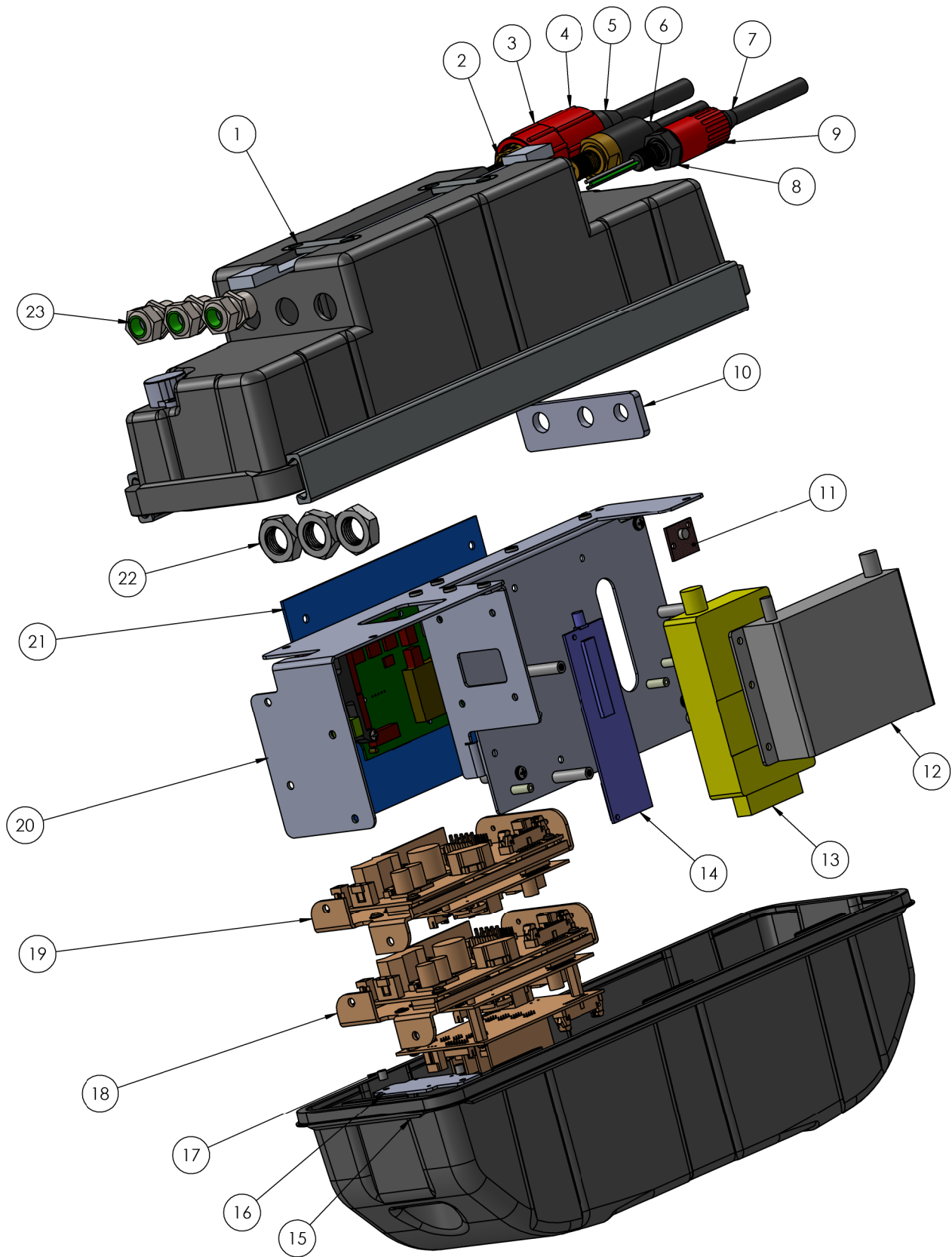


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	01/11/17	MRC



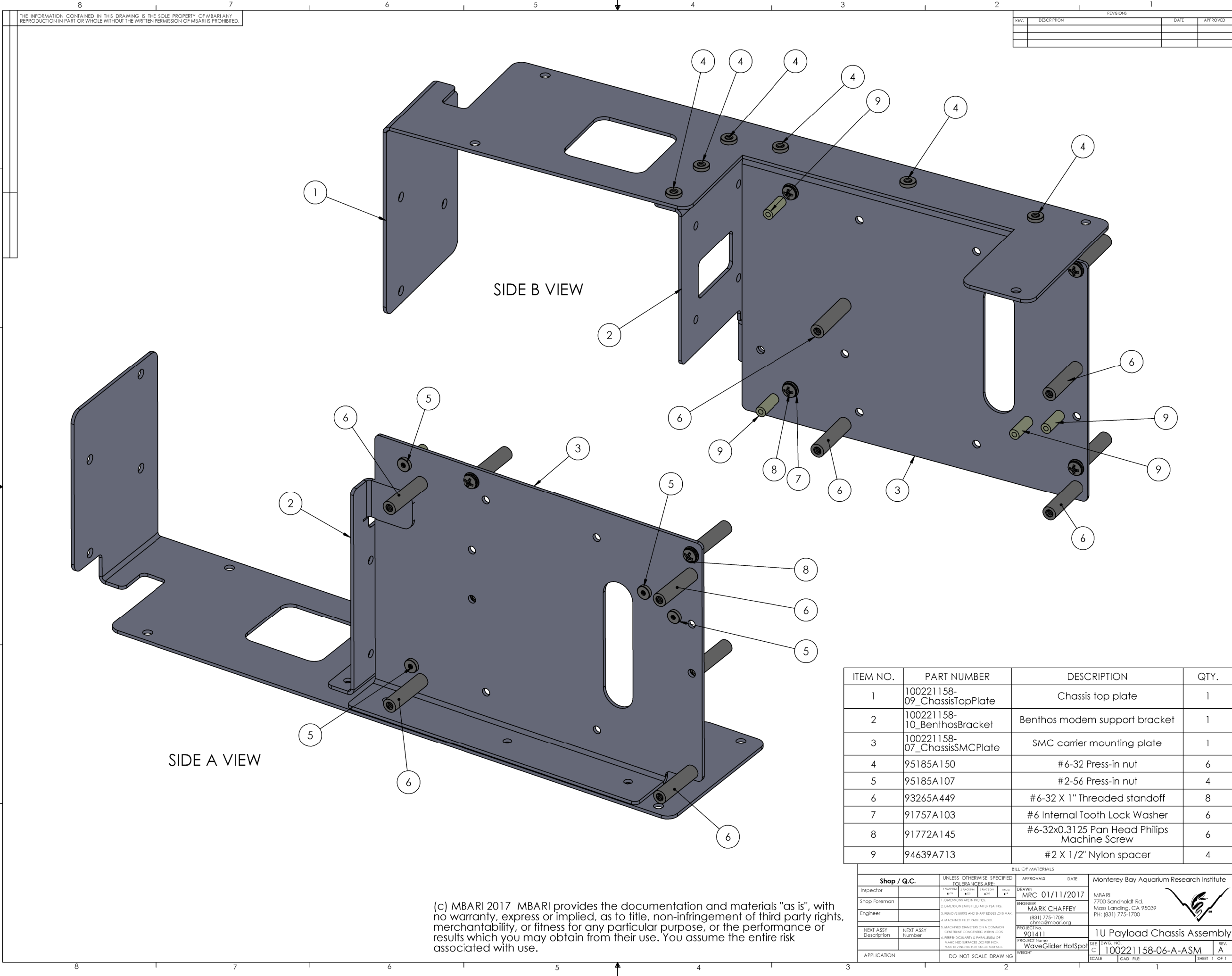
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	100221158-11_SV3_1_MPU_BOX_Modified	Liquid Robotics 1 MPU payload box (modified)	1
2	SubconnMCBH-12-FS	Subconn connector	1
3	SubconnDLSA-M	Subconn locking sleeve	1
4	SubconnDLSA-F	Subconn locking sleeve	1
5	SubconnMCIL-12-MP	Subconn connector	1
6	SubconnPNAST_1-2	Subconn connector	1
7	SubconnMCIL-3-MP	Subconn connector	1
8	SubconnMCBH-3-FS	Subconn connector	1
9	SubconnMCDLS-F	Subconn locking sleeve	1
10	100221158-08_BackingPlate	Backing plate for connectors	1
11	SEN-12909_PressureSensor	Stand alone pressure sensor	1
12	CellModem_MTCMR-EV3	MultiTech MTCMR-EV3 CDMA modem	1
13	Iridium-A3LA-R	Iridium A3LA-R satellite modem	1
14	PicoStation_M2_802.11Modem	Ubiquiti Networks PicoStation M2HP Wifi access point	1
15	BenthosDAT_MTI-30_AHRS	AHRS that comes with DAT modem	1
16	100221158-26_AHRSMountPlate	Substitute mounting plate for DAT AHRS	1
17	92510A690	#4 X 0.187" Aluminum spacer	2
18	BenthosDATModem	Benthos DAT modem with short chassis	1
19	BenthosLFModem	Benthos LF modem with short chassis	1
20	100221158-06-ASM_HotSpot_1U_ChassisAssembly	HotSpot 1U chassis assembly	1
21	SMCand3MPUCarrier_Updated	Liquid Robotics SMC on 3MPU SMC carrier card	1
22	91938A135	M16-1.5 thin hex nut	3
23	GlandFitting_Agro_1100.17.98	Cable gland fitting	3
24	91757A103	#6 Internal Tooth Lock Washer	4
25	91772A145	#6-32x0.3125 Pan Head Phillips Machine Screw	4

HOTSPOT 1U PAYLOAD ASSEMBLY

NOTES:
1.

