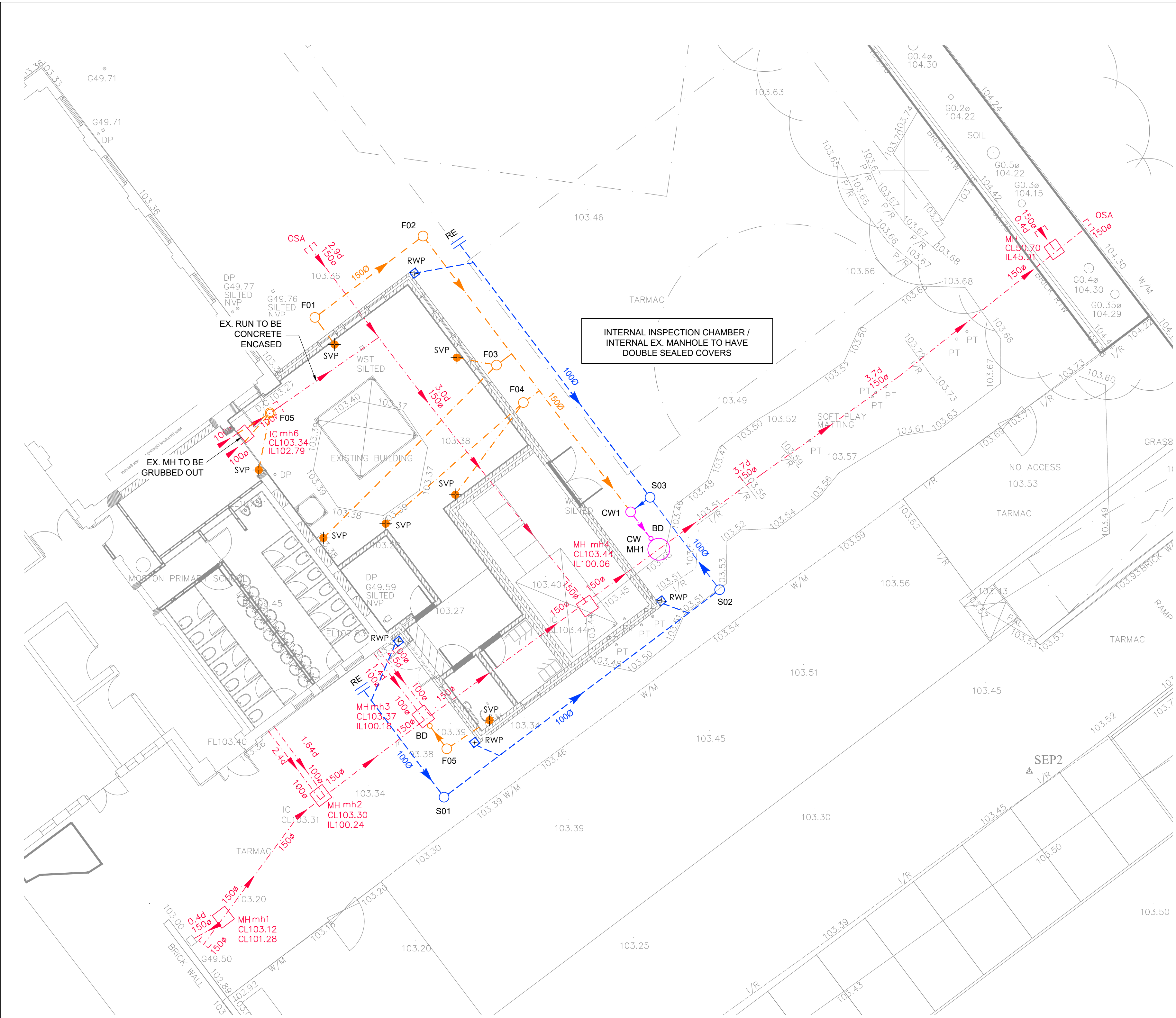




DRAINAGE PLAN
SCALE 1:100

INSPECTION CHAMBERS:

