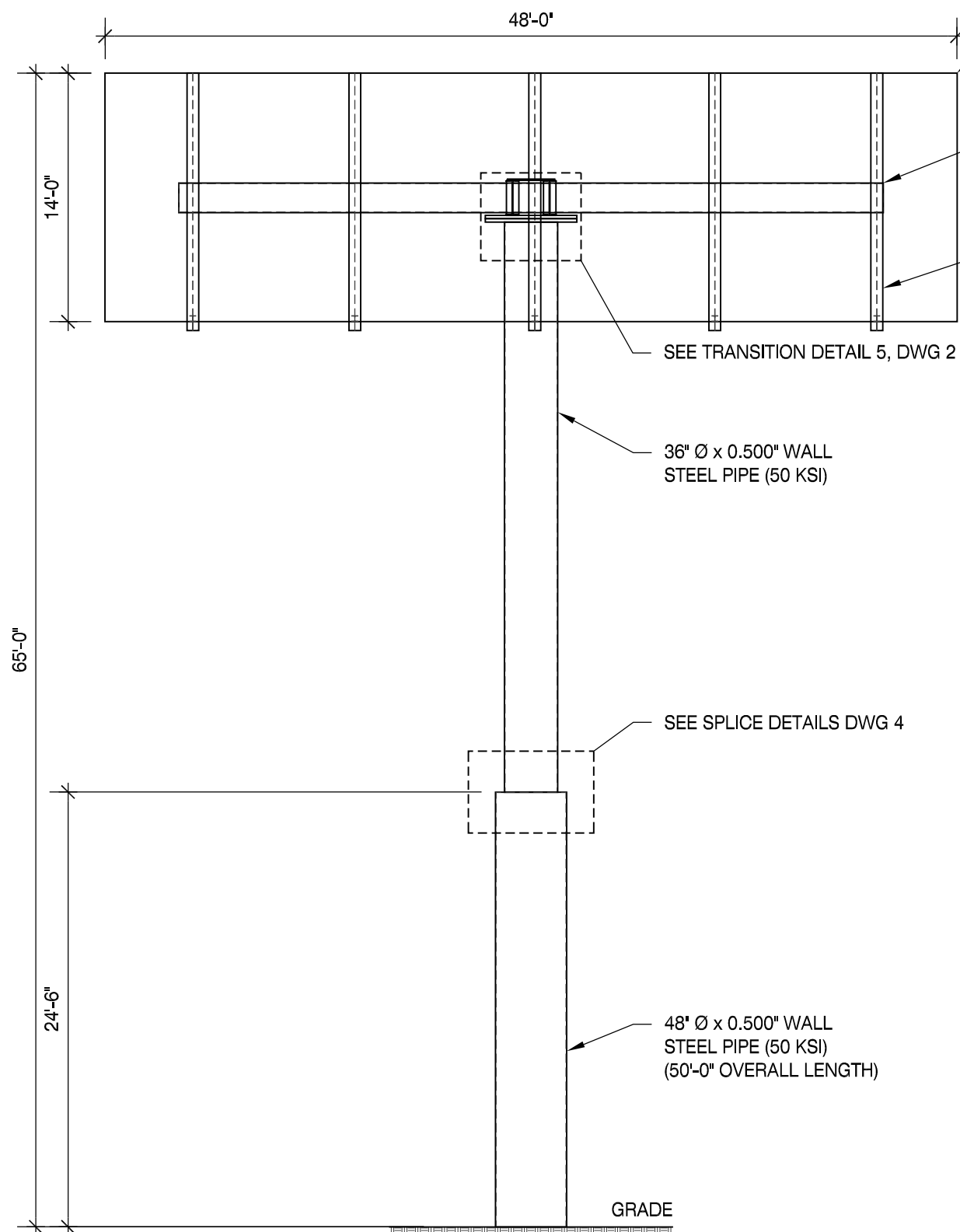




FRONT ELEVATION PROPOSED BILLBOARD
SCALE: N.T.S.

1

SIGN CABINET AND
CONNECTION TO POLE
BY AD GRAPHICS

20" Ø x 0.375" WALL STEEL
TORSION PIPE (50 KSI)

W10x22 UPRIGHT, TYP.