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BILL OF MATERIALS			
Shop / Q.C.		APPROVALS	
Inspector		DATE	
Shop Foreman		DRAWN	
Engineer		ENGINEER	
NEXT ASSY Description	NEXT ASSY Number	PROJECT No.	
APPLICATION	DO NOT SCALE DRAWING	PROJECT Name	
		WEIGHT	
		SCALE	
		CAD FILE	
		SHEET	
		11 OF 18	



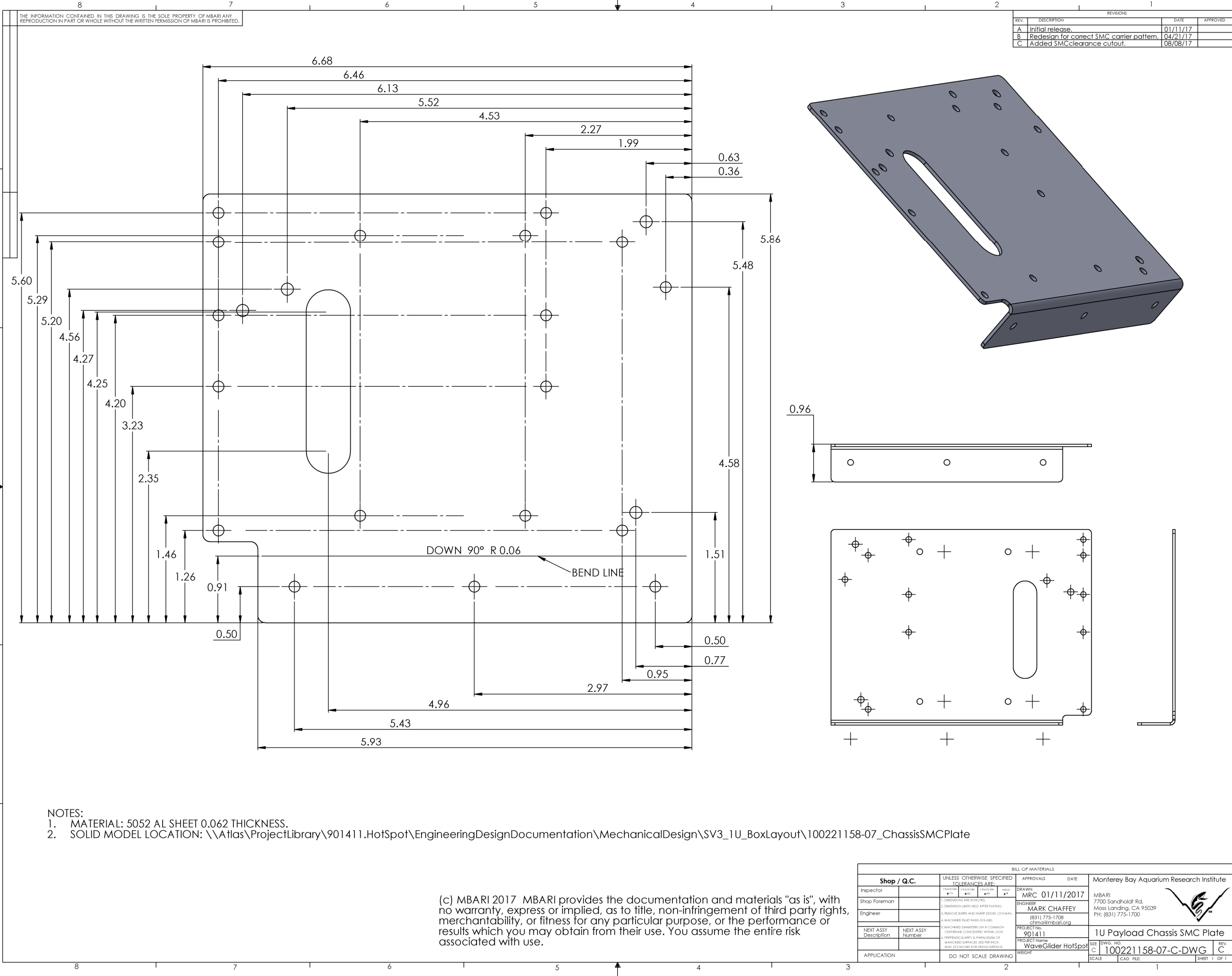
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REVISIONS		DATE	APPROVED
REV.	DESCRIPTION		

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	100221158-09_ChassisTopPlate	Chassis top plate	1
2	100221158-10_BenthosBracket	Benthos modem support bracket	1
3	100221158-07_ChassisSMCPlate	SMC carrier mounting plate	1
4	95185A150	#6-32 Press-in nut	6
5	95185A107	#2-56 Press-in nut	4
6	93265A449	#6-32 X 1" Threaded standoff	8
7	91757A103	#6 Internal Tooth Lock Washer	6
8	91772A145	#6-32x0.3125 Pan Head Philips Machine Screw	6
9	94639A713	#2 X 1/2" Nylon spacer	4

Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS		DATE		Monterey Bay Aquarium Research Institute	
Inspector		FRACTIONAL	DECIMAL	DRAWN	MRC	01/11/2017		MBARI	
Shop Foreman		1/16"	0.005"	ENGINEER	MARK CHAFFEY			7700 Sandholdt Rd.	
Engineer		1/32"	0.002"		(831) 775-1708			Moss Landing, CA 95039	
					chm@mbat.org			PH: (831) 775-1700	
NEXT ASSY Description	NEXT ASSY Number	5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCERNING WITH GD&S		PROJECT No.	901411	PROJECT Name		1U Payload Chassis Assembly	
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES (20 PER INCH, MAX) (2.5 INCHES FOR SINGLE SURFACE)		PROJECT Name	WaveGlider HotSpot	REV.		A	
APPLICATION		DO NOT SCALE DRAWING		WEIGHT		SCALE		1	

