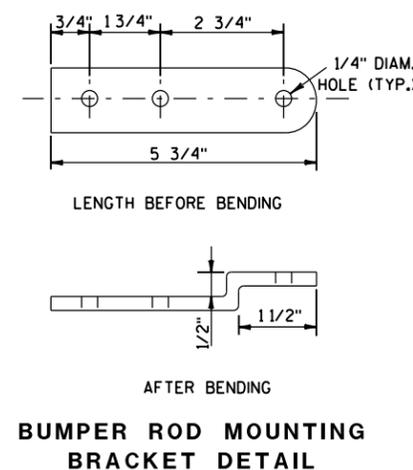
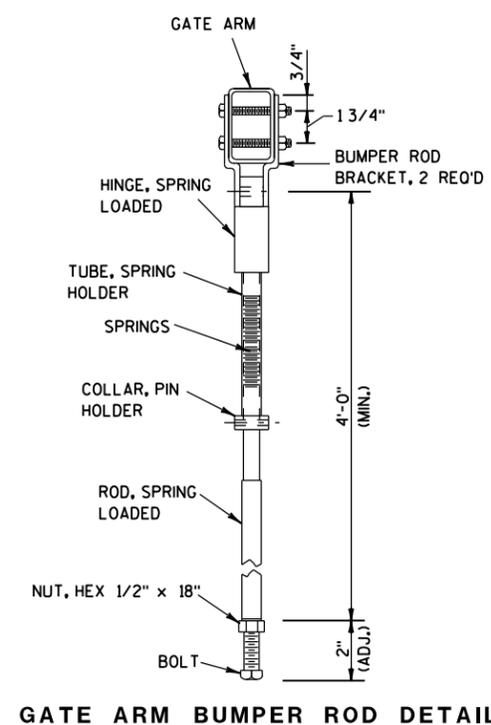


GENERAL NOTES

1. THE LOCATION OF RAMP CLOSURE GATES AND MOUNTING HEIGHT OF GATE ARM PIVOT SHALL BE VERIFIED BY THE ENGINEER.
2. HEIGHT OF GATE ARM GUIDES MAY BE VARIED AS REQUIRED FOR WARNING LIGHT CLEARANCE.
3. FIBERGLASS/ALUMINUM GATE ARM AND SHEAR PIN BASE SHALL BE SUPPLIED BY THE SAME VENDOR.
4. GATE ARM TO BE MOUNTED ON PROPOSED POLE AS INDICATED ON THE PLANS. PROPOSED POLE SHALL BE TYPE 5 POLE.
5. LOCATION OF THE CONCRETE BASE AND LENGTH OF THE GATE ARM WILL BE VERIFIED BY THE ENGINEER TO ENSURE ADEQUATE COVERAGE OF THE TRAVELED LANE.
6. GATE PIVOTS, SUPPORTS AND GUIDES, AND ALL ASSOCIATED HARDWARE SHALL BE GALVANIZED. ALL ROUGH EDGES AND BURRS SHALL BE GROUND SMOOTH PRIOR TO GALVANIZING.
7. ALL EXPOSED BOLT THREADS SHALL BE PAINTED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
8. ANY FIELD DAMAGE TO THE GALVANIZING SHALL BE REPAIRED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
9. A STANDARD LIGHTING LUMINAIRE ARM MAY BE MOUNTED TO THE TYPE 5 POLE IN LIEU OF THE TOP COLLAR.
10. UPPER GATE ARM GUIDE IS TO BE INSTALLED 6 TO 12-INCHES BELOW THE BOTTOM OF THE TOP COLLAR.



