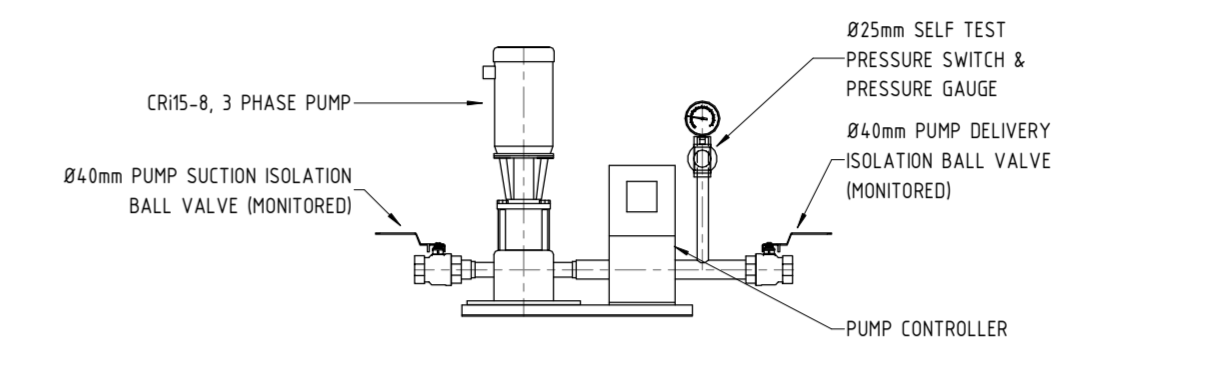
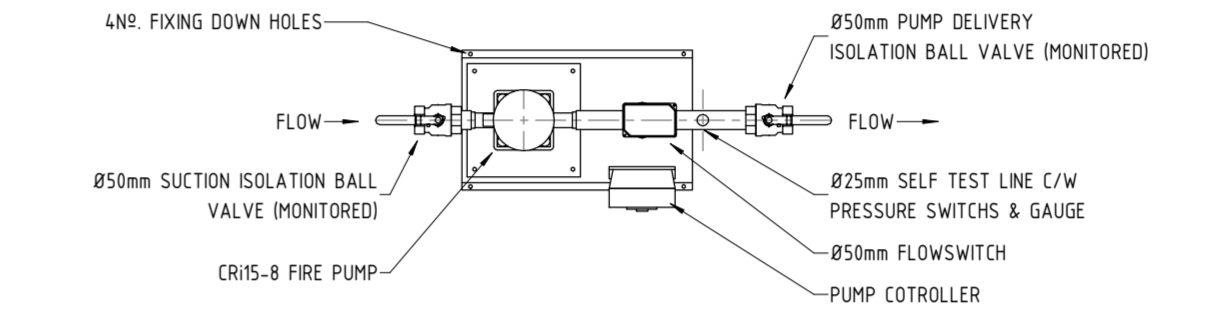


PLAN VIEW - WORKING LEVEL
(SCALE: 1:20)

EQUIPMENT SCHEDULE				
VALVE NUMBER	DIAMETER	DESCRIPTION	OPERATION	
01	Ø32	TANK NO 1 INFILL ISOLATING VALVE	OPEN	
02	Ø32	TANK NO 2 INFILL ISOLATING VALVE	OPEN	
03	Ø32	TANK NO 1 DRAIN VALVE	OPEN	
04	Ø32	TANK NO 2 DRAIN VALVE	OPEN	
05	Ø50	TANK NO 1 SHUT OFF ISOLATING BALL VALVE	OPEN	
06	Ø50	TANK NO 2 SHUT OFF ISOLATING BALL VALVE	OPEN	
07	Ø50	STATION LINE ISOLATING BALL VALVE	OPEN	
08	Ø50	DUTY PUMP NO 1 DELIVERY ISOLATING BALL VALVE	OPEN	
09	Ø50	STANDBY PUMP NO 2 DELIVERY ISOLATING BALL VALVE	OPEN	
10	Ø50	DUMP/PROTECTION ISOLATING BALL VALVE	OPEN	
11	Ø25	ZONCHECK RESIDENTIAL FLOW SWITCH TEST VALVE	OPEN	
12	Ø25	FLOW SWITCH TEST VALVE	CLOSED	
13	N/A	DUTY PUMP NO 1 AUTOMATIC CHANGEOVER PANEL	N/A	
14	N/A	STANDBY PUMP NO 2 AUTOMATIC CHANGEOVER PANEL	N/A	
15	N/A	DUMP/PROTECTION DISTRIBUTION BOARD	N/A	
16	N/A	SEA PUMP/PROTECTION HEATER	N/A	



ELEVATION - CR15-8 RESIDENTIAL PUMPSET
(SCALE: 1:20)



PLAN VIEW - CR15-8 RESIDENTIAL PUMPSET
(SCALE: 1:20)

