DISCLAIMER:

I have build this shelf and have had couple of tonnes of items stored, evenly distributed, on it. The beam deflection with this load was within what I deemed to be an acceptable level. I believe it could hold even more although I have not tried it and probably never will.

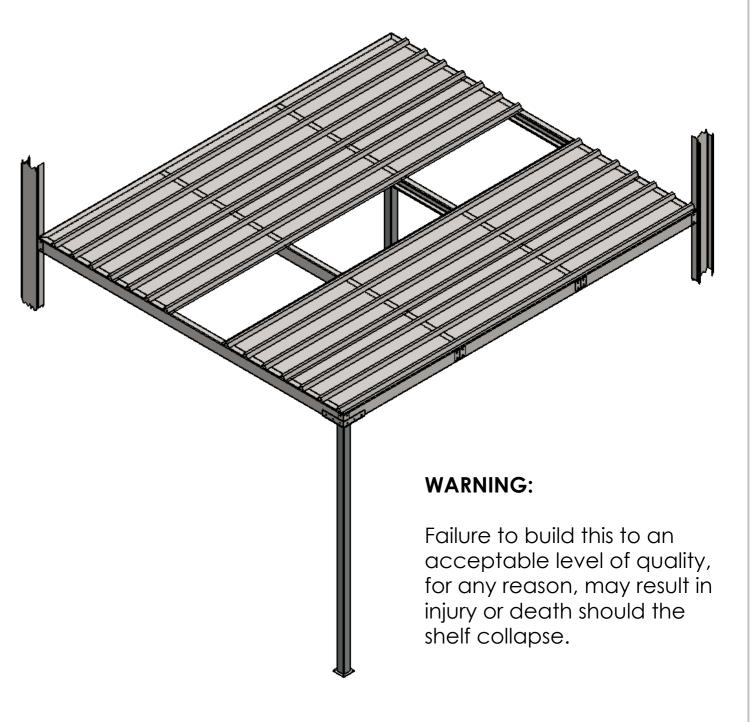
Be warned that I am not an engineer and there has been very little in the way of strength analysis done on this. It is all eyeball engineering.

I provide the plans as an example of something that has worked for me. They are provided for educational purposes only. I want to stress in the strongest possible terms that if you choose to build something from these plans then all consequences, both good and bad, are on you.

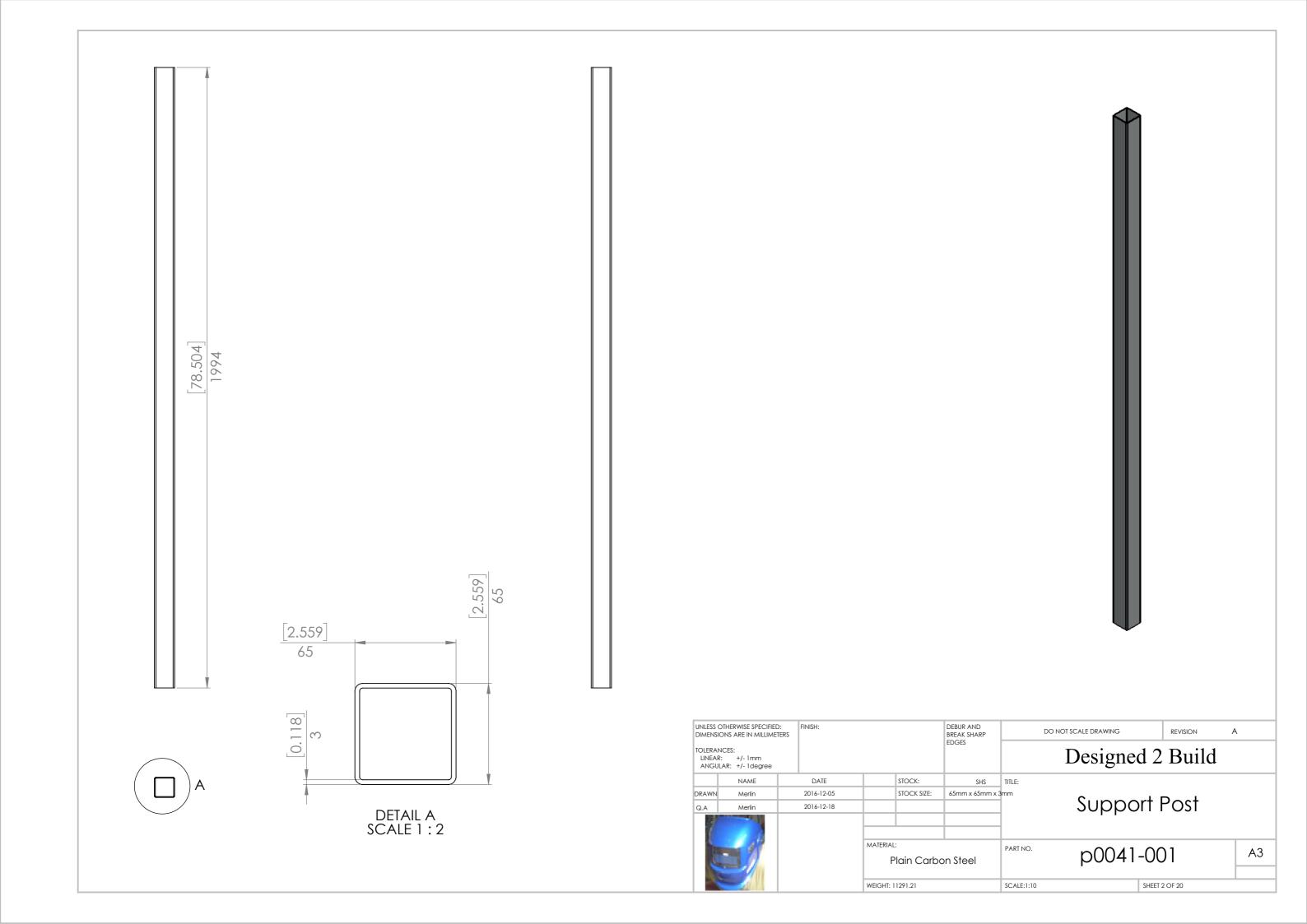
I have no control of the quality of construction nor the modifications you may make to the design. I take no responsibility for anything you choose to do with these plans.

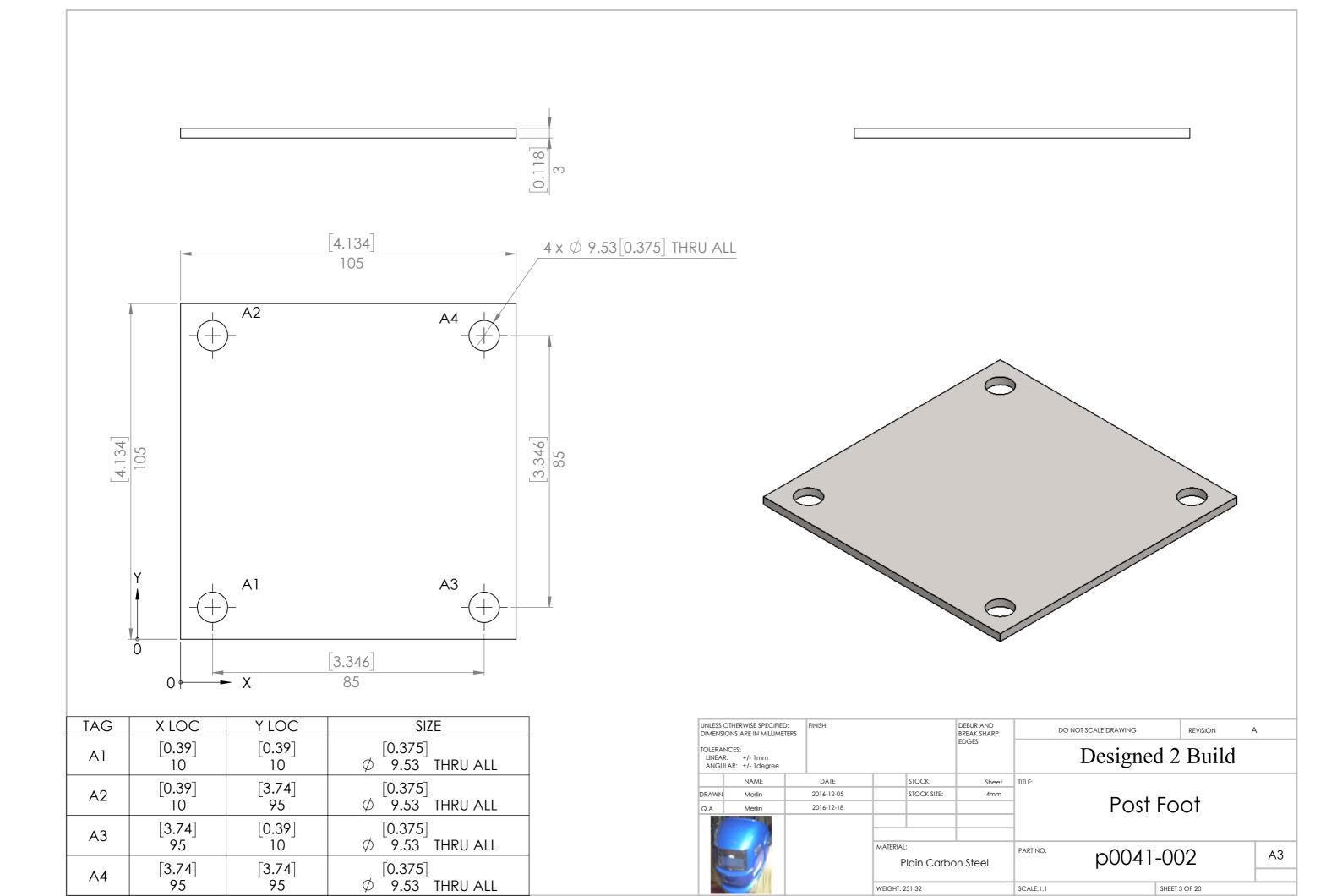
If you do not fully understand everything above or if you do not fully agree with it then DO NOT USE THESE PLANS.