RAMP GATE SOLAR POWER
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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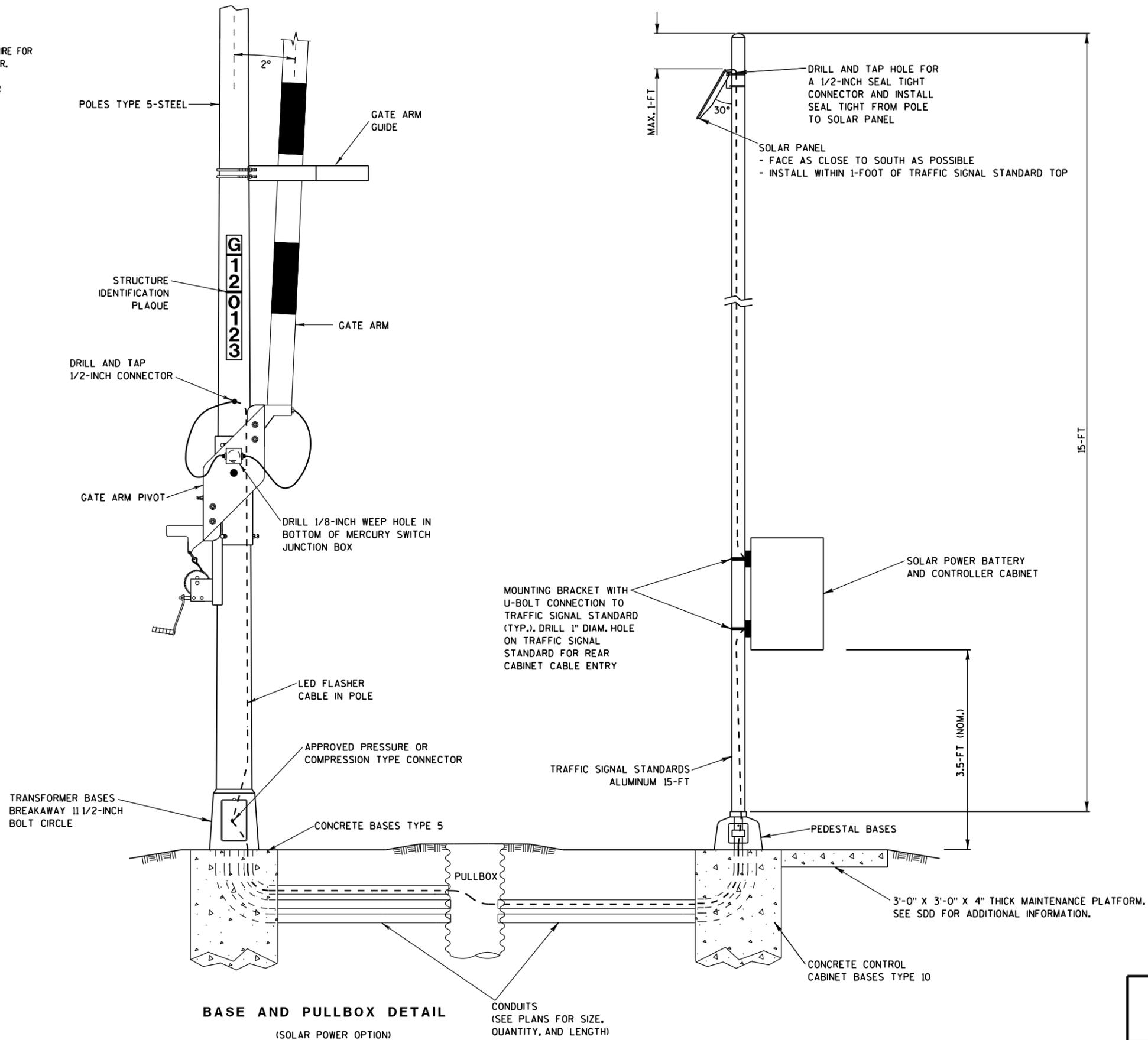
S.D.D. 15 D 34-2a

S.D.D. 15 D 34-2a



WIRING NOTES

1. WIRING FROM SOLAR PANEL TO CABINET SHALL BE BLUE #10 XLP WIRE FOR POSITIVE CONDUCTOR AND WHITE #10 XLP FOR NEGATIVE CONDUCTOR.
2. WIRING FROM CABINET TO GATE ARM SHALL BE WHITE #10 XLP FOR COMMON, RED #10 XLP FOR FLASHER CIRCUIT 1, AND BLUE #10 XLP FOR FLASHER CIRCUIT 2.



