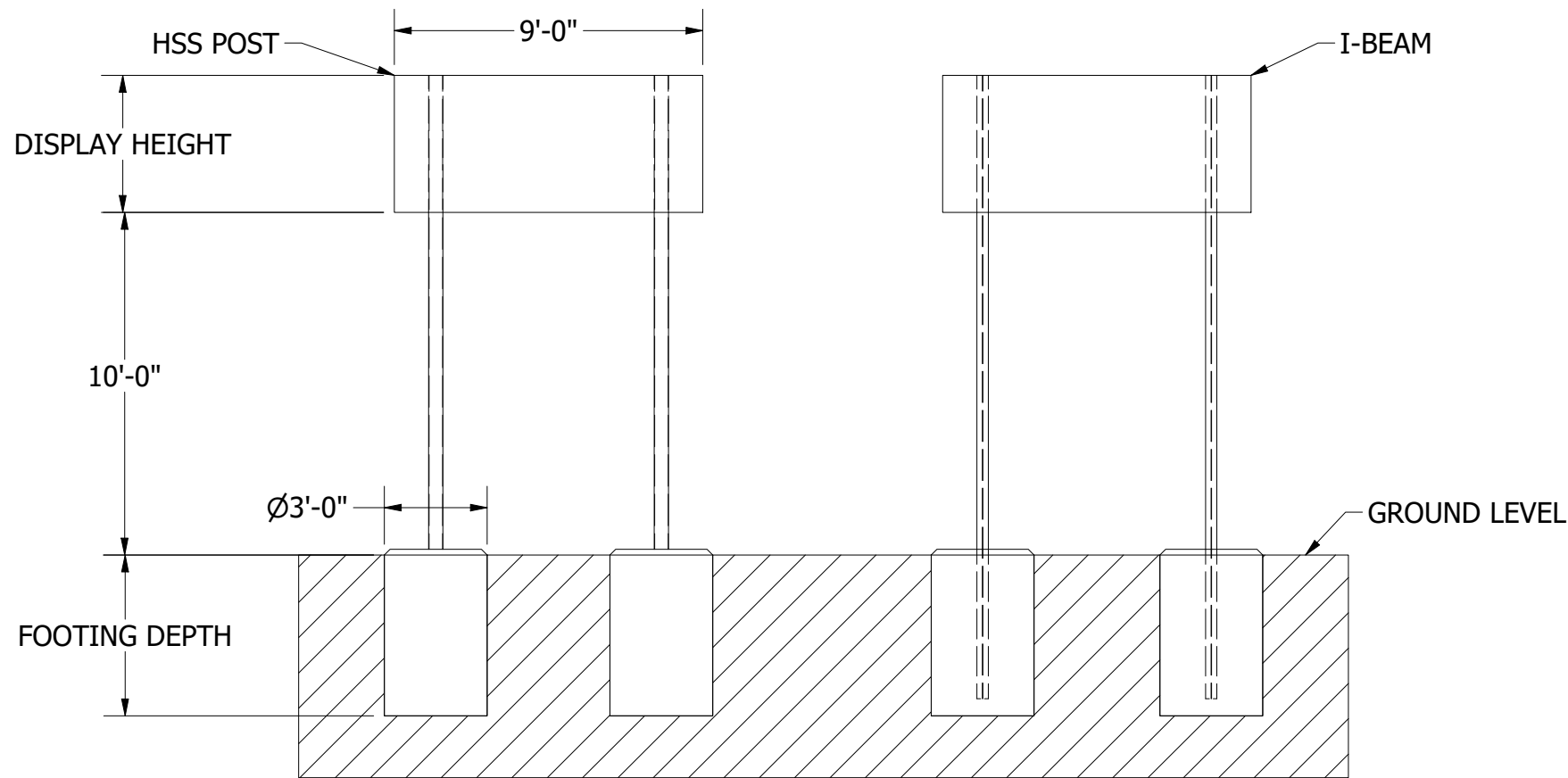
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**POST & FOOTING GUIDE - 8' WIDTH  
 INSTALLATION INSTRUCTIONS**

SIZE	FILENAME	INIT DRAWING DATE	REV
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SCALE	NTS	DRAWN BY	rdonald
			PAGE 1 OF 1



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### OTHER NOTES:

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- FOR DISPLAY HEIGHTS OR WIND SPEEDS BETWEEN THE TABULATED VALUES, ROUND UP TO THE NEXT LARGEST DISPLAY HEIGHT AND/OR WIND SPEED TO ESTIMATE POST REQUIREMENTS.
- ASSUMPTIONS:
  - SCOREBOARD IS MOUNTED ON TWO POSTS.
  - BOTTOM OF THE SCOREBOARD IS 10' ABOVE GROUND LEVEL.
  - FOOTING DEPTH CALCULATED USING A 3' FOOTING DIAMETER.
  - POSTS ARE ASSUMED TO BE A36 (36KSI) STEEL.
  - SOIL LATERAL BEARING PRESSURE IS TAKEN AS 100 PSF.
- POST SIZING CALCULATIONS PERFORMED ACCORDING TO ASCE7-10. I-BEAM AND TUBE PROPERTIES FROM AISC VERSION 13.0 CD DATABASE AND AISC 13TH EDITION MANUAL.
- FOR A POST & FOOTING ESTIMATE USING CUSTOM PARAMETERS, PLEASE CONTACT OES.

FOOTING DIMENSIONS SHOWN AS DIAMETER X DEPTH (FT)

### POST & FOOTING GUIDE (9' DISPLAY WIDTH)

DISPLAY HEIGHT	WIND SPEED -->	EXPOSURE B 90 MPH	EXPOSURE B 110 MPH	EXPOSURE B 130 MPH	EXPOSURE B 150 MPH	EXPOSURE C 90 MPH	EXPOSURE C 110 MPH	EXPOSURE C 130 MPH	EXPOSURE C 150 MPH
4'	I-BEAM	W6X9	W6X9	W6X9	W6X9	W6X9	W6X9	W6X9	W6X9
	HSS POST FOOTING	HSS3-1/2X3-1/2X1/8 3'X3.13'	HSS4X4X1/8 3'X3.61'	HSS5X5X1/8 3'X4.07'	HSS5X5X3/16 3'X4.52'	HSS4X4X1/8 3'X3.59'	HSS5X5X1/8 3'X4.15'	HSS5X5X3/16 3'X4.69'	HSS6X6X3/16 3'X5.21'
6'	I-BEAM	W6X9	W6X9	W6X9	W6X12	W6X9	W6X9	W6X12	W8X13
	HSS POST FOOTING	HSS4X4X1/8 3'X3.72'	HSS5X5X1/8 3'X4.3'	HSS5X5X3/16 3'X4.85'	HSS6X6X3/16 3'X5.39'	HSS5X5X1/8 3'X4.27'	HSS5X5X3/16 3'X4.94'	HSS6X6X3/16 3'X5.59'	HSS7X7X3/16 3'X6.21'
8'	I-BEAM	W6X9	W6X9	W6X12	W8X13	W6X9	W6X12	W8X13	W10X15
	HSS POST FOOTING	HSS5X5X1/8 3'X4.26'	HSS5X5X3/16 3'X4.93'	HSS6X6X3/16 3'X5.57'	HSS7X7X3/16 3'X6.18'	HSS5X5X3/16 3'X4.88'	HSS6X6X3/16 3'X5.65'	HSS7X7X3/16 3'X6.39'	HSS8X8X3/16 3'X7.11'
10'	I-BEAM	W6X9	W6X12	W8X13	W10X15	W6X12	W8X13	W10X15	W12X19
	HSS POST FOOTING	HSS5X5X3/16 3'X4.76'	HSS6X6X3/16 3'X5.51'	HSS7X7X3/16 3'X6.22'	HSS8X8X3/16 3'X6.91'	HSS6X6X3/16 3'X5.44'	HSS7X7X3/16 3'X6.3'	HSS8X8X3/16 3'X7.13'	HSS8X8X1/4 3'X7.93'
12'	I-BEAM	W6X12	W8X13	W10X15	W12X16	W8X13	W10X15	W12X19	W12X22
	HSS POST FOOTING	HSS6X6X3/16 3'X5.23'	HSS7X7X3/16 3'X6.05'	HSS8X8X3/16 3'X6.84'	HSS9X9X3/16 3'X7.6'	HSS7X7X3/16 3'X5.96'	HSS8X8X3/16 3'X6.9'	HSS9X9X3/16 3'X7.81'	HSS10X10X1/4 3'X8.69'
14'	I-BEAM	W8X13	W10X15	W12X16	W12X19	W10X15	W12X16	W12X22	W14X22
	HSS POST FOOTING	HSS6X6X3/16 3'X5.67'	HSS8X8X3/16 3'X6.56'	HSS9X9X3/16 3'X7.42'	HSS9X9X1/4 3'X8.25'	HSS8X8X3/16 3'X6.45'	HSS9X9X3/16 3'X7.48'	HSS9X9X1/4 3'X8.46'	HSS12X12X1/4 3'X9.42'
16'	I-BEAM	W8X13	W10X15	W12X19	W12X22	W10X15	W12X19	W14X22	W16X26
	HSS POST FOOTING	HSS7X7X3/16 3'X6.1'	HSS8X8X3/16 3'X7.06'	HSS9X9X1/4 3'X7.98'	HSS10X10X1/4 3'X8.87'	HSS8X8X3/16 3'X6.92'	HSS9X9X1/4 3'X8.02'	HSS10X10X1/4 3'X9.08'	HSS12X12X1/4 3'X10.11'
18'	I-BEAM	W10X15	W12X16	W12X22	W12X26	W12X16	W12X22	W12X26	W16X31
	HSS POST FOOTING	HSS8X8X3/16 3'X6.51'	HSS9X9X3/16 3'X7.53'	HSS10X10X1/4 3'X8.52'	HSS12X12X1/4 3'X9.47'	HSS9X9X3/16 3'X7.37'	HSS10X10X1/4 3'X8.55'	HSS12X12X1/4 3'X9.67'	HSS12X12X5/16 3'X10.77'

### EXPOSURE CATEGORIES - GENERAL DEFINITIONS:

EXPOSURE B: URBAN AND SUBURBAN AREAS, WOODED AREAS, OR OTHER TERRAIN WITH NUMEROUS CLOSELY SPACED OBSTRUCTIONS HAVING THE SIZE OF SINGLE-FAMILY DWELLINGS OR LARGER. THESE AREAS PREVAIL IN THE UPWIND DIRECTION FOR A DISTANCE OF 2600 FT OR 20 TIMES THE STRUCTURE HEIGHT, WHICHEVER IS GREATER.

EXPOSURE C: OPEN TERRAIN WITH SCATTERED OBSTRUCTIONS HAVING HEIGHTS GENERALLY LESS THAN 30 FT. THIS CATEGORY INCLUDES FLAT OPEN COUNTRY, GRASSLANDS, AND ALL WATER SURFACES IN HURRICANE PRONE AREAS.

### REVISION HISTORY

REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-11-10	RD

PART NUMBER: N/A



4096 Blakie Road,  
London, ON, N6L 1P7  
Tel: (519) 652-5833  
Fax: (519) 652-3795  
Email: oes@oes-inc.com

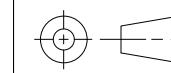
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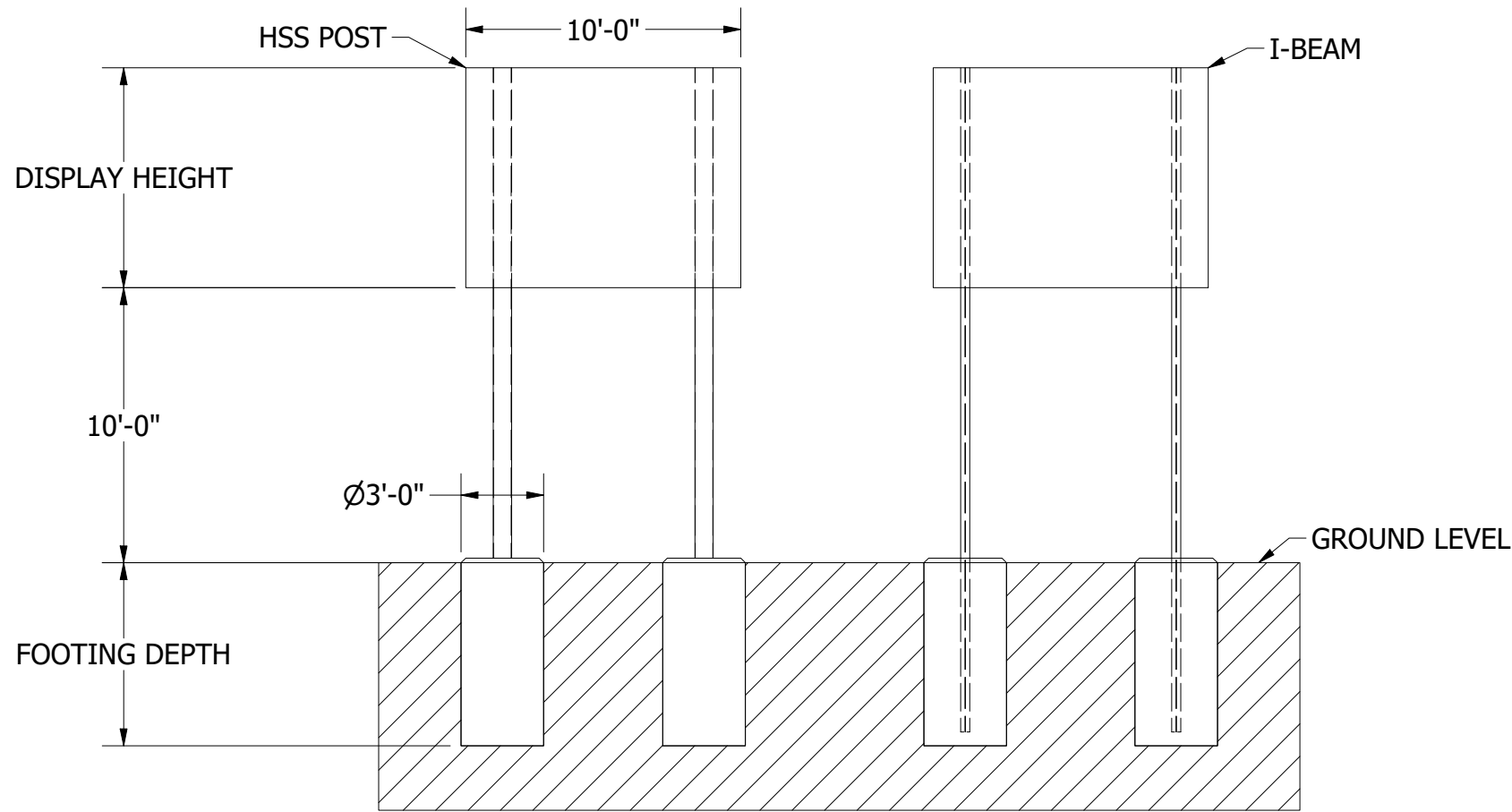
TOLERANCE INFORMATION

Dimensions are in inches  
Fractional ± 1/16"  
Two Place Decimals ± 0.02"  
Three Place Decimals ± 0.005"  
Four Place Decimals ± 0.0005"  
Angular 30°

THIRD ANGLE PROJECTION



DESCRIPTION			
<b>POST &amp; FOOTING GUIDE - 9' WIDTH INSTALLATION INSTRUCTIONS</b>			
SIZE	FILENAME	INIT DRAWING DATE	REV
B	Post Guide 9'.idw	2021-11-10	A
SCALE	NTS	DRAWN BY	PAGE
		rdonald	1 OF 1



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5. FOR A POST & FOOTING ESTIMATE USING CUSTOM PARAMETERS, PLEASE CONTACT OES.