- ALL POLYPROPYLENE INSPECTION CHAMBERS (PPIC) TO BE 450Ø ID BY WAVIN/OSMA OR SIMILAR KITEMARKED AND APPROVED, AS FOLLOWS:
 - "UNIVERSAL IC" FOR CHAMBERS UP TO 1.2m DEEP. BASE Refs. 4D922 FOR 110Ø MAIN CHANNEL AND 110Ø 45 & 90° SIDE INLETS, 6D929 FOR 160Ø MAIN CHANNEL AND 110Ø 45 & 90° SIDE INLETS, 6D928 FOR 160Ø MAIN CHANNEL AND 160Ø 90° SIDE INLETS. RISER Ref. 4D975
 - "RANGE 450 IC" FOR CHAMBERS GREATER THAN 1.2m DEEP. BASE Refs. 44NE306 FOR 110Ø MAIN CHANNEL AND 110Ø 45 & 90° SIDE INLETS, 46NE307 FOR 160Ø MAIN CHANNEL, 160Ø 90° AND 110Ø 45° LEFT SIDE INLETS, 46NE308 FOR 160Ø MAIN CHANNEL, 160Ø 90° AND 110Ø 45° RIGHT SIDE INLETS, 46NE309 FOR 160Ø MAIN CHANNEL, 160Ø 90° AND 110Ø 45° LEFT & RIGHT SIDE INLETS. RISER Ref. 40NE300

- COVERS TO BE SQUARE RECESSED TYPES TO ENABLE CONCEALMENT WITHIN SURFACE FINISHES, Ref. 4D945 FOR EXTERNAL SW CHAMBERS, 4D946 (SEALED) FOR FOUL AND ALL INTERNALLY SITUATED CHAMBERS. NOT TO BE USED IN TRAFFICKED AREAS.
- REFER TO MANUFACTURER FOR FURTHER PRODUCT INFORMATION, OPTIONS AND INSTALLATION GUIDANCE (IN CONJUNCTION WITH LATEST SFA GUIDANCE).

PLOT DRAINAGE:

- ALL UNDERGROUND DRAINAGE WITHIN THE PLOT CURTLAGE IS TO BE 100Ø U-PVC IN ACCORDANCE WITH BS EN 1401 UNLESS STATED OTHERWISE.
- ALL FOUL WATER CONNECTIONS TO BE LAID AT 1 in 40 MINIMUM FALLS UNLESS STATED OTHERWISE.
- ALL SURFACE WATER CONNECTIONS TO BE LAID AT 1 in 80 MINIMUM FALLS UNLESS STATED OTHERWISE.
- ALL REST BENDS AND FITTING CONNECTION INVERTS TO BE SET AT 425mm BELOW SSL UNLESS STATED OTHERWISE AND LAID IN ACCORDANCE WITH NHBC AS STRAIGHT AS PRACTICABLE WITH MINIMAL CHANGES OF DIRECTION. BENDS SHOULD ONLY OCCUR IN, OR NEXT TO, INSPECTION CHAMBERS AND MANHOLE COVERS. CURVES SHOULD BE SLIGHT SO THAT BLOCKED PIPES CAN BE CLEARED.

COVER LEVELS:

- ALL PROPOSED COVER LEVELS SHOWN ARE APPROXIMATE ONLY AND ARE TO SUIT LANDSCAPE ARCHITECT'S PROPOSED FINISHED SURFACE LEVELS. REFER TO LANDSCAPE ARCHITECT LAYOUTS FOR FURTHER GUIDANCE

KEY:

	EXISTING FOUL/COMBINED WATER MANHOLE / SEWER
	PROPOSED SW MANHOLE / INSPECTION CHAMBER / SEWER
	PROPOSED FW MANHOLE / INSPECTION CHAMBER / SEWER
	PROPOSED CW MANHOLE / INSPECTION CHAMBER / SEWER
	EXISTING SEWER RUNS TO BE REMOVED/GRUBBED UP OR GROUTED
	RODDING EYE
	BACKDROP

DRAINAGE:

