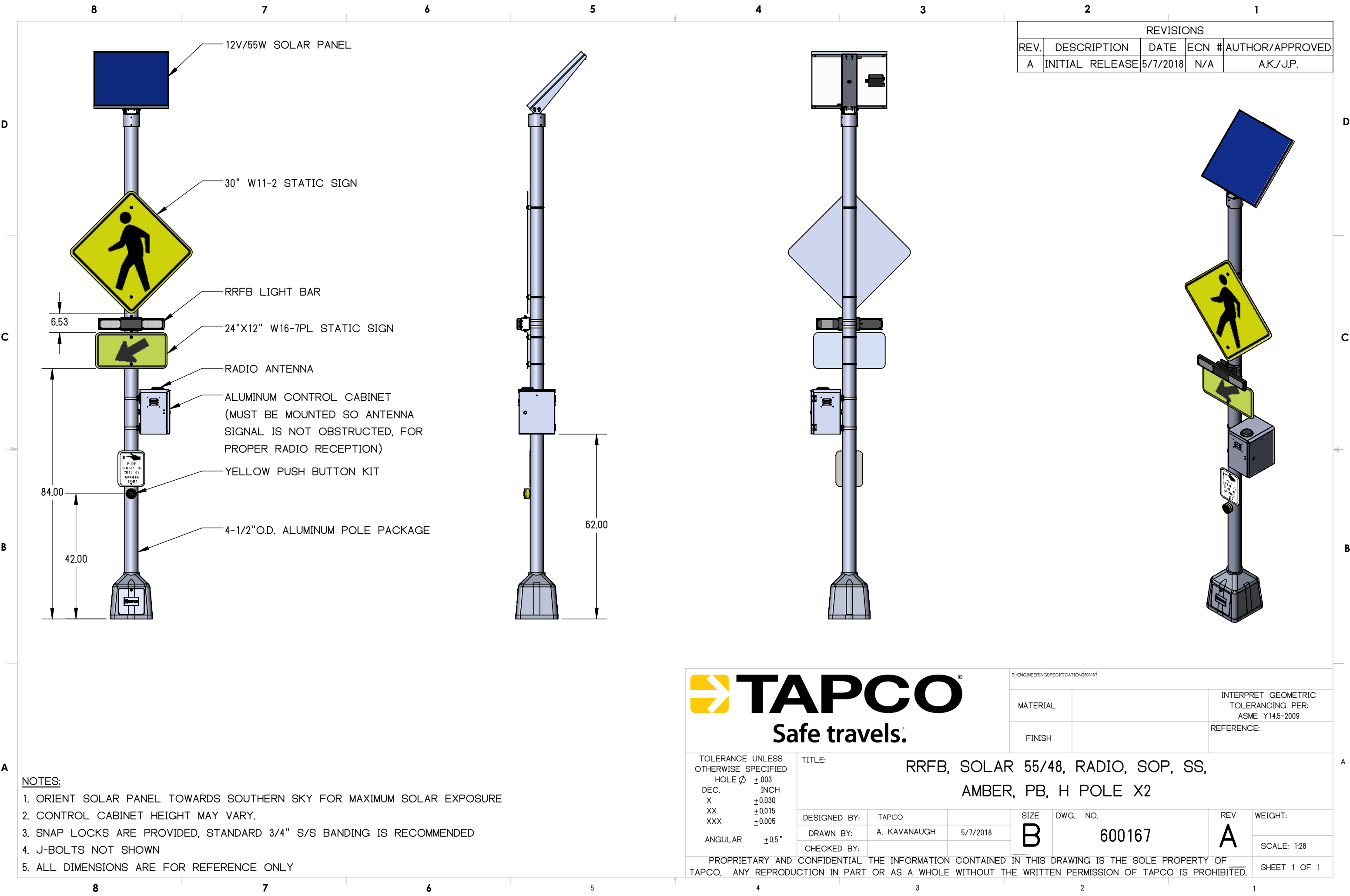


# **SOLAR RRFB PEDESTRIAN CROSSWALK SYSTEM**

**55W/48Ah with Bulldog Push Button**

**Comprehensive Submittal Package  
Version 1.0**

**November 2, 2018**



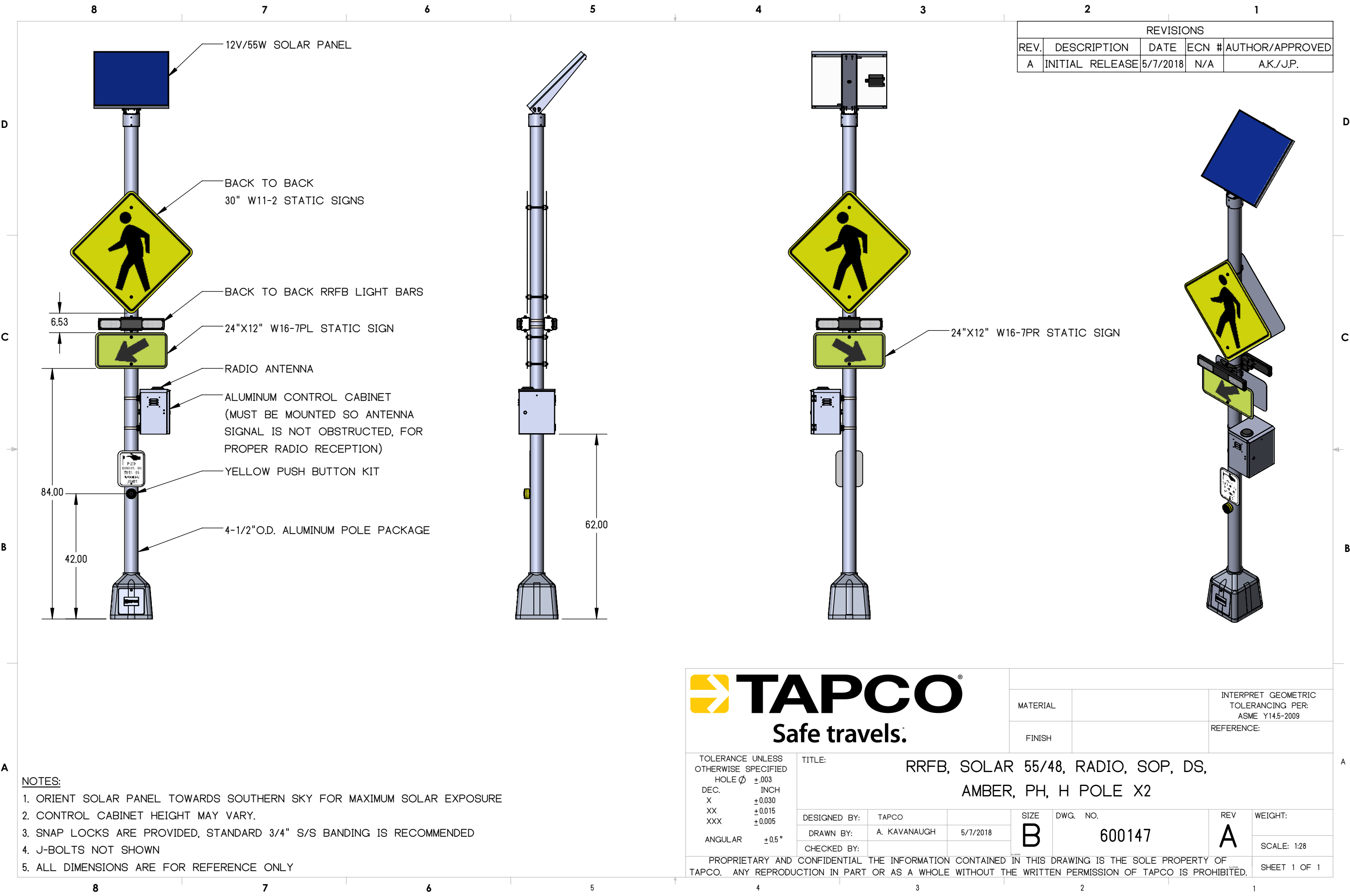
REVISIONS				
REV.	DESCRIPTION	DATE	ECN #	AUTHOR/APPROVED
A	INITIAL RELEASE	5/7/2018	N/A	A.K./J.P.