QTY.	PART NUMBER	DESCRIPTION	MATERIAL	WEIGHT
2	p0041-001	Support Post	Plain Carbon Steel	11291.21
2	p0041-002	Post Foot	Plain Carbon Steel	251.32
2	p0041-003	Post Top L	Plain Carbon Steel	419.37
2	p0041-004	Post Top R	Plain Carbon Steel	419.37
2	p0041-005	Post Top Plug	Plain Carbon Steel	5.14
2	p0041-006	Purlin Short Mitre		9256.09
2	p0041-007	Purlin Long Mitre		10697.02
2	p0041-008	Purlin Cross Member		9027.52
4	p0041-009	Corner Bracket	Plain Carbon Steel	193.66
8	p0041-010	Angle Bracket	Plain Carbon Steel	156.02
8	p0041-011	Bracket Extension	Plain Carbon Steel	157.13
2	p0041-012	Shelf Sheet	Plain Carbon Steel	16834.68

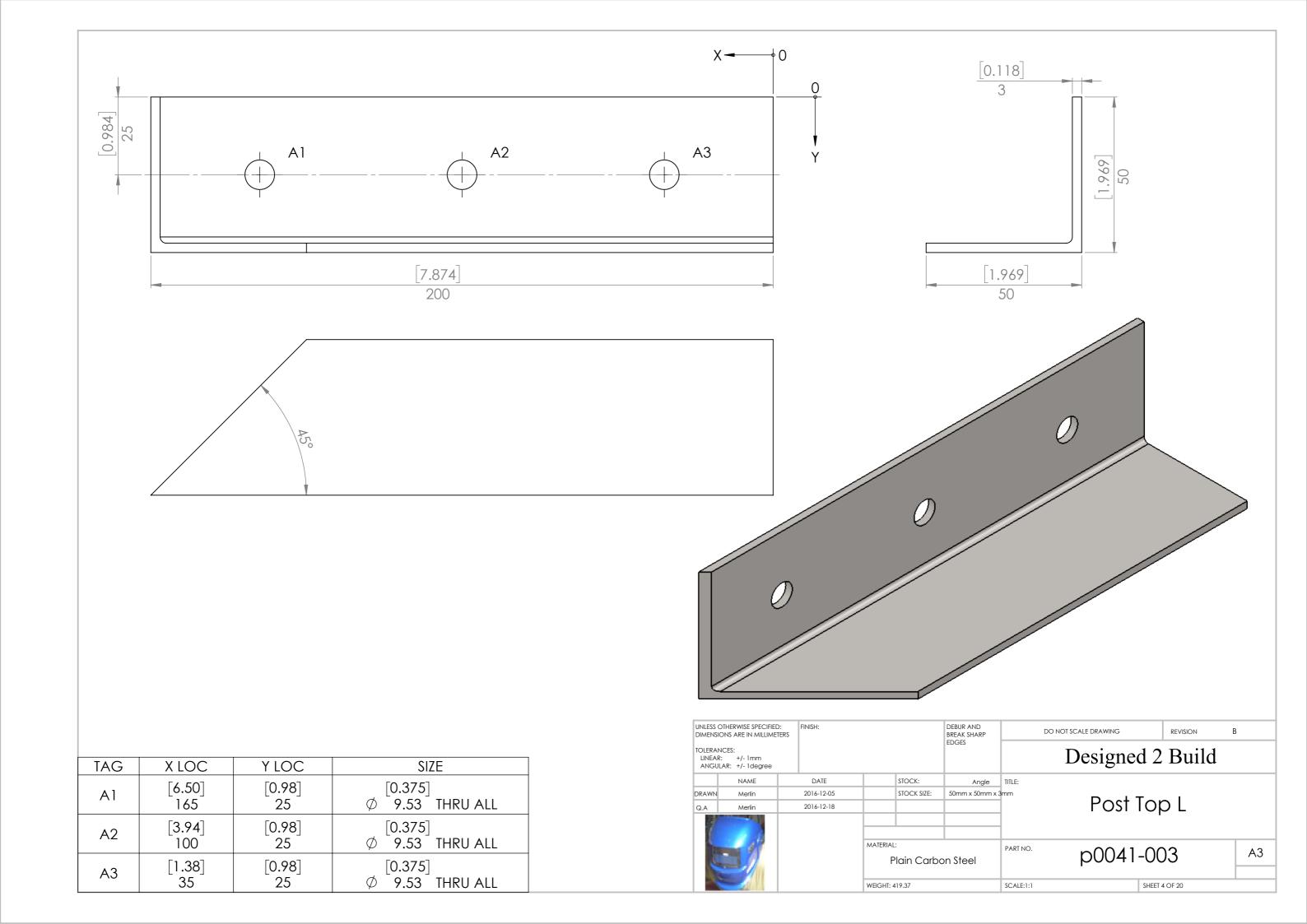


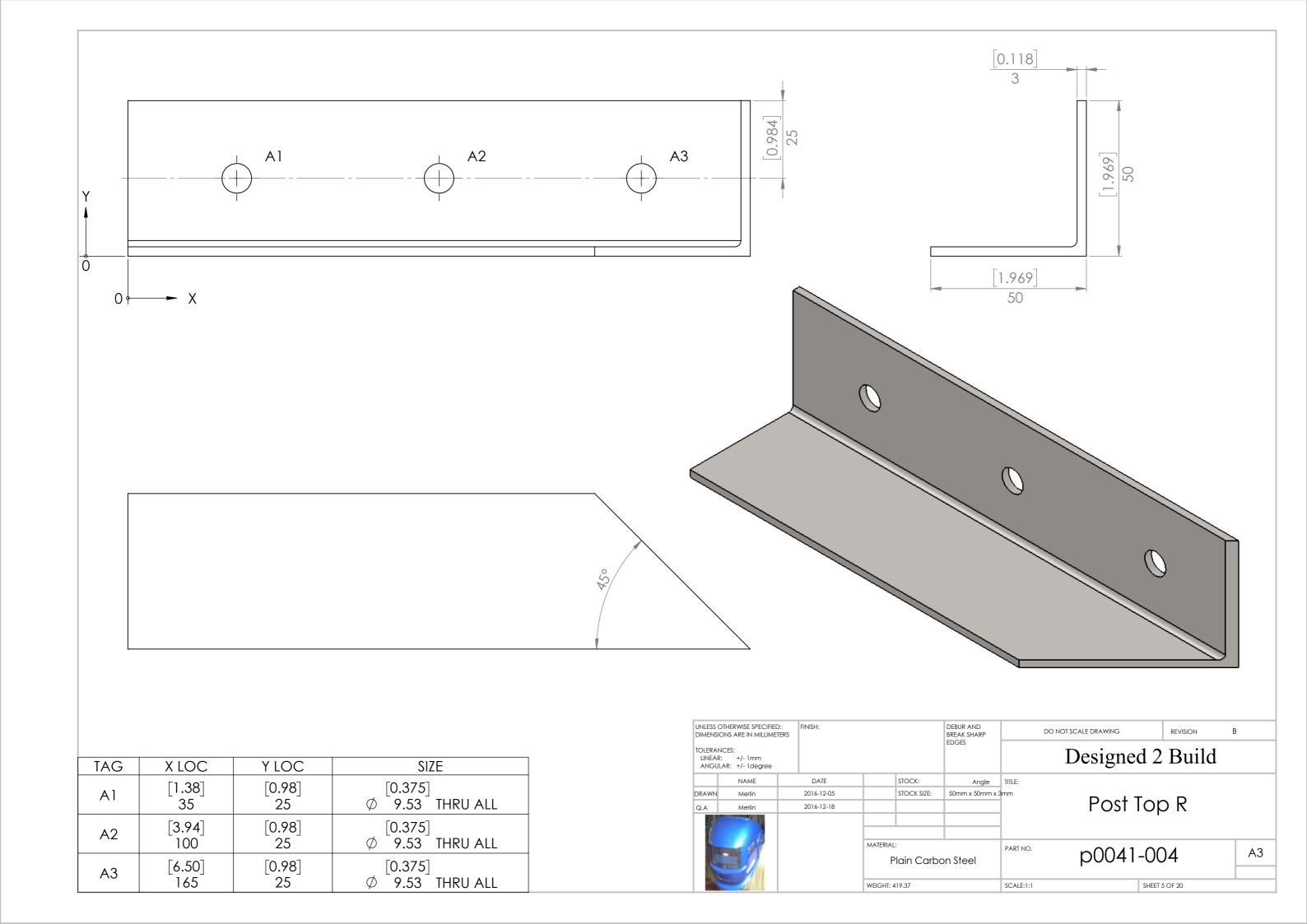
	THERWISE SPECIFIED: DNS ARE IN MILLIMETE			DEBUR AND BREAK SHARP	DO NOT S	SCALE DRAWING	REVISION	В
TOLERAN LINEAR: ANGUL		As	specified	EDGES	Designed 2 Build			
	NAME	DATE	STOCK:		TITLE:			
DRAWN	Merlin	2016-12-05	STOCK SIZE:				כו ונ	
Q.A	Merlin	2016-12-18			\sim	1ezzanii	ne Shelf	
1								
Ì	-11		MATERIAL:	nbly	PART NO.	p004	41	A3
						-		
			WEIGHT: 161591.36		SCALE:1:25		SHEET 1 OF 20	

