



Design For Manufacturing

Smart Manual Cart

Table of Content

1. Display	4
Pivot Pillar 1	4
i. Pillar pipe	5
ii. Bottom part	6
iii. Bent bar	7
iv. Pillar Assembly	9
Pivot Pillar 2	10
i. Pillar pipe	10
ii. Bent bar	11
iii. Flat of pillar 2	13
iv. Bottom part	14
v. Pillar Assembly	15
Display Frame	16
i. Display Frame	17
ii. Support	22
iii. Flat patti	23
Assembly of Frame	24
iv. Shelf Bracket	25
ASSEMBLY	25
v. Leg	27
Vi. Leg	28
vii. Hinge Joint	29
2. Roofing	31
Bottom Bracket	32
2-way connector	33
3-way connector	34

4-way connector 1	35
4-way connector 2	36
Roofing Pillar and Small Beam	37
Long Beam	37
Central Beam and Angle beam joint	39
Angle beam	39
Vendor side Beam	41
3. Mist cooling	43
Nozzle Rail	44
Mist bracket	45
Assembly	46
4. Water storage	48
Flat bent part	50
Flat bent part 2	51
Flat bent part 3	52
Straight and bent rod	53
Assembly	53
5. Under Storage	55
Bottom Support	57
Bottom Frame	58
Frame pillar	59
Frame T Pillar	60
Bottom cage	61
Door	62
MS Mesh	62
Door Mesh	64
Assembly	65

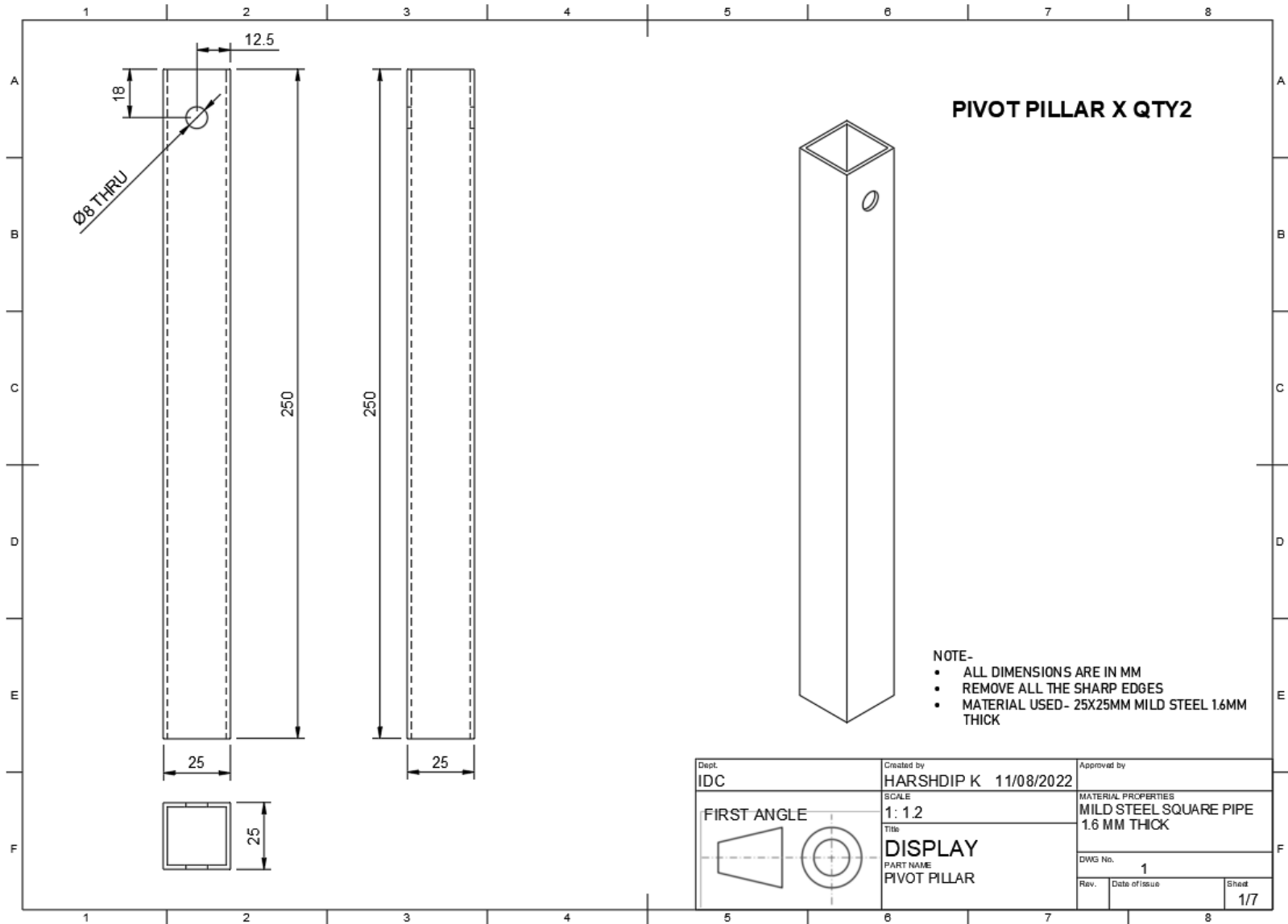
6. Battery Cage	66
Flat bent part 1	66
Flat bent part 2	67
Flat bent part 3	68
Flat bend part 3.1	69
Assembly	70

1. Display

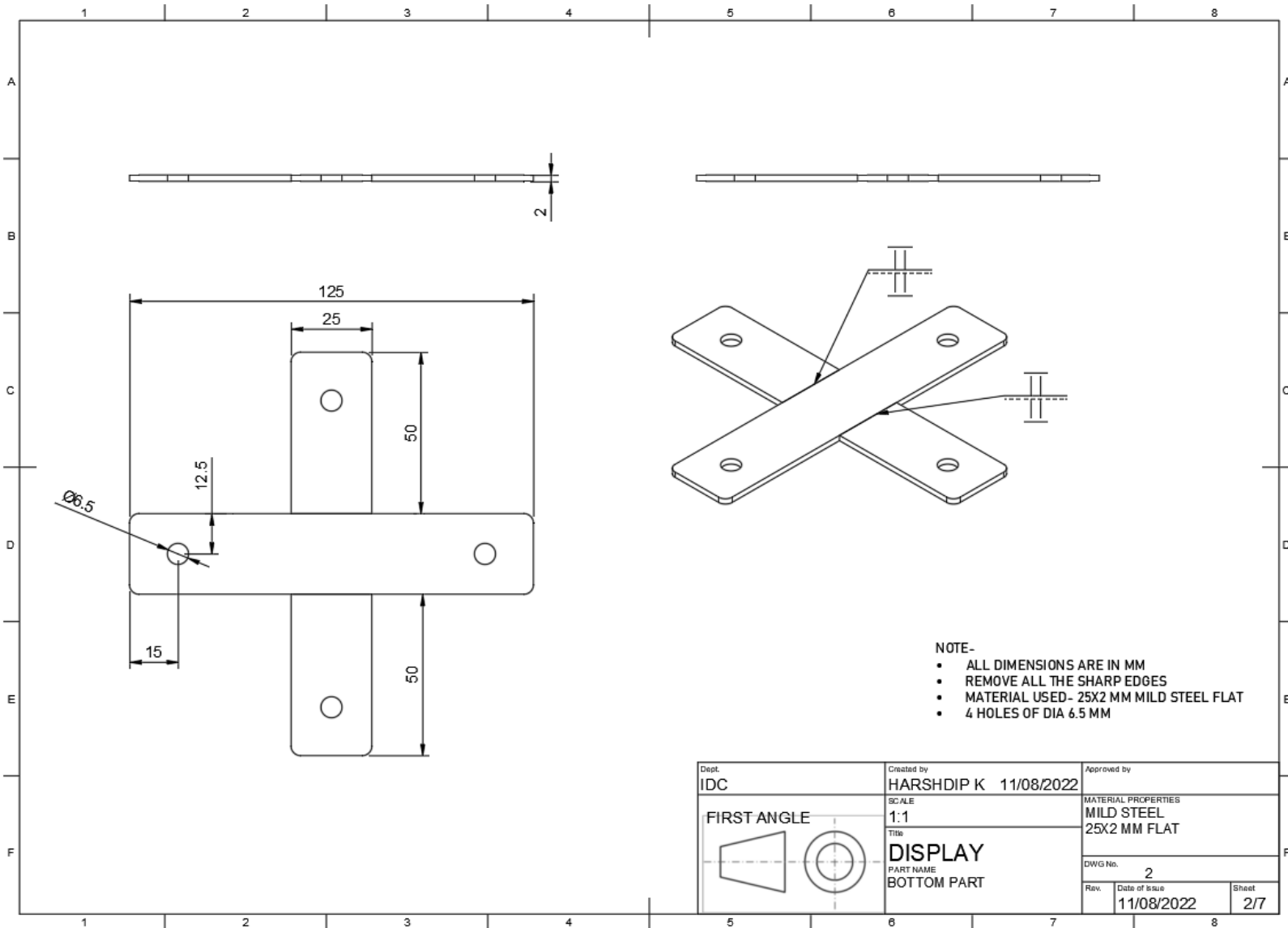
a. Pivot Pillar 1

PART NAME	MATERIAL	CROSS SECTIONS	THICKNESS	QUANTITY	COLOUR CODE
Pillar pipe	MS	Pipe(25x25)	1.6 mm	2	RAL2000
Bottom Part	MS	Flat(25x2)	2mm	1	
Flat of pillar 2	MS	Flat(25x2)	2mm	1	
Bent bar	MS	Rod 8mm	8mm	2	

