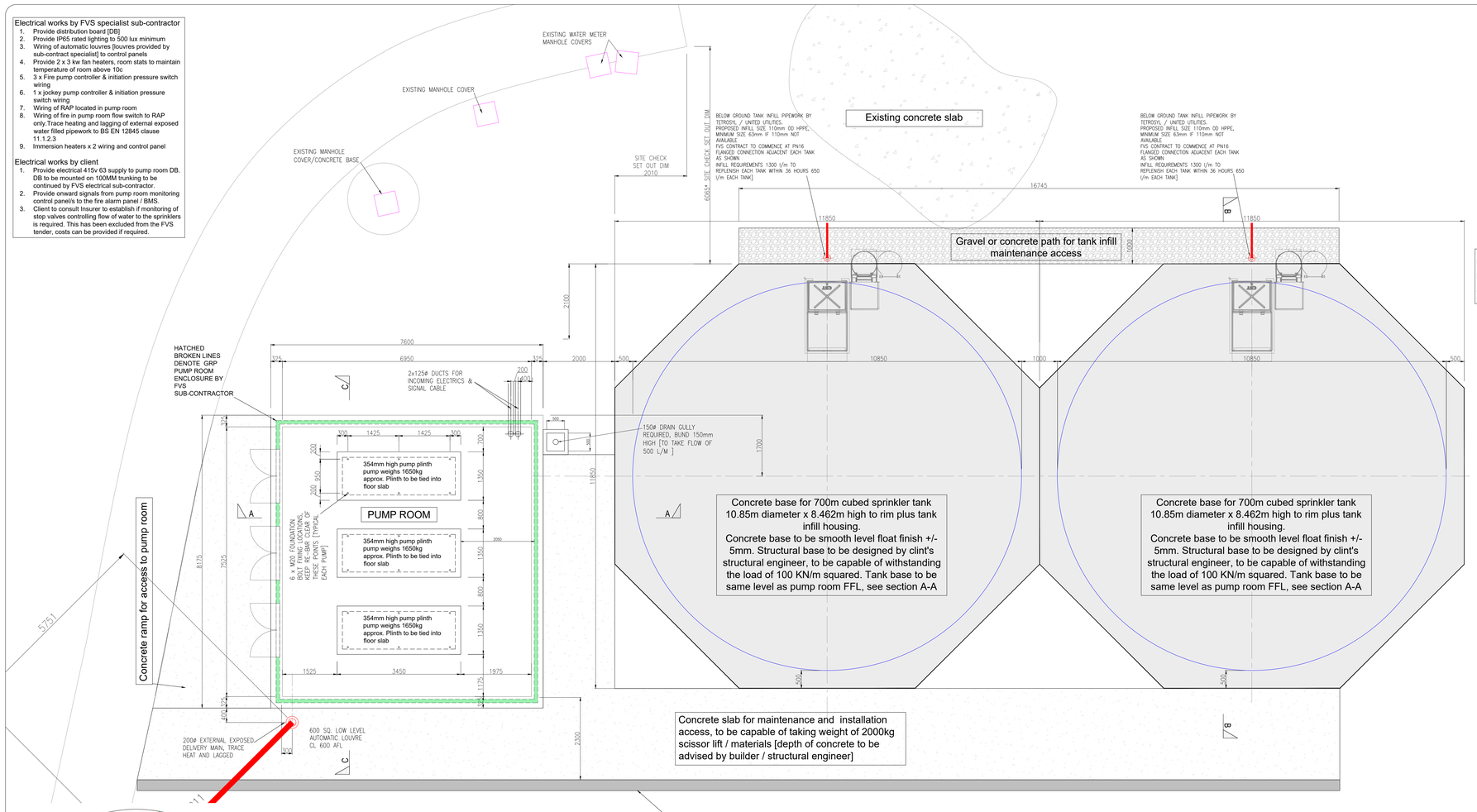
Electrical works by FVS specialist sub-contractor

1. Provide distribution board [DB]
2. Provide IP65 rated lighting to 500 lux minimum
3. Wiring of automatic louvres [louvres provided by sub-contract specialist] to control panels
4. Provide 2 x 3 kw fan heaters, room stats to maintain temperature of room above 10c
5. 3 x Fire pump controller & initiation pressure switch wiring
6. 1 x jockey pump controller & initiation pressure switch wiring
7. Wiring of RAP located in pump room
8. Wiring of fire in pump room flow switch to RAP only.Trace heating and lagging of external exposed water filled pipework to BS EN 12845 clause 11.1.2.3
9. Immersion heaters x 2 wiring and control panel

Electrical works by client

1. Provide electrical 415v 63 supply to pump room DB. DB to be mounted on 100MM trunking to be continued by FVS electrical sub-contractor.
2. Provide onward signals from pump room monitoring control panel/s to the fire alarm panel / BMS.
3. Client to consult Insurer to establish if monitoring of stop valves controlling flow of water to the sprinklers is required. This has been excluded from the FVS tender, costs can be provided if required.