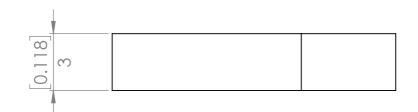


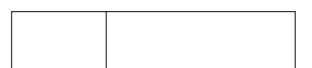


SCALE:1:1

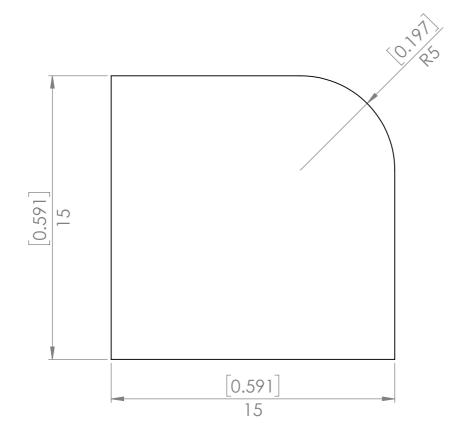


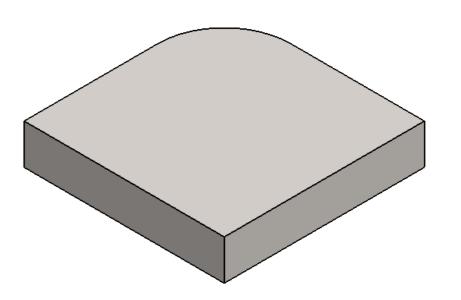




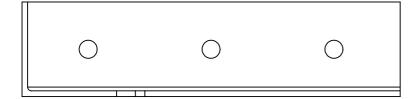


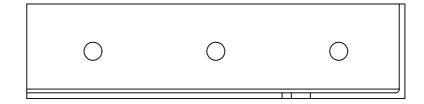
TIP:
This is simply to cover the corner of the RHS post.
Without it there is an opening into the interior of the post and past experience tells me that wasps will use that to make their nest. Covering it up is simple self preservation.

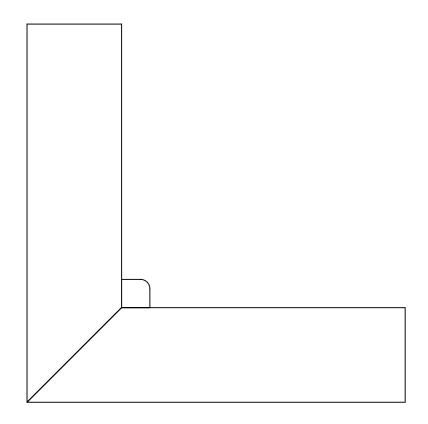


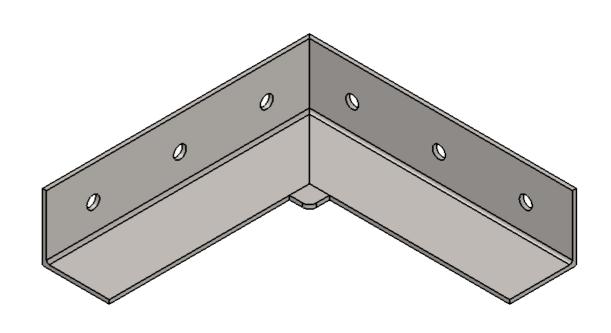


	OTHERWISE SPECIFIED				DEBUR AND BREAK SHARP	Do	O NOT SCALE DRAWING	REVISION	A
TOLERAN LINEAR ANGUL					EDGES		Designed	d 2 Build	
	NAME	DATE		STOCK:	Sheet	TITLE:			
DRAWN	Merlin	2016-12-05		STOCK SIZE:	3mm		D I T -	- DI -	
Q.A	Merlin	2016-12-18					Post To	p Plug	
1								. 0	
	- 11		MATERIA	ı: Plain Carb	on Steel	PART NO.	p0041-	-005	A3
							•		
3			WEIGHT:	5.14		SCALE:5:1		SHEET 6 OF 20	