- NOTES:**
1. ORIENT SOLAR PANEL TOWARDS SOUTHERN SKY FOR MAXIMUM SOLAR EXPOSURE
  2. CONTROL CABINET HEIGHT MAY VARY.
  3. SNAP LOCKS ARE PROVIDED, STANDARD 3/4" S/S BANDING IS RECOMMENDED
  4. J-BOLTS NOT SHOWN
  5. ALL DIMENSIONS ARE FOR REFERENCE ONLY

**TAPCO**  
Safe travels.

MATERIAL		INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5-2009	
FINISH		REFERENCE:	

TOLERANCE UNLESS OTHERWISE SPECIFIED HOLE $\phi$ $\pm 0.003$ DEC. INCH X $\pm 0.030$ XX $\pm 0.015$ XXX $\pm 0.005$ ANGULAR $\pm 0.5^\circ$		TITLE: RRFB, SOLAR 55/48, RADIO, SOP, SS, AMBER, PB, H POLE X2			
		DESIGNED BY:	TAPCO	SIZE	DWG. NO.
		DRAWN BY:	A. KAVANAUGH	5/7/2018	REV
		CHECKED BY:			
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TAPCO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TAPCO IS PROHIBITED.					WEIGHT:
					SCALE: 1:28
					SHEET 1 OF 1



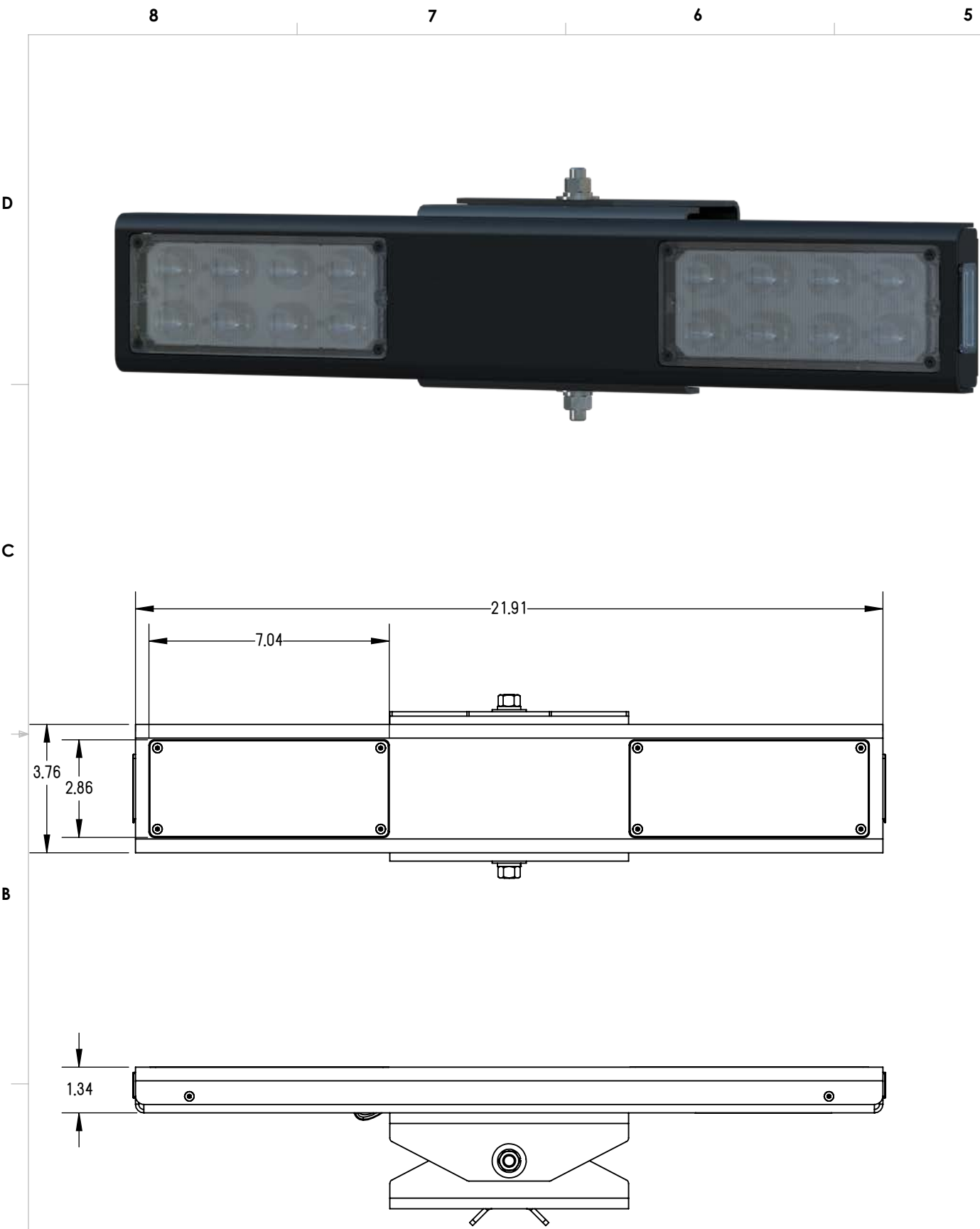
REVISIONS				
REV.	DESCRIPTION	DATE	ECN #	AUTHOR/APPROVED
A	INITIAL RELEASE	5/7/2018	N/A	A.K./J.P.