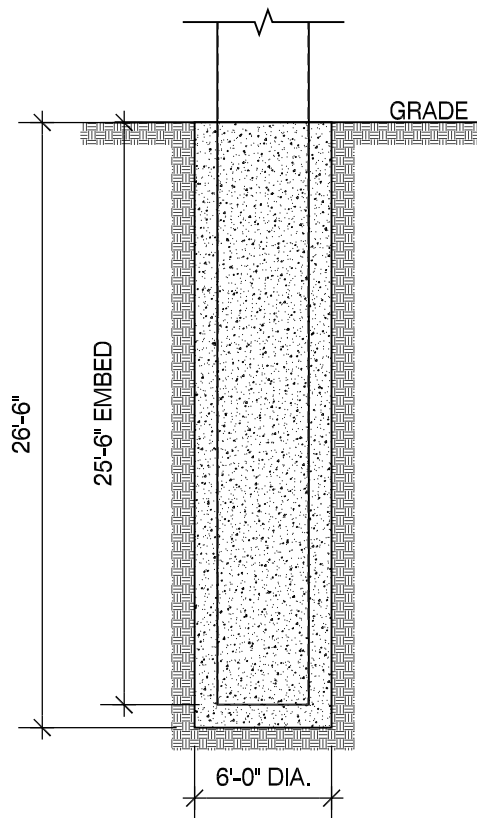
SEE TRANSITION DETAIL 5, DWG 2

36" Ø x 0.500" WALL
STEEL PIPE (50 KSI)

SEE SPLICE DETAILS DWG 4

48" Ø x 0.500" WALL
STEEL PIPE (50 KSI)
(50'-0" OVERALL LENGTH)

GRADE



CAISSON FOUNDATION DETAIL
SCALE: N.T.S.

2

CALCULATIONS INCLUDE THE FOLLOWING CONSIDERATIONS
AS OUTLINED IN THE 2020 FLORIDA BUILDING CODE (7th ED.) :
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CHAPTER 19-CONCRETE
CHAPTER 20-ALUMINUM
CHAPTER 21-MASONRY
CHAPTER 22-STEEL
CHAPTER 23-WOOD
ALL SIGNS SHALL BE COMPLIANT WITH CURRENT NEC CODES

- NOTES
- 1.) SEE MANUFACTURERS DRAWINGS FOR
ADDITIONAL DETAILS AND DIMENSIONS.
 - 2.) SIGN CABINET AND CONNECTION
BY AD GRAPHICS.

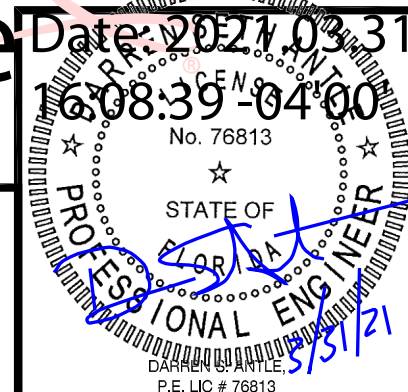
- * CLIENT - AD GRAPHICS
- * 2020 FLORIDA BUILDING CODE 7TH ED.
- * RISK CATEGORY II
- * 120 MPH WIND SPEED, EXP. C
- * (1) POLE, (1) FOOTING



THIS ITEM HAS BEEN ELECTRONICALLY
SIGNED AND SEALED BY DARREN S. ANTLE,
P.E. USING A DIGITAL SIGNATURE AND DATE.
PRINTED COPIES OF THIS DOCUMENT ARE
NOT CONSIDERED SIGNED AND SEALED AND
THE SIGNATURE MUST BE VERIFIED ON ANY
ELECTRONIC COPIES.

Darren S. Antle

Digitally signed
by Darren S.
Antle



MBI

MBI COMPANIES INC.
299 N. WEISGARBER RD.
KNOXVILLE, TN 37919
PHONE 865.584.0999
SIGN-ENGINEER.COM

PROJECT:
MILE MARKER 298, I-10, LAKE CITY, FL

DRAWING TITLE:

14' x 48' DIGITAL BILLBOARD

DRAWN BY:
DEW

CHECKED BY:
FCM

COMM. NO.
210231.002

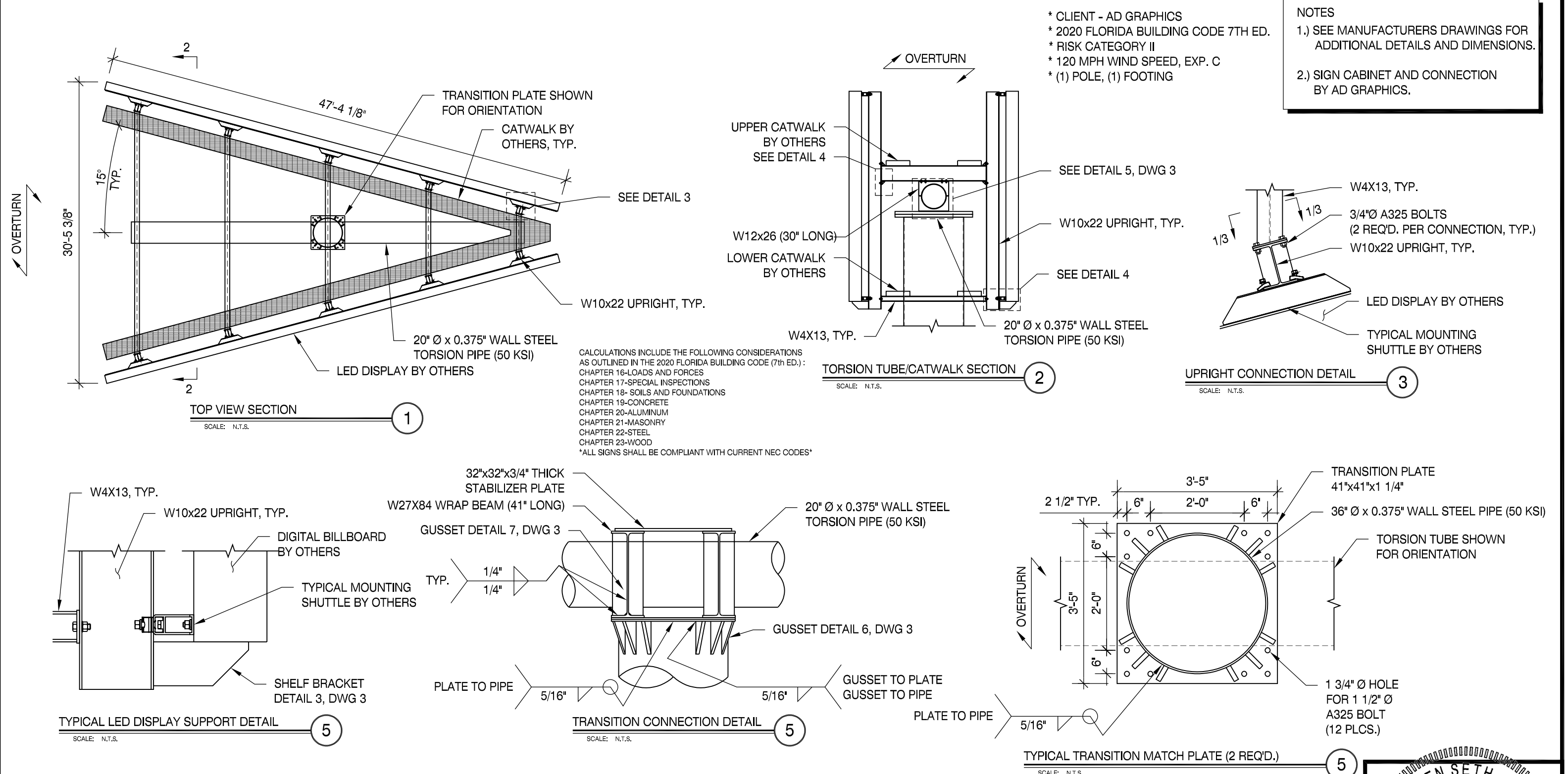
DATE:
03/22/21

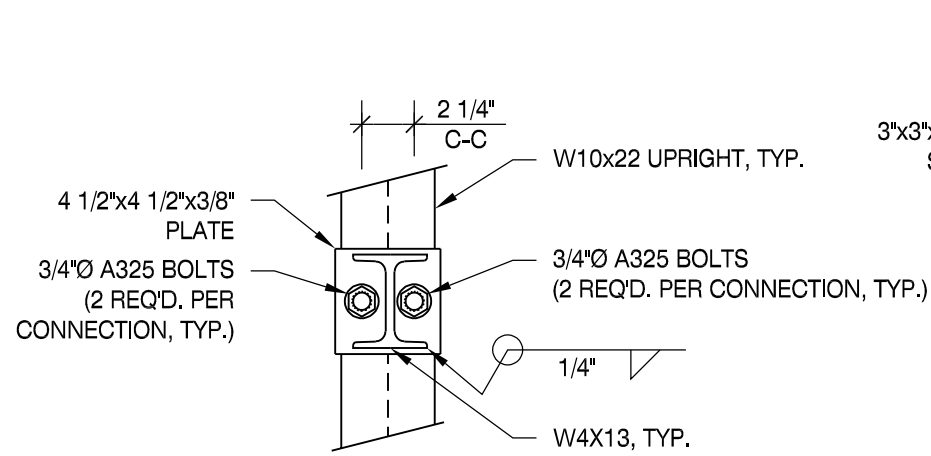
DRAWING NO.
DWG.

1

CORP. LIC. # F02000002650
BUS. LIC. # AA26000828
ENG. C.O.A. # 29794

REV #	DATE	DRAWN BY

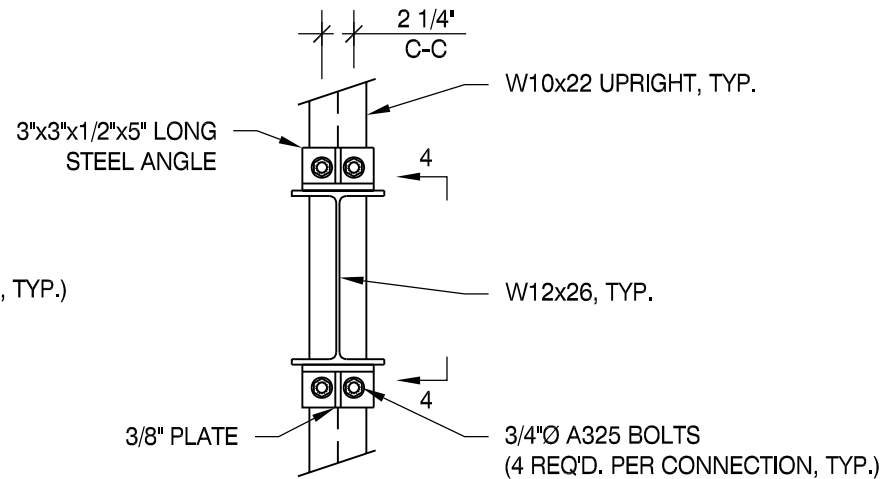




LOWER CATWALK SUPPORT DETAIL

SCALE: N.T.S.