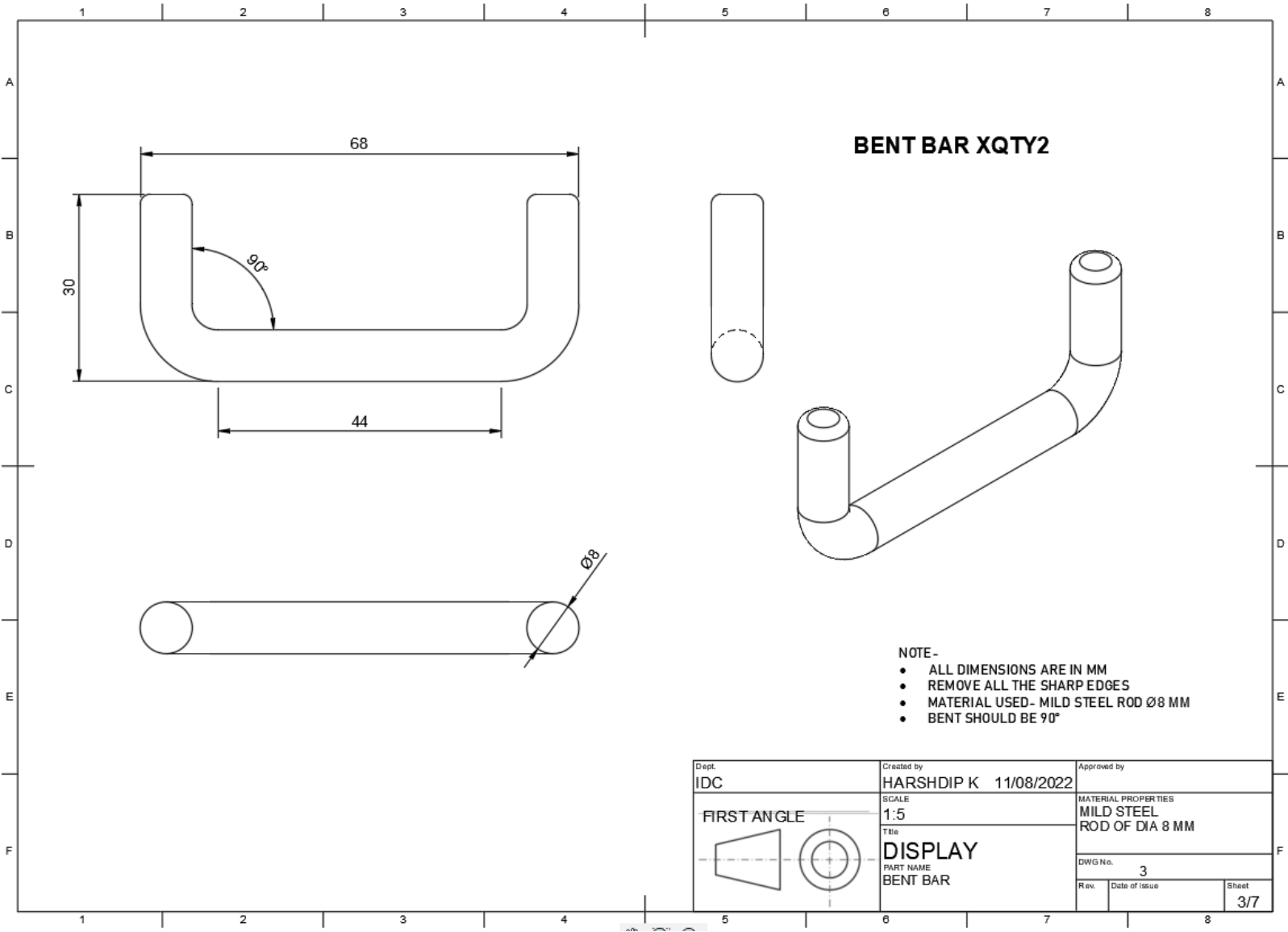
i. Pillar pipe



ii. Bottom part



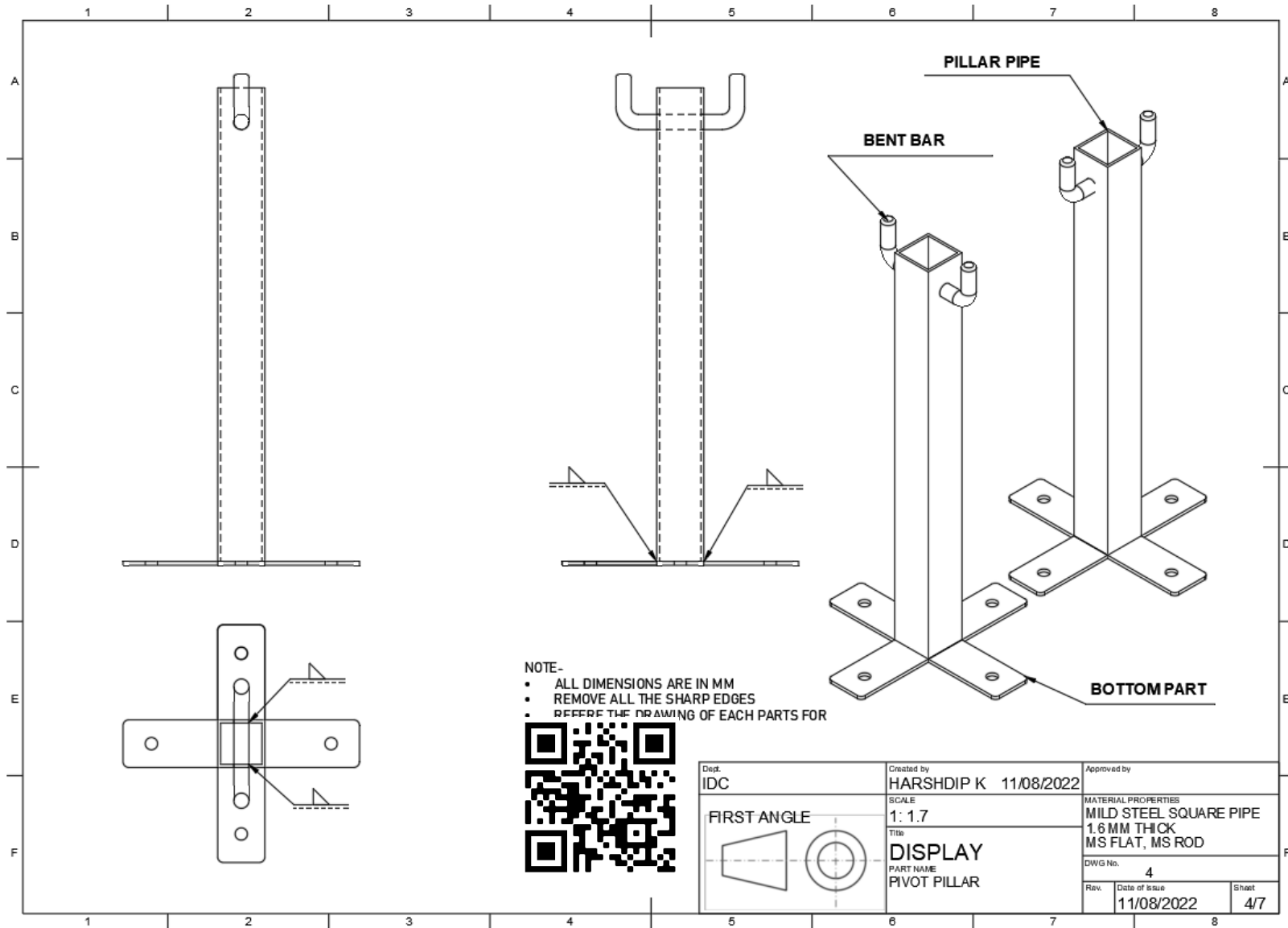
iii. Bent bar





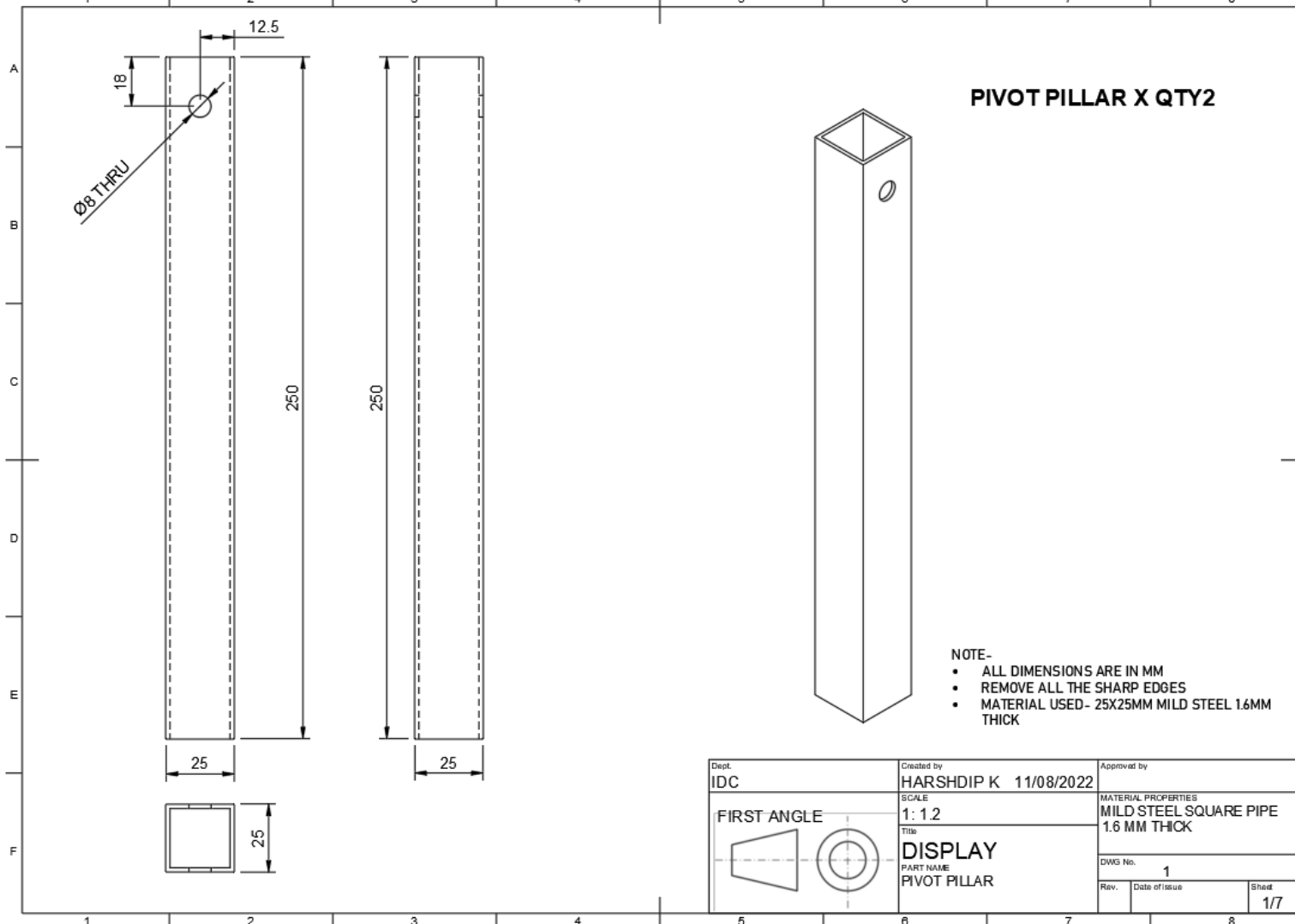
Process of insertion of Bent rod

iv. Pillar Assembly

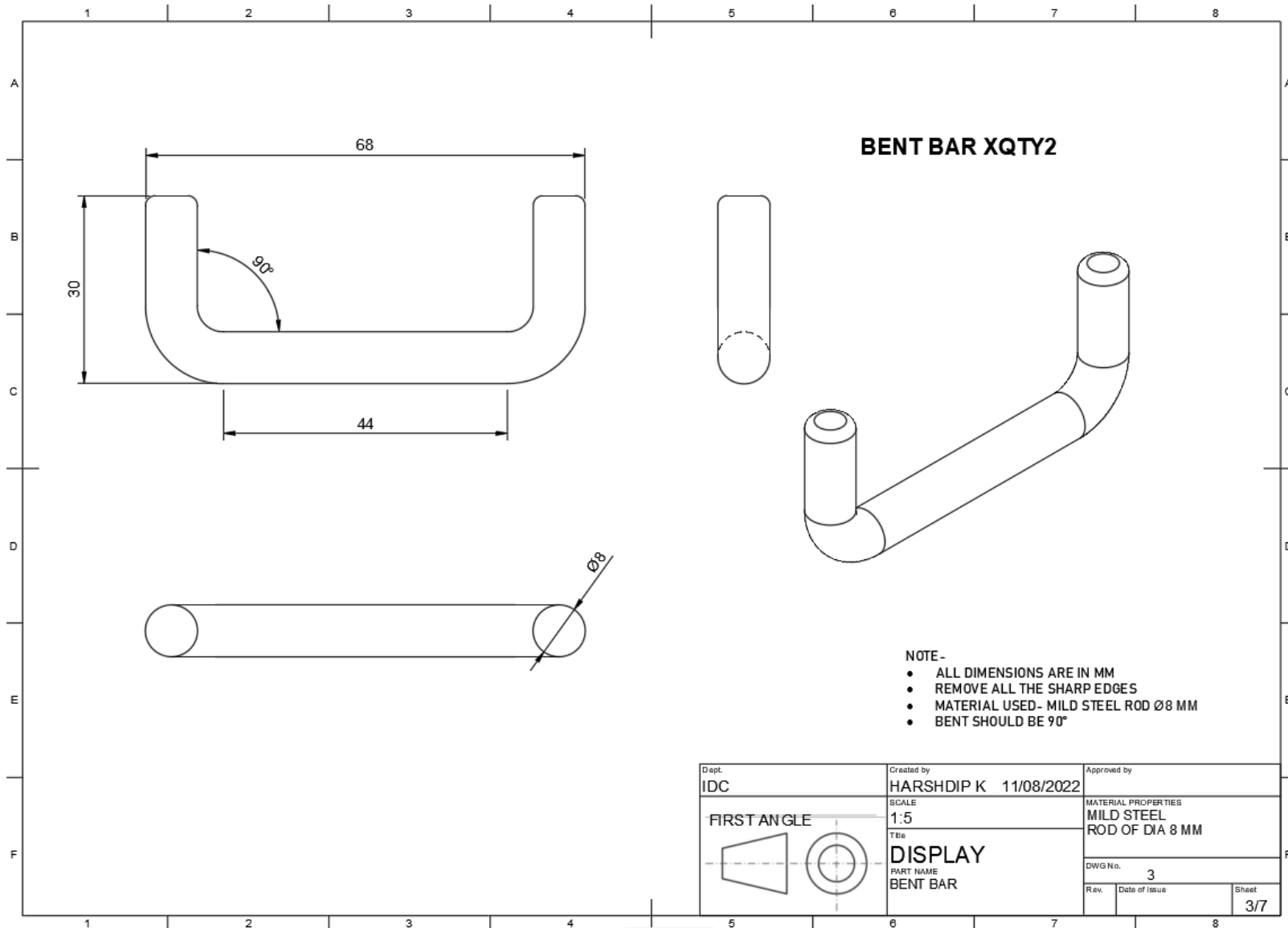


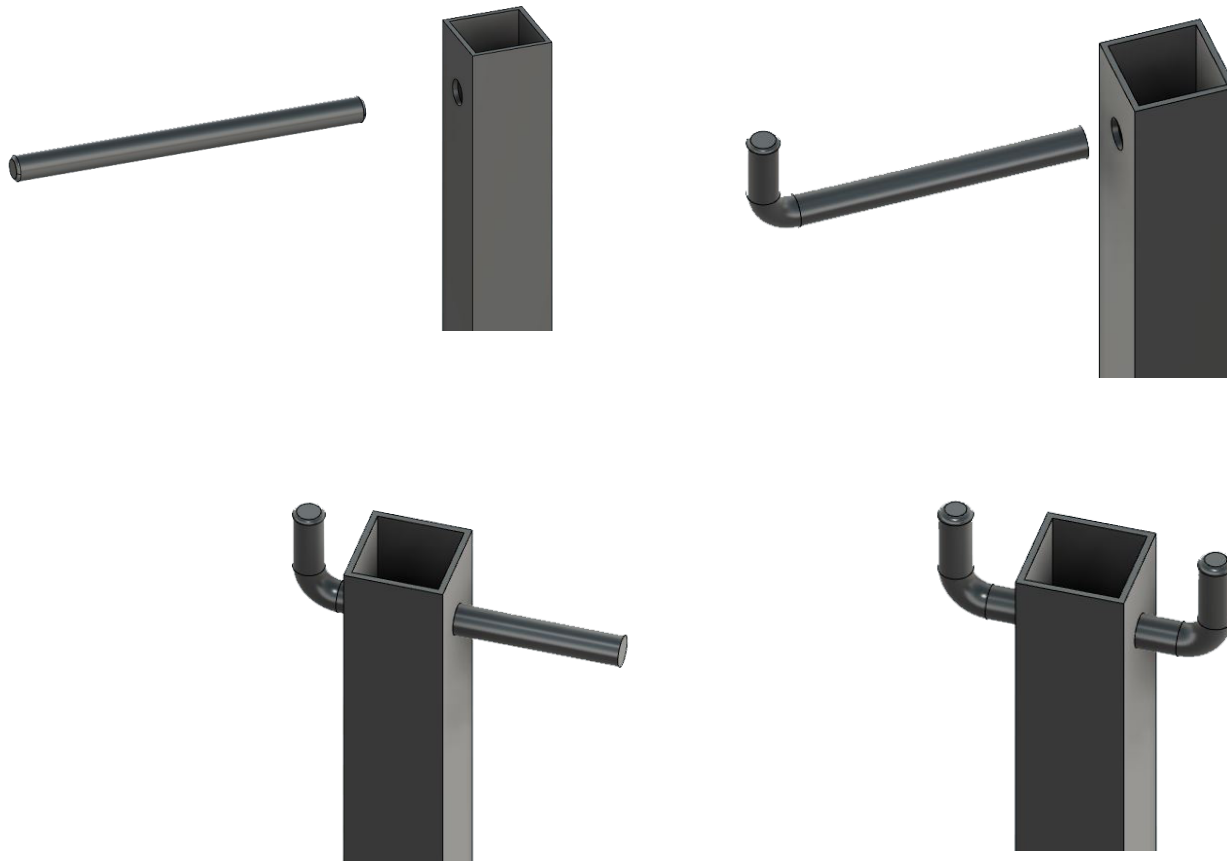
b. Pivot Pillar 2

i. Pillar pipe



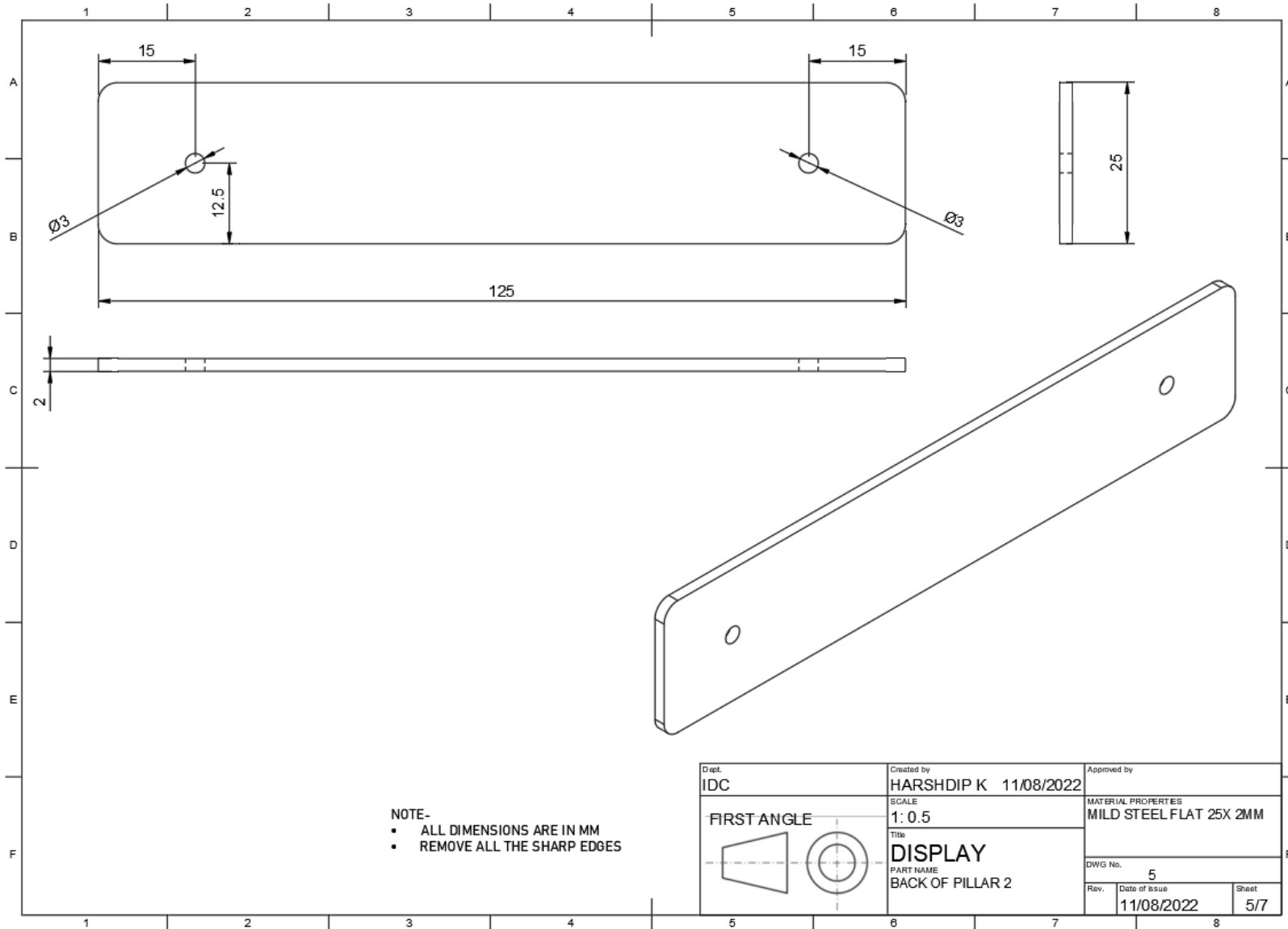
ii. Bent bar



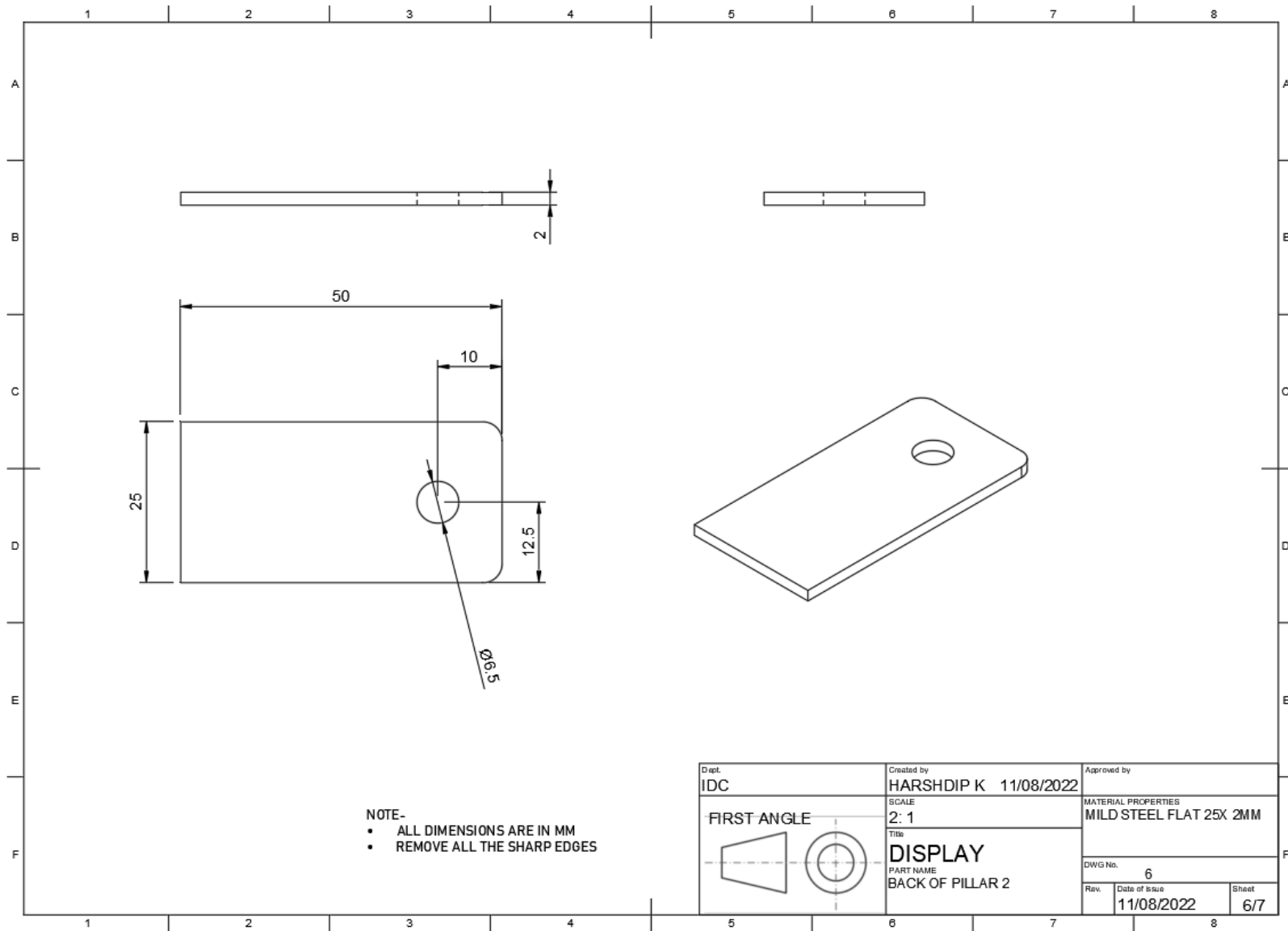


Process of insertion of Bent rod

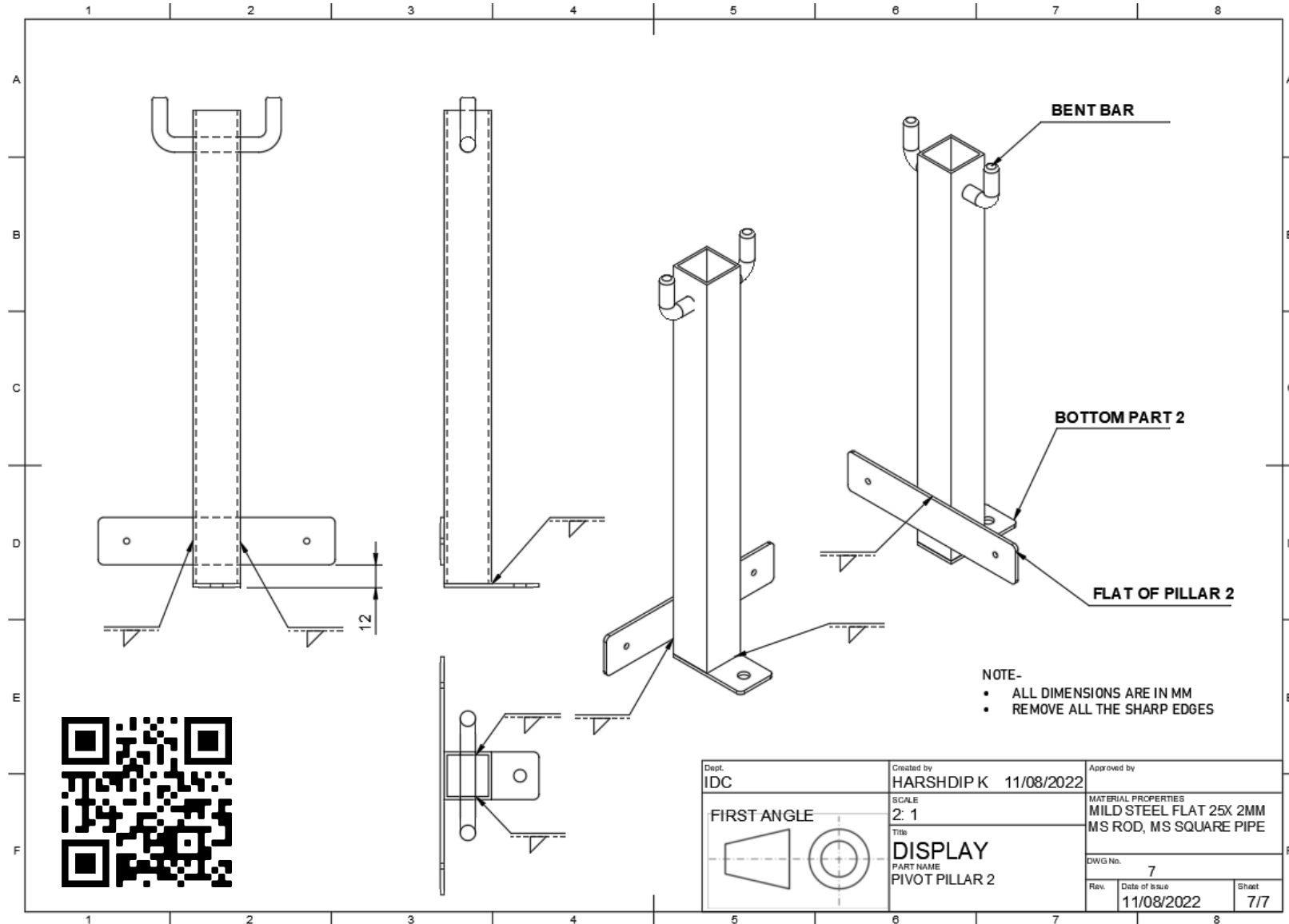
iii. Flat of pillar 2



iv. Bottom part



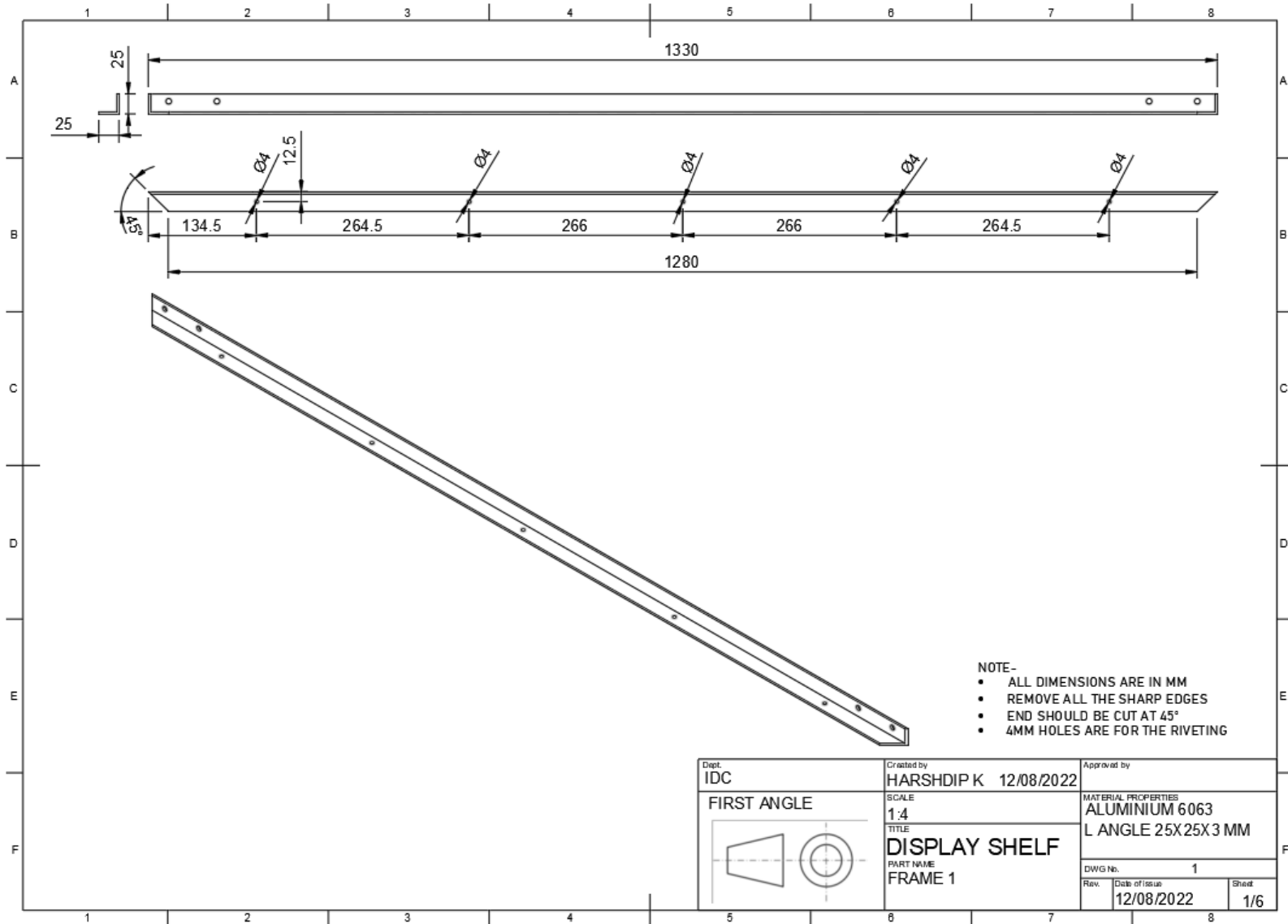
v. Pillar Assembly



c. Display Frame


PART NAME	MATERIAL	CROSS SECTIONS	THICKNESS	QUANTITY	COLOUR CODE
Display Frame	Aluminium	L Angle(25x25)	3mm	2	
Support	Aluminium	L Angle(25x50)	2mm	8	
Flat patti	Aluminium	Flat patti(25x2)	2mm	2	
Shelf bracket	MS	Flat(25x3) Rod	3mm 8mm	4	RAL2000
Long leg	Aluminium	Square Pipe(25x25)	2mm	4	
Small leg	Aluminium	Square Pipe(25x25)	2mm	4	

i. Display Frame

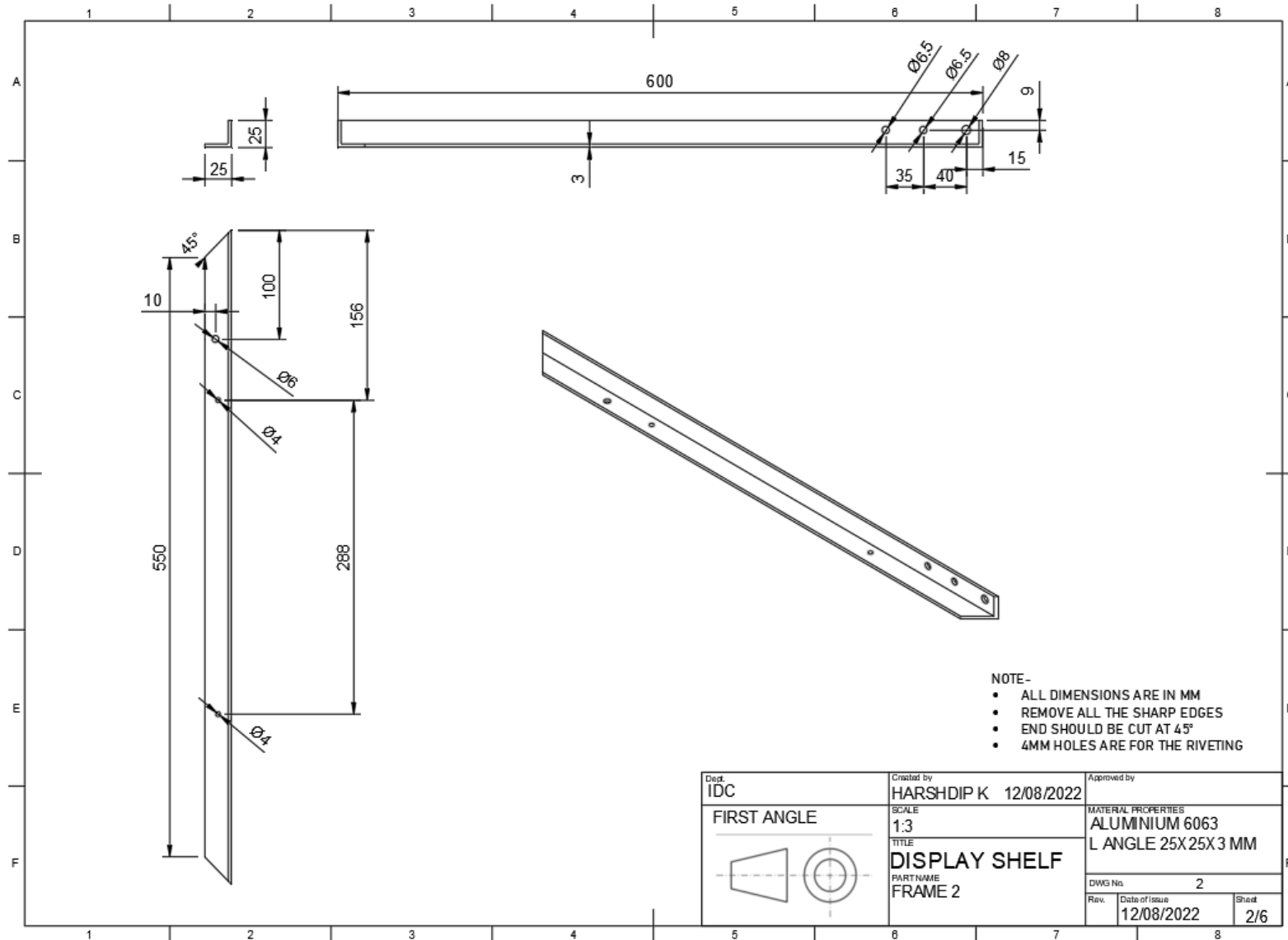


NOTE-

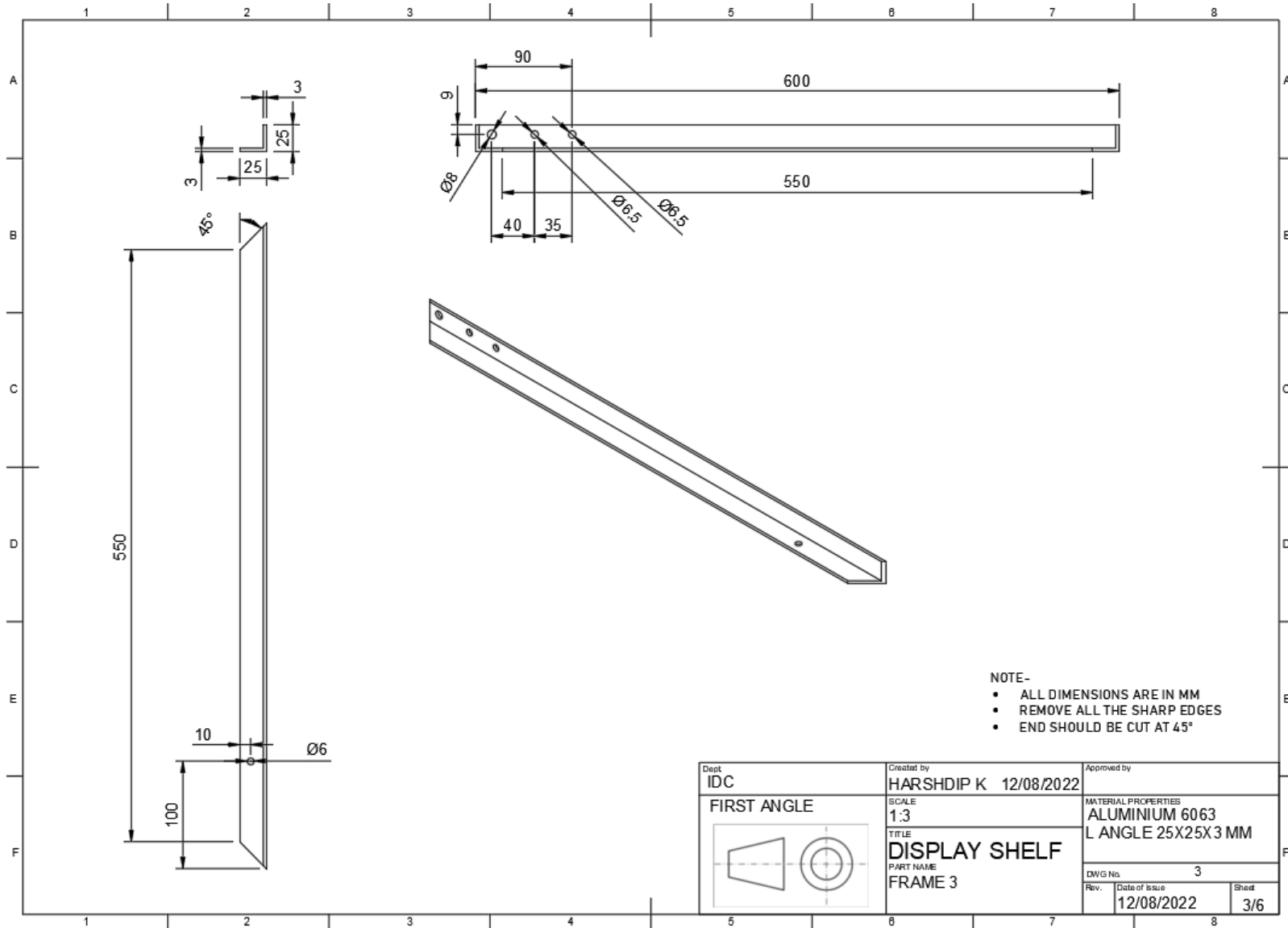
- ALL DIMENSIONS ARE IN MM
- REMOVE ALL THE SHARP EDGES
- END SHOULD BE CUT AT 45°
- 4MM HOLES ARE FOR THE RIVETING

Dept. IDC	Created by HARSHDIP K 12/08/2022	Approved by
FIRST ANGLE 	SCALE 1:4	MATERIAL PROPERTIES ALUMINIUM 6063 L ANGLE 25X25X3 MM
TITLE DISPLAY SHELF		DWG No. 1
PART NAME FRAME 1		Rev. Date of issue Sheet 12/08/2022 1/6

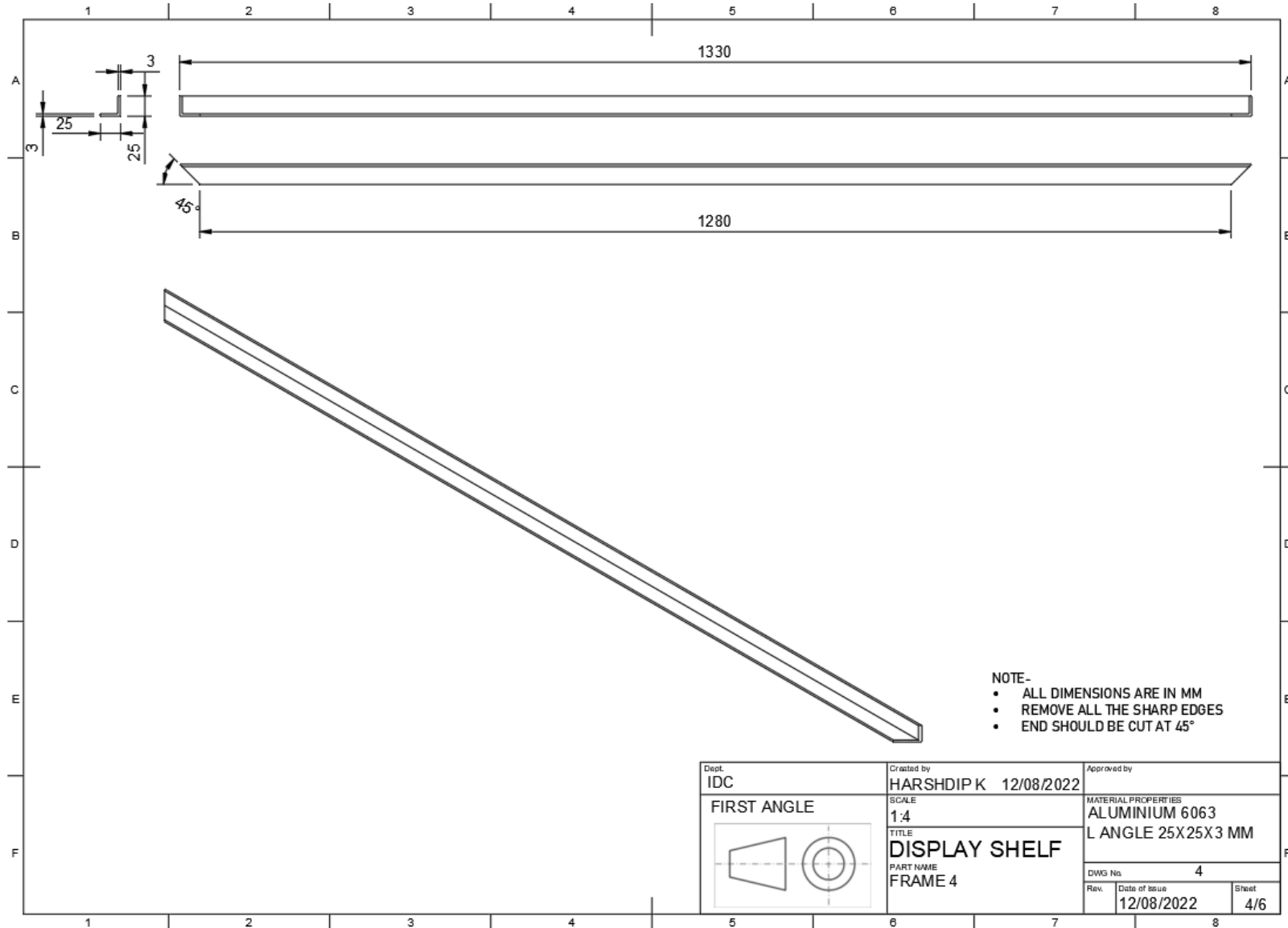
Frame 2:



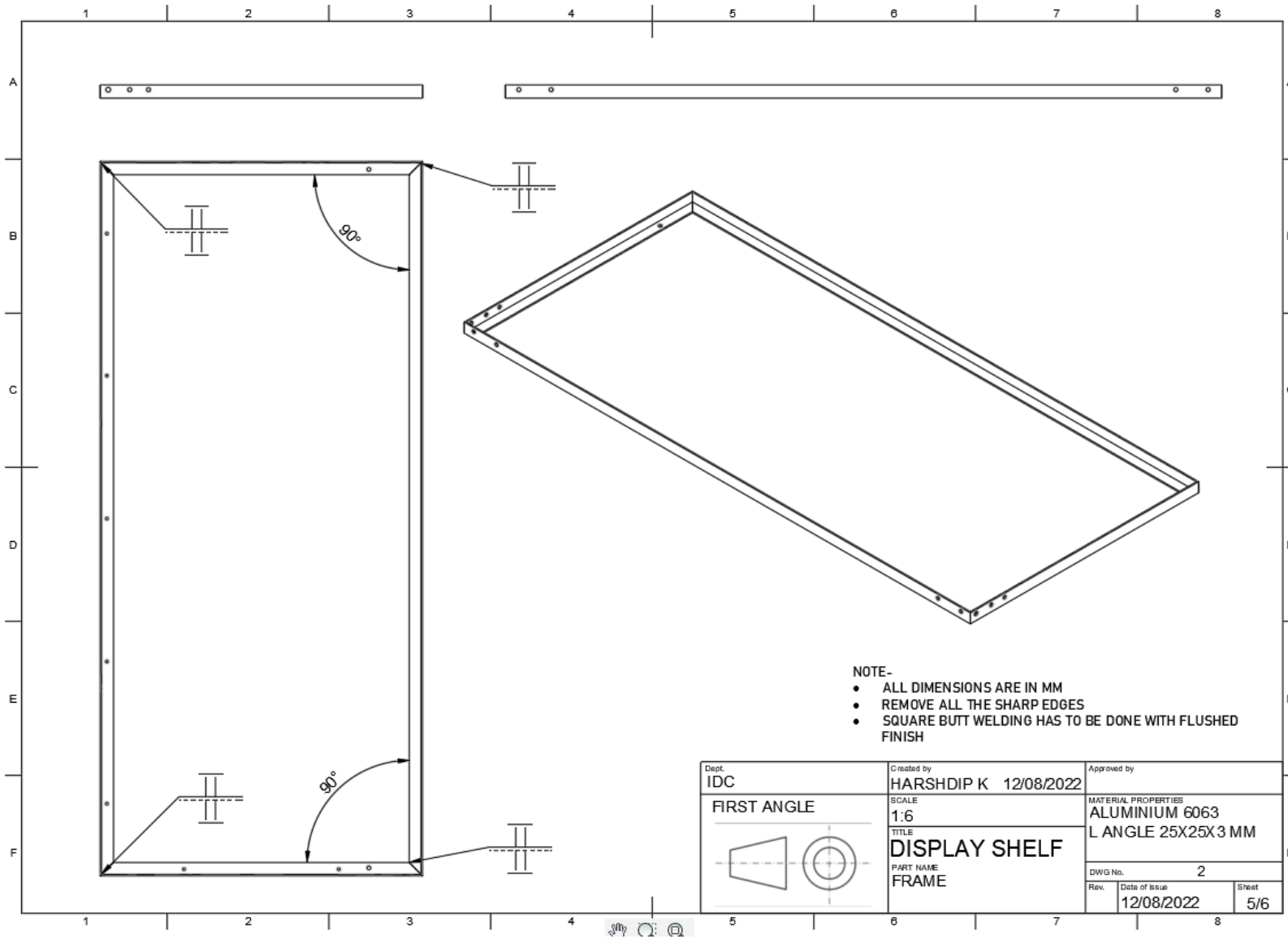
Frame 3:



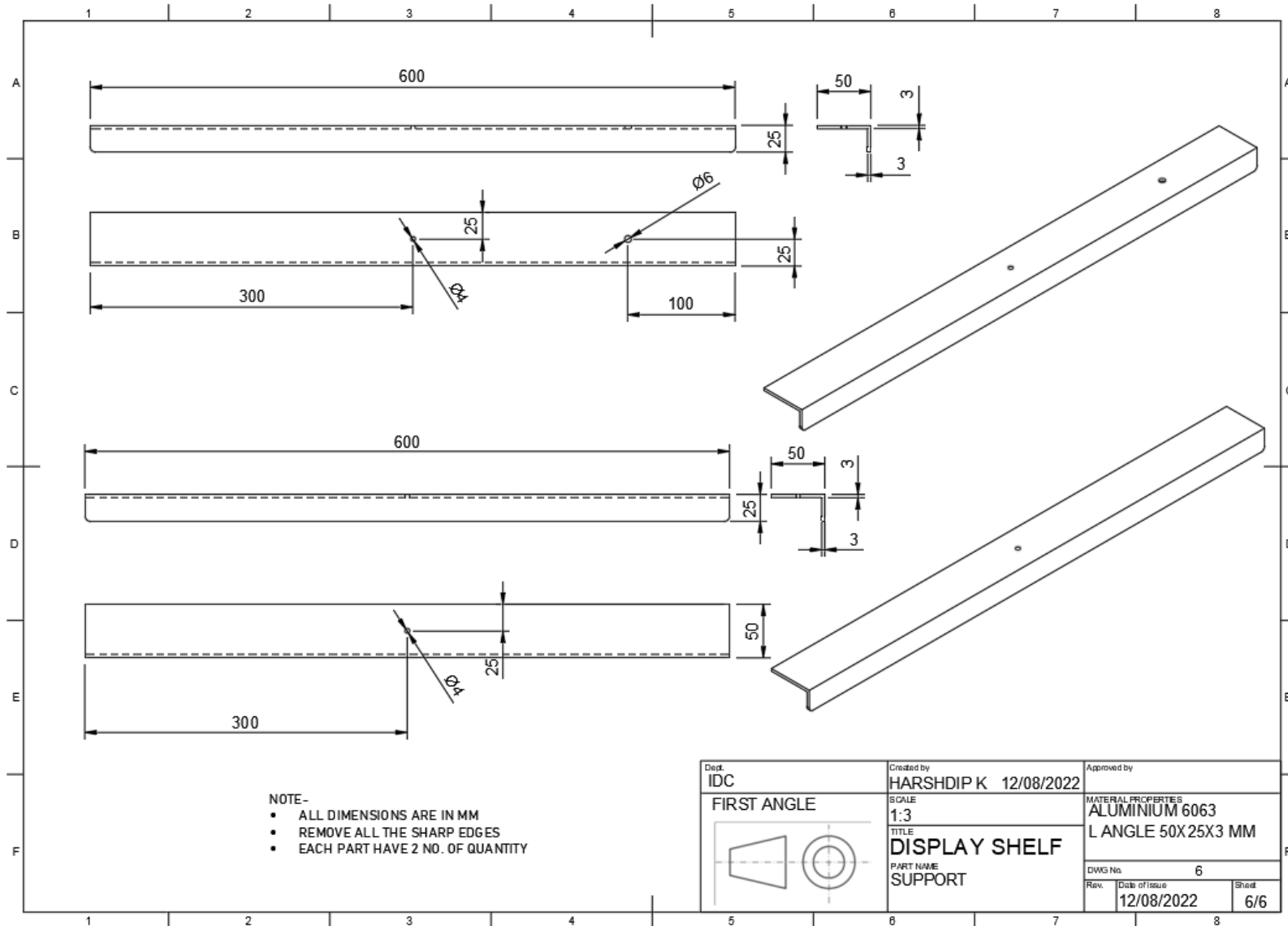
Frame 4:



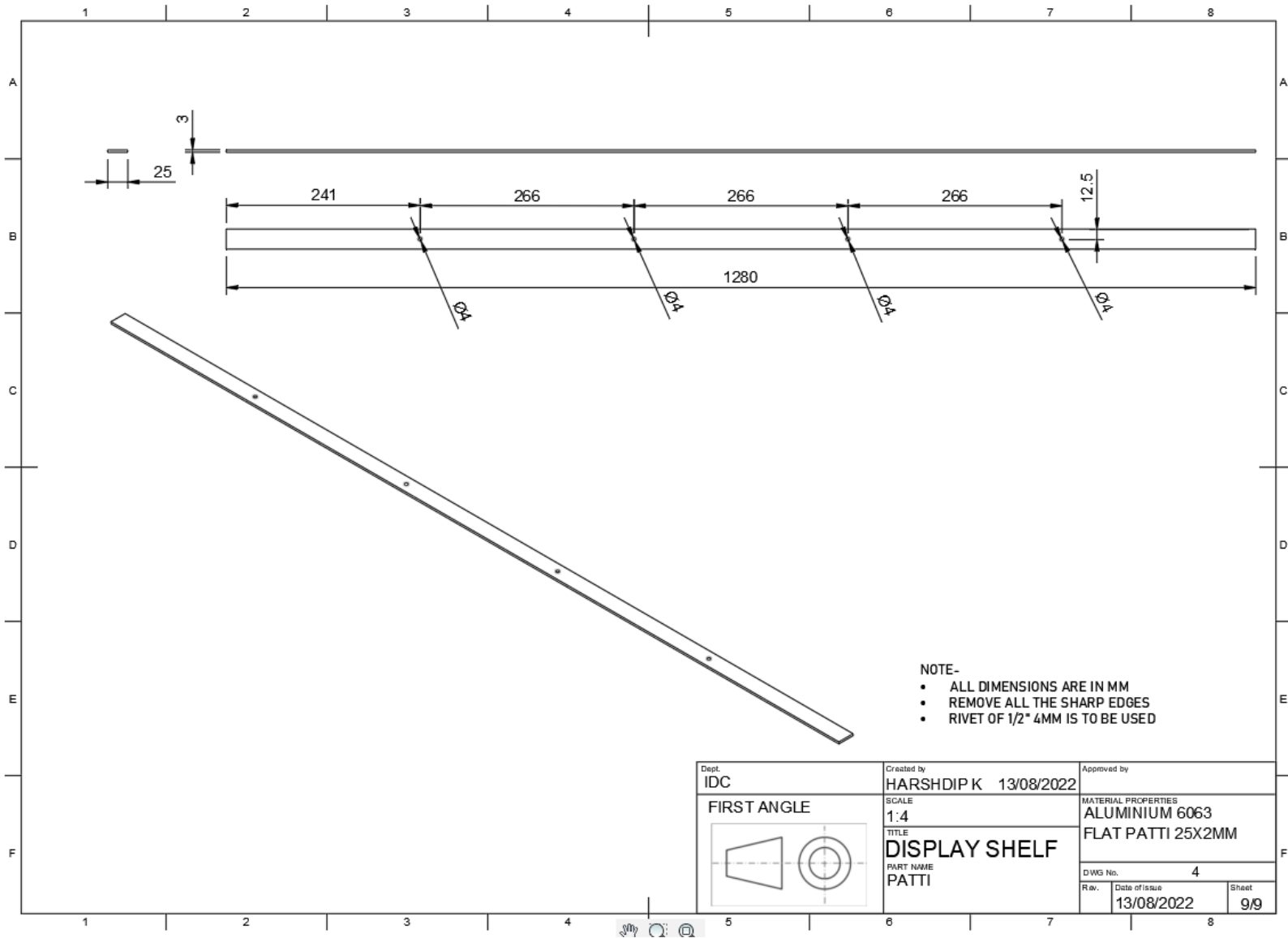
Display Frame



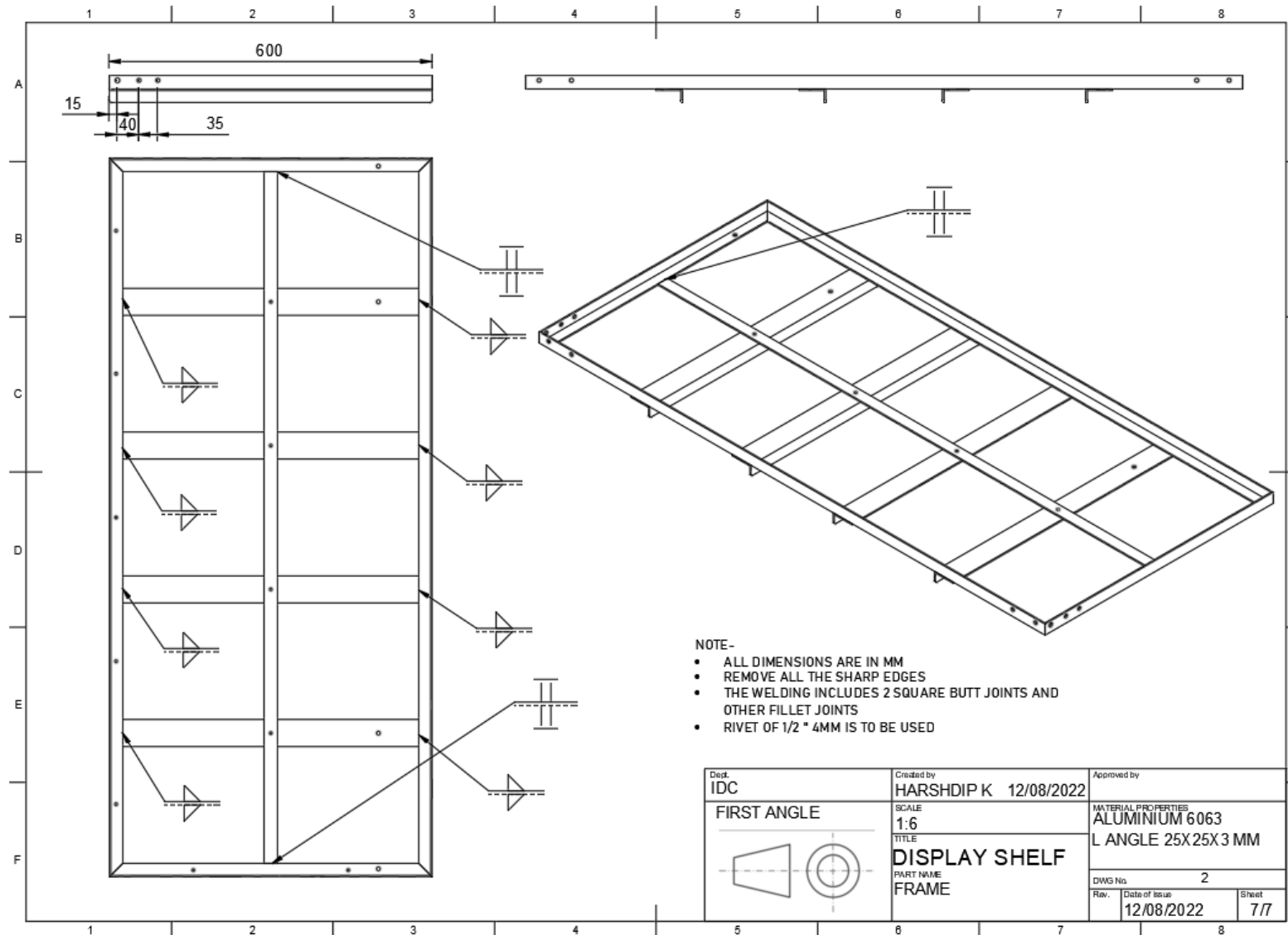
ii. Support



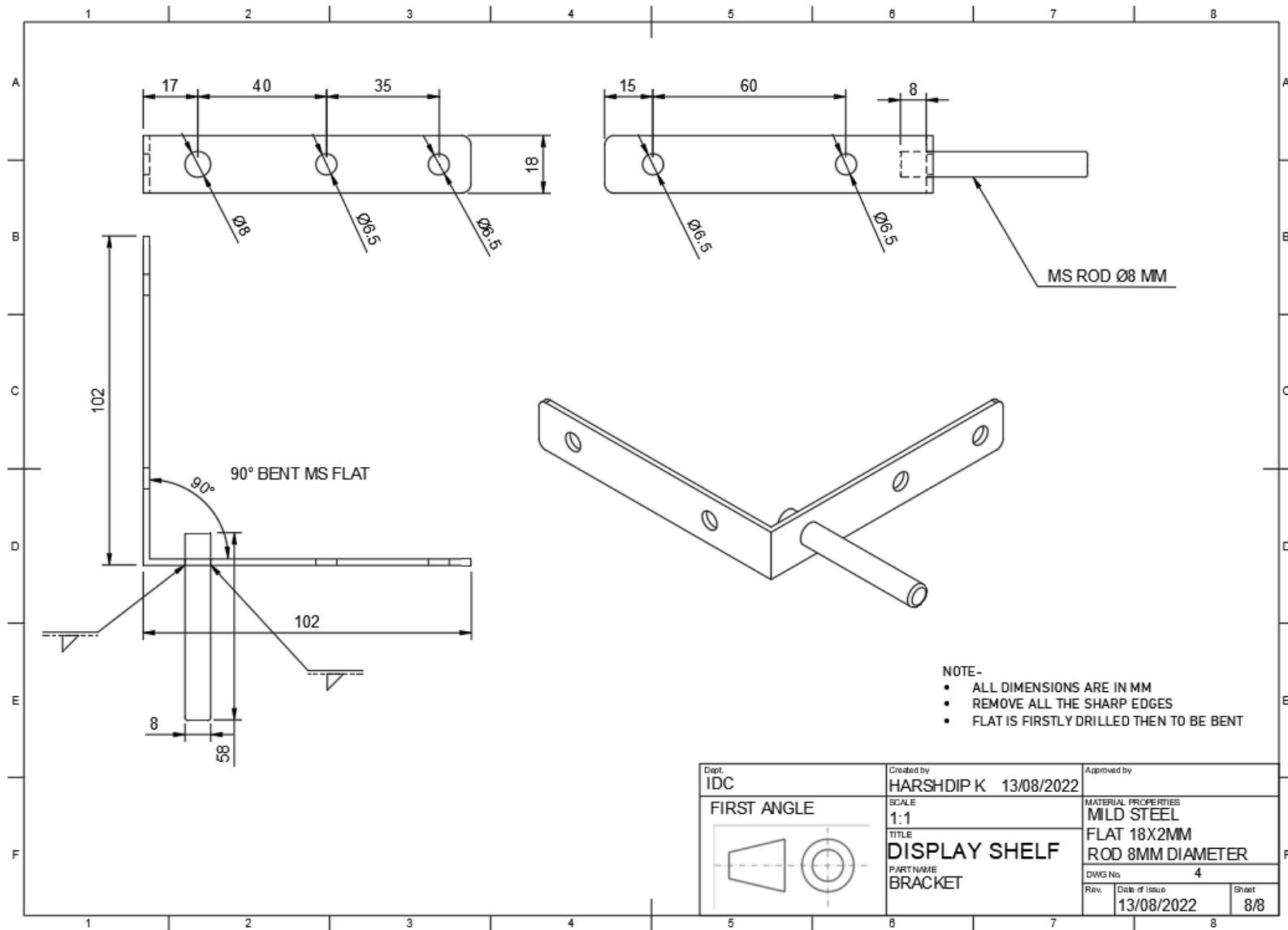
iii. Flat patti



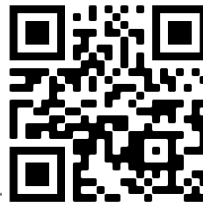
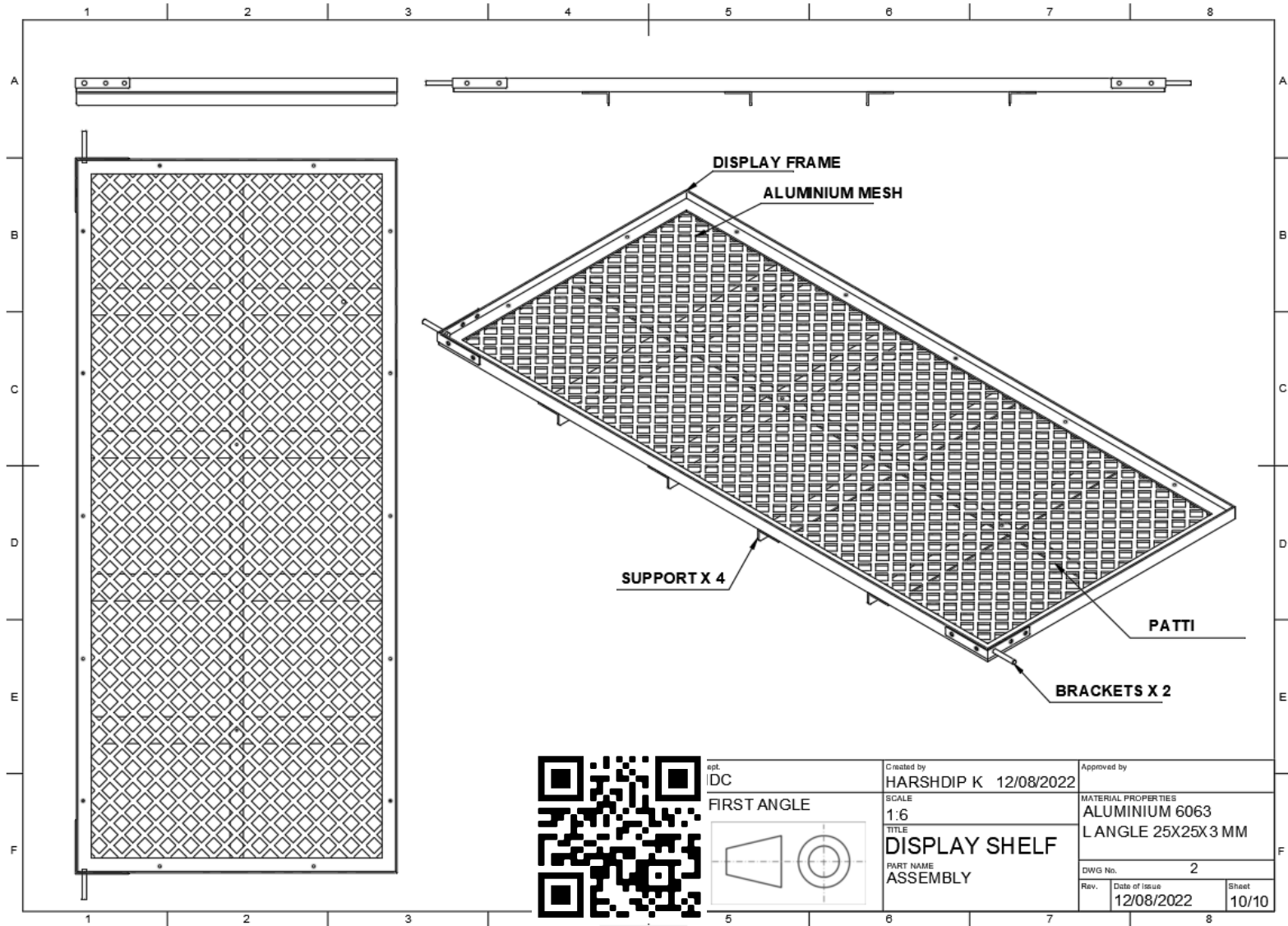
Assembly of Frame



iv. Shelf Bracket

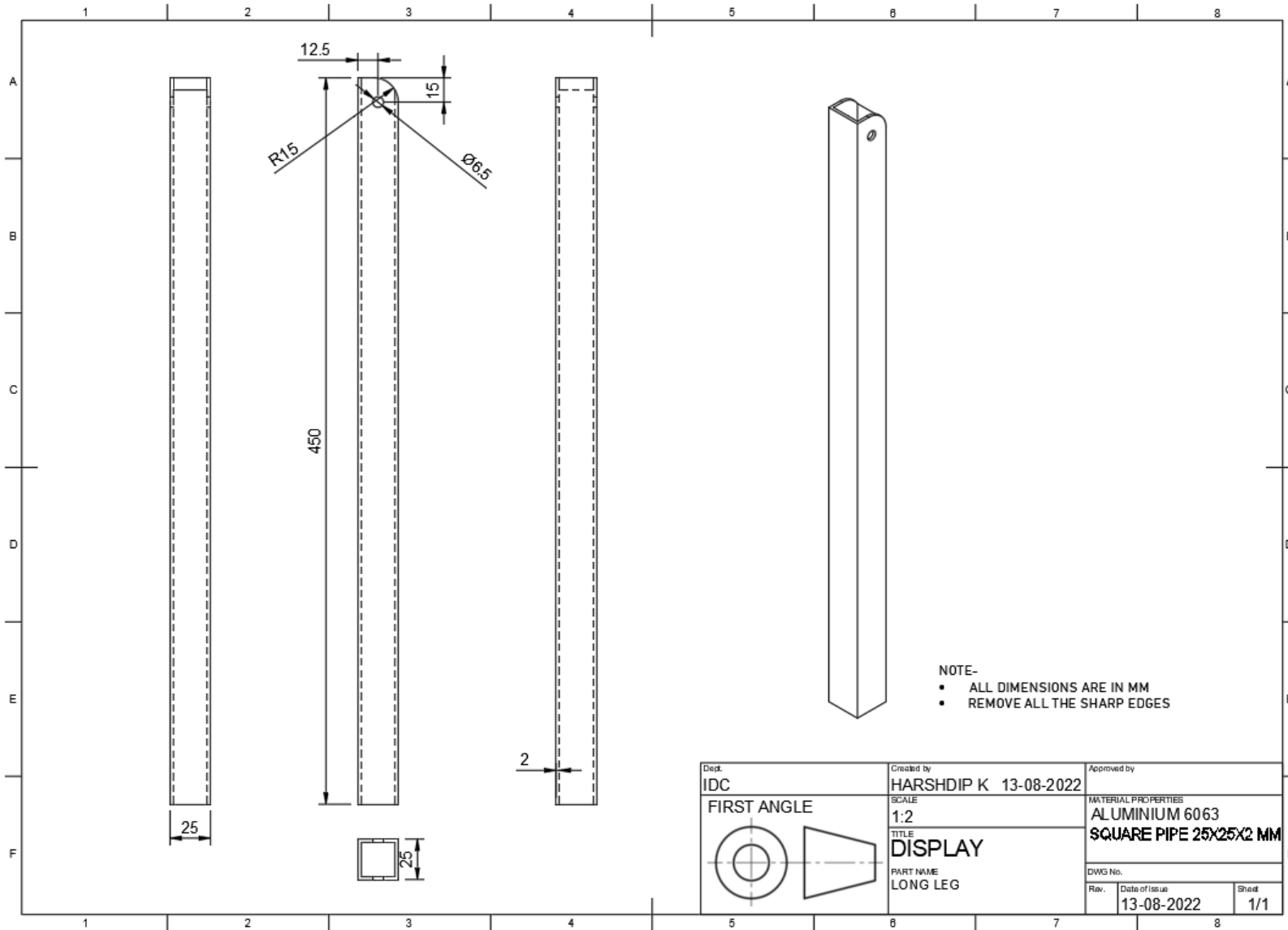


ASSEMBLY

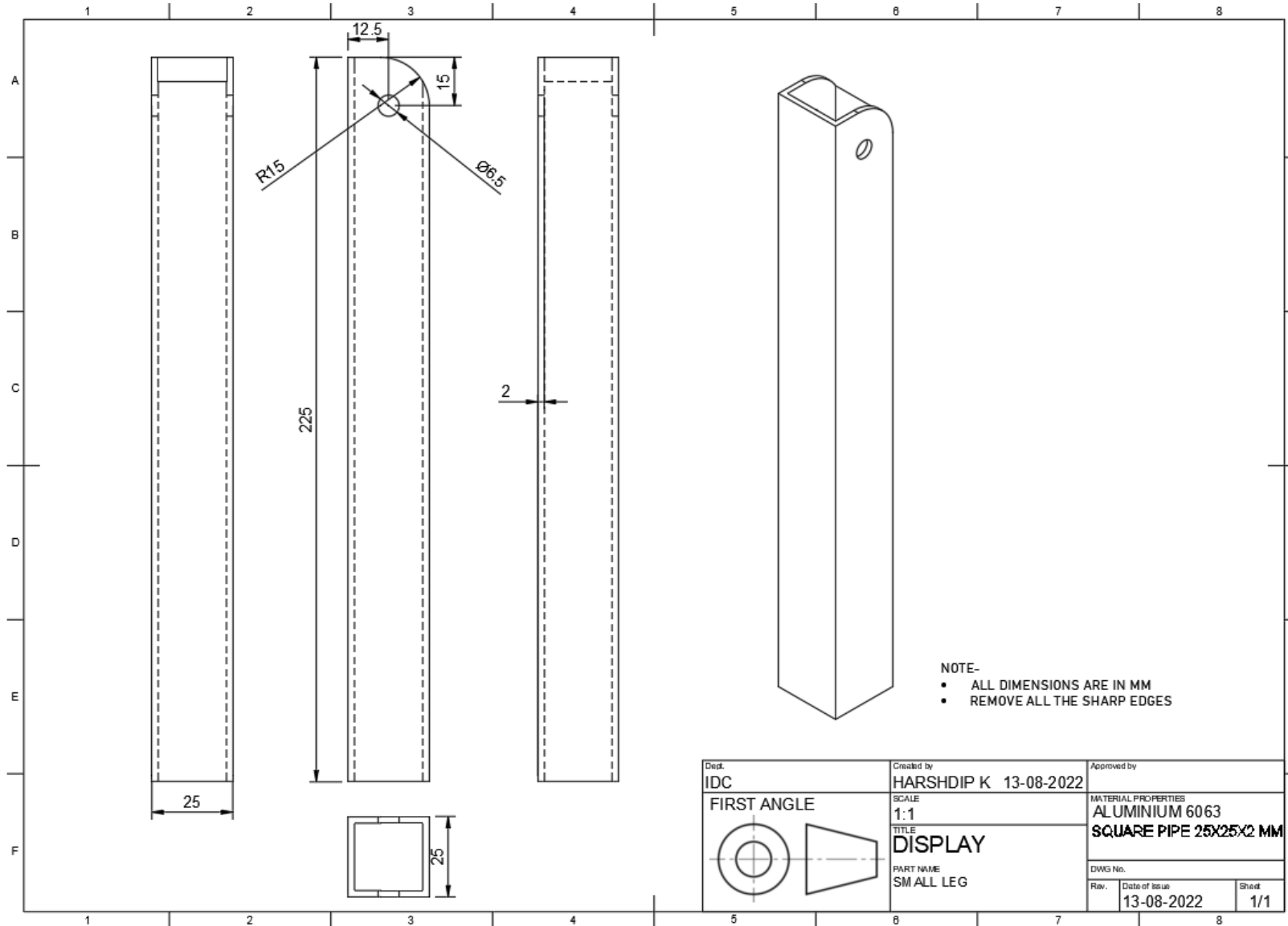


spt. IDC		Created by HARSHDIP K 12/08/2022		Approved by	
FIRST ANGLE		SCALE 1:6		MATERIAL PROPERTIES ALUMINIUM 6063	
		TITLE DISPLAY SHELF		L ANGLE 25X25X3 MM	
PART NAME ASSEMBLY		DWG No. 2			
Rev.	Date of Issue	Sheet			
	12/08/2022	10/10			