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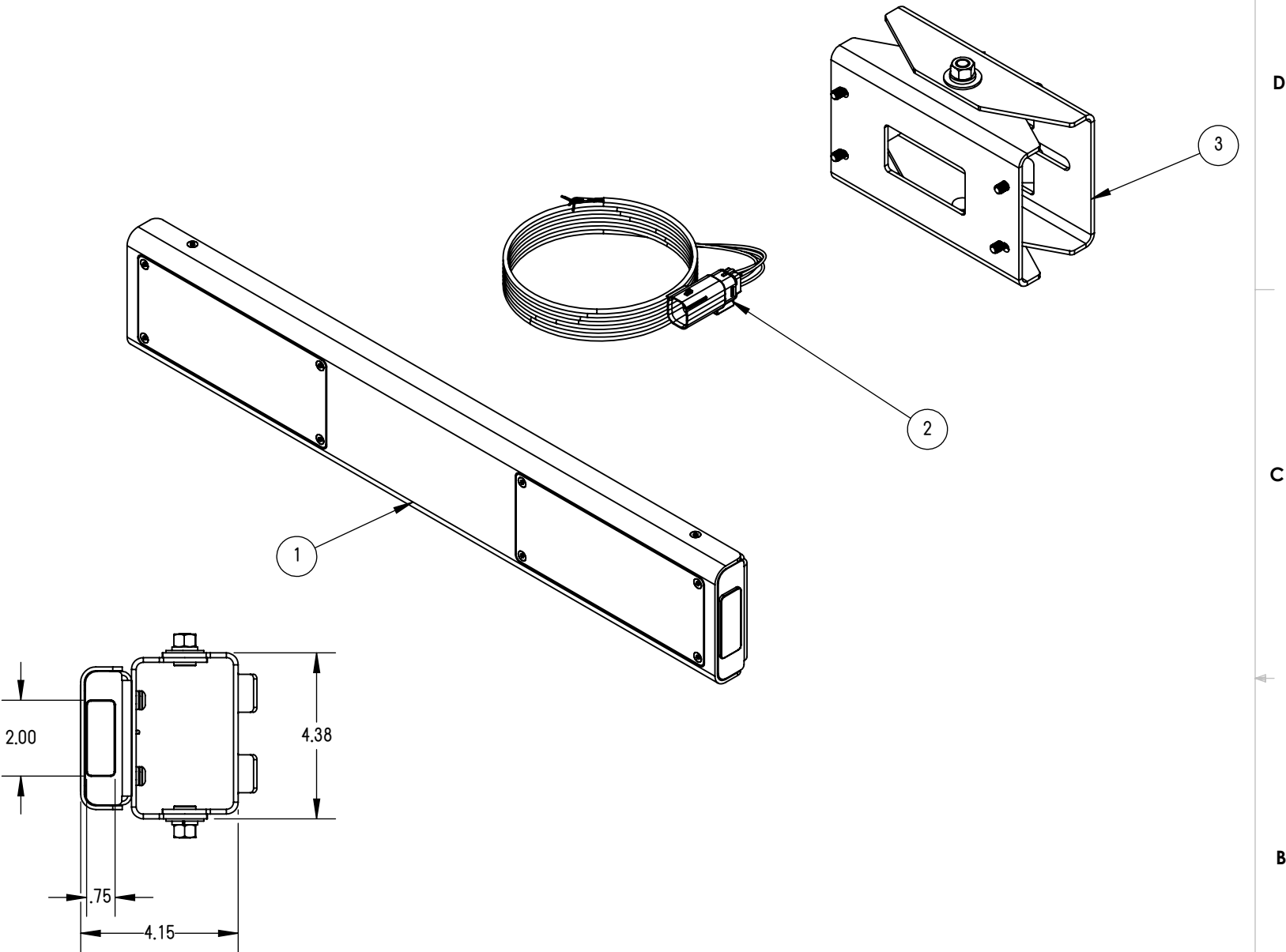


MATERIAL		INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5-2009
FINISH		REFERENCE:

TOLERANCE UNLESS OTHERWISE SPECIFIED  HOLE Ø ±.003 DEC. INCH X ±0.030 XX ±0.015 XXX ±0.005  ANGULAR ±0.5°	TITLE:  RRFB, SOLAR 55/48, RADIO, SOP, DS,  AMBER, PH, H POLE X2						
	DESIGNED BY:	TAPCO		SIZE	DWG. NO.	REV	WEIGHT:
	DRAWN BY:	A. KAVANAUGH	5/7/2018	B	600147	A	
	CHECKED BY:						SCALE: 1:28
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TAPCO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TAPCO IS PROHIBITED.							SHEET 1 OF 1



REVISIONS				
REV.	DESCRIPTION	DATE	ECN #	AUTHOR/APPROVED
A	INITIAL RELEASE	5/3/2018	N/A	A.K./J.P.



3	138079	BRACKET MOUNTING KIT, RRFB, ARTICULATING	1	EA
2	136760	WIRE HARNESS, RRFB, 10' OF 4C W/MOLEX CONNECTOR	1	EA
1	136761	RRFB - AMBER LIGHT BAR, ADD 136760 - WIRE HARNESS, 138079 - MOUNTING KIT	1	EA
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	UNITS