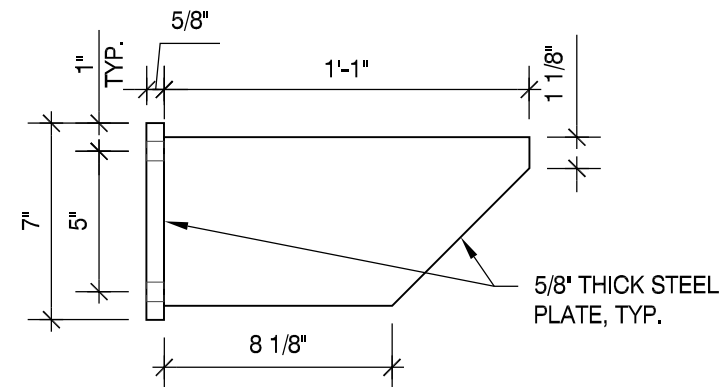
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HORIZONTAL BEAM CONNECTION DETAIL

SCALE: N.T.S.

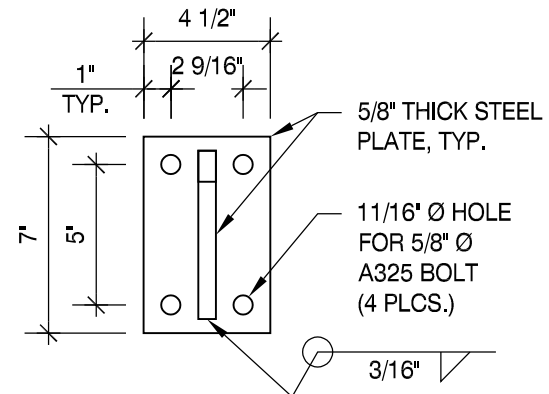
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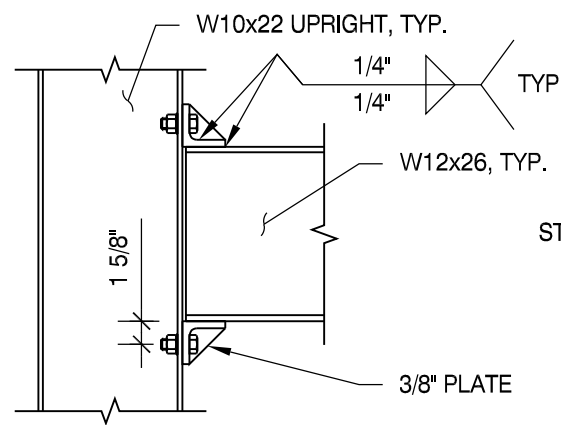
TYPICAL SHELF BRACKET DETAIL

SCALE: N.T.S.

3



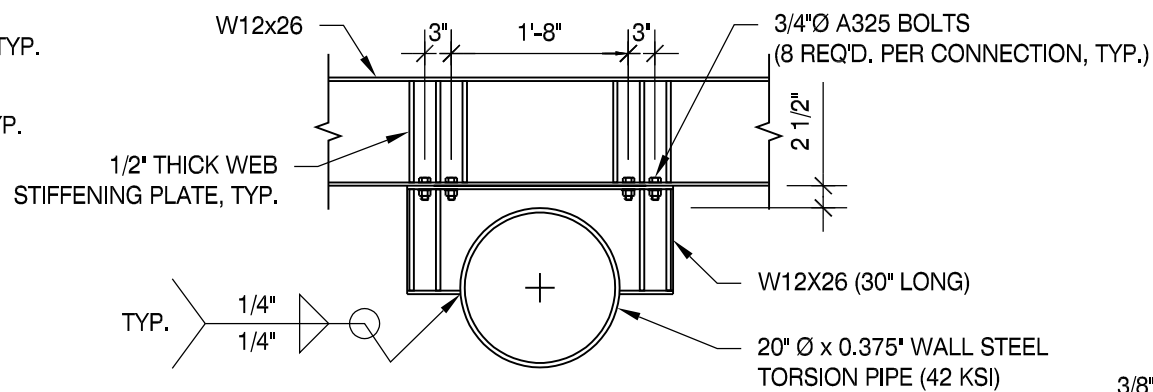
NOTE:
CUT HOLE IN SADDLE BEAM,
SLEEVE TORSION TUBE THROUGH
AND WELD ALL AROUND



LOWER BEAM CONNECTION DETAIL (SIDE VIEW)

SCALE: N.T.S.