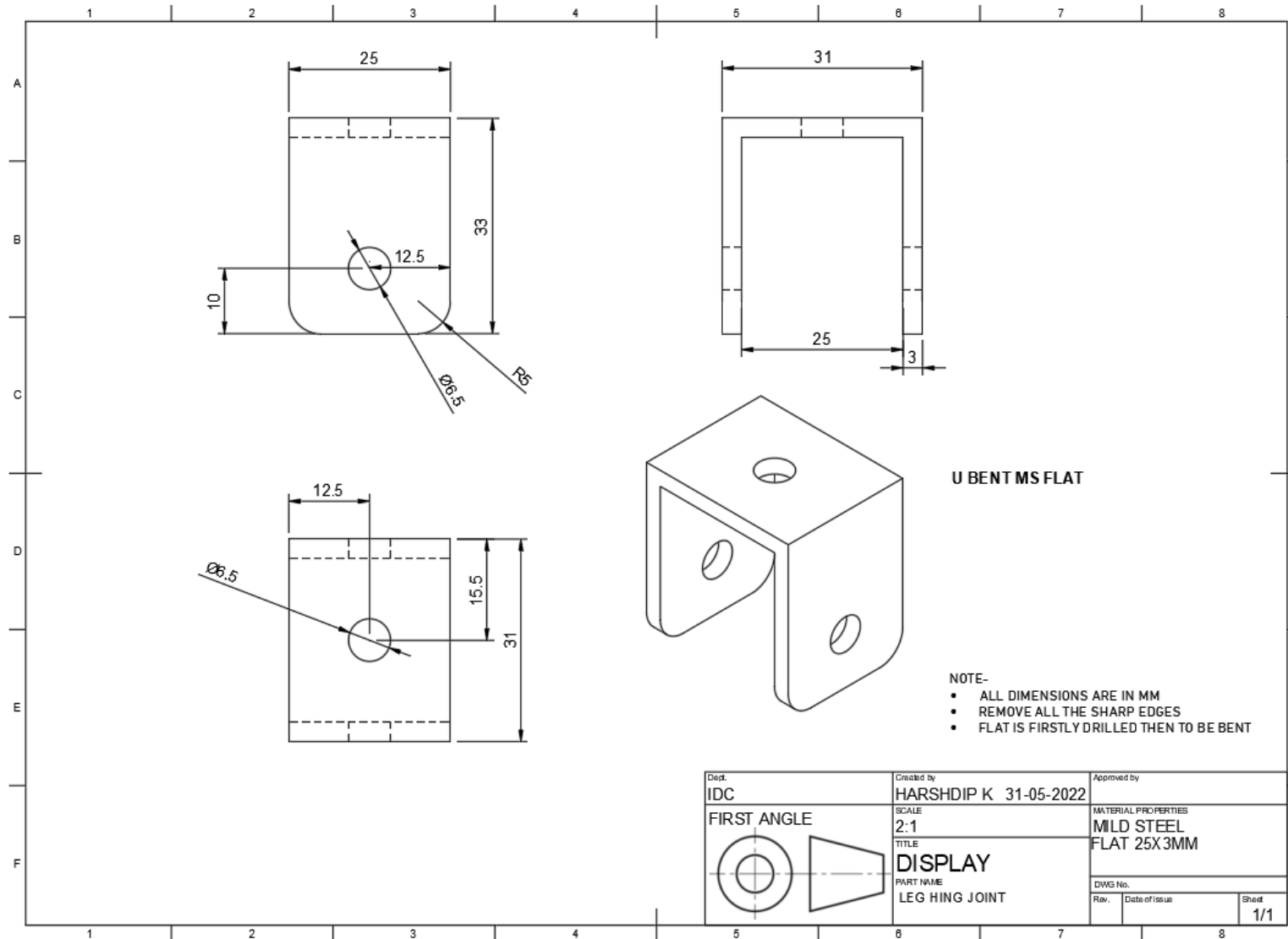
v. Leg

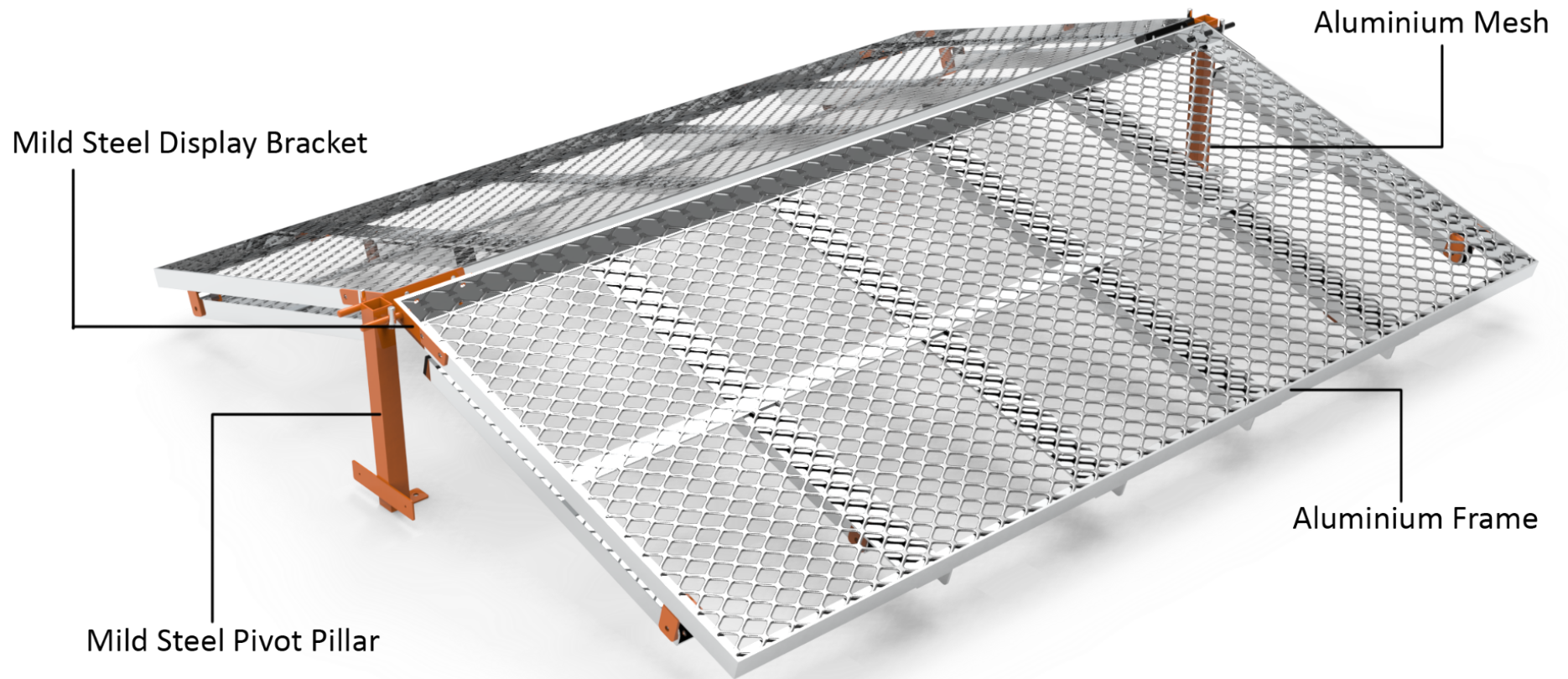


Vi. Leg



vii. Hinge Joint

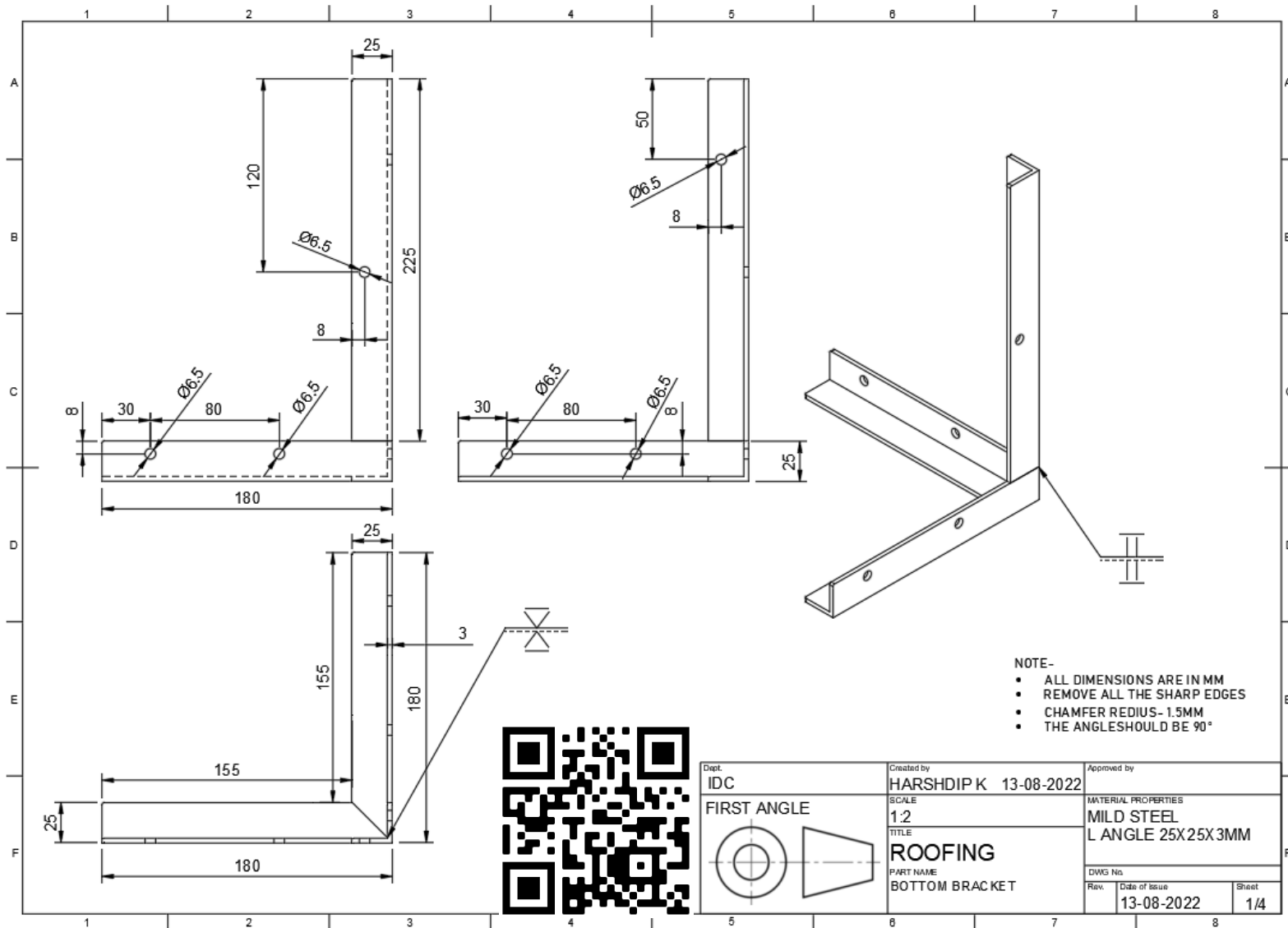




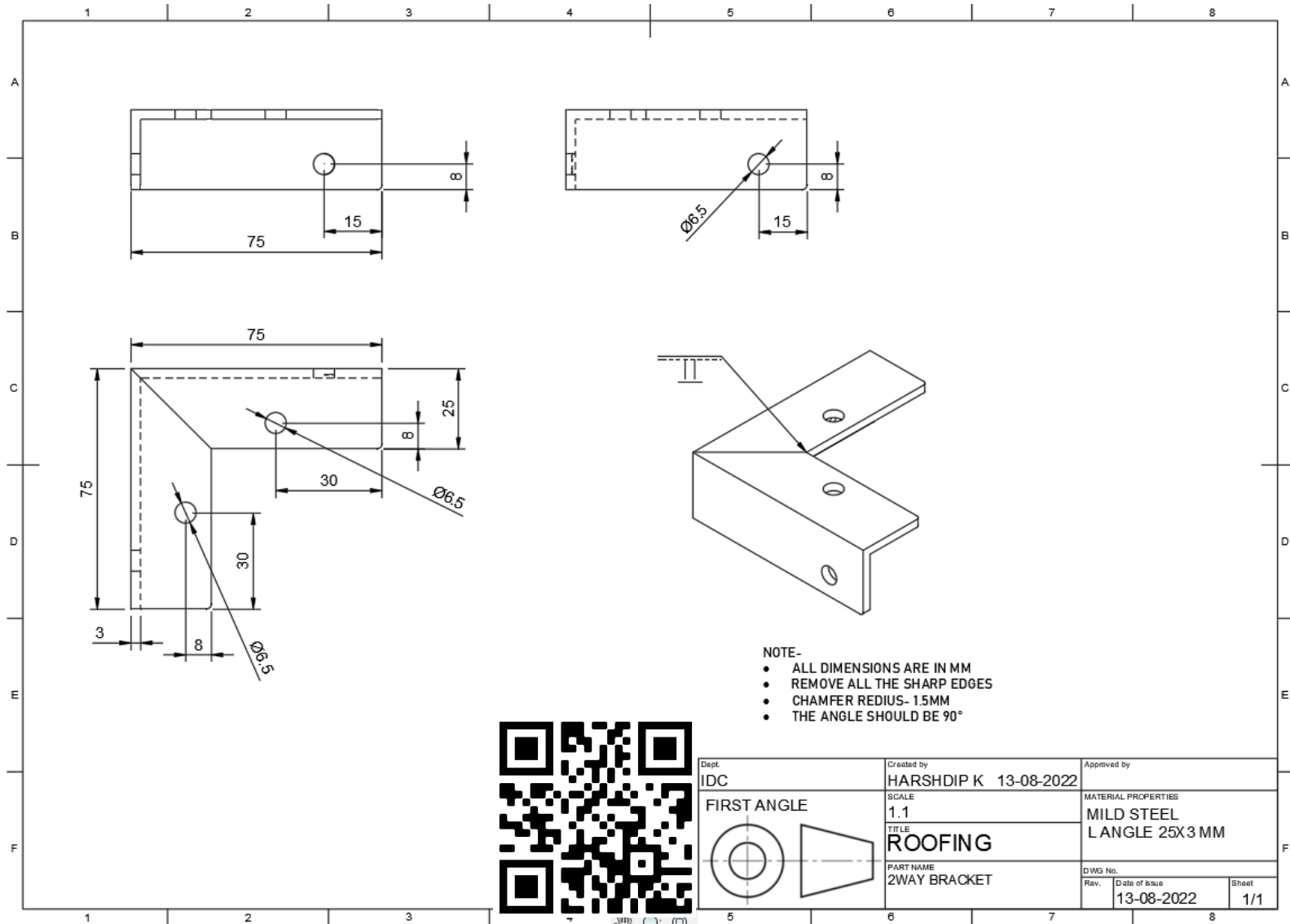
2. Roofing

PART NAME	MATERIAL	CROSS SECTIONS	THICKNESS	QUANTITY	COLOUR CODE
Bottom Bracket	MS	L Angle (25x25)	3mm	4	RAL2000
2 way connector				2	RAL2000
3 way connector				2	RAL2000
4 way connector1				1	RAL2000
4 way connector2				1	RAL2000
Roofing Pillar	Aluminium (6063)	Pipe(25x25)	2mm	4	RAL1021
Long beam				2	RAL1021
Small beam				3	RAL1021
Central beam				1	RAL1021
Angle beam		L angle(25x25)	2mm	4	RAL1021
Roofing L Joint		L angle(25x25)	2mm	8	RAL9005
Vendor side Beam		Pipe(25x25)	2mm	2	RAL1021