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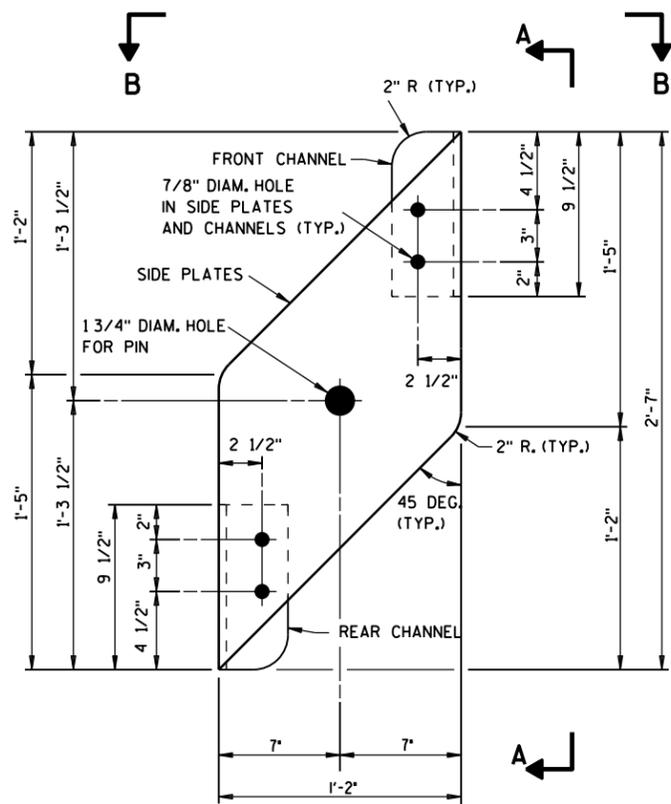
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S.D.D. 15 D 34-2b

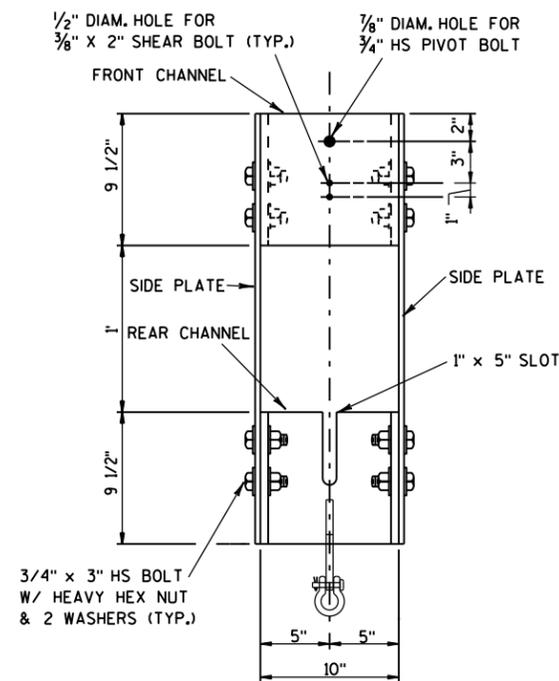
S.D.D. 15 D 34-2b

BASE AND PULLBOX DETAIL
(SOLAR POWER OPTION)

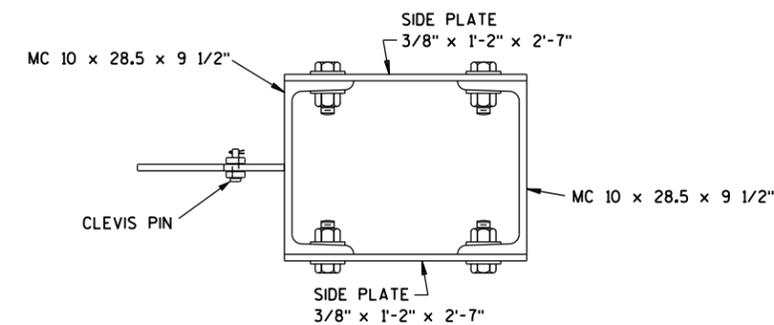
RAMP GATE SOLAR POWER
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