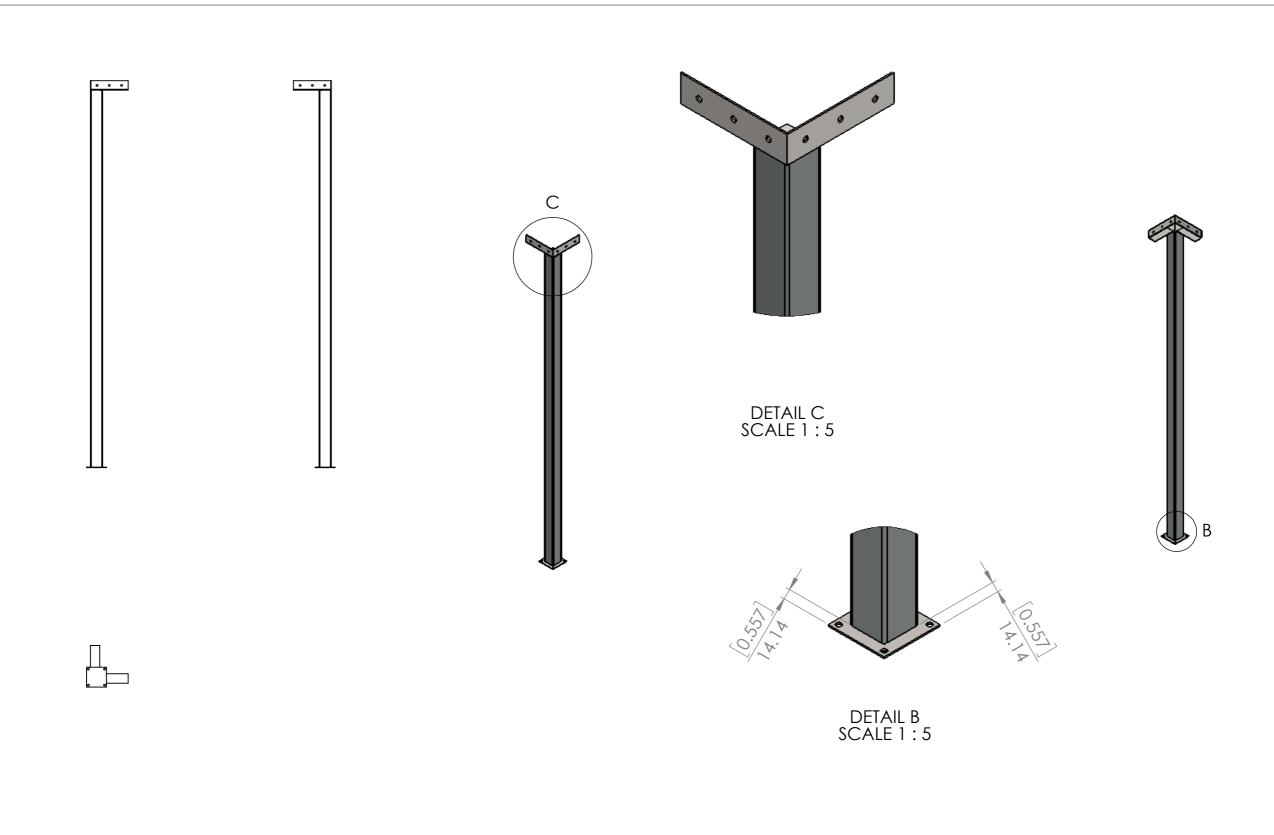






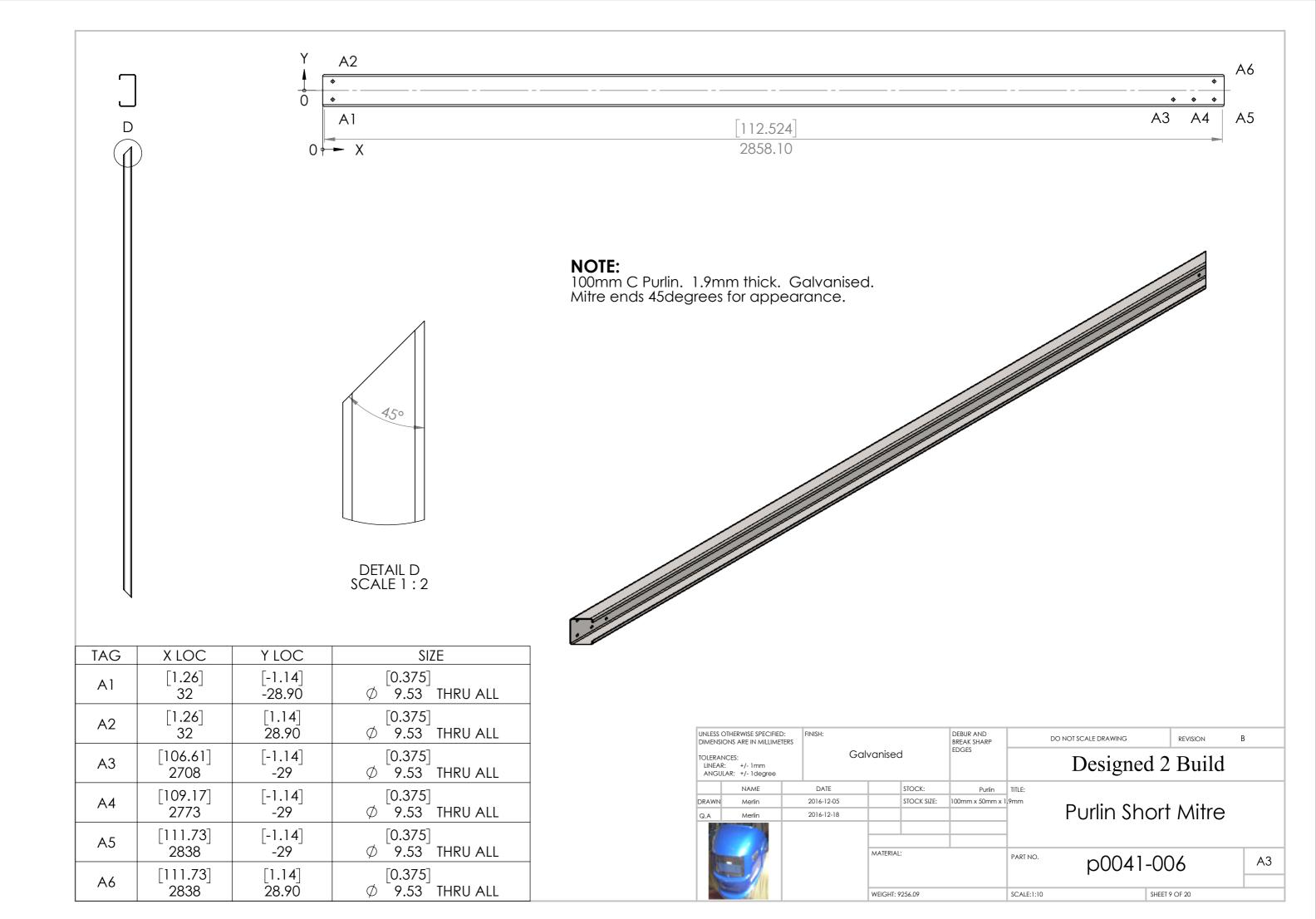
QTY.	PART NUMBER	DESCRIPTION	MATERIAL	WEIGHT
1	p0041-003	Post Top L	Plain Carbon Steel	419.37
1	p0041-004	Post Top R	Plain Carbon Steel	419.37
1	p0041-005	Post Top Plug	Plain Carbon Steel	5.14

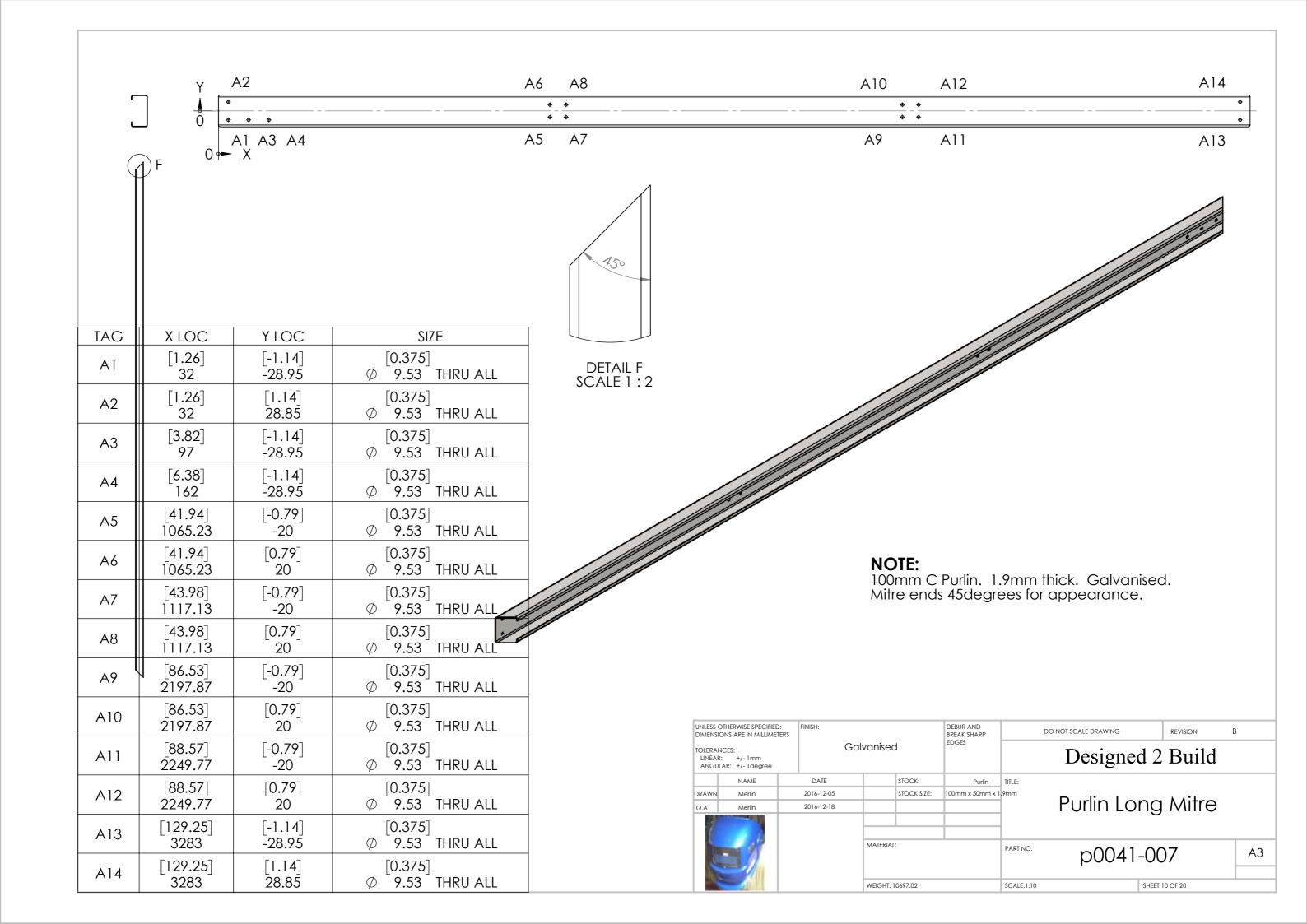
	THERWISE SPECIFIED: NS ARE IN MILLIMETERS	FINISH:			DEBUR AND BREAK SHARP	DC) NOT SCALE DRAWING	REVISION	В
TOLERANC LINEAR: ANGULA			Bare		EDGES		Designed	2 Build	
	NAME	DATE	STO	OCK:		TITLE:			
DRAWN	Merlin	2016=12=05	STO	OCK SIZE:			D 1.0		
Q.A	Merlin	2016-12-18					Post C	т Сар	
1						-		•	
E			MATERIAL:	Assem	bly	PART NO.	p0041-A01		A3
			WEIGHT: 843.	.89		SCALE:1:2	Sł	HEET 7 OF 20	

