NEWSUBSTANCE

PROJECT: 2328 CWT – Citylink Walking Route

INSTALLATION REFERNCE CWT_010 LIGHT ARCH

CLIENT: Oak View Group

DOCUMENT: Design Summary Planning

DATE:14_03_24

Information compiled by

NEWSUBSTANCE LTD.

Greensand Foundry,

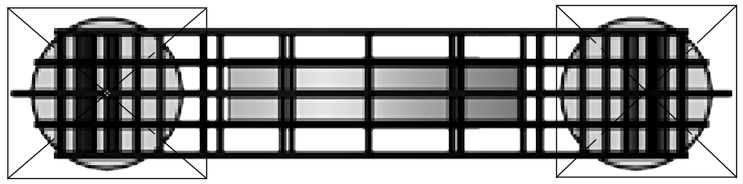
99 Water Lane,

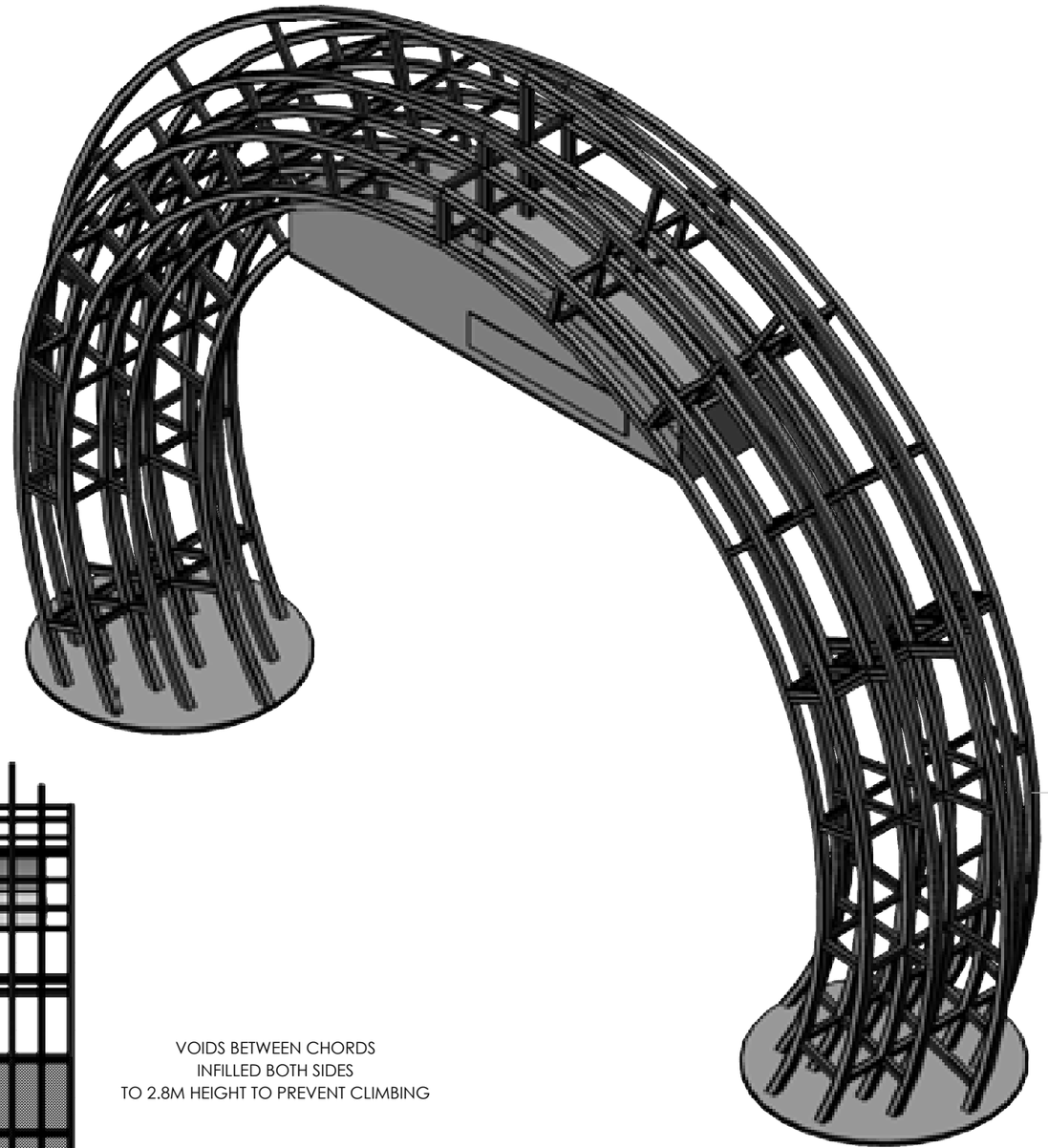
Leeds

LS11 5QN, UK

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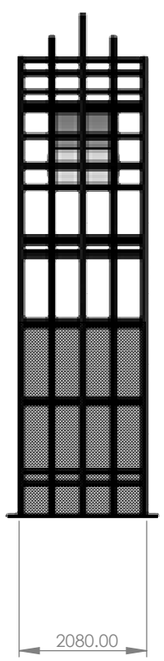
Summary of Scheme





PRINCIPLE STRUCTURAL CHORDS ONLY
BRACING SCHEME / PERSPEX NOT SHOWN

BASIN TO BE EXCAVATED IN CURRENT
GRASSED AREA

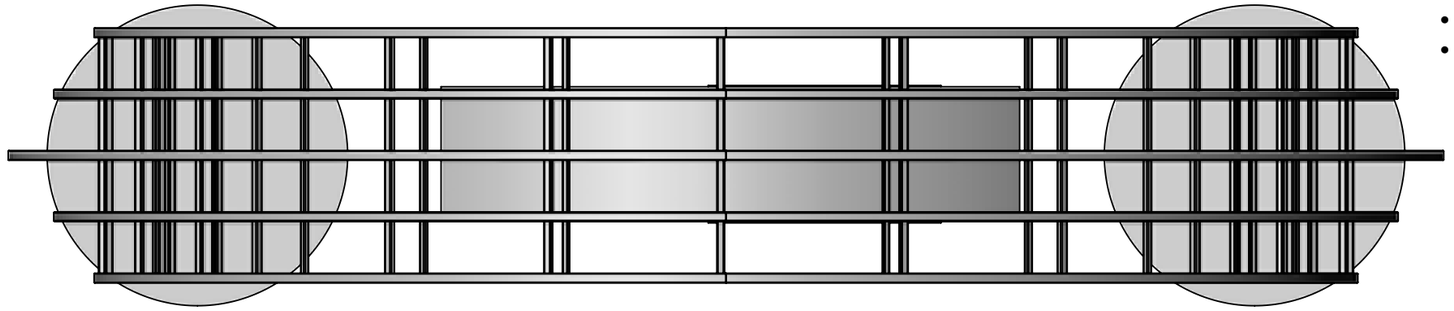


VOIDS BETWEEN CHORDS
INFILLED BOTH SIDES
TO 2.8M HEIGHT TO PREVENT CLIMBING

DRAWN	MIKEB	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	PROJECT:	CO-OP LIVE WALKING TRAIL	DRAWING TITLE:	CWT_010 INDICATIVE DESIGN DETAILS		
APPROVED	MIKEB	NOTES NOT FOR CONSTRUCTION DO NOT SCALE IF IN DOUBT ASK	CLIENT / VENUE:	OVG - HOLT TOWN, MANCHESTER, M40 7FQ	SUB-TITLE:	CONCEPT	SHEET SCALE: 1:100	
DATE 02/02/2024			PROJECT NUMBER:	NS2328	DRAWING NUMBER:	NS2328_CWT_010_02_001	REVISION NUMBER: A	REVISION DATE:

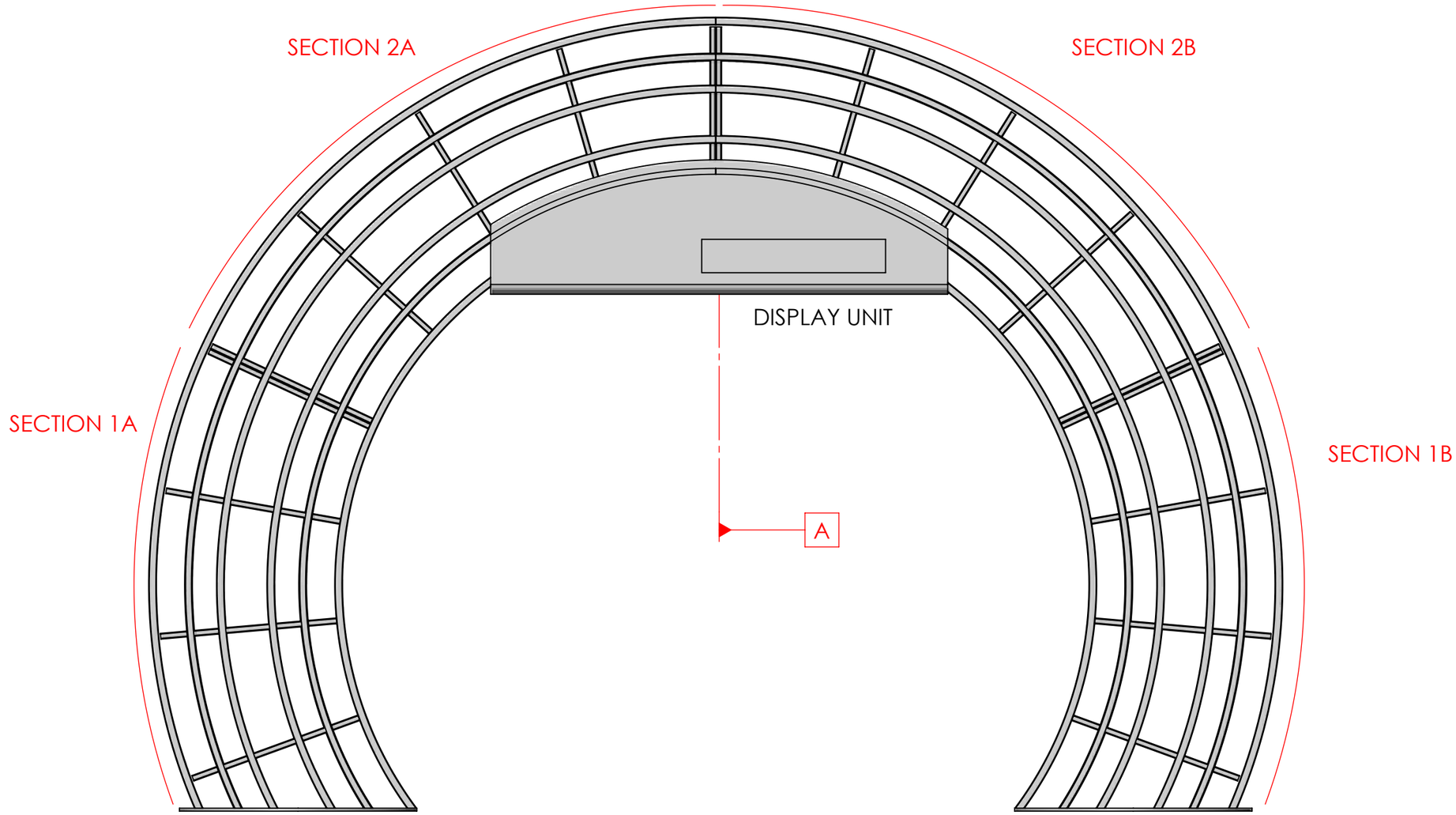
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DESIGN NOTES

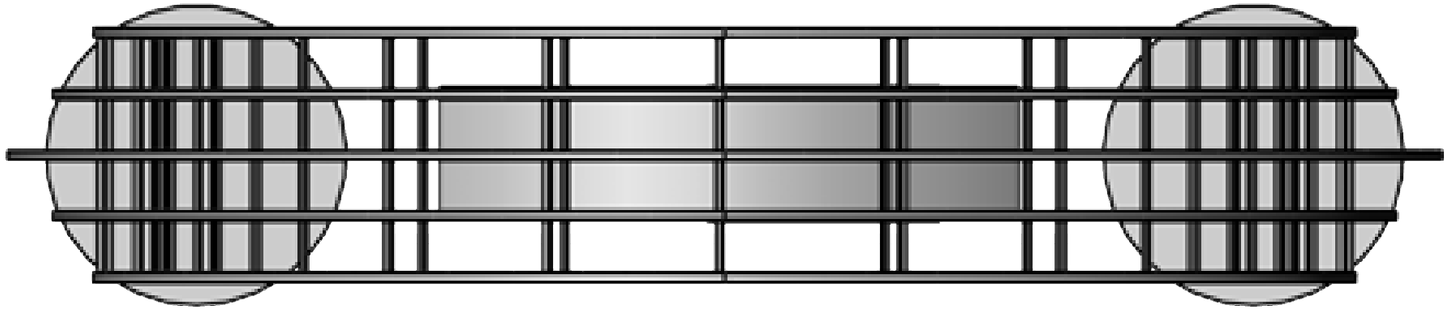
- ARCHWAY BUILT AS 4 BOLTED MODULES
- SPLIT LINES TO SUIT STANDARD TRUCKING REQUIREMENTS

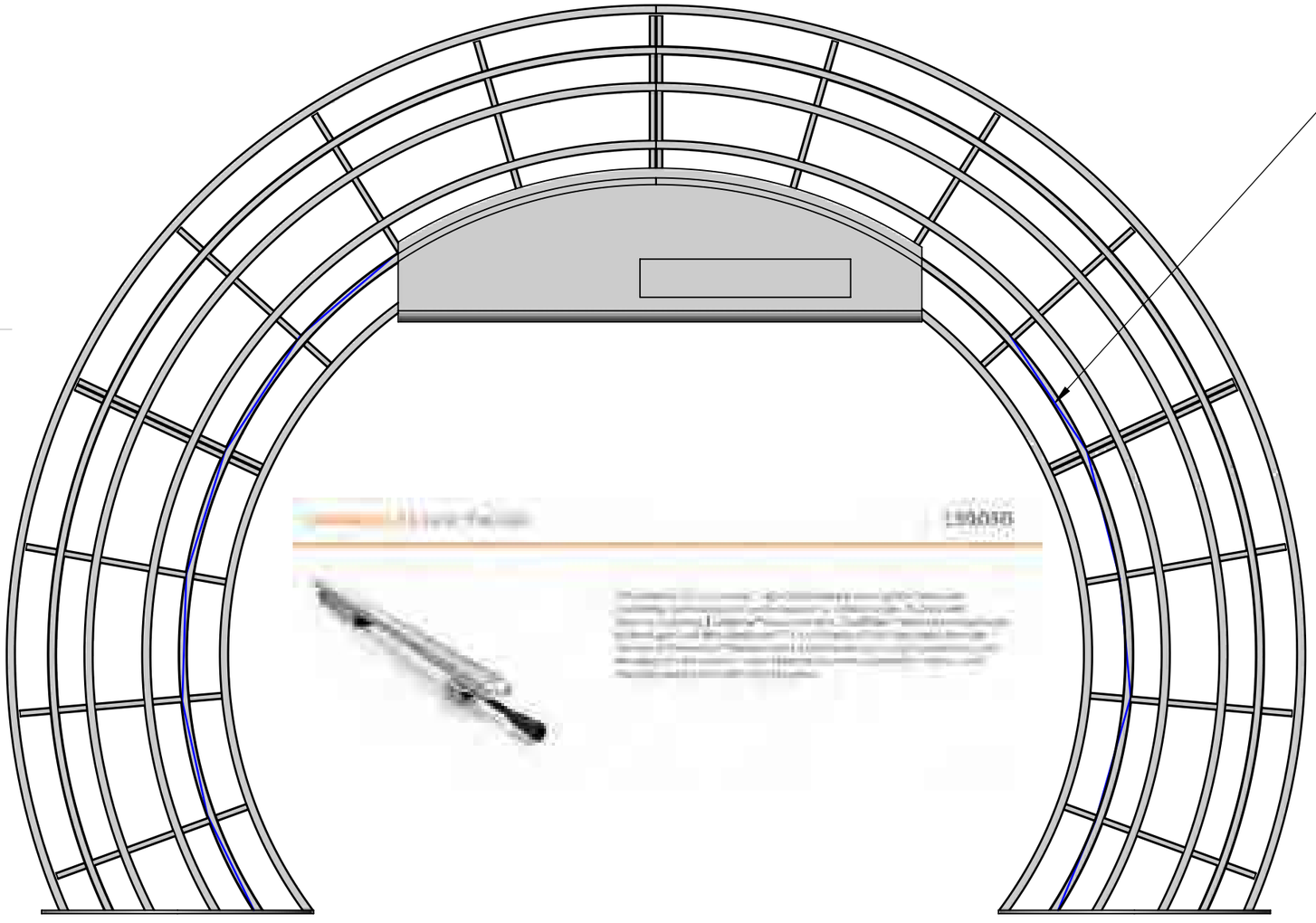


DRAWN	MIKEB	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		PROJECT:	CO-OP LIVE WALKING TRAIL	DRAWING TITLE:	CWT_010 INDICATIVE DESIGN DETAILS	
APPROVED	MIKEB	NOTES NOT FOR CONSTRUCTION	DO NOT SCALE IF IN DOUBT ASK	CLIENT / VENUE:	OVG - HOLT TOWN, MANCHESTER, M40 7FQ	SUB-TITLE:	CONCEPT	SHEET SCALE: 1:100
DATE	02/02/2024			PROJECT NUMBER:	NS2328	DRAWING NUMBER:	NS2328_CWT_010_02_001	REVISION NUMBER: A / REVISION DATE:

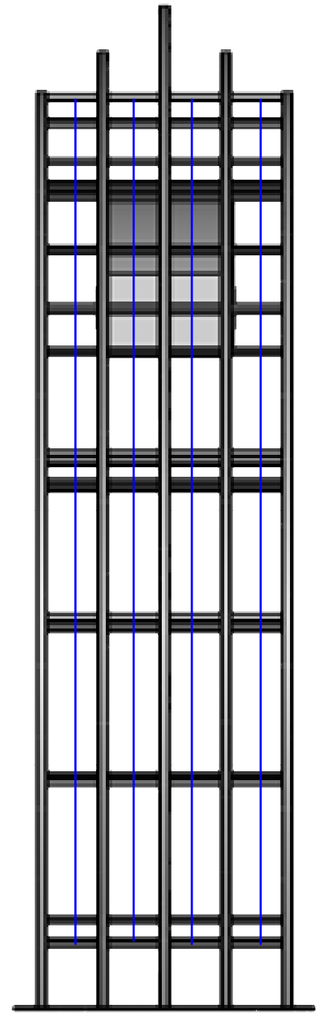
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LIGHTING BATTENS TO RUN
BETWEEN STRUCTURAL MEMBERS



DRAWN	MIKEB	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		PROJECT:	CO-OP LIVE WALKING TRAIL	DRAWING TITLE:	CWT_010 INDICATIVE DESIGN DETAILS	
APPROVED	MIKEB	NOTES NOT FOR CONSTRUCTION	DO NOT SCALE IF IN DOUBT ASK	CLIENT / VENUE:	OVG - HOLT TOWN, MANCHESTER, M40 7FQ	SUB-TITLE:	CONCEPT	SHEET SCALE: 1:100
DATE	02/02/2024			PROJECT NUMBER:	NS2328	DRAWING NUMBER:	NS2328_CWT_010_02_001	REVISION NUMBER: A / REVISION DATE:

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Summary of Reaction Loads at Foundation

COOO424 – Co-op Live Sculptures

Analysis Models – Base Reactions

Rev. 01

Date: 16/02/2024

INTRODUCTION

This document provides screenshots of each of the analysis models created by Stage One, showing the unfactored base reactions for each of the loadcases considered.

The base supports shown are as per Stage One's own modelling assumptions. They do not represent the final positions of the embedment bolts. The base support reactions provided in this summary report are purely for the use of the client structural engineer to carry out their own assessment of the foundations required.

The loadcases considered include the structure self-weight (SW), superimposed dead load (cladding, finishes etc.), Live loading (persons, maintenance), Live Snow loading and Wind Loading.

The wind loading has been considered for the most onerous plan directions upon the structures. Note that the reactions shown will be subjected to load reversal for opposing wind cases, and hence should be considered in the foundation designs.

Forces shown are for FX, FY and FZ directions.

Moments shown are for MX, MY and MZ directions.

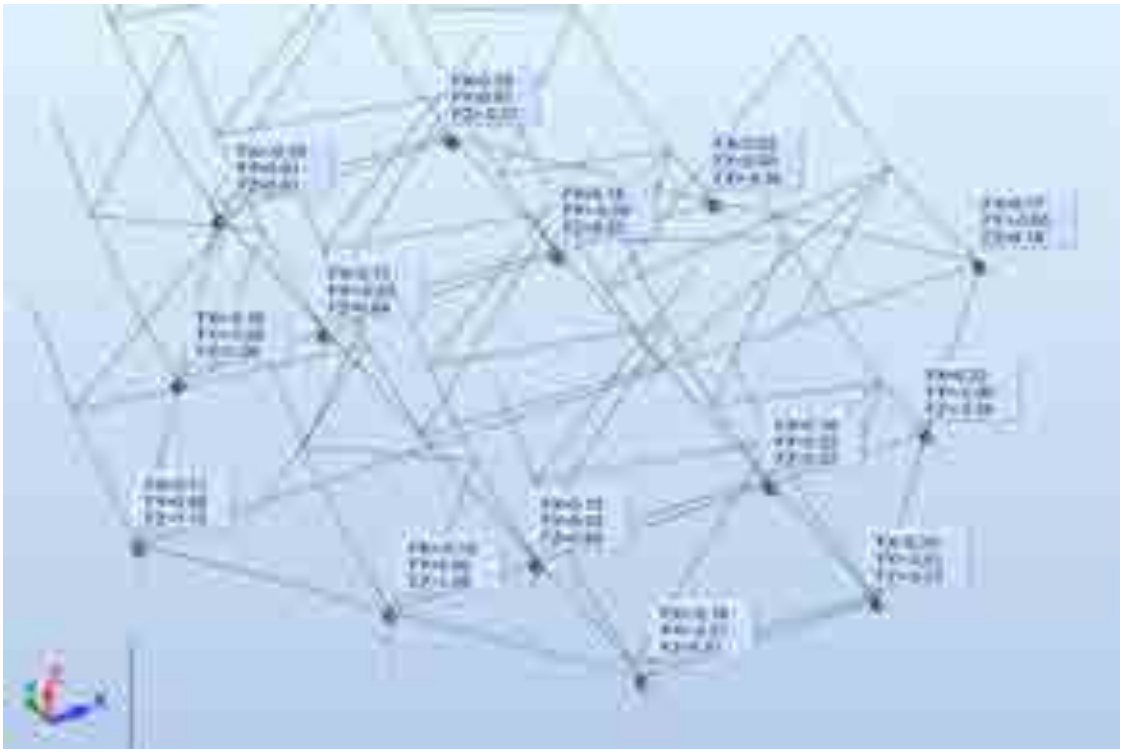
ARCHWAY

SYMMETRICAL BASES

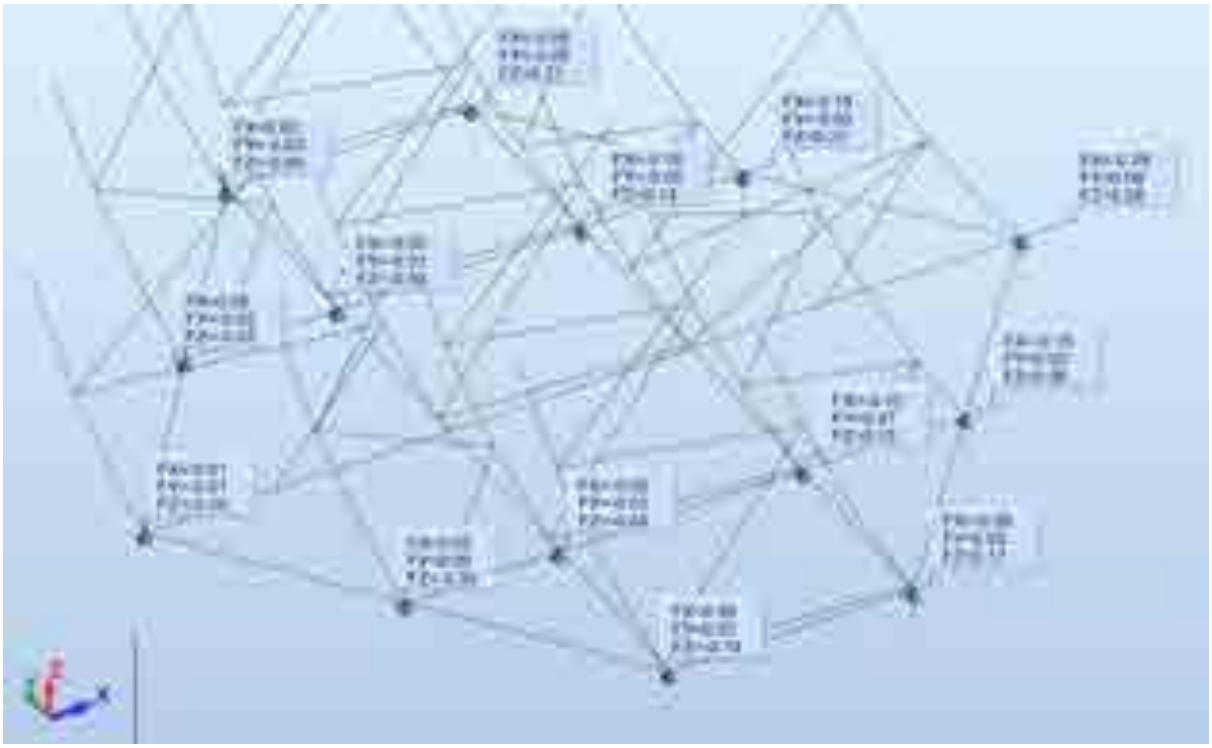
Self-Weight (SW)



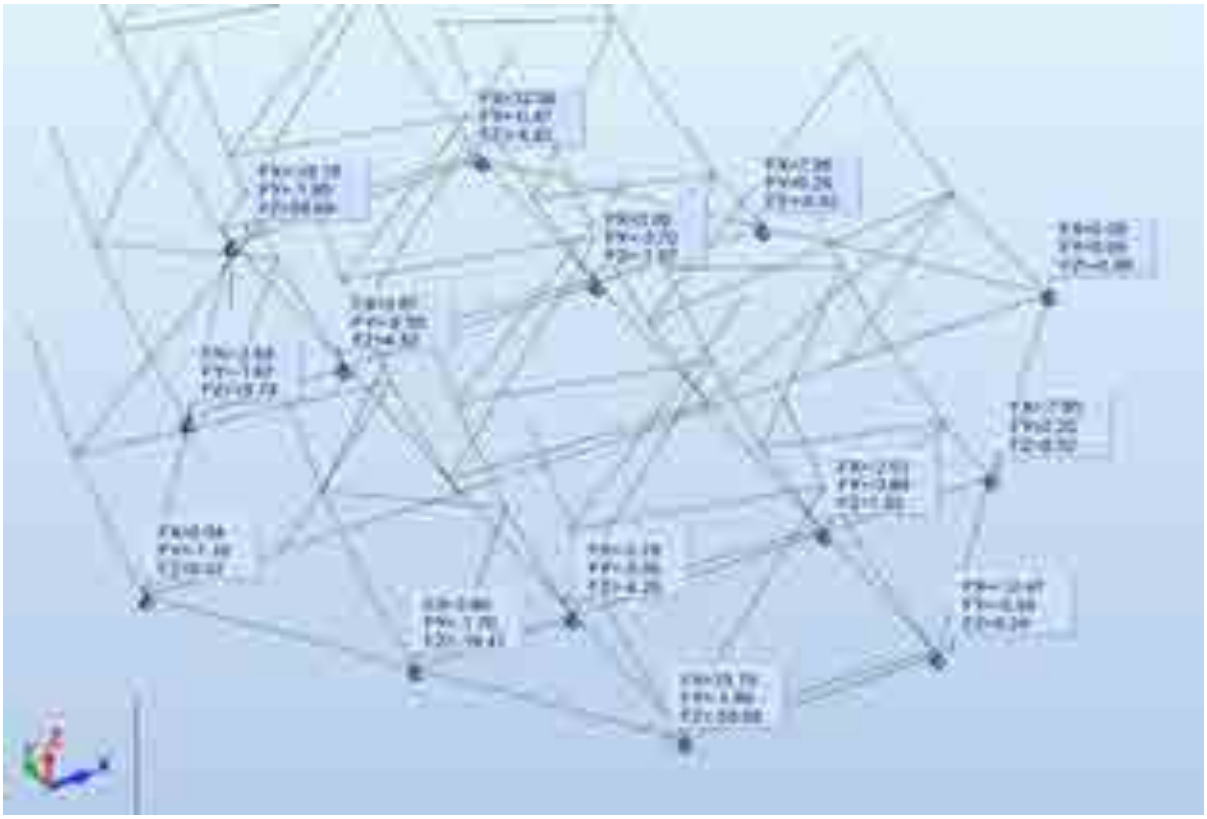
Superimposed Dead Load (SDL)



Wind +X Direction



Wind +Y Direction



Company:		Page:	1
Address:		Specifier:	
Phone I Fax:	|	E-Mail:	
Design:	ARCH - WORST CASE FIXING	Date:	01/03/2024
Fastening Point:			

Specifier's comments:

1 Input data



Anchor type and size:	**HIT-HY 200-A V3 + HAS-U 5.8 M20**
Return period (service life in years):	50
Item number:	2223874 HAS-U 5.8 M20x240 (insert) / 2378171 HIT-HY 200-A V3 (mortar)
Hilti Filling Set or any suitable annular gap filling solution	
Effective embedment depth:	$h_{ef,act}$ = 175.0 mm ($h_{ef,limit}$ = - mm)
Material:	5.8
Approval No.:	ETA 19/0601
Issued I Valid:	02/06/2023 | -
Proof:	SOFA based on EN 1992-4 and fib bulletin 58, Chemical
Stand-off installation:	e_b = 0.0 mm (no stand-off); t = 20.0 mm
Baseplate[CBFEM] :	l_x x l_y x t = 250.0 mm x 250.0 mm x 20.0 mm;
Profile:	Square hollow, 50 x 50 x 5,0; (L x W x T) = 50.0 mm x 50.0 mm x 5.0 mm
Base material:	cracked concrete, Custom, $f_{c,cyl}$ = 32.00 N/mm^2; h = 1,000.0 mm, Temp. short/long: 0/0 °C, User-defined partial material safety factor γ_c = 1.500
Installation:	**hammer drilled hole, Installation condition: Dry**
Reinforcement:	No reinforcement or Reinforcement spacing >= 150 mm (any Ø) or >= 100 mm (Ø <= 10 mm) no longitudinal edge reinforcement

[CBFEM] - The anchor calculation is based on a component-based Finite Element Method (CBFEM)

Geometry [mm] & Loading [kN, kNm]



Input data and results must be checked for conformity with the existing conditions and for plausibility!
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Company:		Page:	2
Address:		Specifier:	
Phone I Fax:	|	E-Mail:	
Design:	ARCH - WORST CASE FIXING	Date:	01/03/2024
Fastening Point:			

1.1 Load combination

Case	Description	Forces [kN] / Moments [kNm]	Seismic	Fire	Max. Util. Anchor [%]
1	Combination 1	N = 50.600; V_x = 1.200; V_y = -4.000; M_x = 0.000; M_y = 0.000; M_z = 0.000; N_{sus} = 0.000; $M_{x,sus}$ = 0.000; $M_{y,sus}$ = 0.000;	no	no	76

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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Company:		Page:	3
Address:		Specifier:	
Phone I Fax:	|	E-Mail:	
Design:	ARCH - WORST CASE FIXING	Date:	01/03/2024
Fastening Point:			

2 Proof I Utilisation (Governing Cases)

		Design values [kN]		Utilization	
Loading	**Proof**	**Load**	**Capacity**	**β_N / β_V [%]**	**Status**
Tension	Concrete Breakout failure	50.601	67.225	76 / -	OK
Shear	Steel failure (without lever arm)	4.176	58.800	- / 8	OK

Loading	**β_N**	**β_V**	**α**	**Utilization $\beta_{N,V}$ [%]**	**Status**
Combined tension and shear loads	0.753	0.036	1.000	66	OK

3 Warnings

- Please consider all details and hints/warnings given in the detailed report!

Fastening meets the design criteria!