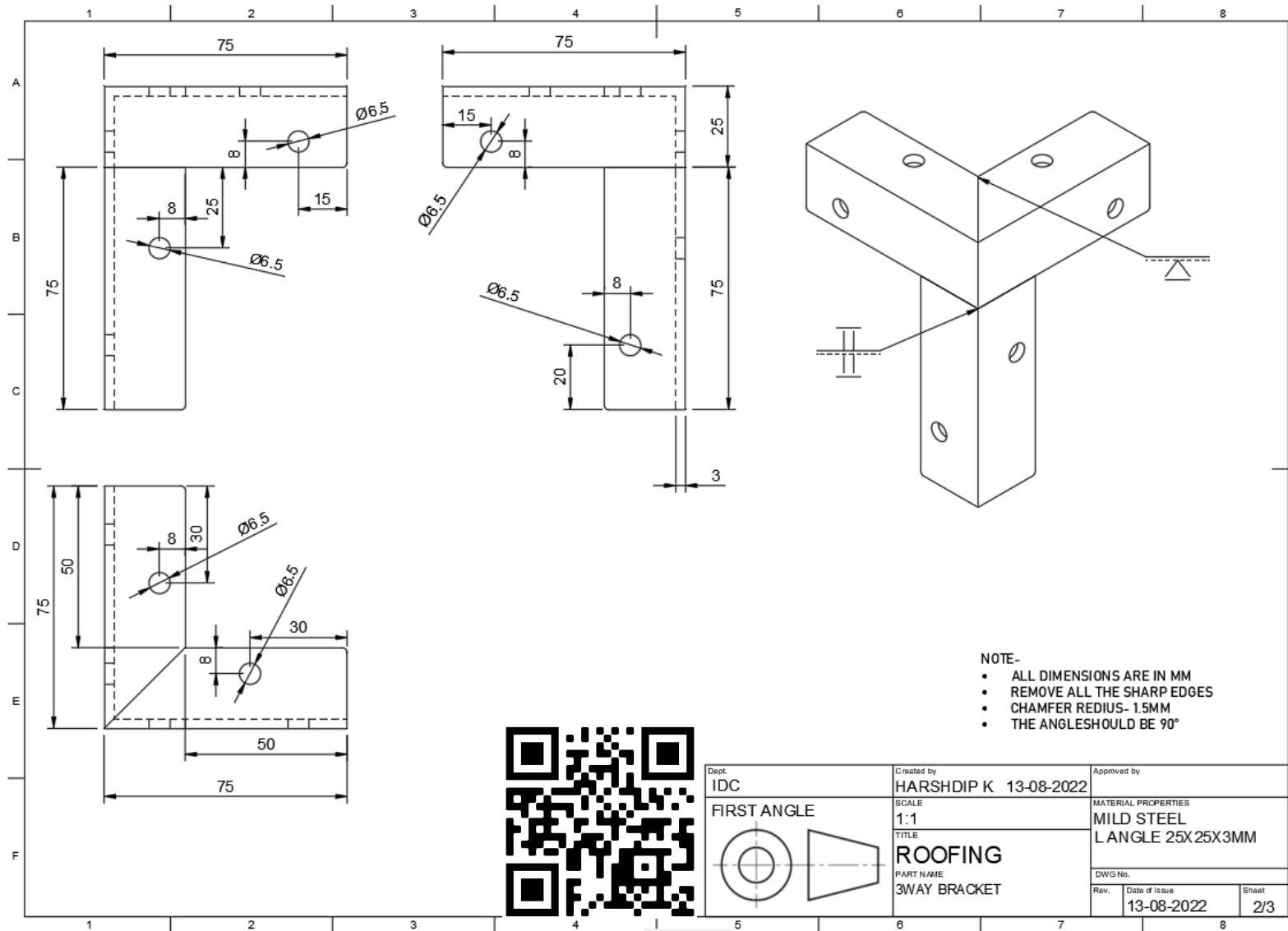
a. Bottom Bracket



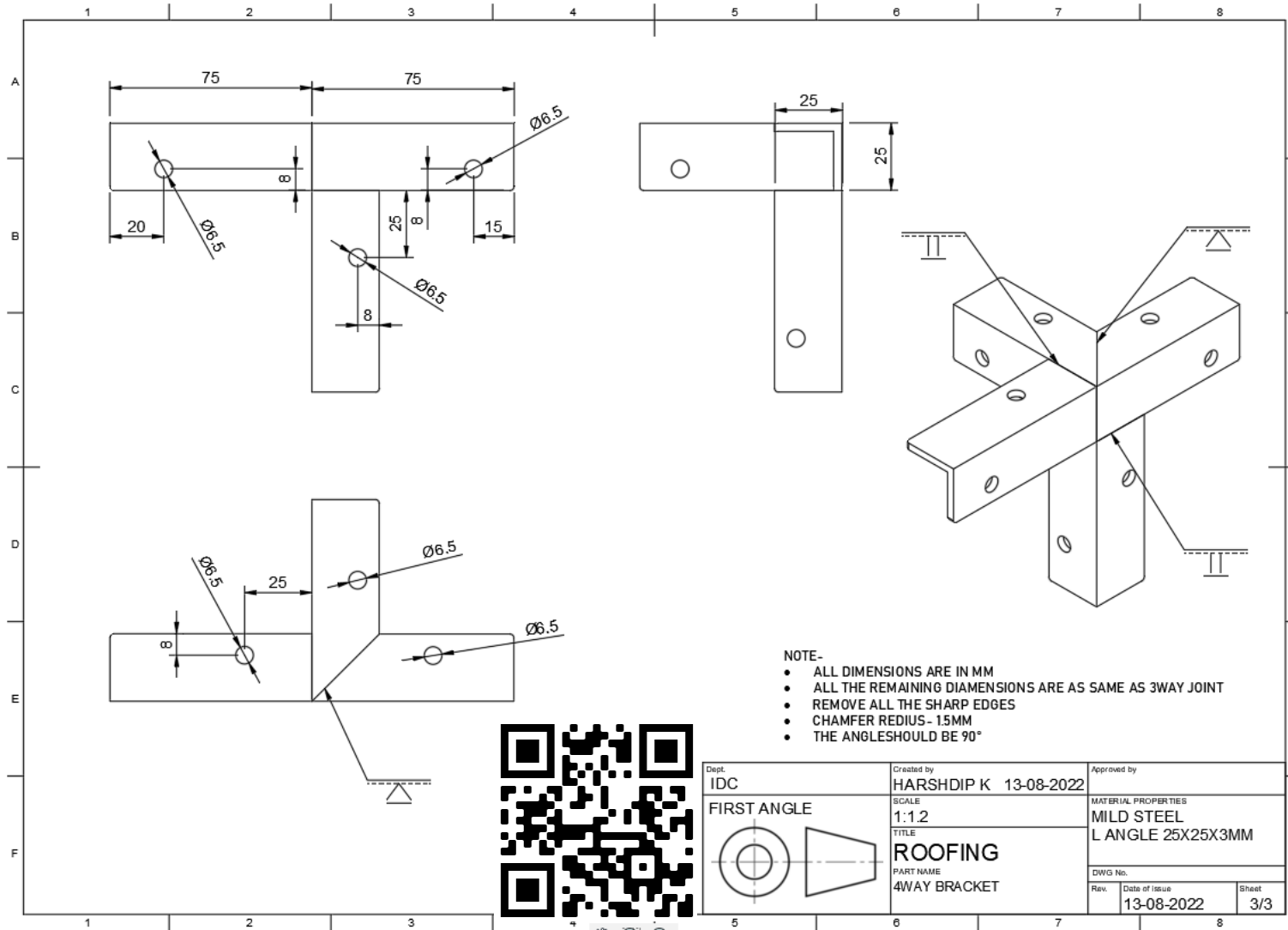
b. 2-way connector



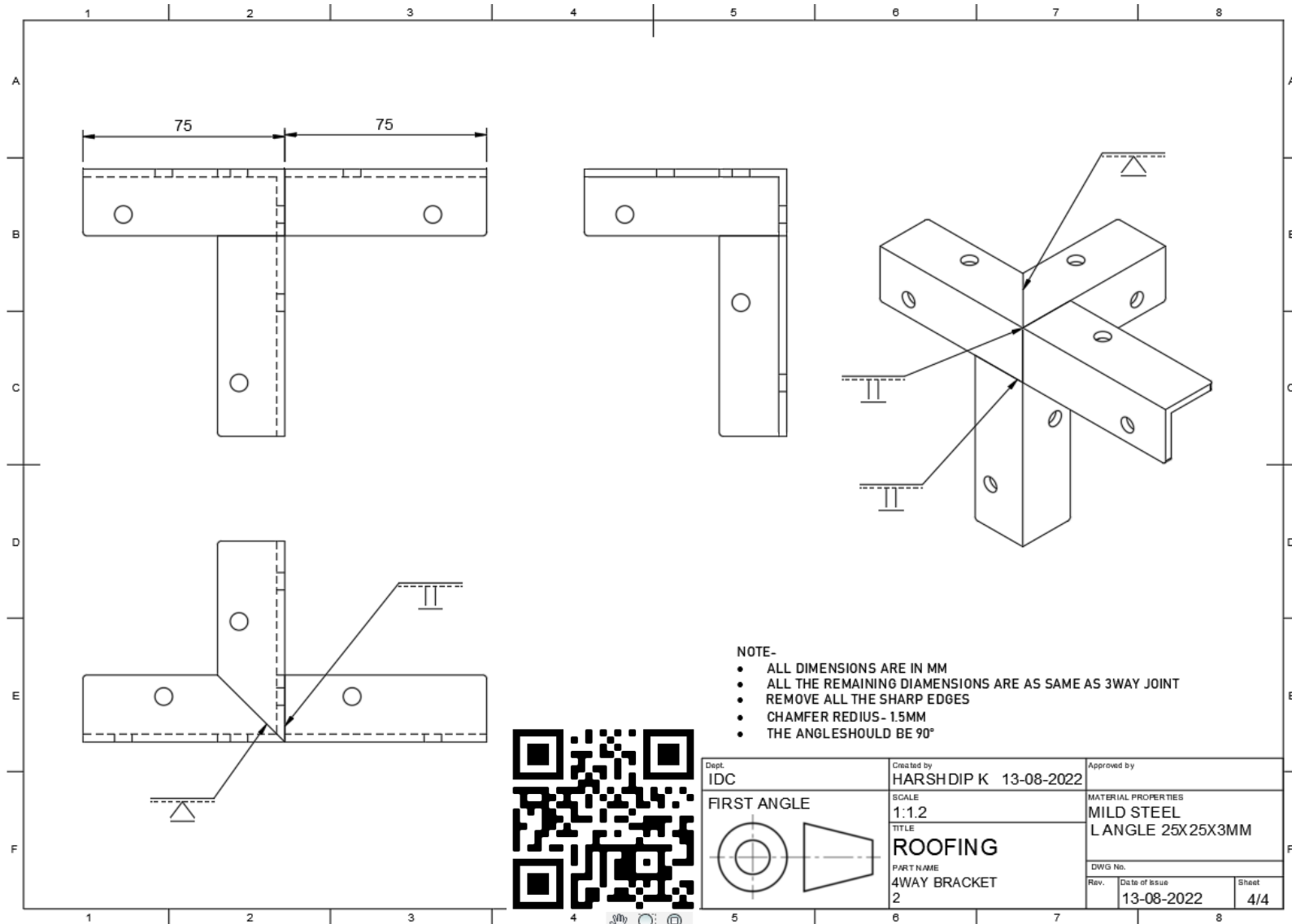
c. 3-way connector



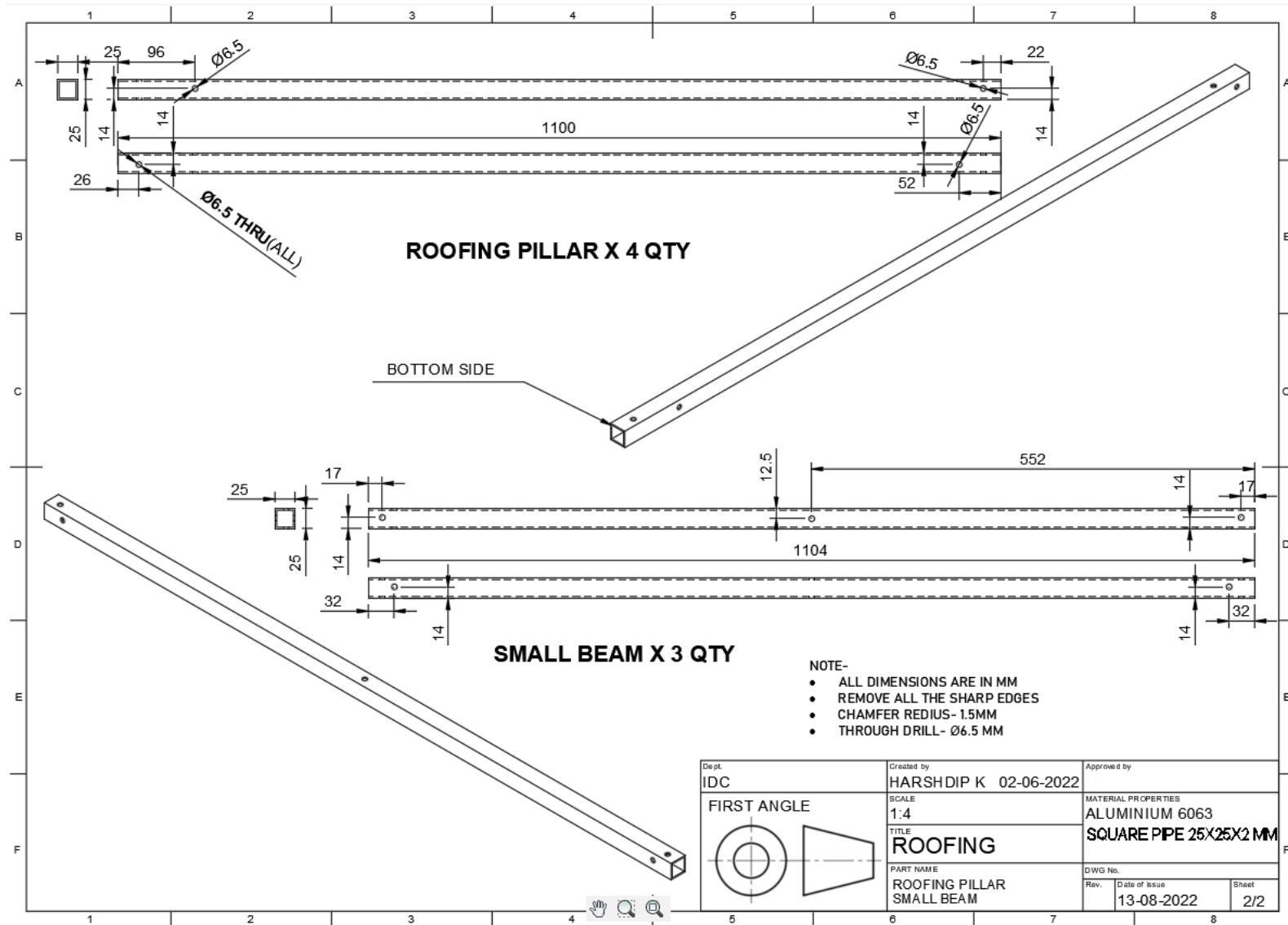
d. 4-way connector 1



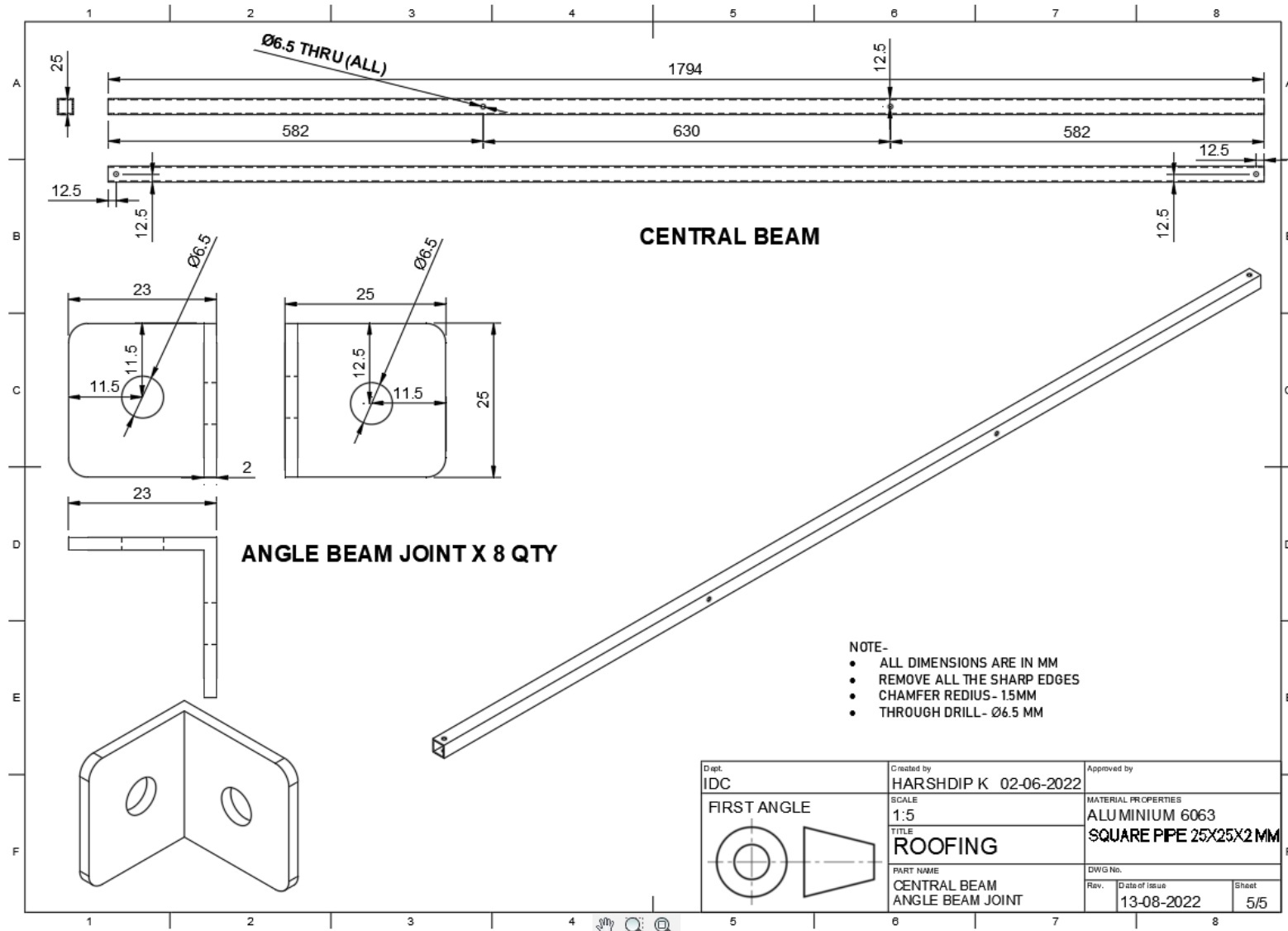
e. 4-way connector 2



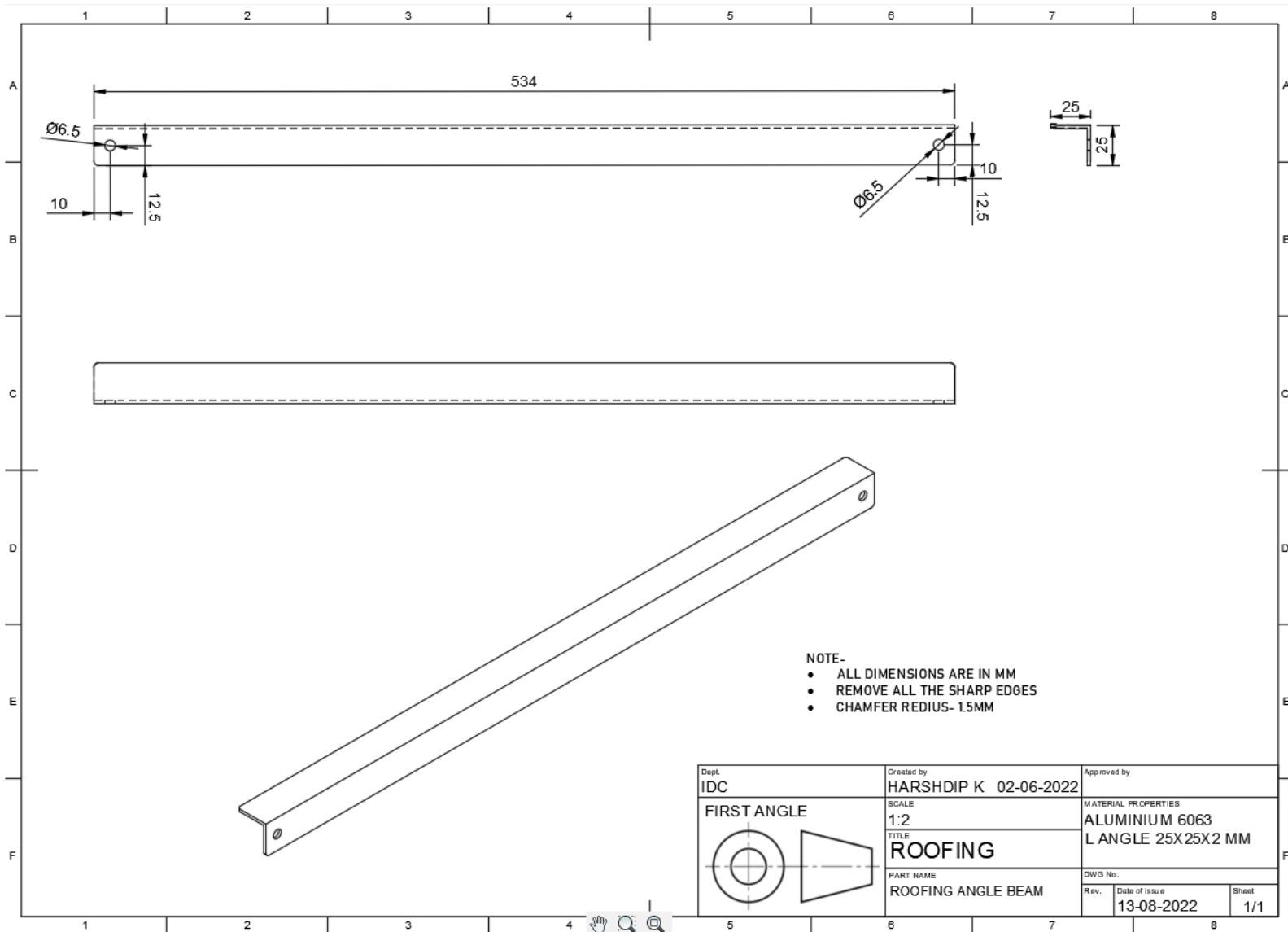
f. Roofing Pillar and Small Beam



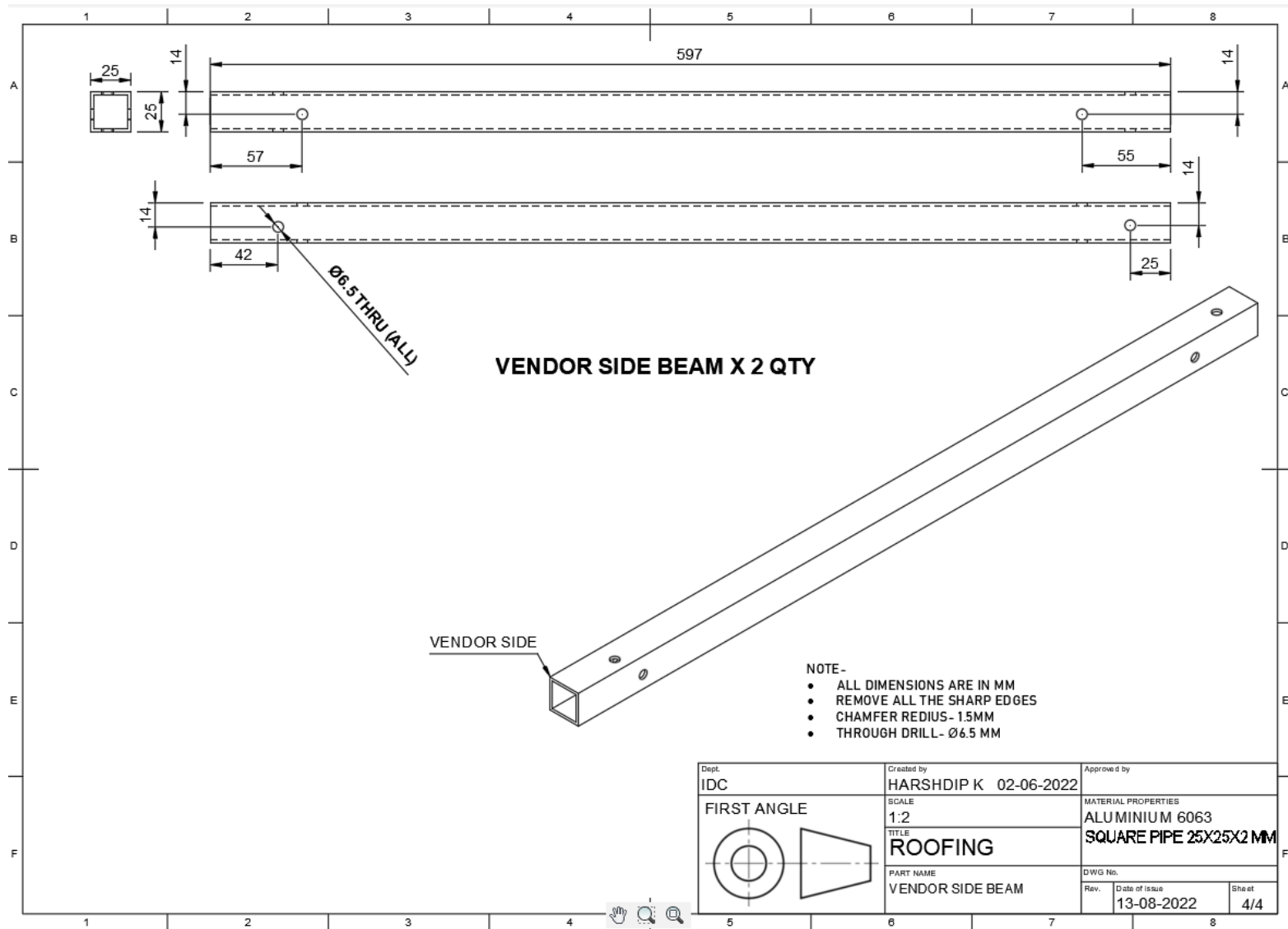
h. Central Beam and Angle beam joint

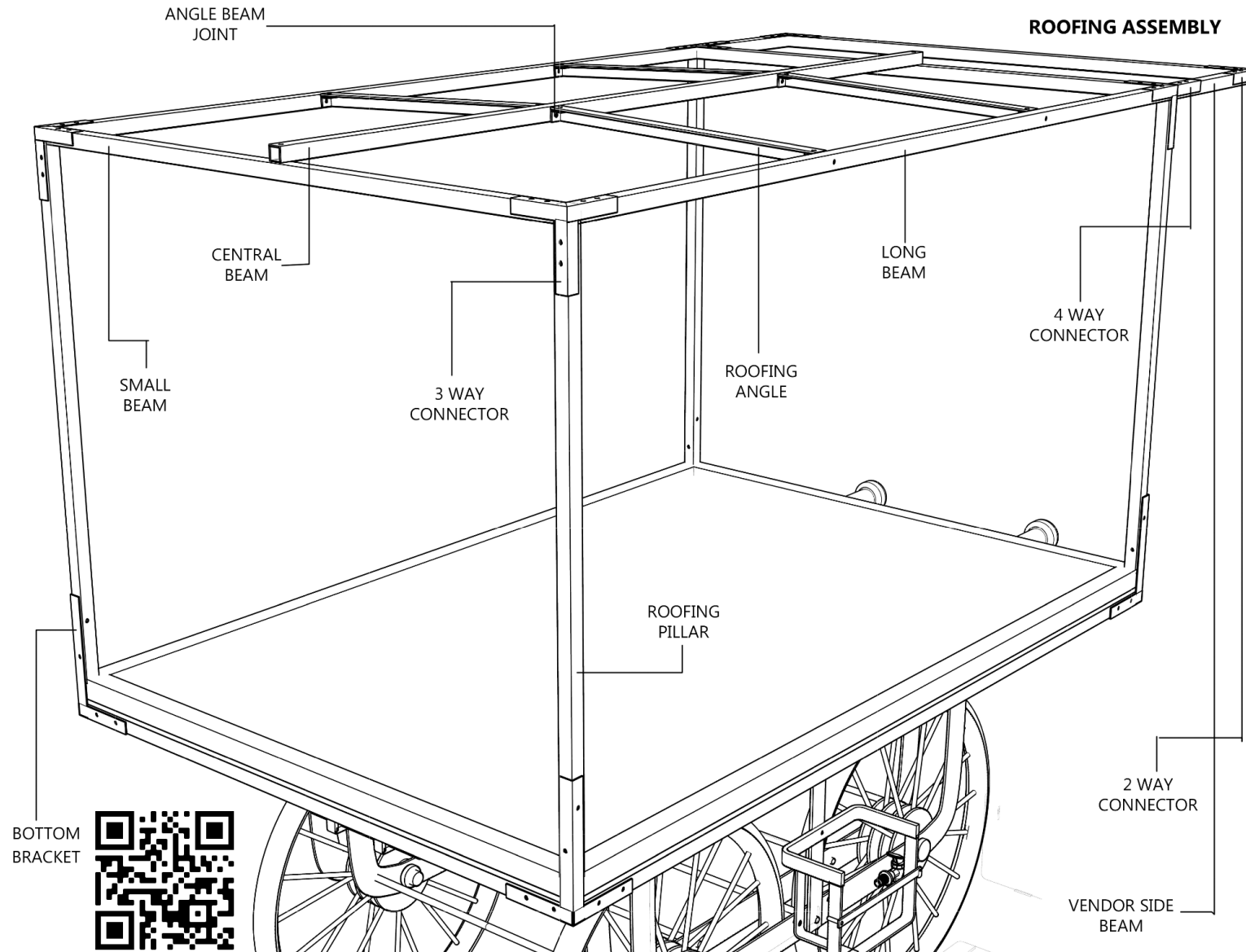


i. Angle beam



j. Vendor side Beam

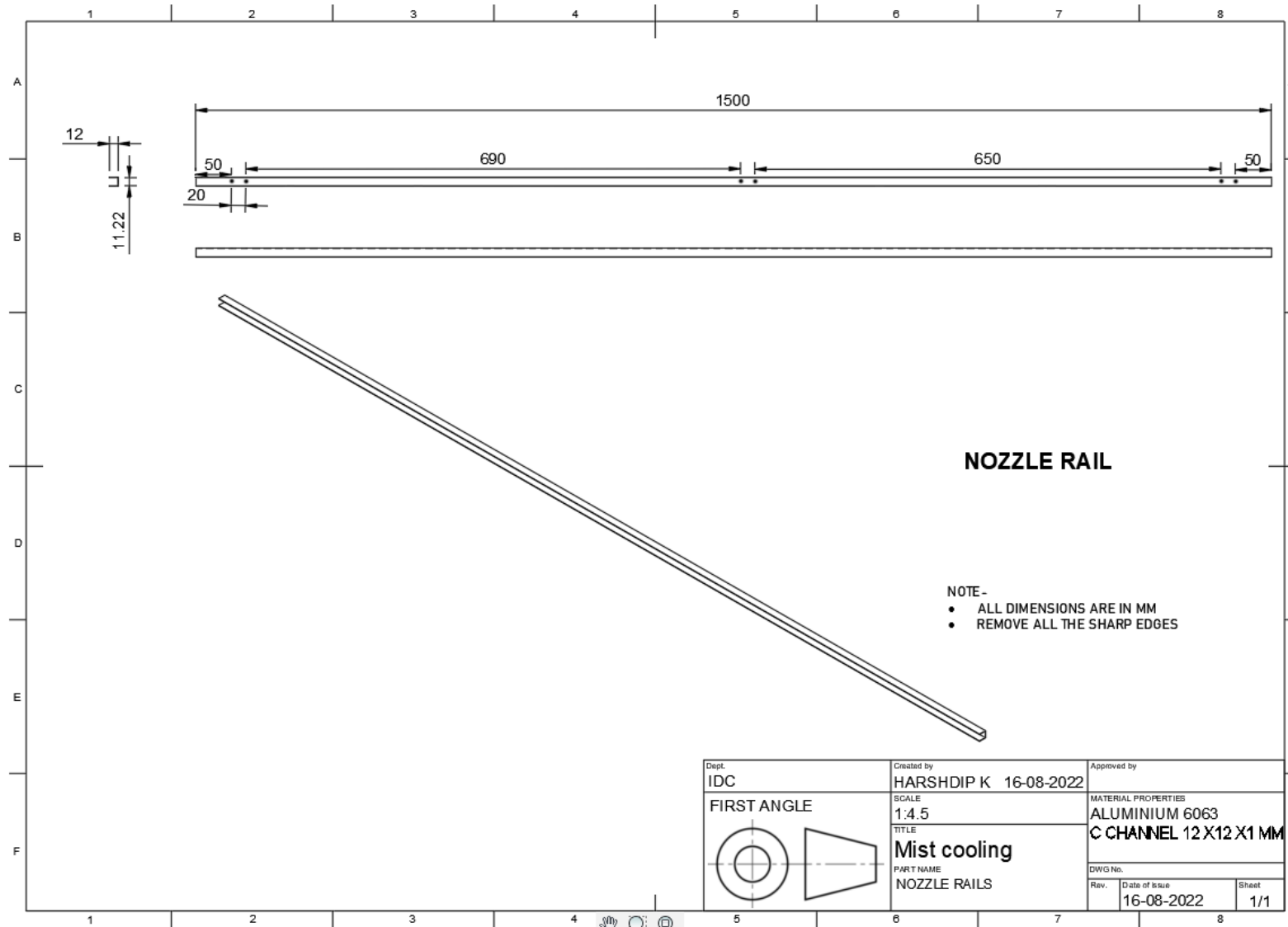




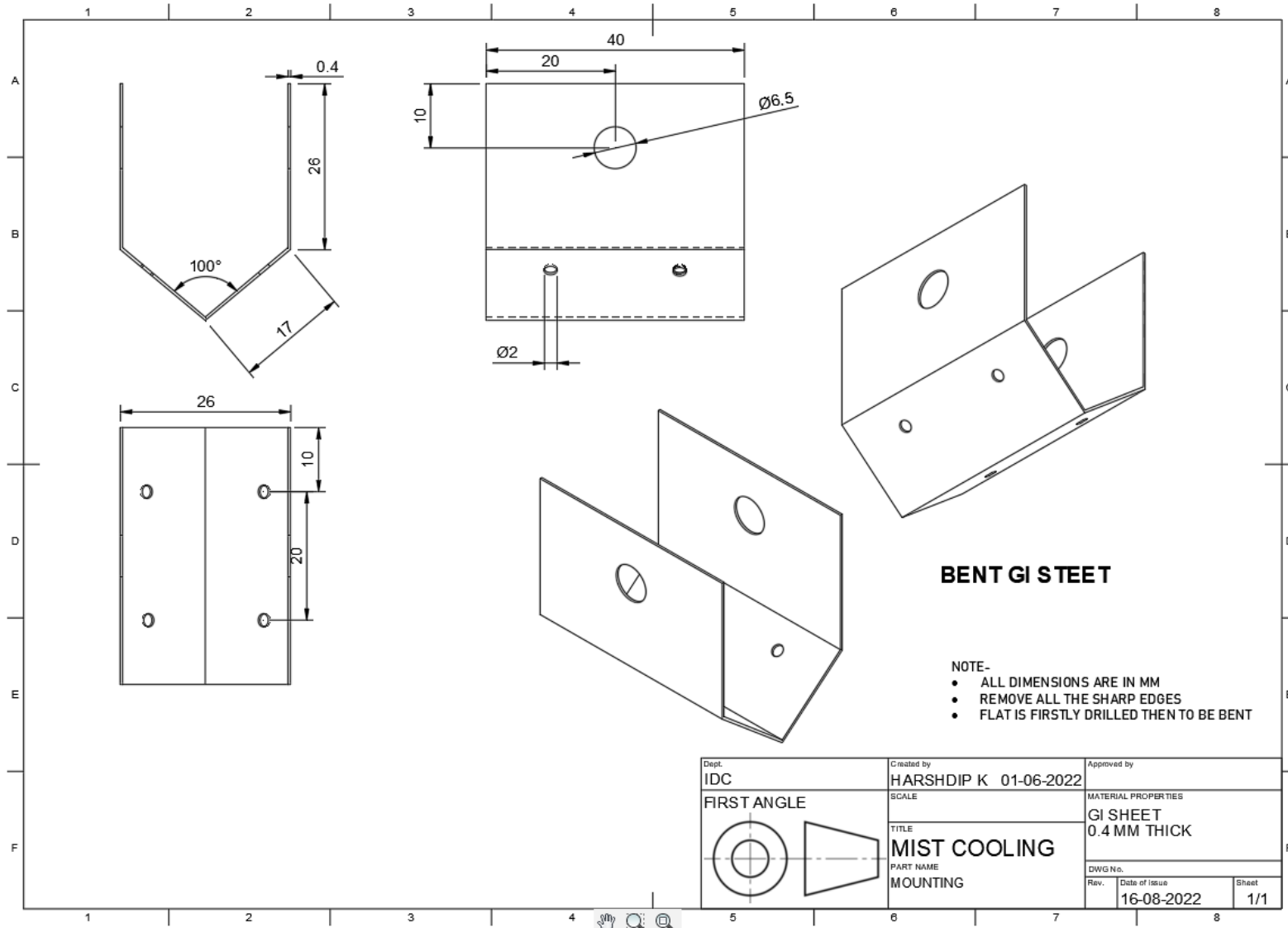
3. Mist cooling

PART NAME	MATERIAL	CROSS SECTIONS	THICKNESS	QUANTITY
Mist Rail	Aluminium	U section 12mm	1mm	2
Mist Bracket	GI sheet	sheet	0.4 mm	3