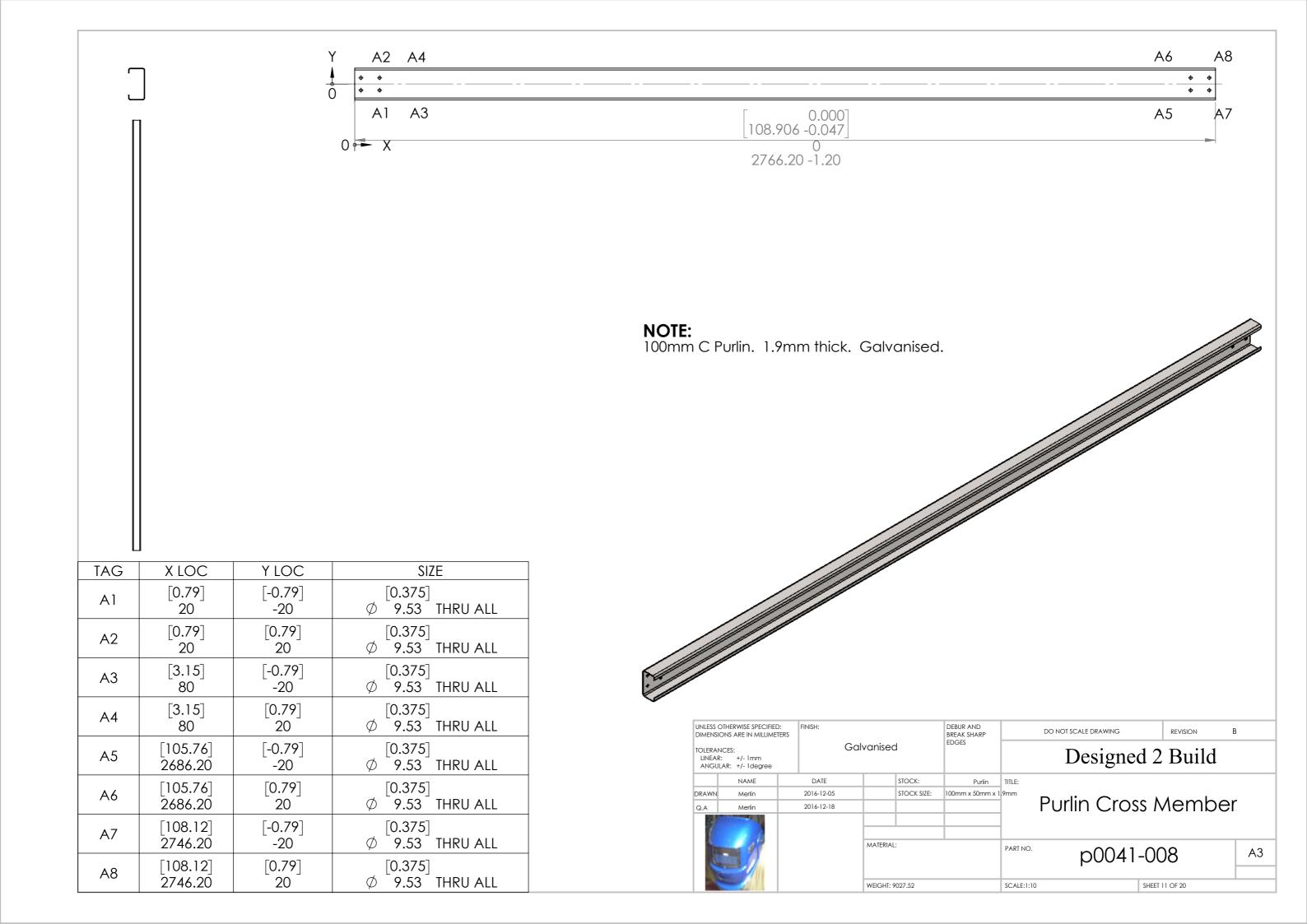


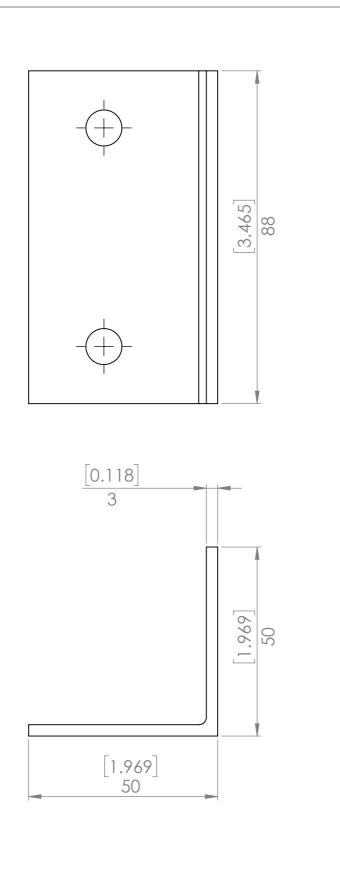
QTY.	PART NUMBER	DESCRIPTION	MATERIAL	WEIGHT
1	p0041-001	Support Post	Plain Carbon Steel	11291.21
1	p0041-002	Post Foot	Plain Carbon Steel	251.32
1	p0041-A01	Post Cap	Assembly	843.89

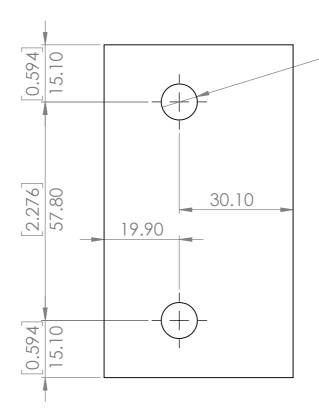
	OTHERWISE SPECIFIED: ONS ARE IN MILLIMETE	1 1			DEBUR AND BREAK SHARP	DO NO	OT SCALE DRAWING	REVISION	В
LINEAR	DLERANCES: LINEAR: +/- 1mm ANGULAR: +/- 1degree		Paint		EDGES	Designed 2 Build			
	NAME	DATE		STOCK:		TITLE:			
DRAWN	Merlin	2016=12=05		STOCK SIZE:				ь .	
Q.A	Merlin	2016-12-18					Corne	er Post	
1									
	MATERIAL:		Assem	nbly	PART NO.	p0041-	-A02	A3	
			WEIGHT	: 12386.41		SCALE:1:20		SHEET 8 OF 20	