PUMP DETAILS (SCALE: 1:20)			
PROPOSED DUTY PUMP INFORMATION	PROPOSED SPRINKLER TANK INFORMATION		
GRANDFLEX PUMP SET - CR 15-8 3PH DESIGN STANDARD BS21021 MOUNTED ON CONCRETE PLATE	2m FRANKLIN HOSE (FRESH), REF. NO. 017/016 (GALVANIZED FREESTANDING (DPS) RESIDENTIAL) SUPERIOR WITH DIMENSIONS OF 1000 x 1000 x 1000		
NO. VERTICAL MULTISTAGE CENTRIFUGAL PUMP TYPE CR 15-8 COUPLED TO A 1.5kW 3PH/400V/50HZ IP55 ELECTRIC MOTOR	TANK IS COMPLETE WITH THE FOLLOWING CONNECTIONS/ANCILLARY EQUIPMENT IN GALVANIZED STEEL PIPEWORK: NO. FLOW SWITCH - TO PROVIDE ALARM SIGNAL IN EVENT OF FLOW IN SYSTEM NO. PRESSURE SWITCHES - FIRST SWITCH ACTS INITIALLY AS JOCKEY PUMP WITH MINIMUM RUN TIME OF 30 SECONDS. IF PRESSURE FALLS AGAIN WITHIN 20 SECONDS FOLLOWING PUMP DEACTIVATION, IT WILL START IMMEDIATELY AND OPERATE IN 'FIRE MODE' REQUIRING MANUAL SHUT-DOWN SECOND PRESSURE SWITCH ACTS AS FAIL SAFE ON PRIMARY SWITCH AND IS FACTORY SET TO PRESSURE GAUGE - TO INDICATE SYSTEM PRESSURE NO. 25mm TEST/DRAIN POINT - BALL PLUG TO ALLOW SETTING OF PRESSURE SWITCHES AND SYSTEM RAN/DOWN NO. CONTROL PANEL - INCORPORATING PUMP RUNNING ALARM OUTPUT, POWER FAULT ALARM OUTPUT, AND ALSO INCLUDES CYCLE TIMER TO TURN PUMP OVER PERIODICALLY TEST BUTTON ALSO INCLUDED FOR MANUAL CHECK OF PUMP OPERATION ALL ABOVE PRE-WIRED AND PIPED TOGETHER ON PUMP SKID. BLACK STEEL PIPEWORK TERMINATES IN 25mm BSP CONNECTIONS		
ELECTRICAL REQUIREMENTS POWER: 3kW STARTING CURRENT: 52.4amps FULL LOAD CURRENT: 16.4amps START TYPE: SOFT START	EXACT DIMENSIONS TO BE CONFIRMED BY TANK MANUFACTURER (A MINIMUM EFFECTIVE CAPACITY OF 2m³ PER TANK REQUIRED) NO. DECKING COVER WITH ROOF ACCESS HATCH NO. 87mm THICK BUTYL LINER NO. HOOD ON ACCESS LADDER NO. CONTENTS GAUGE NO. 25mm DRAIN CONNECTION IN GALVANIZED STEEL WITH GUNMETAL GATE VALVE NO. 25mm INLET CONNECTION IN GALVANIZED STEEL INCLUDING 8000 BALL PLUG VALVE NO. 25mm OUTLET CONNECTION COMPLETE WITH ANTI-VORTEX DEVICE WITH SUPPORT PLATE, INTERNAL ELBOW AND EXTERNAL SPOOL. (PRICE APPROXIMATELY 750mm LONG) NO. 100mm OVERFLOW CONNECTION, EXCLUDING DOWN PIPE NO. 25mm TEST RETURN NO. 25mm WARNING OVERFLOW NO. TYPE 'A' AIRGAP		

SCHEDULE OF SPRINKLERS							
WTRTN NO.	ZONE NO.	LOCATION	CONTY. TYPE	SPRINKLER HEAD MAKE & K.F. FACTOR	TEMP. RATING °C	DESIGN SPACING mm	QTY
NA		PUMPHOUSE	NP	WING W80T, 100mm K15, UPRIGHT	68°C	1200	1

SPECIFICATION STANDARD:		BS 9251:2021 RESIDENTIAL & DOMESTIC OCCUPANCIES	
DESIGN CRITERIA:	ANNEX D & F FINANCIALS	NO	
ANY OTHER APPLICABLE ANNEXES	NO		
HAZARD CLASS	CLASS 4		
DISCHARGE DENSITY	2.0mm/min		
AREA OF OPERATION	4 HEADS OPERATING		
TEST AT °C GAUGE	N/A		
HIGHEST HEAD ABOVE °C GAUGE	N/A		
INSTALLATION TYPE	UPR		
SYSTEM VOLUME (DRY / ALTERNATE ONLY)	N/A		
PIPEWORK CALCULATED	YES		
PIPEWORK PAINT FINISH:	POWDER COATED WHITE - RAL 9010	YES	
	POWDER COATED RED - RAL 3000	NO	
	OTHER (SPECIFY)	NO	
PIPEWORK SPECIFICATION (UNLESS OTHERWISE STATED):	1. ALL PIPE WORK TO BE EN10225 MEDIUM WEIGHT LPTD 1500R		
	2. ALL PIPE WORK TO BE EN10225 HEAVY WEIGHT ANCHOR 1500R		
	3. ALL SCREWED FITTINGS TO BE BLACK MALLEABLE IRON TO BS143		
	4. ALL WELDED FITTINGS TO BS1965		