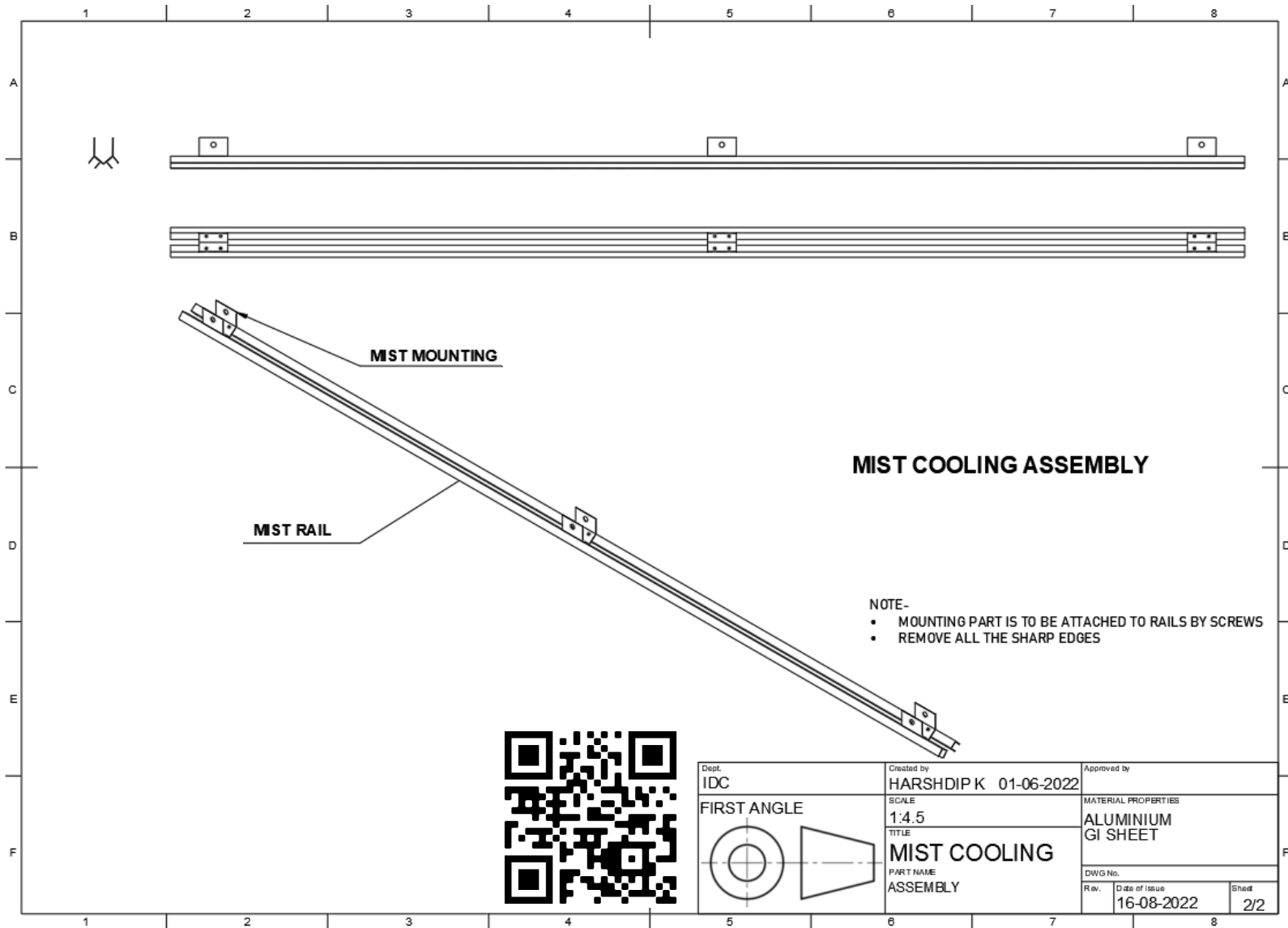
a. Nozzle Rail








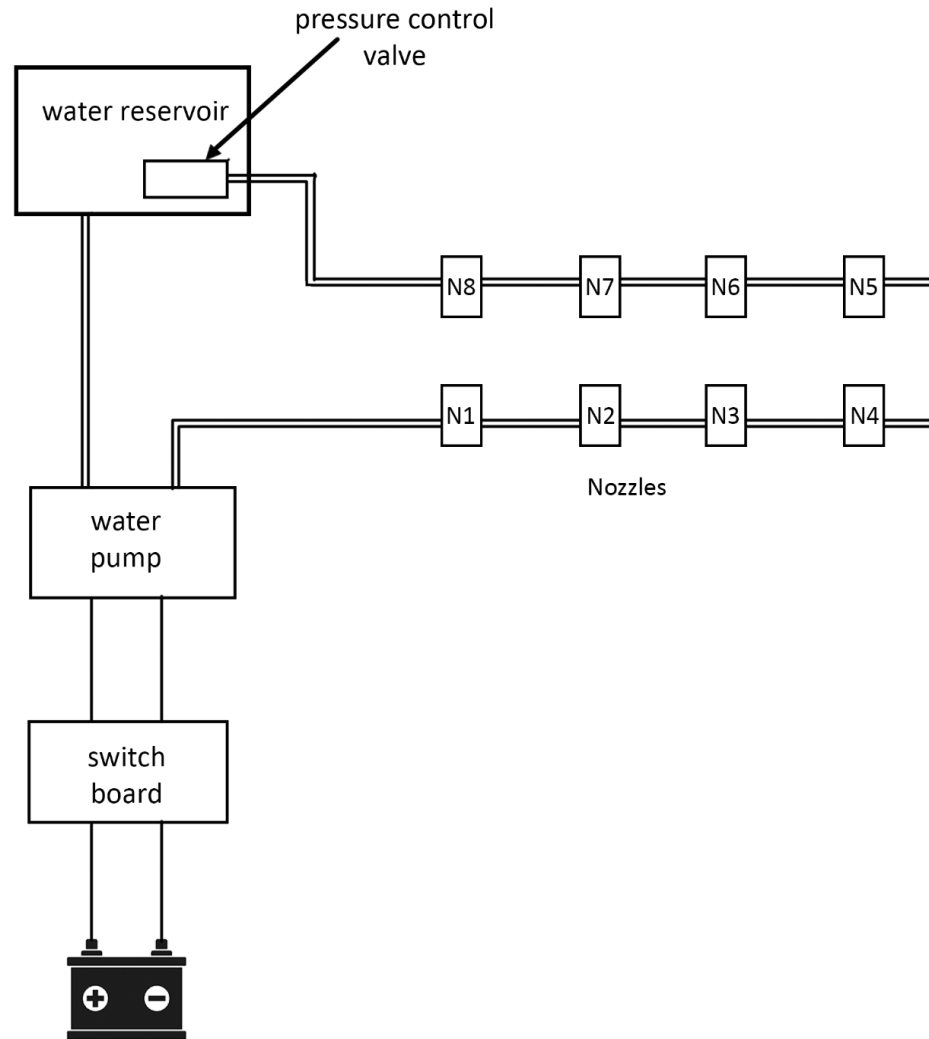
b. Mist bracket



Assembly



Part name	Dimensions	Quantity	Image
T connector	6mm	8	
Nozzle	6mm	8	
Pressure control valve	6mm	1	
Pipe	6mm	10 m	
Jerry Can	10L	2	

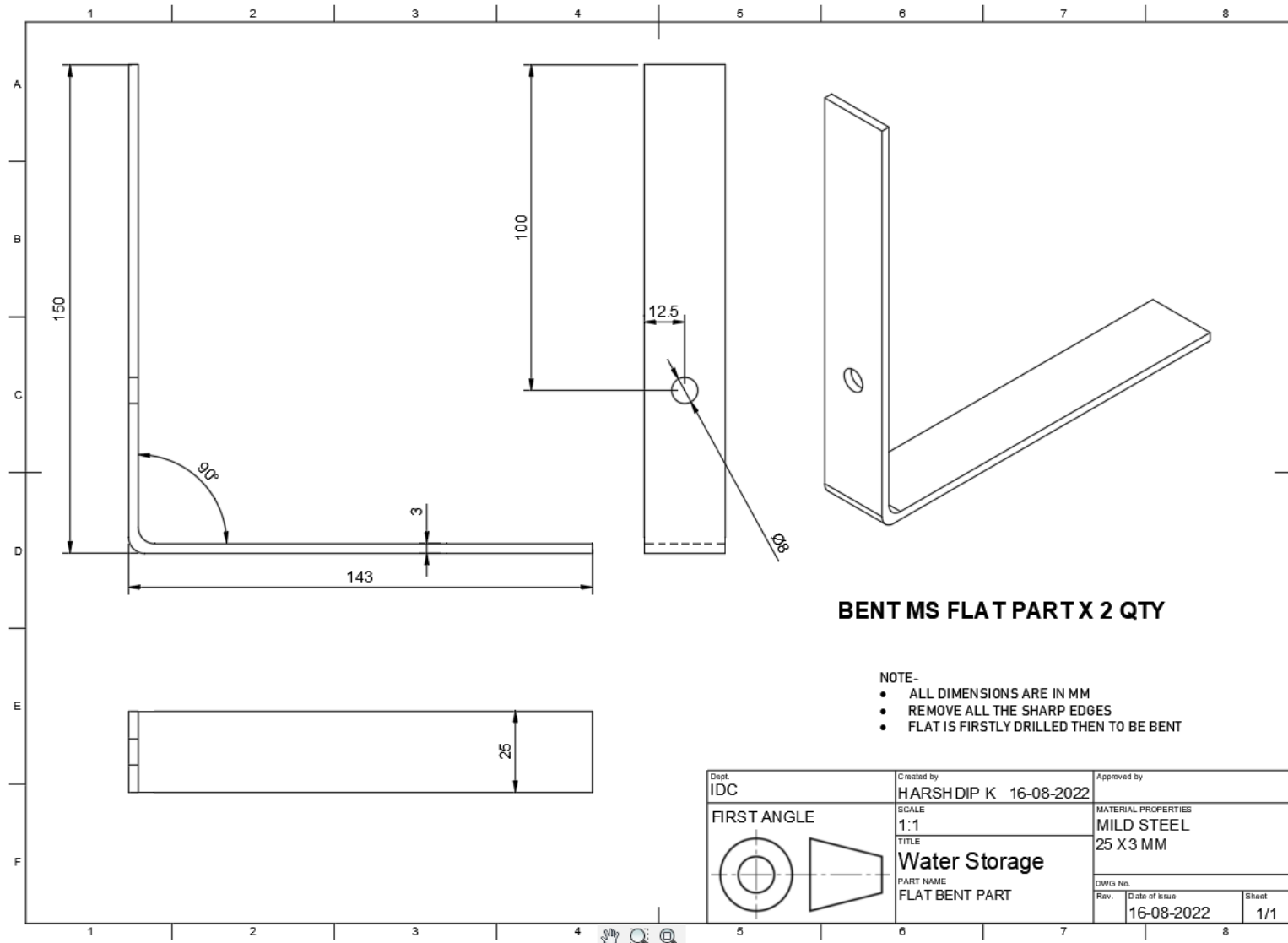


Mist Cooling system

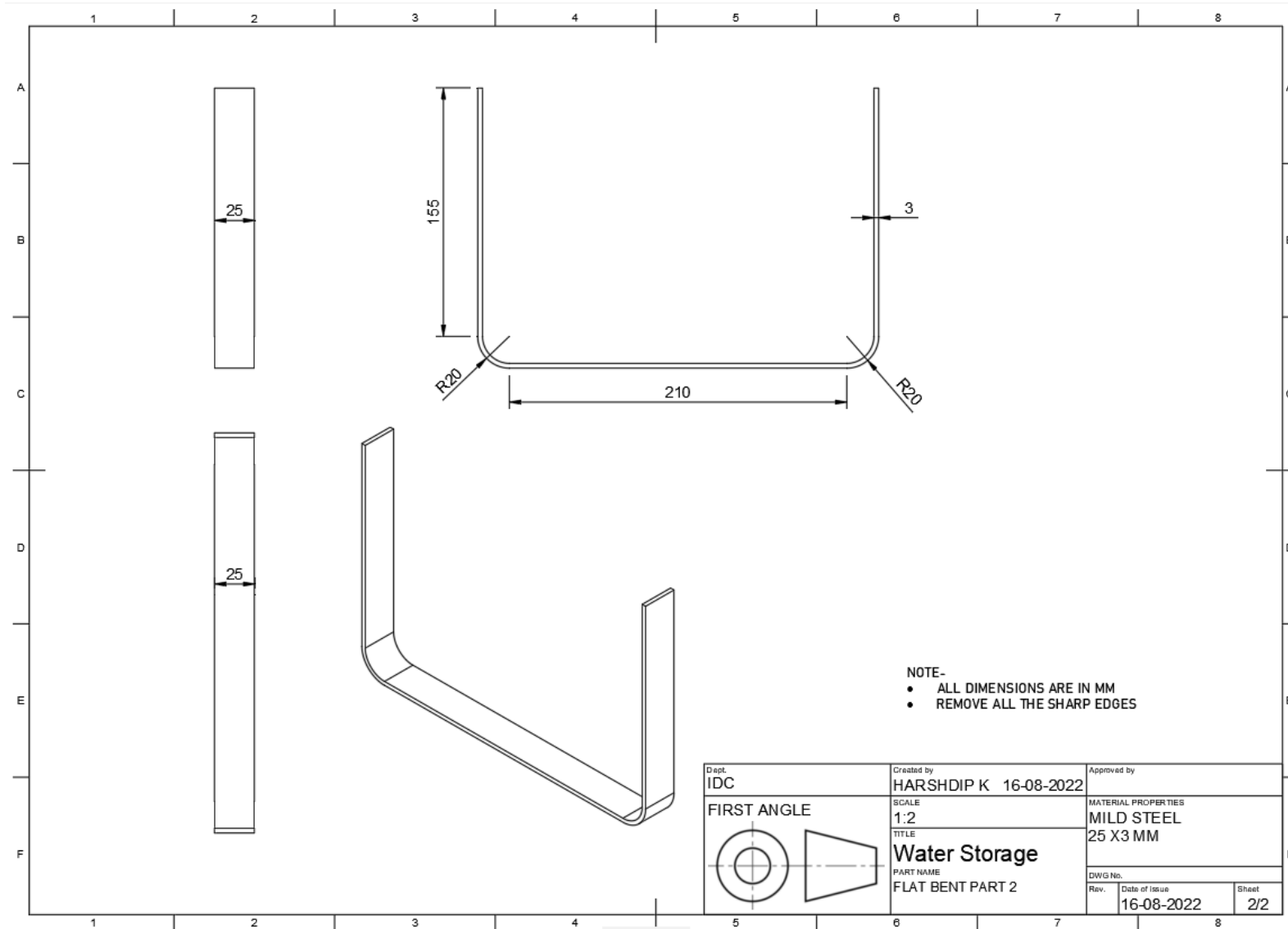
4. Water storage

PART NAME	MATERIAL	CROSS SECTIONS	THICKNESS	QUANTITY	COLOUR CODE
Flat bent 1	MS	Flat 25 x 3mm	3mm	1	RAL2000
Flat bent 2				1	
Flat bent 3				1	
Straight rod		8 mm dia Rod	8 mm	1	
Bent Rod				1	
Stopper		Flat 25 x 3mm	3 mm	1	

a. Flat bent part




b. Flat bent part 2

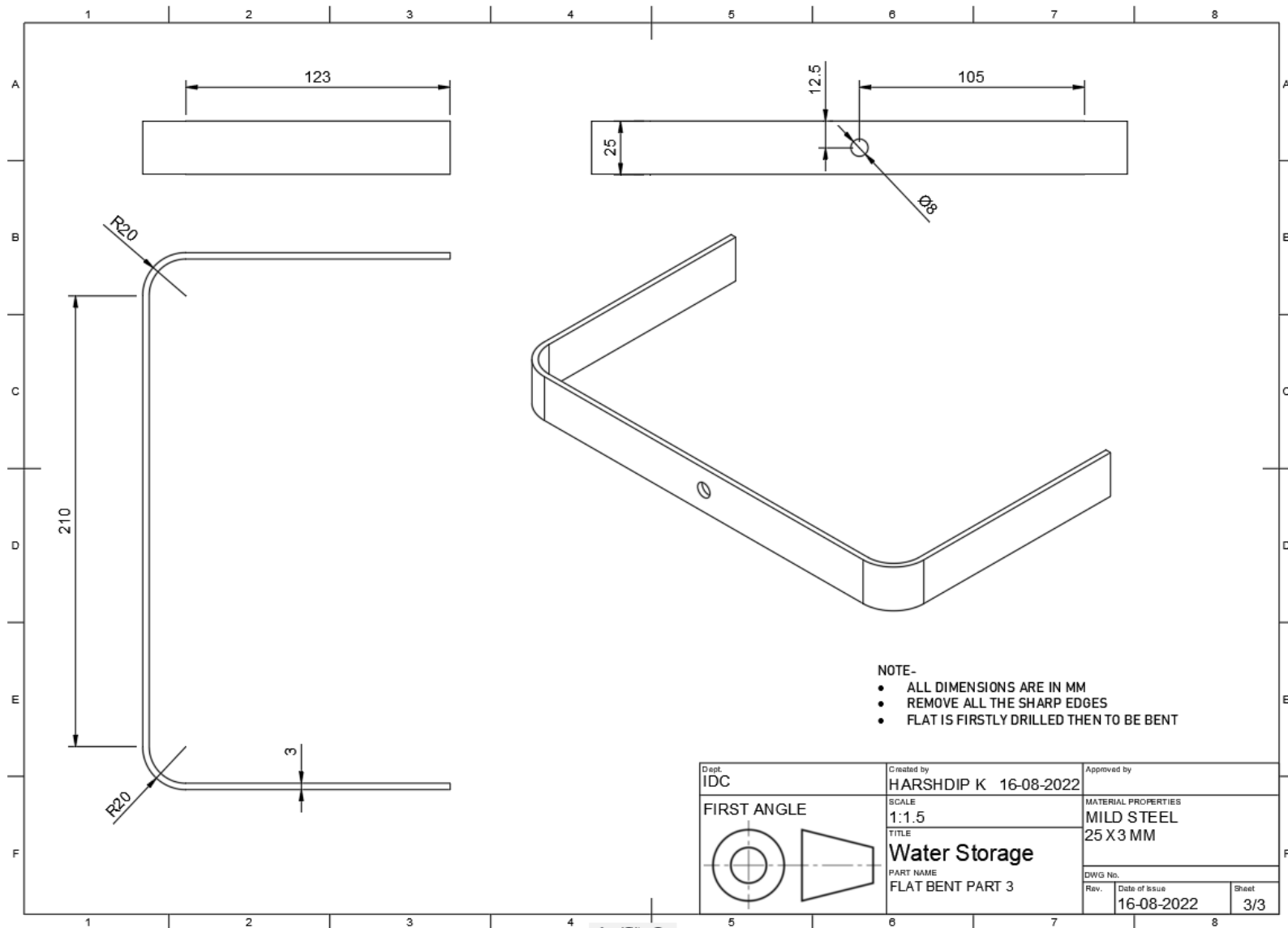


NOTE-

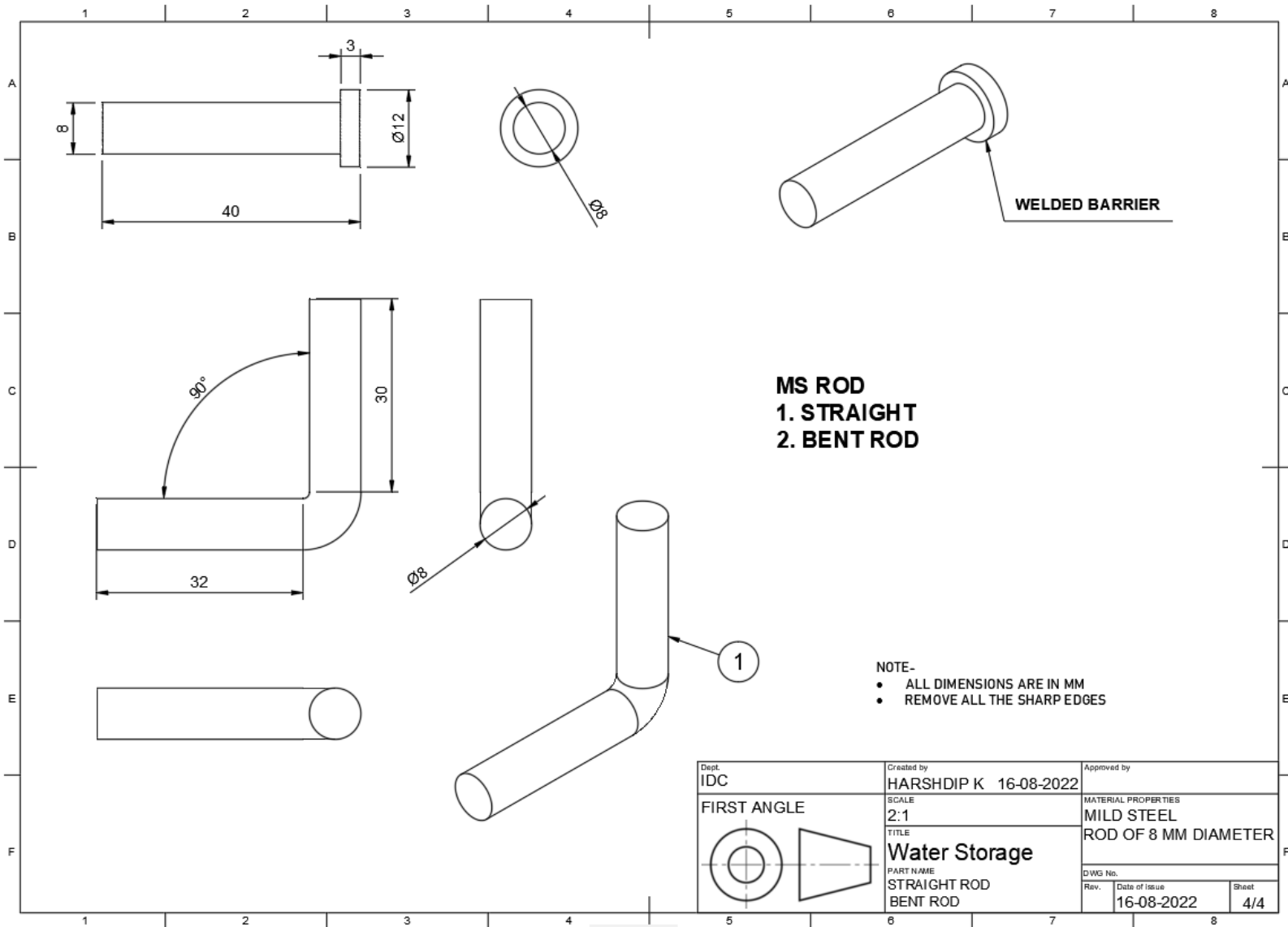
- ALL DIMENSIONS ARE IN MM
- REMOVE ALL THE SHARP EDGES

Dept. IDC	Created by HARSHDIP K 16-08-2022	Approved by
FIRST ANGLE	SCALE 1:2	MATERIAL PROPERTIES MILD STEEL 25 X3 MM
	TITLE Water Storage	DWG No.
	PART NAME FLAT BENT PART 2	Rev.
		Date of issue 16-08-2022
		Sheet 2/2

