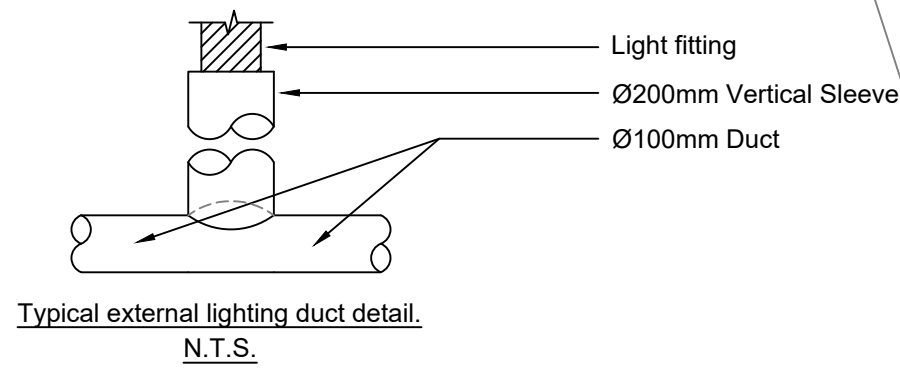
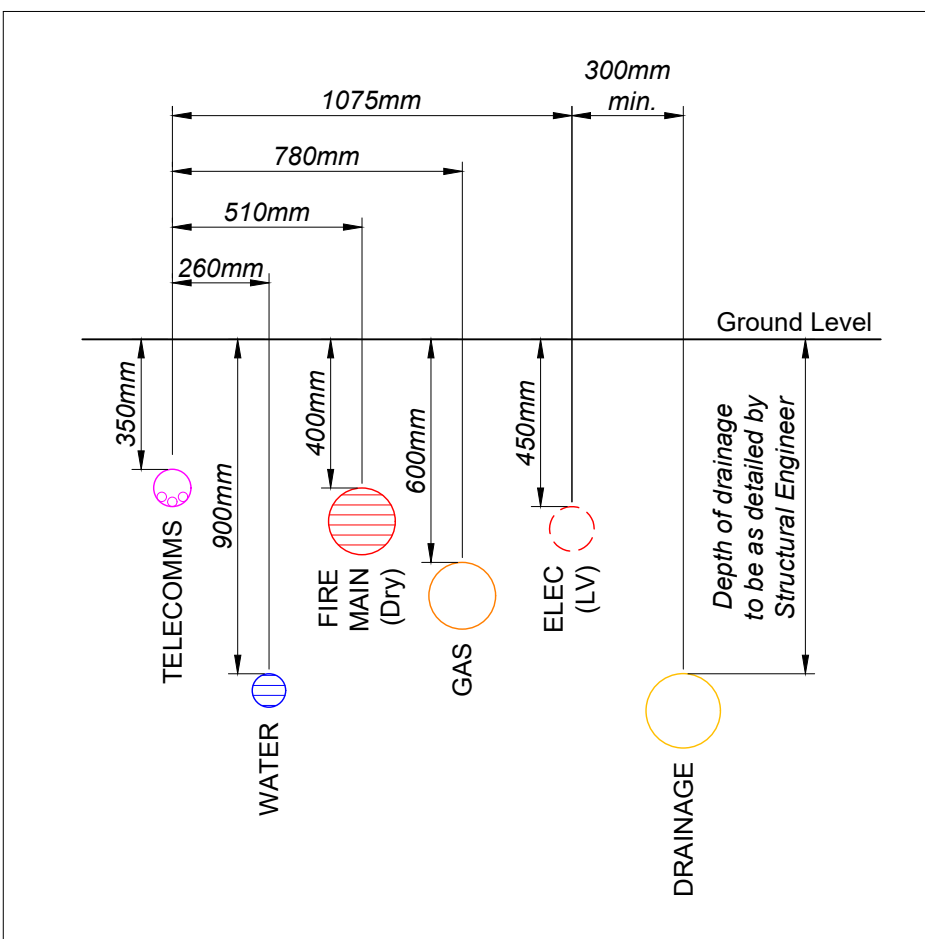