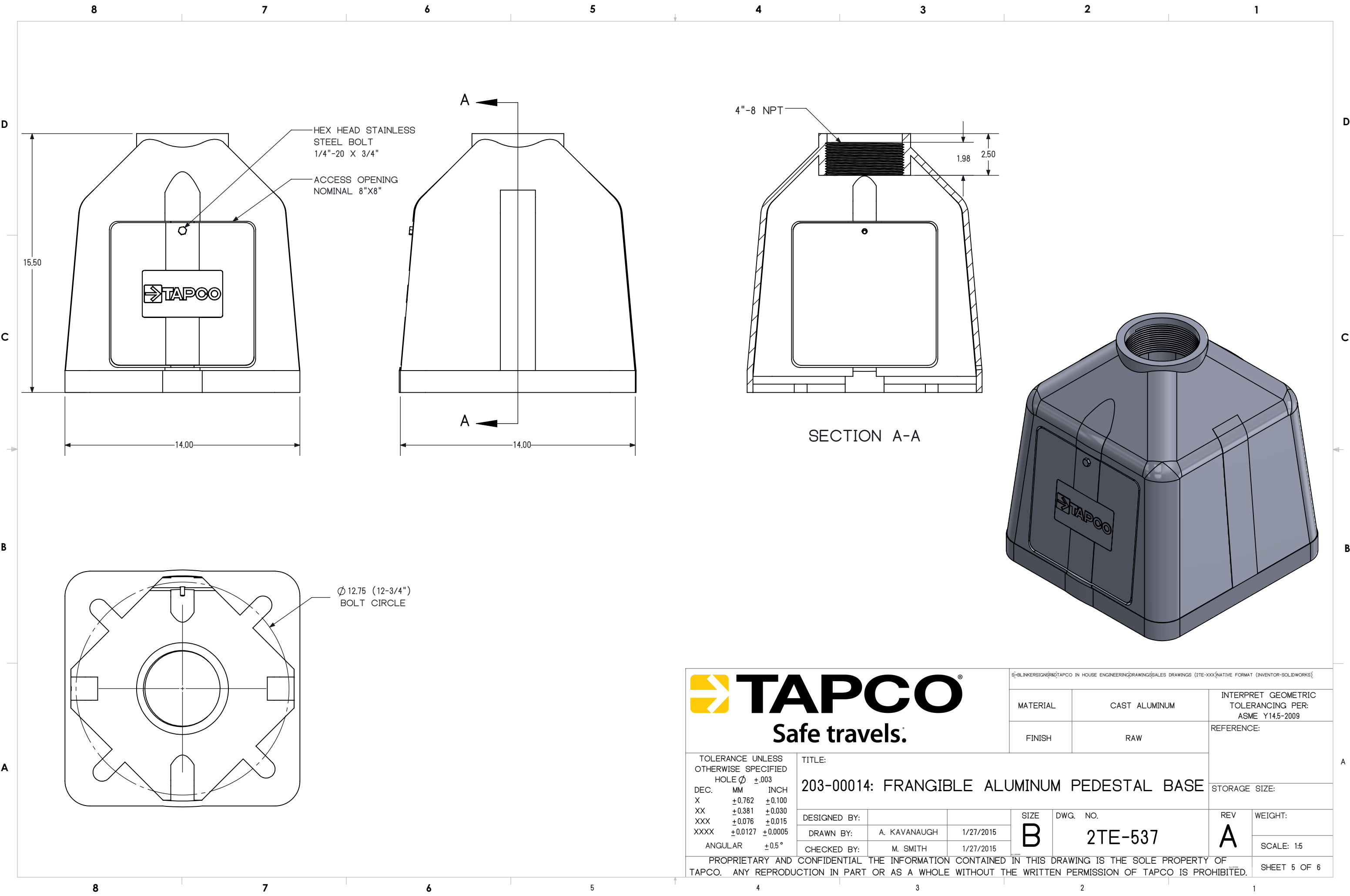
ENGINEERING SPECIFICATIONS 138089		
MATERIAL		INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5-2009
FINISH		REFERENCE:

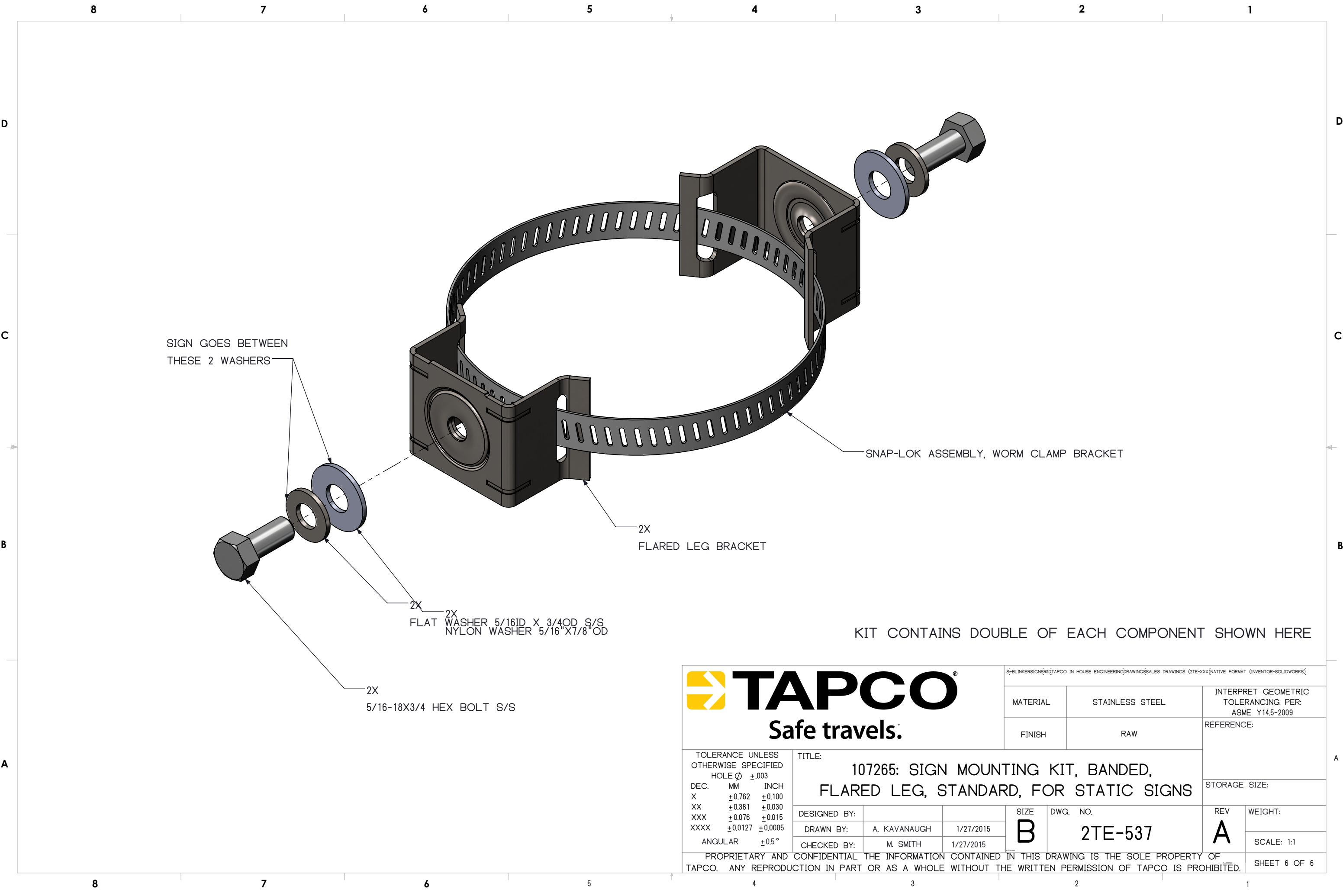
TOLERANCE UNLESS OTHERWISE SPECIFIED	
HOLE $\phi$	$\pm .003$
DEC.	INCH
X	$\pm .030$
XX	$\pm .015$
XXX	$\pm .005$
ANGULAR	$\pm 0.5^\circ$