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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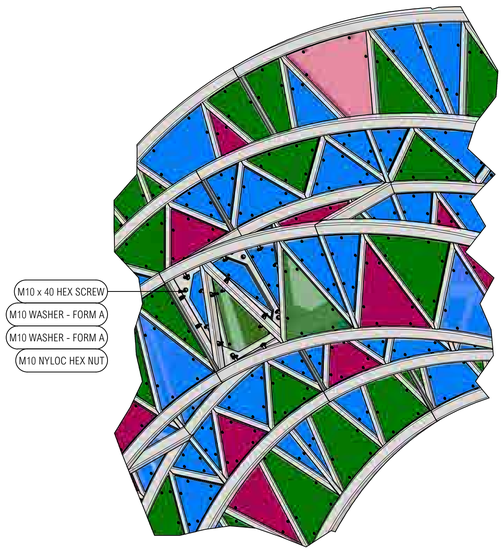
Fabrication Drawings

ITEM LIST

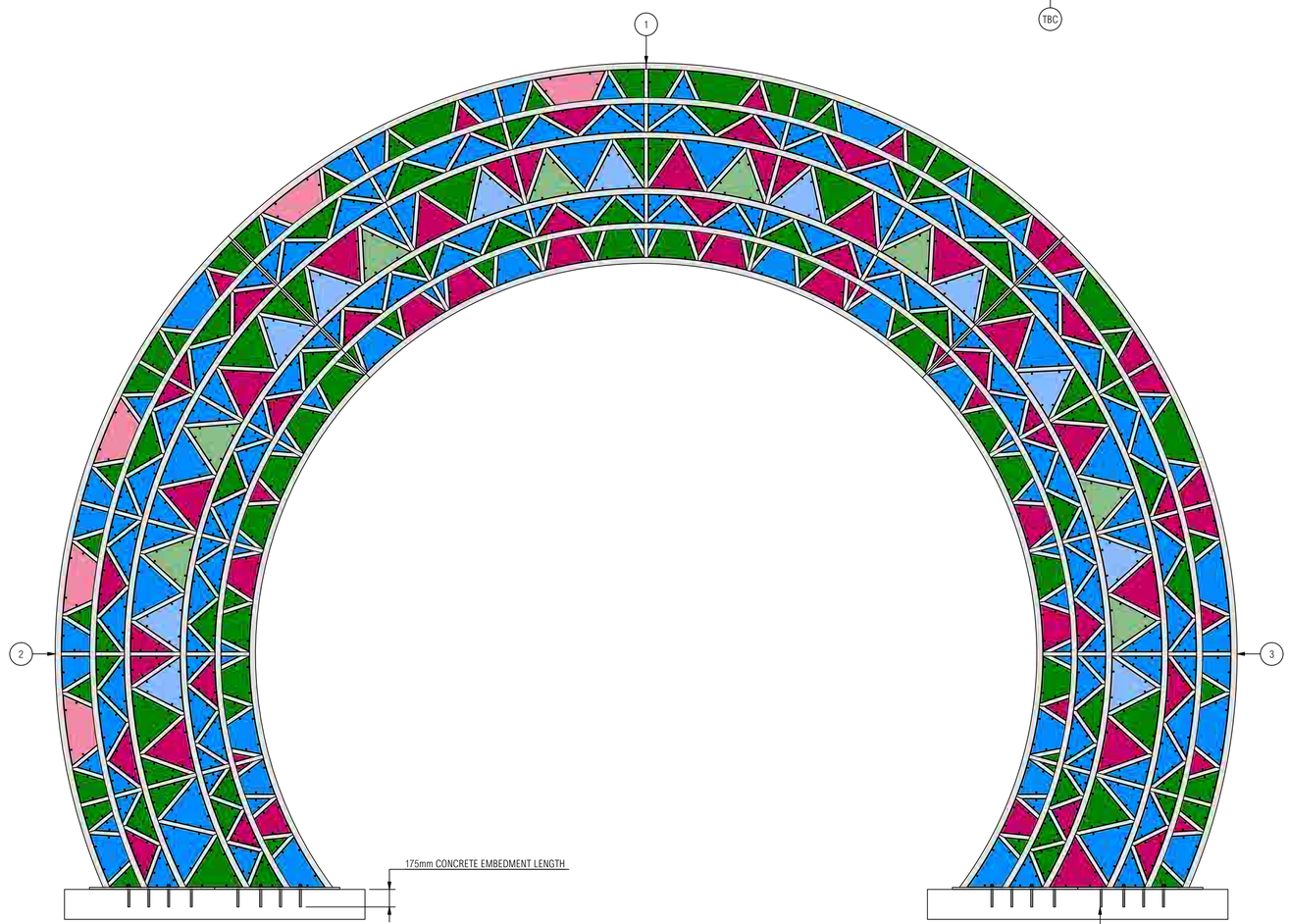
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2	ARC0424-AA03-0071	BN 2 - WITH PERSPEX	1
3	ARC0424-AA03-0073	BN 3 - WITH PERSPEX	1
N/A	ARC0424-EXTR-0293	HILTI: HAS-U (M20 X 195 (MIN)) & HIT-HY 200-A V3 (ADHESIVE ANCHOR)	32
N/A	M6 WASHER - FORM A	M6 WASHER - FORM A	368
N/A	M6 x 16 - SECURITY TORX BUTTON HEAD SCREW	M6 x 16 - SECURITY TORX BUTTON HEAD SCREW	368
N/A	M10 NYLOC HEX NUT	M10 NYLOC HEX NUT	64
N/A	M10 x 40 HEX SCREW	M10 x 40 HEX SCREW	64
N/A	M10 WASHER - FORM A	M10 WASHER - FORM A	128
TBC	ARC0424-AA03-0077	ANTI CLIMB	8
TBC	ARC0424-AA03-0076	ANTI CLIMB	8
TBC	ARC0424-AA03-0075	ANTI CLIMB	8
TBC	ARC0424-AA03-0074	ANTI CLIMB	8
TBC	ARC0424-AA02-0597	COUNTDOWN CLOCK FRAME	1

GENERAL NOTES

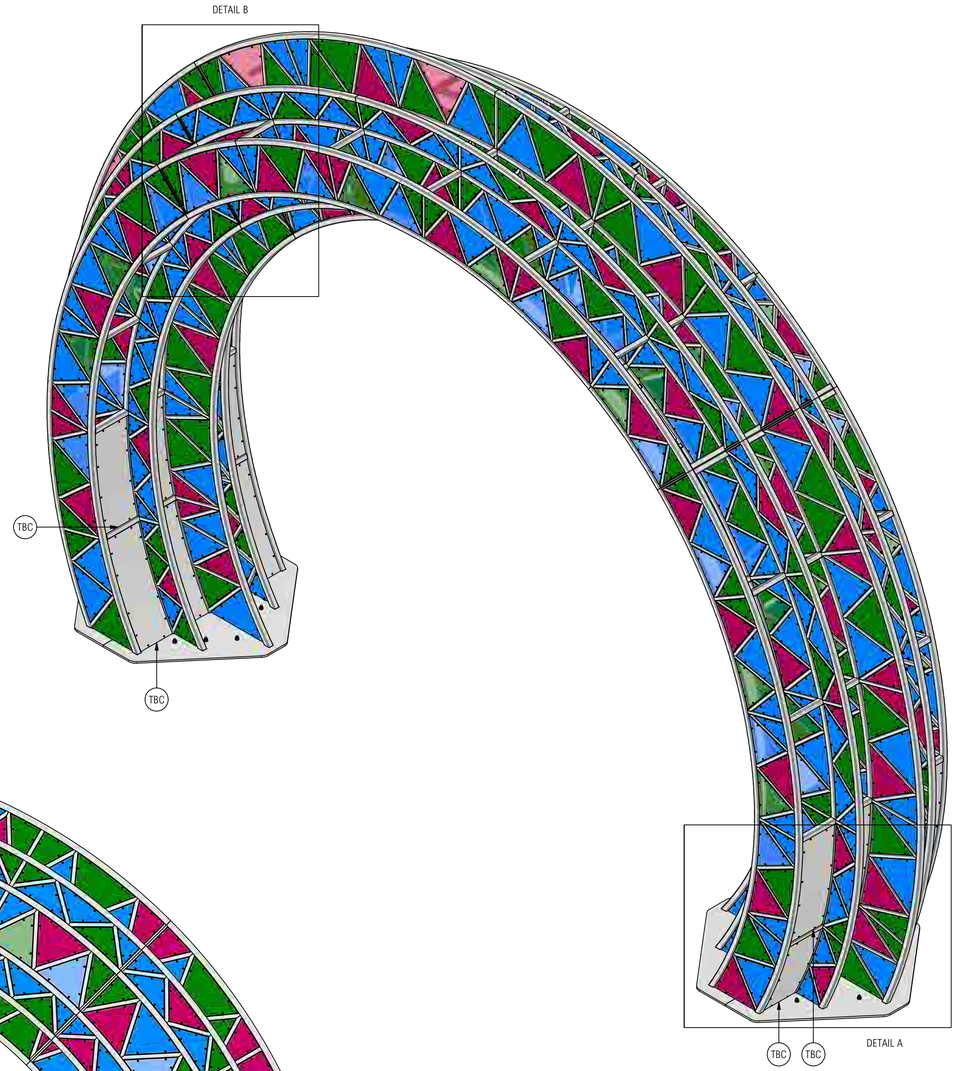
1. IF IN DOUBT - ASK!
2. ALL DIMENSIONS ARE IN mm UNLESS STATED OTHERWISE.
3. ALL LINEAR DIMENSIONS TO BE ± 1mm UNLESS STATED OTHERWISE.
4. ALL HOLE DIMENSIONS TO BE ± 0.25mm UNLESS STATED OTHERWISE.
5. COUNTDOWN CLOCK HOUSING & CLADDING - TBC
6. ANTI-CLIMB PANELS - TBC
7. LIGHTING POSITIONS - TBC



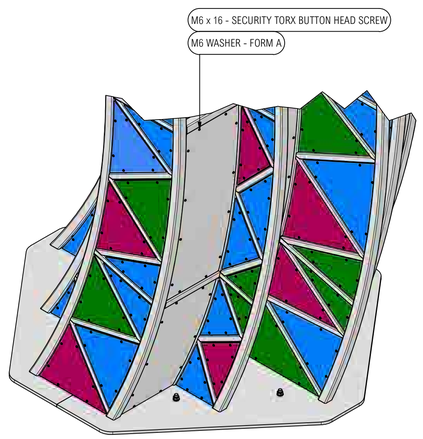
DETAIL B
SCALE 1 : 15
SOME PERSPEX REMOVED TO SHOW FRAMES BOLTING TOGETHER



FRONT



ISOMETRIC



DETAIL A
SCALE 1 : 18

HILTI: HAS-U (M20 X 195 (MIN)) & HIT-HY 200-A V3 (ADHESIVE ANCHOR)

REV	DESCRIPTION	DRN	DATE
A	ISSUED FOR INFORMATION		

REVISION HISTORY

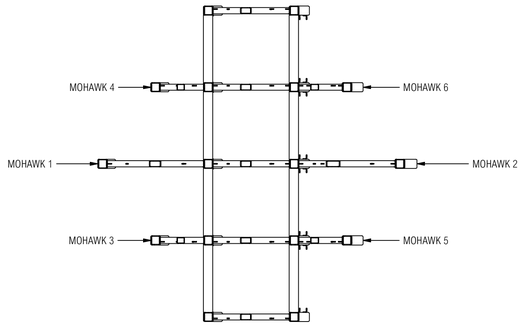
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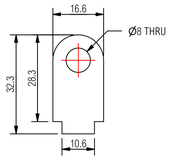
CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: GA - GA
SUBGROUP: 00 - GA

DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
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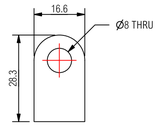
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SHEET No.: 1 / 1
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REVISION: A



SECTION A - A



ARC0424-AA03-0024



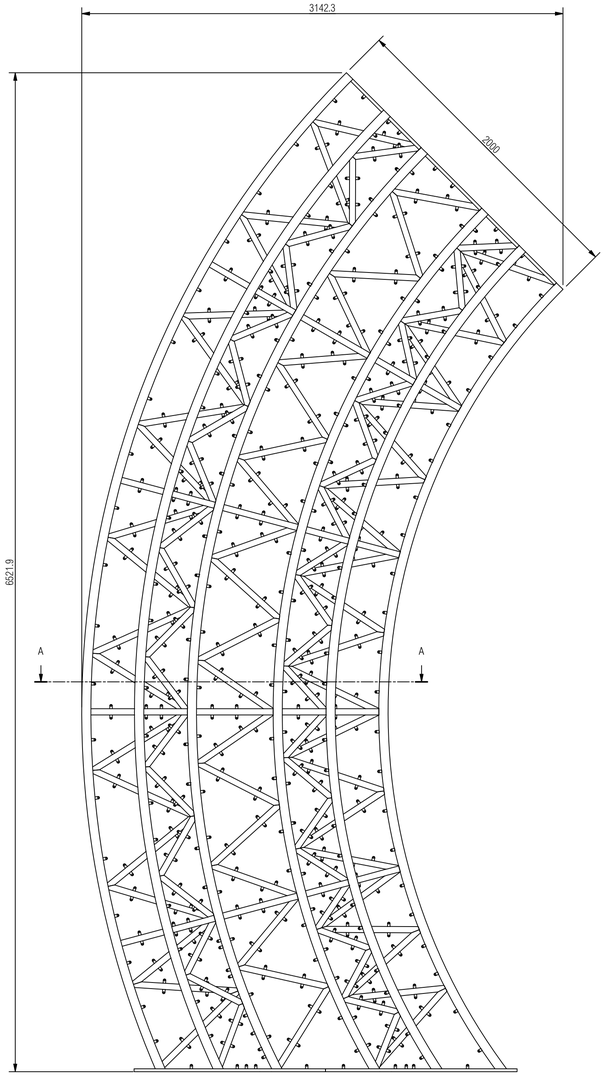
ARC0424-AA02-0557

BILL OF MATERIALS

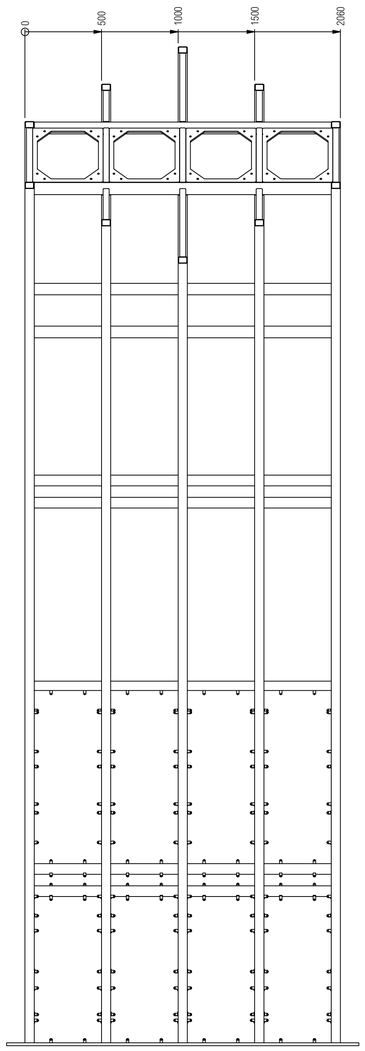
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3	ARC0424-AA02-0418	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	1
4	ARC0424-AA02-0570	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	1
5	ARC0424-AA02-0571	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
6	ARC0424-AA02-0572	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	1
7	ARC0424-AA02-0573	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	1
8	ARC0424-AA02-0574	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	1
9	ARC0424-AA02-0575	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	1
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23	ARC0424-AA02-0576	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	4
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28	ARC0424-AA02-0583	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
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BILL OF MATERIALS

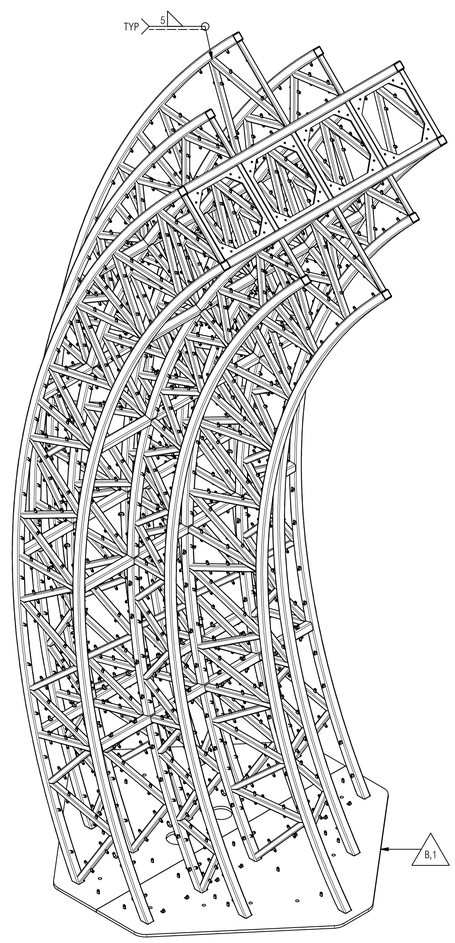
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39	ARC0424-AA02-0596	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
40	ARC0424-AA02-0715	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
41	ARC0424-AA02-0716	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
42	ARC0424-AA02-0717	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
43	ARC0424-AA02-0718	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
44	ARC0424-AA02-0719	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	3
45	ARC0424-AA02-0720	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
46	ARC0424-AA02-0721	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
47	ARC0424-AA02-0722	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
48	ARC0424-AA02-0723	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
49	ARC0424-AA02-0724	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
50	ARC0424-AA02-0725	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
51	ARC0424-AA02-0726	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
52	ARC0424-AA02-0727	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
53	ARC0424-AA02-0728	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
54	ARC0424-AA02-0729	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
55	ARC0424-AA02-0730	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
56	ARC0424-AA02-0731	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
57	ARC0424-AA02-0732	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
58	ARC0424-AA02-0733	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
59	ARC0424-AA02-0734	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
60	ARC0424-AA02-0735	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
61	ARC0424-AA02-0736	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
62	ARC0424-AA02-0737	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
63	ARC0424-AA02-0495	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	YES	10
64	ARC0424-AA02-0236	A	BOLT PLATE	MS PLATE S275 - 10 mm	YES	4
65	ARC0424-AA02-0557	A	TAB	MS PLATE S275 - 5 mm	YES	463
66	ARC0424-AA03-0024	A	TAB - CASTELLATED	MS PLATE S275 - 5 mm	YES	1022
67	ARC0424-AA02-0455	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	3
68	ARC0424-AA02-0456	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	3
69	ARC0424-AA02-0458	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	9
70	ARC0424-AA02-0463	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	9
71	ARC0424-AA02-0479	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	3
72	ARC0424-AA02-0480	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	3
73	ARC0424-AA02-0485	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
74	ARC0424-AA02-0486	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
75	ARC0424-AA02-0487	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
76	ARC0424-AA02-0488	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	1
77	ARC0424-AA02-0492	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
78	ARC0424-AA02-0493	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	1
79	ARC0424-AA01-0001	C	BASE PLATE	MS PLATE S275 - 20 mm	YES	1
80	ARC0424-AA01-0002	C	BASE PLATE	MS PLATE S275 - 20 mm	YES	1
81	ARC0424-AA03-0099	A	ANTI-CLIMB BRACKET	40 x 40 x 4 SHS - MS S235 (CF)	YES	168
82	ARC0424-AA03-0100	A	ANTI-CLIMB BRACKET - FOLDED	MS PLATE S275 - 3 mm	YES	8
83	ARC0424-AA03-0101	A	ANTI-CLIMB BRACKET - FOLDED	MS PLATE S275 - 3 mm	YES	8
84	ARC0424-EXTR-0295	A	ANTI CLIMB - TEMP	MS PLATE S275 - 2 mm	YES	1
85	ARC0424-EXTR-0296	A	ANTI CLIMB - TEMP	MS PLATE S275 - 2 mm	YES	1
86	ARC0424-EXTR-0297	A	ANTI CLIMB - TEMP	MS PLATE S275 - 2 mm	YES	1
87	ARC0424-EXTR-0298	A	ANTI CLIMB - TEMP	MS PLATE S275 - 2 mm	YES	1



FRONT



SIDE



ISOMETRIC

GENERAL NOTES

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6. THIS PROJECT IS CE MARKED - WELD TESTING REQUIRED - SUB-CONTRACT PROCESS IN CONSTRUCTOR BOX.
7. PART(S) REQUIRE COUNTERSUNK OR TAPPED HOLES.
8. FINISHING PROCESS IS BEING SUB-CONTRACTED OUT.

SHEETS:

1 - OVERALL ASSEMBLY
2 - BOX TRUSS (MAIN BODY)
3 - INFILL FRAMES
4 - MOHAWK 1 & 2
5 - MOHAWK 3, 4, 5 & 6
6 - BASE PLATE
7 - ANTI-CLIMB

ADDITIONAL DRAWINGS TO REFERENCE:

- ROLLING CUTTING JIGS: ARC0424-EXTR-0161
- BOX TRUSS JIG: ARC0424-EXTR-0205
- INFILL FRAME JIGS: ARC0424-EXTR-0208
- MOHAWK 1 & 2 JIGS: ARC0424-EXTR-0210
- MOHAWK 3, 4, 5 & 6 JIGS: ARC0424-EXTR-0213

CONSTRUCTOR

BUILD PROCESS 1: LASER TUBE	BUILD PROCESS 2: LASER PLATE			BUILD No: 2 - 3
BUILD PROCESS 3: METALWORK	BUILD PROCESS 4: SUB-CONTRACT			
BUILD PROCESS 5: SUB-CONTRACT	BUILD PROCESS 6: WATERJET			
BUILD PROCESS 7: PRESS BRAKE	BUILD PROCESS 8:			BUILD QTY: 2
MATERIAL: MS SHS & RHS WELDMENT		WEIGHT: 1941 kg		
FINISH: SHOT BLASTED & PAINTED PSX 700 RAL 9003 (SIGNAL WHITE)		FINISH QUALITY: EXHIBITION		

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
D	ANTI-CLIMB BRACKETS ADDED - SEE SHEET 7		
C,1	BASE PLATE TABS CHANGED TO NON-CASTELLATED & POSITIONS ETCHED	CJR	04/03/2024
B,1	BASE PLATE ISSUED. ONLY CUT ITEMS 79 & 80. QTY 22 MORE OF ITEM 66. SHEET 6	CJR	04/03/2024
A,1	ISSUED FOR MANUFACTURING	CJR	27/02/2024

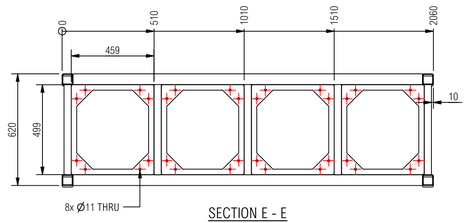
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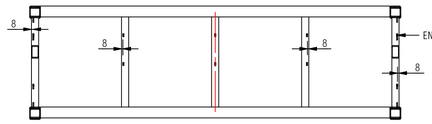
CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 02 - ARCH WAY

DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 20

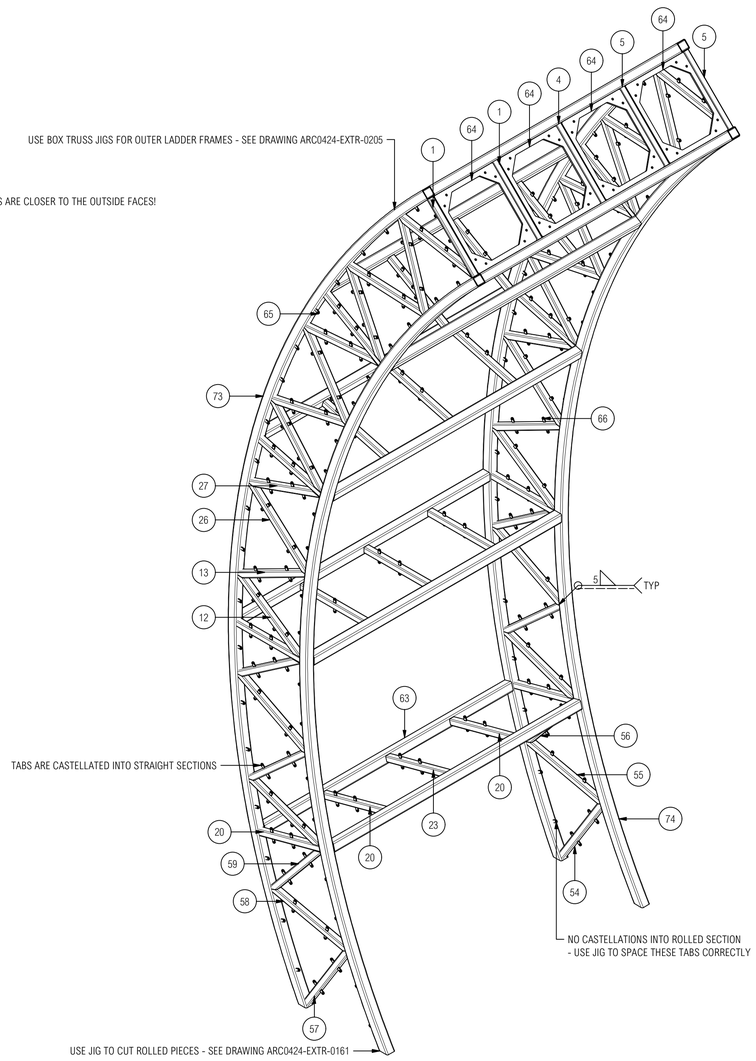
DRAWING TITLE: ARCH SEGMENT 2 & 3
SHEET No.: 1 / 7
DRAWING NUMBER: ARC0424-AA02-0001
REVISION: D,1



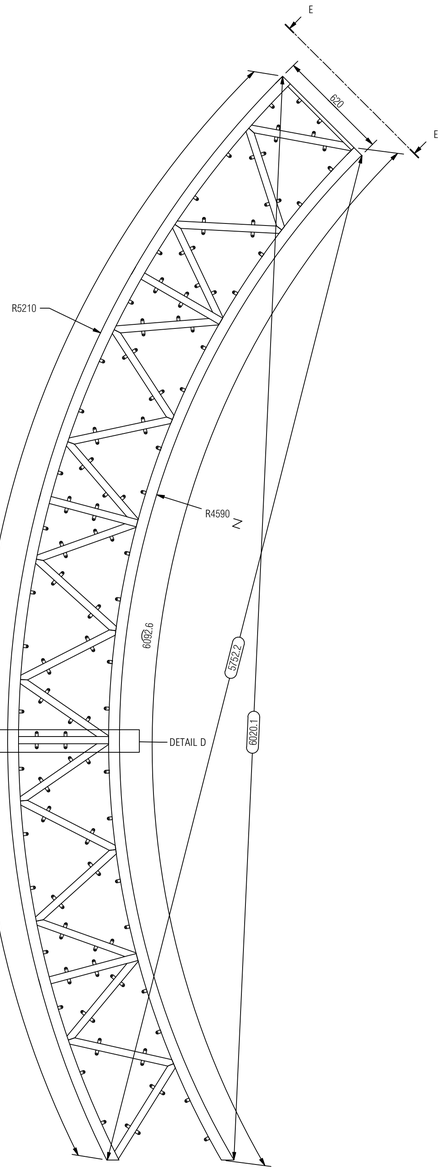
SECTION E - E



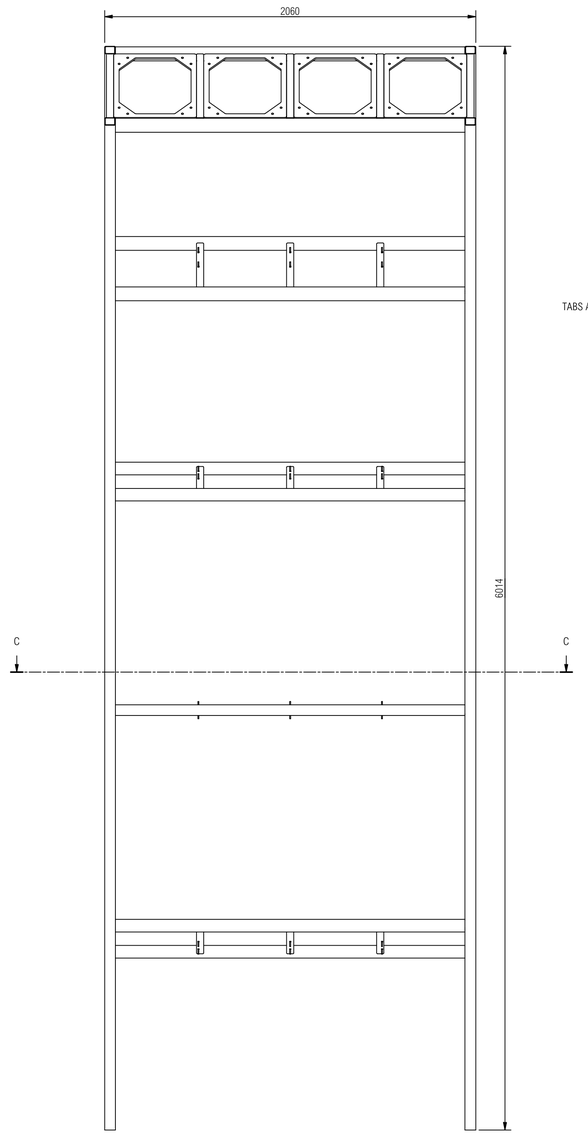
SECTION C - C



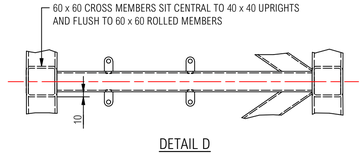
ISOMETRIC



FRONT



SIDE



DETAIL D
SCALE 1 : 6

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
1	ARC0424-AA02-0416	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
4	ARC0424-AA02-0570	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	1
5	ARC0424-AA02-0571	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
12	ARC0424-AA02-0426	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	16
13	ARC0424-AA02-0427	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	16
20	ARC0424-AA02-0437	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	16
23	ARC0424-AA02-0576	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	4
26	ARC0424-AA02-0579	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	16
27	ARC0424-AA02-0580	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	16
54	ARC0424-AA02-0729	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
55	ARC0424-AA02-0730	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
56	ARC0424-AA02-0731	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
57	ARC0424-AA02-0732	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
58	ARC0424-AA02-0733	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
59	ARC0424-AA02-0734	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
63	ARC0424-AA02-0495	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	YES	10
64	ARC0424-AA02-0238	A	BOLT PLATE	MS PLATE S275 - 10 mm	YES	4
65	ARC0424-AA02-0557	A	TAB	MS PLATE S275 - 5 mm	YES	463
66	ARC0424-AA03-0024	A	TAB - CASTELLATED	MS PLATE S275 - 5 mm	YES	1022
73	ARC0424-AA02-0485	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
74	ARC0424-AA02-0486	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2

GENERAL NOTES

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7. PART(S) REQUIRE COUNTERSUNK OR TAPPED HOLES.
8. FINISHING PROCESS IS BEING SUB-CONTRACTED OUT.