FOOTING DIMENSIONS SHOWN AS DIAMETER X DEPTH (FT)

### POST & FOOTING GUIDE (10' DISPLAY WIDTH)

DISPLAY HEIGHT	WIND SPEED -->	EXPOSURE B 90 MPH	EXPOSURE B 110 MPH	EXPOSURE B 130 MPH	EXPOSURE B 150 MPH	EXPOSURE C 90 MPH	EXPOSURE C 110 MPH	EXPOSURE C 130 MPH	EXPOSURE C 150 MPH
6'	I-BEAM	W6X9	W6X9	W6X9	W6X12	W6X9	W6X9	W6X12	W8X13
	HSS POST	HSS5X5X1/8	HSS5X5X3/16	HSS5X5X3/16	HSS6X6X3/16	HSS5X5X1/8	HSS6X6X3/16	HSS6X6X3/16	HSS7X7X3/16
	FOOTING	3'X3.86'	3'X4.47'	3'X5.04'	3'X5.6'	3'X4.44'	3'X5.14'	3'X5.81'	3'X6.46'
8'	I-BEAM	W6X9	W6X9	W8X13	W8X13	W6X9	W8X13	W10X15	W12X16
	HSS POST	HSS5X5X3/16	HSS6X6X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16
	FOOTING	3'X4.43'	3'X5.12'	3'X5.79'	3'X6.43'	3'X5.07'	3'X5.88'	3'X6.65'	3'X7.4'
10'	I-BEAM	W6X9	W6X12	W10X15	W10X15	W6X12	W10X15	W12X16	W12X19
	HSS POST	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS6X6X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4
	FOOTING	3'X4.95'	3'X5.72'	3'X6.47'	3'X7.19'	3'X5.65'	3'X6.55'	3'X7.41'	3'X8.25'
12'	I-BEAM	W6X12	W8X13	W10X15	W12X19	W8X13	W10X15	W12X19	W14X22
	HSS POST	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X1/4	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS10X10X1/4
	FOOTING	3'X5.43'	3'X6.29'	3'X7.11'	3'X7.9'	3'X6.19'	3'X7.18'	3'X8.12'	3'X9.04'
14'	I-BEAM	W8X13	W10X15	W12X16	W12X22	W10X15	W12X19	W12X22	W12X26
	HSS POST	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS8X8X3/16	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4
	FOOTING	3'X5.89'	3'X6.82'	3'X7.71'	3'X8.58'	3'X6.71'	3'X7.77'	3'X8.8'	3'X9.8'
16'	I-BEAM	W10X15	W12X16	W12X19	W14X22	W12X16	W12X19	W12X26	W14X30
	HSS POST	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS9X9X3/16	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X1/4
	FOOTING	3'X6.34'	3'X7.33'	3'X8.29'	3'X9.23'	3'X7.19'	3'X8.34'	3'X9.44'	3'X10.51'
18'	I-BEAM	W10X15	W12X19	W14X22	W16X26	W12X19	W14X22	W16X26	W14X34
	HSS POST	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS12X12X1/4	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16
	FOOTING	3'X6.76'	3'X7.83'	3'X8.86'	3'X9.85'	3'X7.66'	3'X8.89'	3'X10.06'	3'X11.2'
20'	I-BEAM	W12X16	W12X22	W12X26	W14X30	W12X19	W12X26	W16X31	W18X35
	HSS POST	HSS9X9X3/16	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X1/4	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16
	FOOTING	3'X7.18'	3'X8.31'	3'X9.4'	3'X10.46'	3'X8.12'	3'X9.41'	3'X10.66'	3'X11.87'

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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-11-10	RD

PART NUMBER: N/A

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TOLERANCE INFORMATION

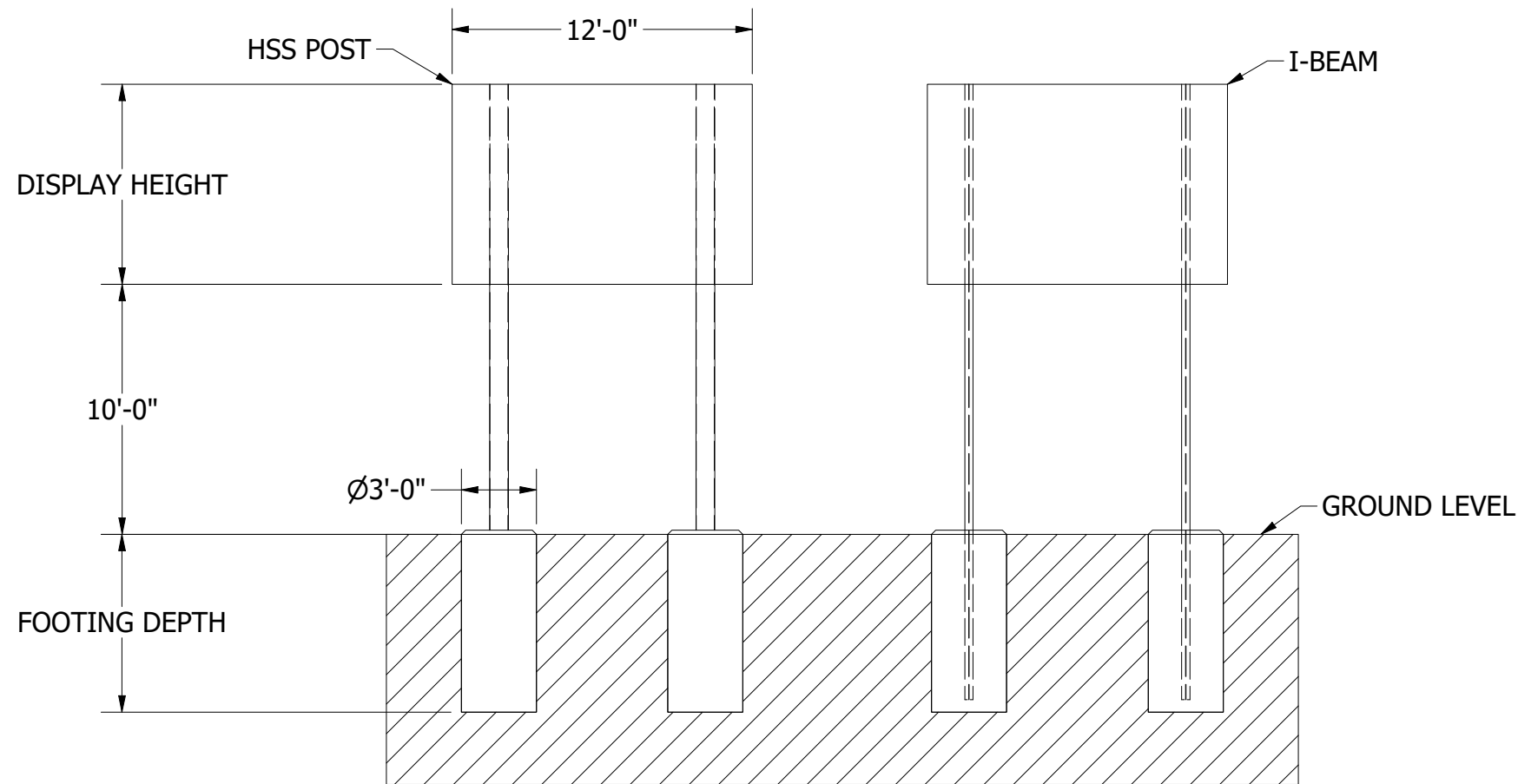
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 Three Place Decimals ± 0.005"  
 Four Place Decimals ± 0.0005"  
 Angular 30°

THIRD ANGLE PROJECTION



4096 Blakie Road,  
 London, ON, N6L 1P7  
 Tel: (519) 652-5833  
 Fax: (519) 652-3795  
 Email: oes@oes-inc.com

DESCRIPTION			
SIZE	FILENAME	INIT DRAWING DATE	REV
B	Post Guide 10'.idw	2021-11-10	A
SCALE NTS		DRAWN BY rdonald	PAGE 1 OF 1



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  - POSTS ARE ASSUMED TO BE A36 (36KSI) STEEL.
  - SOIL LATERAL BEARING PRESSURE IS TAKEN AS 100 PSF.
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FOOTING DIMENSIONS SHOWN AS DIAMETER X DEPTH (FT)

### POST & FOOTING GUIDE (12' DISPLAY WIDTH)

DISPLAY HEIGHT	WIND SPEED -->	EXPOSURE B 90 MPH	EXPOSURE B 110 MPH	EXPOSURE B 130 MPH	EXPOSURE B 150 MPH	EXPOSURE C 90 MPH	EXPOSURE C 110 MPH	EXPOSURE C 130 MPH	EXPOSURE C 150 MPH
6'	I-BEAM	W6X9	W6X9	W6X12	W8X13	W6X9	W6X12	W8X13	W10X15
	HSS POST	HSS5X5X1/8	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16
	FOOTING	3'X4.13'	3'X4.77'	3'X5.39'	3'X5.99'	3'X4.74'	3'X5.49'	3'X6.21'	3'X6.91'
8'	I-BEAM	W6X9	W6X12	W8X13	W10X15	W6X12	W8X13	W10X15	W12X19
	HSS POST	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16
	FOOTING	3'X4.73'	3'X5.47'	3'X6.19'	3'X6.88'	3'X5.42'	3'X6.28'	3'X7.11'	3'X7.92'
10'	I-BEAM	W6X12	W8X13	W10X15	W12X16	W8X13	W10X15	W12X19	W12X22
	HSS POST	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS8X8X1/4	HSS10X10X1/4
	FOOTING	3'X5.28'	3'X6.12'	3'X6.92'	3'X7.69'	3'X6.04'	3'X7.01'	3'X7.93'	3'X8.83'
12'	I-BEAM	W8X13	W10X15	W12X16	W12X22	W10X15	W12X16	W12X22	W12X26
	HSS POST	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS8X8X3/16	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4
	FOOTING	3'X5.8'	3'X6.72'	3'X7.6'	3'X8.46'	3'X6.62'	3'X7.68'	3'X8.7'	3'X9.69'
14'	I-BEAM	W8X13	W12X16	W12X19	W14X22	W12X16	W12X19	W12X26	W14X30
	HSS POST	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS9X9X3/16	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X1/4
	FOOTING	3'X6.3'	3'X7.29'	3'X8.25'	3'X9.18'	3'X7.17'	3'X8.32'	3'X9.42'	3'X10.5'
16'	I-BEAM	W10X15	W12X19	W12X22	W16X26	W12X19	W14X22	W16X26	W14X34
	HSS POST	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS12X12X1/4	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16
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20'	I-BEAM	W12X19	W14X22	W16X26	W14X34	W12X22	W16X26	W18X35	W18X40
	HSS POST	HSS8X8X1/4	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS10X10X1/4	HSS12X12X1/4	HSS14X14X5/16	HSS14X14X5/16
	FOOTING	3'X7.67'	3'X8.89'	3'X10.06'	3'X11.2'	3'X8.68'	3'X10.07'	3'X11.42'	3'X12.72'

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REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-11-10	RD

PART NUMBER: N/A



4096 Blakie Road,  
London, ON, N6L 1P7  
Tel: (519) 652-5833  
Fax: (519) 652-3795  
Email: oes@oes-inc.com

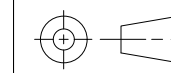
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TOLERANCE INFORMATION

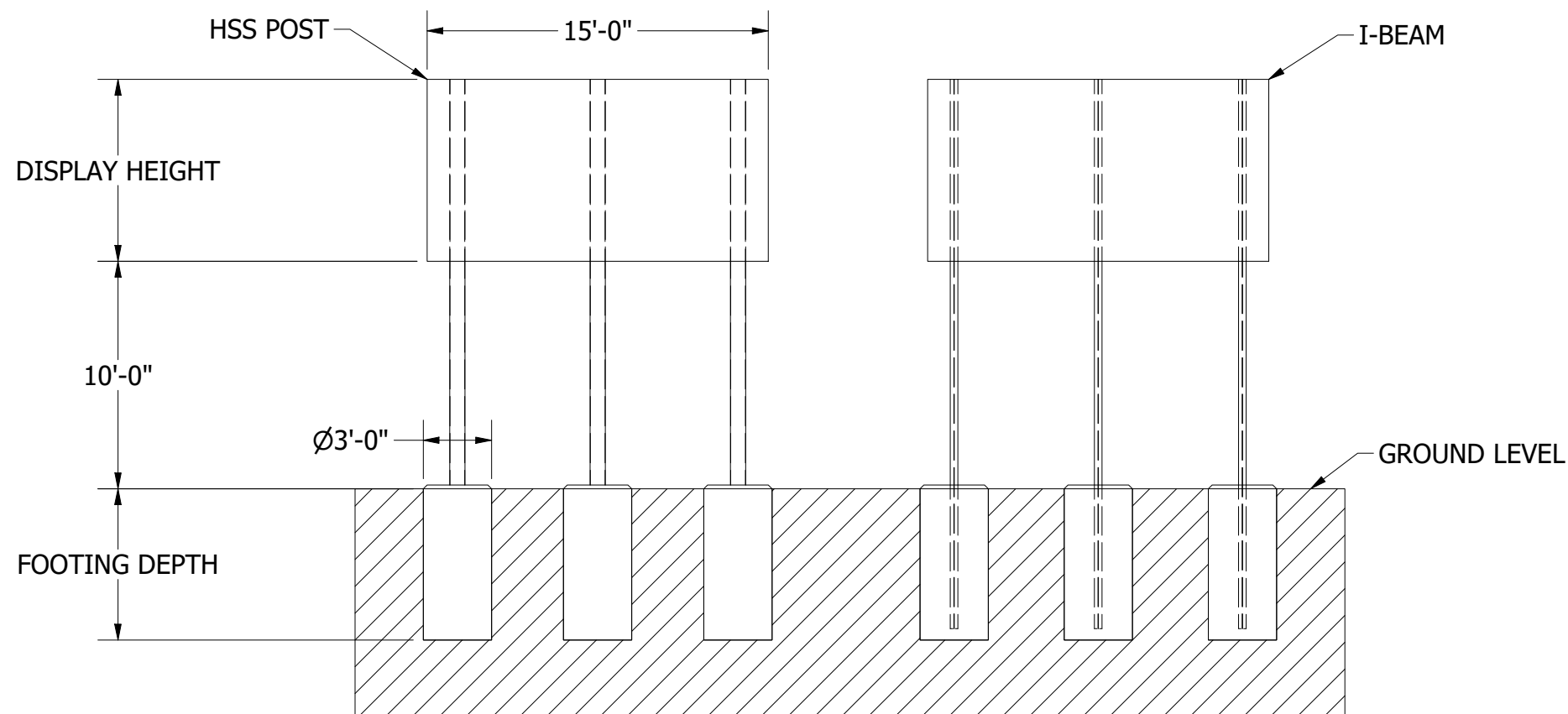
Dimensions are in inches  
Fractional ± 1/16"  
Two Place Decimals ± 0.02"  
Three Place Decimals ± 0.005"  
Four Place Decimals ± 0.0005"  
Angular 30°

THIRD ANGLE PROJECTION



DESCRIPTION			
<b>POST &amp; FOOTING GUIDE - 12' WIDTH INSTALLATION INSTRUCTIONS</b>			
SIZE	FILENAME	INIT DRAWING DATE	REV
B	Post Guide 12'.idw	2021-11-10	A
SCALE		DRAWN BY	PAGE
NTS		rdonald	1 OF 1





## IMPORTANT NOTE:

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### OTHER NOTES:

- DISPLAY HEIGHT AND DISPLAY WIDTH ARE MADE UP OF ANY COMBINATION OF SCOREBOARDS, AD PANELS, OR TRUSSES.
- FOR DISPLAY HEIGHTS OR WIND SPEEDS BETWEEN THE TABULATED VALUES, ROUND UP TO THE NEXT LARGEST DISPLAY HEIGHT AND/OR WIND SPEED TO ESTIMATE POST REQUIREMENTS.
- ASSUMPTIONS:
  - SCOREBOARD IS MOUNTED ON THREE POSTS.
  - BOTTOM OF THE SCOREBOARD IS 10' ABOVE GROUND LEVEL.
  - FOOTING DEPTH CALCULATED USING A 3' FOOTING DIAMETER.
  - POSTS ARE ASSUMED TO BE A36 (36KSI) STEEL.
  - SOIL LATERAL BEARING PRESSURE IS TAKEN AS 100 PSF.
- POST SIZING CALCULATIONS PERFORMED ACCORDING TO ASCE7-10. I-BEAM AND TUBE PROPERTIES FROM AISC VERSION 13.0 CD DATABASE AND AISC 13TH EDITION MANUAL.
- FOR A POST & FOOTING ESTIMATE USING CUSTOM PARAMETERS, PLEASE CONTACT OES.

FOOTING DIMENSIONS SHOWN AS DIAMETER X DEPTH (FT)

### POST & FOOTING GUIDE (15' DISPLAY WIDTH)

DISPLAY HEIGHT	WIND SPEED -->	EXPOSURE B 90 MPH	EXPOSURE B 110 MPH	EXPOSURE B 130 MPH	EXPOSURE B 150 MPH	EXPOSURE C 90 MPH	EXPOSURE C 110 MPH	EXPOSURE C 130 MPH	EXPOSURE C 150 MPH
6'	I-BEAM	W6X9	W6X9	W6X9	W6X12	W6X9	W6X9	W6X12	W8X13
	HSS POST	HSS5X5X1/8	HSS5X5X3/16	HSS5X5X3/16	HSS6X6X3/16	HSS5X5X1/8	HSS6X6X3/16	HSS6X6X3/16	HSS7X7X3/16
	FOOTING	3'X3.86'	3'X4.47'	3'X5.04'	3'X5.6'	3'X4.44'	3'X5.14'	3'X5.81'	3'X6.46'
8'	I-BEAM	W6X9	W6X9	W8X13	W8X13	W6X9	W8X13	W10X15	W12X16
	HSS POST	HSS5X5X3/16	HSS6X6X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16
	FOOTING	3'X4.43'	3'X5.12'	3'X5.79'	3'X6.43'	3'X5.07'	3'X5.88'	3'X6.65'	3'X7.4'
10'	I-BEAM	W6X9	W6X12	W10X15	W10X15	W6X12	W10X15	W12X16	W12X19
	HSS POST	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS6X6X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4
	FOOTING	3'X4.95'	3'X5.72'	3'X6.47'	3'X7.19'	3'X5.65'	3'X6.55'	3'X7.41'	3'X8.25'
12'	I-BEAM	W6X12	W8X13	W10X15	W12X19	W8X13	W10X15	W12X19	W14X22
	HSS POST	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X1/4	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS10X10X1/4
	FOOTING	3'X5.43'	3'X6.29'	3'X7.11'	3'X7.9'	3'X6.19'	3'X7.18'	3'X8.12'	3'X9.04'
14'	I-BEAM	W8X13	W10X15	W12X16	W12X22	W10X15	W12X19	W12X22	W12X26
	HSS POST	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS8X8X3/16	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4
	FOOTING	3'X5.89'	3'X6.82'	3'X7.71'	3'X8.58'	3'X6.71'	3'X7.77'	3'X8.8'	3'X9.8'
16'	I-BEAM	W10X15	W12X16	W12X19	W14X22	W12X16	W12X19	W12X26	W14X30
	HSS POST	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS9X9X3/16	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X1/4
	FOOTING	3'X6.34'	3'X7.33'	3'X8.29'	3'X9.23'	3'X7.19'	3'X8.34'	3'X9.44'	3'X10.51'
18'	I-BEAM	W10X15	W12X19	W14X22	W16X26	W12X19	W14X22	W16X26	W14X34
	HSS POST	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS12X12X1/4	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16
	FOOTING	3'X6.76'	3'X7.83'	3'X8.86'	3'X9.85'	3'X7.66'	3'X8.89'	3'X10.06'	3'X11.2'
20'	I-BEAM	W12X16	W12X22	W12X26	W14X30	W12X19	W12X26	W16X31	W18X35
	HSS POST	HSS9X9X3/16	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X1/4	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16
	FOOTING	3'X7.18'	3'X8.31'	3'X9.4'	3'X10.46'	3'X8.12'	3'X9.41'	3'X10.66'	3'X11.87'

### EXPOSURE CATEGORIES - GENERAL DEFINITIONS:

EXPOSURE B: URBAN AND SUBURBAN AREAS, WOODED AREAS, OR OTHER TERRAIN WITH NUMEROUS CLOSELY SPACED OBSTRUCTIONS HAVING THE SIZE OF SINGLE-FAMILY DWELLINGS OR LARGER. THESE AREAS PREVAIL IN THE UPWIND DIRECTION FOR A DISTANCE OF 2600 FT OR 20 TIMES THE STRUCTURE HEIGHT, WHICHEVER IS GREATER.