WEIGHT LOADINGS FOR MEDIUM WEIGHT PIPE WORK & FITTINGS			
NOMINAL BORE	OUTSIDE DIAMETER	WEIGHT (METRE IN HG. EMPTY)	BRACKET LOCATIONS
20mm	27.3mm	1.7	400 Maximum
25mm	33.7mm	2.2	400 Maximum
32mm	42.4mm	3.2	400 Maximum
40mm	50.8mm	4.5	400 Maximum
50mm	60.3mm	6.5	400 Maximum
63mm	76.2mm	9.5	400 (1st 400mm Max N/A)
75mm	91.4mm	13.0	400 (1st 400mm Max N/A)
90mm	108.0mm	17.0	400 (1st 400mm Max N/A)
100mm	114.3mm	20.0	400 (1st 400mm Max N/A)
125mm	141.3mm	28.0	400 (1st 400mm Max N/A)
150mm	165.1mm	38.0	400 (1st 400mm Max N/A)
200mm	219.1mm	58.0	400 (1st 400mm Max N/A)

TABLE 40 - Design Requirements for pipe supports			
NOMINAL PIPE DIAMETER (Ø)	MINIMUM LOAD CAPACITY at 20°C (kN/m²)	MINIMUM CROSS SECTION (mm²)	MINIMUM LENGTH OF ANCHOR BOLT (mm)
Ø 150	200	30000	50
Ø 175	250	40000	50
Ø 200	300	50000	50
Ø 225	350	60000	50
Ø 250	400	70000	50
Ø 300	500	100000	50

LEGEND	
○	SPRINKLER HEAD UPRIGHT
○	SPRINKLER HEAD PENDANT
○	SPRINKLER HEAD FALSE CEILING/DROP PIPE
○	SPRINKLER HEAD WITH FLEXIBLE ARM & DROP TO FALSE CEILING
○	SPRINKLER HEAD ON RISE PIPE
○	SPRINKLER HEAD SIDEWALL
○	IN-RACK SPRINKLER HEAD FITTED WITH GAIRD & BAFFLE
○	CHANGE OF ELEVATION PIPE WORK
○	CENTRE LINE ELEVATION OF PIPEWORK BELOW SLAB / SOFFIT
○	CENTRE LINE ELEVATION OF PIPEWORK ABOVE FINISH FLOOR LEVEL / DATUM
○	DESIGN POINT
○	POSITION AND TYPE OF PIPE SUPPORT
○	POSITION OF MECHANICAL COUPLING
○	DRAIN/FLUSHING/TEST VALVE WITH BRASS PLUG
○	FLUSHING CONNECTION

DRAWING REVISIONS			
REV	REVISION DESCRIPTION	DRAWN	APPROVED
P01	PRELIMINARY ISSUE	RS	NM
P02	WATER SUPPLY MOVED TO GROUND FLOOR EXTERNAL TO BUILDING, UPDATED TO SUIT BS 9251:2021 & WATER SUPPLIES NOW SERVING SOMMERSVILLE HOUSE	NM	IC
C01	BASE HOUSES IN USE, SOMMERSVILLE HOUSE SETTING OUT DIMENSIONS AMENDED & SUCTION LINE UPDATED, ISSUED FOR CONSTRUCTION	NM	IC
C02	SUCTION CONNECTION CHANGED & PIPE AMENDED TO SUIT ZONCHECK DETAIL ADDED	NM	IC
C03	LOCATION PLAN UNLOCKED	NM	IC