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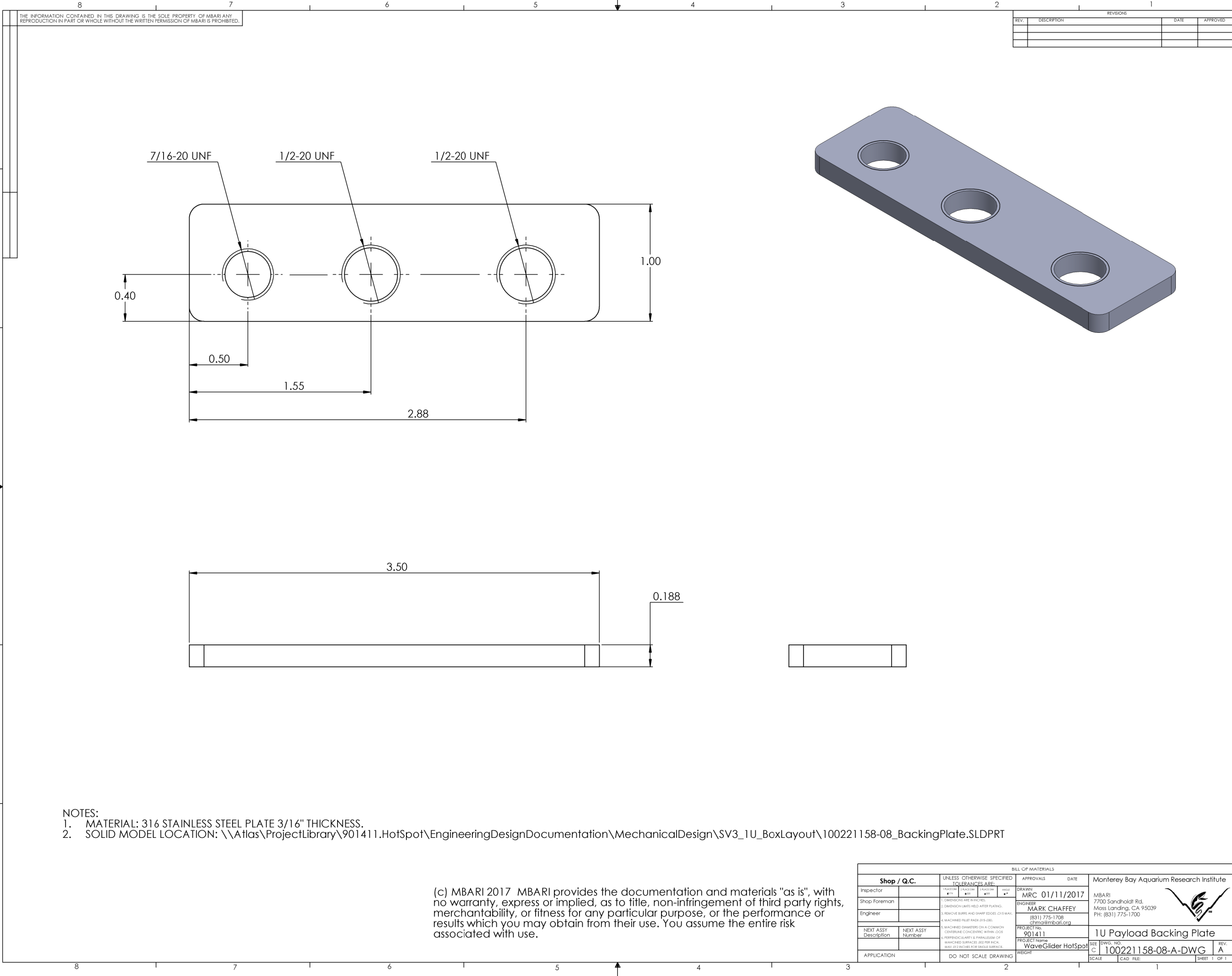


NOTES:
1. MATERIAL: 5052 AL SHEET 0.062 THICKNESS.
2. SOLID MODEL LOCATION: \\Atlas\ProjectLibrary\901411.HotSpot\EngineeringDesignDocumentation\MechanicalDesign\SV3_1U_BoxLayout\100221158-07_ChassisSMCPate

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	Initial release.	01/11/17	
B	Redesign for correct SMC carrier pattern.	04/21/17	
C	Added SMC clearance cutout.	08/08/17	