TITLE:  
RRFB-XL2™ ASSEMBLY WITH UNIVERSAL MOUNTING KIT

DESIGNED BY:	TAPCO	SIZE	DWG. NO.	REV	WEIGHT:
DRAWN BY:	A. KAVANAUGH	5/2/2018	B	A	SCALE: 1:4
CHECKED BY:	J. PATTERSON	5/3/2018			

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SIGN GOES BETWEEN  
THESE 2 WASHERS

SNAP-LOK ASSEMBLY, WORM CLAMP BRACKET

2X  
FLARED LEG BRACKET

2X  
2X  
FLAT WASHER 5/16ID X 3/4OD S/S  
NYLON WASHER 5/16"X7/8"OD

2X  
5/16-18X3/4 HEX BOLT S/S

KIT CONTAINS DOUBLE OF EACH COMPONENT SHOWN HERE



**TAPCO**  
Safe travels.

TOLERANCE UNLESS OTHERWISE SPECIFIED		
HOLE $\phi$ $\pm.003$		
DEC.	MM	INCH
X	$\pm.762$	$\pm.100$
XX	$\pm.381$	$\pm.030$
XXX	$\pm.076$	$\pm.015$
XXXX	$\pm.0127$	$\pm.0005$
ANGULAR		$\pm.05^{\circ}$

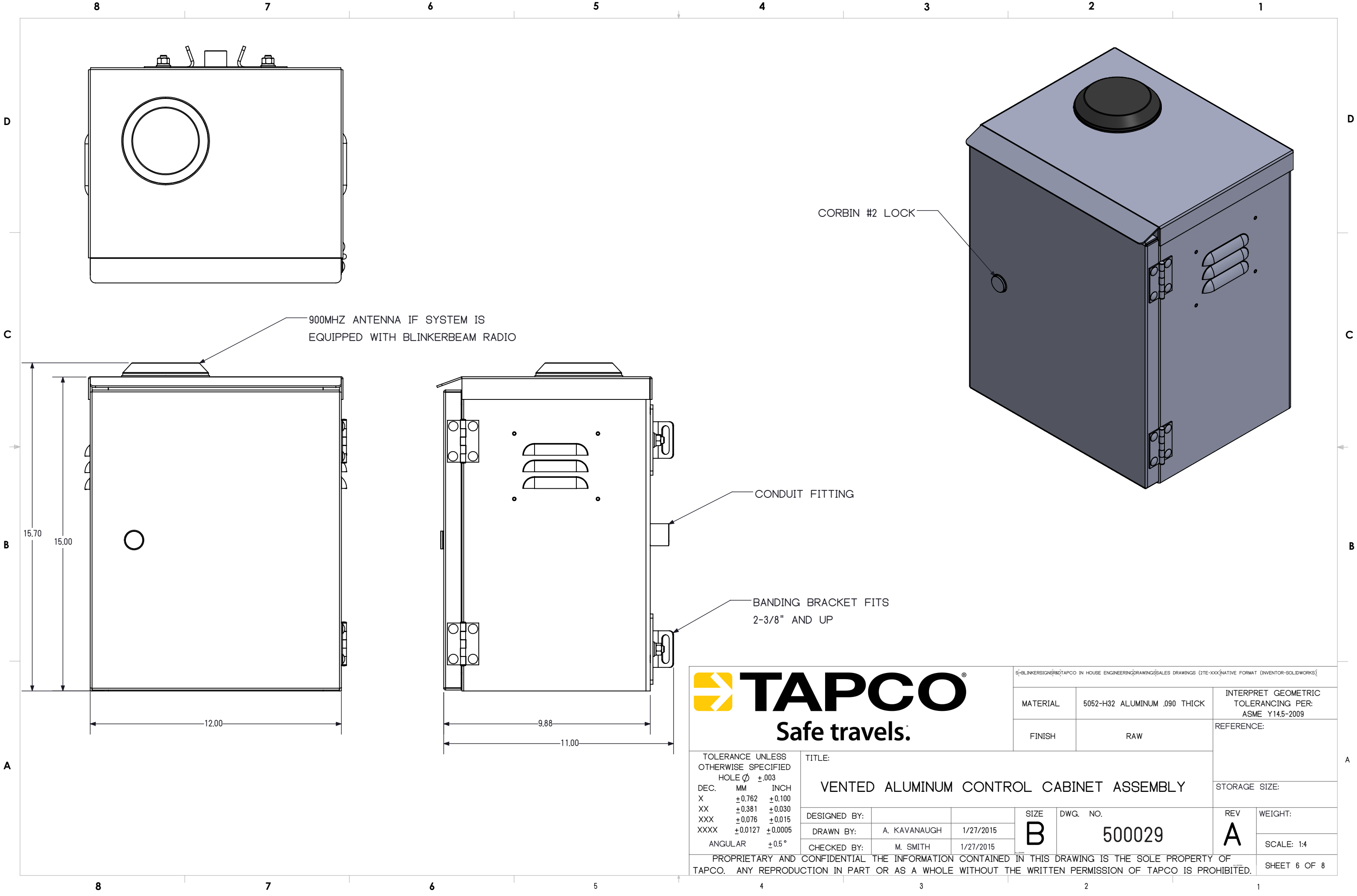
TITLE:  
107265: SIGN MOUNTING KIT, BANDED,  
FLARED LEG, STANDARD, FOR STATIC SIGNS