REFERENCE DRAWINGS:
BLOCK CONSTRUCTION TYPE:
BRYANT - BISON 280
FOR SELWYN & SOMMERSVILLE HOUSE

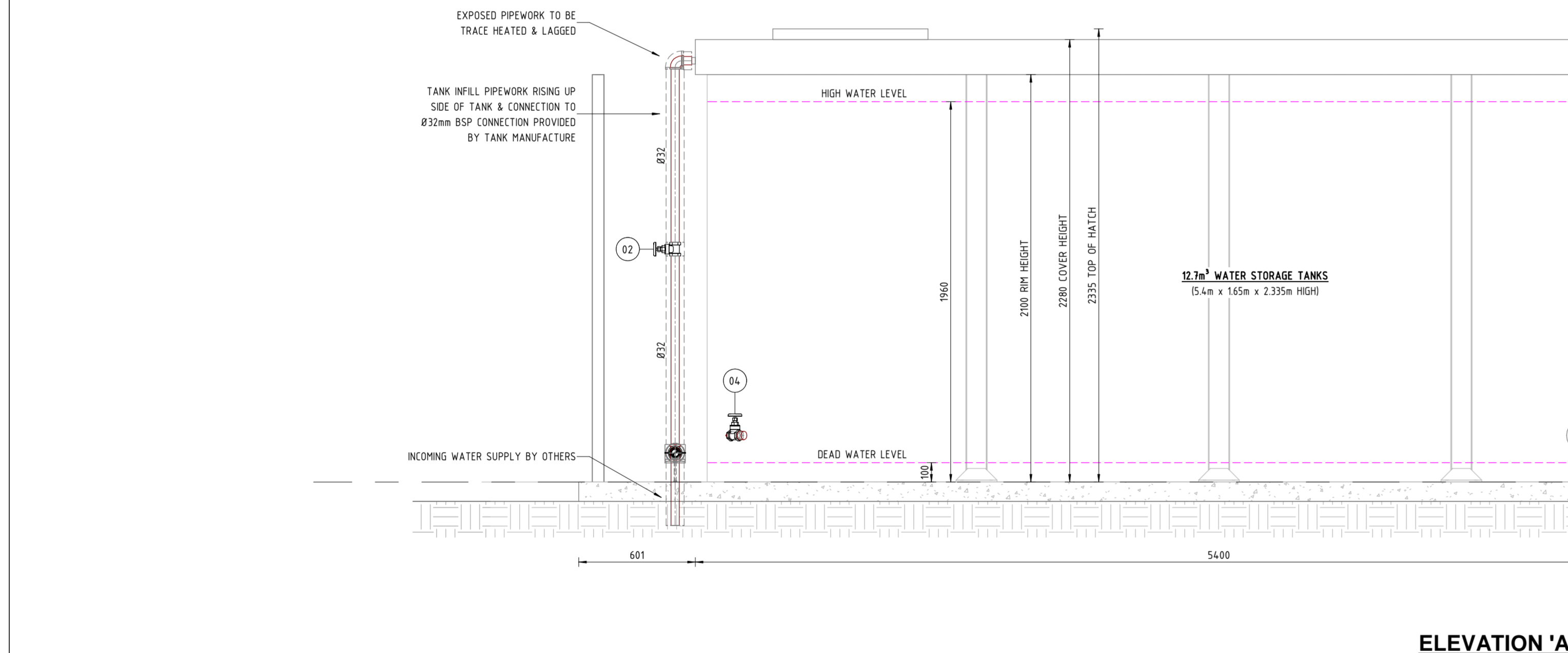
H&K
Hall & Kay Fire Engineering

BIRMINGHAM
Sitting Park
Cliffgate Lane
Woodgate Valley
Birmingham, B52 3BU
Tel: 0121 827 3315
Email: birmingham@hkfire.co.uk

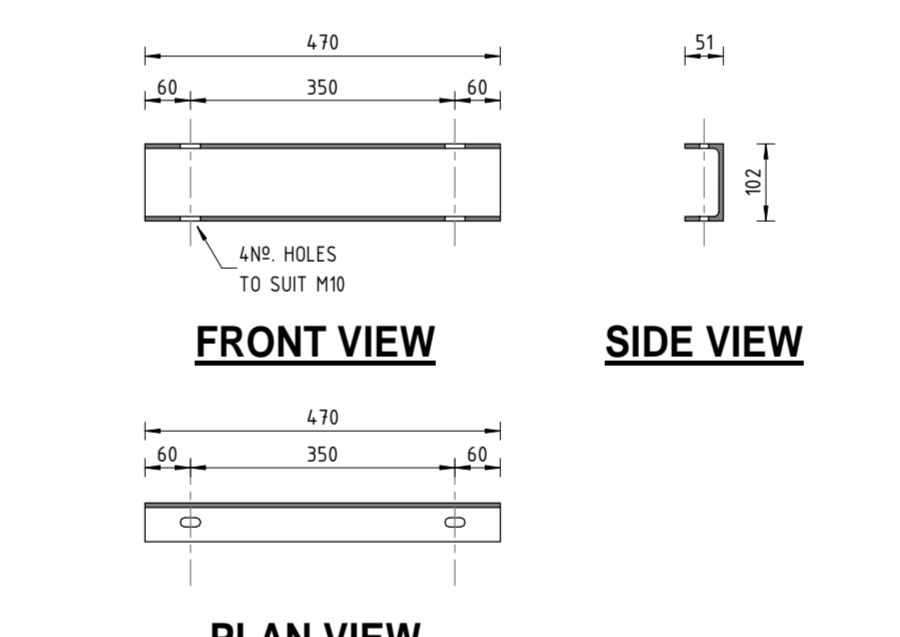
MANCHESTER
Cotton Business Park
Worsley, Greater Manchester, M27 8FF
Tel: 0161 827 7316
Email: manchester@hkfire.co.uk

ASCOT
Siltwood Park
Siltwood Lane
Berkshire, SL2 7PW
Tel: 01344 203 800
Email: ascot@hkfire.co.uk

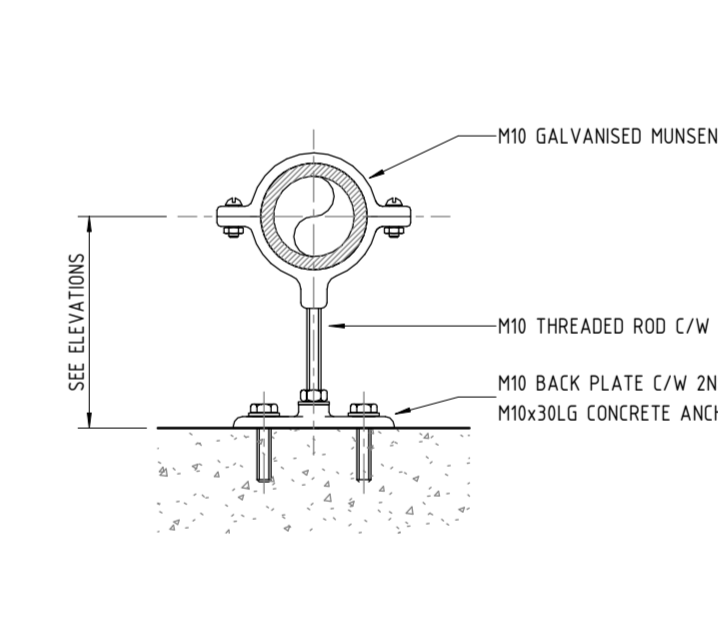
CLIENT: DODD GROUP
PROJECT: SOLIHULL HOUSING SCHEME - PHASE 3
DRAWING TITLE: SPRINKLER WATER SUPPLY DETAILS SELWYN & SOMMERSVILLE HOUSE
DRAWN BY: NM
DATE: 24/01/2022
STATUS: CONSTRUCTION
APPROVED BY: IC
SCALE: 1:20 at A0
CONTRACT NO: BA0324
DRAWING NO: 0297-HAK-ZZ-GF-DR-X-4150
REVISION: C03