EXPOSURE C: OPEN TERRAIN WITH SCATTERED OBSTRUCTIONS HAVING HEIGHTS GENERALLY LESS THAN 30 FT. THIS CATEGORY INCLUDES FLAT OPEN COUNTRY, GRASSLANDS, AND ALL WATER SURFACES IN HURRICANE PRONE AREAS.

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-11-10	RD

PART NUMBER: N/A

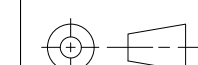
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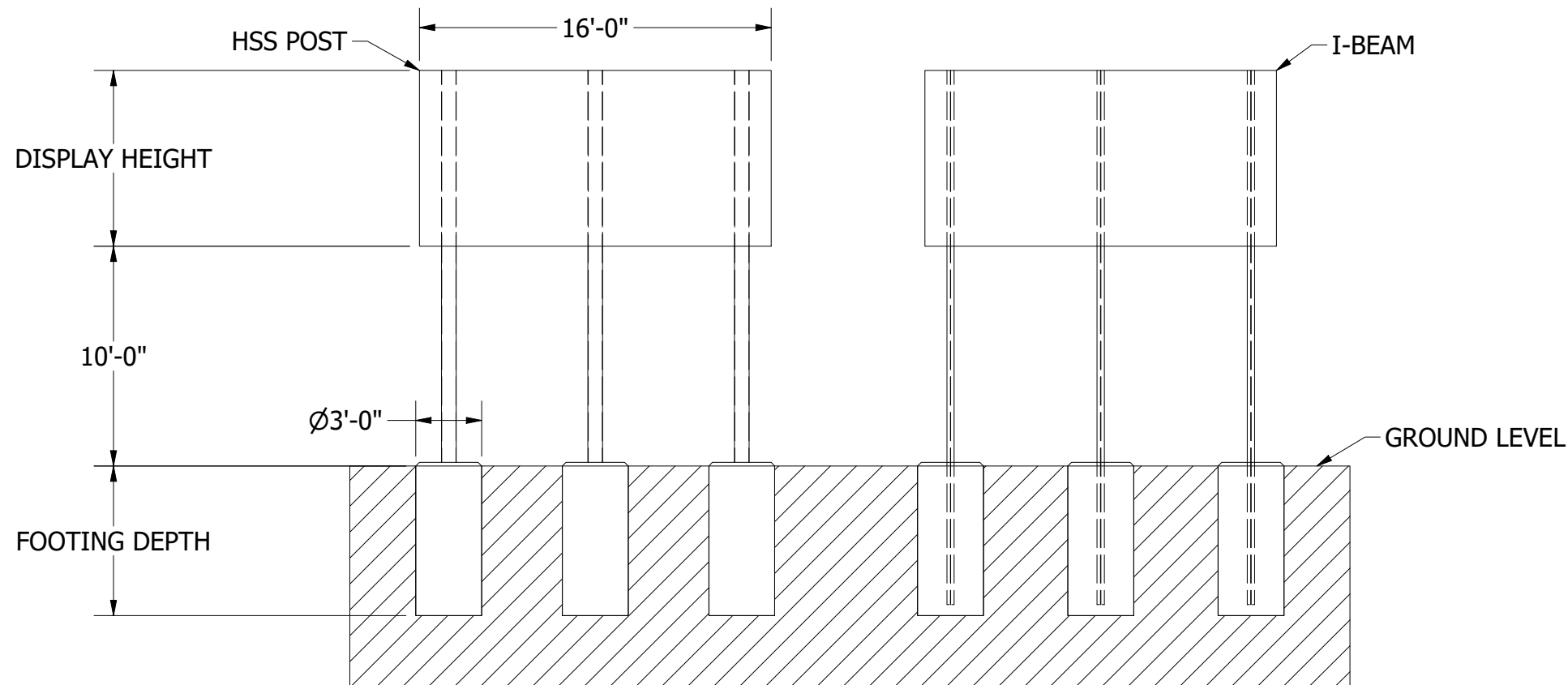
Dimensions are in inches  
 Fractional ± 1/16"  
 Two Place Decimals ± 0.02"  
 Three Place Decimals ± 0.005"  
 Four Place Decimals ± 0.0005"  
 Angular 30'

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 Email: oes@oes-inc.com

DESCRIPTION			
SIZE	FILENAME	INIT DRAWING DATE	REV
B	Post Guide 15'.idw	2021-11-10	A
SCALE NTS		DRAWN BY rdonald	PAGE 1 OF 1



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- ASSUMPTIONS:
  - SCOREBOARD IS MOUNTED ON THREE POSTS.
  - BOTTOM OF THE SCOREBOARD IS 10' ABOVE GROUND LEVEL.
  - FOOTING DEPTH CALCULATED USING A 3' FOOTING DIAMETER.
  - POSTS ARE ASSUMED TO BE A36 (36KSI) STEEL.
  - SOIL LATERAL BEARING PRESSURE IS TAKEN AS 100 PSF.
- POST SIZING CALCULATIONS PERFORMED ACCORDING TO ASCE7-10. I-BEAM AND TUBE PROPERTIES FROM AISC VERSION 13.0 CD DATABASE AND AISC 13TH EDITION MANUAL.
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FOOTING DIMENSIONS SHOWN AS DIAMETER X DEPTH (FT)

POST & FOOTING GUIDE (16' DISPLAY WIDTH)									
DISPLAY HEIGHT	WIND SPEED -->	EXPOSURE B 90 MPH	EXPOSURE B 110 MPH	EXPOSURE B 130 MPH	EXPOSURE B 150 MPH	EXPOSURE C 90 MPH	EXPOSURE C 110 MPH	EXPOSURE C 130 MPH	EXPOSURE C 150 MPH
6'	I-BEAM	W6X9	W6X9	W6X9	W6X12	W6X9	W6X9	W8X13	W10X15
	HSS POST	HSS5X5X1/8	HSS5X5X3/16	HSS6X6X3/16	HSS6X6X3/16	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16
	FOOTING	3'X3.95'	3'X4.57'	3'X5.16'	3'X5.73'	3'X4.54'	3'X5.26'	3'X5.95'	3'X6.62'
8'	I-BEAM	W6X9	W6X12	W8X13	W10X15	W6X9	W8X13	W10X15	W12X16
	HSS POST	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16
	FOOTING	3'X4.53'	3'X5.24'	3'X5.92'	3'X6.58'	3'X5.2'	3'X6.02'	3'X6.81'	3'X7.58'
10'	I-BEAM	W6X9	W8X13	W10X15	W12X16	W8X13	W10X15	W12X16	W12X19
	HSS POST	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4
	FOOTING	3'X5.06'	3'X5.86'	3'X6.62'	3'X7.36'	3'X5.79'	3'X6.71'	3'X7.59'	3'X8.45'
12'	I-BEAM	W6X12	W10X15	W12X16	W12X19	W8X13	W12X16	W12X19	W14X22
	HSS POST	HSS6X6X3/16	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS10X10X1/4
	FOOTING	3'X5.56'	3'X6.44'	3'X7.28'	3'X8.09'	3'X6.34'	3'X7.35'	3'X8.32'	3'X9.27'
14'	I-BEAM	W8X13	W10X15	W12X19	W12X22	W10X15	W12X19	W14X22	W16X26
	HSS POST	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS12X12X1/4
	FOOTING	3'X6.03'	3'X6.98'	3'X7.9'	3'X8.79'	3'X6.87'	3'X7.96'	3'X9.01'	3'X10.04'
16'	I-BEAM	W10X15	W12X16	W12X22	W12X26	W12X16	W12X22	W12X26	W16X31
	HSS POST	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS12X12X1/4	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16
	FOOTING	3'X6.49'	3'X7.51'	3'X8.5'	3'X9.45'	3'X7.37'	3'X8.54'	3'X9.67'	3'X10.77'
18'	I-BEAM	W10X15	W12X19	W14X22	W16X26	W12X19	W14X22	W16X26	W18X35
	HSS POST	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS12X12X1/4	HSS9X9X1/4	HSS10X10X1/4	HSS12X12X1/4	HSS14X14X5/16
	FOOTING	3'X6.92'	3'X8.02'	3'X9.07'	3'X10.09'	3'X7.85'	3'X9.1'	3'X10.31'	3'X11.48'
20'	I-BEAM	W12X16	W12X22	W12X26	W16X31	W12X22	W12X26	W16X31	W16X40
	HSS POST	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16
	FOOTING	3'X7.35'	3'X8.51'	3'X9.63'	3'X10.71'	3'X8.31'	3'X9.64'	3'X10.92'	3'X12.17'

### EXPOSURE CATEGORIES - GENERAL DEFINITIONS:

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REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-11-10	RD

PART NUMBER: N/A

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 Four Place Decimals ± 0.0005"  
 Angular 30"

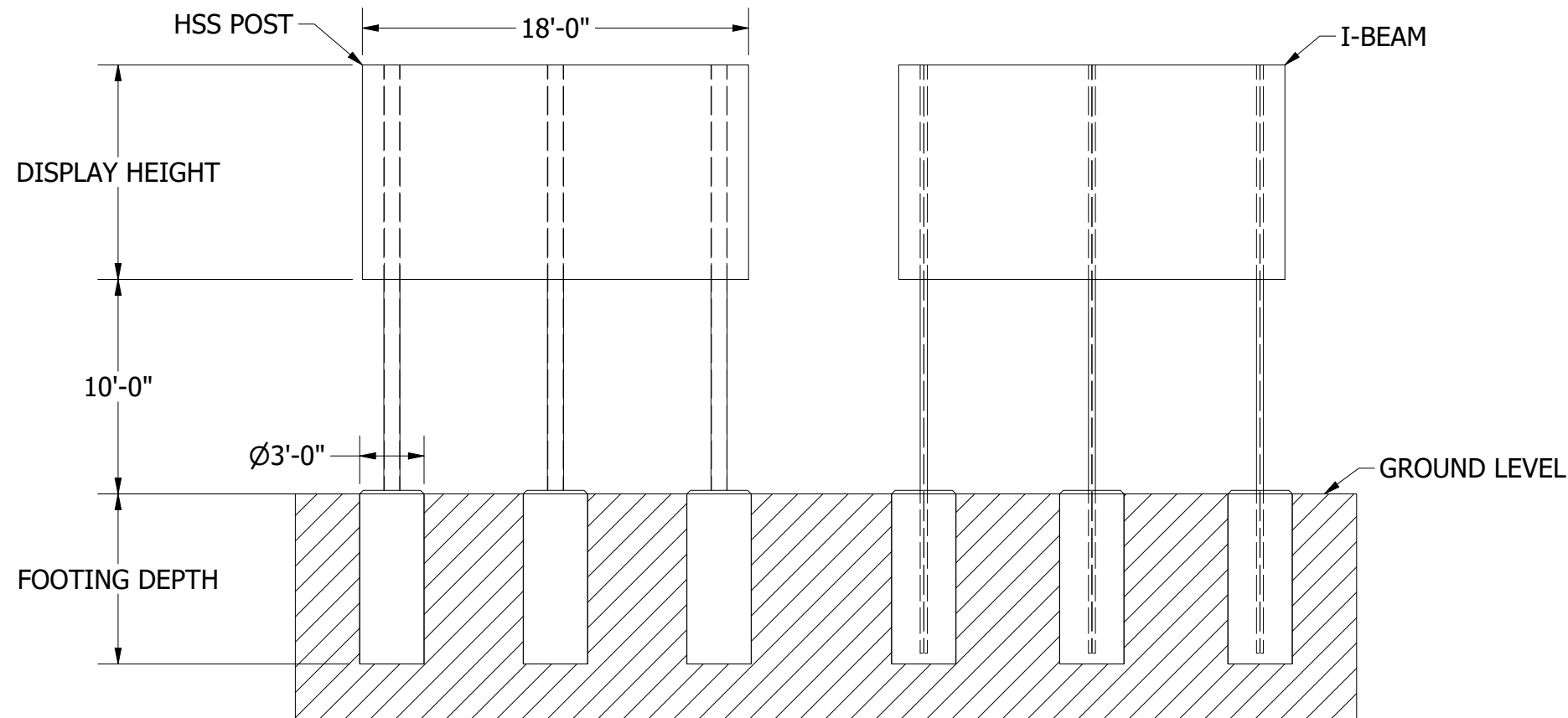
THIRD ANGLE PROJECTION

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 Tel: (519) 652-5833  
 Fax: (519) 652-3795  
 Email: oes@oes-inc.com

DESCRIPTION  
**POST & FOOTING GUIDE - 16' WIDTH  
 INSTALLATION INSTRUCTIONS**

SIZE	FILENAME	INIT DRAWING DATE	REV
B	Post Guide 16'.idw	2021-11-10	A
USAGE			

SCALE: NTS      DRAWN BY: rdonald      PAGE: 1 OF 1



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2. FOR DISPLAY HEIGHTS OR WIND SPEEDS BETWEEN THE TABULATED VALUES, ROUND UP TO THE NEXT LARGEST DISPLAY HEIGHT AND/OR WIND SPEED TO ESTIMATE POST REQUIREMENTS.
3. ASSUMPTIONS:
  - SCOREBOARD IS MOUNTED ON THREE POSTS.
  - BOTTOM OF THE SCOREBOARD IS 10' ABOVE GROUND LEVEL.
  - FOOTING DEPTH CALCULATED USING A 3' FOOTING DIAMETER.
  - POSTS ARE ASSUMED TO BE A36 (36KSI) STEEL.
  - SOIL LATERAL BEARING PRESSURE IS TAKEN AS 100 PSF.
4. POST SIZING CALCULATIONS PERFORMED ACCORDING TO ASCE7-10. I-BEAM AND TUBE PROPERTIES FROM AISC VERSION 13.0 CD DATABASE AND AISC 13TH EDITION MANUAL.
5. FOR A POST & FOOTING ESTIMATE USING CUSTOM PARAMETERS, PLEASE CONTACT OES.