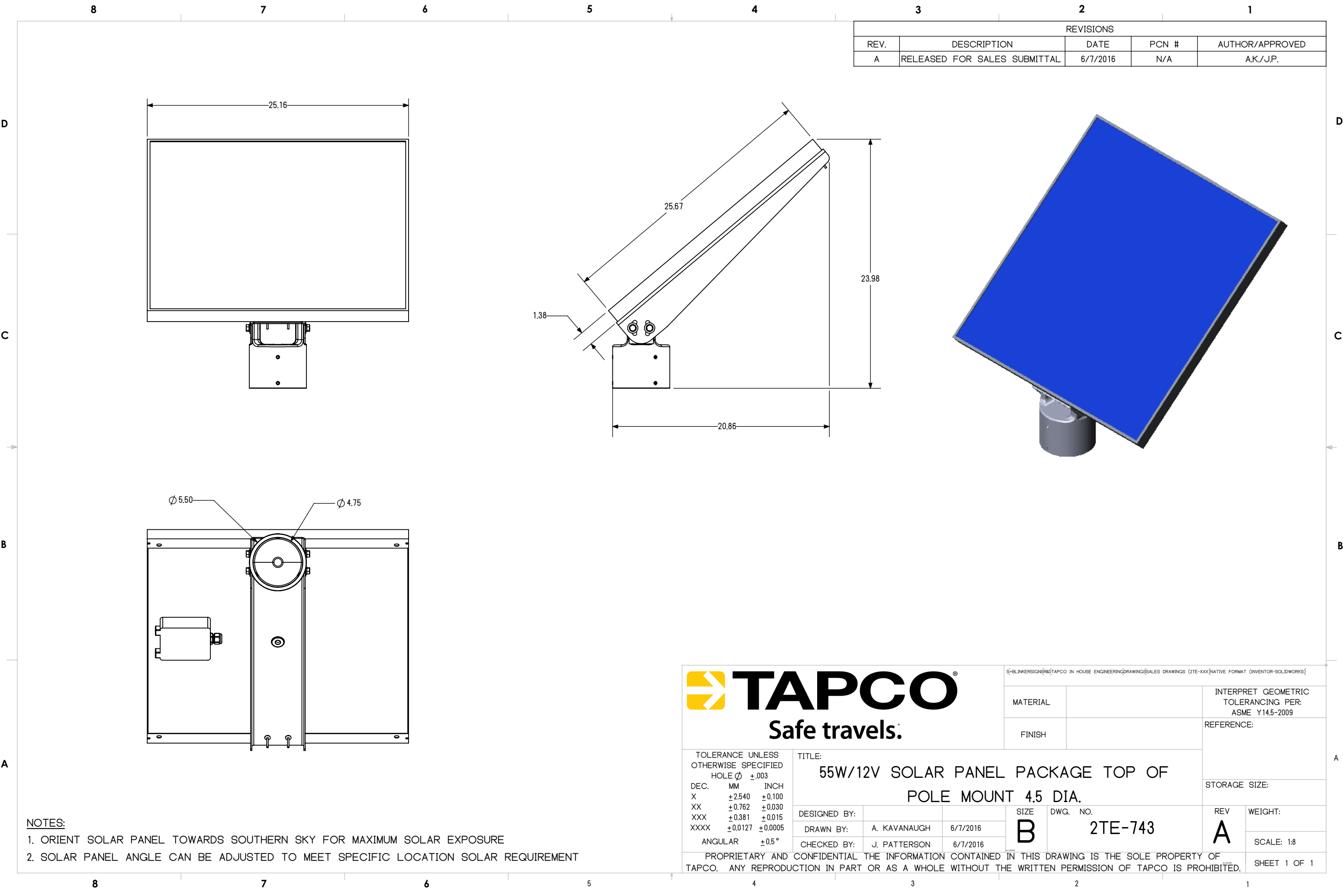
DESIGNED BY:		
DRAWN BY:	A. KAVANAUGH	1/27/2015
CHECKED BY:	M. SMITH	1/27/2015

SIZE	DWG. NO.
B	2TE-537

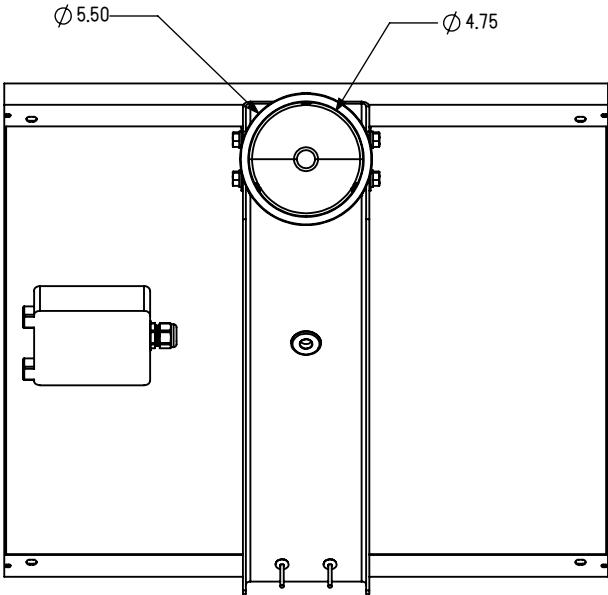
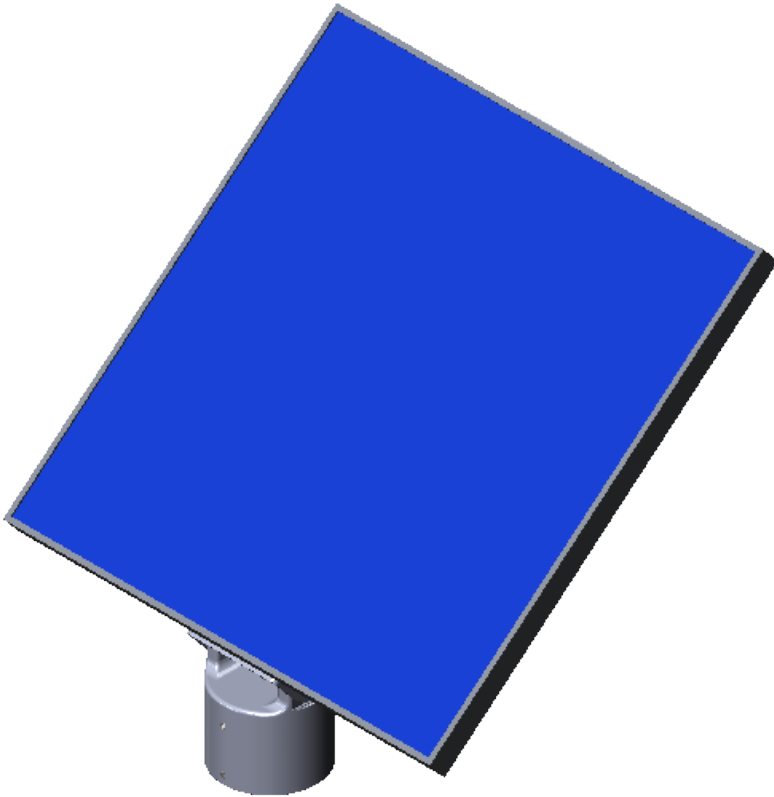
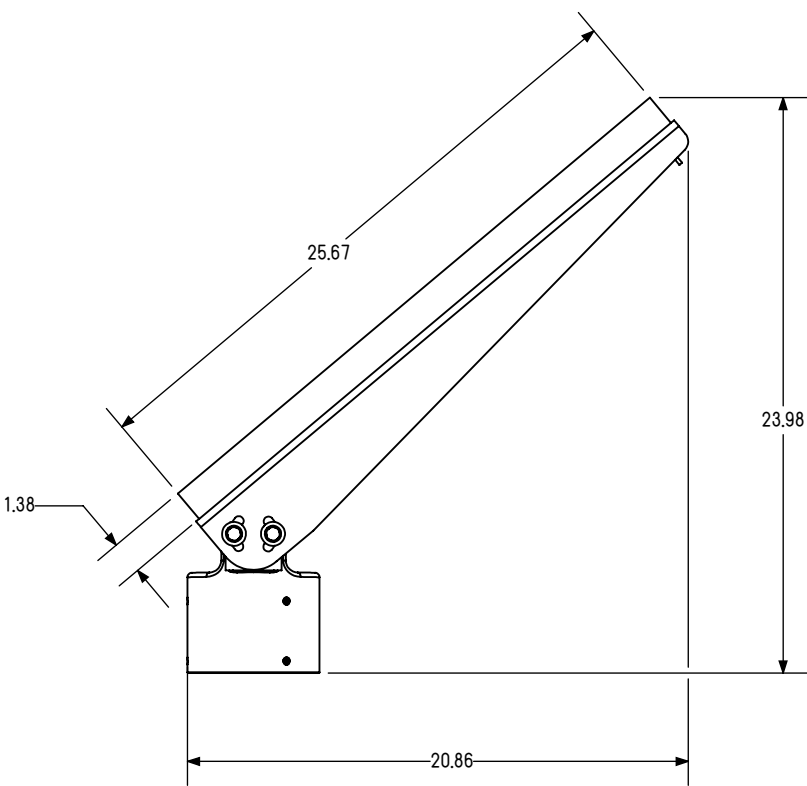
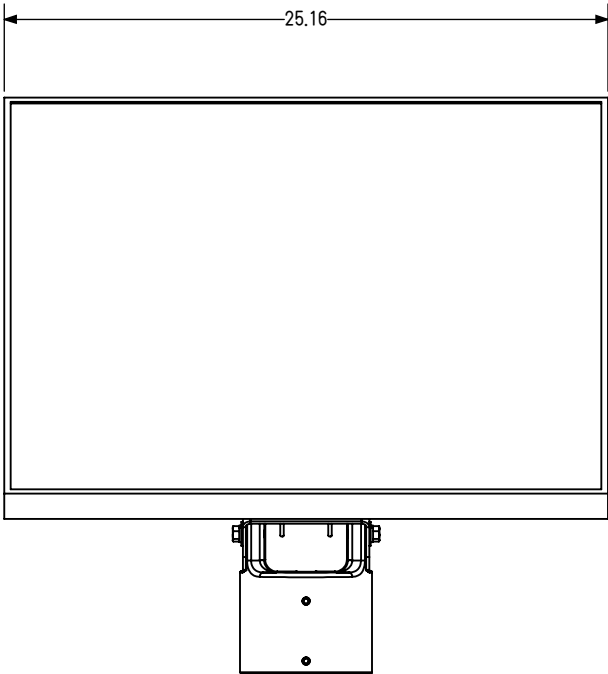
REV	WEIGHT:
A	SCALE: 1:1

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REVISIONS				
REV.	DESCRIPTION	DATE	PCN #	AUTHOR/APPROVED
A	RELEASED FOR SALES SUBMITTAL	6/7/2016	N/A	A.K./J.P.



NOTES:

- ORIENT SOLAR PANEL TOWARDS SOUTHERN SKY FOR MAXIMUM SOLAR EXPOSURE
- SOLAR PANEL ANGLE CAN BE ADJUSTED TO MEET SPECIFIC LOCATION SOLAR REQUIREMENT



TOLERANCE UNLESS OTHERWISE SPECIFIED		
HOLE $\phi$ $\pm$ .003		
DEC.	MM	INCH
X	$\pm$ 2.540	$\pm$ 0.100
XX	$\pm$ 0.762	$\pm$ 0.030
XXX	$\pm$ 0.381	$\pm$ 0.015
XXXX	$\pm$ 0.0127	$\pm$ 0.0005
ANGULAR		$\pm$ 0.5°

TITLE:  
55W/12V SOLAR PANEL PACKAGE TOP OF  
POLE MOUNT 4.5 DIA.

DESIGNED BY:		
DRAWN BY:	A. KAVANAUGH	6/7/2016
CHECKED BY:	J. PATTERSON	6/7/2016