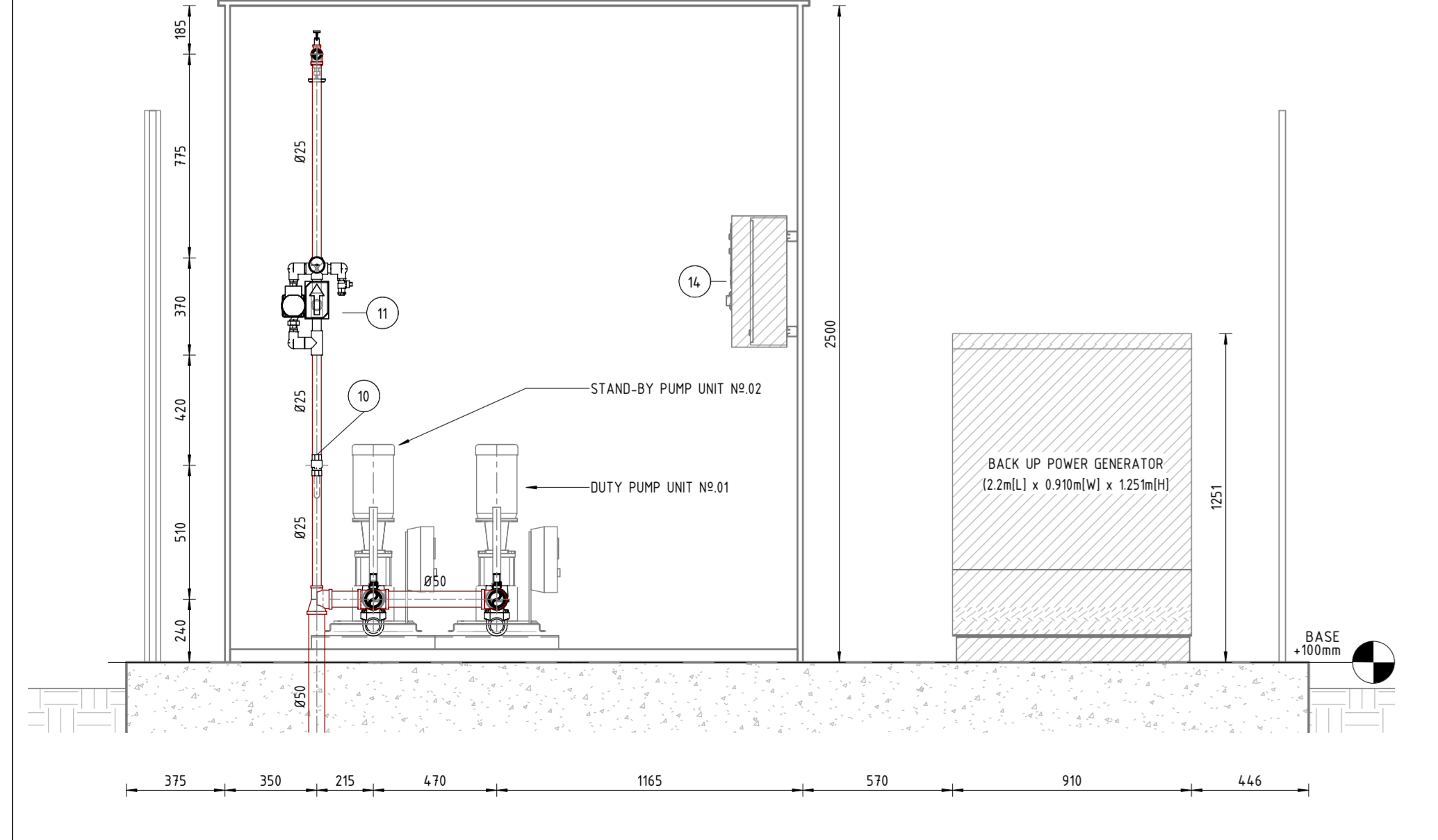
ELEVATION 'A'
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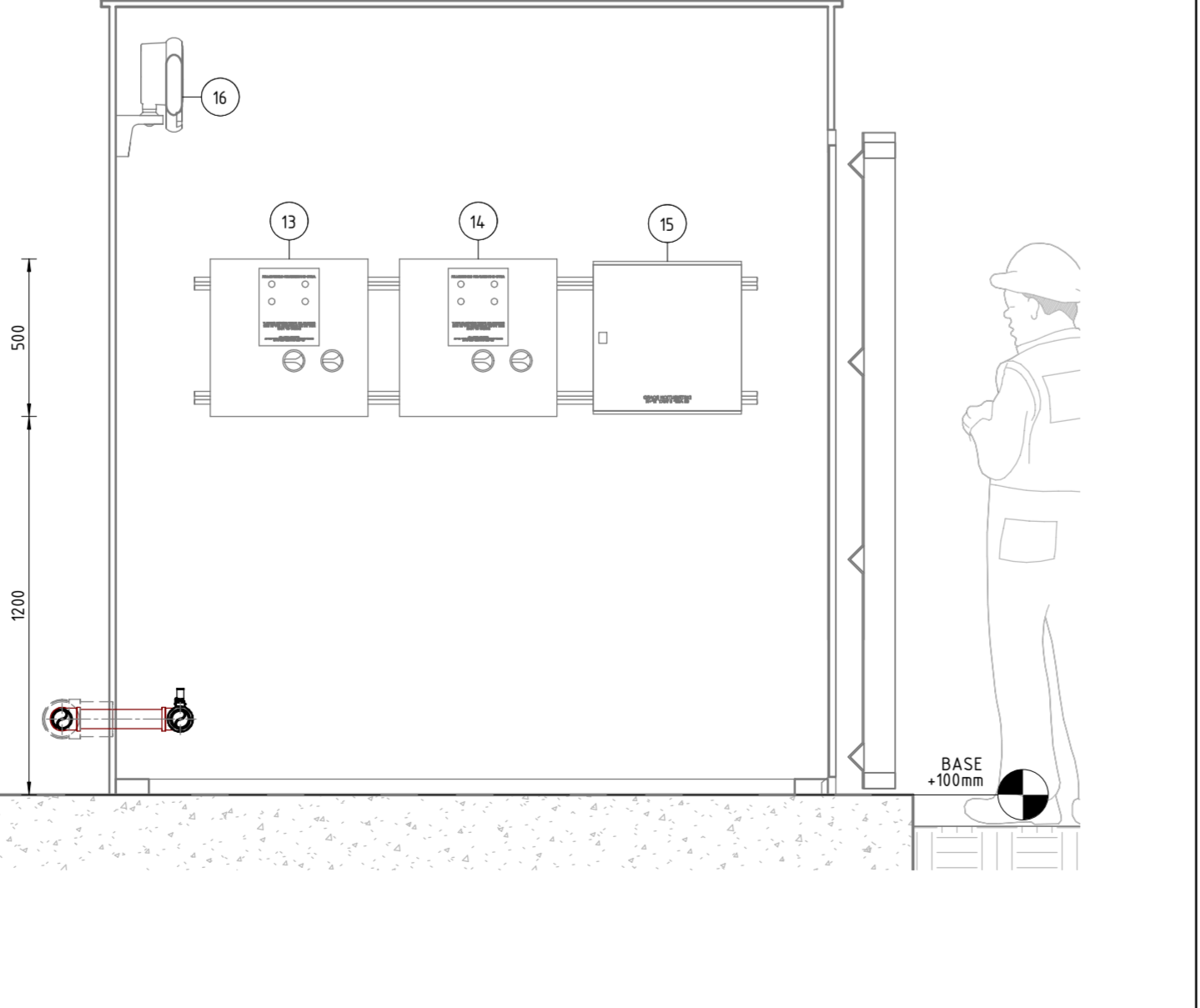
PUMP SUPPORT CHANNEL DETAIL (4#)
(SCALE: 1:10)