FOOTING DIMENSIONS SHOWN AS DIAMETER X DEPTH (FT)

### POST & FOOTING GUIDE (18' DISPLAY WIDTH)

DISPLAY HEIGHT	WIND SPEED -->	EXPOSURE B 90 MPH	EXPOSURE B 110 MPH	EXPOSURE B 130 MPH	EXPOSURE B 150 MPH	EXPOSURE C 90 MPH	EXPOSURE C 110 MPH	EXPOSURE C 130 MPH	EXPOSURE C 150 MPH
6'	I-BEAM	W6X9	W6X9	W6X12	W8X13	W6X9	W6X12	W8X13	W10X15
	HSS POST	HSS5X5X1/8	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16
	FOOTING	3'X4.13'	3'X4.77'	3'X5.39'	3'X5.99'	3'X4.74'	3'X5.49'	3'X6.21'	3'X6.91'
8'	I-BEAM	W6X9	W6X12	W8X13	W10X15	W6X12	W8X13	W10X15	W12X19
	HSS POST	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16
	FOOTING	3'X4.73'	3'X5.47'	3'X6.19'	3'X6.88'	3'X5.42'	3'X6.28'	3'X7.11'	3'X7.92'
10'	I-BEAM	W6X12	W8X13	W10X15	W12X16	W8X13	W10X15	W12X19	W12X22
	HSS POST	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS8X8X1/4	HSS10X10X1/4
	FOOTING	3'X5.28'	3'X6.12'	3'X6.92'	3'X7.69'	3'X6.04'	3'X7.01'	3'X7.93'	3'X8.83'
12'	I-BEAM	W8X13	W10X15	W12X16	W12X22	W10X15	W12X16	W12X22	W12X26
	HSS POST	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS8X8X3/16	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4
	FOOTING	3'X5.8'	3'X6.72'	3'X7.6'	3'X8.46'	3'X6.62'	3'X7.68'	3'X8.7'	3'X9.69'
14'	I-BEAM	W8X13	W12X16	W12X19	W14X22	W12X16	W12X19	W12X26	W14X30
	HSS POST	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS9X9X3/16	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X1/4
	FOOTING	3'X6.3'	3'X7.29'	3'X8.25'	3'X9.18'	3'X7.17'	3'X8.32'	3'X9.42'	3'X10.5'
16'	I-BEAM	W10X15	W12X19	W12X22	W16X26	W12X19	W14X22	W16X26	W14X34
	HSS POST	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS12X12X1/4	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16
	FOOTING	3'X6.77'	3'X7.84'	3'X8.88'	3'X9.88'	3'X7.69'	3'X8.92'	3'X10.11'	3'X11.27'
18'	I-BEAM	W12X16	W12X22	W12X26	W14X30	W12X19	W12X26	W16X31	W18X35
	HSS POST	HSS9X9X3/16	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X1/4	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16
	FOOTING	3'X7.23'	3'X8.37'	3'X9.48'	3'X10.55'	3'X8.2'	3'X9.51'	3'X10.77'	3'X12.01'
20'	I-BEAM	W12X19	W14X22	W16X26	W14X34	W12X22	W16X26	W18X35	W18X40
	HSS POST	HSS8X8X1/4	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS10X10X1/4	HSS12X12X1/4	HSS14X14X5/16	HSS14X14X5/16
	FOOTING	3'X7.67'	3'X8.89'	3'X10.06'	3'X11.2'	3'X8.68'	3'X10.07'	3'X11.42'	3'X12.72'

### EXPOSURE CATEGORIES - GENERAL DEFINITIONS:

EXPOSURE B: URBAN AND SUBURBAN AREAS, WOODED AREAS, OR OTHER TERRAIN WITH NUMEROUS CLOSELY SPACED OBSTRUCTIONS HAVING THE SIZE OF SINGLE-FAMILY DWELLINGS OR LARGER. THESE AREAS PREVAIL IN THE UPWIND DIRECTION FOR A DISTANCE OF 2600 FT OR 20 TIMES THE STRUCTURE HEIGHT, WHICHEVER IS GREATER.

EXPOSURE C: OPEN TERRAIN WITH SCATTERED OBSTRUCTIONS HAVING HEIGHTS GENERALLY LESS THAN 30 FT. THIS CATEGORY INCLUDES FLAT OPEN COUNTRY, GRASSLANDS, AND ALL WATER SURFACES IN HURRICANE PRONE AREAS.

### REVISION HISTORY

REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-11-10	RD

PART NUMBER: N/A



4096 Blakie Road,  
London, ON, N6L 1P7  
Tel: (519) 652-5833  
Fax: (519) 652-3795  
Email: oes@oes-inc.com

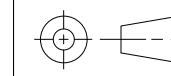
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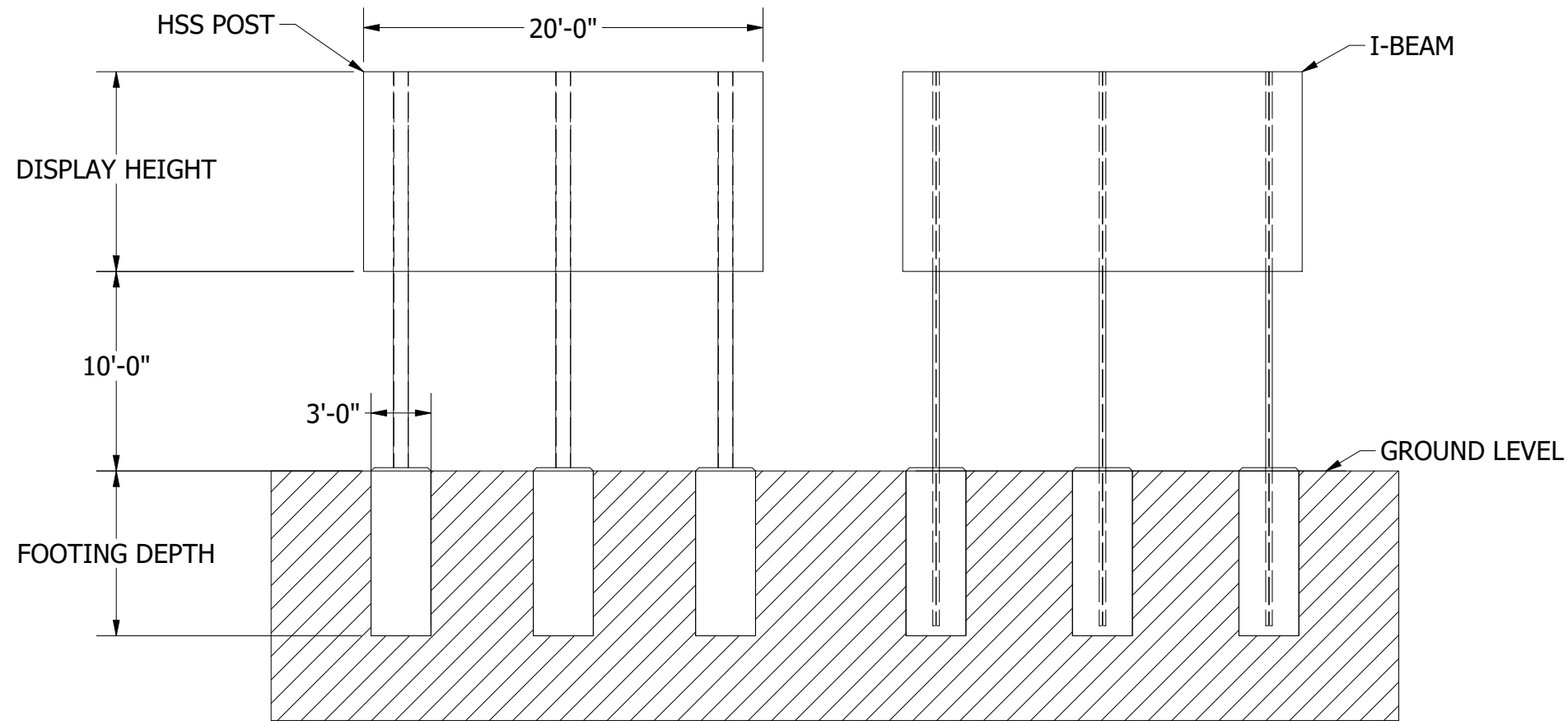
TOLERANCE INFORMATION

Dimensions are in inches  
Fractional ± 1/16"  
Two Place Decimals ± 0.02"  
Three Place Decimals ± 0.005"  
Four Place Decimals ± 0.0005"  
Angular 30°

THIRD ANGLE PROJECTION



DESCRIPTION			
<b>POST &amp; FOOTING GUIDE - 18' WIDTH INSTALLATION INSTRUCTIONS</b>			
SIZE	FILENAME	INIT DRAWING DATE	REV
B	Post Guide 18'.idw	2021-11-10	A
SCALE		DRAWN BY	PAGE
NTS		rdonald	1 OF 1



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### OTHER NOTES:

1. DISPLAY HEIGHT AND DISPLAY WIDTH ARE MADE UP OF ANY COMBINATION OF SCOREBOARDS, AD PANELS, OR TRUSSES.
2. FOR DISPLAY HEIGHTS OR WIND SPEEDS BETWEEN THE TABULATED VALUES, ROUND UP TO THE NEXT LARGEST DISPLAY HEIGHT AND/OR WIND SPEED TO ESTIMATE POST REQUIREMENTS.
3. ASSUMPTIONS:
  - SCOREBOARD IS MOUNTED ON THREE POSTS.
  - BOTTOM OF THE SCOREBOARD IS 10' ABOVE GROUND LEVEL.
  - FOOTING DEPTH CALCULATED USING A 3' FOOTING DIAMETER.
  - POSTS ARE ASSUMED TO BE A36 (36KSI) STEEL.
  - SOIL LATERAL BEARING PRESSURE IS TAKEN AS 100 PSF.
4. POST SIZING CALCULATIONS PERFORMED ACCORDING TO ASCE7-10. I-BEAM AND TUBE PROPERTIES FROM AISC VERSION 13.0 CD DATABASE AND AISC 13TH EDITION MANUAL.
5. FOR A POST & FOOTING ESTIMATE USING CUSTOM PARAMETERS, PLEASE CONTACT OES.

FOOTING DIMENSIONS SHOWN AS DIAMETER X DEPTH (FT)

### POST & FOOTING GUIDE (20' DISPLAY WIDTH)

DISPLAY HEIGHT	WIND SPEED -->	EXPOSURE B 90 MPH	EXPOSURE B 110 MPH	EXPOSURE B 130 MPH	EXPOSURE B 150 MPH	EXPOSURE C 90 MPH	EXPOSURE C 110 MPH	EXPOSURE C 130 MPH	EXPOSURE C 150 MPH
6'	I-BEAM	W6X9	W6X9	W6X12	W8X13	W6X9	W6X12	W8X13	W10X15
	HSS POST	HSS5X5X1/8	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16
	FOOTING	3'X4.29'	3'X4.96'	3'X5.6'	3'X6.23'	3'X4.93'	3'X5.71'	3'X6.46'	3'X7.19'
8'	I-BEAM	W6X9	W6X12	W8X13	W10X15	W6X12	W10X15	W12X16	W12X19
	HSS POST	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4
	FOOTING	3'X4.91'	3'X5.69'	3'X6.43'	3'X7.15'	3'X5.64'	3'X6.53'	3'X7.4'	3'X8.24'
10'	I-BEAM	W6X12	W8X13	W10X15	W12X19	W8X13	W12X16	W12X19	W14X22
	HSS POST	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X1/4	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS10X10X1/4
	FOOTING	3'X5.49'	3'X6.36'	3'X7.19'	3'X8'	3'X6.28'	3'X7.28'	3'X8.25'	3'X9.19'
12'	I-BEAM	W8X13	W10X15	W12X19	W12X22	W10X15	W12X19	W14X22	W16X26
	HSS POST	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS12X12X1/4
	FOOTING	3'X6.03'	3'X6.99'	3'X7.91'	3'X8.8'	3'X6.88'	3'X7.99'	3'X9.05'	3'X10.08'
14'	I-BEAM	W10X15	W12X16	W12X22	W12X26	W12X16	W12X22	W12X26	W16X31
	HSS POST	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS12X12X1/4	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16
	FOOTING	3'X6.54'	3'X7.58'	3'X8.58'	3'X9.55'	3'X7.45'	3'X8.65'	3'X9.8'	3'X10.92'
16'	I-BEAM	W10X15	W12X19	W14X22	W16X26	W12X19	W14X22	W14X30	W18X35
	HSS POST	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS12X12X1/4	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X1/4	HSS14X14X5/16
	FOOTING	3'X7.04'	3'X8.15'	3'X9.23'	3'X10.28'	3'X8'	3'X9.28'	3'X10.52'	3'X11.73'
18'	I-BEAM	W12X16	W12X22	W16X26	W16X31	W12X22	W16X26	W14X34	W16X40
	HSS POST	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16
	FOOTING	3'X7.51'	3'X8.7'	3'X9.86'	3'X10.97'	3'X8.52'	3'X9.89'	3'X11.21'	3'X12.5'
20'	I-BEAM	W12X19	W14X22	W14X30	W18X35	W14X22	W14X30	W18X35	W21X44
	HSS POST	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X1/4	HSS14X14X5/16	HSS10X10X1/4	HSS12X12X1/4	HSS14X14X5/16	HSS16X16X5/16
	FOOTING	3'X7.97'	3'X9.24'	3'X10.46'	3'X11.65'	3'X9.03'	3'X10.48'	3'X11.88'	3'X13.24'

### EXPOSURE CATEGORIES - GENERAL DEFINITIONS:

EXPOSURE B: URBAN AND SUBURBAN AREAS, WOODED AREAS, OR OTHER TERRAIN WITH NUMEROUS CLOSELY SPACED OBSTRUCTIONS HAVING THE SIZE OF SINGLE-FAMILY DWELLINGS OR LARGER. THESE AREAS PREVAIL IN THE UPWIND DIRECTION FOR A DISTANCE OF 2600 FT OR 20 TIMES THE STRUCTURE HEIGHT, WHICHEVER IS GREATER.

EXPOSURE C: OPEN TERRAIN WITH SCATTERED OBSTRUCTIONS HAVING HEIGHTS GENERALLY LESS THAN 30 FT. THIS CATEGORY INCLUDES FLAT OPEN COUNTRY, GRASSLANDS, AND ALL WATER SURFACES IN HURRICANE PRONE AREAS.

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-11-10	RD

PART NUMBER: N/A

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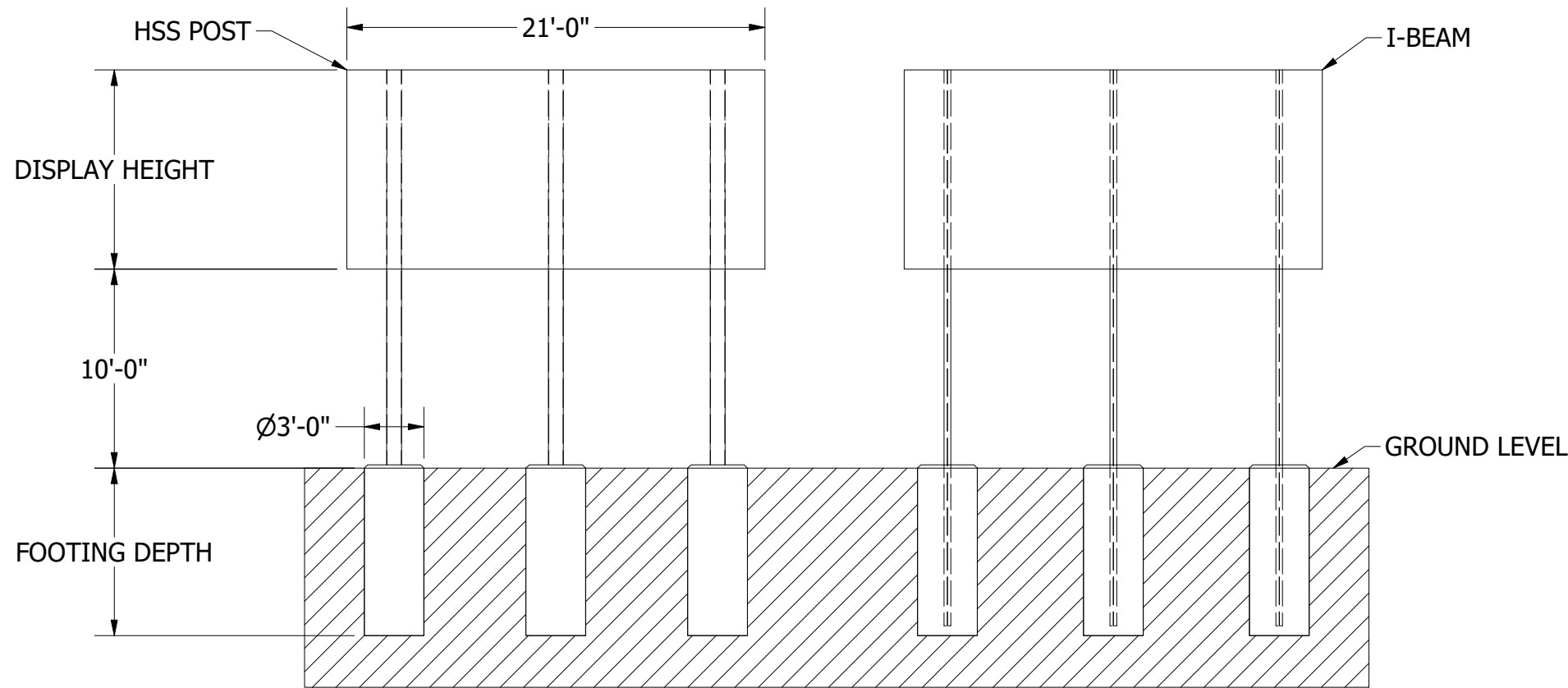
Dimensions are in inches  
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 Three Place Decimals ± 0.005"  
 Four Place Decimals ± 0.0005"  
 Angular 30"

THIRD ANGLE PROJECTION



4096 Blakie Road,  
 London, ON, N6L 1P7  
 Tel: (519) 652-5833  
 Fax: (519) 652-3795  
 Email: oes@oes-inc.com

DESCRIPTION			
SIZE	FILENAME	INIT DRAWING DATE	REV
B	Post Guide 20'.idw	2021-11-10	A
SCALE NTS		DRAWN BY rdonald	PAGE 1 OF 1



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- FOR DISPLAY HEIGHTS OR WIND SPEEDS BETWEEN THE TABULATED VALUES, ROUND UP TO THE NEXT LARGEST DISPLAY HEIGHT AND/OR WIND SPEED TO ESTIMATE POST REQUIREMENTS.
- ASSUMPTIONS:
  - SCOREBOARD IS MOUNTED ON THREE POSTS.
  - BOTTOM OF THE SCOREBOARD IS 10' ABOVE GROUND LEVEL.
  - FOOTING DEPTH CALCULATED USING A 3' FOOTING DIAMETER.
  - POSTS ARE ASSUMED TO BE A36 (36KSI) STEEL.
  - SOIL LATERAL BEARING PRESSURE IS TAKEN AS 100 PSF.
- POST SIZING CALCULATIONS PERFORMED ACCORDING TO ASCE7-10. I-BEAM AND TUBE PROPERTIES FROM AISC VERSION 13.0 CD DATABASE AND AISC 13TH EDITION MANUAL.
- FOR A POST & FOOTING ESTIMATE USING CUSTOM PARAMETERS, PLEASE CONTACT OES.