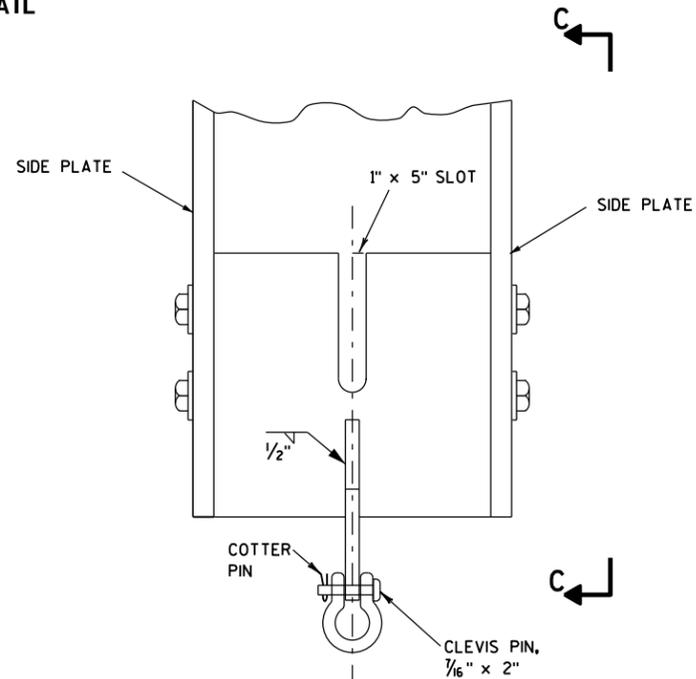
SIDE PLATE DETAIL



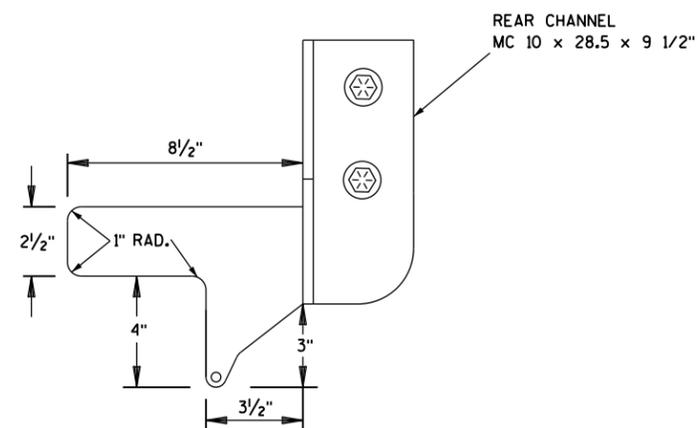
SECTION A-A



SECTION B-B



YOKE ASSEMBLY DETAIL



SECTION C-C

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S.D.D. 15 D 34-2c

S.D.D. 15 D 34-2c

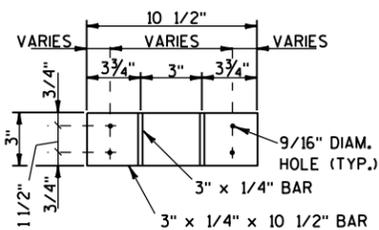
RAMP GATE
SOLAR POWER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