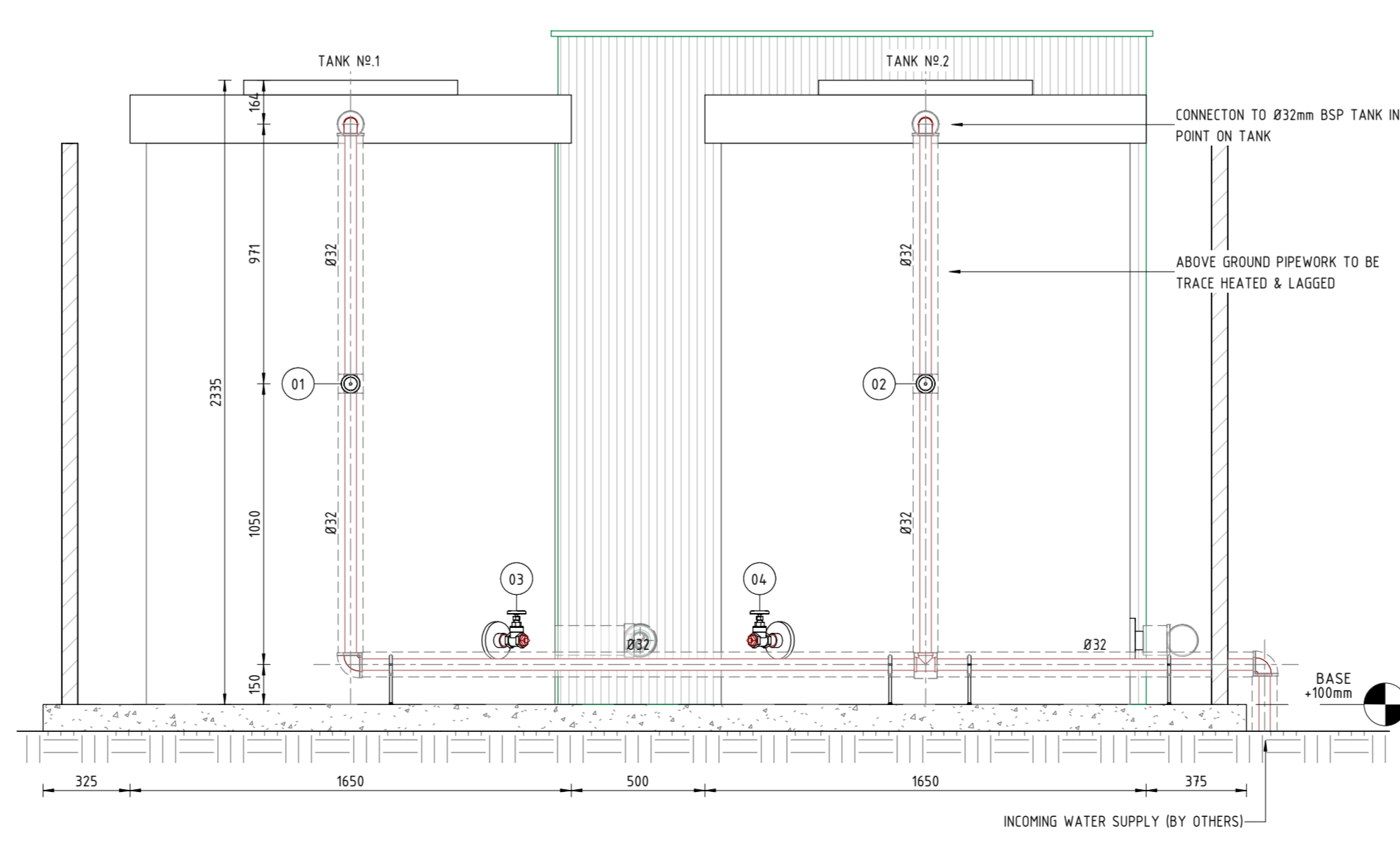
PIPE SUPPORT 'A'
(SCALE: 1:1)