Shop / Q.C.				UNLESS OTHERWISE SPECIFIED				APPROVALS				DATE		Monterey Bay Aquarium Research Institute			
Inspector				1. FINISH	2. TOLERANCE	3. FINISH	4. TOLERANCE	DRAWN	MRC	01/11/2017							
Shop Foreman				5. DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED	6. DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED	7. DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED	8. DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED	ENGINEER	MARK CHAFFEY	(831) 775-1708	chm@mba.org						
Engineer				9. DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED	10. DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED	11. DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED	12. DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED										
NEXT ASSY Description		NEXT ASSY Number		PROJECT No.		PROJECT Name		WEIGHT		SCALE		DWG. NO.		REV.		SHEET 1 OF 1	
APPLICATION		DO NOT SCALE DRAWING		901411		WaveGlider HotSpot						C		1		100221158-07-C-DWG	



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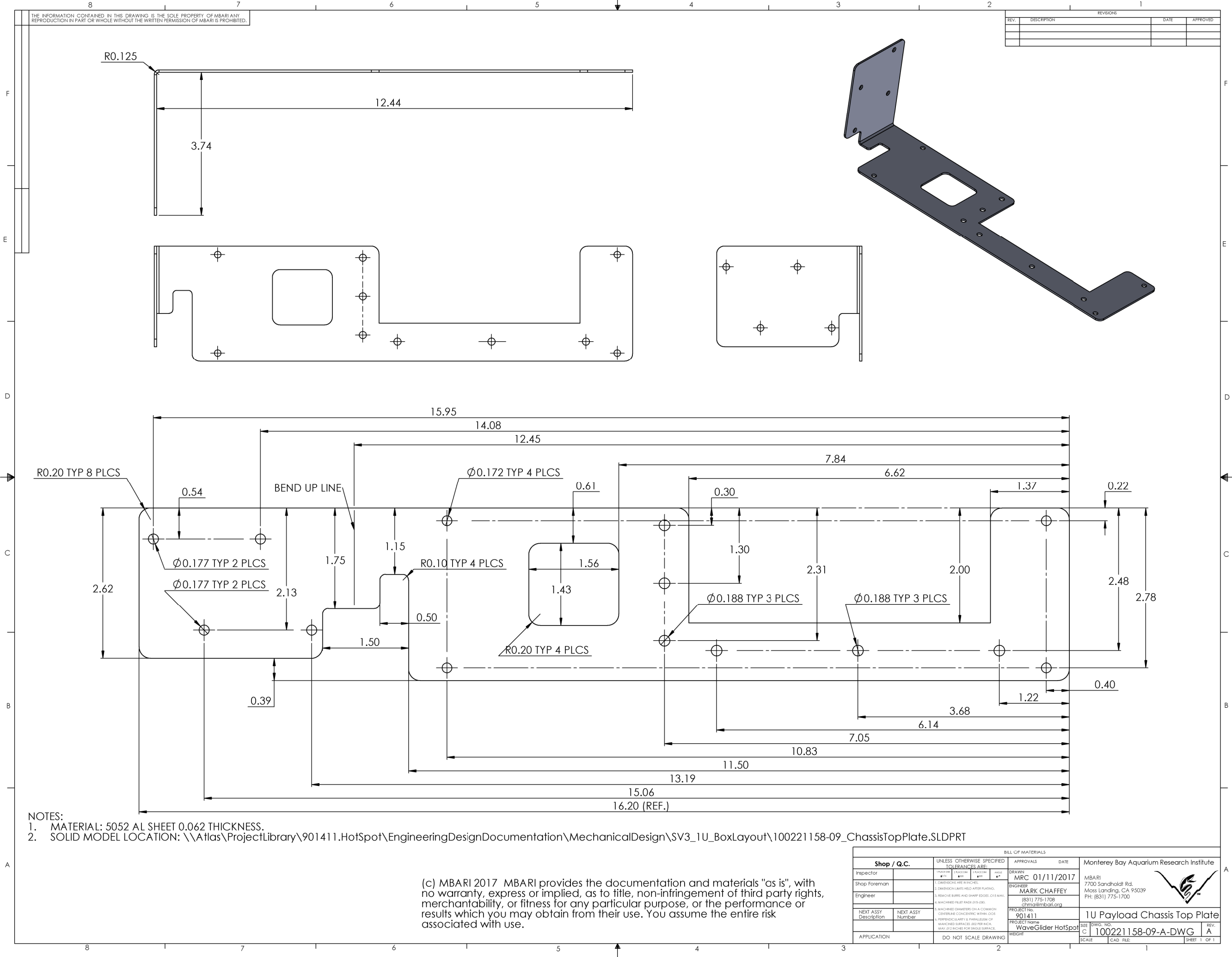
F
E
D
C
B
A

NOTES:

1. MATERIAL: 316 STAINLESS STEEL PLATE 3/16" THICKNESS.
2. SOLID MODEL LOCATION: \\Atlas\ProjectLibrary\901411.HotSpot\EngineeringDesignDocumentation\MechanicalDesign\SV3_1U_BoxLayout\100221158-08_BackingPlate.SLDPRT