SHEETS:

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3 - INFILL FRAMES
4 - MOHAWK 1 & 2
5 - MOHAWK 3, 4, 5 & 6
6 - BASE PLATE
7 - ANTI-CLIMB

ADDITIONAL DRAWINGS TO REFERENCE:

- ROLLING CUTTING JIGS: ARC0424-EXTR-0161
- BOX TRUSS JIG: ARC0424-EXTR-0205
- INFILL FRAME JIGS: ARC0424-EXTR-0208
- MOHAWK 1 & 2 JIGS: ARC0424-EXTR-0210
- MOHAWK 3, 4, 5 & 6 JIGS: ARC0424-EXTR-0213

CONSTRUCTOR

BUILD PROCESS 1: LASER TUBE	BUILD PROCESS 2: LASER PLATE			BUILD No: 2 - 3
BUILD PROCESS 3: METALWORK	BUILD PROCESS 4: SUB-CONTRACT			
BUILD PROCESS 5: SUB-CONTRACT	BUILD PROCESS 6: WATERJET			
BUILD PROCESS 7: PRESS BRAKE	BUILD PROCESS 8:			BUILD QTY: 2
MATERIAL: MS SHS & RHS WELDMENT		WEIGHT: 1941 kg		
FINISH: SHOT BLASTED & PAINTED PSX 700 RAL 9003 (SIGNAL WHITE)		FINISH QUALITY: EXHIBITION		

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
D	ANTI-CLIMB BRACKETS ADDED - SEE SHEET 7		
C,1	BASE PLATE TABS CHANGED TO NON-CASTELLATED & POSITIONS ETCHED	CJR	04/03/2024
B,1	BASE PLATE ISSUED. ONLY CUT ITEMS 79 & 80. QTY 22 MORE OF ITEM 66. SHEET 6	CJR	04/03/2024
A,1	ISSUED FOR MANUFACTURING	CJR	27/02/2024

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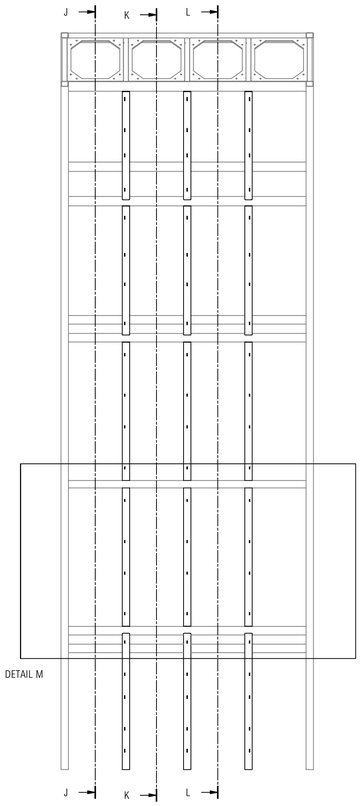
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CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 02 - ARCH WAY

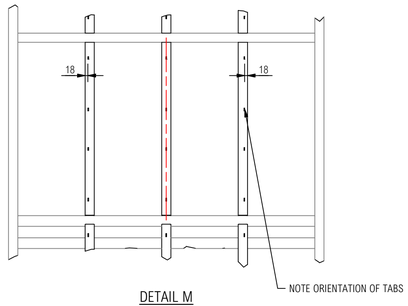
DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 17

DRAWING TITLE: ARCH SEGMENT 2 & 3
SHEET No.: 2 / 7
DRAWING NUMBER: ARC0424-AA02-0001
REVISION: D,1

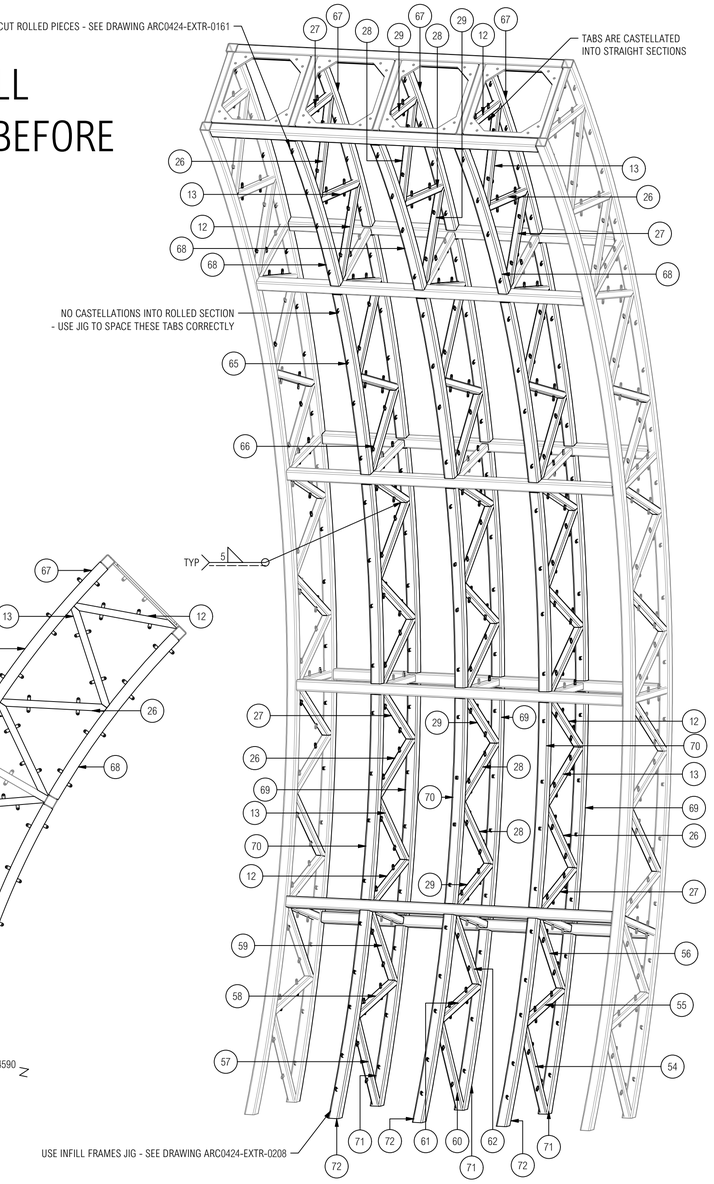
SPRAG BOTH ENDS OF ALL INTERMEDIATE FRAMES BEFORE REMOVING FROM JIGS



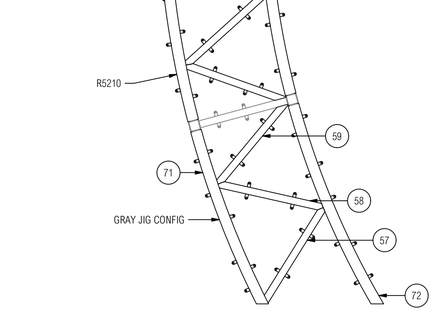
SIDE



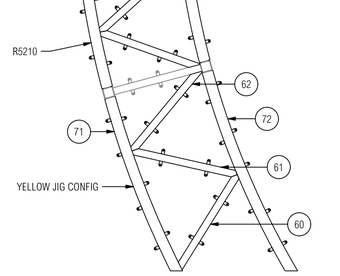
DETAIL M
SCALE 1 : 20



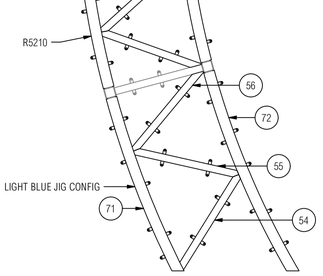
ISOMETRIC



SECTION J - J



SECTION K - K



SECTION L - L

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
1	ARC0424-AA02-0416	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
4	ARC0424-AA02-0570	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	1
5	ARC0424-AA02-0571	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
12	ARC0424-AA02-0426	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	16
13	ARC0424-AA02-0427	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	16
20	ARC0424-AA02-0437	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	16
23	ARC0424-AA02-0576	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	4
26	ARC0424-AA02-0579	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	16
27	ARC0424-AA02-0580	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	16
28	ARC0424-AA02-0583	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
29	ARC0424-AA02-0584	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
54	ARC0424-AA02-0729	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
55	ARC0424-AA02-0730	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
56	ARC0424-AA02-0731	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
57	ARC0424-AA02-0732	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
58	ARC0424-AA02-0733	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
59	ARC0424-AA02-0734	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
60	ARC0424-AA02-0735	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
61	ARC0424-AA02-0736	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
62	ARC0424-AA02-0737	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
65	ARC0424-AA02-0557	A	TAB	MS PLATE S275 - 5 mm	YES	463
66	ARC0424-AA03-0024	A	TAB - CASTELLATED	MS PLATE S275 - 5 mm	YES	1022
67	ARC0424-AA02-0455	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	3
68	ARC0424-AA02-0456	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	3
69	ARC0424-AA02-0458	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	9
70	ARC0424-AA02-0463	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	9
71	ARC0424-AA02-0479	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	3
72	ARC0424-AA02-0480	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	3

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5 - MOHAWK 3, 4, 5 & 6
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ADDITIONAL DRAWINGS TO REFERENCE:

- ROLLING CUTTING JIGS: ARC0424-EXTR-0161
- BOX TRUSS JIG: ARC0424-EXTR-0205
- INFILL FRAME JIGS: ARC0424-EXTR-0208
- MOHAWK 1 & 2 JIGS: ARC0424-EXTR-0210
- MOHAWK 3, 4, 5 & 6 JIGS: ARC0424-EXTR-0213

CONSTRUCTOR

BUILD PROCESS 1: LASER TUBE	BUILD PROCESS 2: LASER PLATE			BUILD No: 2 - 3
BUILD PROCESS 3: METALWORK	BUILD PROCESS 4: SUB-CONTRACT			
BUILD PROCESS 5: SUB-CONTRACT	BUILD PROCESS 6: WATERJET			
BUILD PROCESS 7: PRESS BRAKE	BUILD PROCESS 8:			BUILD QTY: 2
MATERIAL: MS SHS & RHS WELDMENT		WEIGHT: 1941 kg		
FINISH: SHOT BLASTED & PAINTED PSX 700 RAL 9003 (SIGNAL WHITE)		FINISH QUALITY: EXHIBITION		

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
D	ANTI-CLIMB BRACKETS ADDED - SEE SHEET 7		
C,1	BASE PLATE TABS CHANGED TO NON-CASTELLATED & POSITIONS ETCHED	CJR	04/03/2024
B,1	BASE PLATE ISSUED. ONLY CUT ITEMS 79 & 80. QTY 22 MORE OF ITEM 66. SHEET 6	CJR	04/03/2024
A,1	ISSUED FOR MANUFACTURING	CJR	27/02/2024

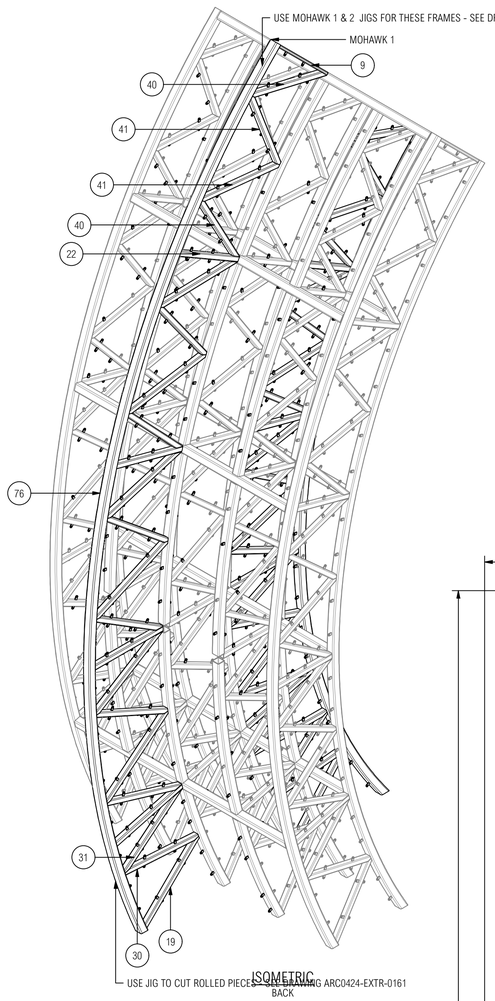
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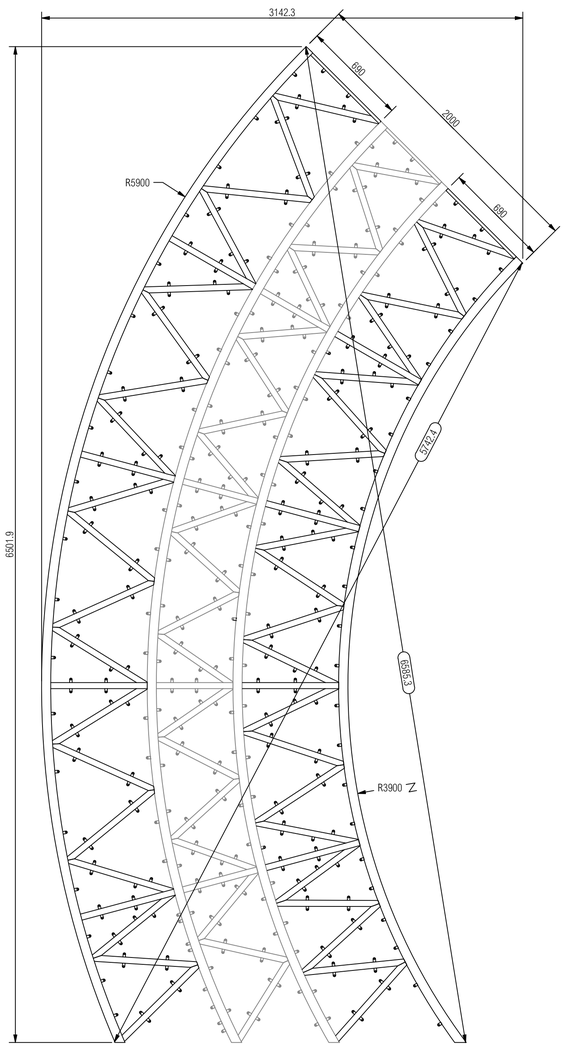
CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 02 - ARCH WAY

DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 25

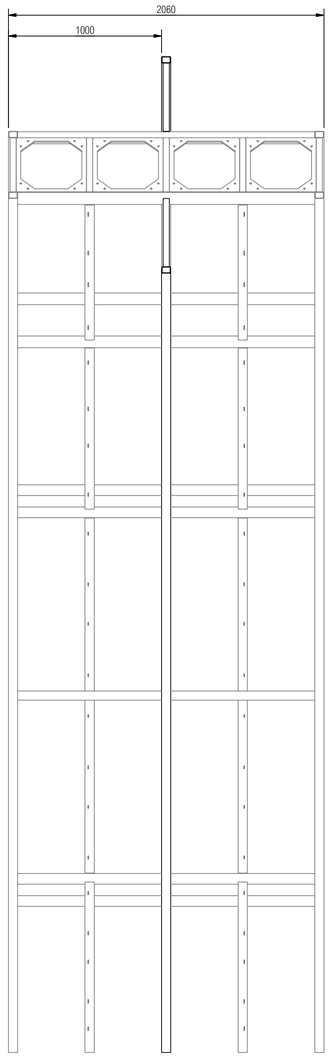
DRAWING TITLE: ARCH SEGMENT 2 & 3
SHEET No.: 3 / 7
DRAWING NUMBER: ARC0424-AA02-0001
REVISION: D,1



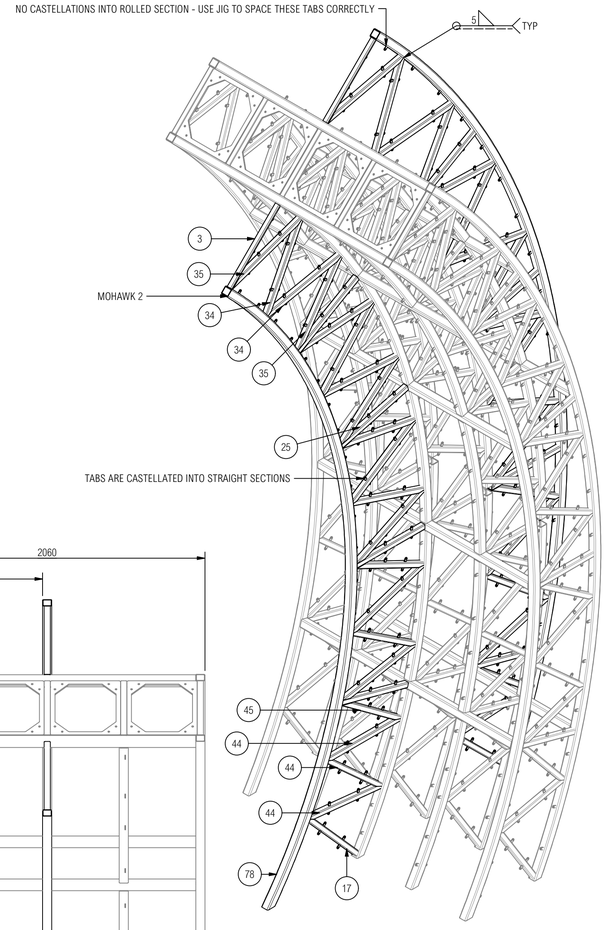
ISOMETRIC
BACK



FRONT



SIDE



ISOMETRIC
FRONT

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
3	ARC0424-AA02-0418	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	1
9	ARC0424-AA02-0575	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	1
17	ARC0424-AA02-0433	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
19	ARC0424-AA02-0436	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
22	ARC0424-AA02-0439	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	4
25	ARC0424-AA02-0578	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	4
30	ARC0424-AA02-0585	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
31	ARC0424-AA02-0586	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
34	ARC0424-AA02-0589	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
35	ARC0424-AA02-0590	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
40	ARC0424-AA02-0715	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
41	ARC0424-AA02-0716	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
44	ARC0424-AA02-0719	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	3
45	ARC0424-AA02-0720	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
65	ARC0424-AA02-0557	A	TAB	MS PLATE S275 - 5 mm	YES	463
66	ARC0424-AA03-0024	A	TAB - CASTELLATED	MS PLATE S275 - 5 mm	YES	1022
76	ARC0424-AA02-0488	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	1
78	ARC0424-AA02-0493	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	1

GENERAL NOTES

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2. ALL DIMENSIONS ARE IN mm UNLESS STATED OTHERWISE.
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4. ALL HOLE DIMENSIONS TO BE ± 0.25mm UNLESS STATED OTHERWISE.
5. USE WELD PROCEDURES WP01 TO WP18 WHERE APPLICABLE.
6. THIS PROJECT IS CE MARKED - WELD TESTING REQUIRED - SUB-CONTRACT PROCESS IN CONSTRUCTOR BOX.
7. PART(S) REQUIRE COUNTERSUNK OR TAPPED HOLES.
8. FINISHING PROCESS IS BEING SUB-CONTRACTED OUT.

SHEETS:

1 - OVERALL ASSEMBLY
2 - BOX TRUSS (MAIN BODY)
3 - INFILL FRAMES
4 - MOHAWK 1 & 2
5 - MOHAWK 3, 4, 5 & 6
6 - BASE PLATE
7 - ANTI-CLIMB

ADDITIONAL DRAWINGS TO REFERENCE:

- ROLLING CUTTING JIGS: ARC0424-EXTR-0161
- BOX TRUSS JIG: ARC0424-EXTR-0205
- INFILL FRAME JIGS: ARC0424-EXTR-0208
- MOHAWK 1 & 2 JIGS: ARC0424-EXTR-0210
- MOHAWK 3, 4, 5 & 6 JIGS: ARC0424-EXTR-0213

CONSTRUCTOR

BUILD PROCESS 1: LASER TUBE	BUILD PROCESS 2: LASER PLATE		BUILD No: 2 - 3
BUILD PROCESS 3: METALWORK	BUILD PROCESS 4: SUB-CONTRACT		
BUILD PROCESS 5: SUB-CONTRACT	BUILD PROCESS 6: WATERJET		
BUILD PROCESS 7: PRESS BRAKE	BUILD PROCESS 8:		BUILD QTY: 2
MATERIAL: MS SHS & RHS WELDMENT		WEIGHT: 1941 kg	
FINISH: SHOT BLASTED & PAINTED PSX 700 RAL 9003 (SIGNAL WHITE)		FINISH QUALITY: EXHIBITION	

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
D	ANTI-CLIMB BRACKETS ADDED - SEE SHEET 7		
C,1	BASE PLATE TABS CHANGED TO NON-CASTELLATED & POSITIONS ETCHED	CJR	04/03/2024
B,1	BASE PLATE ISSUED. ONLY CUT ITEMS 79 & 80. QTY 22 MORE OF ITEM 66. SHEET 6	CJR	04/03/2024
A,1	ISSUED FOR MANUFACTURING	CJR	27/02/2024

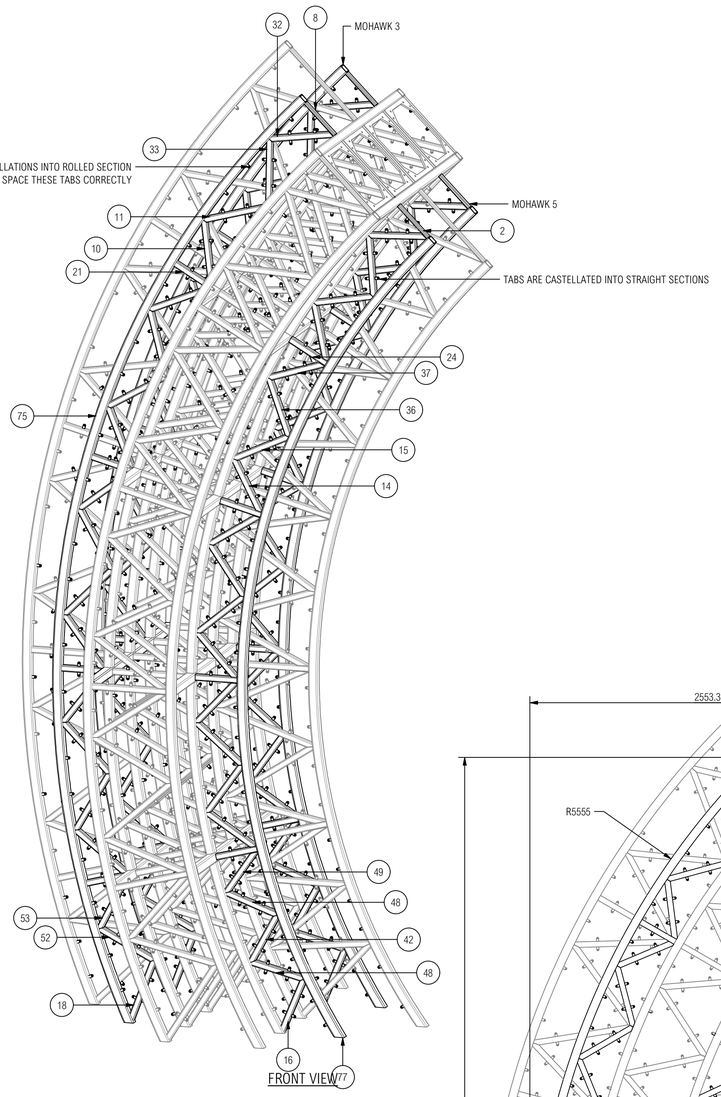
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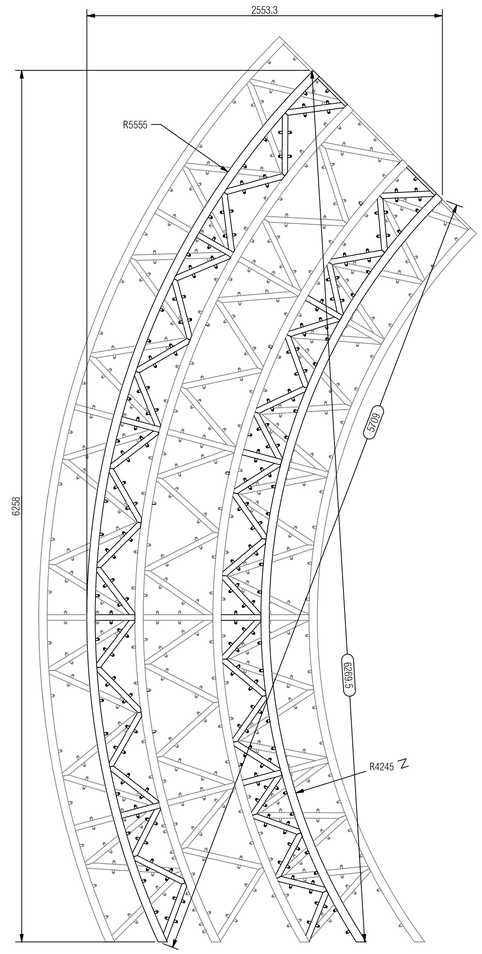
CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 02 - ARCH WAY

DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 20

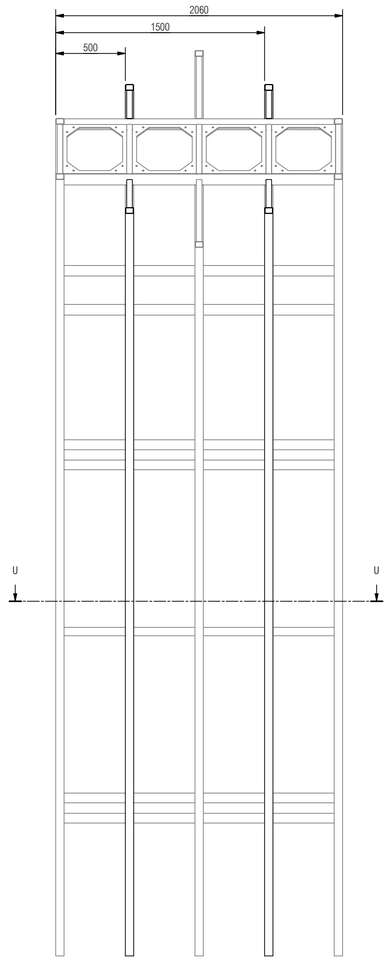
DRAWING TITLE: ARCH SEGMENT 2 & 3
SHEET No.: 4 / 7
DRAWING NUMBER: ARC0424-AA02-0001
REVISION: D,1



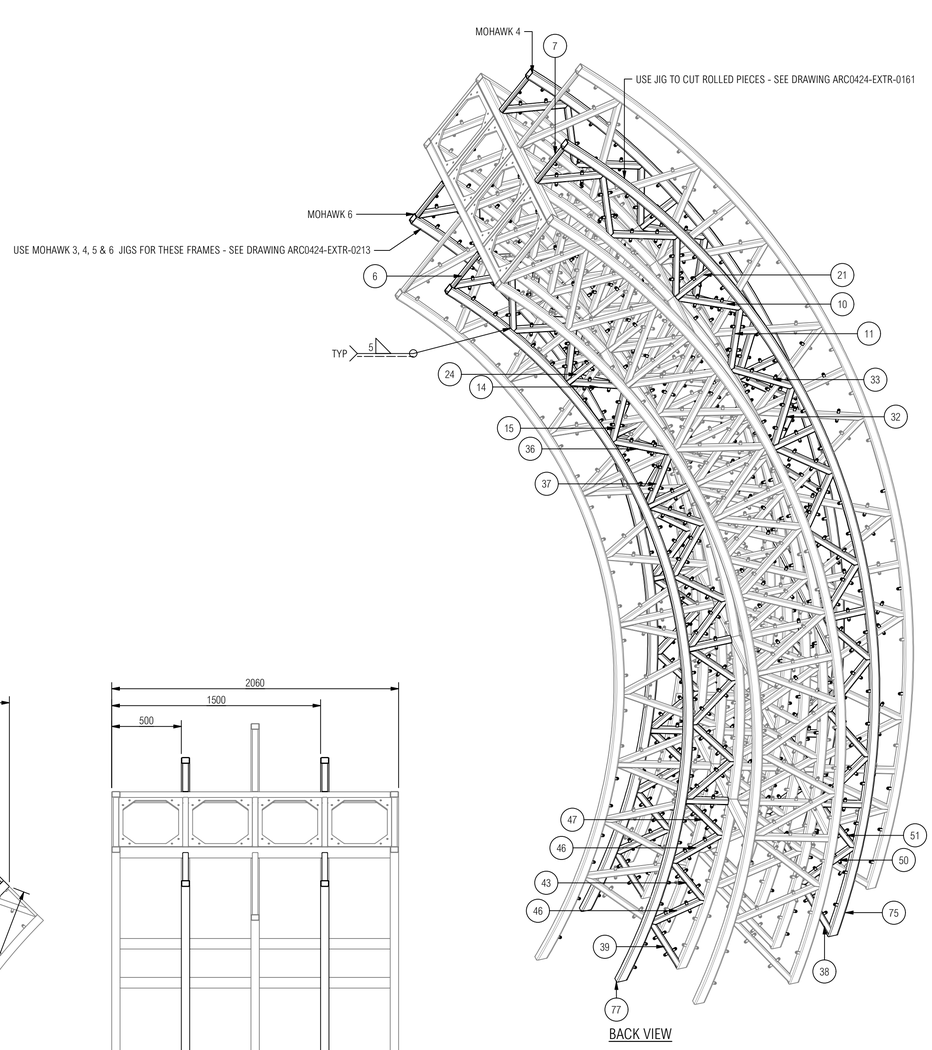
FRONT VIEW



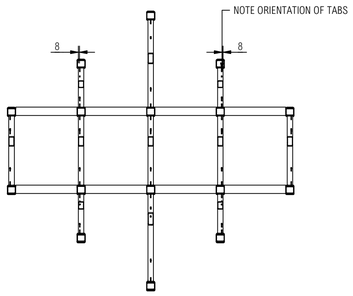
FRONT



SIDE



BACK VIEW



SECTION U - U

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
2	ARC0424-AA02-0417	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	1
6	ARC0424-AA02-0572	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	1
7	ARC0424-AA02-0573	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	1
8	ARC0424-AA02-0574	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	1
10	ARC0424-AA02-0422	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
11	ARC0424-AA02-0423	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
14	ARC0424-AA02-0428	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
15	ARC0424-AA02-0429	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
16	ARC0424-AA02-0432	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
18	ARC0424-AA02-0435	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
21	ARC0424-AA02-0438	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
24	ARC0424-AA02-0577	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
32	ARC0424-AA02-0587	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
33	ARC0424-AA02-0588	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
36	ARC0424-AA02-0591	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
37	ARC0424-AA02-0592	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	8
38	ARC0424-AA02-0595	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
39	ARC0424-AA02-0596	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
42	ARC0424-AA02-0717	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
43	ARC0424-AA02-0718	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
46	ARC0424-AA02-0721	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
47	ARC0424-AA02-0722	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
48	ARC0424-AA02-0723	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	2
49	ARC0424-AA02-0724	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
50	ARC0424-AA02-0725	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
51	ARC0424-AA02-0726	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
52	ARC0424-AA02-0727	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
53	ARC0424-AA02-0728	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	1
65	ARC0424-AA02-0557	A	TAB	MS PLATE S275 - 5 mm	YES	463
66	ARC0424-AA03-0024	A	TAB - CASTELLATED	MS PLATE S275 - 5 mm	YES	1022
75	ARC0424-AA02-0487	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
77	ARC0424-AA02-0492	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2

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SHEETS:

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ADDITIONAL DRAWINGS TO REFERENCE:

- ROLLING CUTTING JIGS: ARC0424-EXTR-0161
- BOX TRUSS JIG: ARC0424-EXTR-0205
- INFILL FRAME JIGS: ARC0424-EXTR-0208
- MOHAWK 1 & 2 JIGS: ARC0424-EXTR-0210
- MOHAWK 3, 4, 5 & 6 JIGS: ARC0424-EXTR-0213

CONSTRUCTOR

BUILD PROCESS 1:	LASER TUBE	BUILD PROCESS 2:	LASER PLATE	BUILD No: 2 - 3
BUILD PROCESS 3:	METALWORK	BUILD PROCESS 4:	SUB-CONTRACT	
BUILD PROCESS 5:	SUB-CONTRACT	BUILD PROCESS 6:	WATERJET	
BUILD PROCESS 7:	PRESS BRAKE	BUILD PROCESS 8:		BUILD QTY: 2
MATERIAL:	MS SHS & RHS WELDMENT	WEIGHT:	1941 kg	
FINISH:	SHOT BLASTED & PAINTED PSX 700 RAL 9003 (SIGNAL WHITE)	FINISH QUALITY:	EXHIBITION	

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
D	ANTI-CLIMB BRACKETS ADDED - SEE SHEET 7		
C,1	BASE PLATE TABS CHANGED TO NON-CASTELLATED & POSITIONS ETCHED	CJR	04/03/2024
B,1	BASE PLATE ISSUED. ONLY CUT ITEMS 79 & 80. QTY 22 MORE OF ITEM 66. SHEET 6	CJR	04/03/2024
A,1	ISSUED FOR MANUFACTURING	CJR	27/02/2024

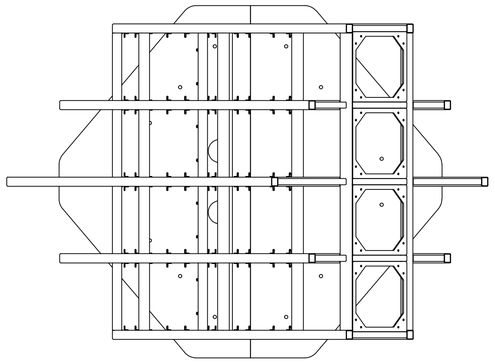
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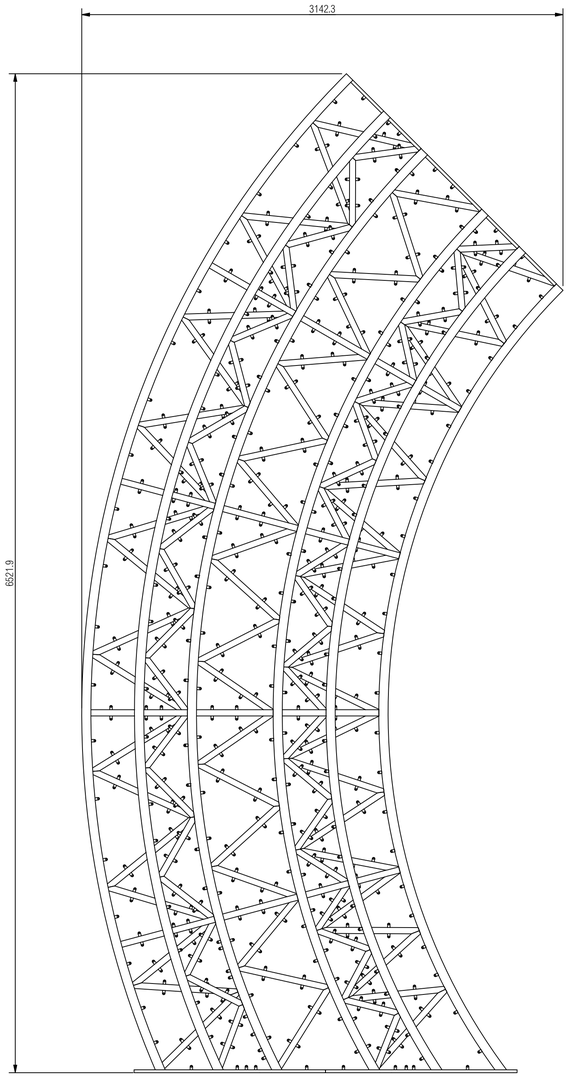
CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 02 - ARCH WAY

DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 22

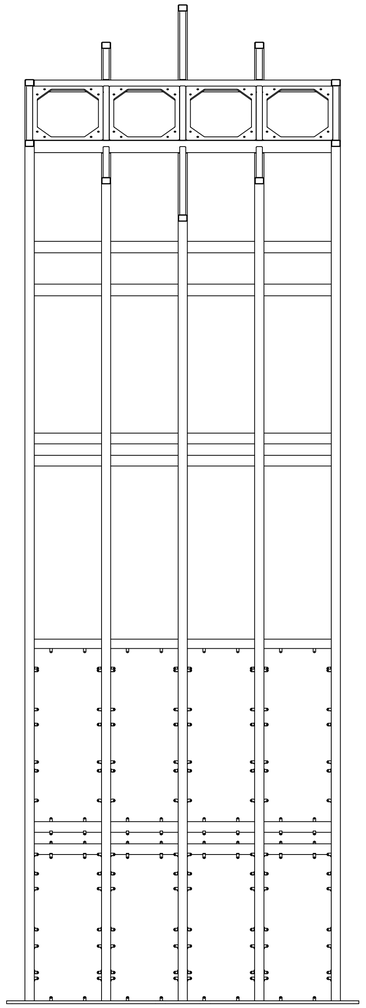
DRAWING TITLE: ARCH SEGMENT 2 & 3
SHEET No.: 5 / 7
DRAWING NUMBER: ARC0424-AA02-0001
REVISION: D,1



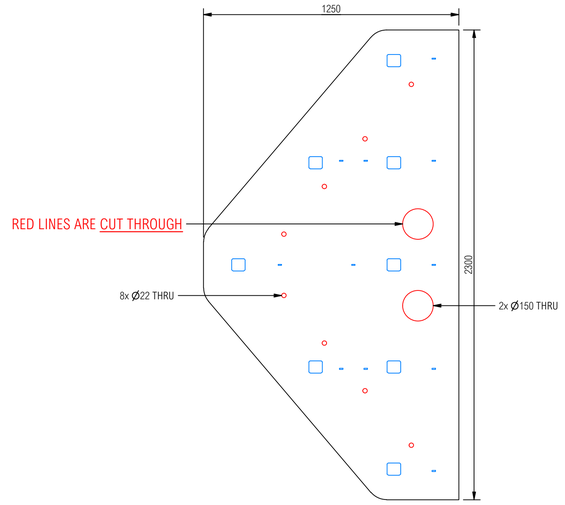
PLAN



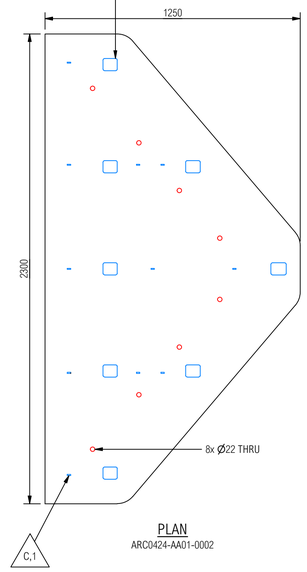
FRONT



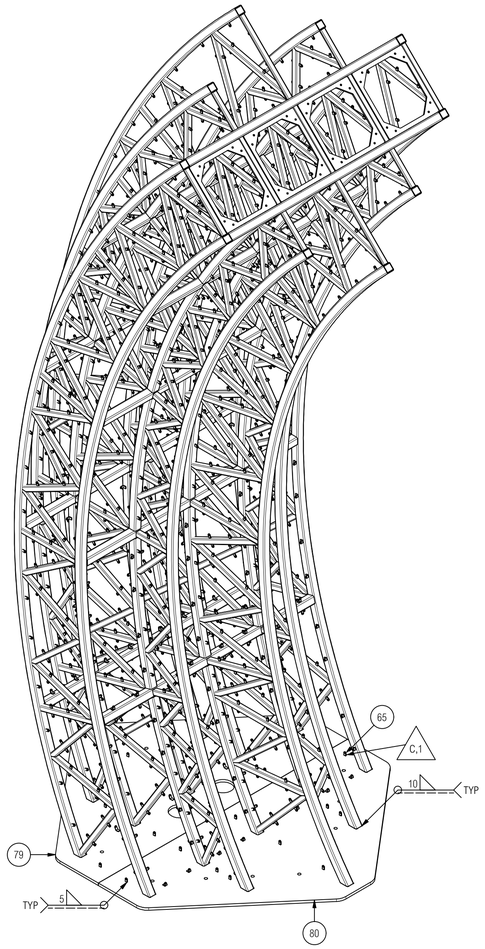
SIDE



PLAN
ARC0424-AA01-0001



PLAN
ARC0424-AA01-0002



ISOMETRIC

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
65	ARC0424-AA02-0557	A	TAB	MS PLATE S275 - 5 mm	YES	22
79	ARC0424-AA01-0001	C	BASE PLATE	MS PLATE S275 - 20 mm	YES	1
80	ARC0424-AA01-0002	C	BASE PLATE	MS PLATE S275 - 20 mm	YES	1

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4 - MOHAWK 1 & 2
5 - MOHAWK 3, 4, 5 & 6
6 - BASE PLATE
7 - ANTI-CLIMB

ADDITIONAL DRAWINGS TO REFERENCE:

- ROLLING CUTTING JIGS: ARC0424-EXTR-0161
- BOX TRUSS JIG: ARC0424-EXTR-0205
- INFILL FRAME JIGS: ARC0424-EXTR-0208
- MOHAWK 1 & 2 JIGS: ARC0424-EXTR-0210
- MOHAWK 3, 4, 5 & 6 JIGS: ARC0424-EXTR-0213

CONSTRUCTOR

BUILD PROCESS 1: LASER TUBE	BUILD PROCESS 2: LASER PLATE			BUILD No: 2 - 3
BUILD PROCESS 3: METALWORK	BUILD PROCESS 4: SUB-CONTRACT			
BUILD PROCESS 5: SUB-CONTRACT	BUILD PROCESS 6: WATERJET			
BUILD PROCESS 7: PRESS BRAKE	BUILD PROCESS 8:			BUILD QTY: 2
MATERIAL: MS SHS & RHS WELDMENT		WEIGHT: 1941 kg		
FINISH: SHOT BLASTED & PAINTED PSX 700 RAL 9003 (SIGNAL WHITE)		FINISH QUALITY: EXHIBITION		

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
D	ANTI-CLIMB BRACKETS ADDED - SEE SHEET 7		
C,1	BASE PLATE TABS CHANGED TO NON-CASTELLATED & POSITIONS ETCHED	CJR	04/03/2024
B,1	BASE PLATE ISSUED. ONLY CUT ITEMS 79 & 80. QTY 22 MORE OF ITEM 66. SHEET 6	CJR	04/03/2024
A,1	ISSUED FOR MANUFACTURING	CJR	27/02/2024

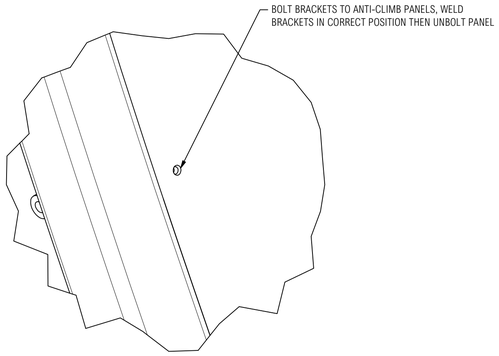
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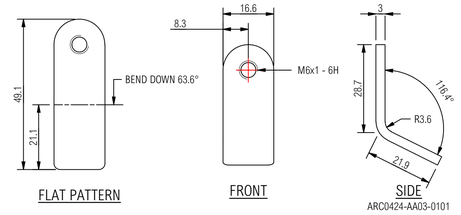
CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 02 - ARCH WAY

DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 20

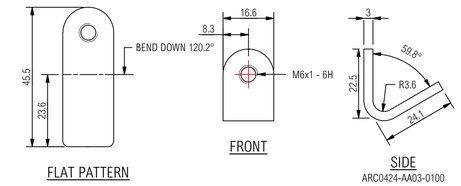
DRAWING TITLE: ARCH SEGMENT 2 & 3
SHEET No.: 6 / 7
DRAWING NUMBER: ARC0424-AA02-0001
REVISION: D,1



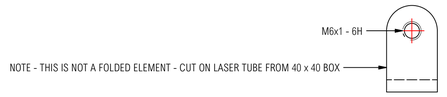
DETAIL AB
SCALE 1 : 2



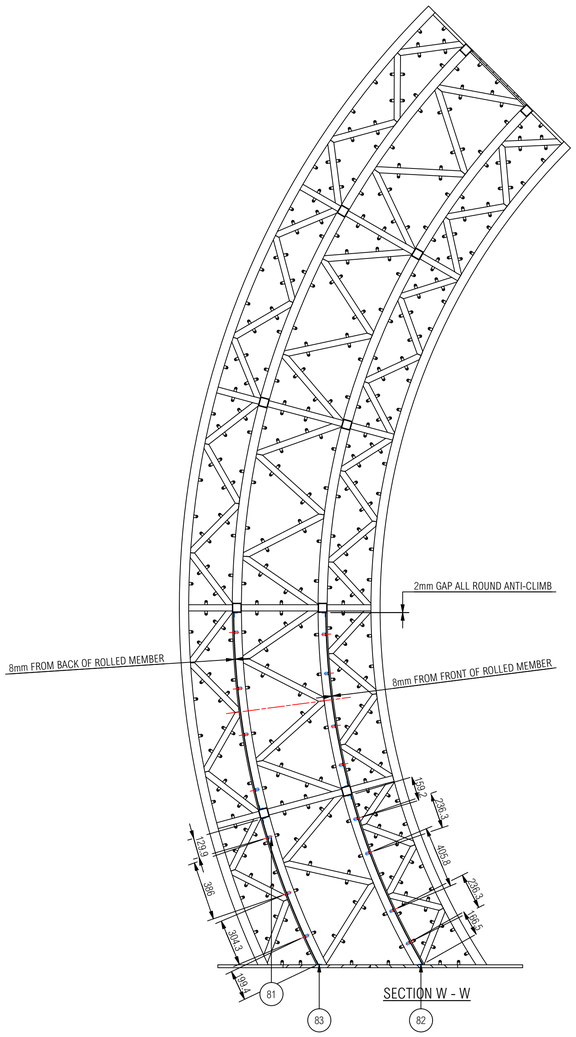
FLAT PATTERN | FRONT | SIDE
ARC0424-AA03-0101



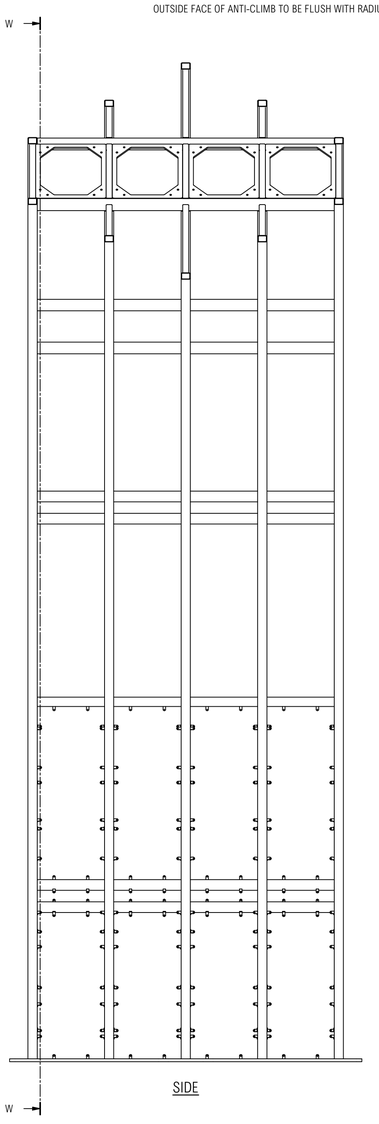
FLAT PATTERN | FRONT | SIDE
ARC0424-AA03-0100



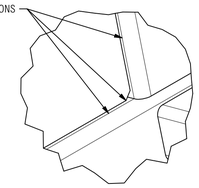
FRONT
ARC0424-AA03-0099



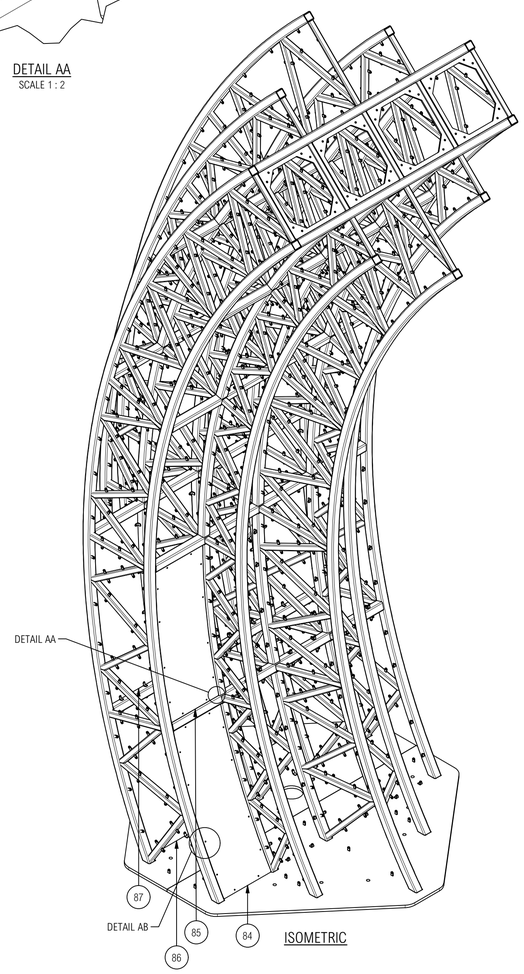
SECTION W - W



SIDE



DETAIL AA
SCALE 1 : 2



ISOMETRIC

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
81	ARC0424-AA03-0099	A	ANTI-CLIMB BRACKET	40 x 40 x 4 SHS - MS S235 (CF)	YES	168
82	ARC0424-AA03-0100	A	ANTI-CLIMB BRACKET - FOLDED	MS PLATE S275 - 3 mm	YES	8
83	ARC0424-AA03-0101	A	ANTI-CLIMB BRACKET - FOLDED	MS PLATE S275 - 3 mm	YES	8
86	ARC0424-EXTR-0297	A	ANTI CLIMB - TEMP	MS PLATE S275 - 2 mm	YES	1
87	ARC0424-EXTR-0298	A	ANTI CLIMB - TEMP	MS PLATE S275 - 2 mm	YES	1
84	ARC0424-EXTR-0295	A	ANTI CLIMB - TEMP	MS PLATE S275 - 2 mm	YES	1
85	ARC0424-EXTR-0296	A	ANTI CLIMB - TEMP	MS PLATE S275 - 2 mm	YES	1

GENERAL NOTES

1. IF IN DOUBT - ASK!
2. ALL DIMENSIONS ARE IN mm UNLESS STATED OTHERWISE.
3. ALL LINEAR DIMENSIONS TO BE ± 1mm UNLESS STATED OTHERWISE.
4. ALL HOLE DIMENSIONS TO BE ± 0.25mm UNLESS STATED OTHERWISE.
5. USE WELD PROCEDURES WP01 TO WP18 WHERE APPLICABLE.
6. THIS PROJECT IS CE MARKED - WELD TESTING REQUIRED - SUB-CONTRACT PROCESS IN CONSTRUCTOR BOX.
7. PART(S) REQUIRE COUNTERSUNK OR TAPPED HOLES.
8. FINISHING PROCESS IS BEING SUB-CONTRACTED OUT.
9. NOTE INNER RADIUS, USING 24 mm 'V' WITH 3.6mm INNER RADIUS.

SHEETS:

1 - OVERALL ASSEMBLY
2 - BOX TRUSS (MAIN BODY)
3 - INFILL FRAMES
4 - MOHAWK 1 & 2
5 - MOHAWK 3, 4, 5 & 6
6 - BASE PLATE
7 - ANTI-CLIMB

ADDITIONAL DRAWINGS TO REFERENCE:

- ROLLING CUTTING JIGS: ARC0424-EXTR-0161
- BOX TRUSS JIG: ARC0424-EXTR-0205
- INFILL FRAME JIGS: ARC0424-EXTR-0208
- MOHAWK 1 & 2 JIGS: ARC0424-EXTR-0210
- MOHAWK 3, 4, 5 & 6 JIGS: ARC0424-EXTR-0213

CONSTRUCTOR

BUILD PROCESS 1: LASER TUBE	BUILD PROCESS 2: LASER PLATE			BUILD No: 2 - 3
BUILD PROCESS 3: METALWORK	BUILD PROCESS 4: SUB-CONTRACT			
BUILD PROCESS 5: SUB-CONTRACT	BUILD PROCESS 6: WATERJET			
BUILD PROCESS 7: PRESS BRAKE	BUILD PROCESS 8:			BUILD QTY: 2
MATERIAL: MS SHS & RHS WELDMENT		WEIGHT: 1941 kg		
FINISH: SHOT BLASTED & PAINTED PSX 700 RAL 9003 (SIGNAL WHITE)		FINISH QUALITY: EXHIBITION		

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
D	ANTI-CLIMB BRACKETS ADDED - SEE SHEET 7		
C,1	BASE PLATE TABS CHANGED TO NON-CASTELLATED & POSITIONS ETCHED	CJR	04/03/2024
B,1	BASE PLATE ISSUED. ONLY CUT ITEMS 79 & 80. QTY 22 MORE OF ITEM 66. SHEET 6	CJR	04/03/2024
A,1	ISSUED FOR MANUFACTURING	CJR	27/02/2024

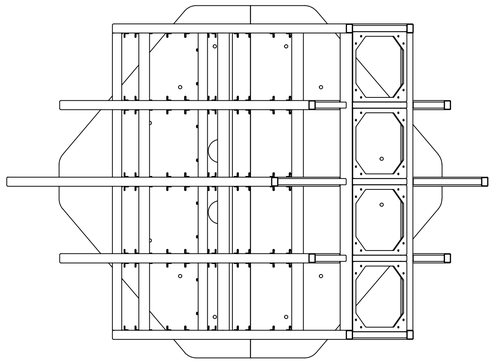
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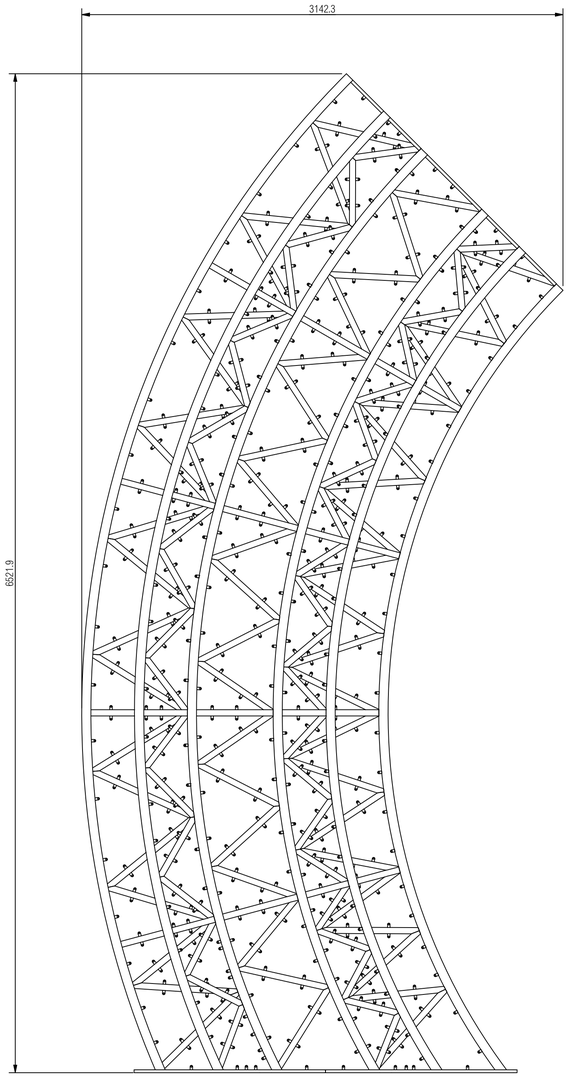
CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 02 - ARCH WAY

DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 20

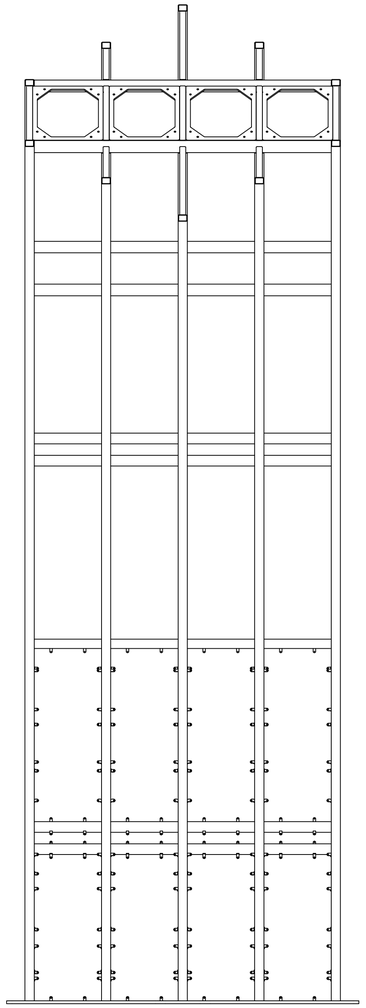
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SHEET No.: 7 / 7
DRAWING NUMBER: ARC0424-AA02-0001
REVISION: D,1



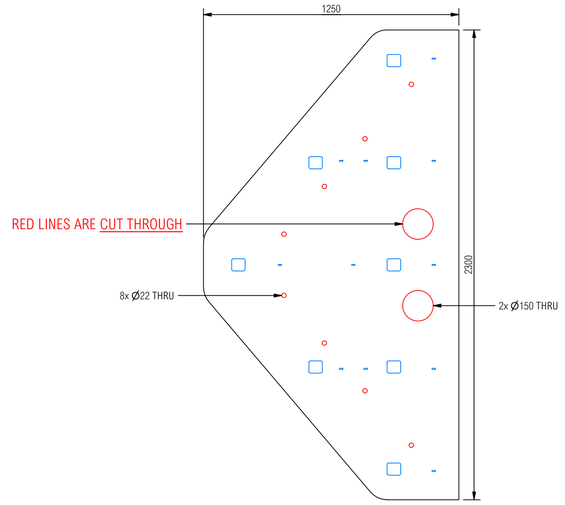
PLAN



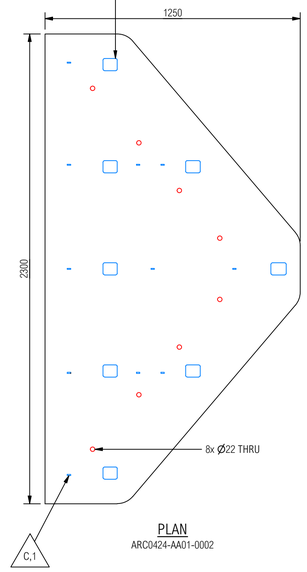
FRONT



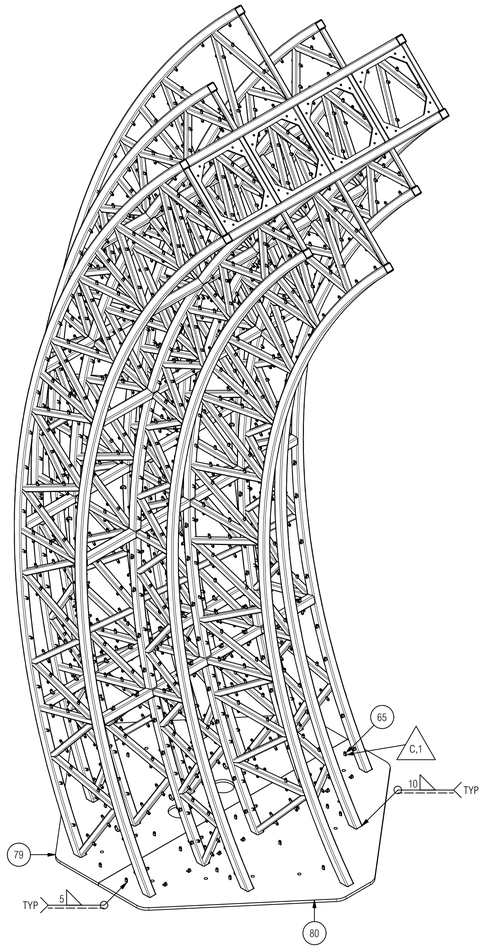
SIDE



PLAN
ARC0424-AA01-0001



PLAN
ARC0424-AA01-0002



ISOMETRIC

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
65	ARC0424-AA02-0557	A	TAB	MS PLATE S275 - 5 mm	YES	22
79	ARC0424-AA01-0001	C	BASE PLATE	MS PLATE S275 - 20 mm	YES	1
80	ARC0424-AA01-0002	C	BASE PLATE	MS PLATE S275 - 20 mm	YES	1

GENERAL NOTES

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5. USE WELD PROCEDURES WP01 TO WP18 WHERE APPLICABLE.
6. THIS PROJECT IS CE MARKED - WELD TESTING REQUIRED - SUB-CONTRACT PROCESS IN CONSTRUCTOR BOX.
7. PART(S) REQUIRE COUNTERSUNK OR TAPPED HOLES.
8. FINISHING PROCESS IS BEING SUB-CONTRACTED OUT.

SHEETS:

1 - OVERALL ASSEMBLY
2 - BOX TRUSS (MAIN BODY)
3 - INFILL FRAMES
4 - MOHAWK 1 & 2
5 - MOHAWK 3, 4, 5 & 6
6 - BASE PLATE
7 - ANTI-CLIMB

ADDITIONAL DRAWINGS TO REFERENCE:

- ROLLING CUTTING JIGS: ARC0424-EXTR-0161
- BOX TRUSS JIG: ARC0424-EXTR-0205
- INFILL FRAME JIGS: ARC0424-EXTR-0208
- MOHAWK 1 & 2 JIGS: ARC0424-EXTR-0210
- MOHAWK 3, 4, 5 & 6 JIGS: ARC0424-EXTR-0213

CONSTRUCTOR

BUILD PROCESS 1: LASER TUBE	BUILD PROCESS 2: LASER PLATE			BUILD No: 2 - 3
BUILD PROCESS 3: METALWORK	BUILD PROCESS 4: SUB-CONTRACT			
BUILD PROCESS 5: SUB-CONTRACT	BUILD PROCESS 6: WATERJET			
BUILD PROCESS 7: PRESS BRAKE	BUILD PROCESS 8:			BUILD QTY: 2
MATERIAL: MS SHS & RHS WELDMENT		WEIGHT: 1941 kg		
FINISH: SHOT BLASTED & PAINTED PSX 700 RAL 9003 (SIGNAL WHITE)		FINISH QUALITY: EXHIBITION		

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
D	ANTI-CLIMB BRACKETS ADDED - SEE SHEET 7		
C,1	BASE PLATE TABS CHANGED TO NON-CASTELLATED & POSITIONS ETCHED	CJR	04/03/2024
B,1	BASE PLATE ISSUED. ONLY CUT ITEMS 79 & 80. QTY 22 MORE OF ITEM 66. SHEET 6	CJR	04/03/2024
A,1	ISSUED FOR MANUFACTURING	CJR	27/02/2024

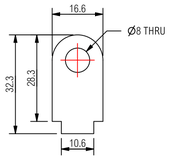
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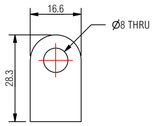
CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 02 - ARCH WAY

DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 20

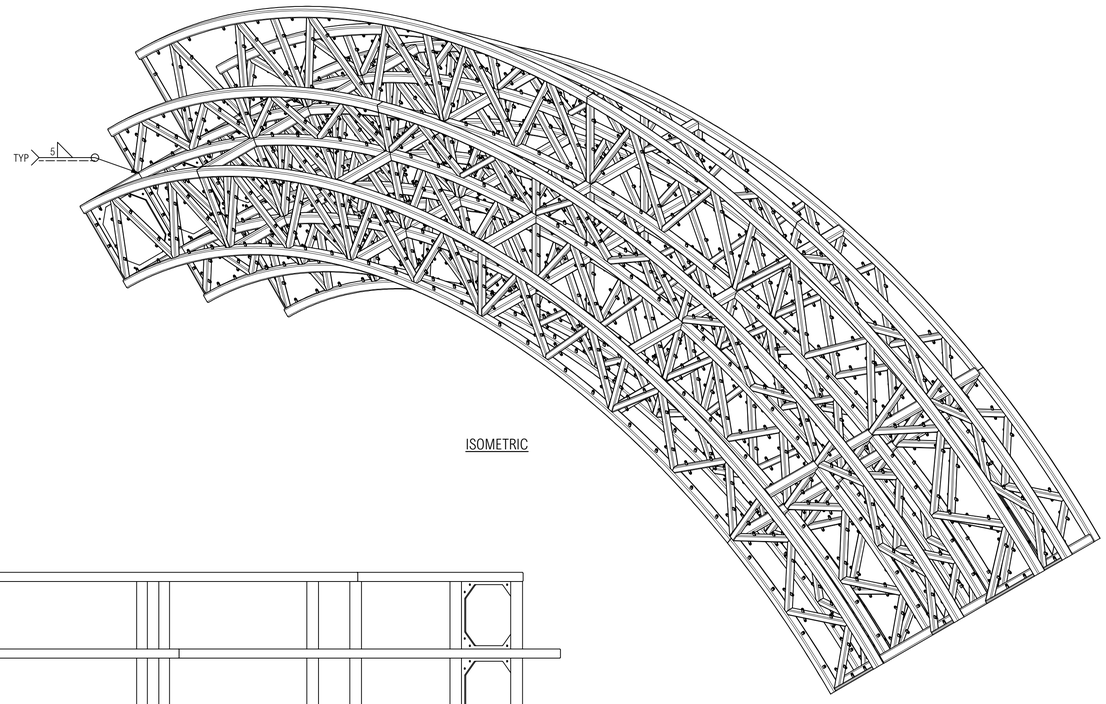
DRAWING TITLE: ARCH SEGMENT 2 & 3
SHEET No.: 6 / 7
DRAWING NUMBER: ARC0424-AA02-0001
REVISION: D,1