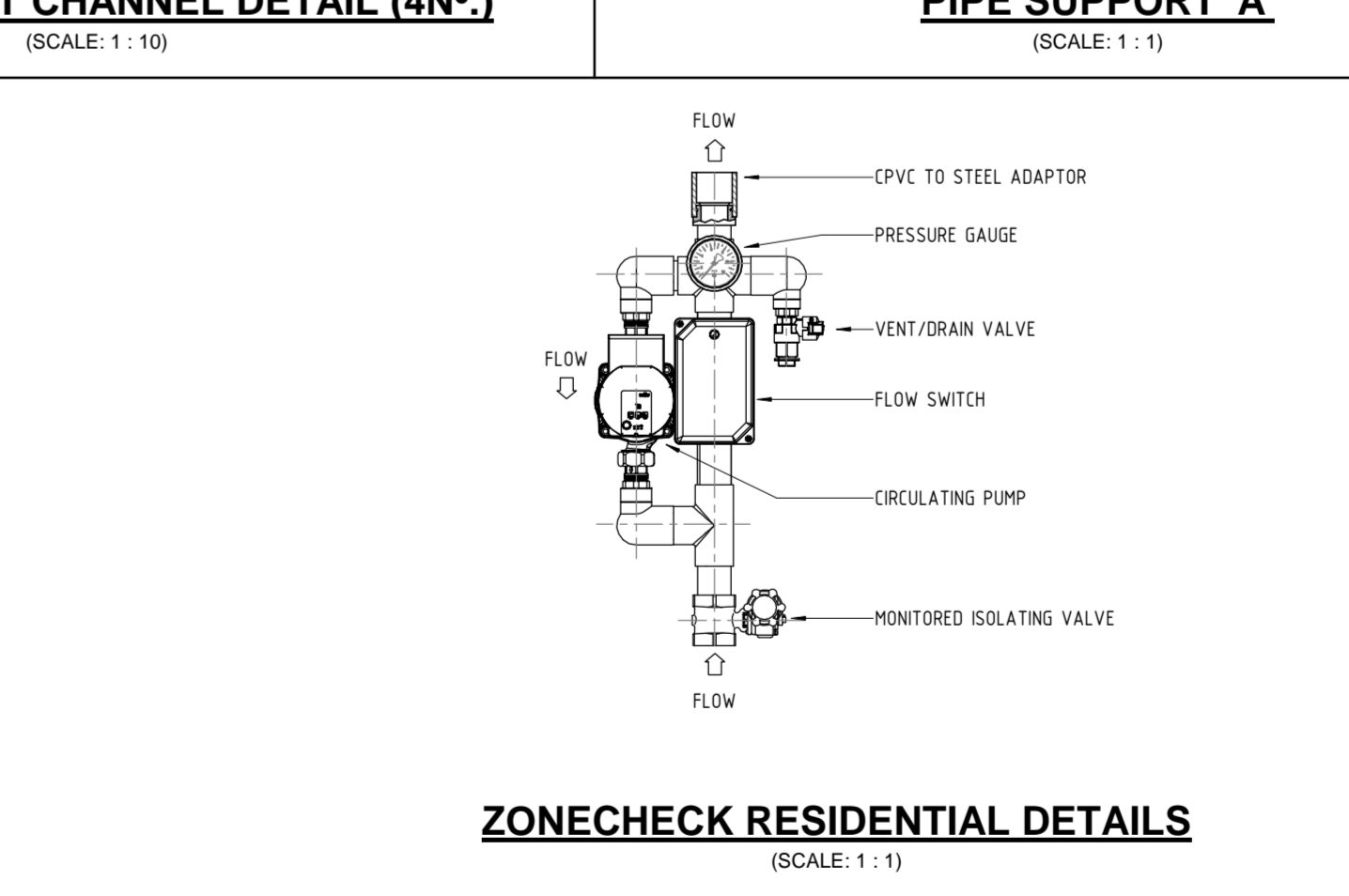
SECTION B-B
(SCALE: 1:20)