Section B-B

PUMP BEDPLATES TO BE GROUTED IN AFTER COMMISSIONED - BY TETROSYL'S BUILDER AS BELOW

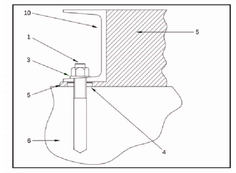
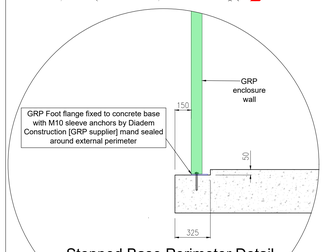
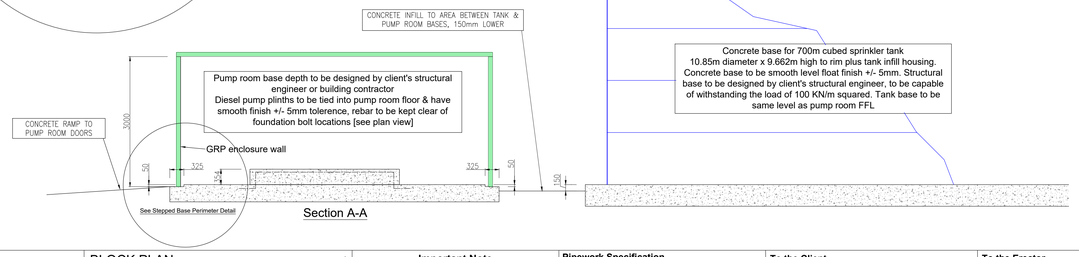


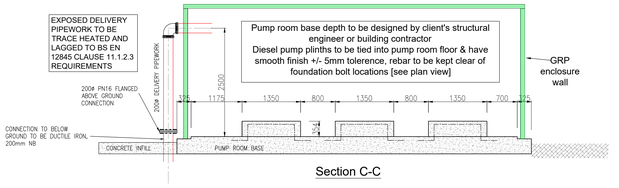
Figure TB210.F1 (d) 'C' channel section



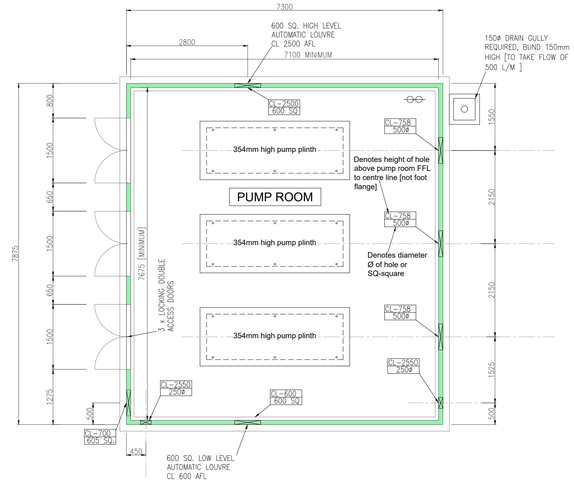
Stepped Base Perimeter Detail



Section A-A



Section C-C



GRP PUMP ROOM KIOSK GLAND PLATE SETTING OUT

LEGEND

- FVS-New Sprinkler Head – Installed on Rise or Drop
- FVS-New Sprinkler Head – Installed Upright
- FVS-New Sprinkler Head – Pendant Upright
- FVS-Riser / Drop
- FVS-Location of Valve Set
- FVS-New Sprinkler Pipe
- Existing Sprinkler Pipe
- A FVS-Bracket Location

BLOCK PLAN



Important Note

This drawing is confidential and the copyright of FVS Limited. The contents are not be used, or copied, for any purpose whatsoever, with the prior written consent of FVS Limited.

Weight of Pipe in kg/m - Filled with Water

Nominal Diameter (mm)	Steel Pipe (BS EN 10255)		
	Red Oxide Medium	Red Oxide Heavy	Galvanised Medium
25	3.02	3.49	3.07
32	4.15	4.77	4.22
40	4.98	5.71	5.06
50	7.37	8.41	7.47
65	10.40	11.74	10.53
80	13.81	15.56	13.96
100	21.42	23.48	21.61
150	38.84	40.20	39.13
200	68 kg/m [API 5L tube]		