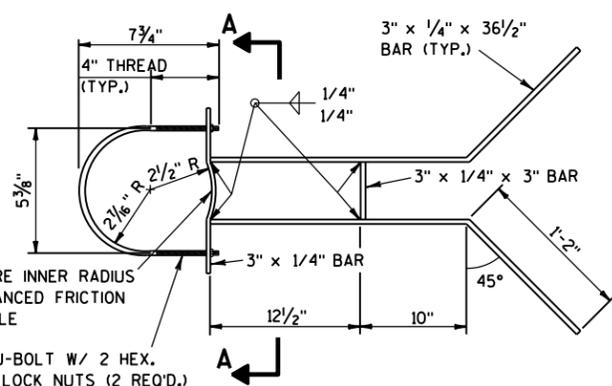


GENERAL NOTES

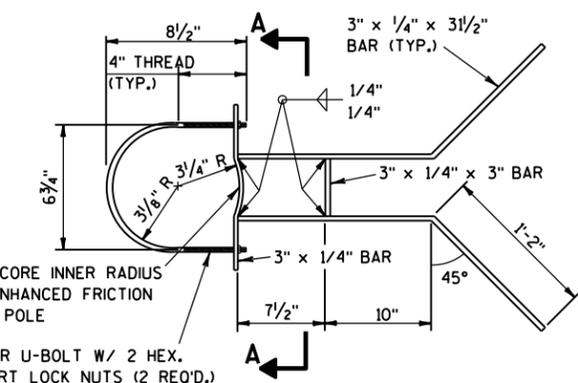
1. WHEN THE GATE IS FULLY RAISED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE OUTSIDE OF THE REAR CHANNEL.
2. WHEN THE GATE IS FULLY LOWERED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE INSIDE OF THE REAR CHANNEL.
3. ANTI-SEIZE LUBRICATING MATERIAL SHALL BE USED ON ALL BOLT THREADS BEFORE INSTALLATION.
4. ALL BOLTS SHALL BE GALVANIZED AND CONFORM TO ASTM A307, GRADE A, UNLESS DESIGNATED AS HS (HIGH STRENGTH), WHICH SHALL CONFORM TO ASTM A325. BOLTS OF 1/2" NOMINAL DIAMETER OR LESS MAY BE STAINLESS STEEL.