- ALL ADOPTABLE DRAINAGE WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH SEWERS FOR ADOPTION 7th EDITION
- CONCRETE PIPES AND FITTINGS WITH FLEXIBLE JOINTS TO COMPLY WITH BS EN 1916.
- VITRIFIED CLAY DRAINAGE GOODS TO BE HEPWORTH SUPERSLEVE OR SIMILAR TO BS EN 295-1. PLASTIC DRAINAGE GOODS TO BE HEPWORTH PLASTIDRAIN/SEWERDRAIN OR SIMILAR. STRENGTH CLASS & BEDDING TO BE AS INDICATED ON THE 'TYPICAL DRAINAGE DETAILS' DRAWING.
- RUBBER JOINT RINGS TO BE TYPE D TO BS EN 681-1 1994 AND TO BE OBTAINED FROM PIPE MANUFACTURER.
- DRAINAGE BENEATH SOFT LANDSCAPING WITH LESS THAN 0.6m COVER TO BE CONCRETE ENCASED. DRAINAGE BENEATH ROADS/PARKING WITH LESS THAN 1.2m COVER TO BE CONCRETE ENCASED. ENCASEMENT TO COMPRISE A MINIMUM 150mm THK CONCRETE (CLASS 2). PIPE BENDS WITHIN MANHOLES TO SUIT DIRECTION OF FLOW.
- DRAINS WHICH ARE CONCRETE ENCASED TO HAVE 18mm FIBREBOARD OR POLYSTYRENE JOINTS AT 5m (MAX) CENTRES. COMPRESSIBLE FILLER FOR INTERRUPTION OF CONCRETE PIPE PROTECTION SHALL CONSIST OF BITUMEN IMPREGHATED INSULATING BOARD TO BS 1142 AT EACH PIPE JOINT: THICKNESS IN ACCORDANCE WITH CESWI CLAUSE 2.52.
- ALL PIPES ENTERING & EXITING MANHOLES ARE TO BE CONNECTED WITH SOFFITS LEVEL UNLESS NOTED OTHERWISE.
- FIRST FLEXIBLE JOINT IN PIPES ADJACENT TO A MANHOLE TO BE A MAX. 600mm FROM INSIDE FACE OF MANHOLE, CONNECTING TO ROCKER PIPE. FOR PIPES OF 150-450mm, THE ROCKER PIPE LENGTH TO BE 500mm-750mm, FOR PIPE DIAMETERS 451-750 ROCKER PIPE TO BE 750mm-1000mm AND FOR PIPE DIAMETERS OF 900mm ROCKER PIPE TO BE 1250mm
- PIPES TO BE LAID TO THEIR TRUE LINE AND LEVEL BY LASER OR BY BONING EACH END AND MIDDLE.
- ALL SOFT SPOTS WITHIN PIPE TRENCHES TO BE REMOVED AND BACKFILLED WITH 6F2 MATERIAL/ CAPPING, COMPACTED IN ACCORDANCE WITH TABLES 6/1 & 6/4 CONTAINED WITHIN SERIES 0600. EARTHWORKS, MCHW SPECIFICATION FOR HIGHWAY WORKS.
- NO WATER TO BE ALLOWED TO ACCUMULATE IN PIPE TRENCHES DURING CONSTRUCTION.
- ALL FILL MATERIAL TO BE COMPACTED IN LAYERS NOT EXCEEDING 150mm IN ACCORDANCE WITH MCHW CLAUSE 505.
- ALL INSITU CONCRETE USED IN PIPE PROTECTION TO BE MIN. GRADE ST4.
- ALL REDUNDANT DRAINS TO BE REMOVED OR CONCRETE SEALED IN ACCORDANCE WITH MCHW CLAUSE 506-3.
- ALL PIPE RUNS TO BE LAID WITH FLEXIBLE JOINTS. ALL PIPES ENTERING AND EXITING MANHOLES ARE TO BE CONNECTED WITH PIPE SOFFITS LEVEL UNLESS NOTED OTHERWISE.
- THE FOLLOWING CONCRETE MIXES ARE TO BE USED (ALL IN ACCORDANCE WITH BS 8500):-

LOCATION	MIX REF.
CONCRETE SURROUND TO PIPES	GEN 3
MANHOLE BASE AND SURROUND	GEN 3
17. ALL INSITU CONCRETE TO BE SULPHATE RESISTING.	
18. ALL PRECAST CONCRETE PRODUCTS (IE PIPES, MANHOLES, ETC) ARE TO BE SULPHATE RESISTING.	
19. GRANOLITHIC CONCRETE BENCHING TO BE STEEL TROWELLED TO A DENSE SMOOTH FACE NEATLY SHAPED AND FINISHED TO ALL BRANCH CONNECTIONS AND LAID IN ACCORDANCE WITH THE SPECIFICATION (MIN THK. 20mm).	
20. PRE-FORMED CHANNELS ARE TO BE USED IN ALL MANHOLES WITH 300mm DIA PIPES OR LESS.	
21. PRE-CAST CONCRETE SEATING RINGS SHALL NOT BE USED ON ADOPTABLE MANHOLES.	