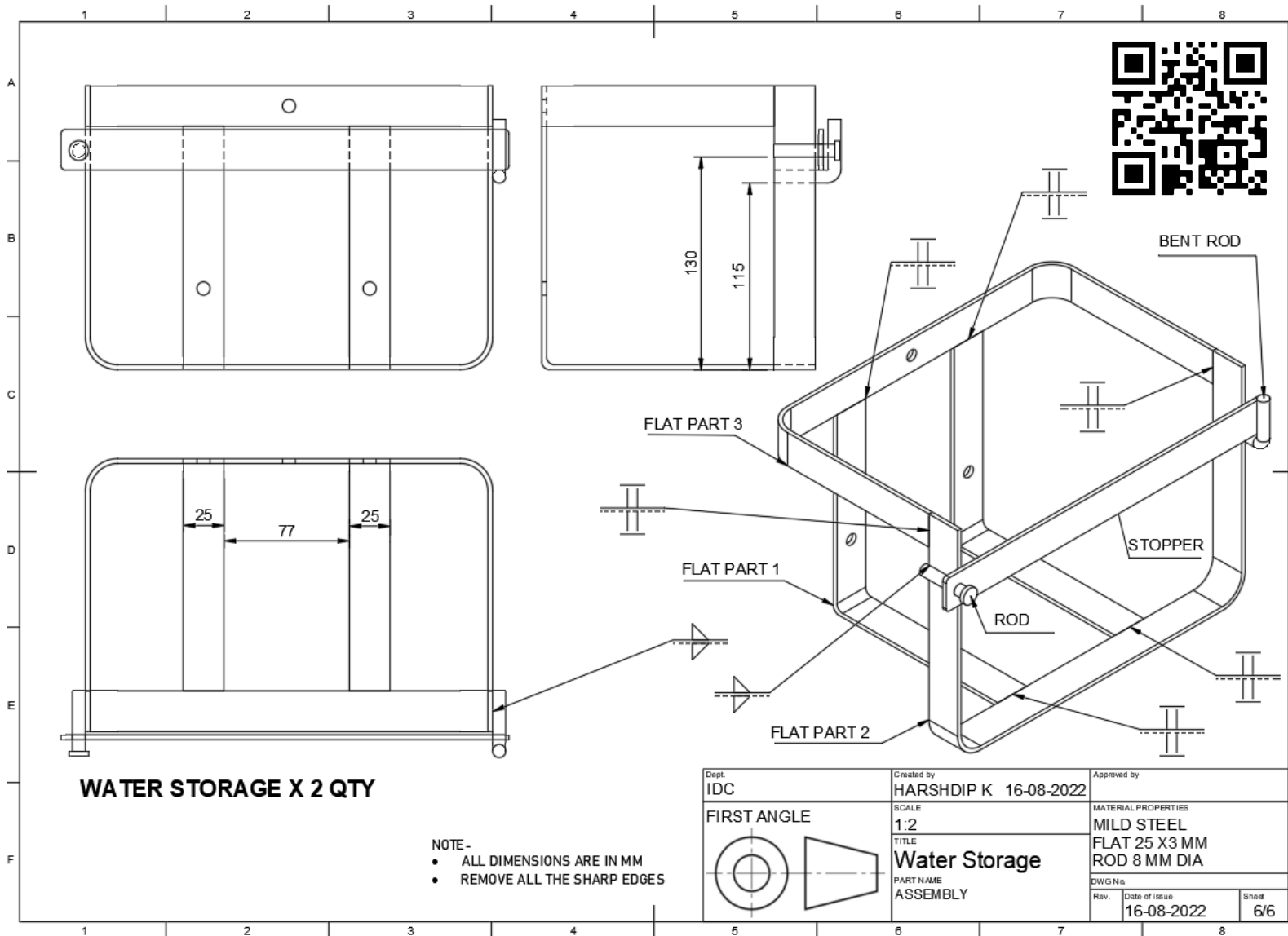
c. Flat bent part 3

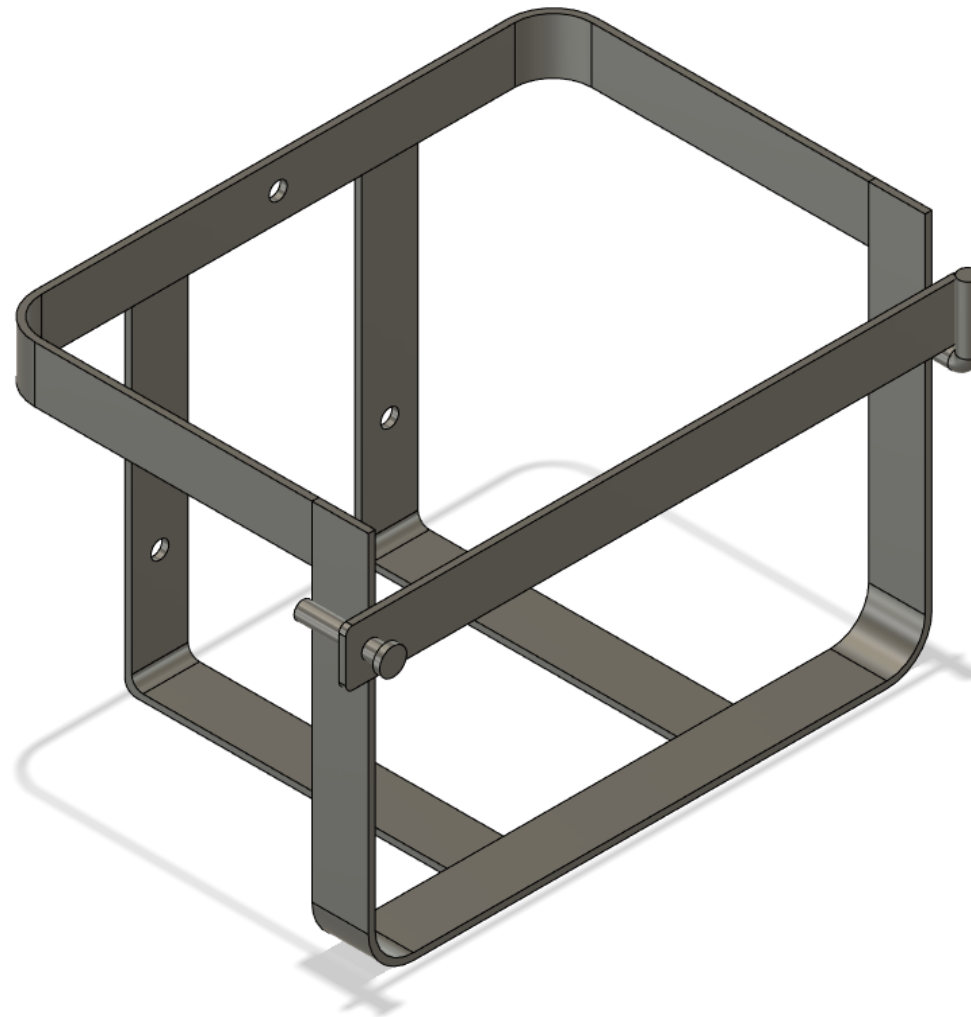


d. Straight and bent rod



e. Assembly



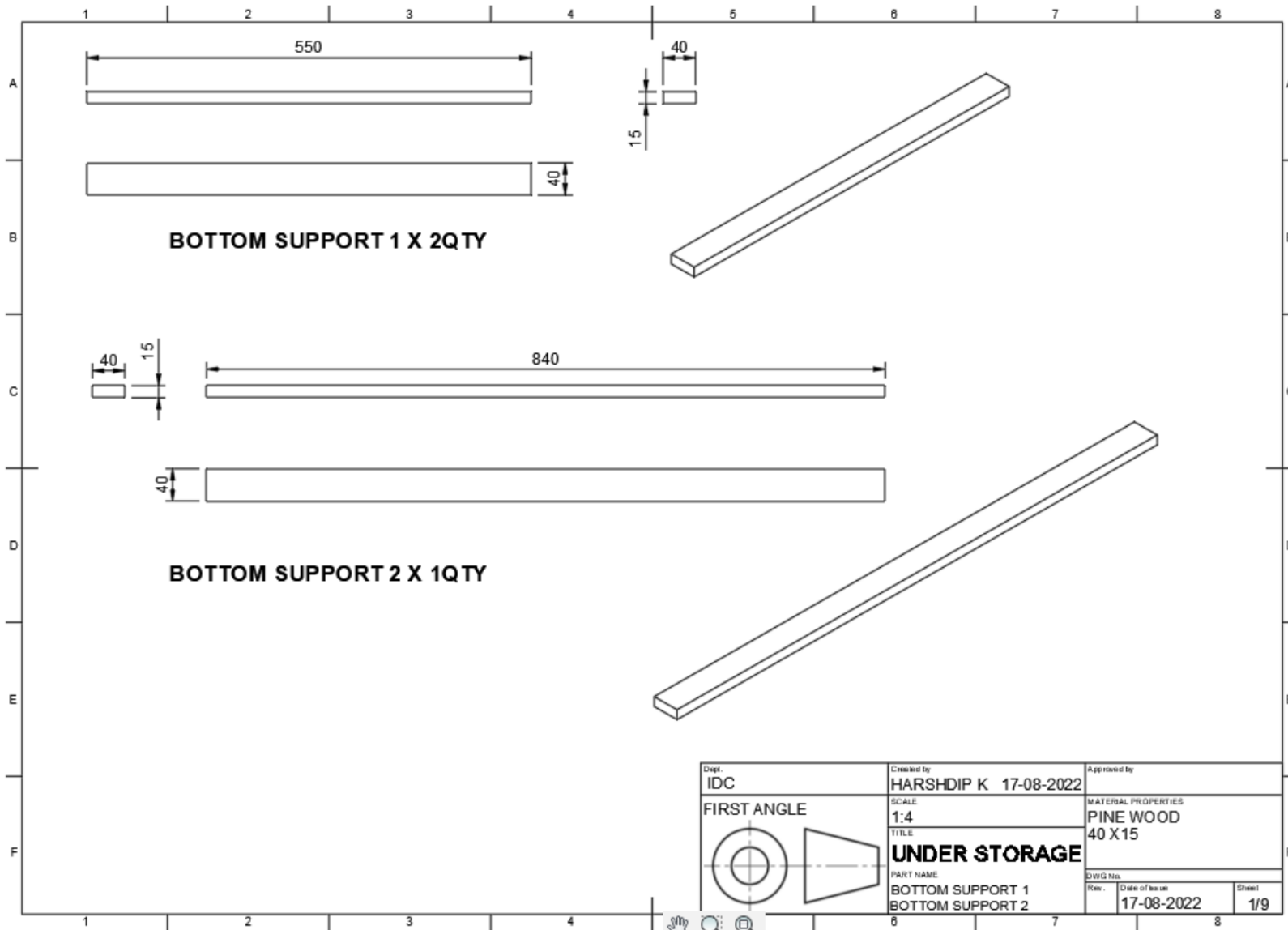


3D OF WATER STORAGE

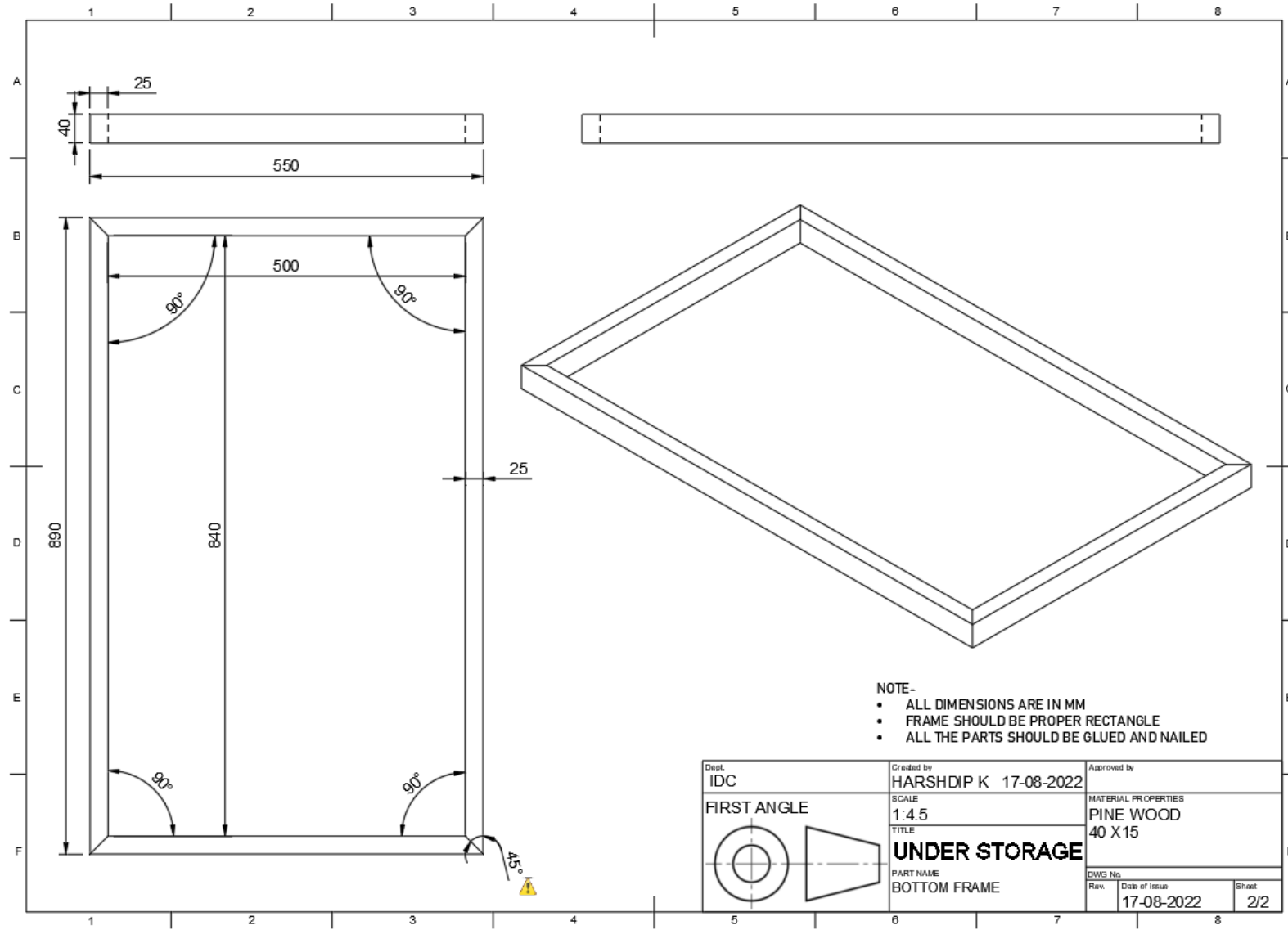
5. Under Storage

PART NAME	MATERIAL	CROSS SECTION	THICKNESS	QUANTITY	COLOUR CODE
Bottom support	Wood	15 x40	15 mm	2	
Bottom support 2				1	
Bottom frame				1	
Frame pillar		25 x40 mm	25 mm	4	
Frame T pillar				2	
Door				2	
Mesh				MS	18 x18 x 2mm
Door Mesh	2				