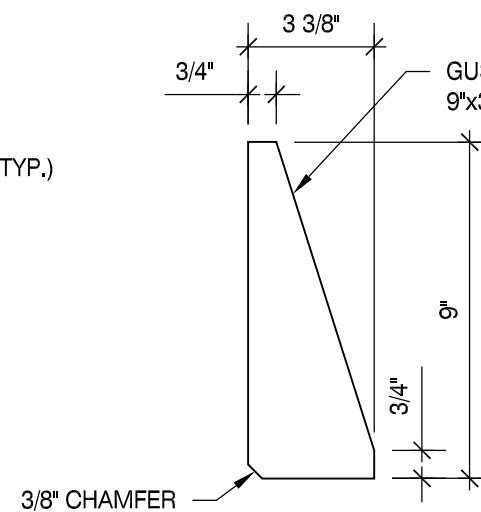
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SADDLE CONNECTION DETAIL

SCALE: N.T.S.

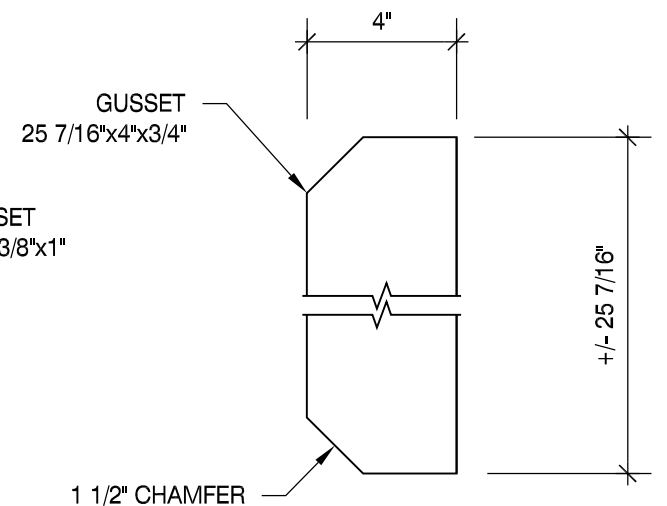
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GUSSET DETAIL

SCALE: N.T.S.

6



GUSSET DETAIL

SCALE: N.T.S.

7

- NOTES**
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- * RISK CATEGORY II
- * 120 MPH WIND SPEED, EXP. C
- * (1) POLE, (1) FOOTING

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SIGN-ENGINEER.COM

PROJECT:
MILE MARKER 298, I-10, LAKE CITY, FL

DRAWING TITLE:

14' x 48' DIGITAL BILLBOARD

DRAWN BY:
DEW

CHECKED BY:
FCM

COMM. NO.
210231.002

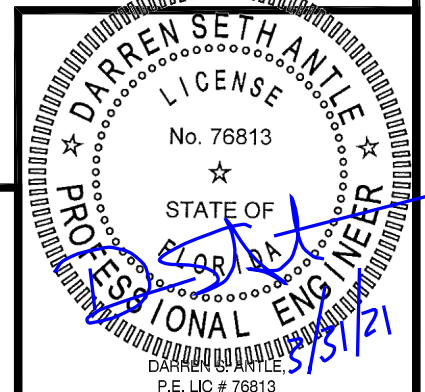
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BUS. LIC. # AA26000828
ENG. C.O.A. # 29794