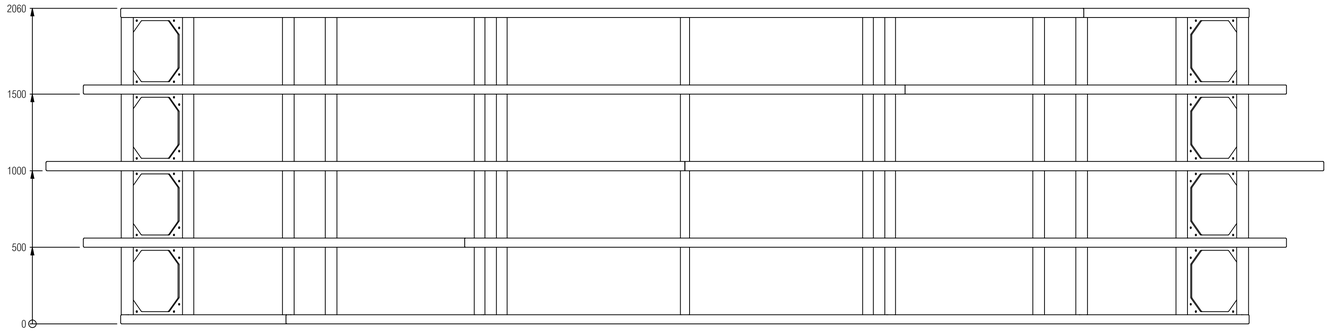
ARC0424-AA03-0024



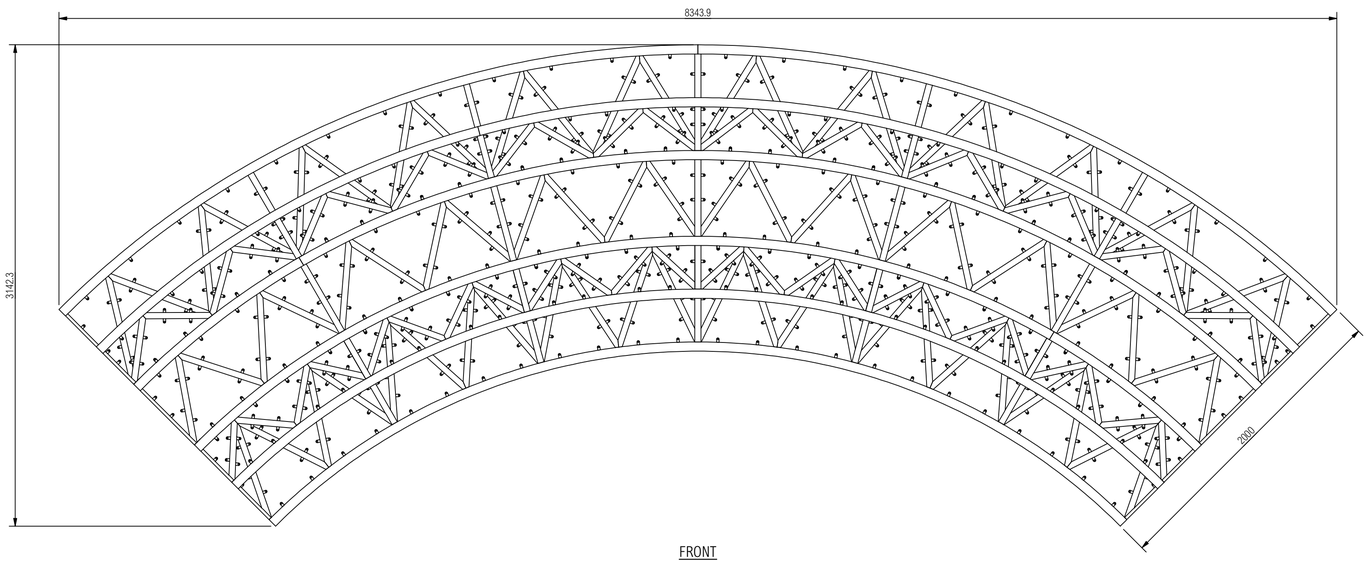
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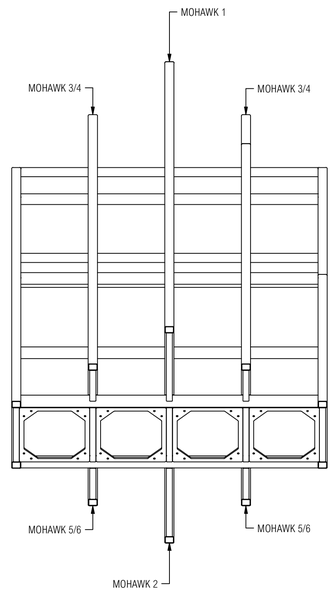
ISOMETRIC



PLAN



FRONT



SIDE

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
1	ARC0424-AA02-0419	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	4
2	ARC0424-AA02-0420	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
3	ARC0424-AA02-0558	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
4	ARC0424-AA02-0559	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
5	ARC0424-AA02-0561	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
6	ARC0424-AA02-0562	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
7	ARC0424-AA02-0563	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
8	ARC0424-AA02-0566	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	4
9	ARC0424-AA02-0569	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
10	ARC0424-AA02-0442	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
11	ARC0424-AA02-0443	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
12	ARC0424-AA02-0444	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	24
13	ARC0424-AA02-0445	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	24
14	ARC0424-AA02-0446	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
15	ARC0424-AA02-0447	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
16	ARC0424-AA02-0450	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	5
17	ARC0424-AA02-0451	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	10
18	ARC0424-AA02-0452	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	20
19	ARC0424-AA02-0543	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	24
20	ARC0424-AA02-0544	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	24
21	ARC0424-AA02-0545	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
22	ARC0424-AA02-0546	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
23	ARC0424-AA02-0549	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
24	ARC0424-AA02-0550	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
25	ARC0424-AA02-0551	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
26	ARC0424-AA02-0552	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
27	ARC0424-AA02-0553	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
28	ARC0424-AA02-0554	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
29	ARC0424-AA02-0555	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
30	ARC0424-AA02-0556	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
31	ARC0424-AA02-0564	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	10
32	ARC0424-AA02-0565	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	5
33	ARC0424-AA02-0567	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	5
34	ARC0424-AA02-0511	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	YES	14
35	ARC0424-AA02-0236	A	BOLT PLATE	MS PLATE S275 - 10 mm	YES	8
36	ARC0424-AA02-0557	A	TAB	MS PLATE S275 - 5 mm	YES	528
37	ARC0424-AA03-0024	A	TAB - CASTELLATED	MS PLATE S275 - 5 mm	YES	1272
38	ARC0424-AA02-0409	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
39	ARC0424-AA02-0410	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
40	ARC0424-AA02-0411	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
41	ARC0424-AA02-0412	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
42	ARC0424-AA02-0413	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
43	ARC0424-AA02-0414	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
44	ARC0424-AA02-0415	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
45	ARC0424-AA02-0499	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	6
46	ARC0424-AA02-0503	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	6
47	ARC0424-AA02-0504	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
48	ARC0424-AA02-0508	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	1
49	ARC0424-AA02-0513	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	12
50	ARC0424-AA02-0514	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	12

GENERAL NOTES

DO NOT ETCH

1. IF IN DOUBT - ASK!
2. ALL DIMENSIONS ARE IN mm UNLESS STATED OTHERWISE.
3. ALL LINEAR DIMENSIONS TO BE ± 1mm UNLESS STATED OTHERWISE.
4. ALL HOLE DIMENSIONS TO BE ± 0.25mm UNLESS STATED OTHERWISE.
5. USE WELD PROCEDURES WP01 TO WP18 WHERE APPLICABLE.
6. THIS PROJECT IS CE MARKED - WELD TESTING REQUIRED - SUB-CONTRACT PROCESS IN CONSTRUCTOR BOX.
7. FINISHING PROCESS IS BEING SUB-CONTRACTED OUT.

SHEETS:

1 - OVERALL ASSEMBLY
2 - BOX TRUSS (MAIN BODY)
3 - INFILL FRAMES
4 - MOHAWK 1 & 2
5 - MOHAWK 3, 4, 5 & 6

ADDITIONAL DRAWINGS TO REFERENCE:

- ROLLING CUTTING JIGS: ARC0424-EXTR-0161
- BOX TRUSS JIG: ARC0424-EXTR-0173
- INFILL FRAME JIGS: ARC0424-EXTR-0178
- MOHAWK 1 & 2 JIGS: ARC0424-EXTR-0181
- MOHAWK 3, 4, 5 & 6 JIGS: ARC0424-EXTR-0195

CONSTRUCTOR

BUILD PROCESS 1: LASER TUBE	BUILD PROCESS 2: LASER PLATE		BUILD No: 1
BUILD PROCESS 3: METALWORK	BUILD PROCESS 4: SUB-CONTRACT		
BUILD PROCESS 5: SUB-CONTRACT	BUILD PROCESS 6:		
BUILD PROCESS 7:	BUILD PROCESS 8:		BUILD QTY: 1
MATERIAL: MS SHS & RHS WELDMENT		WEIGHT: 1616 kg	
FINISH: SHOT BLASTED & PAINTED PSX 700 RAL 9003 (SIGNAL WHITE)		FINISH QUALITY: HIGH	

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
A,1	ISSUED FOR MANUFACTURING	CJR	25/02/2024

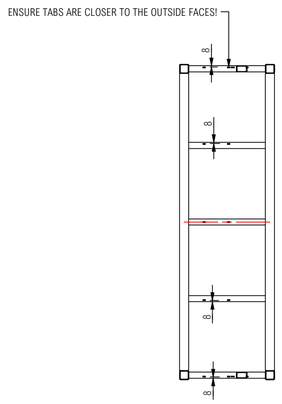
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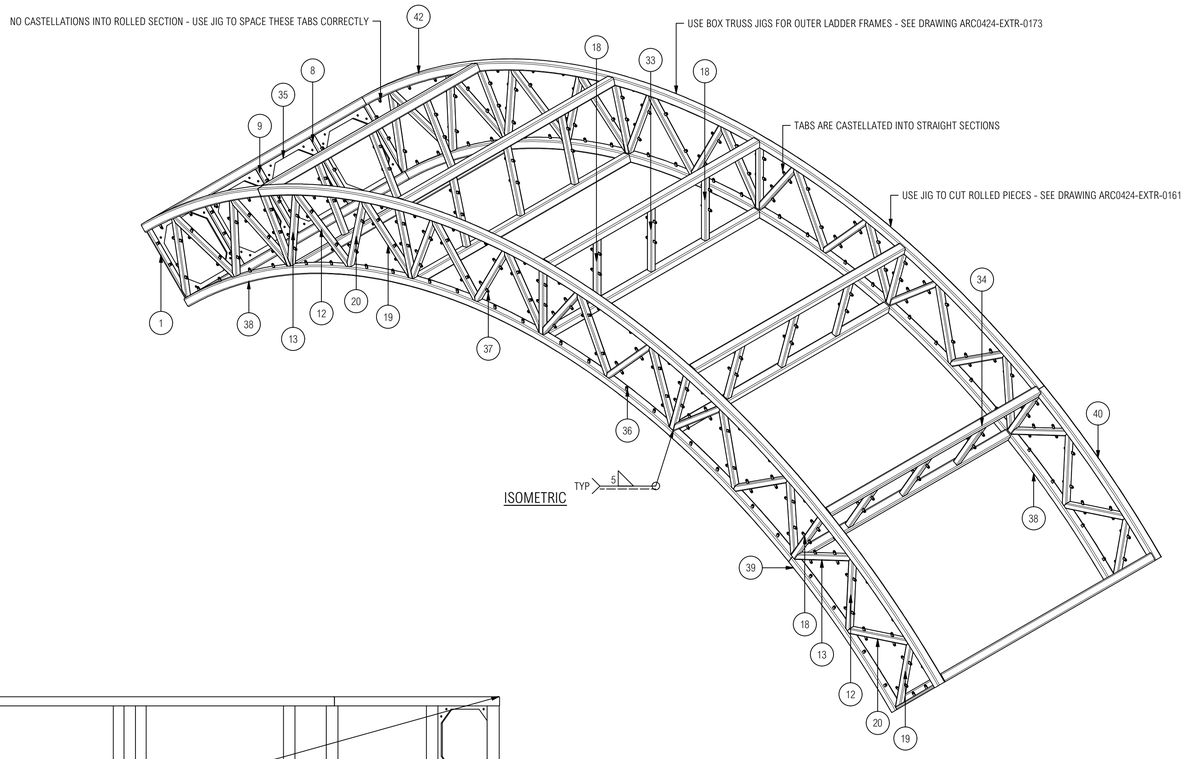
CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 02 - ARCH WAY

DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 20

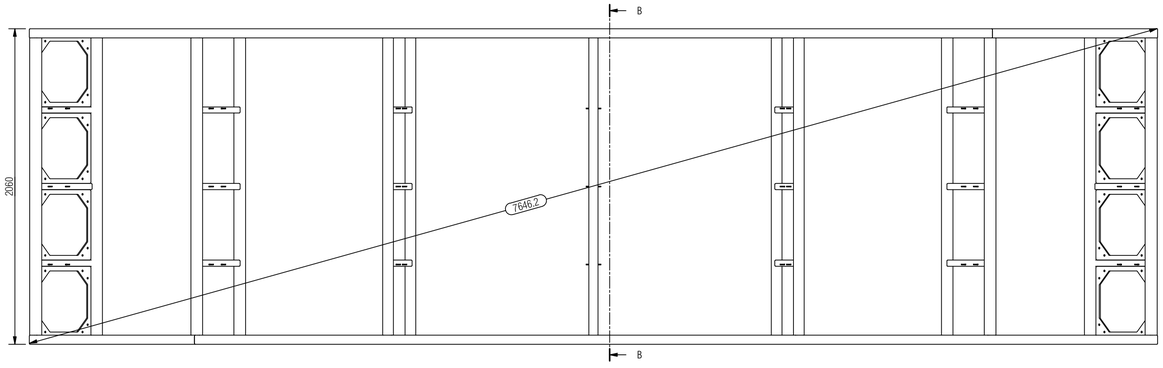
DRAWING TITLE: ARCH SEGMENT 1
SHEET No.: 1 / 5
DRAWING NUMBER: ARC0424-AA02-0002
REVISION: A,1



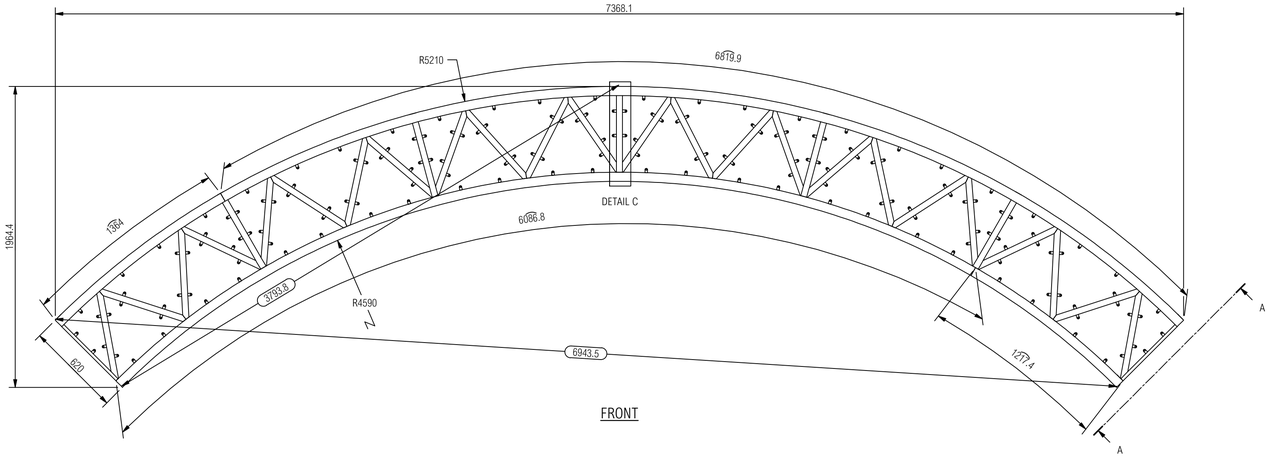
SECTION B - B



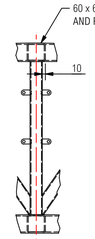
ISOMETRIC



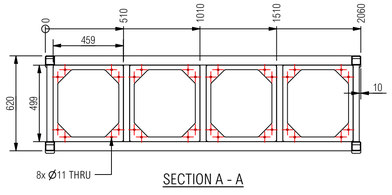
PLAN



FRONT



DETAIL C
SCALE 1 : 10



SECTION A - A

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
1	ARC0424-AA02-0419	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	4
8	ARC0424-AA02-0566	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	4
9	ARC0424-AA02-0569	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
12	ARC0424-AA02-0444	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	24
13	ARC0424-AA02-0445	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	24
18	ARC0424-AA02-0452	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	20
19	ARC0424-AA02-0543	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	24
20	ARC0424-AA02-0544	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	24
33	ARC0424-AA02-0567	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	5
34	ARC0424-AA02-0511	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	YES	14
35	ARC0424-AA02-0236	A	BOLT PLATE	MS PLATE S275 - 10 mm	YES	8
36	ARC0424-AA02-0557	A	TAB	MS PLATE S275 - 5 mm	YES	528
37	ARC0424-AA03-0024	A	TAB - CASTELLATED	MS PLATE S275 - 5 mm	YES	1272
38	ARC0424-AA02-0409	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
39	ARC0424-AA02-0410	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
40	ARC0424-AA02-0411	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
42	ARC0424-AA02-0413	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2

GENERAL NOTES

1. IF IN DOUBT - ASK!
2. ALL DIMENSIONS ARE IN mm UNLESS STATED OTHERWISE.
3. ALL LINEAR DIMENSIONS TO BE ± 1mm UNLESS STATED OTHERWISE.
4. ALL HOLE DIMENSIONS TO BE ± 0.25mm UNLESS STATED OTHERWISE.
5. USE WELD PROCEDURES WP01 TO WP18 WHERE APPLICABLE.
6. THIS PROJECT IS CE MARKED - WELD TESTING REQUIRED - SUB-CONTRACT PROCESS IN CONSTRUCTOR BOX.
7. FINISHING PROCESS IS BEING SUB-CONTRACTED OUT.

DO NOT ETCH

SHEETS:

1 - OVERALL ASSEMBLY
2 - BOX TRUSS (MAIN BODY)
3 - INFILL FRAMES
4 - MOHAWK 1 & 2
5 - MOHAWK 3, 4, 5 & 6

ADDITIONAL DRAWINGS TO REFERENCE:

- ROLLING CUTTING JIGS: ARC0424-EXTR-0161
- BOX TRUSS JIG: ARC0424-EXTR-0173
- INFILL FRAME JIGS: ARC0424-EXTR-0178
- MOHAWK 1 & 2 JIGS: ARC0424-EXTR-0181
- MOHAWK 3, 4, 5 & 6 JIGS: ARC0424-EXTR-0195

CONSTRUCTOR

BUILD PROCESS 1: LASER TUBE	BUILD PROCESS 2: LASER PLATE		BUILD No: 1
BUILD PROCESS 3: METALWORK	BUILD PROCESS 4: SUB-CONTRACT		
BUILD PROCESS 5: SUB-CONTRACT	BUILD PROCESS 6:		
BUILD PROCESS 7:	BUILD PROCESS 8:		BUILD QTY: 1
MATERIAL: MS SHS & RHS WELDMENT		WEIGHT: 1616 kg	
FINISH: SHOT BLASTED & PAINTED PSX 700 RAL 9003 (SIGNAL WHITE)		FINISH QUALITY: HIGH	

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
A,1	ISSUED FOR MANUFACTURING	CJR	25/02/2024

T | +44 (0)1423 358 001
E | sales@stageone.co.uk
W | www.stageone.co.uk

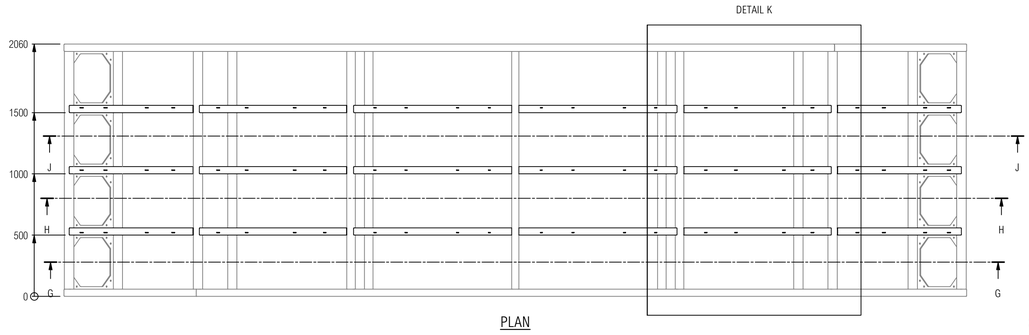
THIS DRAWING IS THE COPYRIGHT OF STAGE ONE CREATIVE SERVICES LTD AND SHALL NOT BE DISCLOSED OR COPIED WITHOUT WRITTEN CONSENT

CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 02 - ARCH WAY

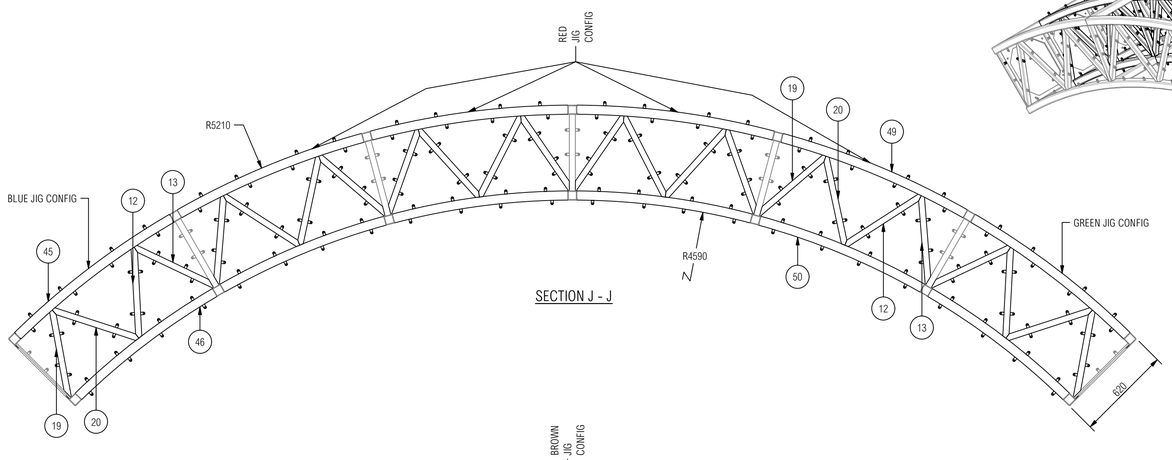
DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 20

DRAWING TITLE: ARCH SEGMENT 1
SHEET No.: 2 / 5
DRAWING NUMBER: ARC0424-AA02-0002
REVISION: A,1

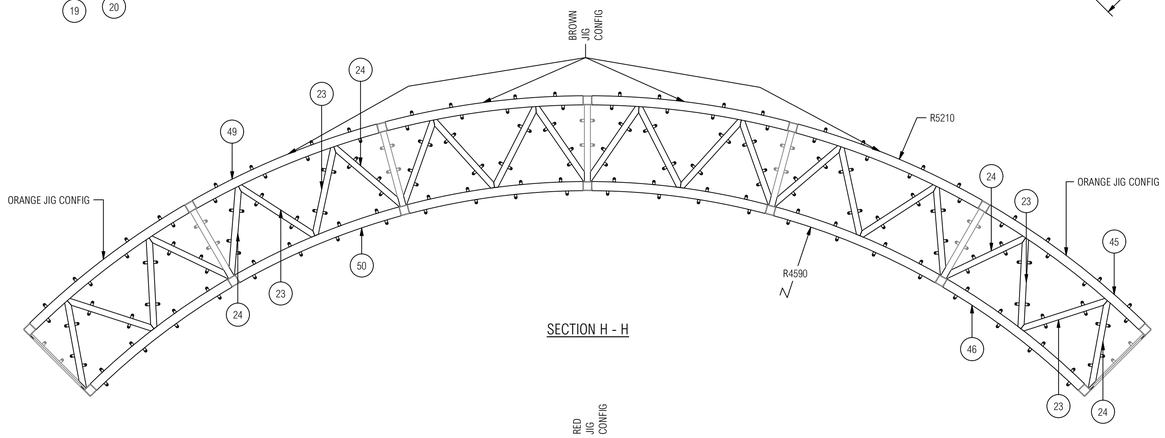
SPRAG BOTH ENDS OF ALL INTERMEDIATE FRAMES BEFORE REMOVING FROM JIGS



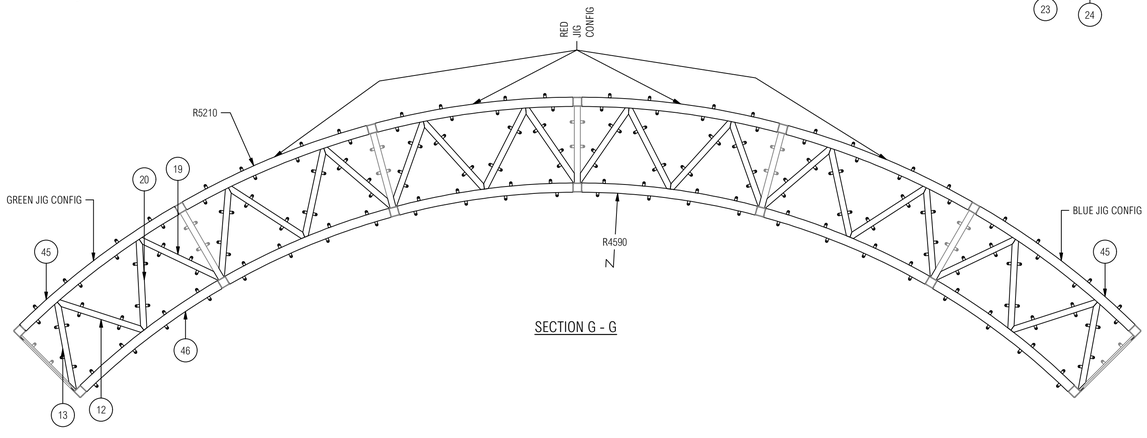
PLAN



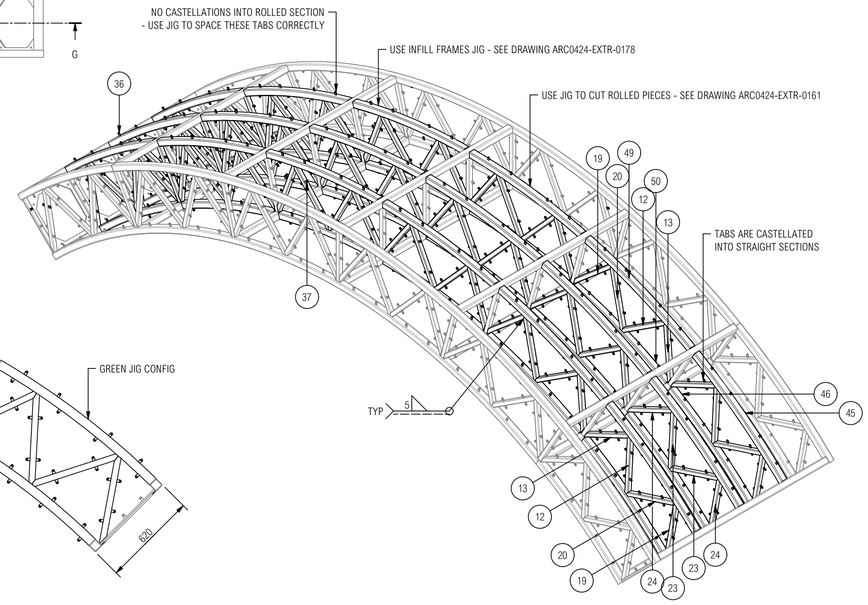
SECTION J - J



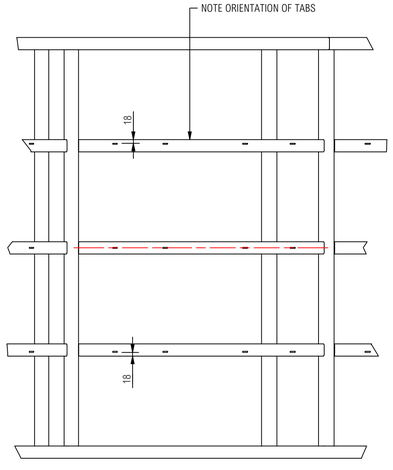
SECTION H - H



SECTION G - G



ISOMETRIC



DETAIL K
SCALE 1 : 15

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
12	ARC0424-AA02-0444	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	24
13	ARC0424-AA02-0445	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	24
18	ARC0424-AA02-0452	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	20
19	ARC0424-AA02-0543	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	24
20	ARC0424-AA02-0544	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	24
23	ARC0424-AA02-0549	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
24	ARC0424-AA02-0550	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
33	ARC0424-AA02-0567	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	5
36	ARC0424-AA02-0557	A	TAB	MS PLATE S275 - 5 mm	YES	528
37	ARC0424-AA03-0024	A	TAB - CASTELLATED	MS PLATE S275 - 5 mm	YES	1272
45	ARC0424-AA02-0499	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	6
46	ARC0424-AA02-0503	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	6
49	ARC0424-AA02-0513	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	12
50	ARC0424-AA02-0514	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	12

GENERAL NOTES

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SHEETS:

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2 - BOX TRUSS (MAIN BODY)
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4 - MOHAWK 1 & 2
5 - MOHAWK 3, 4, 5 & 6

ADDITIONAL DRAWINGS TO REFERENCE:

- ROLLING CUTTING JIGS: ARC0424-EXTR-0161
- BOX TRUSS JIG: ARC0424-EXTR-0173
- INFILL FRAME JIGS: ARC0424-EXTR-0178
- MOHAWK 1 & 2 JIGS: ARC0424-EXTR-0181
- MOHAWK 3, 4, 5 & 6 JIGS: ARC0424-EXTR-0195

CONSTRUCTOR

BUILD PROCESS 1: LASER TUBE	BUILD PROCESS 2: LASER PLATE		BUILD No: 1
BUILD PROCESS 3: METALWORK	BUILD PROCESS 4: SUB-CONTRACT		
BUILD PROCESS 5: SUB-CONTRACT	BUILD PROCESS 6:		
BUILD PROCESS 7:	BUILD PROCESS 8:		BUILD QTY: 1
MATERIAL: MS SHS & RHS WELDMENT		WEIGHT: 1616 kg	
FINISH: SHOT BLASTED & PAINTED PSX 700 RAL 9003 (SIGNAL WHITE)		FINISH QUALITY: HIGH	

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
A,1	ISSUED FOR MANUFACTURING	CJR	25/02/2024

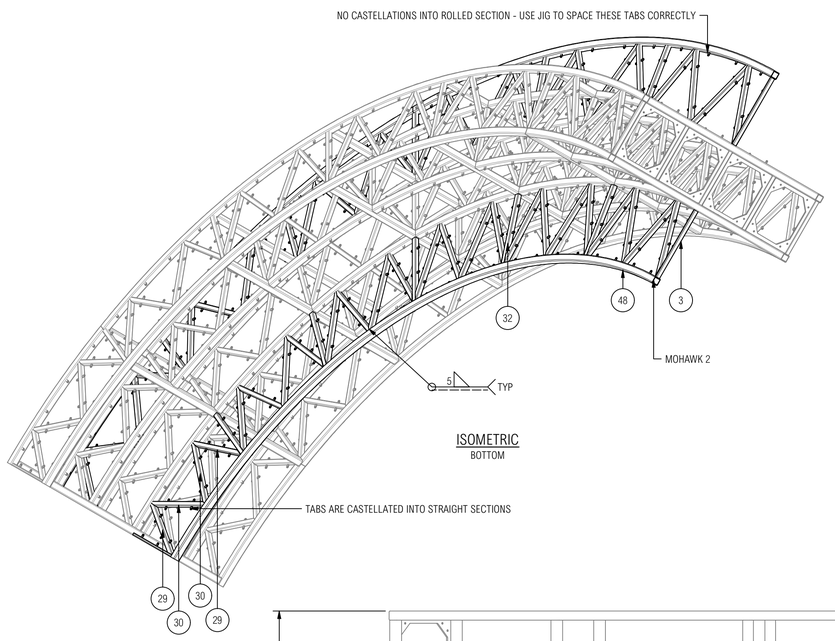
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W | www.stageone.co.uk

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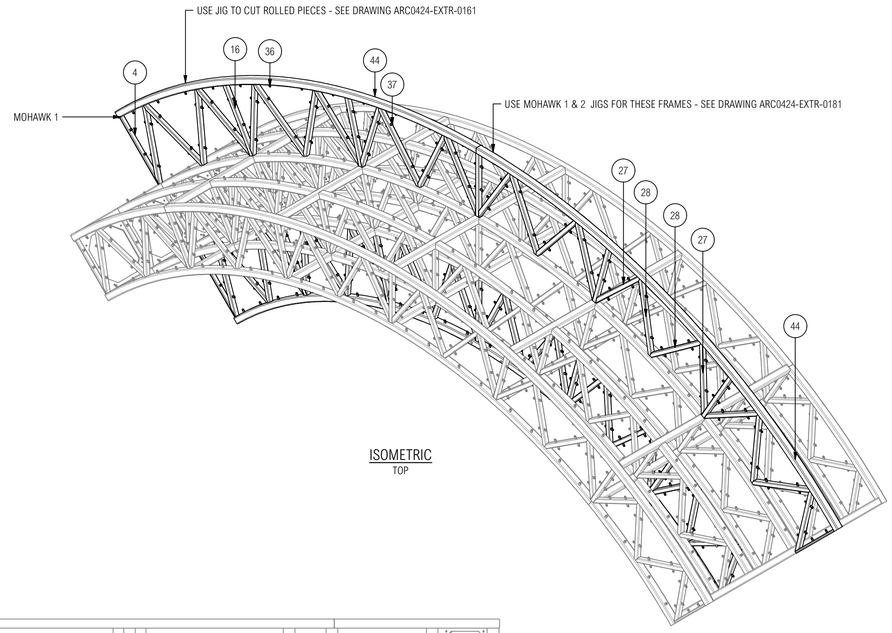
CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 02 - ARCH WAY

DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 25

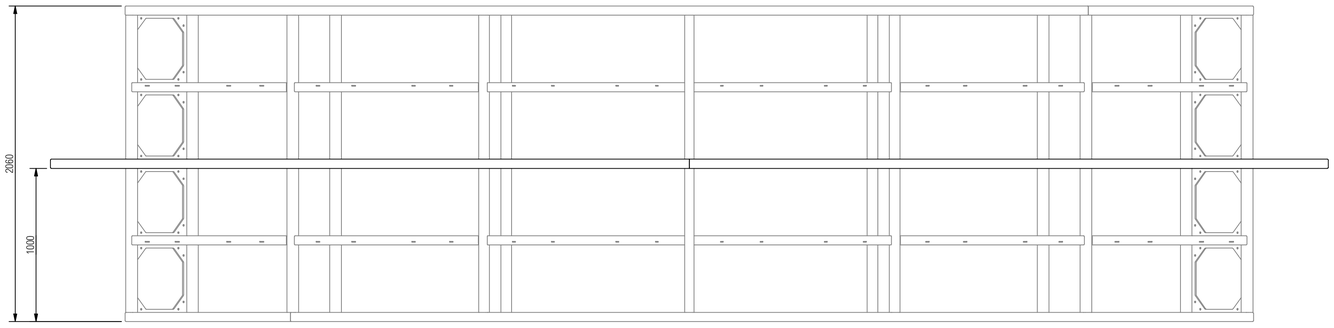
DRAWING TITLE: ARCH SEGMENT 1
SHEET No.: 3 / 5
DRAWING NUMBER: ARC0424-AA02-0002
REVISION: A,1



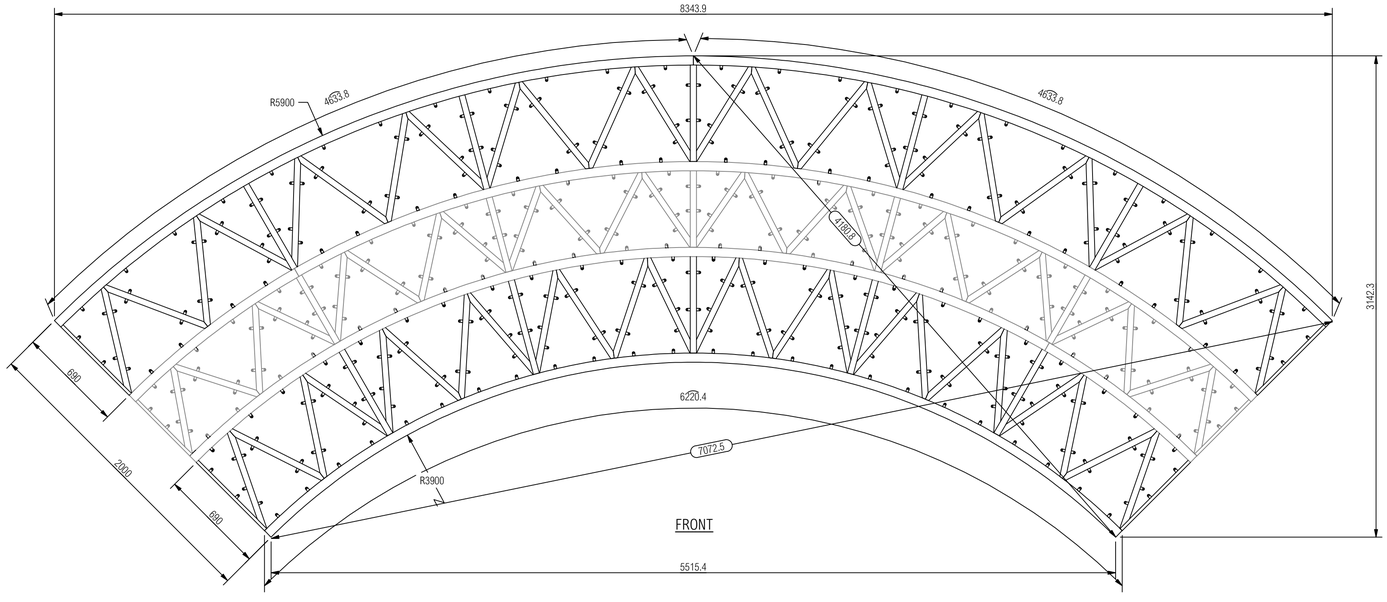
ISOMETRIC
BOTTOM



ISOMETRIC
TOP



PLAN



FRONT

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
3	ARC0424-AA02-0558	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
4	ARC0424-AA02-0559	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
16	ARC0424-AA02-0450	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	5
27	ARC0424-AA02-0553	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
28	ARC0424-AA02-0554	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
29	ARC0424-AA02-0555	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
30	ARC0424-AA02-0556	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
32	ARC0424-AA02-0565	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	5
36	ARC0424-AA02-0557	A	TAB	MS PLATE S275 - 5 mm	YES	528
37	ARC0424-AA03-0024	A	TAB - CASTELLATED	MS PLATE S275 - 5 mm	YES	1272
44	ARC0424-AA02-0415	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
48	ARC0424-AA02-0508	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	1

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4 - MOHAWK 1 & 2
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ADDITIONAL DRAWINGS TO REFERENCE:

- ROLLING CUTTING JIGS: ARC0424-EXTR-0161
- BOX TRUSS JIG: ARC0424-EXTR-0173
- INFILL FRAME JIGS: ARC0424-EXTR-0178
- MOHAWK 1 & 2 JIGS: ARC0424-EXTR-0181
- MOHAWK 3, 4, 5 & 6 JIGS: ARC0424-EXTR-0195

CONSTRUCTOR

BUILD PROCESS 1: LASER TUBE	BUILD PROCESS 2: LASER PLATE		BUILD No: 1
BUILD PROCESS 3: METALWORK	BUILD PROCESS 4: SUB-CONTRACT		
BUILD PROCESS 5: SUB-CONTRACT	BUILD PROCESS 6:		
BUILD PROCESS 7:	BUILD PROCESS 8:		BUILD QTY: 1
MATERIAL: MS SHS & RHS WELDMENT		WEIGHT: 1616 kg	
FINISH: SHOT BLASTED & PAINTED PSX 700 RAL 9003 (SIGNAL WHITE)		FINISH QUALITY: HIGH	

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
A,1	ISSUED FOR MANUFACTURING	CJR	25/02/2024

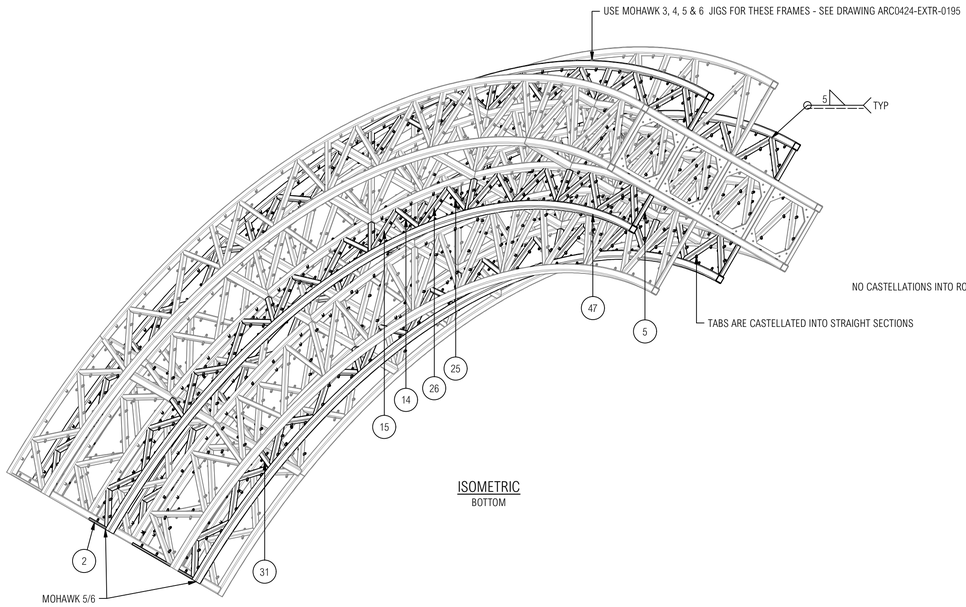
T | +44 (0)1423 358 001
E | sales@stageone.co.uk
W | www.stageone.co.uk

CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 02 - ARCH WAY

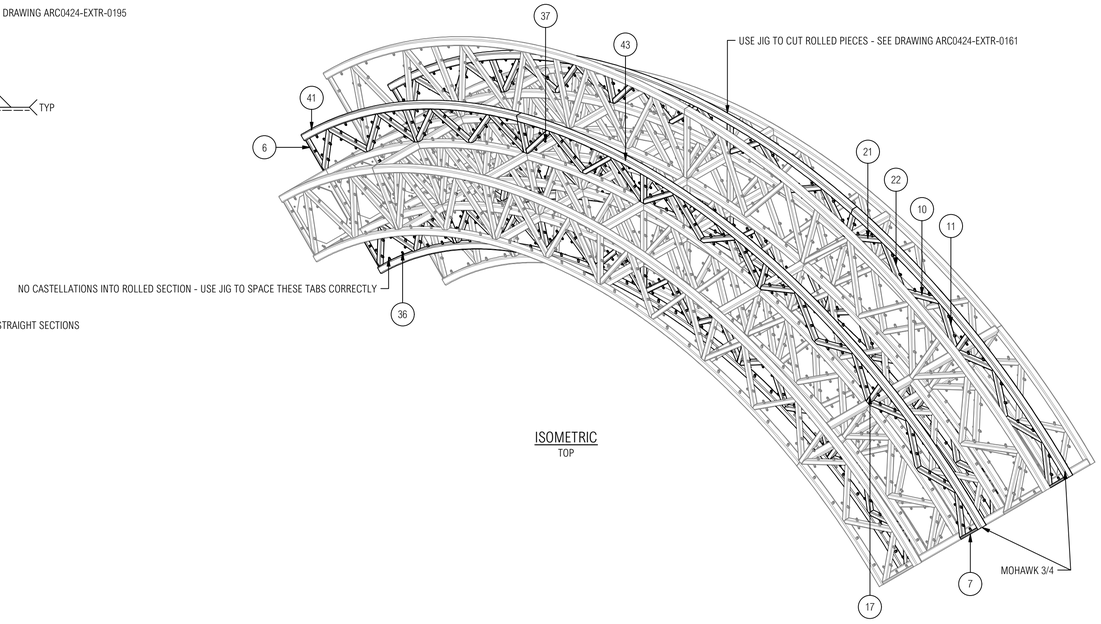
DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 20

DRAWING TITLE: ARCH SEGMENT 1
SHEET No.: 4 / 5
DRAWING NUMBER: ARC0424-AA02-0002
REVISION: A,1

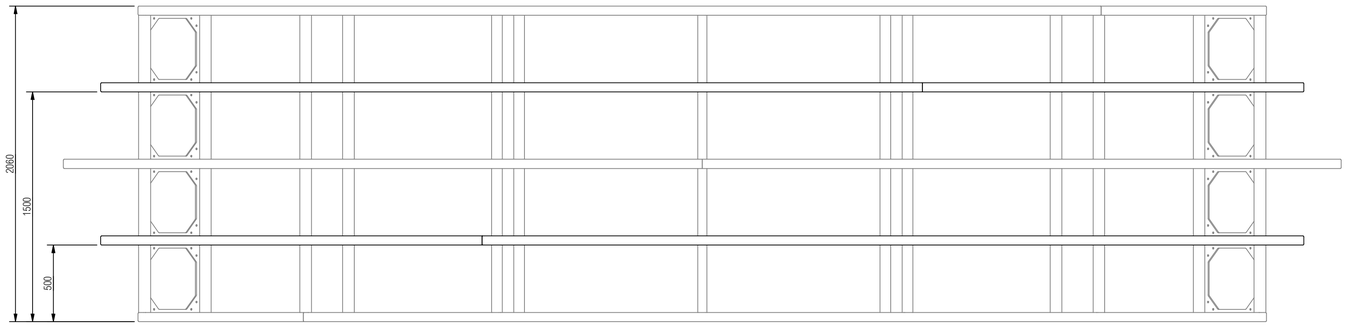
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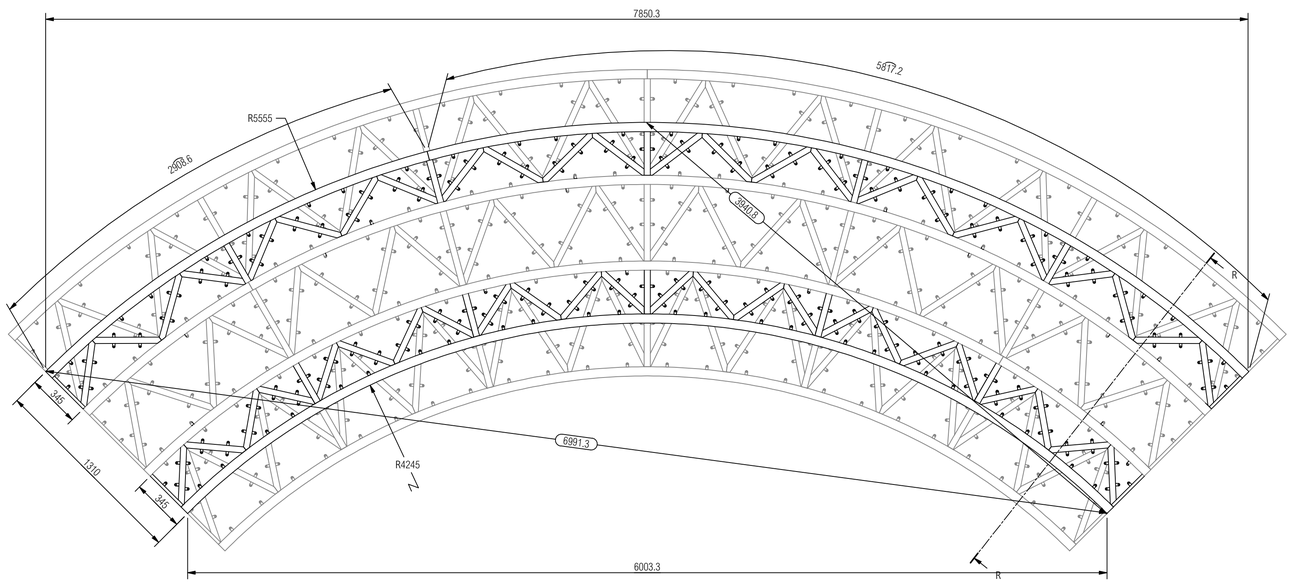
ISOMETRIC
BOTTOM



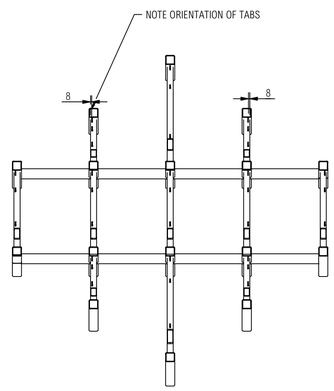
ISOMETRIC
TOP



PLAN



FRONT



SECTION R - R

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
2	ARC0424-AA02-0420	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
5	ARC0424-AA02-0561	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
6	ARC0424-AA02-0562	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
7	ARC0424-AA02-0563	A	FRAME MEMBER	40 x 20 x 3 RHS - MS S235 (CF)	YES	2
10	ARC0424-AA02-0442	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
11	ARC0424-AA02-0443	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
14	ARC0424-AA02-0446	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
15	ARC0424-AA02-0447	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
17	ARC0424-AA02-0451	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	10
21	ARC0424-AA02-0545	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
22	ARC0424-AA02-0546	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
25	ARC0424-AA02-0551	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
26	ARC0424-AA02-0552	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	12
31	ARC0424-AA02-0564	A	FRAME MEMBER	40 x 40 x 3 SHS - MS S235 (CF)	YES	10
36	ARC0424-AA02-0557	A	TAB	MS PLATE S275 - 5 mm	YES	528
37	ARC0424-AA03-0024	A	TAB - CASTELLATED	MS PLATE S275 - 5 mm	YES	1272
41	ARC0424-AA02-0412	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
43	ARC0424-AA02-0414	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2
47	ARC0424-AA02-0504	A	FRAME MEMBER	60 x 60 x 4 SHS - MS S235 (CF)	NO	2

GENERAL NOTES

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2 - BOX TRUSS (MAIN BODY)
3 - INFILL FRAMES
4 - MOHAWK 1 & 2
5 - MOHAWK 3, 4, 5 & 6

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- INFILL FRAME JIGS: ARC0424-EXTR-0178
- MOHAWK 1 & 2 JIGS: ARC0424-EXTR-0181
- MOHAWK 3, 4, 5 & 6 JIGS: ARC0424-EXTR-0195

CONSTRUCTOR

BUILD PROCESS 1: LASER TUBE	BUILD PROCESS 2: LASER PLATE		BUILD No: 1
BUILD PROCESS 3: METALWORK	BUILD PROCESS 4: SUB-CONTRACT		
BUILD PROCESS 5: SUB-CONTRACT	BUILD PROCESS 6:		
BUILD PROCESS 7:	BUILD PROCESS 8:		BUILD QTY: 1
MATERIAL: MS SHS & RHS WELDMENT		WEIGHT: 1616 kg	
FINISH: SHOT BLASTED & PAINTED PSX 700 RAL 9003 (SIGNAL WHITE)		FINISH QUALITY: HIGH	

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
A.1	ISSUED FOR MANUFACTURING	CJR	25/02/2024

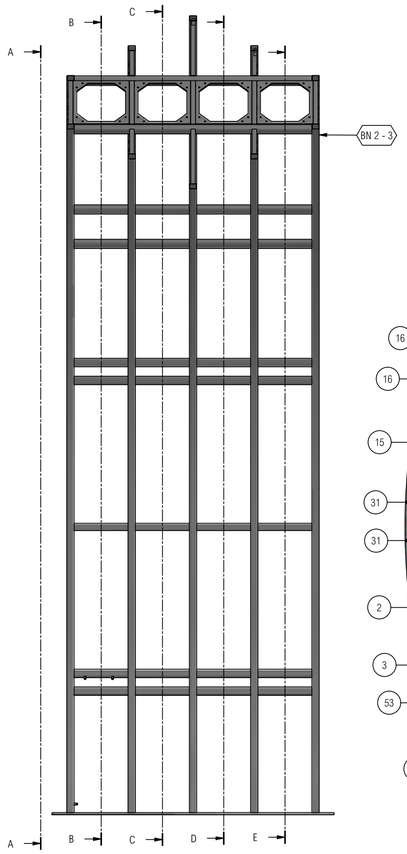
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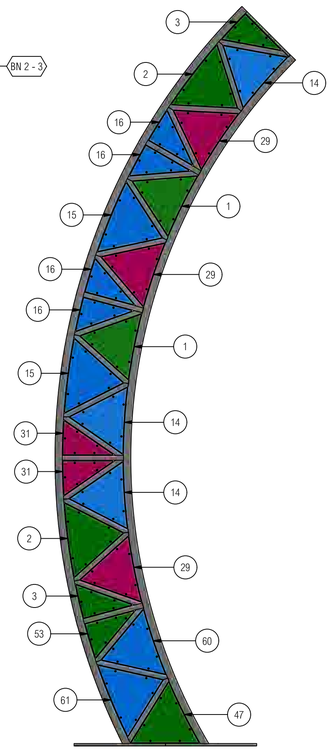
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CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 02 - ARCH WAY

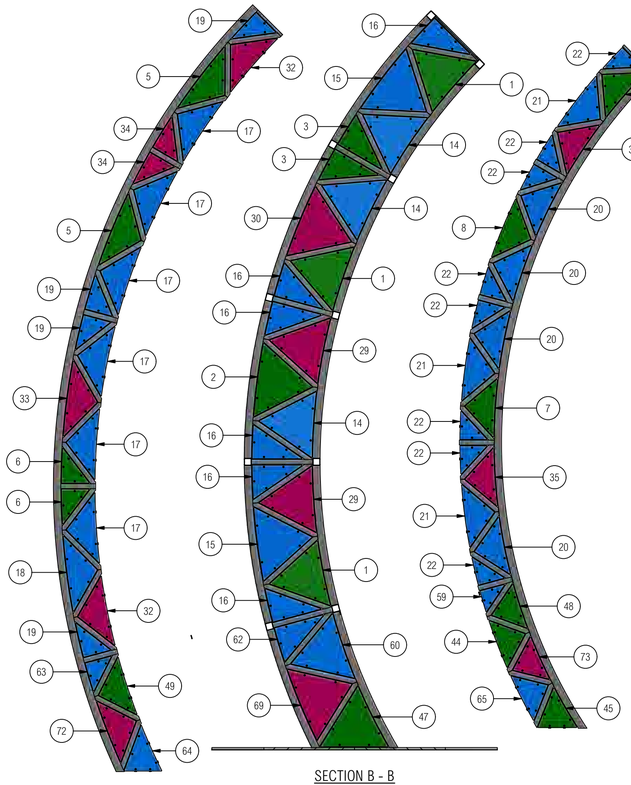
DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 20

DRAWING TITLE: ARCH SEGMENT 1
SHEET No.: 5 / 5
DRAWING NUMBER: ARC0424-AA02-0002
REVISION: A,1



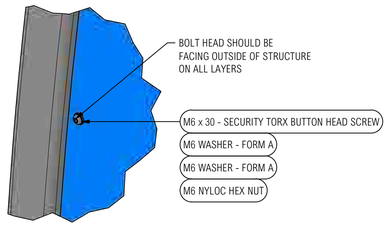


VIEW ON A - A

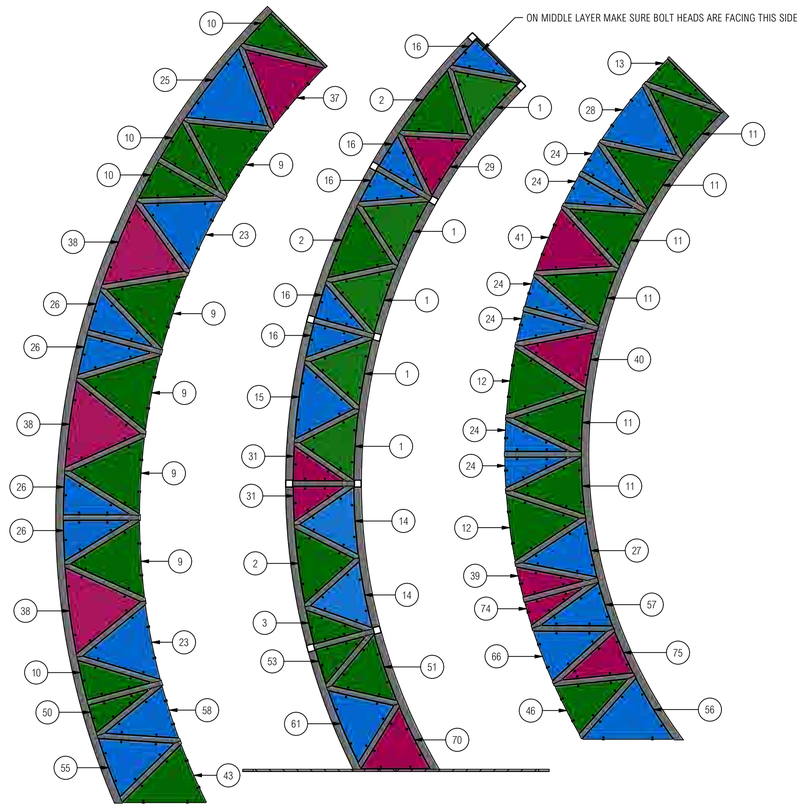


SECTION B - B

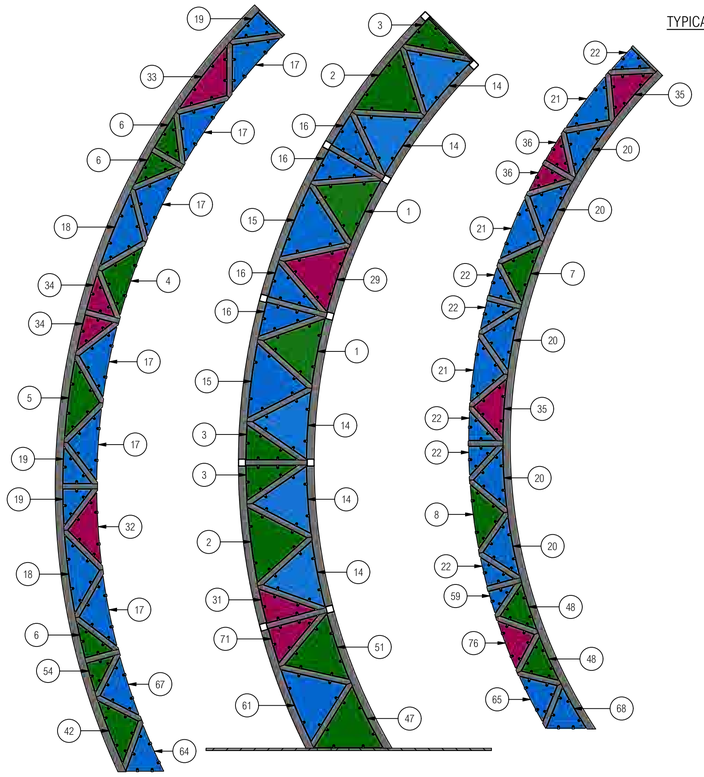
SIDE



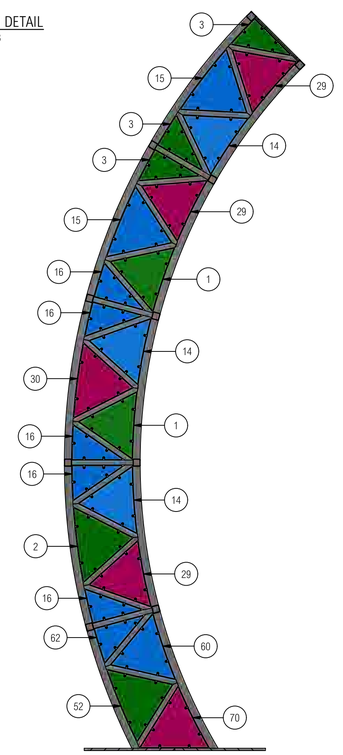
TYPICAL FIXING DETAIL
SCALE 1 : 3



SECTION C - C



SECTION D - D



SECTION E - E

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
42	ARC0424-AA03-0017	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
43	ARC0424-AA03-0019	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
44	ARC0424-AA03-0020	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
45	ARC0424-AA03-0021	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
46	ARC0424-AA03-0022	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
47	ARC0424-AA03-0059	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	3
48	ARC0424-AA03-0060	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	3
49	ARC0424-AA03-0062	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
50	ARC0424-AA03-0066	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
51	ARC0424-AA03-0067	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	2
52	ARC0424-AA03-0068	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
53	ARC0424-AA03-0069	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	2
54	ARC0424-AA03-0070	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
55	ARC0424-AA03-0016	B	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
56	ARC0424-AA03-0023	B	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
57	ARC0424-AA03-0061	B	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
58	ARC0424-AA03-0063	B	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
59	ARC0424-AA03-0064	B	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	2
60	ARC0424-AA03-0078	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	3
61	ARC0424-AA03-0079	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	3
62	ARC0424-AA03-0080	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	2
63	ARC0424-AA03-0084	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
64	ARC0424-AA03-0086	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	2
65	ARC0424-AA03-0088	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	2
66	ARC0424-AA03-0090	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
67	ARC0424-AA03-0092	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
68	ARC0424-AA03-0094	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
69	ARC0424-AA03-0081	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
70	ARC0424-AA03-0082	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	2
71	ARC0424-AA03-0083	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
72	ARC0424-AA03-0085	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
73	ARC0424-AA03-0087	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
74	ARC0424-AA03-0089	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
75	ARC0424-AA03-0091	B	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
76	ARC0424-AA03-0093	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
77	ARC0424-AA02-0001	C	ARCH SEGMENT 2 & 3	MS SHS & RHS WELDMENT	NO	1
78	M6 NYLOC HEX NUT		M6 NYLOC HEX NUT	AS SUPPLIED	NO	1485
79	M6 WASHER - FORM A		M6 WASHER - FORM A	AS SUPPLIED	NO	2970
80	M6 x 30 - SECURITY TORX BUTTON HEAD SCREW		M6 x 30 - SECURITY TORX BUTTON HEAD SCREW	AS SUPPLIED	NO	1485

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
1	ARC0424-AA03-0001	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	14
2	ARC0424-AA03-0002	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	9
3	ARC0424-AA03-0003	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	11
4	ARC0424-AA03-0004	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
5	ARC0424-AA03-0005	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	3
6	ARC0424-AA03-0006	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	5
7	ARC0424-AA03-0007	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	3
8	ARC0424-AA03-0008	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	2
9	ARC0424-AA03-0010	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	5
10	ARC0424-AA03-0012	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	4
11	ARC0424-AA03-0013	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	6
12	ARC0424-AA03-0014	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	2
13	ARC0424-AA03-0015	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
14	ARC0424-AA03-0030	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	16
15	ARC0424-AA03-0032	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	9
16	ARC0424-AA03-0034	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	24
17	ARC0424-AA03-0036	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	12
18	ARC0424-AA03-0038	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	3
19	ARC0424-AA03-0040	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	7
20	ARC0424-AA03-0042	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	9
21	ARC0424-AA03-0044	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	6
22	ARC0424-AA03-0046	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	14
23	ARC0424-AA03-0048	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	2
24	ARC0424-AA03-0051	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	6
25	ARC0424-AA03-0052	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
26	ARC0424-AA03-0054	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	4
27	ARC0424-AA03-0056	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
28	ARC0424-AA03-0058	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
29	ARC0424-AA03-0029	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	10
30	ARC0424-AA03-0031	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	2
31	ARC0424-AA03-0033	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	5
32	ARC0424-AA03-0035	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	3
33	ARC0424-AA03-0037	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	2
34	ARC0424-AA03-0039	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	4
35	ARC0424-AA03-0041	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	4
36	ARC0424-AA03-0045	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	2
37	ARC0424-AA03-0047	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
38	ARC0424-AA03-0049	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	3
39	ARC0424-AA03-0050	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
40	ARC0424-AA03-0055	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
41	ARC0424-AA03-0057	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1

GENERAL NOTES

1. IF IN DOUBT - ASK!
2. ALL DIMENSIONS ARE IN mm UNLESS STATED OTHERWISE.
3. ALL LINEAR DIMENSIONS TO BE ± 1mm UNLESS STATED OTHERWISE.
4. ALL HOLE DIMENSIONS TO BE ± 0.25mm UNLESS STATED OTHERWISE.
5. CUT NO PERSPEX WILL BE ISSUED IN LATER REVISION PENDING CLIENT SIGN OFF.