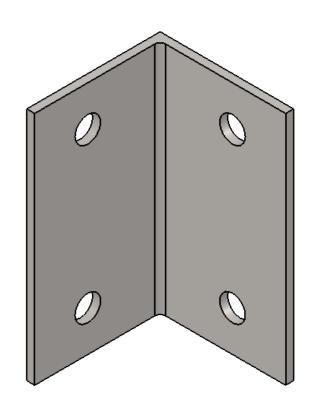




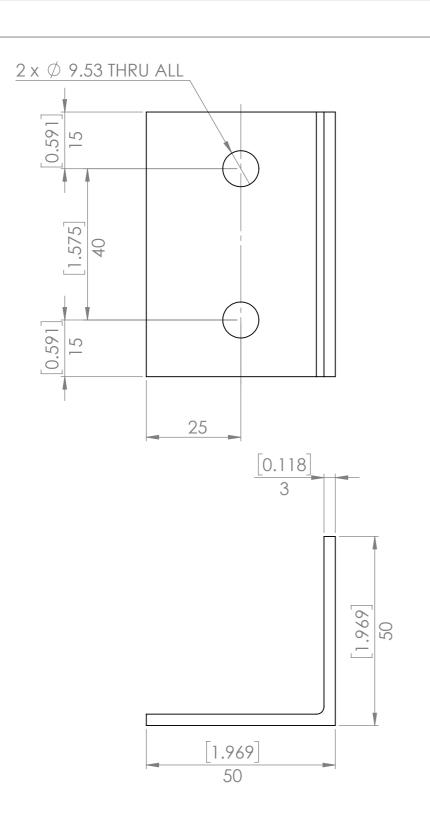


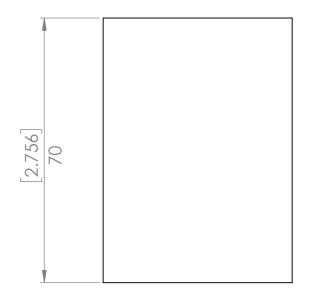


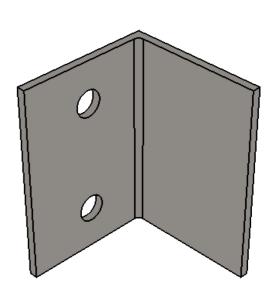
2 x Ø 9.53[0.375] THRU ALL



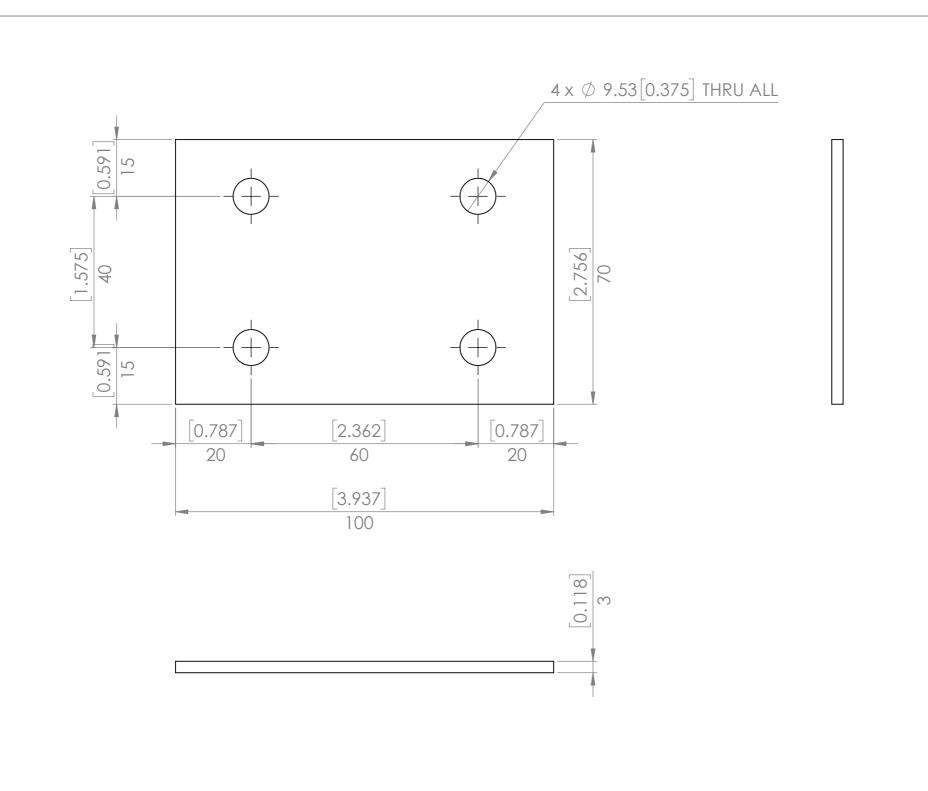
	OTHERWISE SPECIFIED ONS ARE IN MILLIMETI		NISH:			DEBUR AND BREAK SHARP		DO NOT SCALE DRAWING	REVISION	В
TOLERAN LINEAR ANGU				Paint		EDGES		Designe	d 2 Build	
	NAME		DATE		STOCK:	Angle	TITLE:			
DRAWN	Merlin	2	2016-12-05		STOCK SIZE:	50mm x 50mm x 3	3mm		n	
Q.A	Merlin	2	2016-12-18					Corner	Bracket	
1										
	= 11			MATERIA	ı: Plain Carb	on Steel	PART NO.	p0041	-009	A3
								•		
				WEIGHT:	193.66		SCALE:1:1		SHEET 12 OF 20	

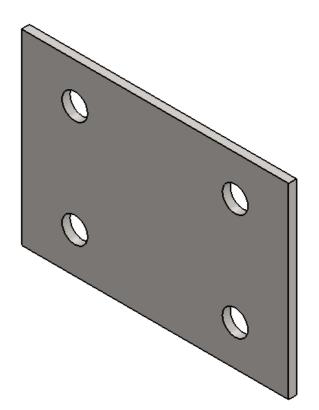




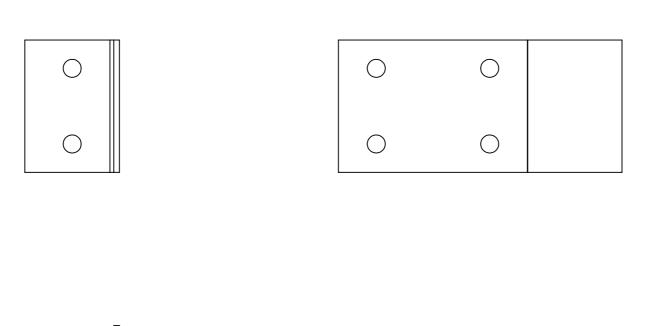


	OTHERWISE SPECIFIED: ONS ARE IN MILLIMETER	FINISH:			DEBUR AND BREAK SHARP	D	OO NOT SCALE DRAWING	REVISION	В
TOLERAN LINEAR ANGUL					EDGES		Designed	d 2 Build	
	NAME	DATE	STOCK	:	Angle	TITLE:			
DRAWN	Merlin	2016-12-05	STOCK	SIZE:	50mm x 50mm x 3	mm	A I - D	l	
Q.A	Merlin	2016-12-18					Angle E	sracket	
1							· ·		
	- 99		MATERIAL:	Carbo	n Steel	PART NO.	p0041-	-010	A3
							•		
			WEIGHT: 156.02			SCALE:1:1		SHEET 13 OF 20	



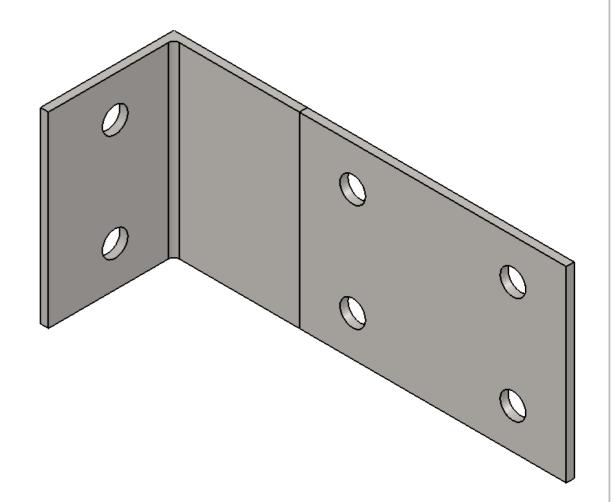


	THERWISE SPECIFIED: DNS ARE IN MILLIMETER	FINISH:			DEBUR AND BREAK SHARP		DO NOT SCALE DRAWING	REVISION	В
LINEAR:	DLERANCES: INEAR: +/- 1mm ANGULAR: +/- 1degree				EDGES	Designed 2 Build			
	NAME	DATE		STOCK:	Sheet	TITLE:			
DRAWN	Merlin	2016-12-05		STOCK SIZE:	3mm		D 1 1 F		
Q.A	Merlin	2016-12-18					Bracket E	extension	
1									
U			MATERIA	^{AL:} Plain Carbo	on Steel	PART NO.	p0041	-011	A3
1			WEIGHT	: 157.13		SCALE:1:1		SHEET 14 OF 20	