DATE:
03/22/21

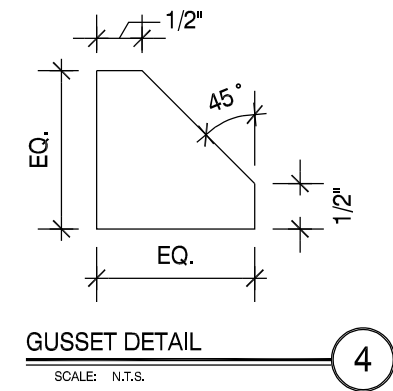
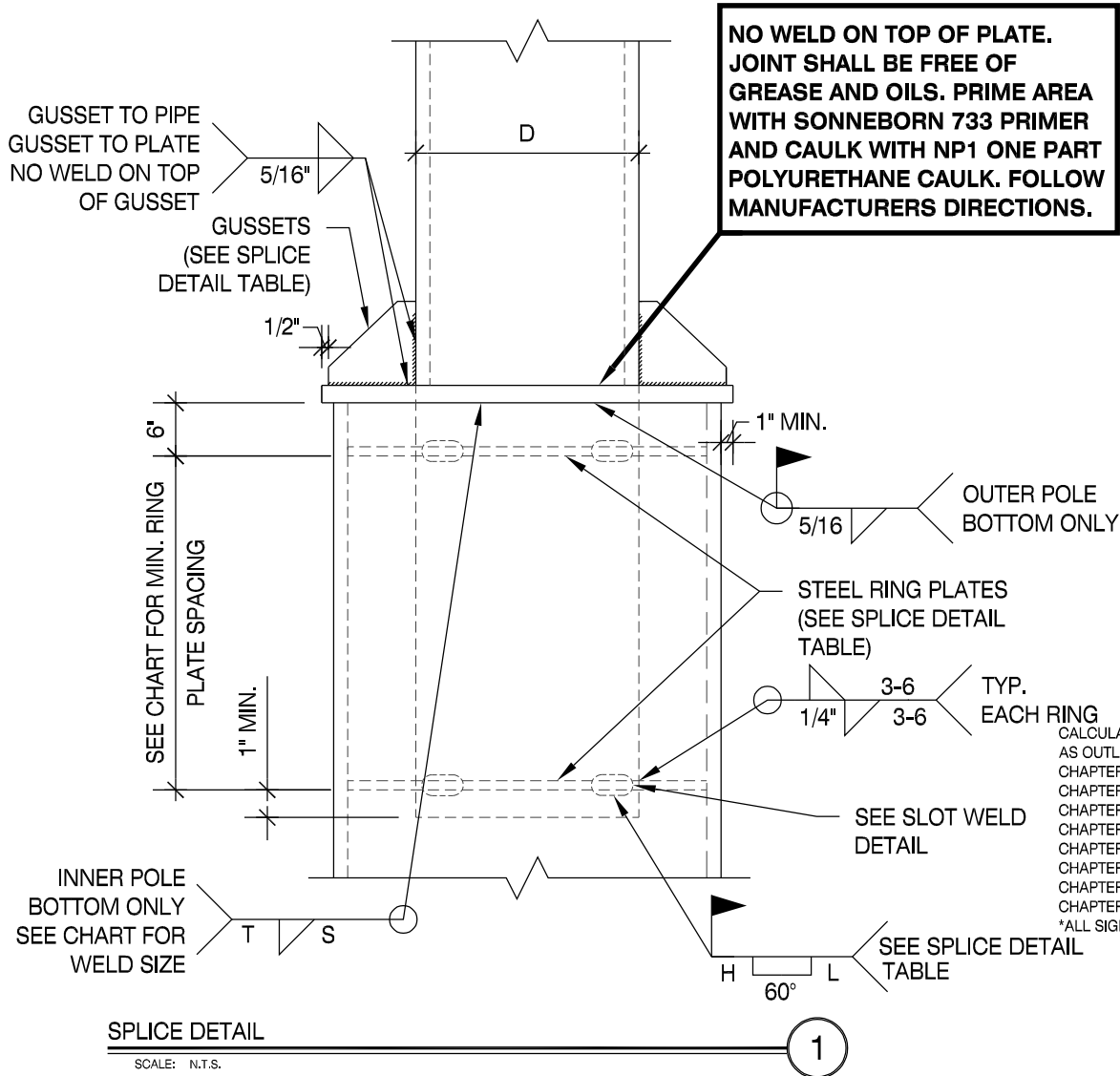
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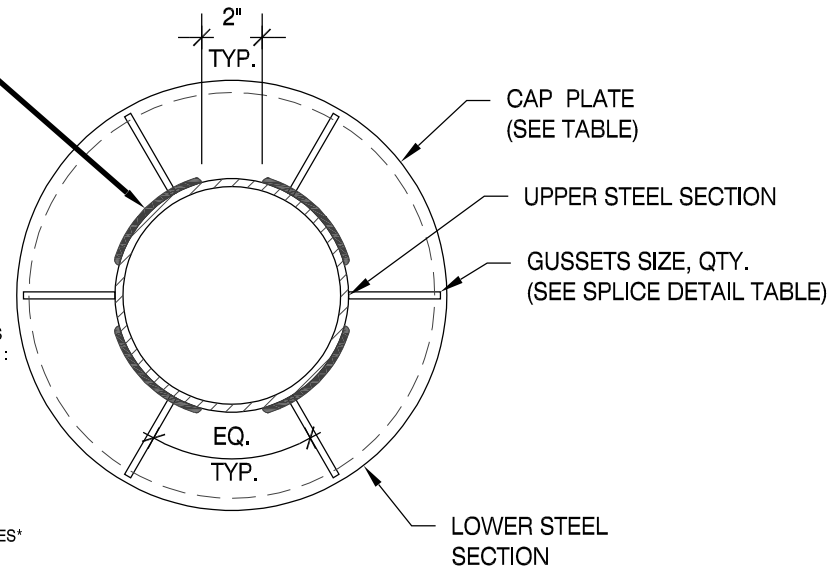
3