DO NOT ETCH

CONSTRUCTOR

BUILD PROCESS 1: CNC - 3-AXIS	BUILD PROCESS 2: WOODWORK	BUILD No: 2
BUILD PROCESS 3:	BUILD PROCESS 4:	
BUILD PROCESS 5:	BUILD PROCESS 6:	
BUILD PROCESS 7:	BUILD PROCESS 8:	BUILD QTY: 1
MATERIAL: PERSPEX PANELS & MS TUBE FRAME	WEIGHT: 2150 kg	
FINISH: NO FINISH	FINISH QUALITY: HIGH	

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
B	LOWER CLADDING ISSUED FOR MANUFACTURING		
A,1	ISSUED FOR MANUFACTURING	CJR	05/03/2024

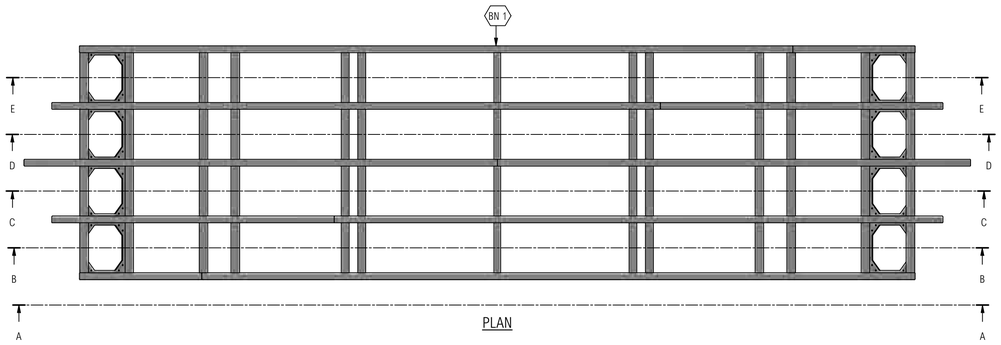
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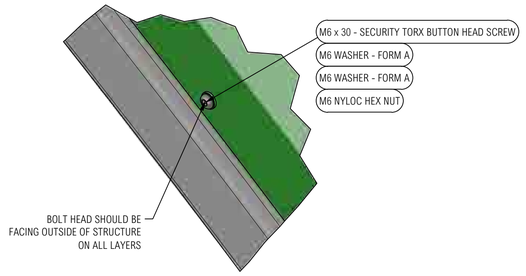
CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 03 - CLADDING

DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 25

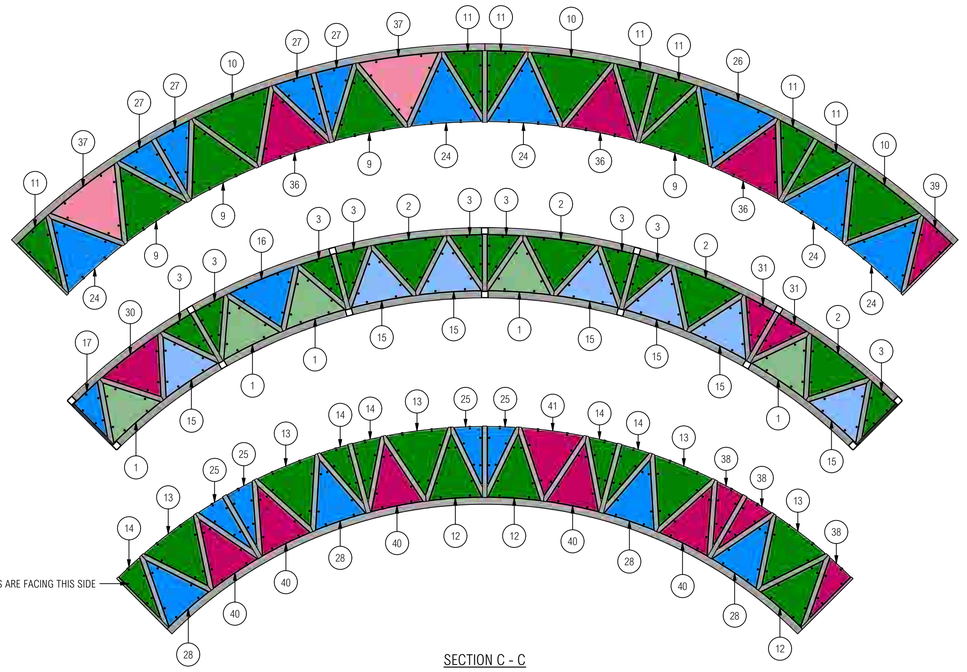
DRAWING TITLE: BN 2 - WITH PERSPEX
SHEET No.: 1 / 1
DRAWING NUMBER: ARC0424-AA03-0071
REVISION: B,1



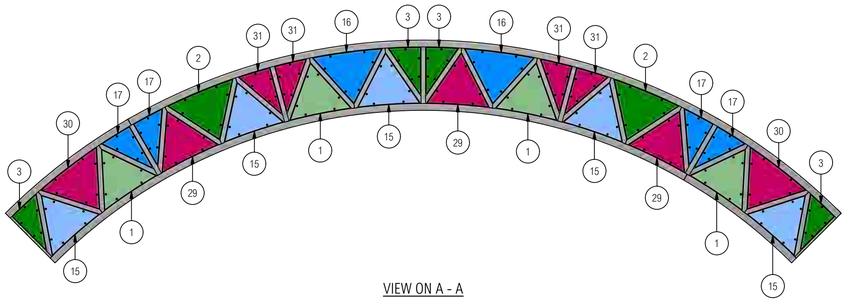
PLAN



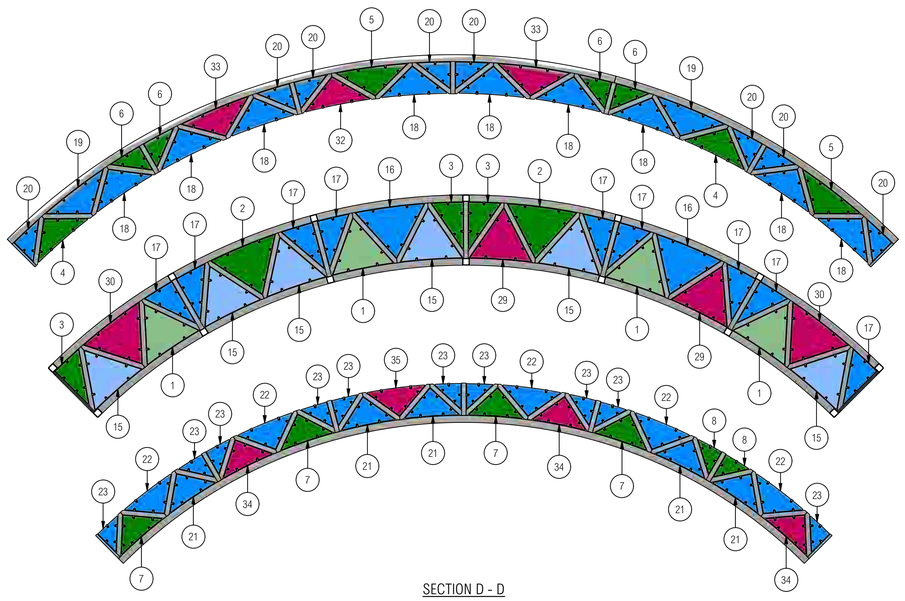
DETAIL M
SCALE 1 : 2
TYPICAL FIXINGS



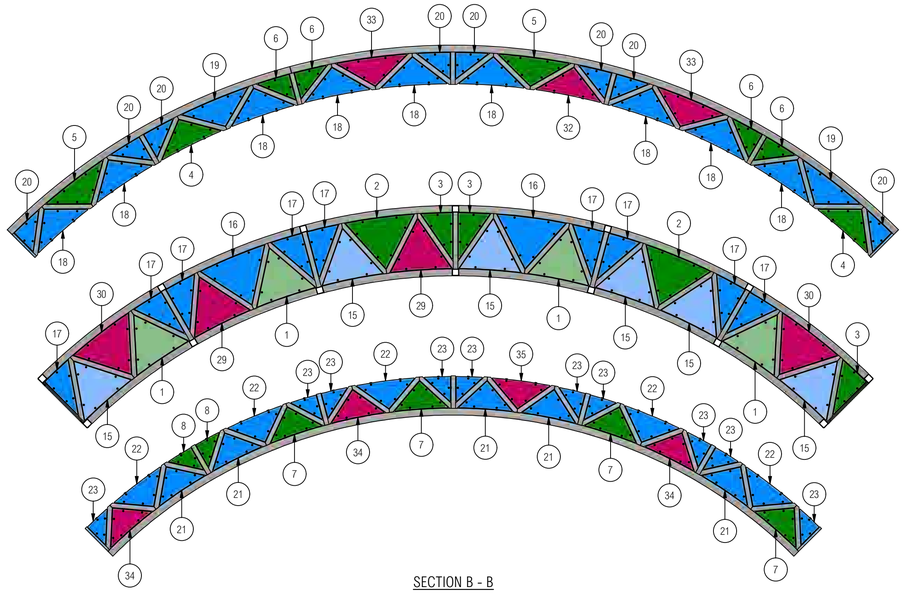
SECTION C - C



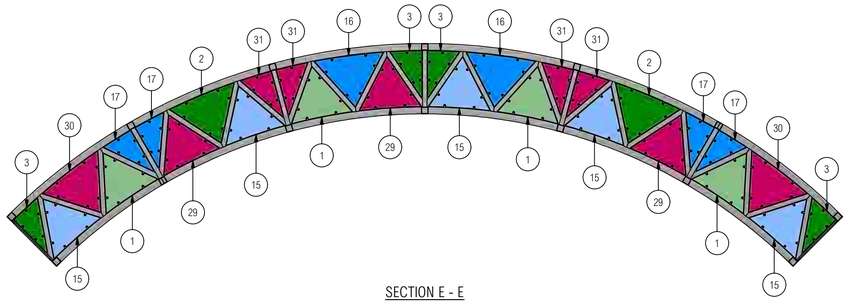
VIEW ON A - A



SECTION D - D



SECTION B - B



SECTION E - E

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
1	ARC0424-AA03-0001	A	PERSPEX	PERSPEX S2 67TA - JADE GREEN - 8 mm	YES	21
2	ARC0424-AA03-0002	A	PERSPEX	PERSPEX S2 67TA - JADE GREEN - 8 mm	YES	12
3	ARC0424-AA03-0003	A	PERSPEX	PERSPEX S2 67TA - JADE GREEN - 8 mm	YES	23
4	ARC0424-AA03-0004	A	PERSPEX	PERSPEX S2 67TA - JADE GREEN - 8 mm	YES	4
5	ARC0424-AA03-0005	A	PERSPEX	PERSPEX S2 67TA - JADE GREEN - 8 mm	YES	4
6	ARC0424-AA03-0006	A	PERSPEX	PERSPEX S2 67TA - JADE GREEN - 8 mm	YES	8
7	ARC0424-AA03-0007	A	PERSPEX	PERSPEX S2 67TA - JADE GREEN - 8 mm	YES	8
8	ARC0424-AA03-0009	A	PERSPEX	PERSPEX S2 67TA - JADE GREEN - 8 mm	YES	4
9	ARC0424-AA03-0010	A	PERSPEX	PERSPEX S2 67TA - JADE GREEN - 8 mm	YES	4
10	ARC0424-AA03-0011	A	PERSPEX	PERSPEX S2 67TA - JADE GREEN - 8 mm	YES	3
11	ARC0424-AA03-0012	A	PERSPEX	PERSPEX S2 67TA - JADE GREEN - 8 mm	YES	7
12	ARC0424-AA03-0013	A	PERSPEX	PERSPEX S2 67TA - JADE GREEN - 8 mm	YES	3
13	ARC0424-AA03-0014	A	PERSPEX	PERSPEX S2 67TA - JADE GREEN - 8 mm	YES	5
14	ARC0424-AA03-0015	A	PERSPEX	PERSPEX S2 67TA - JADE GREEN - 8 mm	YES	5
15	ARC0424-AA03-0030	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	29
16	ARC0424-AA03-0032	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	9
17	ARC0424-AA03-0034	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	27
18	ARC0424-AA03-0036	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	18
19	ARC0424-AA03-0038	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	4
20	ARC0424-AA03-0040	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	16
21	ARC0424-AA03-0042	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	10
22	ARC0424-AA03-0044	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	10
23	ARC0424-AA03-0046	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	20
24	ARC0424-AA03-0048	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	5
25	ARC0424-AA03-0051	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	4
26	ARC0424-AA03-0052	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
27	ARC0424-AA03-0054	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	4
28	ARC0424-AA03-0056	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	4
29	ARC0424-AA03-0029	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	10
30	ARC0424-AA03-0031	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	9
31	ARC0424-AA03-0033	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	10
32	ARC0424-AA03-0035	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	2
33	ARC0424-AA03-0037	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	4
34	ARC0424-AA03-0041	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	6
35	ARC0424-AA03-0043	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	2
36	ARC0424-AA03-0047	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	3
37	ARC0424-AA03-0049	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	2
38	ARC0424-AA03-0050	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	3
39	ARC0424-AA03-0053	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
40	ARC0424-AA03-0055	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	5
41	ARC0424-AA03-0057	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
42	ARC0424-AA02-0002	A	ARCH SEGMENT 1	MS SHS & RHS WELDMENT	NO	1
43	M6 WASHER - FORM A		M6 WASHER - FORM A	AS SUPPLIED	NO	3600
44	M6 x 30 - SECURITY TORX BUTTON HEAD SCREW		M6 x 30 - SECURITY TORX BUTTON HEAD SCREW	AS SUPPLIED	NO	1800
45	M6 NYLOC HEX NUT		M6 NYLOC HEX NUT	AS SUPPLIED	NO	1800

GENERAL NOTES

1. IF IN DOUBT - ASK!
2. ALL DIMENSIONS ARE IN mm UNLESS STATED OTHERWISE.
3. ALL LINEAR DIMENSIONS TO BE ± 1mm UNLESS STATED OTHERWISE.
4. ALL HOLE DIMENSIONS TO BE ± 0.25mm UNLESS STATED OTHERWISE.

DO NOT ETCH

CONSTRUCTOR

BUILD PROCESS 1: CNC - 3-AXIS	BUILD PROCESS 2: WOODWORK	BUILD No: 1
BUILD PROCESS 3:	BUILD PROCESS 4:	
BUILD PROCESS 5:	BUILD PROCESS 6:	
BUILD PROCESS 7:	BUILD PROCESS 8:	BUILD QTY: 1
MATERIAL: PERSPEX PANELS & MS TUBE FRAME	WEIGHT: 1913 kg	
FINISH: NO FINISH	FINISH QUALITY: HIGH	

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
A,1	ISSUED FOR MANUFACTURING	CJR	05/03/2024

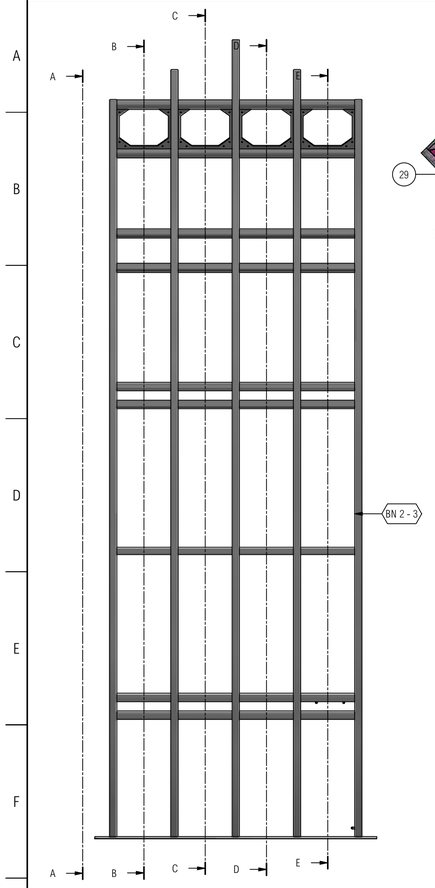
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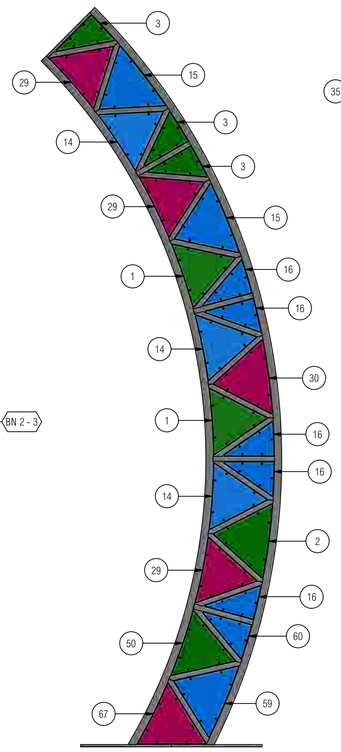
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CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 03 - CLADDING

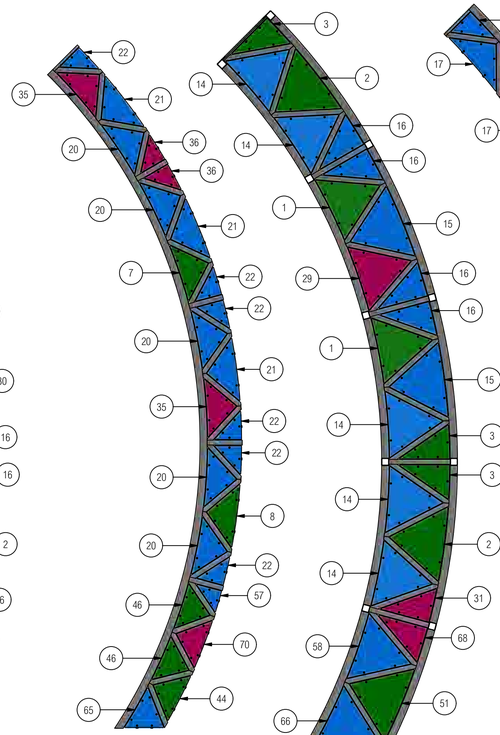
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MF	CJR		A1	1 : 27

DRAWING TITLE: BN 1 - WITH PERSPEX
SHEET No.: 1 / 1
DRAWING NUMBER: ARC0424-AA03-0072
REVISION: A,1

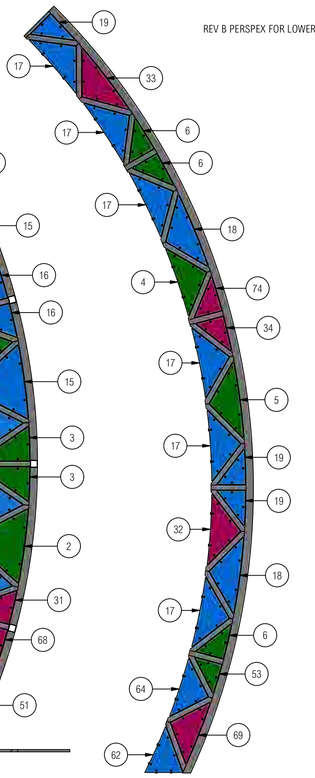




VIEW ON A - A



SECTION B - B



REV B PERSPEX FOR LOWER SECTIONS

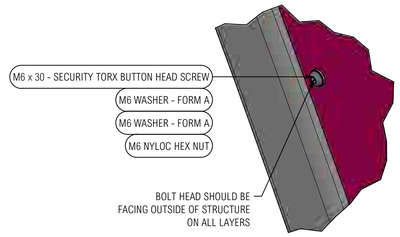
B

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
42	ARC0424-AA03-0018	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
43	ARC0424-AA03-0019	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
44	ARC0424-AA03-0020	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
45	ARC0424-AA03-0022	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
46	ARC0424-AA03-0060	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	4
47	ARC0424-AA03-0062	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
48	ARC0424-AA03-0065	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
49	ARC0424-AA03-0066	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
50	ARC0424-AA03-0067	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	2
51	ARC0424-AA03-0068	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	2
52	ARC0424-AA03-0069	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
53	ARC0424-AA03-0070	B	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
54	ARC0424-AA03-0016	B	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
55	ARC0424-AA03-0023	B	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
56	ARC0424-AA03-0061	B	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
57	ARC0424-AA03-0064	B	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	2
58	ARC0424-AA03-0078	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	2
59	ARC0424-AA03-0079	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	3
60	ARC0424-AA03-0080	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	3
61	ARC0424-AA03-0084	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
62	ARC0424-AA03-0086	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
63	ARC0424-AA03-0090	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
64	ARC0424-AA03-0092	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	1
65	ARC0424-AA03-0094	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	2
66	ARC0424-AA03-0095	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	2
67	ARC0424-AA03-0082	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	3
68	ARC0424-AA03-0083	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
69	ARC0424-AA03-0085	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	2
70	ARC0424-AA03-0093	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	3
71	ARC0424-AA03-0096	B	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
72	ARC0424-AA03-0097	B	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
73	ARC0424-AA03-0098	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
74	ARC0424-AA02-0001	C	ARCH SEGMENT 2 & 3	MS SHS & RHS WELDMENT	NO	1
75	M6 NYLOC HEX NUT		M6 NYLOC HEX NUT	AS SUPPLIED	NO	1485
76	M6 WASHER - FORM A		M6 WASHER - FORM A	AS SUPPLIED	NO	2970
77	M6 x 30 - SECURITY TORX BUTTON HEAD SCREW		M6 x 30 - SECURITY TORX BUTTON HEAD SCREW	AS SUPPLIED	NO	1485

BILL OF MATERIALS

ITEM	PART NUMBER	REV	DESCRIPTION	MATERIAL	CUT	QTY
1	ARC0424-AA03-0001	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	14
2	ARC0424-AA03-0002	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	8
3	ARC0424-AA03-0003	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	15
4	ARC0424-AA03-0004	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
5	ARC0424-AA03-0005	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	3
6	ARC0424-AA03-0006	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	5
7	ARC0424-AA03-0007	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	3
8	ARC0424-AA03-0008	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	2
9	ARC0424-AA03-0010	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	3
10	ARC0424-AA03-0011	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	2
11	ARC0424-AA03-0012	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
12	ARC0424-AA03-0013	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	4
13	ARC0424-AA03-0015	A	PERSPEX	PERSPEX S2 6T7A - JADE GREEN - 8 mm	YES	1
14	ARC0424-AA03-0030	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	16
15	ARC0424-AA03-0032	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	8
16	ARC0424-AA03-0034	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	22
17	ARC0424-AA03-0036	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	12
18	ARC0424-AA03-0038	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	3
19	ARC0424-AA03-0040	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	7
20	ARC0424-AA03-0042	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	9
21	ARC0424-AA03-0044	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	6
22	ARC0424-AA03-0046	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	14
23	ARC0424-AA03-0048	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	3
24	ARC0424-AA03-0051	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	6
25	ARC0424-AA03-0052	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	2
26	ARC0424-AA03-0054	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	2
27	ARC0424-AA03-0056	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	2
28	ARC0424-AA03-0058	A	PERSPEX	PERSPEX S2 7T1F - AZURE BLUE - 8 mm	YES	2
29	ARC0424-AA03-0029	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	10
30	ARC0424-AA03-0031	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	4
31	ARC0424-AA03-0033	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	3
32	ARC0424-AA03-0035	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	3
33	ARC0424-AA03-0037	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	2
34	ARC0424-AA03-0039	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	4
35	ARC0424-AA03-0041	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	4
36	ARC0424-AA03-0045	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	2
37	ARC0424-AA03-0047	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	2
38	ARC0424-AA03-0050	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	1
39	ARC0424-AA03-0053	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	5
40	ARC0424-AA03-0055	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	2
41	ARC0424-AA03-0057	A	PERSPEX	PERSPEX S2 8T14 - VIOLET HEATHER - 8 mm	YES	2



TYPICAL FIXING DETAIL
SCALE 1 : 2

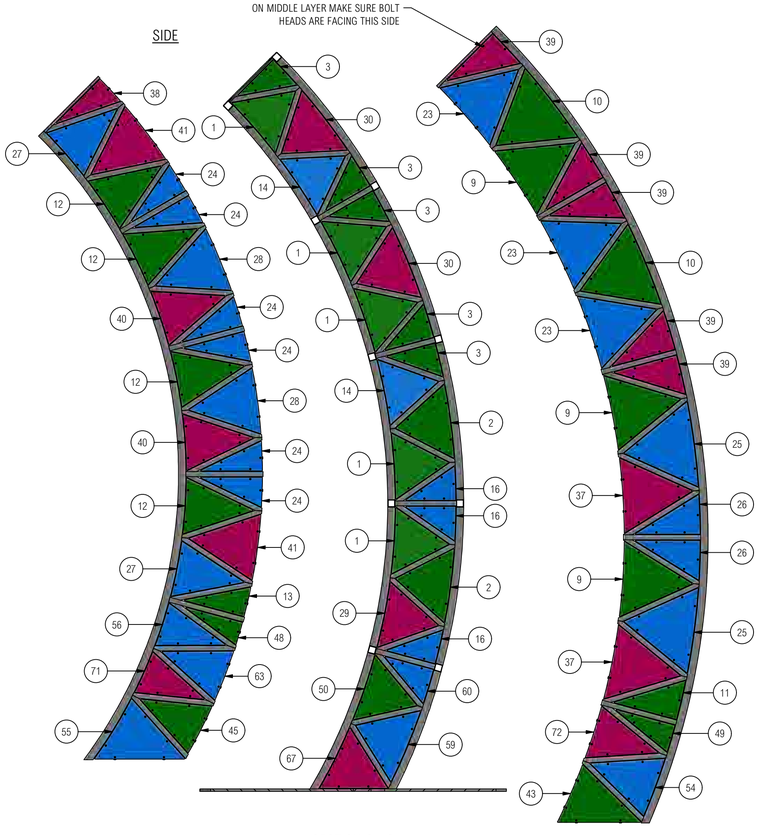
GENERAL NOTES

1. IF IN DOUBT - ASK!
2. ALL DIMENSIONS ARE IN mm UNLESS STATED OTHERWISE.
3. ALL LINEAR DIMENSIONS TO BE ± 1mm UNLESS STATED OTHERWISE.
4. ALL HOLE DIMENSIONS TO BE ± 0.25mm UNLESS STATED OTHERWISE.
5. CUT NO PERSPEX WILL BE ISSUED IN LATER REVISION PENDING CLIENT SIGN OFF.

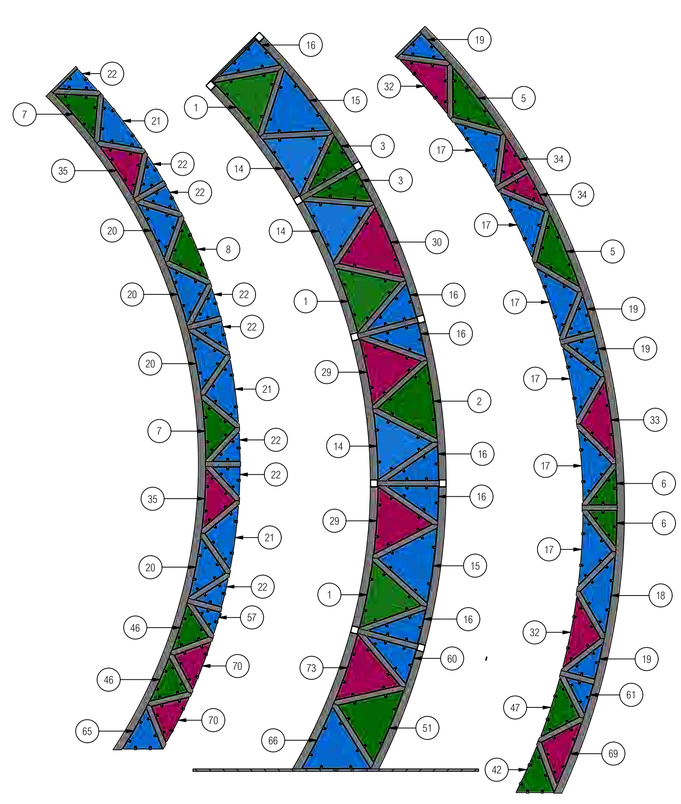
DO NOT ETCH

SIDE

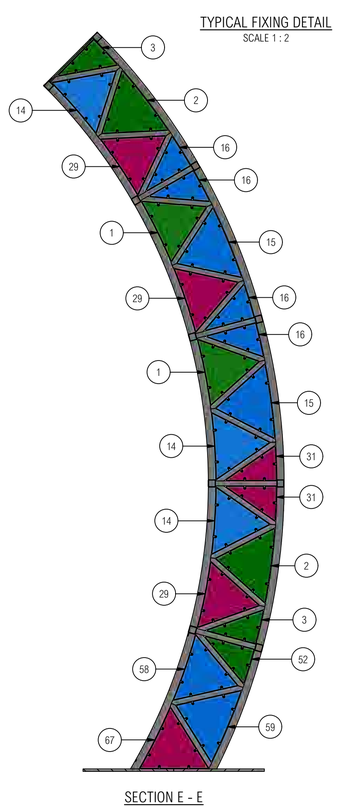
ON MIDDLE LAYER MAKE SURE BOLT HEADS ARE FACING THIS SIDE



SECTION C - C



SECTION D - D



SECTION E - E

CONSTRUCTOR

BUILD PROCESS 1: CNC - 3-AXIS	BUILD PROCESS 2: WOODWORK	BUILD No: 3
BUILD PROCESS 3:	BUILD PROCESS 4:	
BUILD PROCESS 5:	BUILD PROCESS 6:	
BUILD PROCESS 7:	BUILD PROCESS 8:	BUILD QTY: 1
MATERIAL: PERSPEX PANELS & MS TUBE FRAME	WEIGHT: 2150 kg	
FINISH: NO FINISH	FINISH QUALITY: HIGH	

REVISION HISTORY

REV	DESCRIPTION	DRN	DATE
B	LOWER CLADDING ISSUED FOR MANUFACTURING		
A,1	ISSUED FOR MANUFACTURING	CJR	05/03/2024

T | +44 (0)1423 358 001
E | sales@stageone.co.uk
W | www.stageone.co.uk

CLIENT: NEWSUBSTANCE LTD
PROJECT: CO-OP LIVE ARCH
GROUP: AA - MANUFACTURED ITEMS
SUBGROUP: 03 - CLADDING

DRAWING TYPE	DRAWN BY	PROJECTION	DRAWING SIZE	DRAWING SCALE
MF	CJR		A1	1 : 25

DRAWING TITLE: BN 3 - WITH PERSPEX
SHEET No.: 1 / 1
DRAWING NUMBER: ARC0424-AA03-0073
REVISION: B

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NEWSUBSTANCE

Structural Member Utilisation

COOO424 – Co-op Live Sculptures

Analysis Models – Member Utilisations

Rev. 01

Date: 14/03/2024

INTRODUCTION

This document summarises the design check output for each analysis model created by Stage One. For each sculpture it highlights the utilisation ratio of each steel member, with regards to its strength capacity, and the maximum stresses induced from applied loading combinations. All loading combinations and design checks are in adherence to the following codes;

- BS EN 1990 Eurocode 0 – Basis of Structural Design
- BS EN 1991 Eurocode 1 – Actions on Structures
- BS EN 1993-1:2005/NA:2008 Eurocode 3 – Design of Steel Structures

Frames have been checked for all anticipated live loads, snow loads and wind loading.

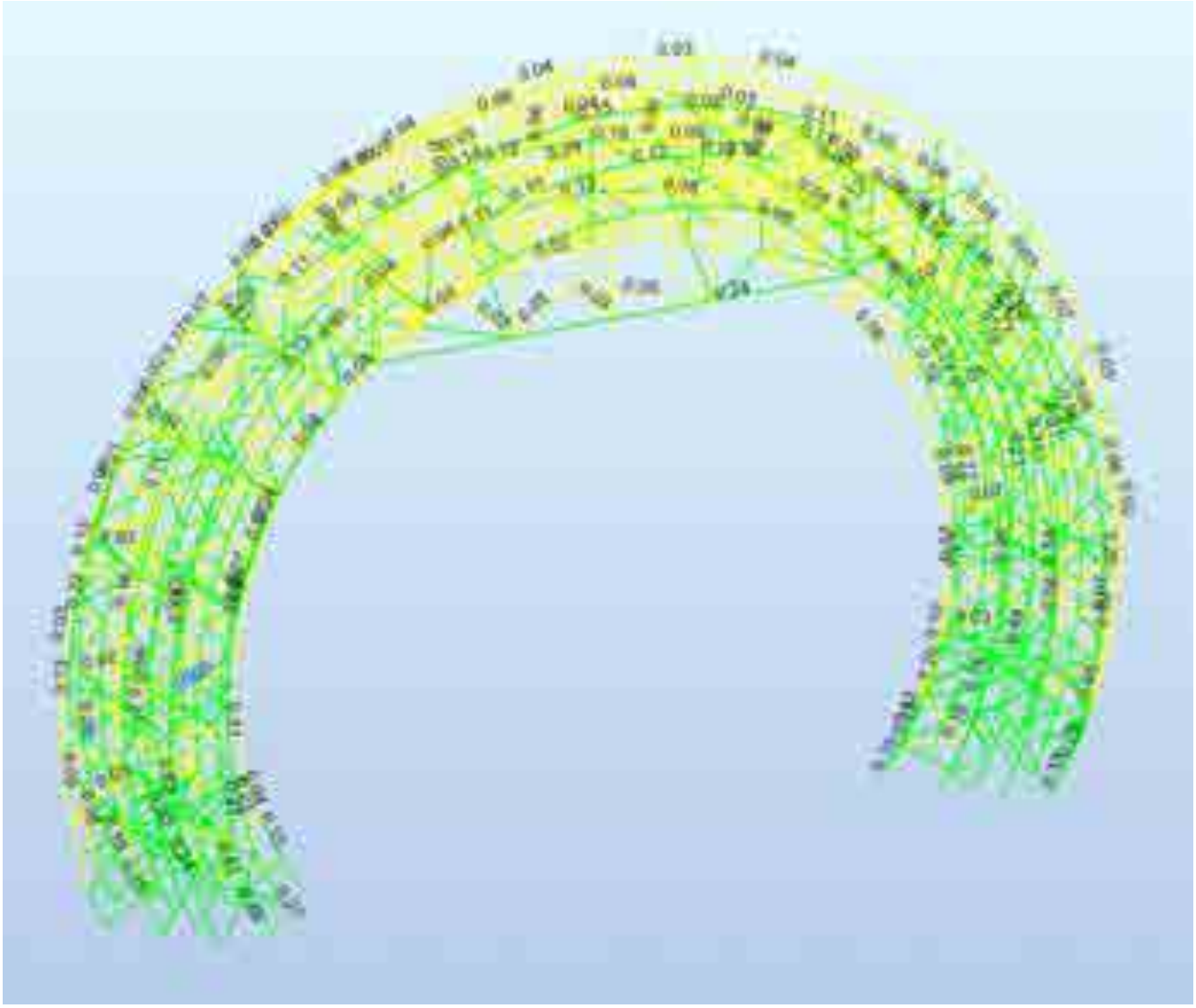
Wind loading has been derived locally to the installation sites of each sculpture. This has been found to be a maximum design wind speed of 28.8 m/s.