FOOTING DIMENSIONS SHOWN AS DIAMETER X DEPTH (FT)

### POST & FOOTING GUIDE (21' DISPLAY WIDTH)

DISPLAY HEIGHT	WIND SPEED -->	EXPOSURE B 90 MPH	EXPOSURE B 110 MPH	EXPOSURE B 130 MPH	EXPOSURE B 150 MPH	EXPOSURE C 90 MPH	EXPOSURE C 110 MPH	EXPOSURE C 130 MPH	EXPOSURE C 150 MPH
6'	I-BEAM	W6X9	W6X9	W6X12	W8X13	W6X9	W6X12	W10X15	W10X15
	HSS POST	HSS5X5X1/8	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16
	FOOTING	3'X4.36'	3'X5.05'	3'X5.71'	3'X6.34'	3'X5.02'	3'X5.81'	3'X6.58'	3'X7.32'
8'	I-BEAM	W6X9	W8X13	W10X15	W10X15	W6X12	W10X15	W12X16	W12X19
	HSS POST	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS9X9X3/16	HSS6X6X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4
	FOOTING	3'X5'	3'X5.79'	3'X6.55'	3'X7.29'	3'X5.74'	3'X6.65'	3'X7.54'	3'X8.39'
10'	I-BEAM	W6X12	W10X15	W12X16	W12X19	W8X13	W12X16	W12X19	W14X22
	HSS POST	HSS6X6X3/16	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS10X10X1/4
	FOOTING	3'X5.59'	3'X6.47'	3'X7.32'	3'X8.15'	3'X6.39'	3'X7.42'	3'X8.41'	3'X9.36'
12'	I-BEAM	W8X13	W10X15	W12X19	W12X22	W10X15	W12X19	W14X22	W16X26
	HSS POST	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS12X12X1/4
	FOOTING	3'X6.14'	3'X7.11'	3'X8.05'	3'X8.96'	3'X7.01'	3'X8.13'	3'X9.22'	3'X10.27'
14'	I-BEAM	W10X15	W12X16	W12X22	W12X26	W12X16	W12X22	W16X26	W16X31
	HSS POST	HSS8X8X3/16	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16
	FOOTING	3'X6.66'	3'X7.72'	3'X8.74'	3'X9.73'	3'X7.59'	3'X8.81'	3'X9.98'	3'X11.13'
16'	I-BEAM	W12X16	W12X19	W12X26	W14X30	W12X19	W12X26	W14X30	W18X35
	HSS POST	HSS9X9X3/16	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X1/4	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16
	FOOTING	3'X7.16'	3'X8.3'	3'X9.4'	3'X10.47'	3'X8.14'	3'X9.45'	3'X10.72'	3'X11.95'
18'	I-BEAM	W12X16	W14X22	W16X26	W14X34	W12X22	W16X26	W18X35	W18X40
	HSS POST	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16
	FOOTING	3'X7.65'	3'X8.86'	3'X10.04'	3'X11.18'	3'X8.67'	3'X10.07'	3'X11.42'	3'X12.73'
20'	I-BEAM	W12X19	W12X26	W16X31	W18X35	W14X22	W16X31	W16X40	W21X44
	HSS POST	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16	HSS16X16X5/16
	FOOTING	3'X8.12'	3'X9.41'	3'X10.65'	3'X11.87'	3'X9.19'	3'X10.67'	3'X12.1'	3'X13.49'

### EXPOSURE CATEGORIES - GENERAL DEFINITIONS:

EXPOSURE B: URBAN AND SUBURBAN AREAS, WOODED AREAS, OR OTHER TERRAIN WITH NUMEROUS CLOSELY SPACED OBSTRUCTIONS HAVING THE SIZE OF SINGLE-FAMILY DWELLINGS OR LARGER. THESE AREAS PREVAIL IN THE UPWIND DIRECTION FOR A DISTANCE OF 2600 FT OR 20 TIMES THE STRUCTURE HEIGHT, WHICHEVER IS GREATER.

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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-11-10	RD

PART NUMBER: N/A

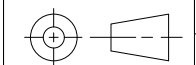
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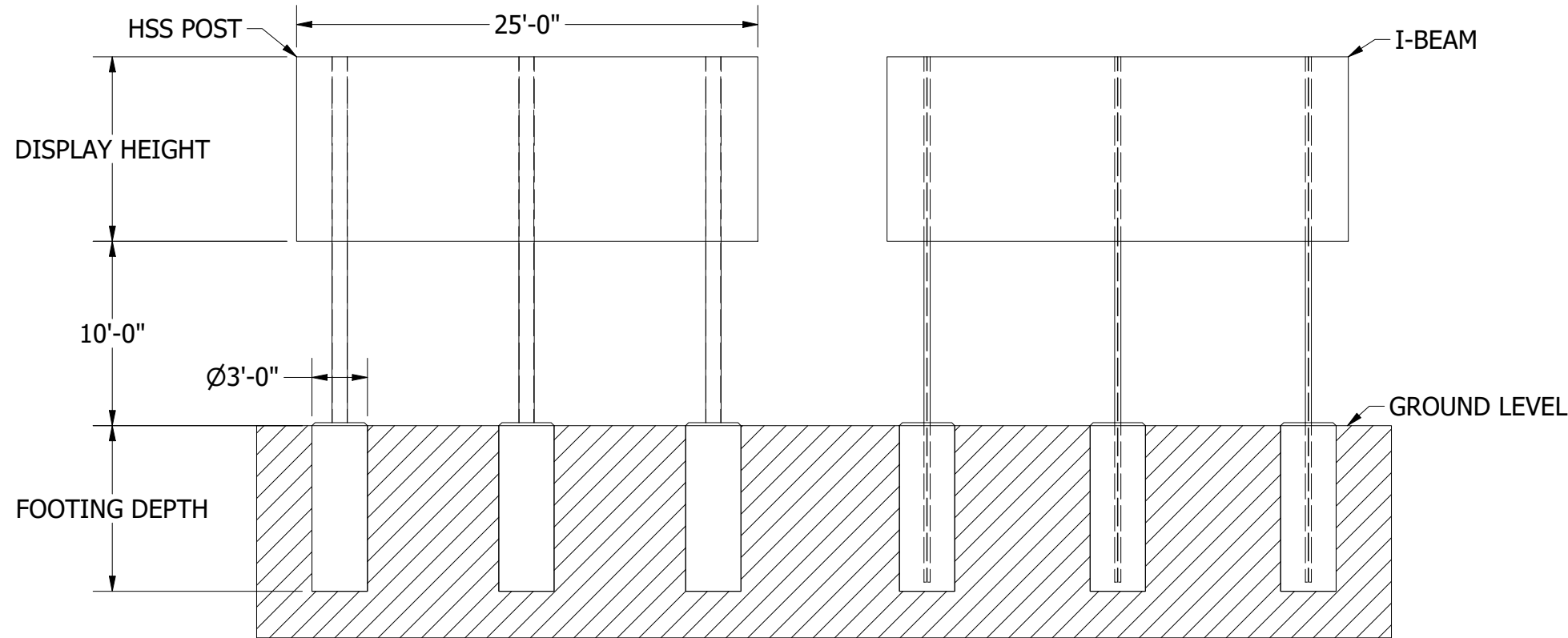
Dimensions are in inches  
 Fractional ± 1/16"  
 Two Place Decimals ± 0.02"  
 Three Place Decimals ± 0.005"  
 Four Place Decimals ± 0.0005"  
 Angular 30"

#### THIRD ANGLE PROJECTION



4096 Blakie Road,  
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 Tel: (519) 652-5833  
 Fax: (519) 652-3795  
 Email: oes@oes-inc.com

DESCRIPTION			
POST & FOOTING GUIDE - 21' WIDTH INSTALLATION INSTRUCTIONS			
SIZE	FILENAME	INIT DRAWING DATE	REV
B	Post Guide 21'.idw	2021-11-10	A
SCALE NTS		DRAWN BY rdonald	PAGE 1 OF 1



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### OTHER NOTES:

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2. FOR DISPLAY HEIGHTS OR WIND SPEEDS BETWEEN THE TABULATED VALUES, ROUND UP TO THE NEXT LARGEST DISPLAY HEIGHT AND/OR WIND SPEED TO ESTIMATE POST REQUIREMENTS.
3. ASSUMPTIONS:
  - SCOREBOARD IS MOUNTED ON THREE POSTS.
  - BOTTOM OF THE SCOREBOARD IS 10' ABOVE GROUND LEVEL.
  - FOOTING DEPTH CALCULATED USING A 3' FOOTING DIAMETER.
  - POSTS ARE ASSUMED TO BE A36 (36KSI) STEEL.
  - SOIL LATERAL BEARING PRESSURE IS TAKEN AS 100 PSF.
4. POST SIZING CALCULATIONS PERFORMED ACCORDING TO ASCE7-10. I-BEAM AND TUBE PROPERTIES FROM AISC VERSION 13.0 CD DATABASE AND AISC 13TH EDITION MANUAL.
5. FOR A POST & FOOTING ESTIMATE USING CUSTOM PARAMETERS, PLEASE CONTACT OES.

FOOTING DIMENSIONS SHOWN AS DIAMETER X DEPTH (FT)

POST & FOOTING GUIDE (25' DISPLAY WIDTH)									
DISPLAY HEIGHT	WIND SPEED -->	EXPOSURE B 90 MPH	EXPOSURE B 110 MPH	EXPOSURE B 130 MPH	EXPOSURE B 150 MPH	EXPOSURE C 90 MPH	EXPOSURE C 110 MPH	EXPOSURE C 130 MPH	EXPOSURE C 150 MPH
6'	I-BEAM	W6X9	W6X12	W8X13	W10X15	W6X12	W8X13	W10X15	W12X16
	HSS POST FOOTING	HSS5X5X3/16 3'X4.65'	HSS6X6X3/16 3'X5.38'	HSS7X7X3/16 3'X6.08'	HSS8X8X3/16 3'X6.77'	HSS6X6X3/16 3'X5.35'	HSS7X7X3/16 3'X6.2'	HSS8X8X3/16 3'X7.02'	HSS9X9X3/16 3'X7.82'
8'	I-BEAM	W6X12	W8X13	W10X15	W12X16	W8X13	W10X15	W12X19	W12X22
	HSS POST FOOTING	HSS6X6X3/16 3'X5.33'	HSS7X7X3/16 3'X6.17'	HSS8X8X3/16 3'X6.99'	HSS9X9X3/16 3'X7.78'	HSS7X7X3/16 3'X6.12'	HSS8X8X3/16 3'X7.1'	HSS9X9X1/4 3'X8.05'	HSS10X10X1/4 3'X8.97'
10'	I-BEAM	W8X13	W10X15	W12X16	W12X22	W10X15	W12X19	W12X22	W12X26
	HSS POST FOOTING	HSS7X7X3/16 3'X5.96'	HSS8X8X3/16 3'X6.9'	HSS9X9X3/16 3'X7.82'	HSS9X9X1/4 3'X8.7'	HSS8X8X3/16 3'X6.82'	HSS8X8X1/4 3'X7.92'	HSS10X10X1/4 3'X8.98'	HSS12X12X1/4 3'X10.01'
12'	I-BEAM	W10X15	W12X16	W12X22	W12X26	W12X16	W12X22	W12X26	W16X31
	HSS POST FOOTING	HSS8X8X3/16 3'X6.54'	HSS9X9X3/16 3'X7.59'	HSS9X9X1/4 3'X8.59'	HSS12X12X1/4 3'X9.57'	HSS9X9X3/16 3'X7.47'	HSS10X10X1/4 3'X8.68'	HSS12X12X1/4 3'X9.84'	HSS12X12X5/16 3'X10.98'
14'	I-BEAM	W10X15	W12X19	W14X22	W16X26	W12X19	W14X22	W14X30	W18X35
	HSS POST FOOTING	HSS8X8X3/16 3'X7.1'	HSS9X9X1/4 3'X8.23'	HSS10X10X1/4 3'X9.33'	HSS12X12X1/4 3'X10.39'	HSS9X9X1/4 3'X8.09'	HSS12X12X1/4 3'X9.4'	HSS12X12X1/4 3'X10.66'	HSS14X14X5/16 3'X11.89'
16'	I-BEAM	W12X16	W12X22	W16X26	W16X31	W12X22	W16X26	W18X35	W18X40
	HSS POST FOOTING	HSS9X9X3/16 3'X7.64'	HSS10X10X1/4 3'X8.86'	HSS12X12X1/4 3'X10.03'	HSS12X12X5/16 3'X11.18'	HSS10X10X1/4 3'X8.69'	HSS12X12X1/4 3'X10.09'	HSS12X12X5/16 3'X11.45'	HSS14X14X5/16 3'X12.77'
18'	I-BEAM	W12X19	W12X26	W16X31	W18X35	W14X22	W16X31	W16X40	W21X44
	HSS POST FOOTING	HSS9X9X1/4 3'X8.15'	HSS12X12X1/4 3'X9.46'	HSS12X12X5/16 3'X10.72'	HSS14X14X5/16 3'X11.94'	HSS12X12X1/4 3'X9.25'	HSS12X12X5/16 3'X10.75'	HSS14X14X5/16 3'X12.2'	HSS16X16X5/16 3'X13.61'
20'	I-BEAM	W12X22	W16X26	W18X35	W18X40	W16X26	W18X35	W21X44	W21X50
	HSS POST FOOTING	HSS10X10X1/4 3'X8.65'	HSS12X12X1/4 3'X10.04'	HSS12X12X5/16 3'X11.38'	HSS14X14X5/16 3'X12.68'	HSS12X12X1/4 3'X9.8'	HSS14X14X5/16 3'X11.39'	HSS16X16X5/16 3'X12.93'	HSS16X16X3/8 3'X14.42'


### EXPOSURE CATEGORIES - GENERAL DEFINITIONS:

EXPOSURE B: URBAN AND SUBURBAN AREAS, WOODED AREAS, OR OTHER TERRAIN WITH NUMEROUS CLOSELY SPACED OBSTRUCTIONS HAVING THE SIZE OF SINGLE-FAMILY DWELLINGS OR LARGER. THESE AREAS PREVAIL IN THE UPWIND DIRECTION FOR A DISTANCE OF 2600 FT OR 20 TIMES THE STRUCTURE HEIGHT, WHICHEVER IS GREATER.

EXPOSURE C: OPEN TERRAIN WITH SCATTERED OBSTRUCTIONS HAVING HEIGHTS GENERALLY LESS THAN 30 FT. THIS CATEGORY INCLUDES FLAT OPEN COUNTRY, GRASSLANDS, AND ALL WATER SURFACES IN HURRICANE PRONE AREAS.