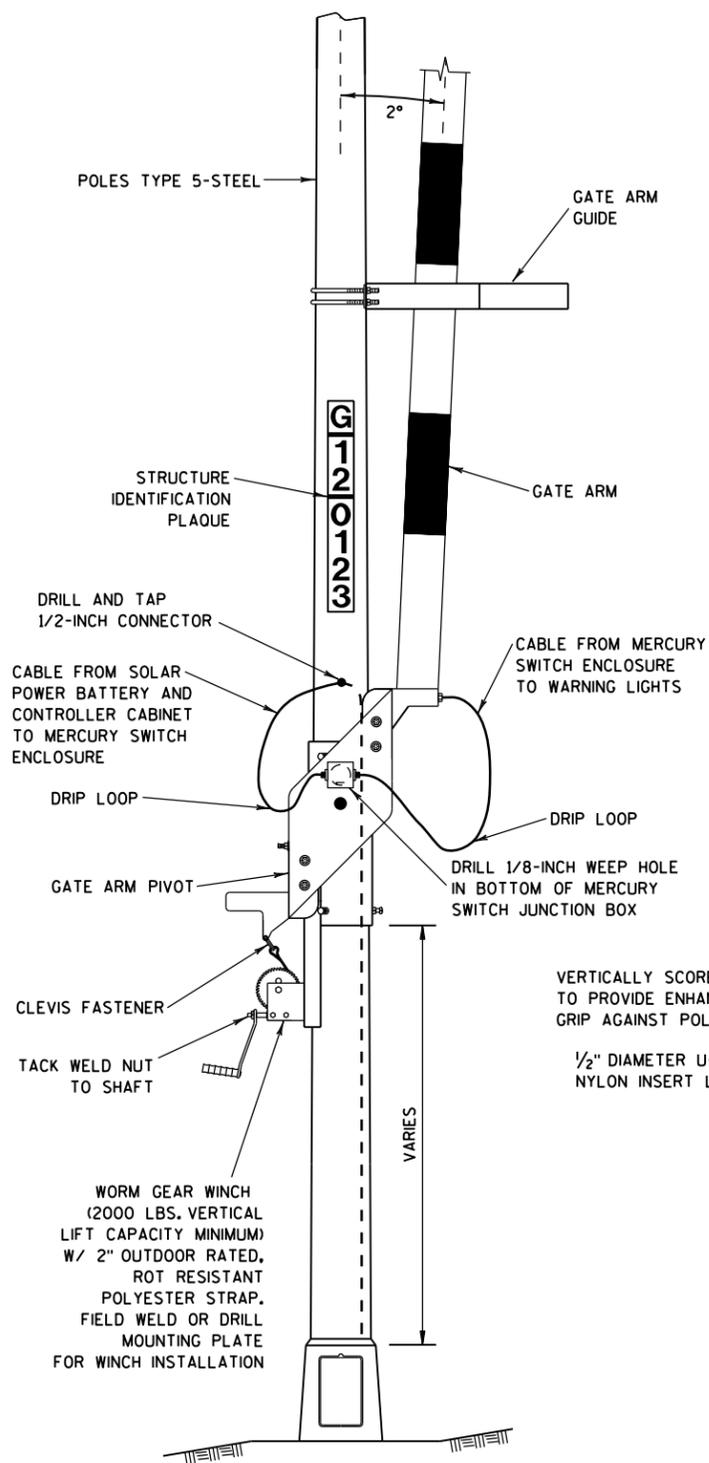
SECTION A-A
U-BOLTS NOT SHOWN



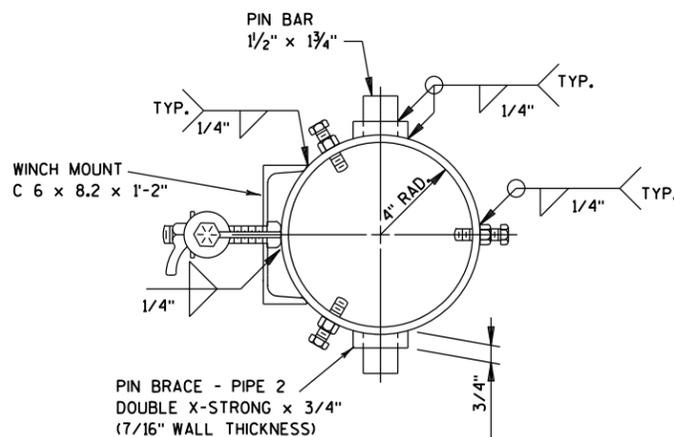
UPPER GATE ARM GUIDE DETAIL



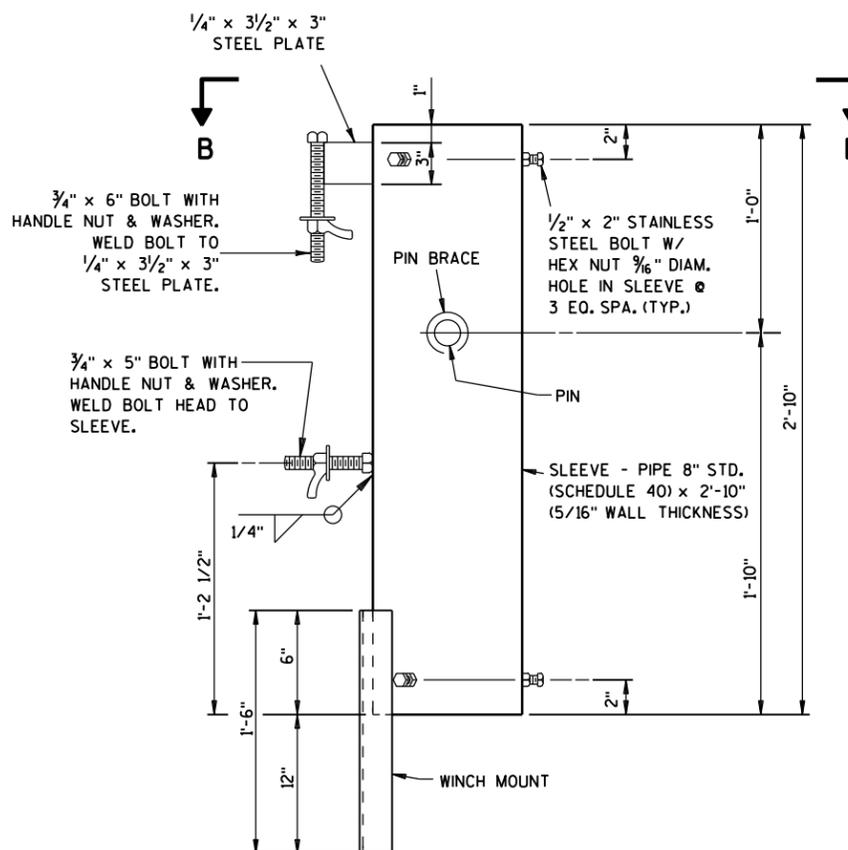
LOWER GATE ARM GUIDE DETAIL



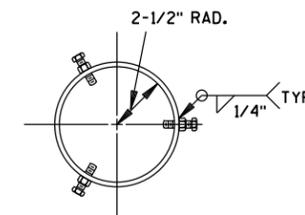
GATE PIVOT ASSEMBLY



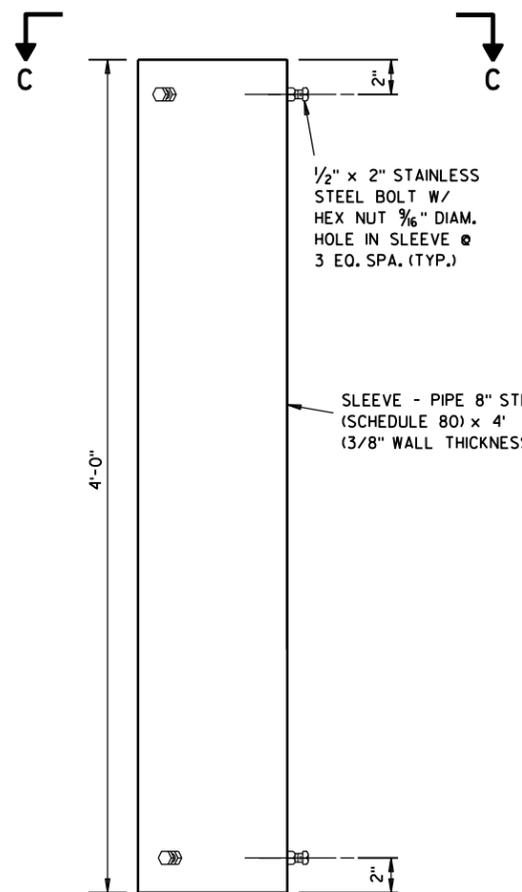
SECTION B-B



PIVOT SLEEVE DETAIL



SECTION C-C



TOP COLLAR

RAMP GATE SOLAR POWER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 11/2015 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER
FHWA	

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S.D.D. 15 D 34-2d

S.D.D. 15 D 34-2d

*Ramp Gate Solar Power***References:**[FDM 11-55-25](#)**Bid items associated with this drawing:**

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
634.0600 - 0699	Posts Wood 4x6-Inch (length).....	EACH
637.2210	Signs Type II Reflective H.....	EACH
637.2215	Signs Type II Reflective H Folding.....	EACH
652.0200 - 0399	Conduit Rigid Nonmetallic (schedule)(size)	LF
653.0135	Pull Box Steel 24x36-Inch	EACH
654.0105	Concrete Bases Type 5	EACH