GENERAL NOTES:

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
- ALL DIMENSIONS ARE IN MILLIMETRES AND ALL LEVELS ARE IN METRES (TO ORDNANCE DATUM) UNLESS NOTED OTHERWISE.
- DO NOT SCALE FROM THIS DRAWING.
- SHOULD THERE BE ANY DISCREPANCY BETWEEN DETAILS INDICATED ON THIS DRAWING AND THOSE INDICATED ON OTHER DRAWINGS THE ENGINEER SHOULD BE INFORMED PRIOR TO CONSTRUCTION ON SITE.
- UNTIL TECHNICAL APPROVAL HAS BEEN OBTAINED FROM THE RELEVANT AUTHORITIES IT SHOULD BE UNDERSTOOD THAT ALL DRAWINGS ISSUED ARE PRELIMINARY AND NOT FOR CONSTRUCTION. SHOULD THE CONTRACTOR START SITE WORK PRIOR TO APPROVAL BEEN GIVEN, IT IS ENTIRELY AT HIS OWN RISK.
- ALL EXISTING DRAINAGE CONNECTION POINT INVERT LEVELS HAVE BEEN INTERPRETED FROM SURVEY INFORMATION AND ARE TO BE CONFIRMED PRIOR TO CONSTRUCTION. CONNECTION MANHOLES TO BE INSTALLED PRIOR TO UPSTREAM NETWORKS, STRUCTURES OR BUILDINGS BEING CONSTRUCTED.
- BACKGROUND INFORMATION BASED ON MCC DRAFT LAYOUT T-19 DATED 09-11-2020, NOT YET FINALISED FOR CONSTRUCTION.
- DRAINAGE SLAB PENETRATIONS INDICATED FOR GUIDANCE ONLY - REFER TO ARCHITECT GROUND FLOOR PLANS FOR ACCURATE SETTING OUT INFORMATION.

EXISTING SERVICES:

- SERVICE MEDIA INDICATED IS BASED ON INFORMATION AVAILABLE TO DATE & IS REPRODUCED IN GOOD FAITH. NO RESPONSIBILITY CAN BE ACCEPTED FOR THE LOCATING OF UNKNOWN SERVICES NOT INDICATED.
- STATUTORY SERVICES INDICATED PRIOR TO ANY WORKS TAKING PLACE ARE FOR INFORMATION PURPOSES ONLY AND MUST BE CONFIRMED.
- IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE AND PROTECT EXISTING SERVICE MEDIA AFFECTED BY THE PROPOSED WORKS.
- ANY EXISTING DRAINAGE ON SITE IS TO BE INVESTIGATED/SURVEYED AND AS FOUND TO BE NECESSARY EITHER, MAINTAINED, DIVERTED OR ABANDONED (SUBJECT TO APPROVAL OF THE SEWAGE UNDERTAKER).

EXCAVATIONS:

- ANY DRAINAGE WHOSE EXCAVATION IS LOWER THAN THE UNDERSIDE OF ADJACENT FOUNDATION (& WITHIN 1.0m OF THE FOUNDATION) IS TO BE CONCRETE ENCASED UP TO THE LEVEL OF THE UNDERSIDE OF THE FOUNDATION.
- ANY DRAINAGE WHOSE EXCAVATION IS LOWER THAN THE UNDERSIDE OF ADJACENT FOUNDATION (& GREATER THAN 1.0m FROM THE FOUNDATION) IS TO BE CONCRETE ENCASED UP TO A LEVEL (X - 150mm) BELOW THE UNDER-SIDE OF THE FOUNDATION (WHERE 'X' IS THE HORIZONTAL DISTANCE FROM THE FACE OF FOUNDATION TO THE EDGE OF THE DRAINAGE EXCAVATION).

P1	EF	NG	CJ	29.04.22	PRELIMINARY ISSUE
REV	DRN	CHK	APP	DATE	DESCRIPTION
 Consulting Civil & Structural Engineers					
Client CONLON CONSTRUCTION					
Project KITCHEN EXTENSION NEW MOSTON PRIMARY SCHOOL MANCHESTER					
Title DRAINAGE GA					
Scale AS SHOWN	Drawn EF	Date APR 2022	Chkd NG	Approved CJ	
Drawing No. 841-010_100				Revision P1	
Status PRELIMINARY				Sheet Size A1	