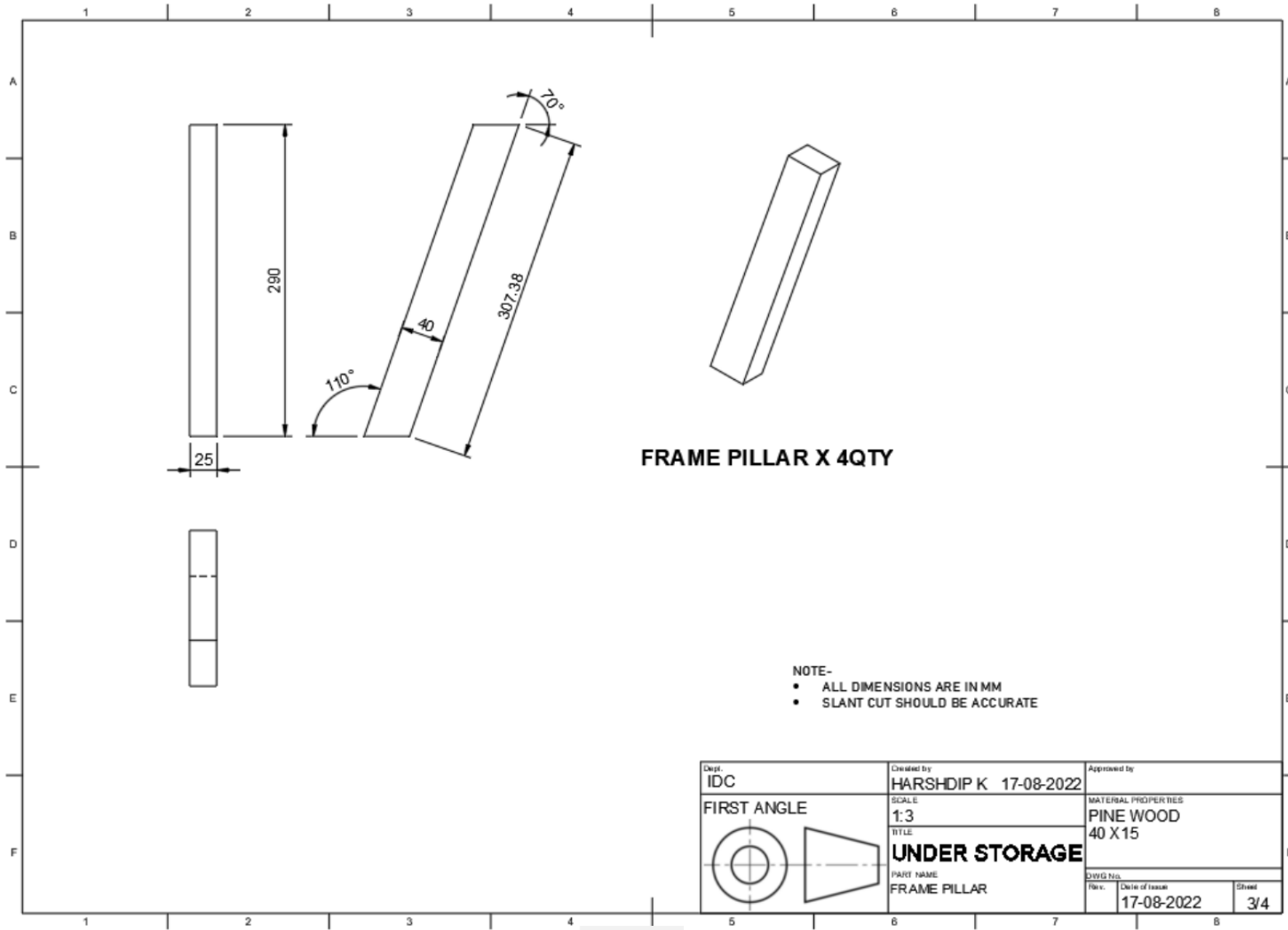
a. Bottom Support



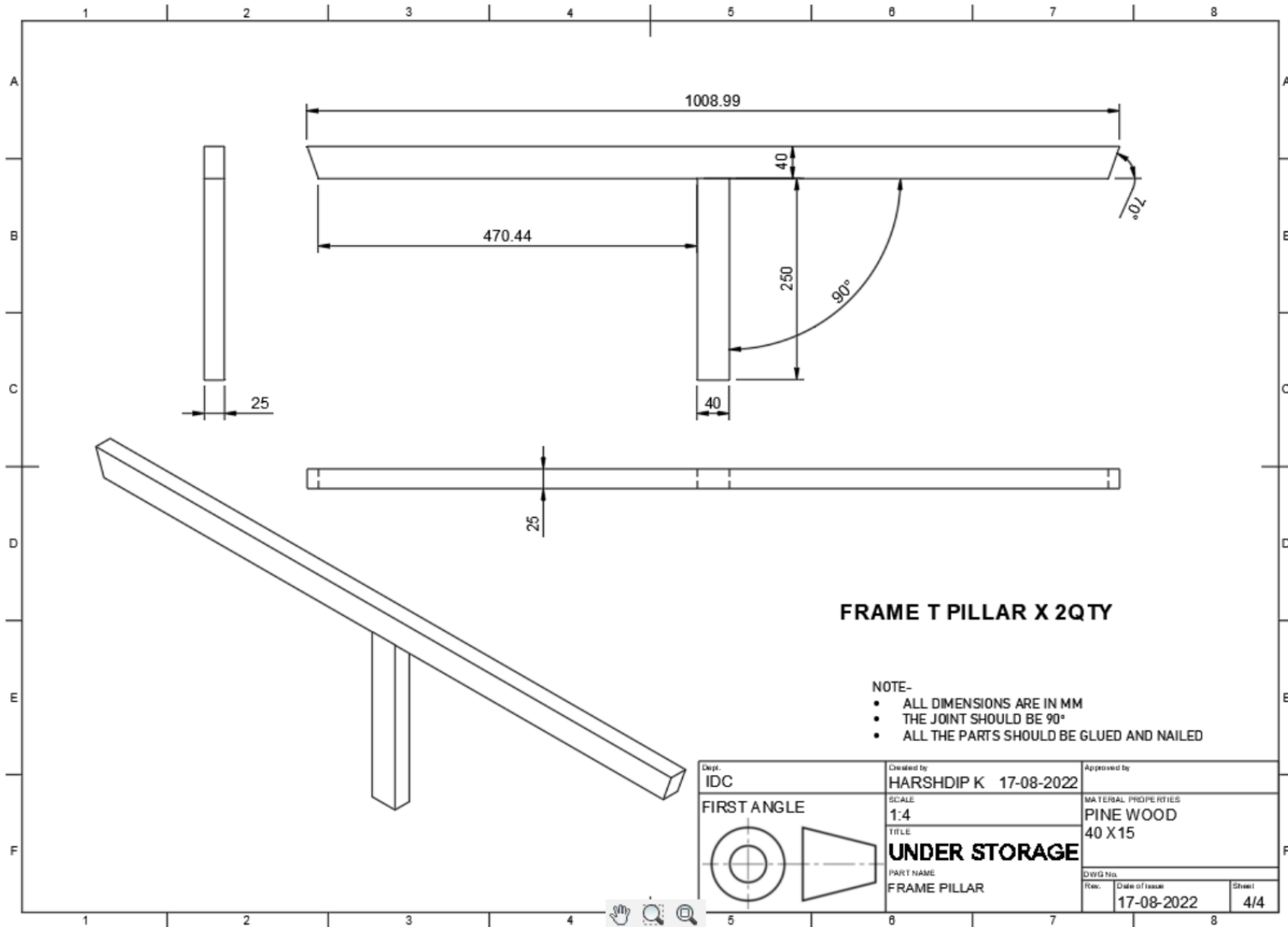
b. Bottom Frame



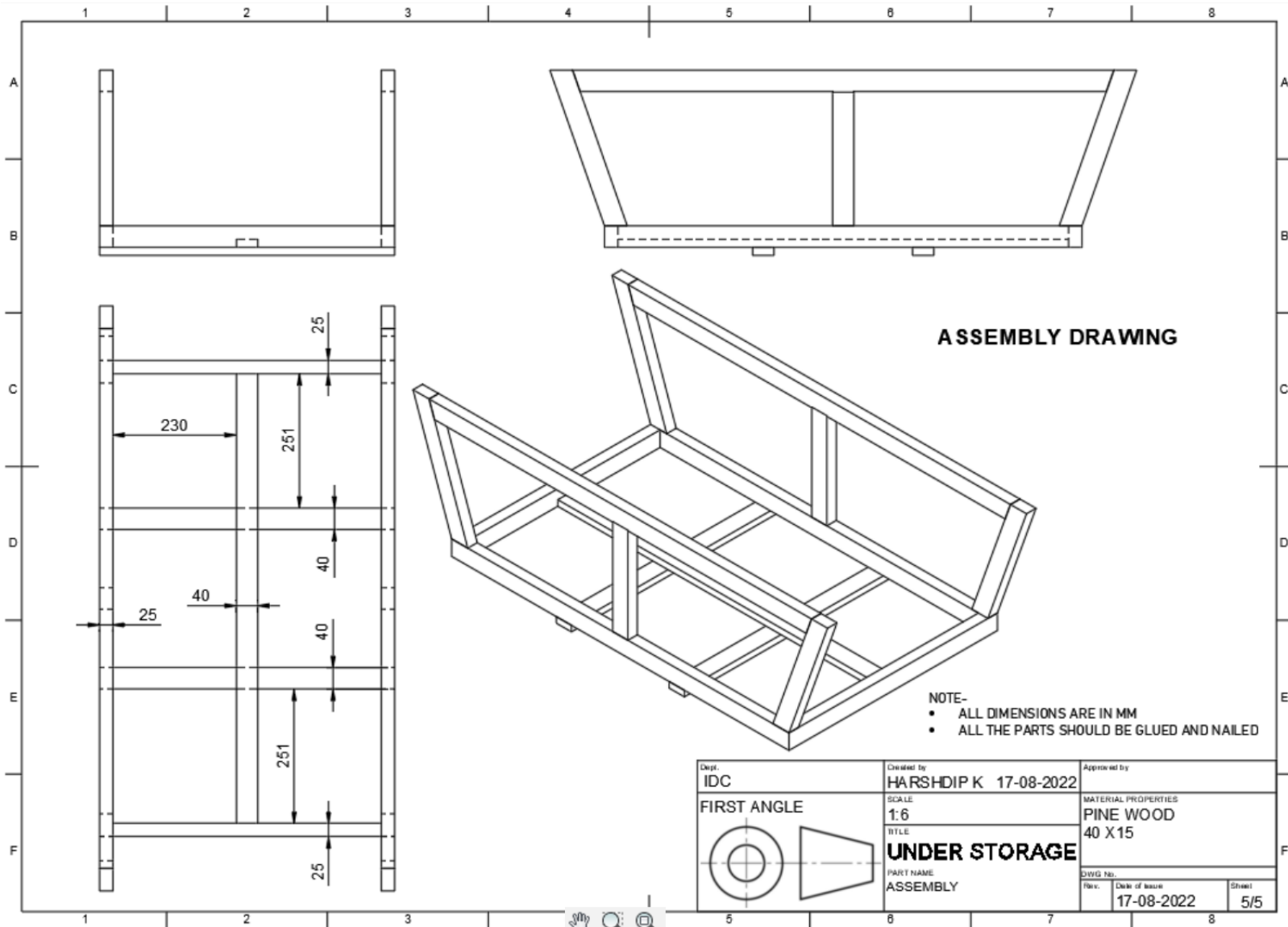
c. Frame pillar



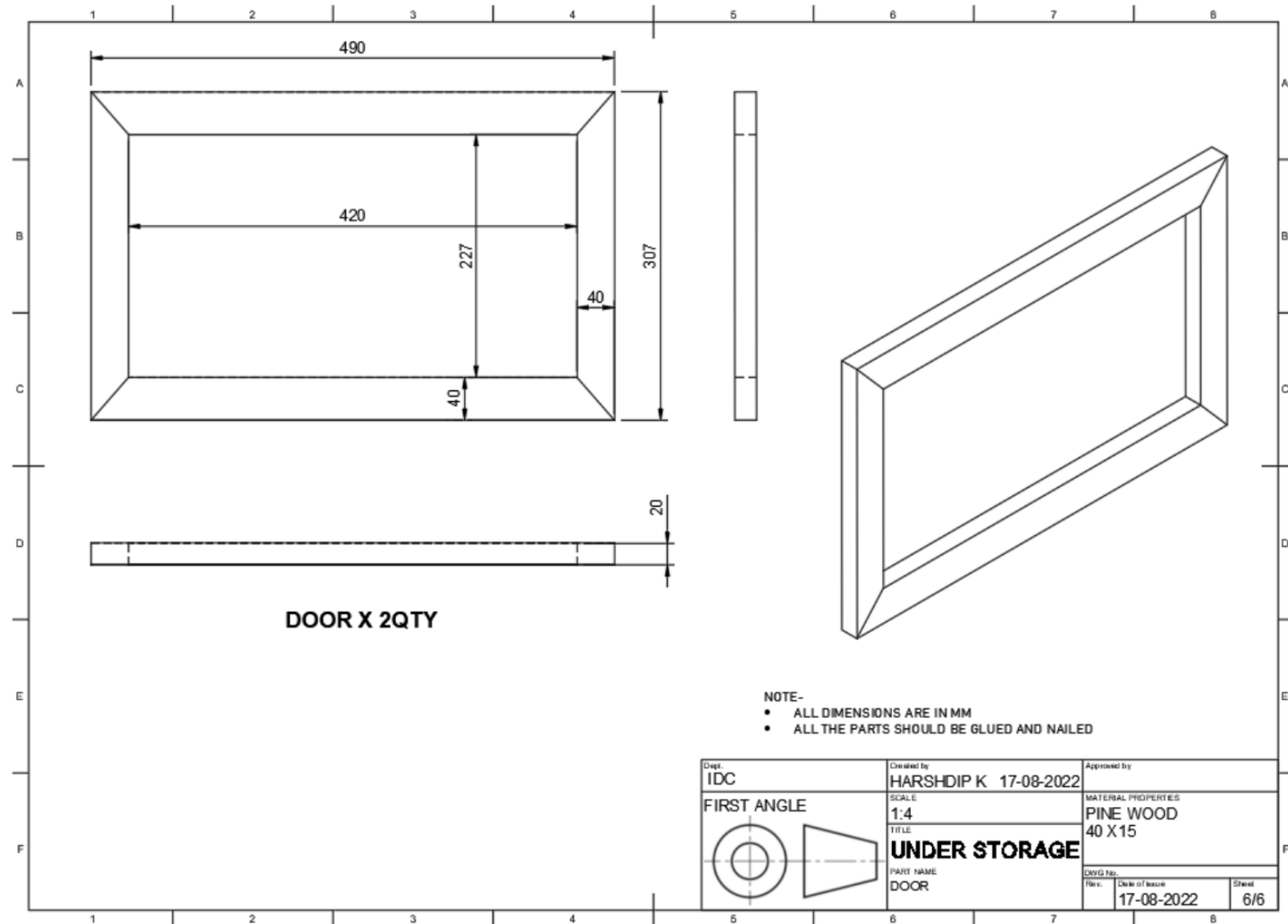
d. Frame T Pillar



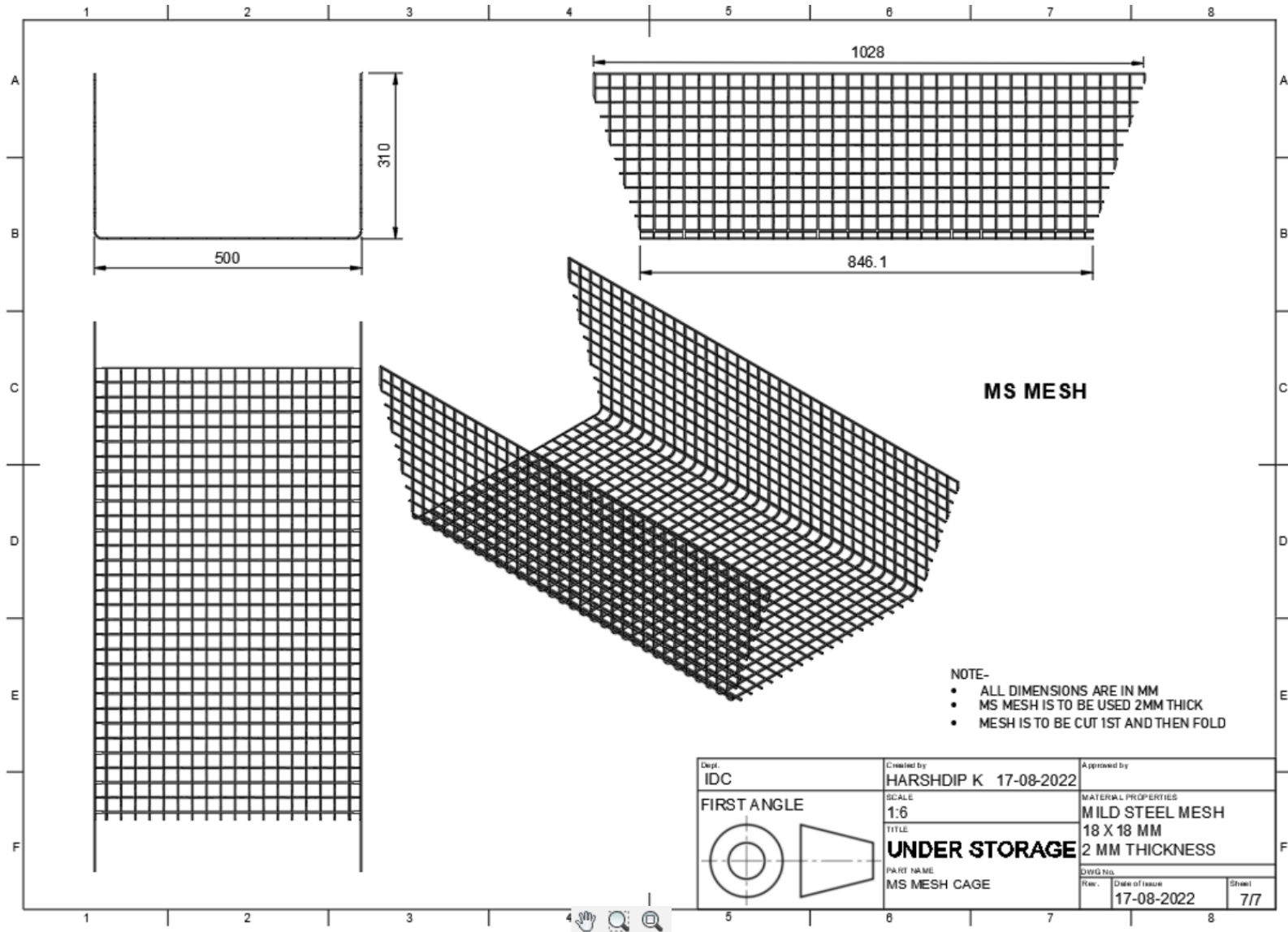
e. Bottom cage



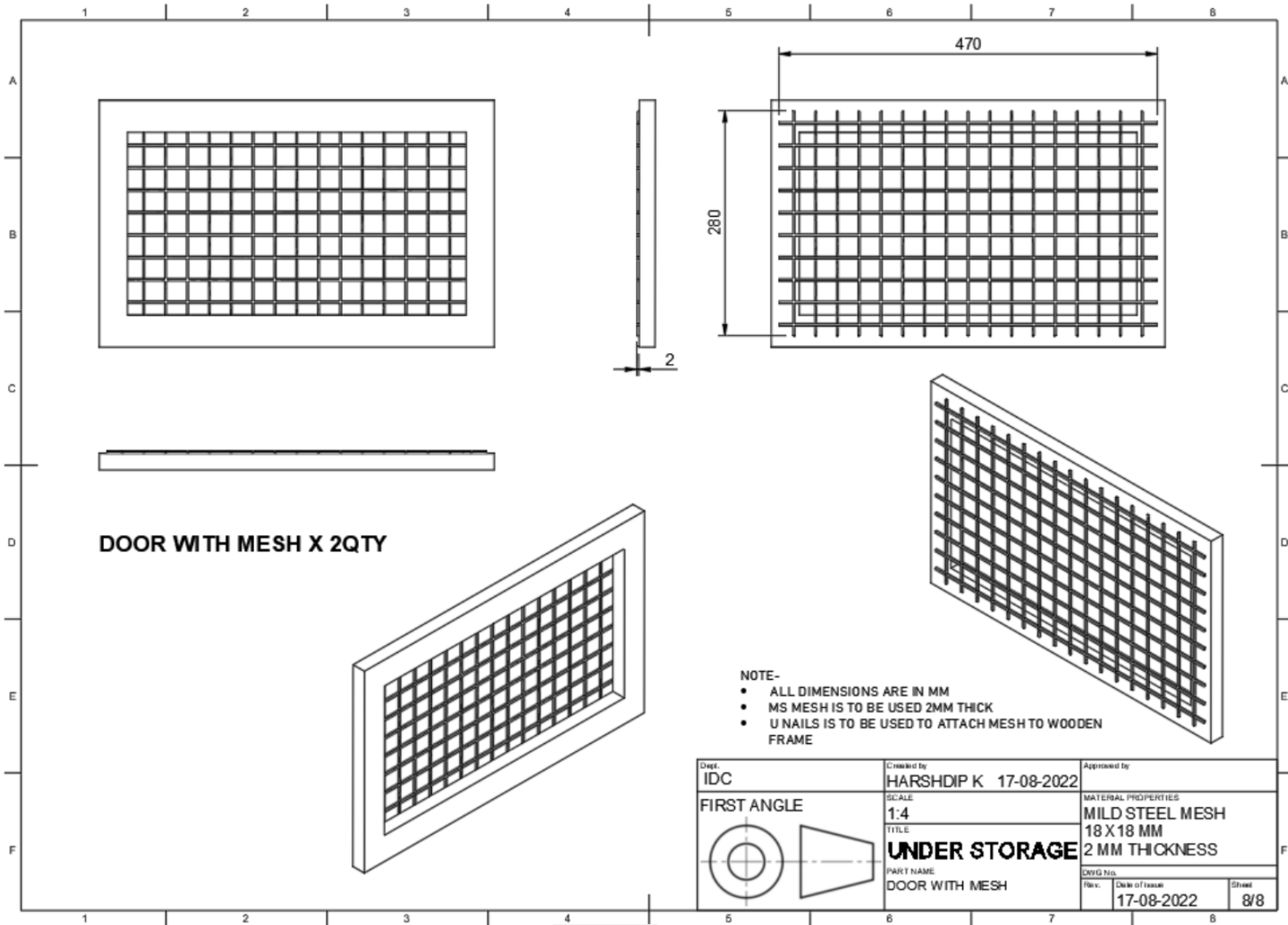
f. Door



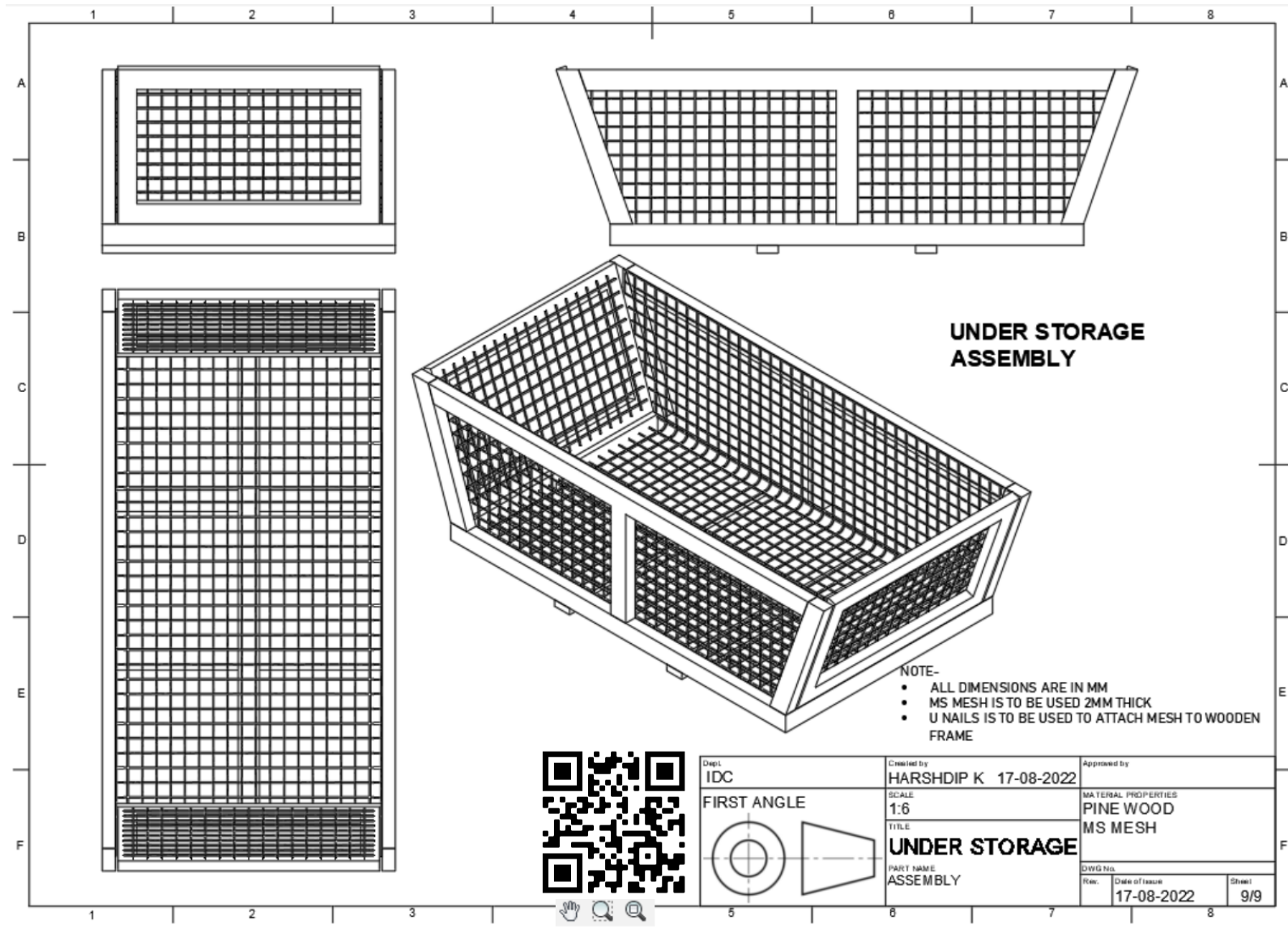
g. MS Mesh



h. Door Mesh

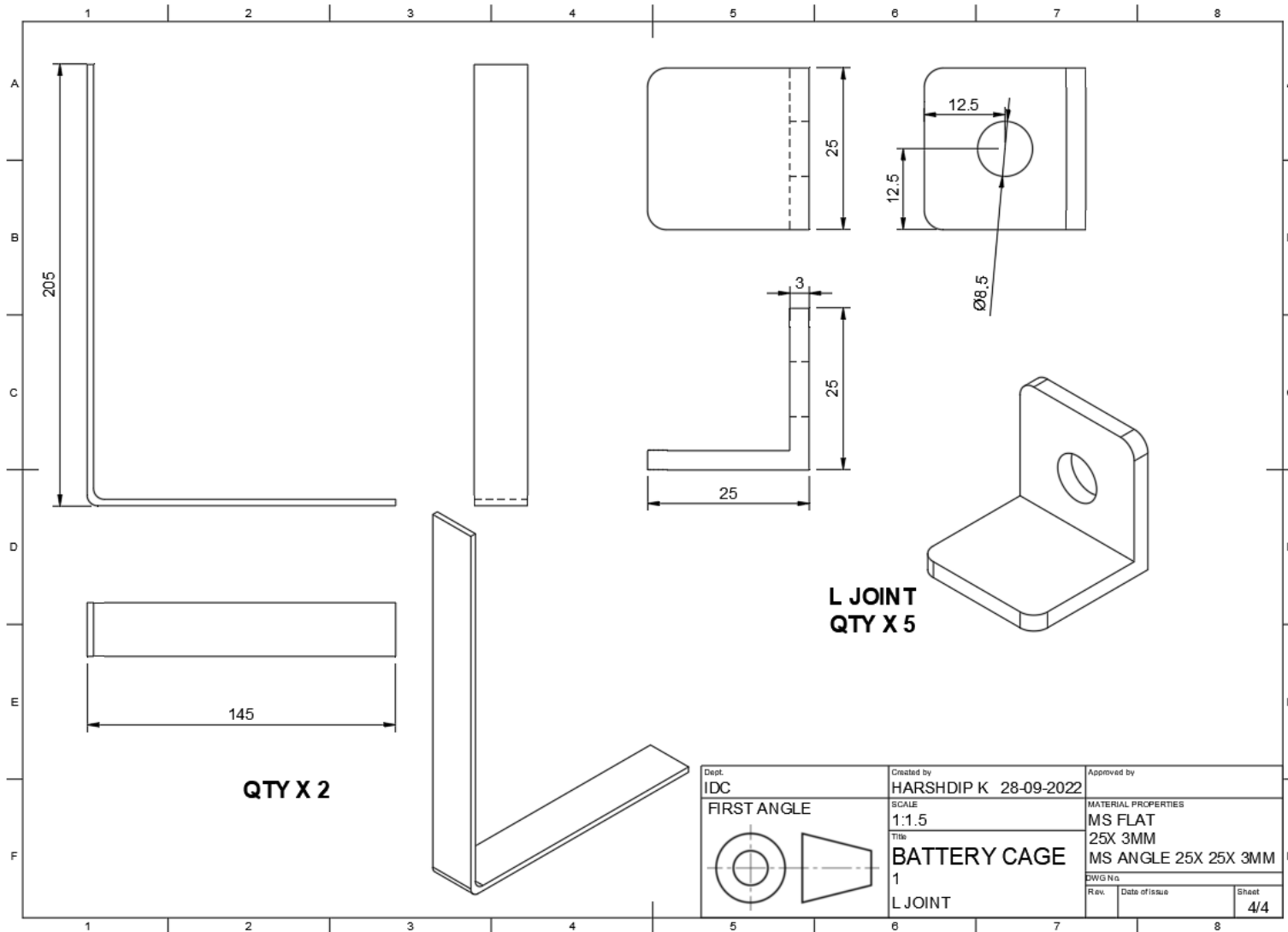


i. Assembly

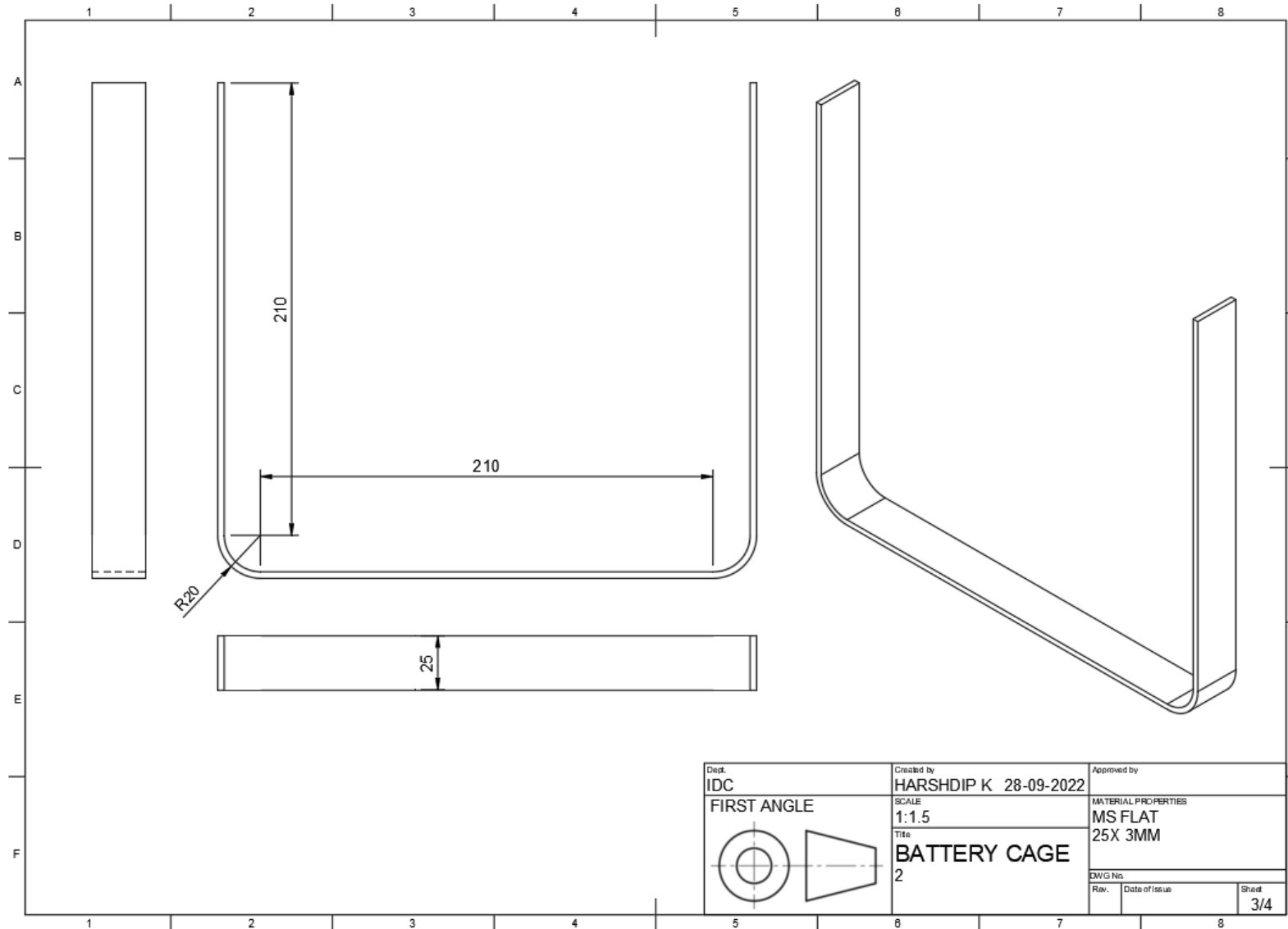


6. Battery Cage

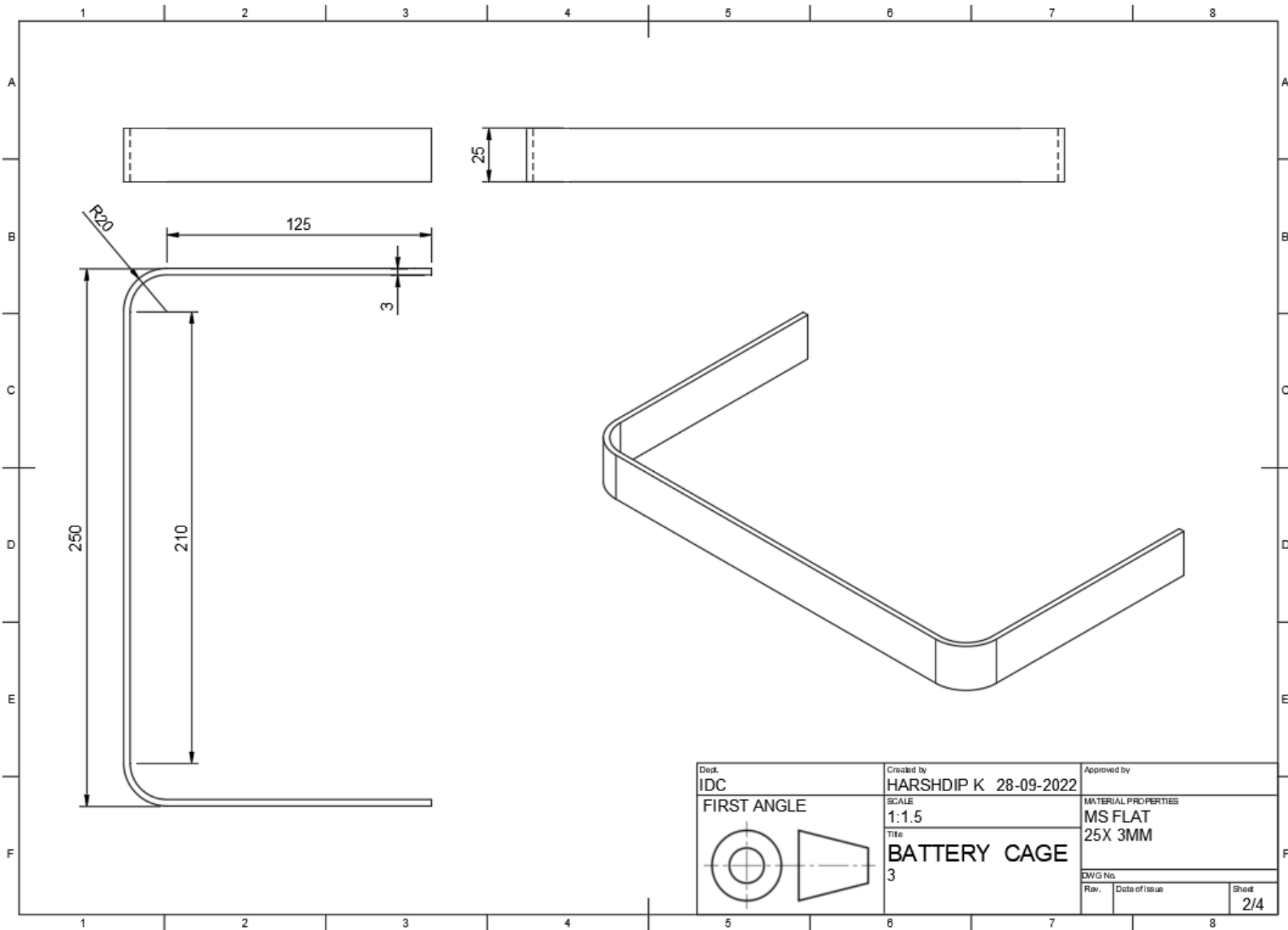
a. Flat bent part 1



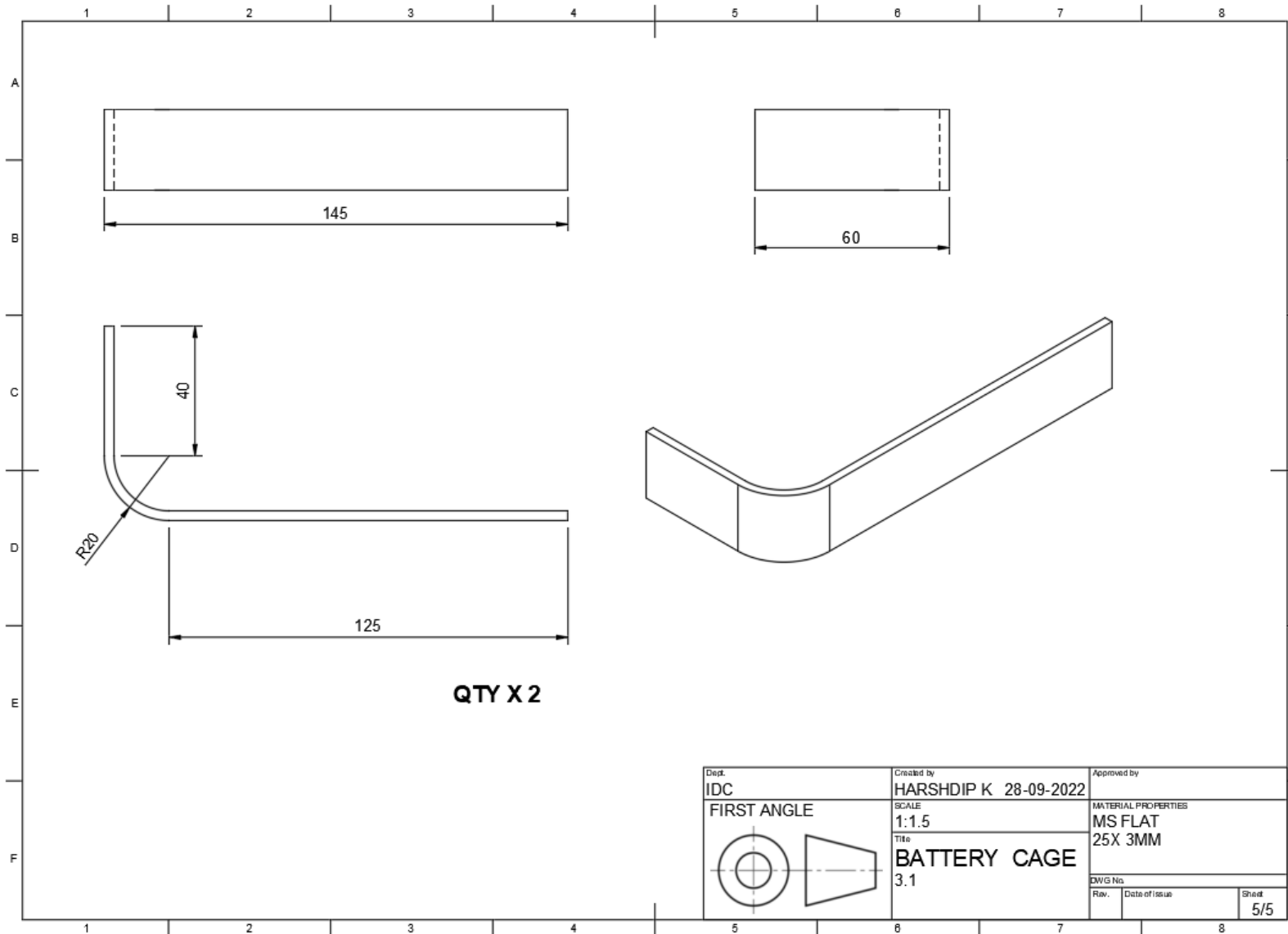
b. Flat bent part 2



c. Flat bent part 3



d. Flat bend part 3.1



e. Assembly