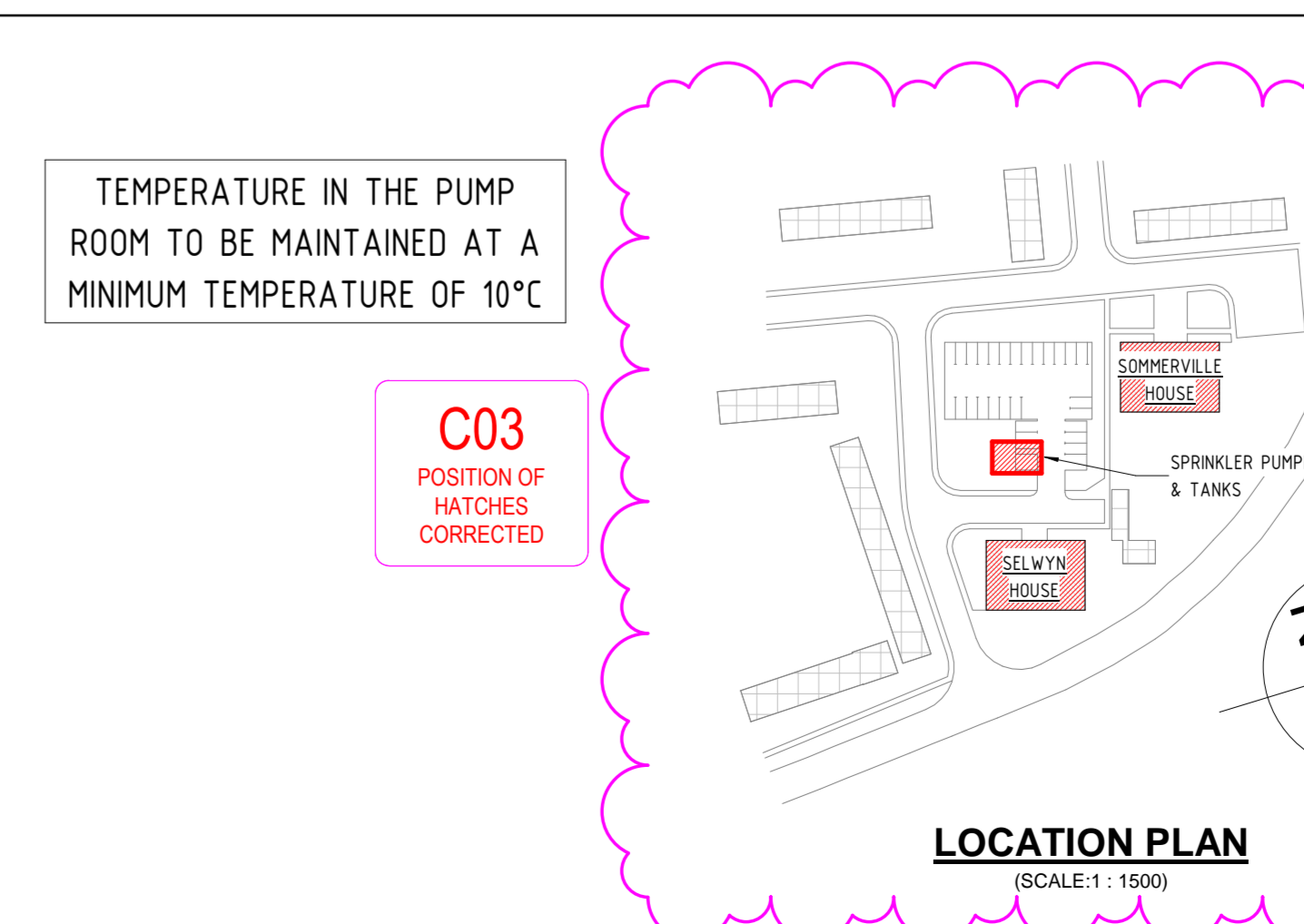
SECTION C-C
(SCALE: 1:20)



ELEVATION 'B' - TANK INFILL
(SCALE: 1:20)



ZONECHECK RESIDENTIAL DETAILS
(SCALE: 1:1)



LOCATION PLAN
(SCALE: 1:1500)

TEMPERATURE IN THE PUMP ROOM TO BE MAINTAINED AT A MINIMUM TEMPERATURE OF 10°C

C03 POSITION OF ZONCHECK CORRECTED