- SPLICE NOTES:**
- 1. THIS SPLICE CONNECTION IS A CRITICAL COMPONENT OF THE STRUCTURE. CARE SHOULD BE TAKEN IN FIT UP, WELDING, AND INSTALLATION
 - 2. WELD = COLUMN WALL THICKNESS (U.N.O.) MINIMUM WELD SIZE IS DEPENDENT UPON THE THICKER OF THE TWO PARTS JOINED, EXCEPT THAT THE WELD SIZE NEED NOT EXCEED THE THICKNESS OF THE THINNER PART. FOR THIS EXCEPTION, PARTICULAR CARE SHALL BE TAKEN TO PROVIDE SUFFICIENT PREHEAT FOR SOUNDNESS OF THE WELD.
 - 3. WELDING DESIGN, WORKMANSHIP, PROCEDURE AND TECHNIQUE SHALL CONFORM TO ALL APPLICABLE PROVISIONS OF THE AMERICAN WELDING SOCIETY STRUCTURE WELDING CODE STEEL, AWS D1.1. WELDERS SHALL BE QUALIFIED FOR THE PROCESS USED. TYPE AND SIZE OF WELD MUST BE INSTALLED AS SHOWN ON THE DRAWING. CONTRACTOR MUST SUPPLY, WHEN REQUESTED, CERTIFICATION OF PROCEDURE, QUALIFICATION OF WELDER AND DOCUMENT OF WELDING PROCEDURE. BOTH SHOP & FIELD WELDERS MUST PUNCH THEIR INITIAL & DATE ON CAP PLATE FOR IDENTIFICATION.
 - 4. ALL SHOP WELDS SMAW OR GMAW (EXCEPT ELECTRODES OF 70,000 PSI TENSILE STRENGTH RATED AND APPROPRIATE WIRE DIAMETER SHALL BE USED FOR WELDING IN ALL POSITIONS. ALL FIELD WELDING SHALL BE SMAW WELDED USING ELECTRODES W/70,000 PSI TENSILE STRENGTH RATED FOR WELDING IN ALL POSITIONS. AWS A5.1 OR A5.5 E7018-B2 OR APPROVED EQUAL.
 - 5. COLUMN SURFACE NEAR WELDING AREA SHOULD BE CLEAN & DRY WHEN WELDING. SCRATCH IS NOT ALLOWABLE ON THE COLUMN SURFACE.



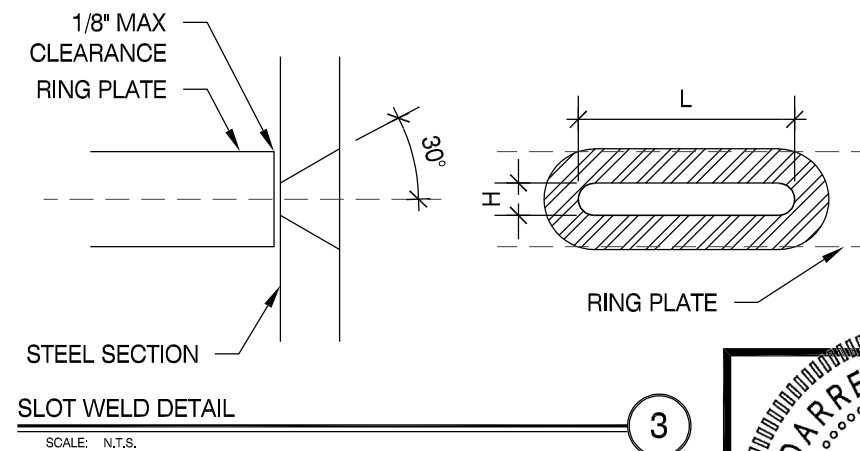
NO WELD ON TOP
BOTTOM WELD TO
HAVE 2" GAPS BETWEEN
WELDS



- NOTES**
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SPLICE DETAIL TABLE											
UPPER STEEL SECTION	MAX. WALL THICKNESS	CAP PLATE THICKNESS	RING PLATE THICKNESS	MIN. RING PLATE SPACING	NO. OF GUSSETS	SIZE OF GUSSETS	NO. OF SLOT WELDS/PLT			SIZE OF SLOT WELDS	
								T	S *	H	L
<10"	3/8"	3/4"	3/4"	18"	4	3/8"	4	1/4"	5-6	5/8"	1 3/4"
12" - 18"	1/2"	3/4"	1"	27"	6	3/8"	6	5/16"	5-6	7/8"	2"
20" - 24"	1/2"	1"	1"	36"	6	1/2"	6	5/16"	11-12	7/8"	2 1/4"
26" - 30"	3/4"	1"	1 1/4"	45"	8	1/2"	8	5/16"	11-12	1"	2 1/2"
32" - 42"	3/4"	1 1/2"	1 1/4"	63"	8	3/4"	8	5/16"	11-12	1"	3"
48" - 54"	3/4"	1 1/2"	1 1/4"	84"	10	3/4"	10	3/8"	11-12	1"	3 1/2"
60" - 66"	3/4"	2"	1 1/4"	102"	12	1"	12	3/8"	11-12	1"	4"
72" - 96"	1"	2"	1 1/4"	144"	16	1"	16	3/8"	11-12	1 1/8"	4"

* 2" GAP BETWEEN WELDS REQUIRED



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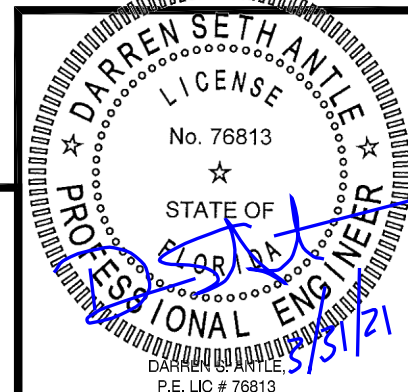
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DWG.