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Shop / Q.C.				UNLESS OTHERWISE SPECIFIED				APPROVALS		DATE		Monterey Bay Aquarium Research Institute		
Inspector				1. DECIMALS	2. FRACTIONS	3. ANGLES	4. ROUNDS	DRAWN					MBARI 7700 Sandholdt Rd. Marina del Rey, CA 90339 PH: (831) 775-1700	
Shop Foreman				1. DECIMALS	2. FRACTIONS	3. ANGLES	4. ROUNDS	MRC	01/11/2017					
Engineer				1. DECIMALS	2. FRACTIONS	3. ANGLES	4. ROUNDS	ENGINEER						
				1. DECIMALS	2. FRACTIONS	3. ANGLES	4. ROUNDS	MARK CHAFFEY						
								(831) 775-1708 chmair@mbari.org				1U Payload Backing Plate		
								PROJECT No. 901411						
								PROJECT Name WaveGlider HotSpot				DWG. NO.		
								WEIGHT				C 100221158-08-A-DWG		
												REV.		
												A		
												SHEET 1 OF 1		



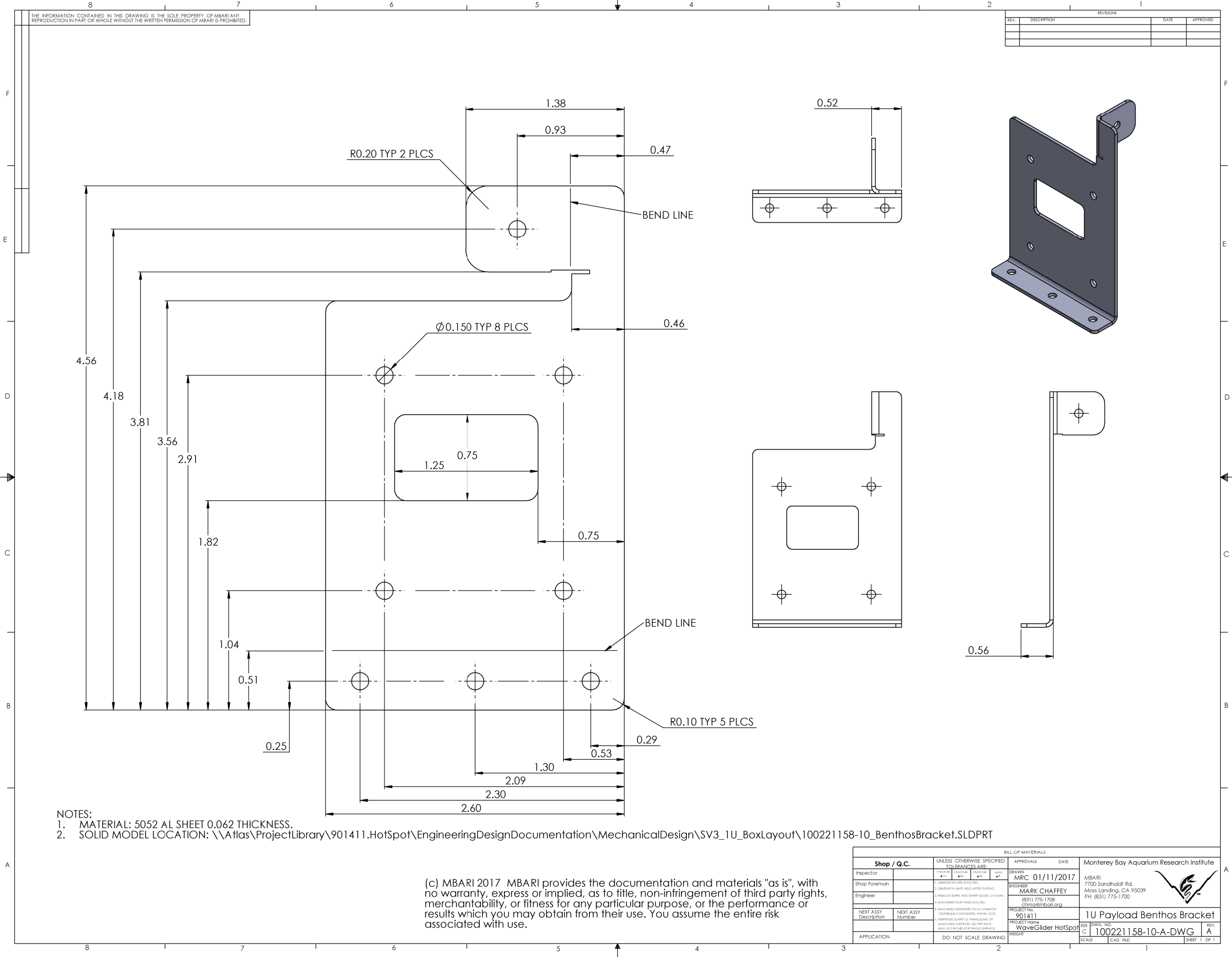
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

- NOTES:
- MATERIAL: 5052 AL SHEET 0.062 THICKNESS.
 - SOLID MODEL LOCATION: \\Atlas\ProjectLibrary\901411.HotSpot\EngineeringDesignDocumentation\MechanicalDesign\SV3_1U_BoxLayout\100221158-09_ChassisTopPlate.SLDPRT