SIZE DWG. NO.  
B 2TE-743

REV WEIGHT:  
A SCALE: 1:8

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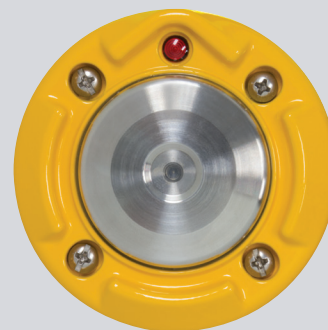
SHEET 1 OF 1



# BULLDOG PUSH BUTTON WITH LED

## SPECIFICATIONS

<b>POWER INPUT</b>	12 to 36VDC (from control circuit)
<b>PUSH BUTTON</b>	Vandal resistant, ADA compliant
<b>ACTIVATION CONFIRMATION</b>	Red LED and beep confirmation activated when push button is pressed
<b>INSTRUCTIONAL SIGN</b>	9" x 12"; retroreflective sheeting with tamper-resistant mounting screws. Sold separately (PN: 100202)
<b>OPERATING FORCE</b>	3 pounds maximum
<b>PEAK CURRENT DRAW</b>	~350mA
<b>BUTTON ENCLOSURE</b>	Aluminum, powder coated
<b>BUTTON MATERIAL</b>	316 stainless steel
<b>INSTALLATION</b>	2 holes on 2.0" centers, tapped ¼-20 plus ½" or larger hole for wire access
<b>PUSH BUTTON OUTPUT</b>	Driven low to ground when the push button is pressed
<b>OPERATING TEMPERATURE RANGE</b>	-30°F to 165°F (-34°C to 74°C)
<b>DIMENSIONS</b>	3.4" W x 0.9"H x 0.9"D