4



GROUND SIGN DESIGN SPECIFICATIONS:

1. REFER TO SIGN COMPANY'S DRAWINGS FOR MORE DETAILS. ALL DESIGNS, DETAILING FABRICATION AND CONSTRUCTION SHALL CONFORM TO:
2020 FLORIDA BUILDING CODE 7TH ED.
ACI
AISC
AMERICAN WELDING SOCIETY
LOCAL BUILDING CODES & ORDINANCES
2. CONCRETE: 2500 PSI @ 28 DAYS
3. STD. STEEL PIPE SECTION: ASTM A53 GRADE B (Fy=35 KSI), U.N.O.
4. STEEL PIPE SECTION (> 20" Ø): ASTM A252 GRADE 3 (Fy=42 KSI MIN.) U.N.O.
5. HSS ROUND SECTION: ASTM A500 GRADE B (Fy=42 KSI) U.N.O.
6. HSS SQUARE/RECTANGULAR SECTION: ASTM A500 GRADE B (Fy=46 KSI)
7. W SHAPES: ASTM A992 (Fy = 50 KSI)
8. ANCHOR BOLTS: ASTM F1554 GRADE 36 U.N.O. (ALTERNATES GRADE 55 & 105)
9. CONNECTION BOLTS: ASTM A325
10. THREADED RODS: ASTM A193 GRADE B7
11. STEEL ANGLES, CHANNELS, STRUCTURAL SHAPES & PLATES ASTM A36
12. REINFORCING: GRADE 60 ASTM A615
13. PROVIDE A MINIMUM OF THREE INCHES OF CONCRETE COVER OVER EMBEDDED STEEL.
14. THE CONTRACTOR (INSTALLER) IS RESPONSIBLE FOR THE MEANS & METHODS OF CONSTRUCTION IN REGARDS TO JOBSITE SAFETY.
15. NO FIELD HEATING FOR BENDING OR CUTTING OF STEEL SHALL BE ALLOWED WITHOUT THE ENGINEER'S APPROVAL.
16. WELDING ELECTRODES: E70XX
17. ALLOWABLE SOIL BEARING PRESSURE ASSUMED: 2000 PSF
18. ASSUMED HORIZONTAL (PASSIVE PRESSURE) ASSUMED AT 150 PSF/FT OF DEPTH. ISOLATED LATERAL BEARING FOUNDATIONS FOR SIGNS NOT ADVERSELY AFFECTED A 1/2" MOTION AT THE GROUND SURFACE DUE TO SHORT TERM LATERAL LOADS SHALL BE PERMITTED TO BE DESIGNED USING TWO TIMES THE TABULATED CODE VALUES.
19. ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED RESIDUAL SOIL AND/OR ENGINEERED EARTH.
20. FILL COMPACTED TO 98% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D 698-70 (STANDARD PROCTOR) UNLESS NOTED OTHERWISE. THE SOIL BEARING CAPACITY IS TO BE VERIFIED BY A GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION. IF ALLOWABLE BEARING AND/OR LATERAL PRESSURE IS LESS THAN THE ABOVE ASSUMED AND/OR CALCULATED PRESSURES, THE ENGINEER SHOULD BE CONTACTED FOR RE-EVALUATION.
21. EXCAVATION SHALL BE FREE OF LOOSE SOIL BEFORE POURING CONCRETE.
22. WELDERS SHALL BE CERTIFIED FOR THE TYPE OF WELDING.
23. ADEQUATELY BRACE POLE(S) UNTIL CONCRETE HAS SET UP FOR 14 DAYS.
24. GROUT UNDER BASE PLATES WITH NON-SHRINK GROUT.
25. THIS ENGINEER DOES NOT WARRANT THE ACCURACY OF DIMENSIONS FURNISHED BY OTHERS.
26. ALL EXPOSED STEEL SHALL BE PAINTED WITH AN ENAMEL PAINT TO INHIBIT CORROSION.
27. THIS DESIGN IS FOR THE INDICATED ADDRESS ONLY, AND SHOULD NOT BE USED AT OTHER LOCATIONS WITHOUT WRITTEN PERMISSION OF THE ENGINEER.
28. DESIGN OF DETAILS AND STRUCTURAL MEMBERS NOT SHOWN, BY OTHERS.

NOTES

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