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-11-10	RD

PART NUMBER: N/A

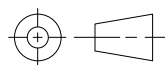


4096 Blakie Road,  
London, ON, N6L 1P7  
Tel: (519) 652-5833  
Fax: (519) 652-3795  
Email: oes@oes-inc.com

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TOLERANCE INFORMATION  
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Fractional ± 1/16"  
Two Place Decimals ± 0.02"  
Three Place Decimals ± 0.005"  
Four Place Decimals ± 0.0005"  
Angular 30'

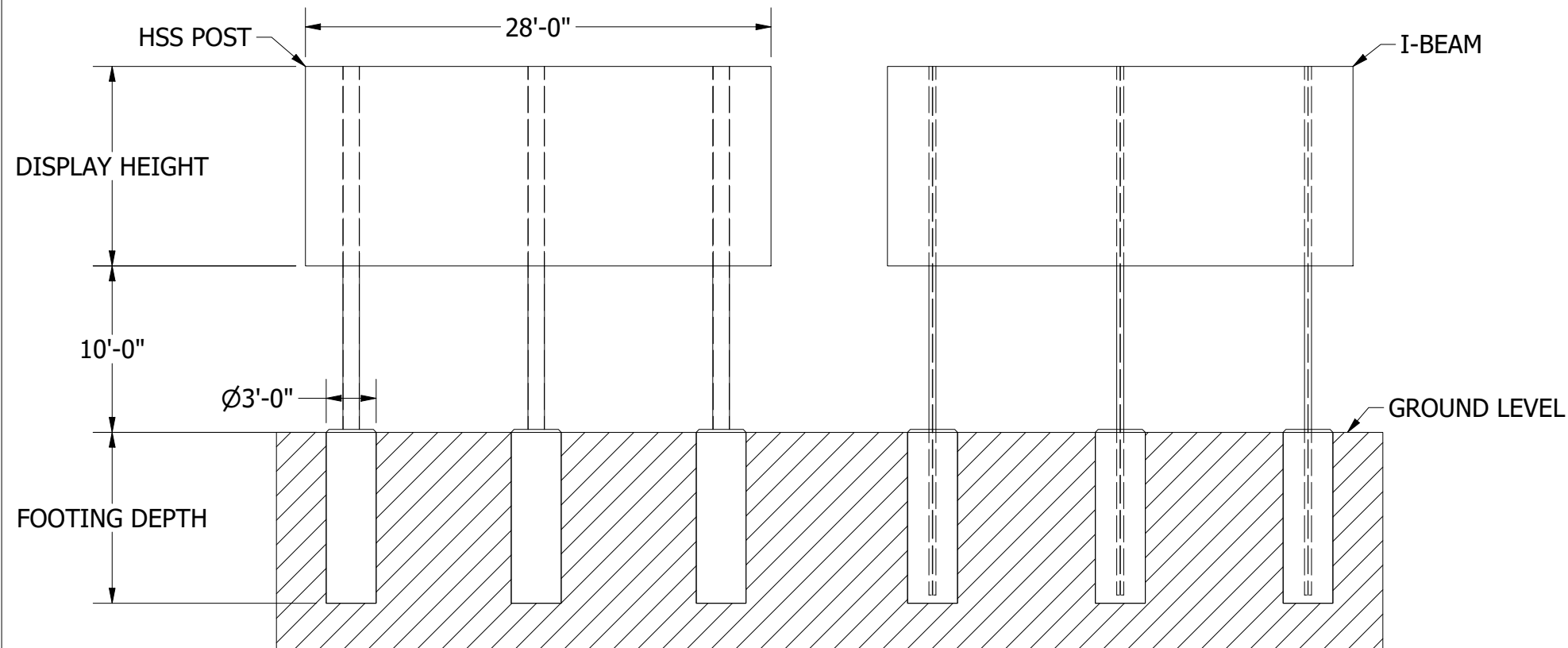
THIRD ANGLE PROJECTION



DESCRIPTION  
**POST & FOOTING GUIDE - 25' WIDTH  
INSTALLATION INSTRUCTIONS**

SIZE	FILENAME	INIT DRAWING DATE	REV
B	Post Guide 25'.idw	2021-11-10	A

SCALE: NTS      DRAWN BY: rdonald      PAGE: 1 OF 1



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### OTHER NOTES:

1. DISPLAY HEIGHT AND DISPLAY WIDTH ARE MADE UP OF ANY COMBINATION OF SCOREBOARDS, AD PANELS, OR TRUSSES.
2. FOR DISPLAY HEIGHTS OR WIND SPEEDS BETWEEN THE TABULATED VALUES, ROUND UP TO THE NEXT LARGEST DISPLAY HEIGHT AND/OR WIND SPEED TO ESTIMATE POST REQUIREMENTS.
3. ASSUMPTIONS:
  - SCOREBOARD IS MOUNTED ON THREE POSTS.
  - BOTTOM OF THE SCOREBOARD IS 10' ABOVE GROUND LEVEL.
  - FOOTING DEPTH CALCULATED USING A 3' FOOTING DIAMETER.
  - POSTS ARE ASSUMED TO BE A36 (36KSI) STEEL.
  - SOIL LATERAL BEARING PRESSURE IS TAKEN AS 100 PSF.
4. POST SIZING CALCULATIONS PERFORMED ACCORDING TO ASCE7-10. I-BEAM AND TUBE PROPERTIES FROM AISC VERSION 13.0 CD DATABASE AND AISC 13TH EDITION MANUAL.
5. FOR A POST & FOOTING ESTIMATE USING CUSTOM PARAMETERS, PLEASE CONTACT OES.

FOOTING DIMENSIONS SHOWN AS DIAMETER X DEPTH (FT)

### POST & FOOTING GUIDE (28' DISPLAY WIDTH)

DISPLAY HEIGHT	WIND SPEED -->	EXPOSURE B 90 MPH	EXPOSURE B 110 MPH	EXPOSURE B 130 MPH	EXPOSURE B 150 MPH	EXPOSURE C 90 MPH	EXPOSURE C 110 MPH	EXPOSURE C 130 MPH	EXPOSURE C 150 MPH
6'	I-BEAM	W6X9	W6X12	W8X13	W10X15	W6X12	W8X13	W10X15	W12X19
	HSS POST	HSS5X5X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X1/4
8'	I-BEAM	W6X12	W8X13	W10X15	W12X19	W8X13	W12X16	W12X19	W14X22
	HSS POST	HSS6X6X3/16	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS7X7X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS10X10X1/4
10'	I-BEAM	W8X13	W10X15	W12X19	W12X22	W10X15	W12X19	W14X22	W16X26
	HSS POST	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS12X12X1/4
12'	I-BEAM	W10X15	W12X19	W12X22	W12X26	W12X19	W14X22	W16X26	W14X34
	HSS POST	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS12X12X1/4	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16
14'	I-BEAM	W12X16	W12X22	W12X26	W16X31	W12X22	W12X26	W16X31	W16X40
	HSS POST	HSS9X9X3/16	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16
16'	I-BEAM	W12X19	W14X22	W14X30	W18X35	W14X22	W14X30	W18X35	W21X44
	HSS POST	HSS9X9X1/4	HSS10X10X1/4	HSS12X12X1/4	HSS14X14X5/16	HSS10X10X1/4	HSS12X12X1/4	HSS14X14X5/16	HSS16X16X5/16
18'	I-BEAM	W12X22	W16X26	W14X34	W16X40	W12X26	W14X34	W18X40	W21X48
	HSS POST	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16	HSS16X16X5/16
20'	I-BEAM	W14X22	W14X30	W18X35	W21X44	W16X26	W18X35	W21X44	W21X55
	HSS POST	HSS10X10X1/4	HSS12X12X1/4	HSS14X14X5/16	HSS16X16X5/16	HSS12X12X1/4	HSS14X14X5/16	HSS16X16X5/16	HSS16X16X3/8

### EXPOSURE CATEGORIES - GENERAL DEFINITIONS:

EXPOSURE B: URBAN AND SUBURBAN AREAS, WOODED AREAS, OR OTHER TERRAIN WITH NUMEROUS CLOSELY SPACED OBSTRUCTIONS HAVING THE SIZE OF SINGLE-FAMILY DWELLINGS OR LARGER. THESE AREAS PREVAIL IN THE UPWIND DIRECTION FOR A DISTANCE OF 2600 FT OR 20 TIMES THE STRUCTURE HEIGHT, WHICHEVER IS GREATER.

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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-11-10	RD

PART NUMBER: N/A

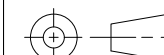
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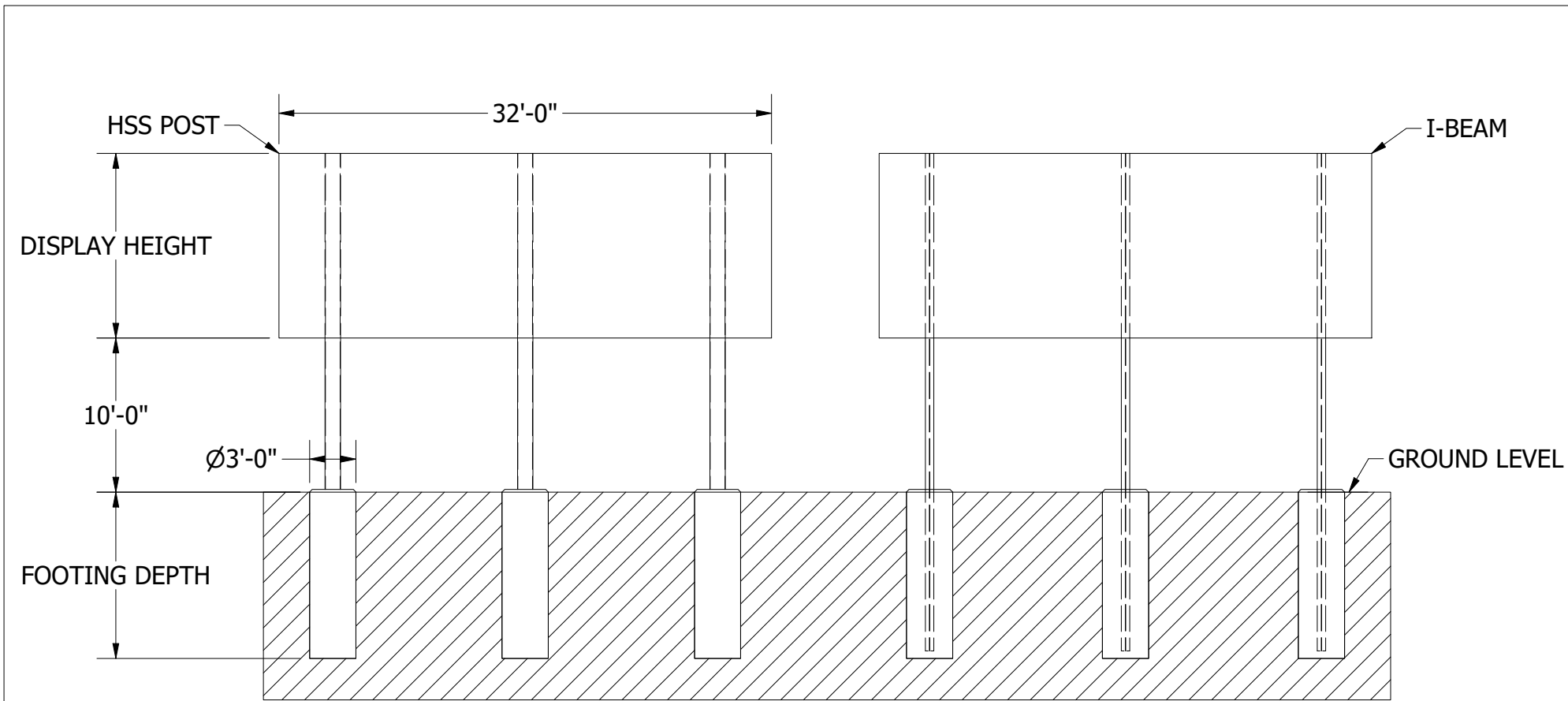
Dimensions are in inches  
 Fractional ± 1/16"  
 Two Place Decimals ± 0.02"  
 Three Place Decimals ± 0.005"  
 Four Place Decimals ± 0.0005"  
 Angular 30"

THIRD ANGLE PROJECTION



4096 Blakie Road,  
 London, ON, N6L 1P7  
 Tel: (519) 652-5833  
 Fax: (519) 652-3795  
 Email: oes@oes-inc.com

DESCRIPTION			
POST & FOOTING GUIDE - 28' WIDTH INSTALLATION INSTRUCTIONS			
SIZE	FILENAME	INIT DRAWING DATE	REV
B	Post Guide 28'.idw	2021-11-10	A
SCALE NTS		DRAWN BY rdonald	PAGE 1 OF 1



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- FOR DISPLAY HEIGHTS OR WIND SPEEDS BETWEEN THE TABULATED VALUES, ROUND UP TO THE NEXT LARGEST DISPLAY HEIGHT AND/OR WIND SPEED TO ESTIMATE POST REQUIREMENTS.
- ASSUMPTIONS:
  - SCOREBOARD IS MOUNTED ON THREE POSTS.
  - BOTTOM OF THE SCOREBOARD IS 10' ABOVE GROUND LEVEL.
  - FOOTING DEPTH CALCULATED USING A 3' FOOTING DIAMETER.
  - POSTS ARE ASSUMED TO BE A36 (36KSI) STEEL.
  - SOIL LATERAL BEARING PRESSURE IS TAKEN AS 100 PSF.
- POST SIZING CALCULATIONS PERFORMED ACCORDING TO ASCE7-10. I-BEAM AND TUBE PROPERTIES FROM AISC VERSION 13.0 CD DATABASE AND AISC 13TH EDITION MANUAL.
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FOOTING DIMENSIONS SHOWN AS DIAMETER X DEPTH (FT)

POST & FOOTING GUIDE (32' DISPLAY WIDTH)									
DISPLAY HEIGHT	WIND SPEED -->	EXPOSURE B 90 MPH	EXPOSURE B 110 MPH	EXPOSURE B 130 MPH	EXPOSURE B 150 MPH	EXPOSURE C 90 MPH	EXPOSURE C 110 MPH	EXPOSURE C 130 MPH	EXPOSURE C 150 MPH
6'	I-BEAM	W6X9	W8X13	W10X15	W12X16	W8X13	W10X15	W12X16	W12X19
	HSS POST	HSS6X6X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4
	FOOTING	3'X5.08'	3'X5.89'	3'X6.67'	3'X7.42'	3'X5.86'	3'X6.8'	3'X7.71'	3'X8.59'
8'	I-BEAM	W8X13	W10X15	W12X16	W12X19	W10X15	W12X16	W12X22	W12X26
	HSS POST	HSS7X7X3/16	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS8X8X3/16	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4
	FOOTING	3'X5.83'	3'X6.76'	3'X7.66'	3'X8.54'	3'X6.7'	3'X7.79'	3'X8.83'	3'X9.85'
10'	I-BEAM	W10X15	W12X16	W12X22	W14X22	W12X16	W12X22	W12X26	W14X30
	HSS POST	HSS8X8X3/16	HSS9X9X3/16	HSS9X9X1/4	HSS12X12X1/4	HSS9X9X3/16	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X5/16
	FOOTING	3'X6.52'	3'X7.57'	3'X8.57'	3'X9.55'	3'X7.47'	3'X8.69'	3'X9.86'	3'X11'
12'	I-BEAM	W10X15	W12X19	W14X22	W16X26	W12X19	W12X26	W14X30	W18X35
	HSS POST	HSS9X9X3/16	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X1/4	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X1/4	HSS14X14X5/16
	FOOTING	3'X7.16'	3'X8.32'	3'X9.43'	3'X10.51'	3'X8.19'	3'X9.52'	3'X10.81'	3'X12.07'
14'	I-BEAM	W12X19	W14X22	W16X26	W14X34	W12X22	W16X26	W18X35	W21X44
	HSS POST	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS10X10X1/4	HSS12X12X1/4	HSS14X14X5/16	HSS14X14X5/16
	FOOTING	3'X7.78'	3'X9.03'	3'X10.24'	3'X11.41'	3'X8.87'	3'X10.32'	3'X11.72'	3'X13.08'
16'	I-BEAM	W12X22	W12X26	W16X31	W16X40	W12X26	W16X31	W16X40	W21X48
	HSS POST	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16	HSS16X16X5/16
	FOOTING	3'X8.36'	3'X9.71'	3'X11.01'	3'X12.28'	3'X9.52'	3'X11.07'	3'X12.58'	3'X14.04'
18'	I-BEAM	W14X22	W14X30	W18X35	W21X44	W16X26	W18X35	W21X44	W21X55
	HSS POST	HSS10X10X1/4	HSS12X12X1/4	HSS14X14X5/16	HSS16X16X5/16	HSS12X12X1/4	HSS14X14X5/16	HSS16X16X5/16	HSS16X16X3/8
	FOOTING	3'X8.93'	3'X10.37'	3'X11.76'	3'X13.12'	3'X10.15'	3'X11.8'	3'X13.41'	3'X14.97'
20'	I-BEAM	W12X26	W16X31	W18X40	W21X48	W16X31	W18X40	W21X48	W24X62
	HSS POST	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16	HSS16X16X5/16	HSS12X12X5/16	HSS14X14X5/16	HSS16X16X5/16	HSS16X16X1/2
	FOOTING	3'X9.48'	3'X11.01'	3'X12.49'	3'X13.93'	3'X10.75'	3'X12.51'	3'X14.21'	3'X15.86'

### EXPOSURE CATEGORIES - GENERAL DEFINITIONS:

EXPOSURE B: URBAN AND SUBURBAN AREAS, WOODED AREAS, OR OTHER TERRAIN WITH NUMEROUS CLOSELY SPACED OBSTRUCTIONS HAVING THE SIZE OF SINGLE-FAMILY DWELLINGS OR LARGER. THESE AREAS PREVAIL IN THE UPWIND DIRECTION FOR A DISTANCE OF 2600 FT OR 20 TIMES THE STRUCTURE HEIGHT, WHICHEVER IS GREATER.