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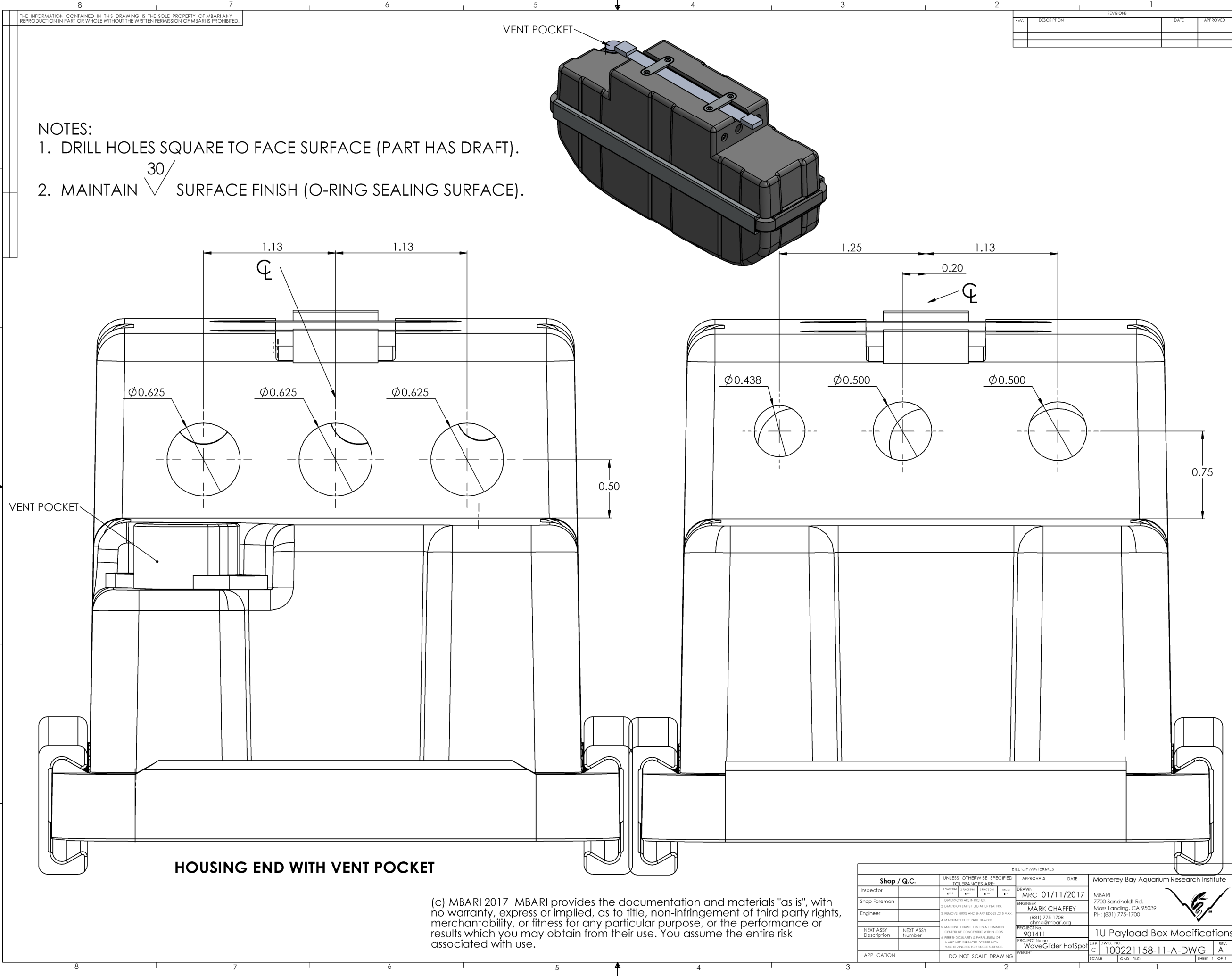
BILL OF MATERIALS											
Shop / Q.C.			UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE	Monterey Bay Aquarium Research Institute	
Inspector			FRACTION	DECIMAL	ANGLE	WELD	DRAWN	MRC	01/11/2017	MBARI	
Shop Foreman							ENGINEER	MARK CHAFFEY		7700 Sandholdt Rd.	
Engineer								(831) 775-1708		Moss Landing, CA 95039	
								chm@mbari.org		PH: (831) 775-1700	
NEXT ASSY Description	NEXT ASSY Number		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCERNING WITH GD&C				PROJECT No.		901411	1U Payload Chassis Top Plate	
			6. DIMENSION LIMITS HELD AFTER PLATING.				PROJECT Name		WaveGlider HotSpot	DWG. NO.	
			7. REMOVE BURRS AND SHARP EDGES (0.15 MAX.)							C 100221158-09-A-DWG	
			8. MACHINED FILLER RADI (0.15-0.20).							REV.	
			9. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCERNING WITH GD&C							A	
			10. REFERENCED SURFACES PARALLELISM OF MACHINED SURFACES (0.001 PER INCH, MAX.) (0.001 INCHES FOR SINGLE SURFACE.								
APPLICATION			DO NOT SCALE DRAWING				WEIGHT			SCALE	CAD FILE:
											SHEET 1 OF 4