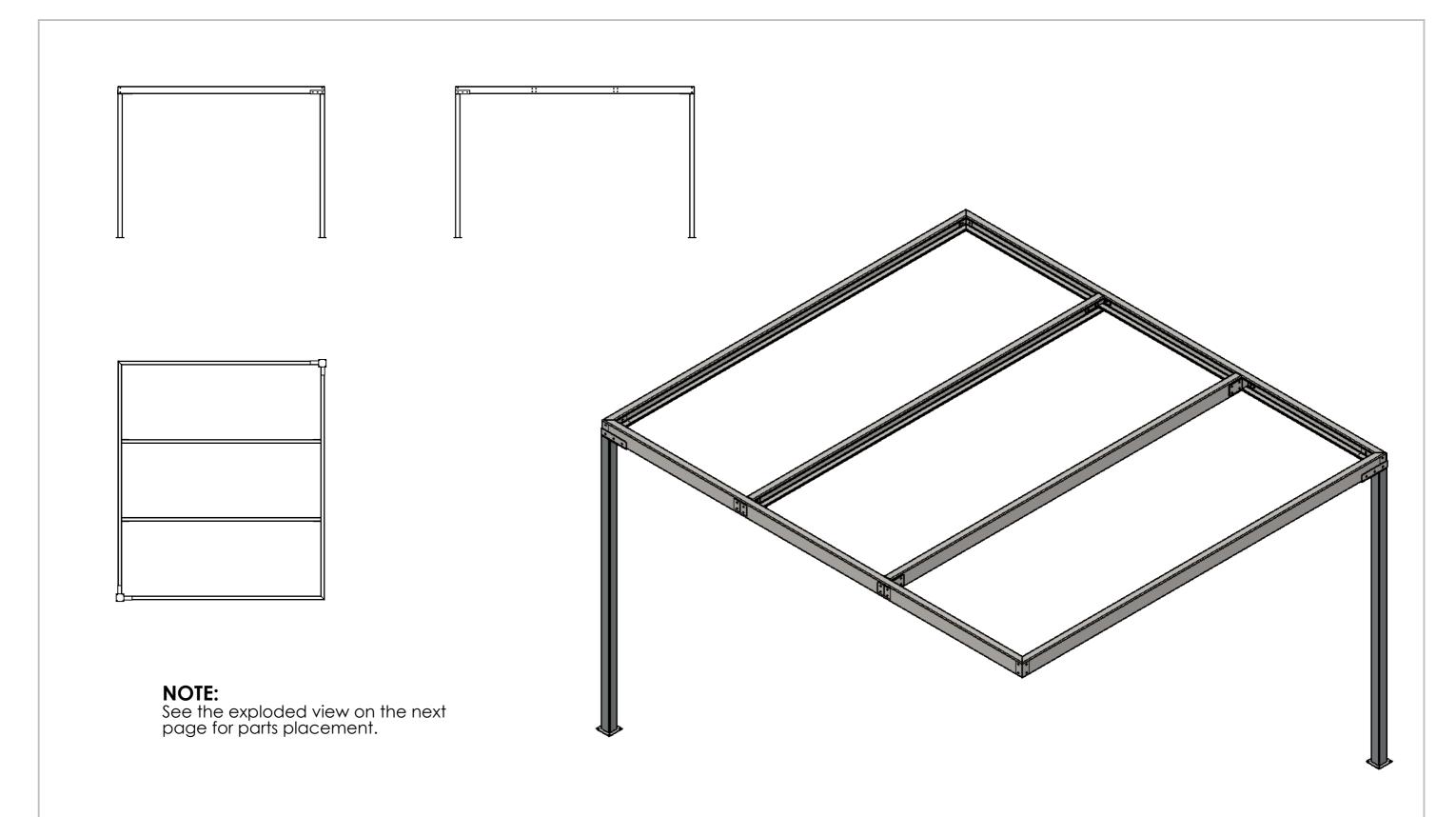


NOTE:
Weld the two parts together.
Load bearing so weld needs to be strong.
Reinforce with a backing plate if in doubt.



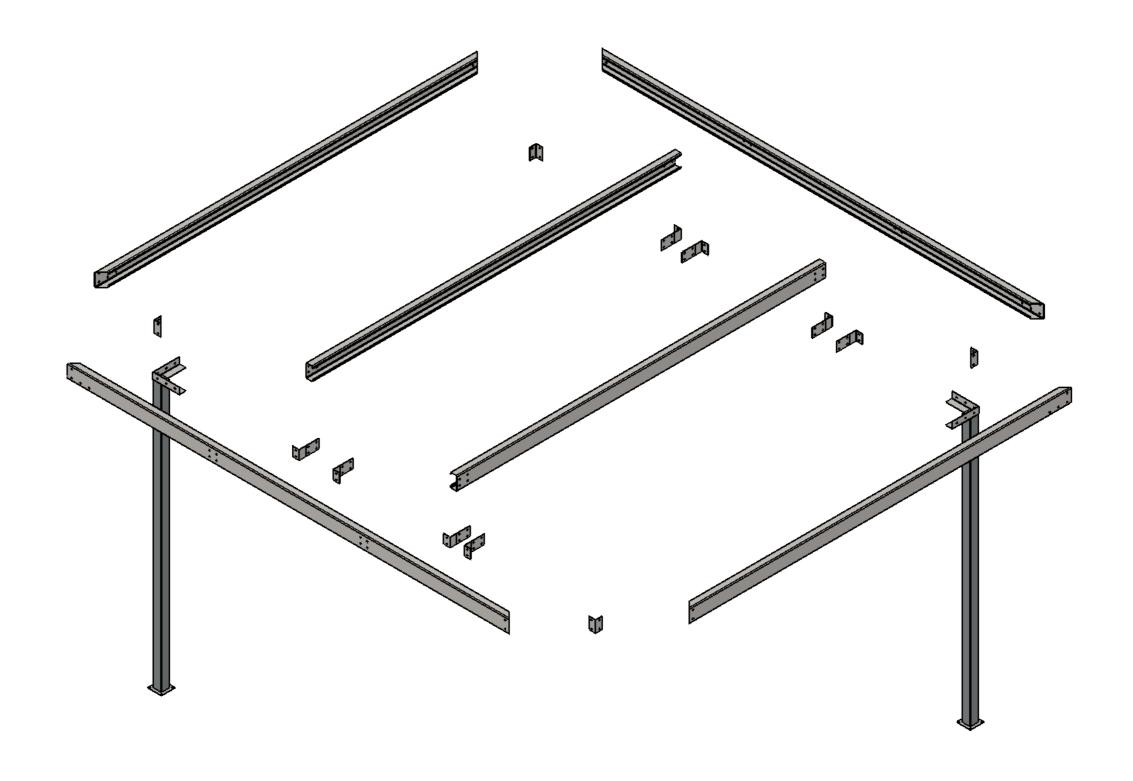
QTY.	PART NUMBER	DESCRIPTION	MATERIAL	WEIGHT
1	p0041-010	Angle Bracket	Plain Carbon Steel	156.02
1	p0041-011	Bracket Extension	Plain Carbon Steel	157.13

	HERWISE SPECIFIED NS ARE IN MILLIMET			DEBUR AND BREAK SHARP	D	O NOT SCALE DRAWING	REVISION	В
LINEAR:	OLERANCES: LINEAR: +/- 1mm ANGULAR: +/- 1degree		Paint	EDGES	Designed 2 Build			
	NAME	DATE	STOCK:		TITLE:			
DRAWN	Merlin	2016=12=05	STOCK S	SIZE:				
Q.A	Merlin	2016-12-18				Extended	I Bracket	
7								
E			MATERIAL:	ssembly	PART NO.	p0041-	A03	А3
Me								
			WEIGHT: 313.15		SCALE:1:2		SHEET 15 OF 20	