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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-11-10	RD

PART NUMBER: N/A

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 Two Place Decimals ± 0.02"  
 Three Place Decimals ± 0.005"  
 Four Place Decimals ± 0.0005"  
 Angular 30"

THIRD ANGLE PROJECTION

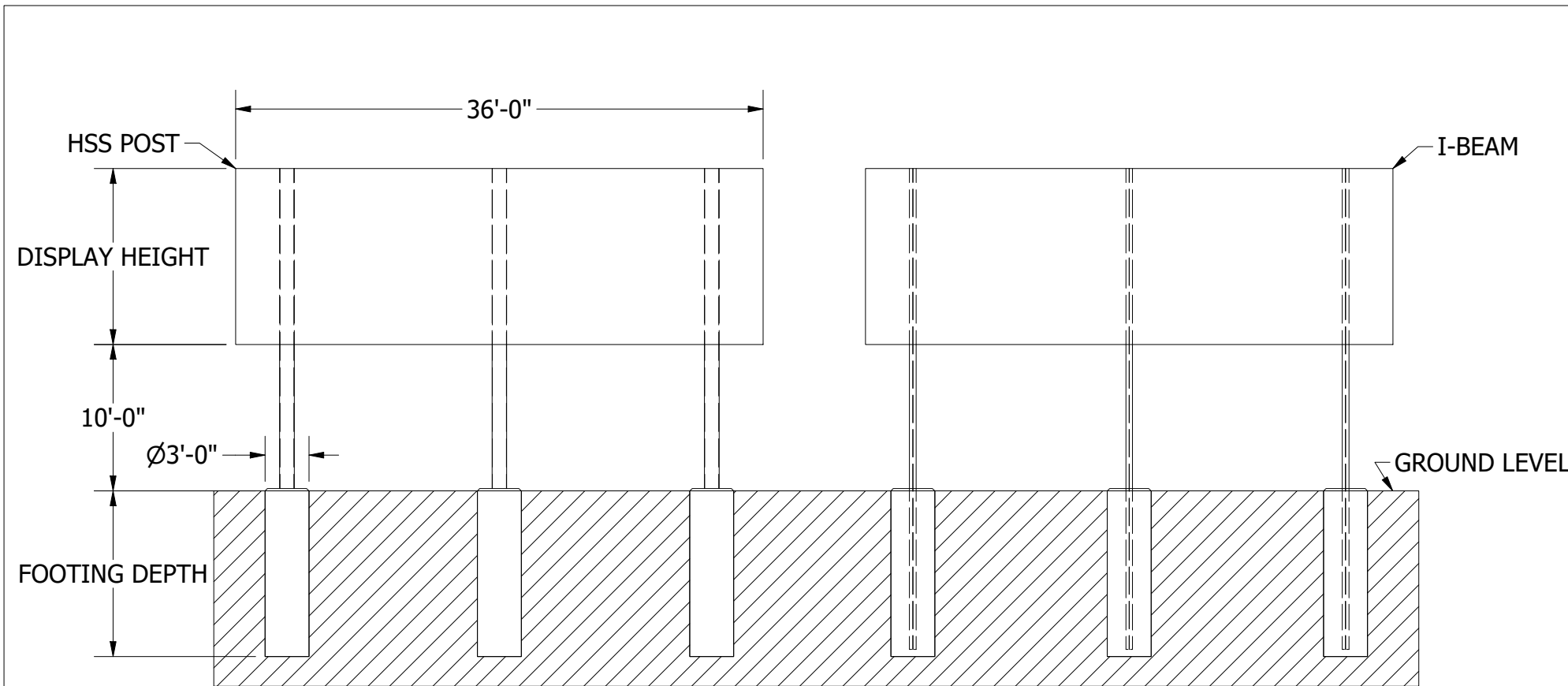
4096 Blakie Road,  
 London, ON, N6L 1P7  
 Tel: (519) 652-5833  
 Fax: (519) 652-3795  
 Email: oes@oes-inc.com

DESCRIPTION  
**POST & FOOTING GUIDE - 32' WIDTH  
 INSTALLATION INSTRUCTIONS**

SIZE	FILENAME	INIT DRAWING DATE	REV
B	Post Guide 32'.idw	2021-11-10	A
USAGE			

SCALE: NTS      DRAWN BY: rdonald      PAGE: 1 OF 1





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- ASSUMPTIONS:
  - SCOREBOARD IS MOUNTED ON THREE POSTS.
  - BOTTOM OF THE SCOREBOARD IS 10' ABOVE GROUND LEVEL.
  - FOOTING DEPTH CALCULATED USING A 3' FOOTING DIAMETER.
  - POSTS ARE ASSUMED TO BE A36 (36KSI) STEEL.
  - SOIL LATERAL BEARING PRESSURE IS TAKEN AS 100 PSF.
- POST SIZING CALCULATIONS PERFORMED ACCORDING TO ASCE7-10. I-BEAM AND TUBE PROPERTIES FROM AISC VERSION 13.0 CD DATABASE AND AISC 13TH EDITION MANUAL.
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FOOTING DIMENSIONS SHOWN AS DIAMETER X DEPTH (FT)

### POST & FOOTING GUIDE (36' DISPLAY WIDTH)

DISPLAY HEIGHT	WIND SPEED -->	EXPOSURE B 90 MPH	EXPOSURE B 110 MPH	EXPOSURE B 130 MPH	EXPOSURE B 150 MPH	EXPOSURE C 90 MPH	EXPOSURE C 110 MPH	EXPOSURE C 130 MPH	EXPOSURE C 150 MPH
8'	I-BEAM	W8X13	W10X15	W12X19	W12X22	W10X15	W12X19	W14X22	W16X26
	HSS POST	HSS7X7X3/16	HSS8X8X3/16	HSS8X8X1/4	HSS10X10X1/4	HSS8X8X3/16	HSS9X9X1/4	HSS10X10X1/4	HSS12X12X1/4
	FOOTING	3'X6.09'	3'X7.07'	3'X8.01'	3'X8.93'	3'X7'	3'X8.14'	3'X9.24'	3'X10.31'
10'	I-BEAM	W10X15	W12X19	W12X22	W12X26	W12X16	W12X22	W16X26	W16X31
	HSS POST	HSS8X8X3/16	HSS8X8X1/4	HSS10X10X1/4	HSS12X12X1/4	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16
	FOOTING	3'X6.81'	3'X7.91'	3'X8.96'	3'X9.99'	3'X7.81'	3'X9.08'	3'X10.31'	3'X11.51'
12'	I-BEAM	W12X16	W12X22	W12X26	W16X31	W12X22	W12X26	W16X31	W16X40
	HSS POST	HSS9X9X3/16	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16
	FOOTING	3'X7.48'	3'X8.69'	3'X9.86'	3'X10.99'	3'X8.56'	3'X9.96'	3'X11.31'	3'X12.63'
14'	I-BEAM	W12X19	W12X26	W14X30	W18X35	W14X22	W14X30	W16X40	W21X44
	HSS POST	HSS9X9X1/4	HSS12X12X1/4	HSS12X12X1/4	HSS14X14X5/16	HSS10X10X1/4	HSS12X12X5/16	HSS14X14X5/16	HSS16X16X5/16
	FOOTING	3'X8.12'	3'X9.44'	3'X10.71'	3'X11.94'	3'X9.27'	3'X10.79'	3'X12.26'	3'X13.69'
16'	I-BEAM	W12X22	W16X26	W18X35	W18X40	W16X26	W18X35	W21X44	W18X55
	HSS POST	HSS10X10X1/4	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16	HSS12X12X1/4	HSS14X14X5/16	HSS16X16X5/16	HSS16X16X3/8
	FOOTING	3'X8.74'	3'X10.15'	3'X11.52'	3'X12.85'	3'X9.95'	3'X11.58'	3'X13.16'	3'X14.7'
18'	I-BEAM	W12X26	W16X31	W16X40	W21X44	W14X30	W16X40	W21X48	W24X62
	HSS POST	HSS12X12X1/4	HSS12X12X5/16	HSS14X14X5/16	HSS16X16X5/16	HSS12X12X1/4	HSS14X14X5/16	HSS16X16X5/16	HSS16X16X1/2
	FOOTING	3'X9.33'	3'X10.84'	3'X12.3'	3'X13.72'	3'X10.6'	3'X12.34'	3'X14.03'	3'X15.67'
20'	I-BEAM	W16X26	W18X35	W21X44	W18X55	W18X35	W21X44	W21X55	W21X68
	HSS POST	HSS12X12X1/4	HSS14X14X5/16	HSS16X16X5/16	HSS16X16X3/8	HSS12X12X5/16	HSS16X16X5/16	HSS16X16X3/8	HSS16X16X1/2
	FOOTING	3'X9.9'	3'X11.51'	3'X13.06'	3'X14.57'	3'X11.24'	3'X13.08'	3'X14.86'	3'X16.61'
22'	I-BEAM	W14X30	W16X40	W21X48	W24X62	W18X35	W21X48	W24X62	W24X76
	HSS POST	HSS12X12X1/4	HSS14X14X5/16	HSS16X16X5/16	HSS16X16X1/2	HSS14X14X5/16	HSS16X16X5/16	HSS16X16X1/2	HSS16X16X5/8
	FOOTING	3'X10.46'	3'X12.16'	3'X13.8'	3'X15.4'	3'X11.85'	3'X13.79'	3'X15.68'	3'X17.52'

### EXPOSURE CATEGORIES - GENERAL DEFINITIONS:

EXPOSURE B: URBAN AND SUBURBAN AREAS, WOODED AREAS, OR OTHER TERRAIN WITH NUMEROUS CLOSELY SPACED OBSTRUCTIONS HAVING THE SIZE OF SINGLE-FAMILY DWELLINGS OR LARGER. THESE AREAS PREVAIL IN THE UPWIND DIRECTION FOR A DISTANCE OF 2600 FT OR 20 TIMES THE STRUCTURE HEIGHT, WHICHEVER IS GREATER.

EXPOSURE C: OPEN TERRAIN WITH SCATTERED OBSTRUCTIONS HAVING HEIGHTS GENERALLY LESS THAN 30 FT. THIS CATEGORY INCLUDES FLAT OPEN COUNTRY, GRASSLANDS, AND ALL WATER SURFACES IN HURRICANE PRONE AREAS.

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-11-10	RD

PART NUMBER: N/A

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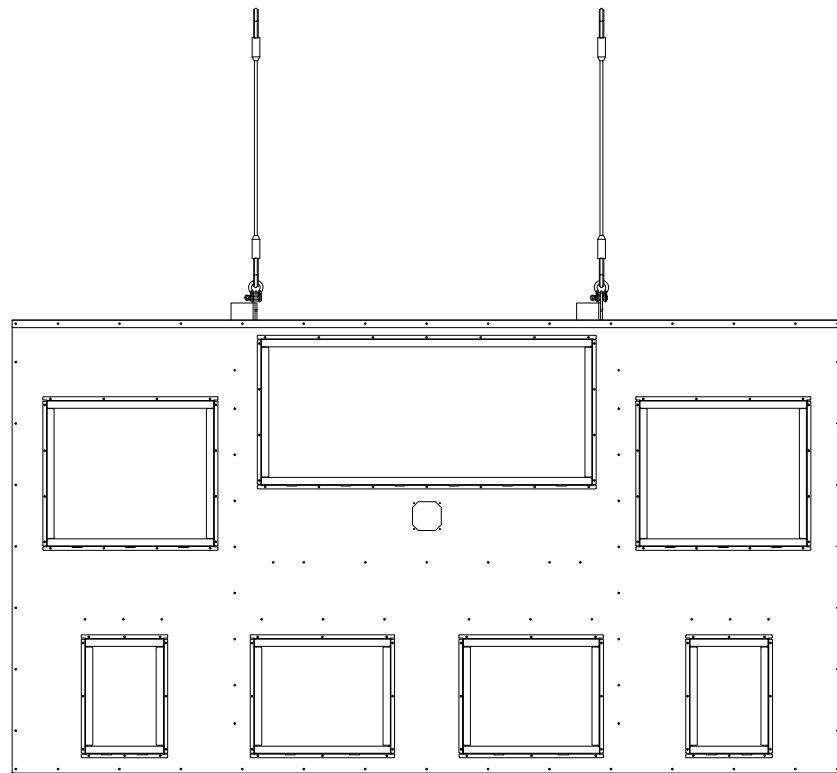
TOLERANCE INFORMATION  
 Dimensions are in inches  
 Fractional ± 1/16"  
 Two Place Decimals ± 0.02"  
 Three Place Decimals ± 0.005"  
 Four Place Decimals ± 0.0005"  
 Angular 30"

THIRD ANGLE PROJECTION

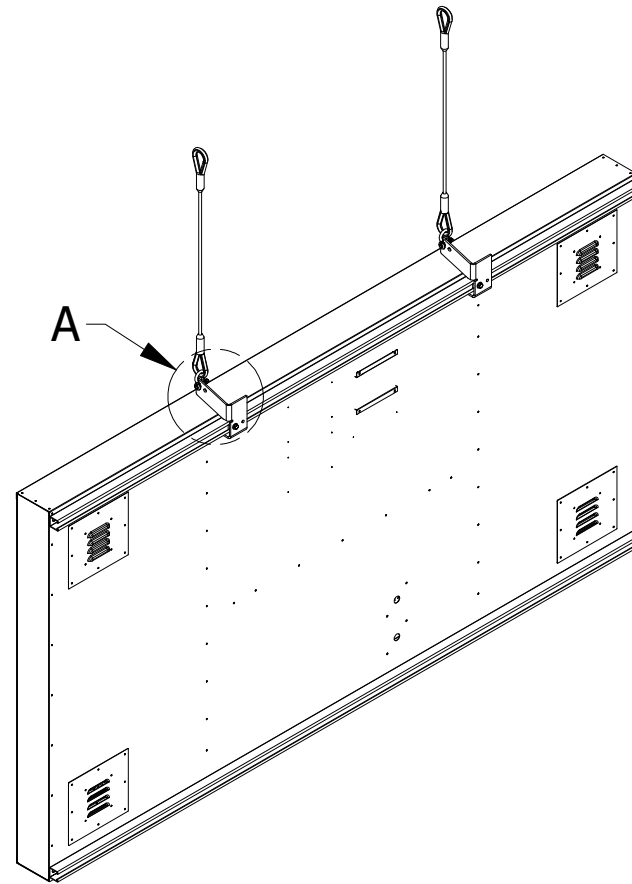
4096 Blakie Road,  
 London, ON, N6L 1P7  
 Tel: (519) 652-5833  
 Fax: (519) 652-3795  
 Email: oes@oes-inc.com

DESCRIPTION  
**POST & FOOTING GUIDE - 36' WIDTH  
 INSTALLATION INSTRUCTIONS**

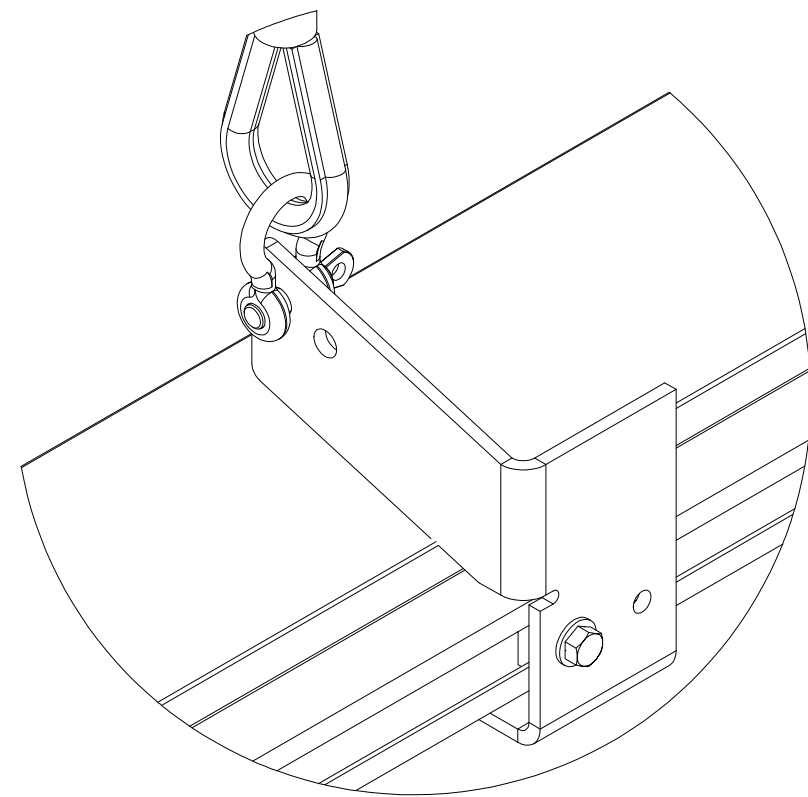
SIZE	FILENAME	INIT DRAWING DATE	REV
B	Post Guide 36'.idw	2021-11-10	A
SCALE		DRAWN BY	PAGE
NTS		rdonald	1 OF 1



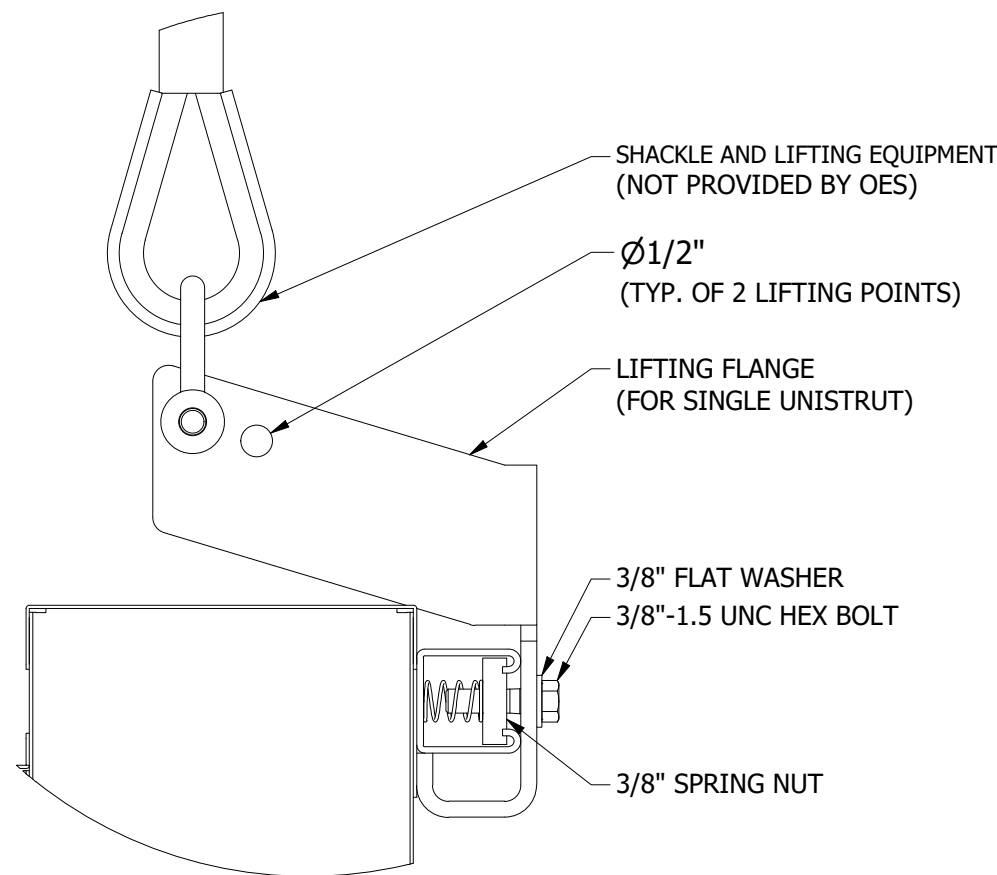
FRONT VIEW



REAR ISOMETRIC VIEW



DETAIL A  
LIFTING ASSEMBLY



LIFTING ASSEMBLY - SIDE VIEW

## LIFTING OUTDOOR SCOREBOARDS SMALL SCOREBOARDS (<14' WIDTH)

1. INSTALL LIFTING BRACKETS TO THE TOP ROW OF UNISTRUT. USE ALL LIFTING BRACKETS PROVIDED BY OES (TYPICALLY 2). SEE SIDE VIEW DETAIL FOR ASSEMBLY INFO.