**BULLDOG PUSH BUTTON**



**R10-25 SIGN**  
PN: 100202

# BLINKERBEAM® WIRELESS RADIO

## SPECIFICATIONS

<b>POWER INPUT</b>	5VDC
<b>INPUT</b>	1 digital input, micro USB
<b>OUTPUTS</b>	2 digital output lines, host serial lines for OTA serial
<b>PROGRAMMABILITY</b>	Locally using USB port or front-mounted joystick
<b>LCD DISPLAY</b>	4 lines at 21 characters per line
<b>OPERATION POWER MODES</b>	3 levels available, 0.25, 0.5 or 1 watt
<b>CONNECTIVITY</b>	Activates warning LEDs concurrently
<b>FREQUENCY</b>	License free 900 MHz Frequency Hopping Spread Spectrum with 10 different RF patterns to prevent interference between collocated radio systems
<b>RANGE</b>	900 feet or longer with optional antenna
<b>SERIAL DATA RATE</b>	19,200Baud
<b>STATUS LEDS</b>	Red, green, yellow, amber
<b>FCC ID</b>	2ANWN-02ANWN
<b>AVAILABLE ANTENNAS</b>	6dBi Omni - Fiberglass 3dBi Omni Whip - RPSMA 3dBi Omni Low Profile 10.64dBi Yagi
<b>OPERATING TEMPERATURE</b>	-40°F to 176°F (-40°C to 80°C); less than 90% RH
<b>DIMENSIONS</b>	3.2"W x 3.7"H x 2.5"D



# IWS CONTROLLER

## SPECIFICATIONS

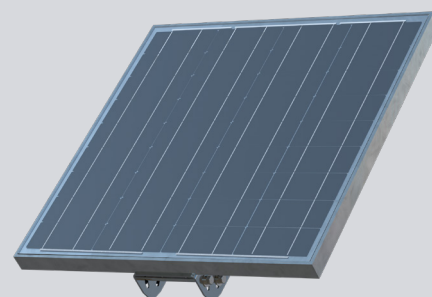
<b>POWER</b>	6V and 12VDC with power indicator light
<b>INPUTS</b>	2 digital inputs
<b>OUTPUTS</b>	2x two-channel (able to drive two warnings per output)
<b>PROGRAMMABILITY</b>	Locally using serial input (RS232) or remotely using BlinkLink® via cell modem
<b>PROGRAM ACTIVATION OPTIONS</b>	24/7, Dusk 'til Dawn, BlinkLink® Scheduling, Time Clock, Custom Input
<b>LED-WARNING CONTROL COMPATIBILITY</b>	BlinkerSign®, BlinkerBeacon™, RRFB-XL2™
<b>DIMMABILITY</b>	Auto-adjustable via solar panel (6V systems) Auto-adjustable via photocell sensor (12V systems)
<b>INTERNAL SYSTEM CLOCK</b>	Integrated with on-board battery backup
<b>SELF-DIAGNOSTIC CAPABILITY</b>	Internal temperature monitor
<b>DAYLIGHT SAVING TIME</b>	User programmable
<b>OPERATING TEMPERATURE RANGE</b>	-40°F to 176°F (-40°C to 80°C)
<b>ENCLOSURE</b>	IP67 rated
<b>ENCLOSURE DIMENSIONS</b>	3.2"W x 3.7"H x 2.5"D



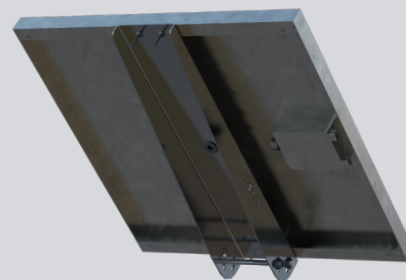
# SOLAR PANEL 55W

## SPECIFICATIONS

<b>POWER</b>	55W minimum
<b>NOMINAL VOLTAGE</b>	12V
<b>OPEN CIRCUIT VOLTAGE</b>	22.1V
<b>SHORT CIRCUIT CURRENT</b>	3.31A
<b>MAXIMUM POWER VOLTAGE</b>	18.18V
<b>MAXIMUM POWER CURRENT</b>	3.1A
<b>GLASS</b>	Tempered
<b>FRAME</b>	Anodized aluminum
<b>JUNCTION BOX</b>	IP65, UL94-5VA material
<b>WEIGHT</b>	14 pounds
<b>MOUNTING HARDWARE</b>	Various options available
<b>OPERATING TEMPERATURE RANGE</b>	-40°F to 194°F (-40°C to 90°C)
<b>DIMENSIONS</b>	25"W x 26"H x 1.5"D



**FRONT**



**BACK**

# BATTERY 48Ah

## Gelled Electrolyte

### SPECIFICATIONS

<b>VOLTAGE</b>	12V
<b>CAPACITY AT C/100</b>	48Ah
<b>VENT</b>	Self sealing
<b>TERMINAL</b>	C
<b>CONSTRUCTION</b>	Valve regulated and spill proof. Approved for transport by air - DOT, IATA and ICAB certified.
<b>WEIGHT</b>	32 pounds
<b>DIMENSIONS</b>	7.76"L x 6.62"W x 6.87"H
<b>OPERATING TEMPERATURE RANGE</b>	-40°F to 176°F (-40°C to 80°C)



# TAPCO RRFB-XL2™ CAPACITY RATINGS

## RATED EQUIPMENT

### TAPCO RRFB CONTROLLER ASSEMBLY:

Solid State Flash Controller	Back-to-Back RRFB-XL2™ Light Bars
Solar Charge Regulator	BullDog Push Button
900MHz BlinkerBeam® Wireless Radio	55W 12V Solar Panel
	48Ah 12V VRLA Battery

## MAXIMUM DAILY ACTIVATIONS PER REGION

Northern Climates - Up to 1,000 Activations Per Day

Central Climates - Up to 1,700 Activations Per Day

Southern Climates - Up to 3,400 Activations Per Day

GENERAL LOCATION	DAILY ACTIVATIONS (20 SECONDS EACH)	RATED AUTONOMY (DAYS)	GENERAL LOCATION	DAILY ACTIVATIONS (20 SECONDS EACH)	RATED AUTONOMY (DAYS)
NORTHERN LATITUDES	100	38	SOUTHERN LATITUDES	1800	7
	200	31		1900	7
	300	25		2000	6
	400	22		2100	6
	500	19		2200	6
	600	17		2300	5
	700	15		2400	5
	800	14		2500	5
	900	13		2600	5
	1000	12		2700	5
CENTRAL LATITUDES	1100	11		2800	5
	1200	10		2900	4
	1300	9		3000	4
	1400	9		3100	4
	1500	8		3200	4
	1600	8		3300	4
	1700	7		3400	4