654.0220	Concrete Control Cabinet Base Type 10	EACH
657.0100	Pedestal Bases	EACH
657.0255	Transformer Base Breakaway 11 1/2-inch Bolt Circle	EACH
657.0425	Traffic Signal Standards Aluminum 15-Ft	EACH
676.0300	Signal Assembly Advance Flasher (Type 1).....	EACH

Standardized Special Provisions associated with this drawing:

<u>STSP NUMBER</u>	<u>TITLE</u>	
662.2024.S	Ramp Closure Gate Solar 24-FT	EACH
662.2026.S	Ramp Closure Gate Solar 26-FT	EACH
662.2028.S	Ramp Closure Gate Solar 28-FT	EACH
662.2030.S	Ramp Closure Gate Solar 30-FT	EACH
662.2032.S	Ramp Closure Gate Solar 32-FT	EACH
662.2037.S	Ramp Closure Gate Solar 37-FT	EACH
662.2040.S	Ramp Closure Gate Solar 40-FT	EACH
662.4000.S	Ramp Closure Gate Flashers Stockpile.....	EACH

Other SDDs associated with this drawing:

SDD 12a4	Structure Identification Plaque (Required)
SDD 15d35	Ramp Gate Hard Wired
SDD 15d36	Barricade Rack

Design Notes:

Ramp gates must also have structure identification plaques as shown in [SDD 12a4](#).

Contact Person:

Ahmet Demirbilek (414) 220-6801