All members and steel plate elements have been found to pass strength checks and comply with Eurocode parameters. Stage One can state they are safe and robust for their intended use. The full structural design reports are to issued at a later date.

ARCHWAY

Steel member strength verification checks carried out in Autodesk Robot steel design module to BS EN 1993-1:2005/NA:2008. The figure below shows the utilisation ratios of each member of the frame.

All members pass, with the maximum utilisation ratio being 0.89.



Calculation output for the most utilised (i.e. stressed) member follows.

CODE: *BS-EN 1993-1:2005/NA:2008/A1:2014, Eurocode 3: Design of steel structures.*
ANALYSIS TYPE: Member Verification

CODE GROUP:
MEMBER: 1064 Simple bar_1064 **POINT:** 1 **COORDINATE:** x = 0.00 L = 0.000 m

---

LOADS:
Governing Load Case: 34 ULS22 (1+2)*1.00+93*1.50

MATERIAL:
S235 fy = 235.00 MPa



SECTION PARAMETERS: SHSC 60x60x4

h=60 mm	gM0=1.00	gM1=1.00	
b=60 mm	Ay=428 mm2	Az=428 mm2	Ax=855 mm2
tw=4 mm	Iy=436000 mm4	Iz=436000 mm4	Ix=726000 mm4
tf=4 mm	Wply=17600 mm3	Wplz=17600 mm3	

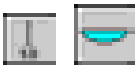
INTERNAL FORCES AND CAPACITIES:

N,Ed = 0.53 kN	My,Ed = 3.40 kN*m	Mz,Ed = -0.33 kN*m	Vy,Ed = -1.52 kN
Nc,Rd = 200.93 kN	My,Ed,max = 3.40 kN*m	Mz,Ed,max = 0.43 kN*m	Vy,T,Rd = 56.90 kN
Nb,Rd = 199.21 kN	My,c,Rd = 4.14 kN*m	Mz,c,Rd = 4.14 kN*m	Vz,Ed = -12.64 kN
	MN,y,Rd = 4.14 kN*m	MN,z,Rd = 4.14 kN*m	Vz,T,Rd = 56.90 kN
			Tt,Ed = 0.06 kN*m
			Class of section = 1

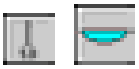


LATERAL BUCKLING PARAMETERS:

BUCKLING PARAMETERS:



About y axis:



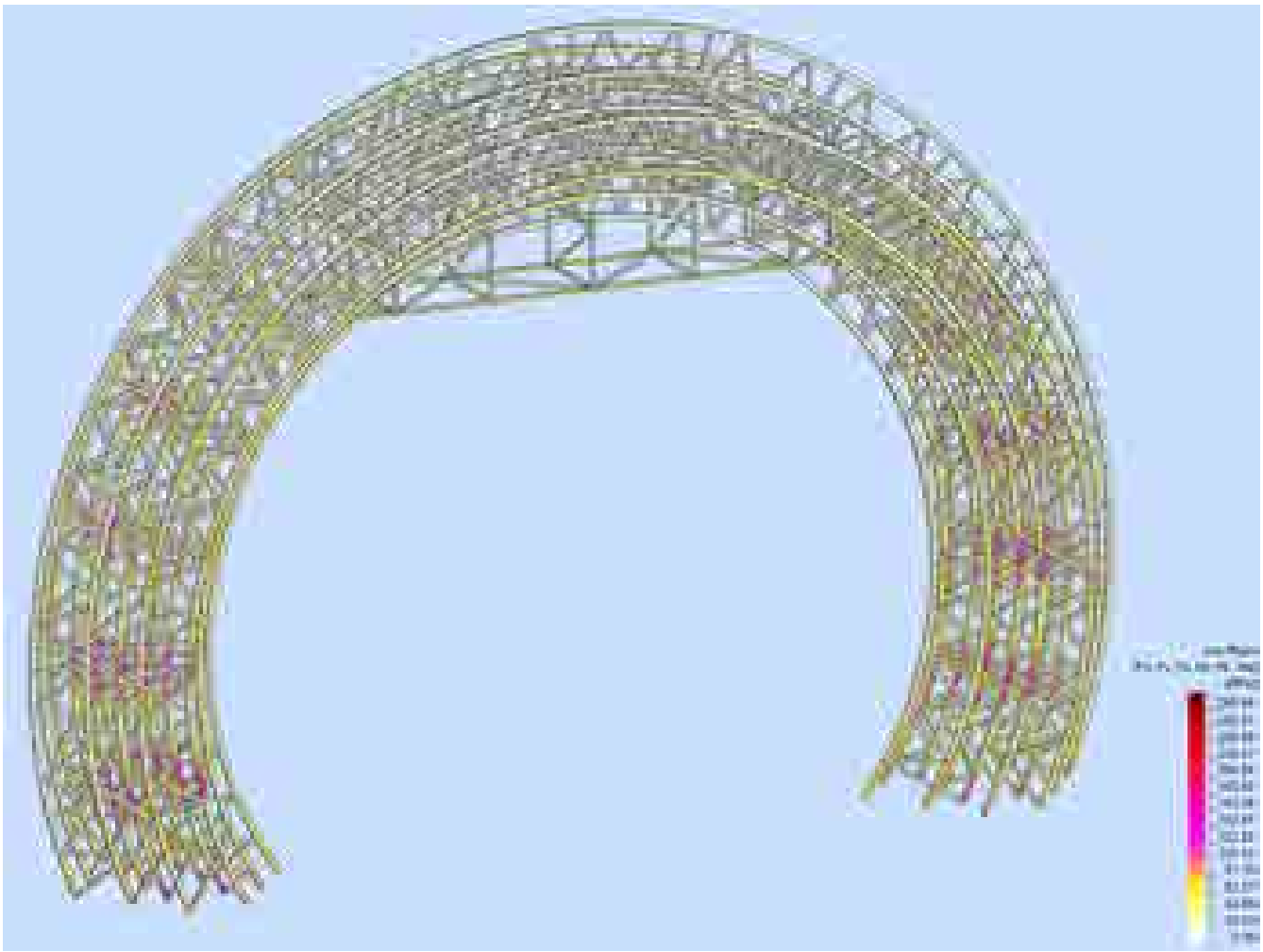
About z axis:

Ly = 0.500 m	Lam_y = 0.24	Lz = 0.500 m	Lam_z = 0.24
Lcr,y = 0.500 m	Xy = 0.99	Lcr,z = 0.500 m	Xz = 0.99
Lamy = 22.14	kyy = 1.00	Lamz = 22.14	kyz = 0.60

VERIFICATION FORMULAS:
Section strength check:
N,Ed/Nc,Rd = 0.00 < 1.00 (6.2.4.(1))
My,Ed/MN,y,Rd = 0.82 < 1.00 (6.2.9.1.(2))
Mz,Ed/MN,z,Rd = 0.08 < 1.00 (6.2.9.1.(2))
(My,Ed/MN,y,Rd)^ 1.66 + (Mz,Ed/MN,z,Rd)^1.66 = 0.74 < 1.00 (6.2.9.1.(6))
Vy,Ed/Vy,T,Rd = 0.03 < 1.00 (6.2.6-7)
Vz,Ed/Vz,T,Rd = 0.22 < 1.00 (6.2.6-7)
Tau,ty,Ed/(fy/(sqrt(3)*gM0)) = 0.02 < 1.00 (6.2.6)
Tau,tz,Ed/(fy/(sqrt(3)*gM0)) = 0.02 < 1.00 (6.2.6)
Global stability check of member:
Lambda,y = 22.14 < Lambda,max = 210.00 Lambda,z = 22.14 < Lambda,max = 210.00 STABLE
N,Ed/(Xy*N,Rk/gM1) + kyy*My,Ed,max/(XLT*My,Rk/gM1) + kyz*Mz,Ed,max/(Mz,Rk/gM1) = 0.89 < 1.00 (6.3.3.(4))
N,Ed/(Xz*N,Rk/gM1) + kzy*My,Ed,max/(XLT*My,Rk/gM1) + kzz*Mz,Ed,max/(Mz,Rk/gM1) = 0.60 < 1.00 (6.3.3.(4))

Section OK !!!

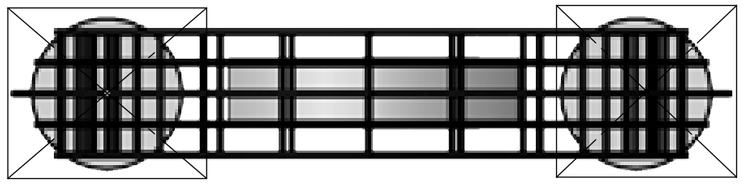
Using Autodesk Robot 'Structure stress analysis' function, the model has been run for the worst-case loading combination to obtain visual stress diagrams on rendered models. These indicate how stressed the materials are.

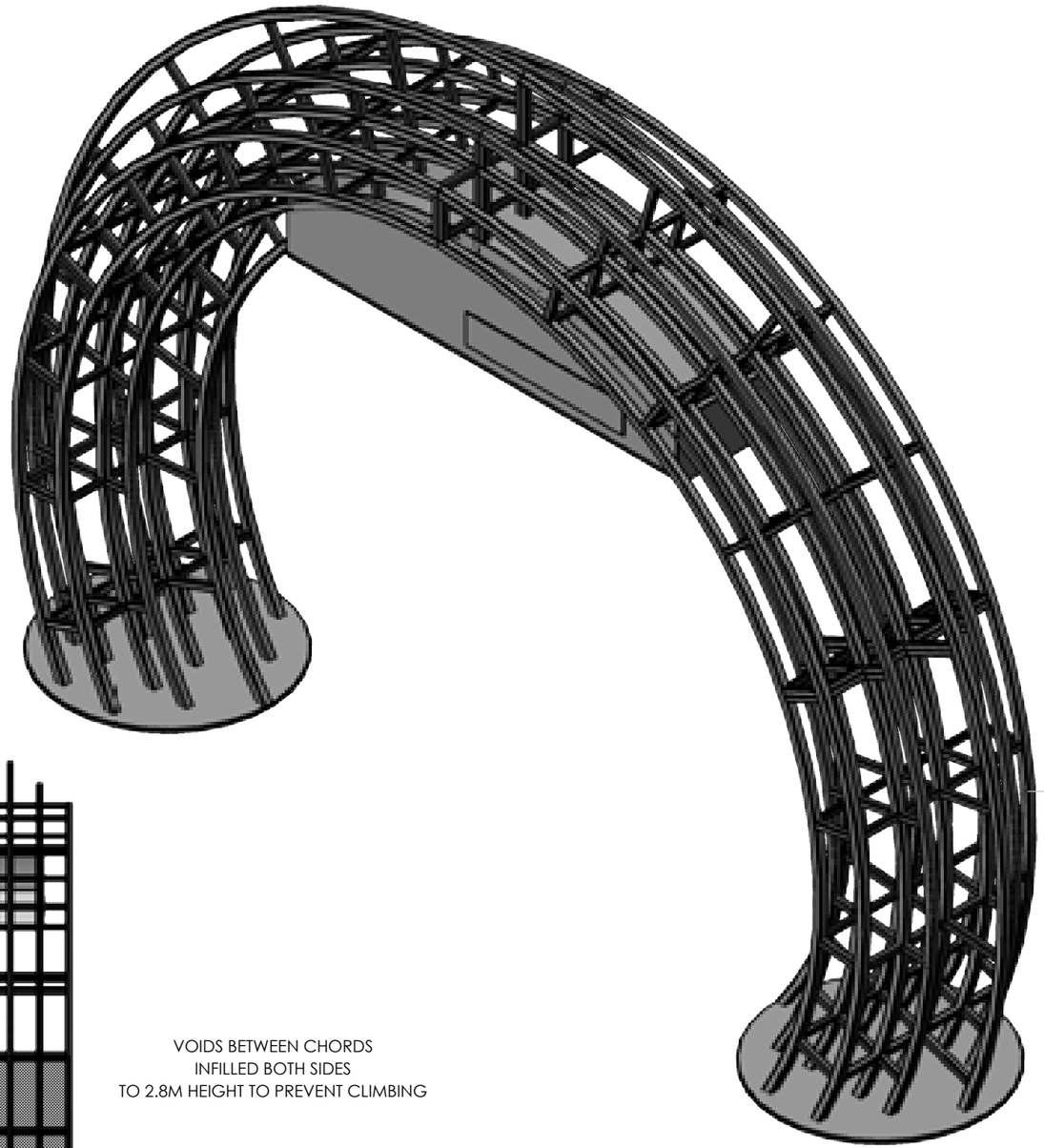


Max. peak stress recorded is 204.24 N/mm^2. This is below the yield strength of the material (235 N/mm^2), therefore frame is OK.

NEWSUBSTANCE

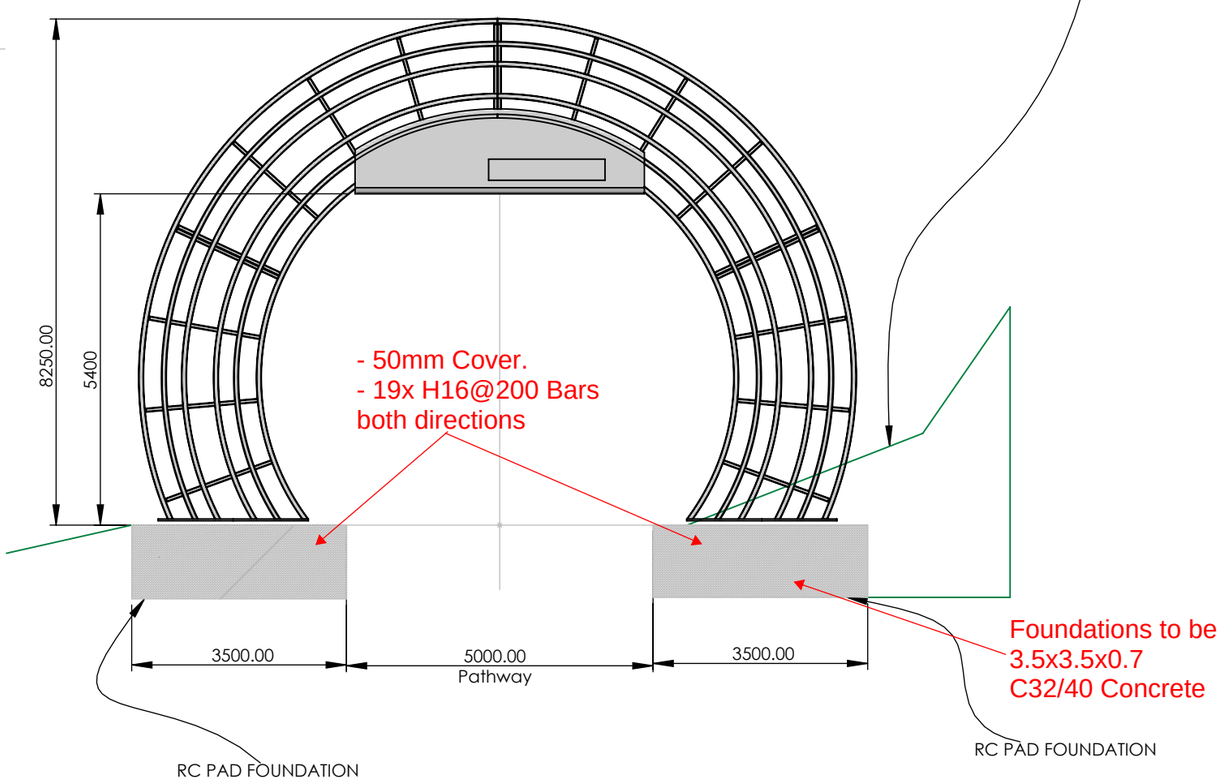
Foundation Design Schematic

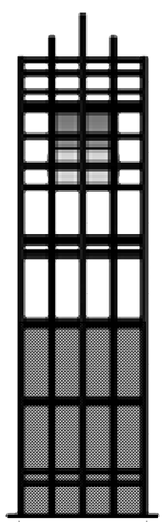




PRINCIPLE STRUCTURAL CHORDS ONLY
BRACING SCHEME / PERSPEX NOT SHOWN

BASIN TO BE EXCAVATED IN CURRENT GRASSED AREA





VOIDS BETWEEN CHORDS
INFILLED BOTH SIDES
TO 2.8M HEIGHT TO PREVENT CLIMBING

DRAWN	MIKEB	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		PROJECT:	CO-OP LIVE WALKING TRAIL	DRAWING TITLE:	CWT_010 INDICATIVE DESIGN DETAILS	
APPROVED	MIKEB	NOTES NOT FOR CONSTRUCTION	DO NOT SCALE IF IN DOUBT ASK	CLIENT / VENUE:	OVG - HOLT TOWN, MANCHESTER, M40 7FQ	SUB-TITLE:	CONCEPT	SHEET SCALE: 1:100
DATE	02/02/2024			PROJECT NUMBER:	NS2328	DRAWING NUMBER:	NS2328_CWT_010_02_001	REVISION NUMBER: A / REVISION DATE:

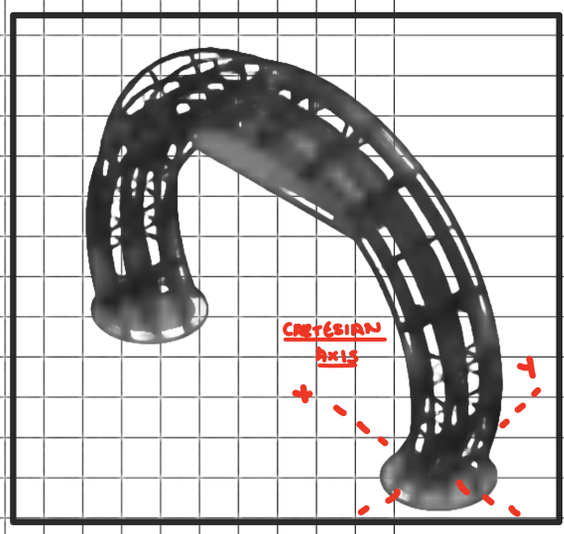
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Project: COOP LIVE PATH : ARCH	Sheet : 1	defined by design (dp)²
Calculation Title : DESIGN CHECKS	Project No.: 240365	
	T.T | 07/03/24	

ARCH

SINGLE REACTION : SYMMETRICAL BASE



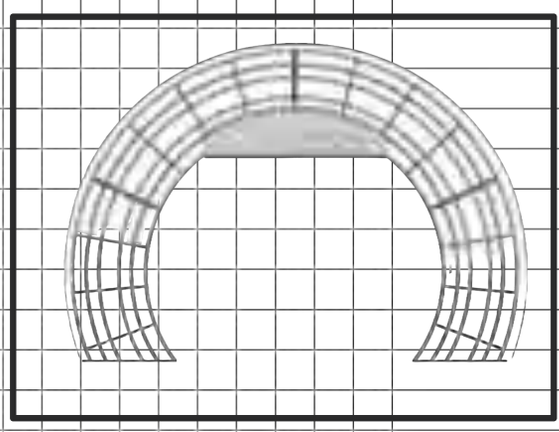
GRAVITY LOAD

FOUNDATION: SELF WEIGHT = $25 \times 3.5^2 \times 0.7 = 214$ KN

STRUCTURE : SELF WEIGHT = 27.15 KN

S.I.D = 6.14 KN

Σ = 247 KN



MOMENTS My

SELF WEIGHT My = 7.87 KNM

S.I.D My = 2.37 KNM

WIND x+ = -1.35 KNM

WIND y+ = 0.54 KNM

MOMENTS Mx

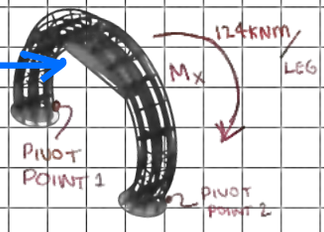
SELF-WEIGHT Mx = 0 KNM

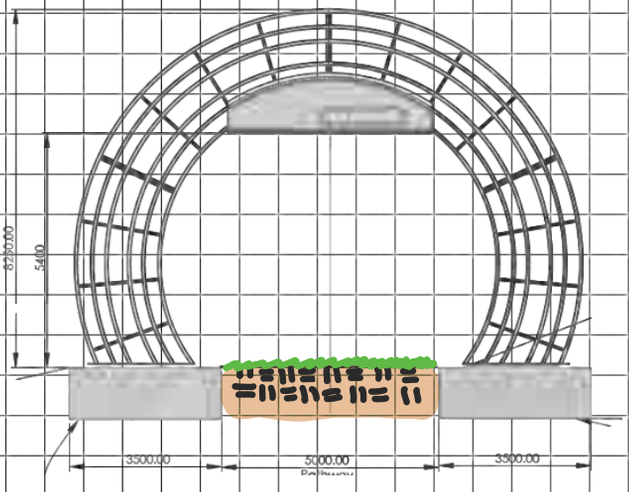
S.I.D Mx = 0 KNM

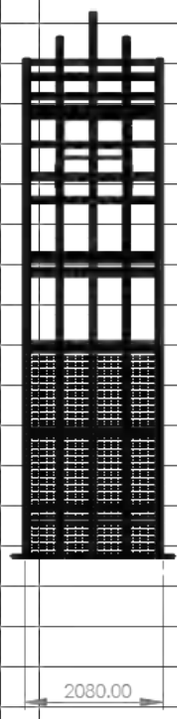
WIND x+ = 0.10 KNM

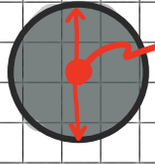
WIND +y = 124 KNM

MOST ONEROUS WIND DIRECTION →







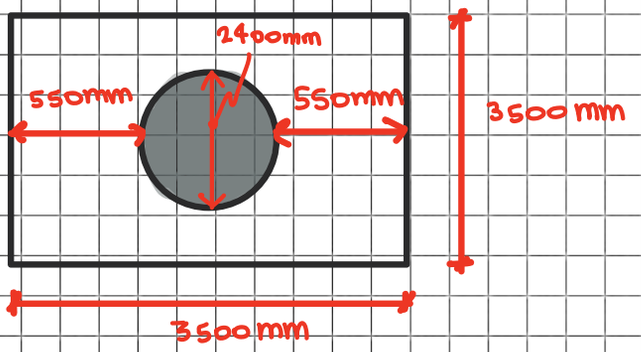


CIRCULAR BASE : LOADS ASSUMED TO ACT AT CENTROID!

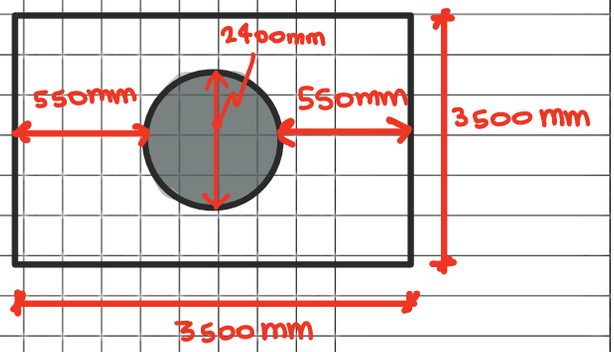
ASSUME Ø = 2400 mm (MEASUREMENT — TAKEN FROM CWT_010_TOP_LEVEL DRAWING.

Project: COOP LIVE PATH : ARCH	Sheet : 2	defined by design $(dp)^2$
Calculation Title : DESIGN CHECKS	Project No.: 240365	
	T.T 07/03/24	

LEFT PAD



RIGHT PAD



CENTROID POINT = 1750mm

RESTORING AND OVERTURNING MOMENT

Rm_y = 247 kN x 1.7 m = 420 kNm

Rm_x = 247 kN x 1.7 m = 420 kNm

Om = 124 kNm x 1.5 = 186 kNm (f.o.s)

Rm > Om — Ok

STABILITY CHECK Ok.

BEARING

ASSUME A.B.P = 75 kN/m²

$$\frac{247\ kN}{75\ kN/m^2} = 3.3\ m^2$$

$\sqrt{3.3} = 1.8$ ⇒ Minimum L=W

$$\text{ULS BEARING} = \frac{247\ kN \times 1.35}{3.5^2} = 27.22\ kN/m^2$$

$$Med = 27.22 \times 3.5 \times \frac{1.1^2}{2} = 57.6\ kNm$$

CONCRETE C32/40 C

50mm COVER

$$d = 700 - 50mm - \frac{16}{2} = 642mm$$

$$k = \frac{57.6 \times 10^6\ Nmm}{3500 \times 642^2 \times 32} = 0.00124$$

Ok

Project: COOP LIVE PATH : ARCH	Sheet : 3	defined by design (dp)²
Calculation Title : DESIGN CHECKS	Project No.: 240365	
	T.T 07/03/24	

$z = 0.95 \times 642\,mm = 610\,mm$

$A_s = \frac{57.6 \times 10^6\ N\,mm}{435\ N/mm^2 \times 610\,mm} = 217\,mm^2$

∴ MINIMUM STEEL GOVERNS

$A_{s\,min} = 0.13\% \times 1000 \times 700$

$= 910\,mm^2/m$

$910 \times 3.5m = 3185\,mm^2$

PROVIDE H16@200 $= 1005\,mm^2/m$

$= 3518\,mm^2$

Bottom Steel Only

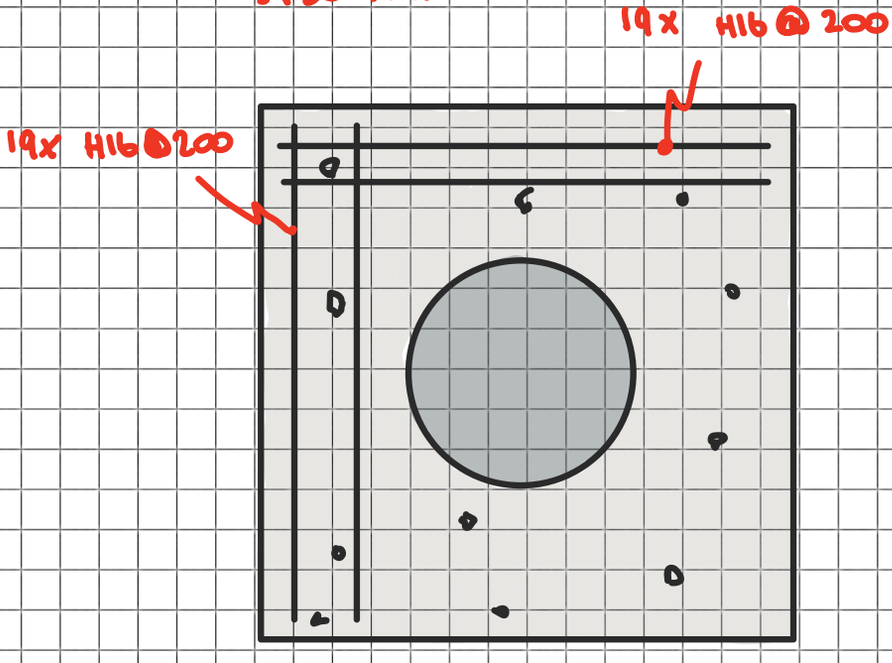
PUNCHING SHEAR CHECK ON EXCEL

C32/40

50mm COVER

BAR LENGTH = 3434 mm

≈ 3430 mm



TOP STEEL NOT REQUIRED.

Project	Spreadsheets to Eurocode 2		NG NEER & Partners
Client	Advisory Group		
Location	Arch Coop Live		

PAD FOUNDATION DESIGN to EN 1992-1 : 2004

Originated from TCC81.xlsm v4.11 on CD

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Single column base

Made by	Date	Page
TT	08-Mar-24	289
Checked	**Revision**	**Job No**
DEP	-	R68

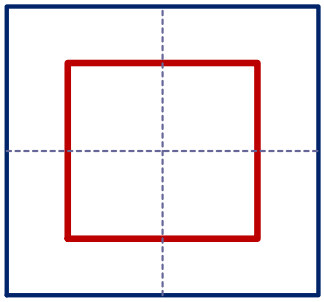
Usage: Crowds

MATERIALS

	f_{ck}	32	MPa	d_g	20	mm	γ_c 1.5	concrete
	f_{yk}	500	MPa	cover	50	mm	γ_s 1.15	steel
Densities - Concrete, γ_{ck}		25	kN/m³	Soil, γ_k	20	kN/m³	Steel class	H
Shear resistance angle, φ_k		30	degrees					
Effective cohesion, c'_k		0	kPa					
Overburden depth		0	mm					

DIMENSIONS mm

BASE		COLUMN	
L =	3500	h =	2130
B =	3500	b =	2130
depth H =	700		
ex =	0	ey =	0



Plot (to scale)



Key

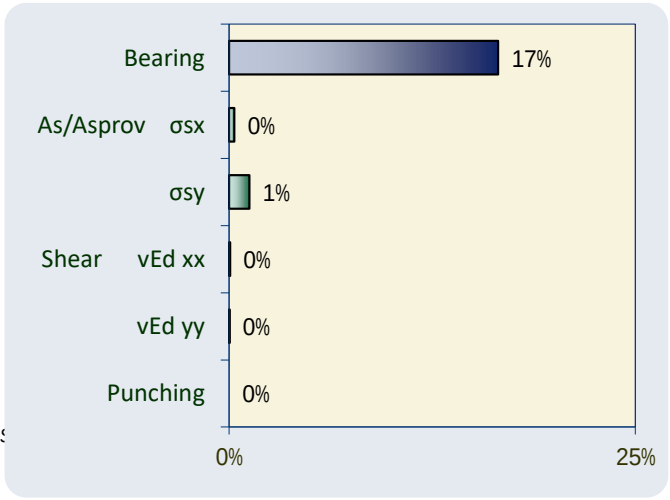
COLUMN REACTIONS kN, kNm *characteristic*

	DEAD	IMPOSED	WIND
Axial (kN)	33.3		
Mx (kNm)	124.0		
My (kNm)			
Hx (kN)			
Hy (kN)			
ψ_0 =	0.7		0.5

see EN 1990 - Table A1.1

BEARING kPa

	Combo 1	Combo 2	
Max q_{Ed}	38.2	28.3	*applied pressures*
q_{Rd}	394.5	171.1	*permitted pressures*
q_{EQP}/q_{Rd} ≈	#N/A	#N/A	*#N/A*
bearing area	8.745	8.745	m^2



Efficiency

STATUS #N/A

REINFORCEMENT

Mxx =	12.0	kNm	Myy =	3.0	kNm
b =	3500	mm	b =	3500	mm
d =	642	mm	d =	626	mm
As =	45	mm²	As =	12	mm²
Provide	*18H16 @ 200 B1*		*Provide*	*18H16 @ 200 B2*	
As prov =	3619	mm²	As prov =	3619	mm²

BEAM SHEAR

VEdxx =	2.3	kN at d from col face	VEDyy =	0.8	kN at d from col face
vEd =	0.001	N/mm²	vEd =	0.000	N/mm²
or VEdxx =	0.0	kN at 2d from col face	or VEDyy =	0.0	kN at 2d from col face
vEd =	0.000	N/mm²	vEd =	0.000	N/mm²
vRd,c =	0.385	N/mm²	vRd,c =	0.388	N/mm²

PUNCHING SHEAR

d ave =	634	mm	u crit =	0	mm
As prov =	0.163	%	vEd max =	-0.018	N/mm² at col face
vEd =	0.000	N/mm²	vRd,c =	0.386	N/mm²