**IMPORTANT:** INSTALL LIFT BRACKETS TO BE SYMMETRICAL ABOUT THE CENTER OF THE BOARD, AND ENSURE THE LIFT FORCE IS APPLIED VERTICALLY. DO NOT INSTALL LIFTING PLATES IN A LOCATION WHERE THEY COULD INTERFERE WITH MOUNTING TO POSTS.

2. ATTACH LIFTING EQUIPMENT TO THE BRACKETS AND LIFT THE SCOREBOARD INTO POSITION. LIFT FORCE MUST BE APPLIED VERTICALLY. ONCE IN POSITION AND LEVEL, MOUNT TO POSTS (SEE I-BEAM OR HSS POST MOUNTING INSTRUCTION FOR MORE DETAIL).

3. REMOVE LIFTING BRACKETS, AND REPEAT FOR ANY OTHER COMPONENTS SHIPPED WITH THE SCOREBOARD (AD PANELS, ETC.). ALWAYS START WITH THE BOTTOM COMPONENT AND WORK YOUR WAY UP.

**TWO LIFTING BRACKETS CAN BE PROVIDED BY OES, ALONG WITH UNISTRUT MOUNTING HARDWARE. LIFTING EQUIPMENT TO BE PROVIDED BY THE INSTALLER.**

### IMPORTANT NOTES:

1. THE INSTALLER IS RESPONSIBLE FOR SOURCING LIFTING EQUIPMENT (SLINGS, CHAINS, ETC.) OF APPROPRIATE RATING FOR THE SCOREBOARD ASSEMBLY. APPROXIMATE SCOREBOARD WEIGHT CAN BE FOUND ON INDIVIDUAL INFO DRAWINGS.

2. THE PROVIDED LIFTING BRACKETS ARE ONLY INTENDED TO BE USED WITH A SINGLE ROW OF UNISTRUT. FOR BACK-TO-BACK (DOUBLE) UNISTRUT, A LARGER BRACKET IS NEEDED.

3. IF SCOREBOARD COMPONENTS ARE SHIPPED IN SEPARATE PIECES, DO NOT ASSEMBLE BEFORE LIFTING. LIFT AND MOUNT EACH COMPONENT SEPARATELY.

4. OES IS NOT RESPONSIBLE FOR DAMAGES RESULTING FROM IMPROPER LIFTING OF THE SCOREBOARD.

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-11-04	

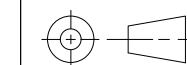
PART NUMBER: N/A

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TOLERANCE INFORMATION  
Dimensions are in inches  
Fractional ± 1/16"  
Two Place Decimals ± 0.02"  
Three Place Decimals ± 0.005"  
Four Place Decimals ± 0.0005"  
Angular 30°

THIRD ANGLE PROJECTION



4096 Blakie Road,  
London, ON, N6L 1P7  
Tel: (519) 652-5833  
Fax: (519) 652-3795  
Email: oes@oes-inc.com

DESCRIPTION  
**SCOREBOARD LIFTING - SINGLE UNISTRUT  
INSTALLATION INSTRUCTIONS**

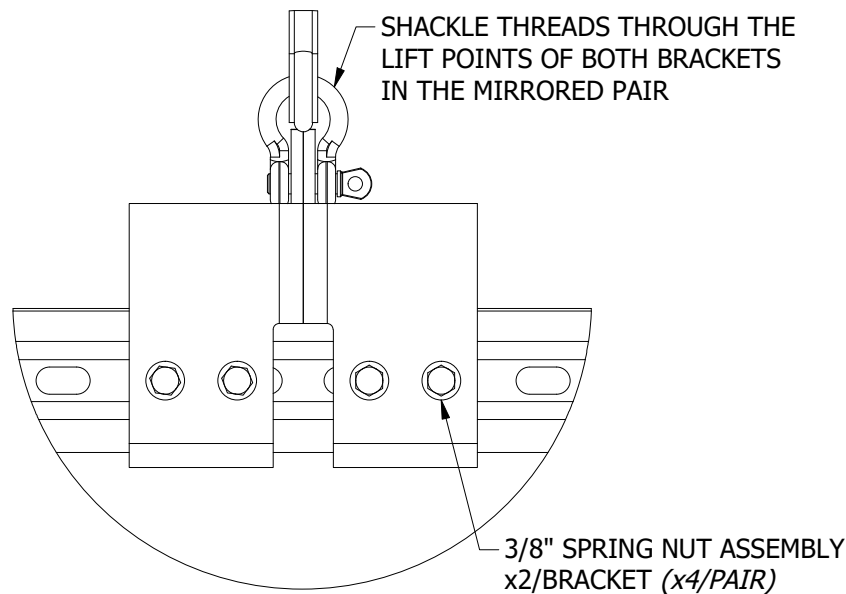
SIZE	FILENAME	INIT DRAWING DATE	REV
B	Lifting - Single	11/4/2021	A

USAGE  
**Unistrut idw  
USE FOR CONSTRUCTION**

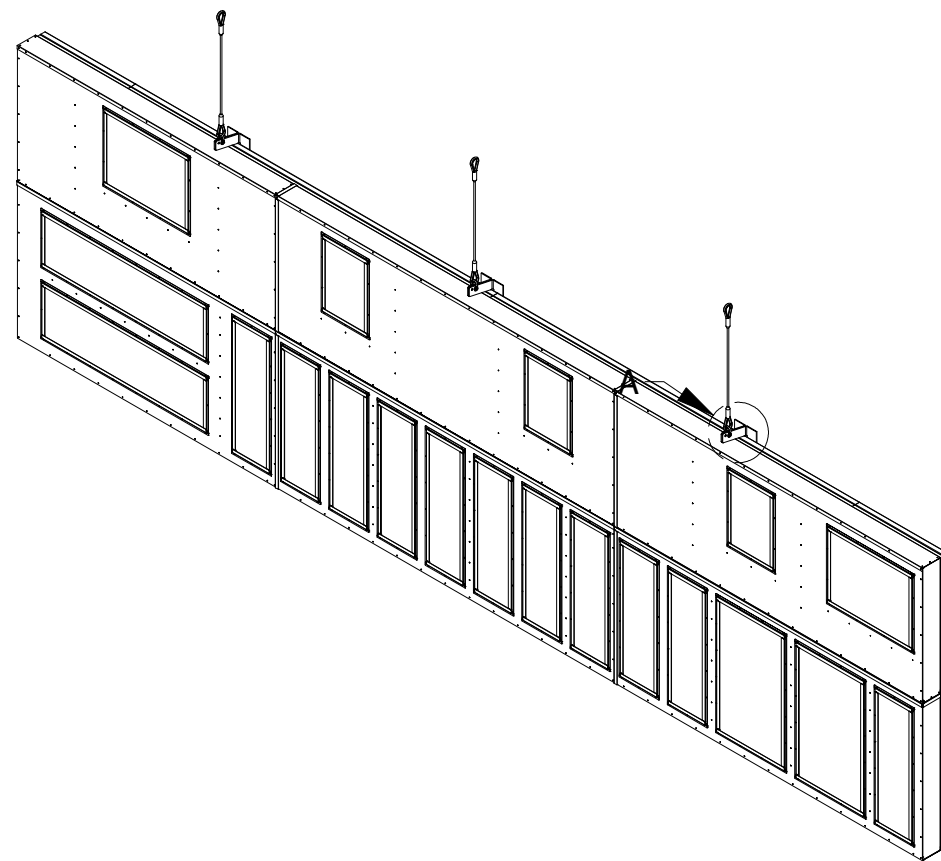
SCALE NTS DRAWN BY rdonald PAGE 1 OF 1

OES OUTDOOR LIFT KITS  
(>14' SCOREBOARDS)

KIT	# OF BRACKETS	SCOREBOARD WIDTH
LKO-B	4 (2 PAIRS)	14-21'
LKO-C	6 (3 PAIRS)	>21'



BRACKET ATTACHMENT POINT



ISOMETRIC VIEW

**LIFTING OUTDOOR SCOREBOARDS  
LARGE SCOREBOARDS (>14' WIDTH)**

NOTE: THE METHOD OUTLINED IN THIS DRAWING REQUIRES AN OES OUTDOOR LIFTING KIT, WHICH CAN BE PURCHASED WITH THE SCOREBOARD.

1. INSTALL LIFTING BRACKETS ON THE TOP ROW OF UNISTRUT. USE ALL BRACKETS PROVIDED IN THE OES OUTDOOR LIFTING KIT. SEE SIDE VIEW FOR ASSEMBLY INFO. **IMPORTANT:** LIFTING BRACKETS TO BE INSTALLED IN MIRRORRED PAIRS AS SHOWN IN DETAIL A. DISTRIBUTE PAIRS EVENLY ALONG SCOREBOARD WIDTH. LIFT FORCE MUST BE APPLIED VERTICALLY.

2. ATTACH LIFTING EQUIPMENT TO THE BRACKETS AND LIFT THE SCOREBOARD INTO POSITION. LIFT FORCE MUST BE APPLIED VERTICALLY. ONCE IN POSITION AND LEVEL, MOUNT TO POSTS (SEE I-BEAM OR HSS POST MOUNTING INSTRUCTION FOR MORE DETAIL). REMOVE LIFTING BRACKETS ONCE SCOREBOARD IS ATTACHED TO POSTS.

**LIFTING BRACKET KIT CAN BE PURCHASED WITH THE SCOREBOARD. KIT INCLUDES LIFTING BRACKETS AND 3/8" ASSEMBLY HARDWARE. SHACKLE AND LIFTING EQUIPMENT TO BE PROVIDED BY THE INSTALLER.**

IMPORTANT NOTES:

1. THE INSTALLER IS RESPONSIBLE FOR SOURCING LIFTING EQUIPMENT OF APPROPRIATE RATING FOR THE SCOREBOARD ASSEMBLY. APPROXIMATE SCOREBOARD WEIGHTS CAN BE FOUND ON INFO DRAWINGS. INSPECT ALL EQUIPMENT AND HARDWARE BEFORE LIFTING.

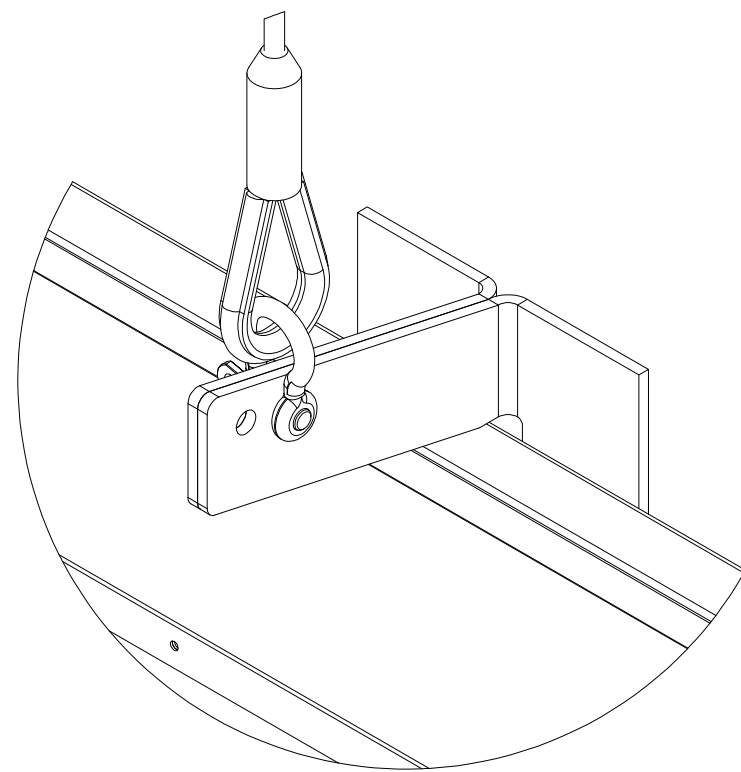
2. ALL PROVIDED LIFTING BRACKETS MUST BE USED TO LIFT THE SCOREBOARD. DISTRIBUTE WEIGHT EVENLY BETWEEN BRACKETS. ALL BRACKETS MUST BE ATTACHED TO THE UNISTRUT USING TWO 3/8" SPRING NUT & BOLT ASSEMBLIES. DO NOT TIGHTEN BOLTS BEYOND 19 FT-LB OF TORQUE.

3. THE PROVIDED LIFTING BRACKETS ARE INTENDED TO FOR USE WITH BACK-TO-BACK (DOUBLE) UNISTRUT. FOR SINGLE UNISTRUT, SMALLER BRACKETS ARE NEEDED.

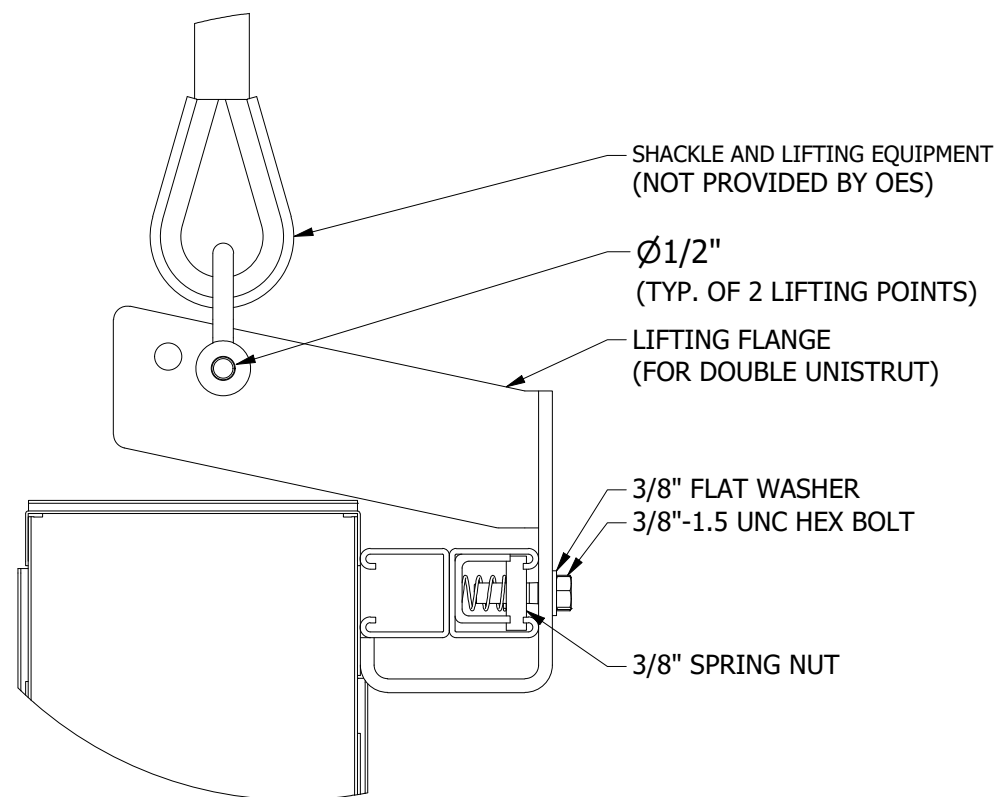
4. PROLONGED ENVIRONMENTAL EXPOSURE COULD WEAKEN UNPAINTED BRACKETS. REMOVE BRACKETS AFTER MOUNTING. STORE BRACKETS IN A LOCATION PROTECTED FROM THE ELEMENTS.

5. IF SCOREBOARD COMPONENTS ARE SHIPPED IN SEPARATE PIECES, LIFT AND MOUNT EACH COMPONENT SEPARATELY. DO NOT ASSEMBLE BEFORE LIFTING.

6. OES IS NOT RESPONSIBLE FOR DAMAGES RESULTING FROM IMPROPER LIFTING OF THE SCOREBOARD.



DETAIL A  
LIFTING ASSEMBLY



LIFTING ASSEMBLY - SIDE VIEW

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2021-12-10	

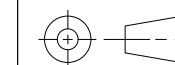
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Angular 30°

THIRD ANGLE PROJECTION



4096 Blakie Road,  
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Tel: (519) 652-5833  
Fax: (519) 652-3795  
Email: oes@oes-inc.com

DESCRIPTION  
**SCOREBOARD LIFTING - SINGLE UNISTRUT  
INSTALLATION INSTRUCTIONS**

SIZE	FILENAME	INIT DRAWING DATE	REV
B	Lifting - B2B Unistrut.idw	12/10/2021	A

USE FOR CONSTRUCTION