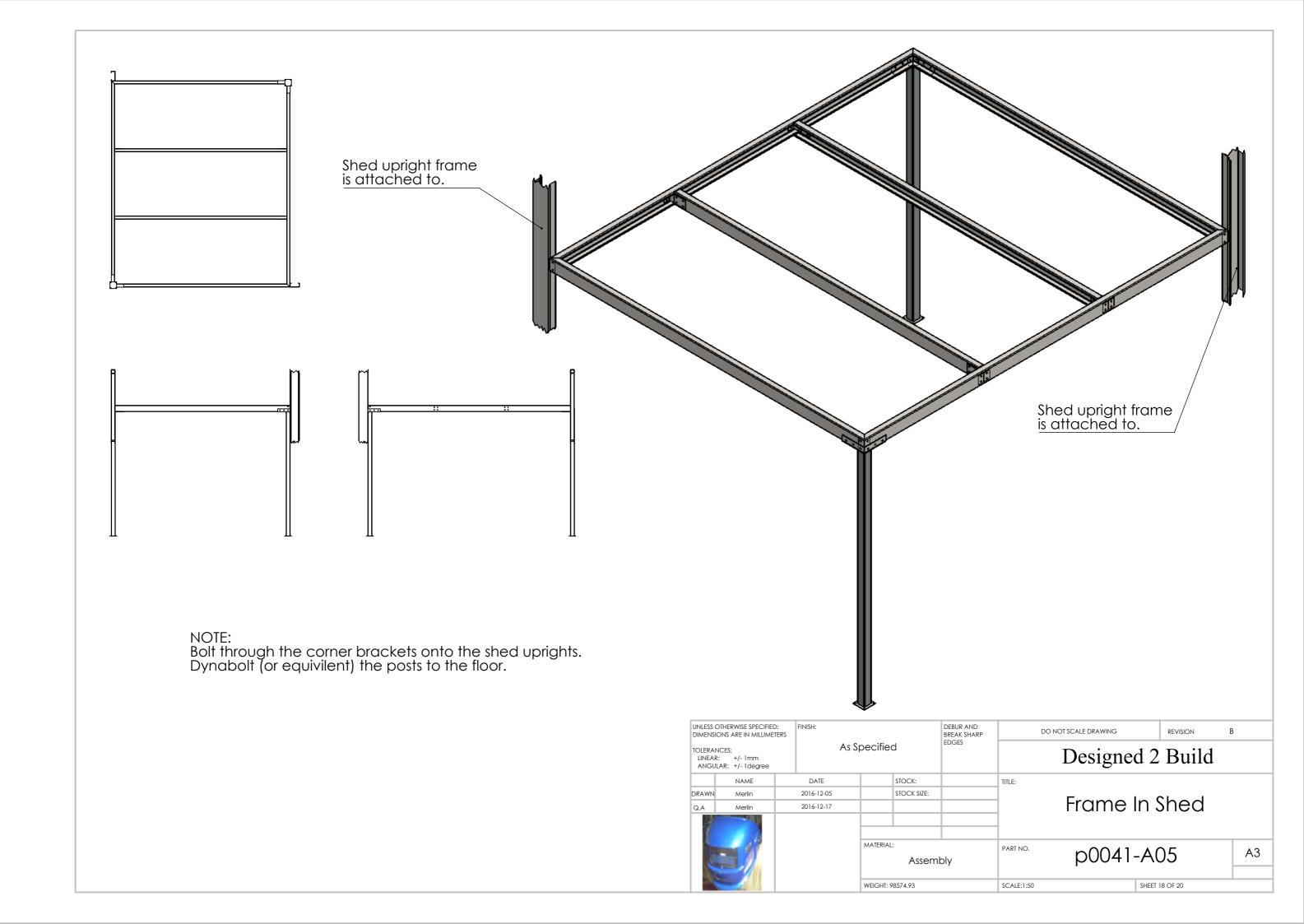
QTY.	PART NUMBER	DESCRIPTION	MATERIAL	WEIGHT
2	p0041-006	Purlin Short Mitre		9256.09
2	p0041-007	Purlin Long Mitre		10697.02
2	p0041-008	Purlin Cross Member		9027.52
4	p0041-009	Corner Bracket	Plain Carbon Steel	193.66
2	p0041-A02	Corner Post	Assembly	12386.41
8	p0041-A03	Extended Bracket	Assembly	313.15

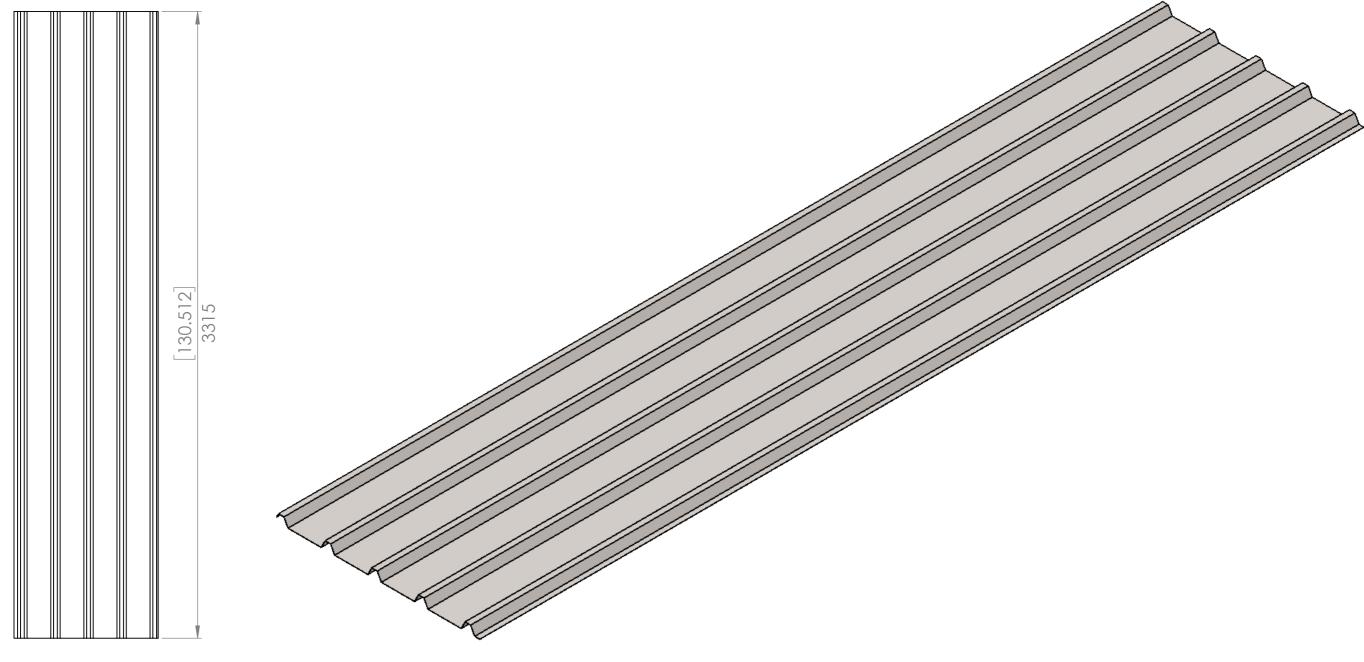
UNLESS OTHERWISE SPECIFIED: FINISH: DIMENSIONS ARE IN MILLIMETERS				DEBUR AND BREAK SHARP	DO NOT S	CALE DRAWING	REVISION	В
TOLERANCES: AS Sp. LINEAR: +/- 1mm ANGULAR: +/- 1degree			Specified	EDGES	Designed 2 Build			
	NAME	DATE	STOCK:		TITLE:			
DRAWN	Merlin	2016=12=05	STOCK SIZE:		Frame			
Q.A	Merlin	2016-12-18					ne	е
1								
			MATERIAL: Assem	ibly	PART NO.	p0041-A04		A3
			WEIGHT: 86013.93		SCALE:1:50	SHE	EET 16 OF 20	



QTY.	PART NUMBER	DESCRIPTION	MATERIAL	WEIGHT
2	p0041-006	Purlin Short Mitre		9256.09
2	p0041-007	Purlin Long Mitre		10697.02
2	p0041-008	Purlin Cross Member		9027.52
4	p0041-009	Corner Bracket	Plain Carbon Steel	193.66
2	p0041-A02	Corner Post	Assembly	12386.41
8	p0041-A03	Extended Bracket	Assembly	313.15

UNLESS OTHERWISE SPECIFIED: FINISH: DIMENSIONS ARE IN MILLIMETERS				DEBUR AND BREAK SHARP	DO NOT SCALE DRAWING REVISION B			В
TOLERANCES: AS Sp. LINEAR: +/- 1mm ANGULAR: +/- 1degree			pecified	EDGES	Designed 2 Build			
	NAME	DATE	STOCK:		TITLE:			
DRAWN	Merlin	2016=12=05	STOCK SIZE	:	_			
Q.A	Merlin	2016-12-18			Frame			
1								
		MATERIAL: Assembly		PART NO.	p0041-A04		A3	
WEIGHT: 86013.93				SCALE:1:5	SHEE	ET 17 OF 20	-	





NOTE:

I had some cladding left over from the shed construction so I decided to use that for the shelf. Rivet or screw to the frame.

Given what I plan to store up there it is a perfect solution, available and free. The corrugations will also add some strength.

10mm to 15mm (3/8" to 9/16") plywould also be a suitable substitute although it would be heaver and I doubt it would contribute as much to the ridgidity of the structure.

UNLESS OTHERWISE SPECIFIED: FINISH: DIMENSIONS ARE IN MILLIMETERS				DEBUR AND BREAK SHARP EDGES		DO NOT SCALE DRAWING REVISION A				
TOLERANCES: LINEAR: +/- 1mm ANGULAR: +/- 1degree						Designed 2 Build				
	NAME	DATE	ST	тоск:	Colourbond or Galv	raffille£d				
DRAWN	Merlin	2016-12-05	ST	TOCK SIZE:	0.9mm	OI ICOI I				
Q.A Merlin 2016-12-17					Shelf Sheet					
		MATERIAL:	MATERIAL: Plain Carbon Steel		part no. p0041-012			A3		
			WEIGHT: 1683	WEIGHT: 16834.68		SCALE:1:20 SHEET 19 OF 20				