Pipework Specification

- Tube up to and including 150mm Bore to be mild steel BS EN 10255, medium quality.
- Tube >200mm bore to be be API 5L, schedule 20
- Screwed pipe fittings to be BS EN 10242 black malleable iron, painted red oxide.
- All welded fittings to conform to BS EN 10253 and flanged joints to confirm to BS4505 Pt.1 NP16 Unless noted.
- Welding standards as per BS EN 12845 clause 17.1.3 & BS ISO 1461.
- Rolled grooved Joints to be installed/supported in accordance with manufacturers instructions.
- Grooved mechanical fittings to be LPCB/FM approved.
- All pipework and fittings to be painted 1 full coat red oxide primer.
- All piping installed below ground to be Ductile Spun Iron Lined/Unlined to BS4772 Tyton/Bolted Gland/Flanged Joints or HPPE as noted on plan

Client Reference Drawings

2021

To the Client

- FVS Limited do not accept any responsibility for damage caused by frost. Clients should take adequate precautions against water in the valves, pumps, tanks and pipework from freezing during severe weather.
- Unless otherwise agreed, it is the responsibility of the client to carry out all civils, builders and electrical works on this contract.
- Where sprinkler pipework and heads are fitted into solid ceilings, we recommend a 600mm square hatch is provided adjacent each head for access at a later date. If not provided by the Client, FVS Limited do not accept any responsibility or costs for access holes being required at a later date for any reason.
- It is the clients responsibility to advise FVS Limited of any services clash within 7 days of drawing issue.
- All pipework to be earthed and bonded in accordance with the requirements IEE regulations by the client.
- Temperature rating of the sprinkler head should always be at least 30°c above ambient temperature. It is the clients responsibility to inform FVS Limited where the ambient temperature will exceed 38°C

WARNING Sprinkler heads, multi jet controls, spray nozzles etc. must NOT be painted.

To the Erector

- Alterations and additions should not be made to the system without first contacting the design office.
- All sprinklers and controls are to be installed upright with the yoke arms parallel with the pipe, unless otherwise stated.
- Sprinkler deflector plates must be parallel with the roof/ceiling.
- All dry pipework to be installed with a slope for drainage as follows:
- Range pipework 25-50mm 4mm/metre
- distribution pipework >65: 2mm/1metre
- All dimensions shown are to the centre line of pipe.
- Pipework supports are to be installed in accordance with the LPC Rules.
- All arm pipes over 450mm long and riser/drops feeding single sprinklers over 600mm to be supported where possible.
- A minimum of 150mm clearance should be maintained between pipework supports and sprinkler heads [LPC] or 300mm [FM Global].
- Sprinkler deflectors shall be set out between 75-150mm below underside of ceiling or roof where possible and a maximum of 300mm from the ceiling/soffit where unavoidable for combustible ceilings and 450mm for non-combustible ceilings. If roof purlins present, deflectors to be set out 25mm below underside of purlin. If in doubt, consult a competent design engineer.

DESIGN SCHEDULE	See drawing J11950/01	SPRINKLER SCHEDULE	
Design Criteria	-	Area Protected	-
Occupancy	-	Area (m2)	-
Property Protection/Annex F	-	No. of Sprinklers	-
Scope of Works	-	Type	-
Hazard Classification	-	Thermal Sensitivity	-
Storage Configuration	-	Orifice Size/K Factor	-
Goods Category	-	Temperature Rating	-
Maximum Storage Height	-	Manufacturer	-
Clearance Below Spk Deflector	-	Reference/Part No.	-
Design Density of Discharge	-	BUILDING SCHEDULE	
Area of Operation	-		
Hydraulic Design	-	Internal Walls	-
Highest Spk above 'C' Gauge	-	External Walls	-
Water Supplies	-	Floors / Ceilings	-
Pump Duty/Flow Result	-		
Tank Capacity	-		
Valve No., Size & Type	-		

Assessed to ISO 9001 Cert/LPCB ref.151

LPS 1048 Cert/LPCB ref. ASC-031

A	For approval / comments	B	Foam tank space omitted, brick design revised to GRP enclosure, suction height revised to suit CST detail, plinth height raised to 354mm	C	Issued for tender Tank volume reduced to suit finalised hydraulic calculations.	D	
	Date 22/11/21		Date 06/09/22		Date 07/10/22		Date
	By M Lucas		By M Lucas		By M Lucas		By

E		F		G		H	
	Date		Date		Date		Date
	By		By		By		By

Design Installation Service Testing

Broom Street, Newhey, Rochdale, OL16 3RY

T: 01706 848 599 W: fvslimited.co.uk

Client: Tetrosyl Group Limited Bridge Hall Works Bury BL9 7NY	Title: Water Supplies sheet 2 of 2 Sprinkler pump room-tank bases builderswork & setting out details
Drawing No: J11950/02	Rev: C
Date: November 2021	Scale: 1:50
Sheet Size: A0	
Drawn By: M Lucas	Checked By: AW / GF
Order No: CAP 3126KB	

FVS Limited... Protecting Life & Property from Fire for over 35 Years