NOTES:
1. MATERIAL: 5052 AL SHEET 0.062 THICKNESS.
2. SOLID MODEL LOCATION: \\Atlas\ProjectLibrary\901411.HotSpot\EngineeringDesignDocumentation\MechanicalDesign\SV3_1U_BoxLayout\100221158-10_BenthosBracket.SLDPRT

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Shop / Q.C.				UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE	Monterey Bay Aquarium Research Institute						
Inspector				1. DECIMALS	2. FRACTIONS	3. ANGLES	4. RADIUS	5. DIA	6. HOLE	DRAWN	MRC 01/11/2017	MBARI 7700 Sandholdt Rd. Moss Landing, CA 95039 PH: (831) 775-1700					
Shop Foreman				±0.1	±0.005	±0.01	±0.005	±0.005	±0.005	ENGINEER							
Engineer				DO NOT SCALE DRAWING										MARK CHAFFEY (831) 775-1708 chm@mbat.org			
NEXT ASSY Description		NEXT ASSY Number		1. DIMENSIONS ARE IN INCHES 2. DIMENSIONS IN PARETHS HELD AFTER PLATING 3. REMOVE BURRS AND SHARP EDGES (0.015 MAX) 4. MACHINED FILLER RADI (0.015 MAX) 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCERNING WITH (0.015) 6. REFERRED SURFACES (0.015 PER RICH) MAX 0.12 INCHES FOR BRASS SURFACE							PROJECT No. 901411	PROJECT Name WaveGlider HotSpot	SIZE 100221158-10-A-DWG	REV. A			
APPLICATION											WEIGHT		SCALE	CAD FILE	SHEET	1 OF 1	

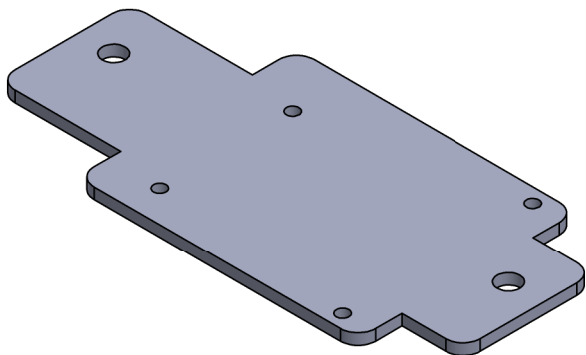


- NOTES:
1. DRILL HOLES SQUARE TO FACE SURFACE (PART HAS DRAFT).
 2. MAINTAIN $\sqrt{30}$ SURFACE FINISH (O-RING SEALING SURFACE).

Shop / Q.C.				UNLESS OTHERWISE SPECIFIED				TOLERANCES ARE				APPROVALS				DATE				Monterey Bay Aquarium Research Institute			
Inspector				1. FRACTIONAL	2. DECIMAL	3. ANGLES	4. ROUNDS	5. HOLE	6. HOLE	7. HOLE	8. HOLE	DRAWN				MRC	01/11/2017			MBARI			
Shop Foreman				1. DIMENSIONS ARE IN INCHES								ENGINEER				MARK CHAFFEY				7700 Sandholdt Rd.			
Engineer				2. DIMENSIONS UNITS HELD AFTER PLATING												(831) 775-1708				Moss Landing, CA 95039			
				3. REMOVE BURRS AND SHARP EDGES (0.05 MAX.)												chm@mbat.org				PH: (831) 775-1700			
				4. MACHINED FILLER RADI (0.05 MAX.)																			
NEXT ASSY Description				5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCERNING WITH OCS								PROJECT NO.				901411							
NEXT ASSY Number				6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES (0.005 PER INCH, MAX.) (0.010 INCHES FOR SINGLE SURFACE)								PROJECT Name				WaveGlider HotSpot							
APPLICATION				DO NOT SCALE DRAWING								WEIGHT											

SCALE	CAD FILE	SHEET 1 OF 1
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BILL OF MATERIALS									
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:			APPROVALS DATE		Monterey Bay Aquarium Research Institute		
Inspector		THICKNESS ± .015"	FACE FIN. ± .010"	FACE FIN. ± .010"	WELD ± .010"	DRAWN MRC 04/19/2017	MBARI 7700 Sandholzt Rd. Moss Landing, CA 95039 Ph: (831) 775-1700		
Shop Foreman		1. UNDESIGNATED ARE FINISHED.				ENGINEER MARK CHAFFEY (831) 775-1708 chm@mbari.org			
Engineer		2. DIMENSIONS IN PARENTHS ARE AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES (2X MAX). 4. MACHINED FLAT, RAKE .015-0.030.							
NEXT ASSY Description	NEXT ASSY Number	5. MACHINED DIMENSIONS ON CHAMFER CENTERLINE CONCERNING WITHIN .030. 6. PERPENDICULARITY IS PARALLEL TO MACHINED SURFACES (2X PER INCH, MAX) SEE SPEC FOR SINGLE SURFACE.				PROJECT NO. 90141	HotSpot 1U AHRs Mount Plate		
APPLICATION		DO NOT SCALE DRAWING				PROJECT Name WaveGlider HotSpot	SIZE C	DWG. NO. 100221158-26-DWG-A	REV. A
						WEIGHT	SCALE	CAD FILE:	SHEET 1 OF 4