TYPICAL DETAIL OF RECOMMENDED ARRANGEMENT OF MAINS IN SERVICE TRENCH

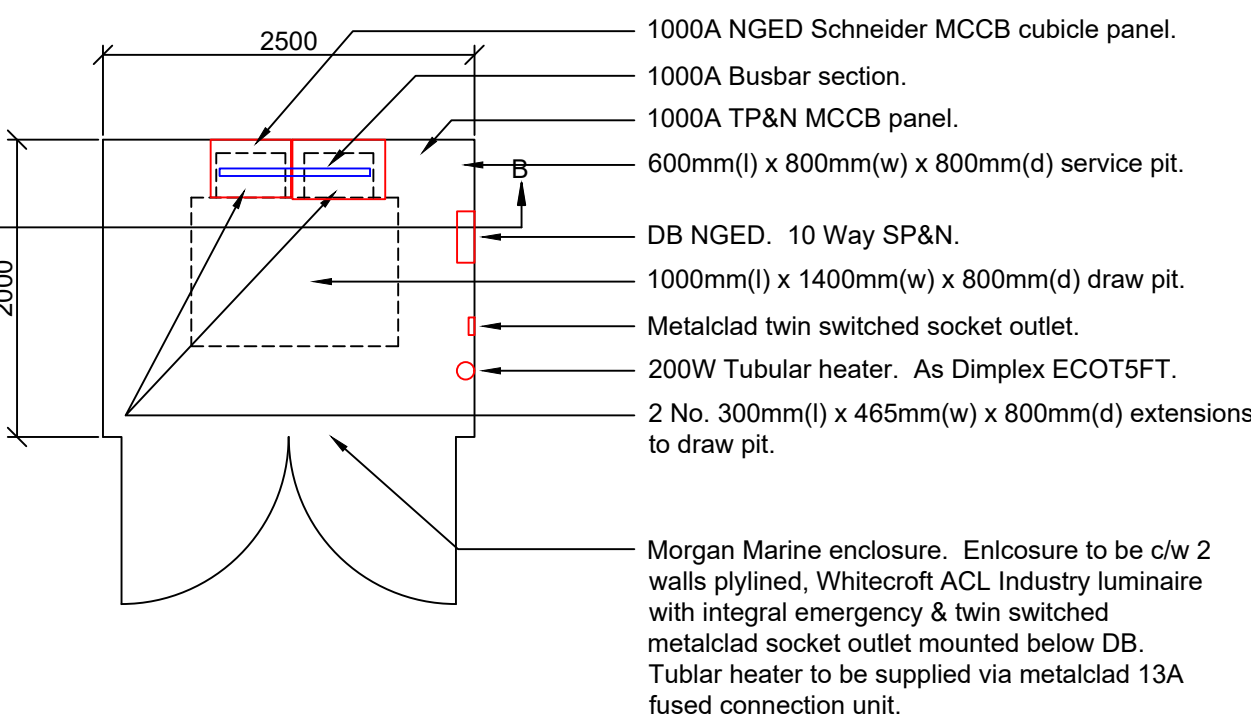
Pipe Trench and Backfilling

- Trench width to be a minimum 300mm for pipes up to 150mm and extend at least 150mm beyond the pipe run. Contractor to determine safe excavation method to suit trench width and depth.
- Pipes should be laid on a 100mm bed of sand or stone dust, where the ground conditions are such that the trench contains sharp objects. Pipes should then also be backfilled with sand or stone dust up to a point that is 150mm above the crown of the pipe. The remainder of the backfill material can then be excavated material providing that any sharp objects are removed from it prior to use.
- Stones, bricks and other sharp objects should not be used as backfill material as leaks can be caused when sharp objects rub up against the pipe.
- Plastic pipes to have corrosion resistant detectable location marker laid over pipework to assist in identifying the route of buried services.
- All buried services to have marker warning tapes identifying the service type as BS 1710 laid at least 150mm above the service.
- If in a combined trench, electrical services could be either on the right or left of mechanical services.
- If in a combined trench, bedding and fill layers can be adjusted to suit with deeper compact soft fill layer covering both mechanical and electrical services with top cover layer over.



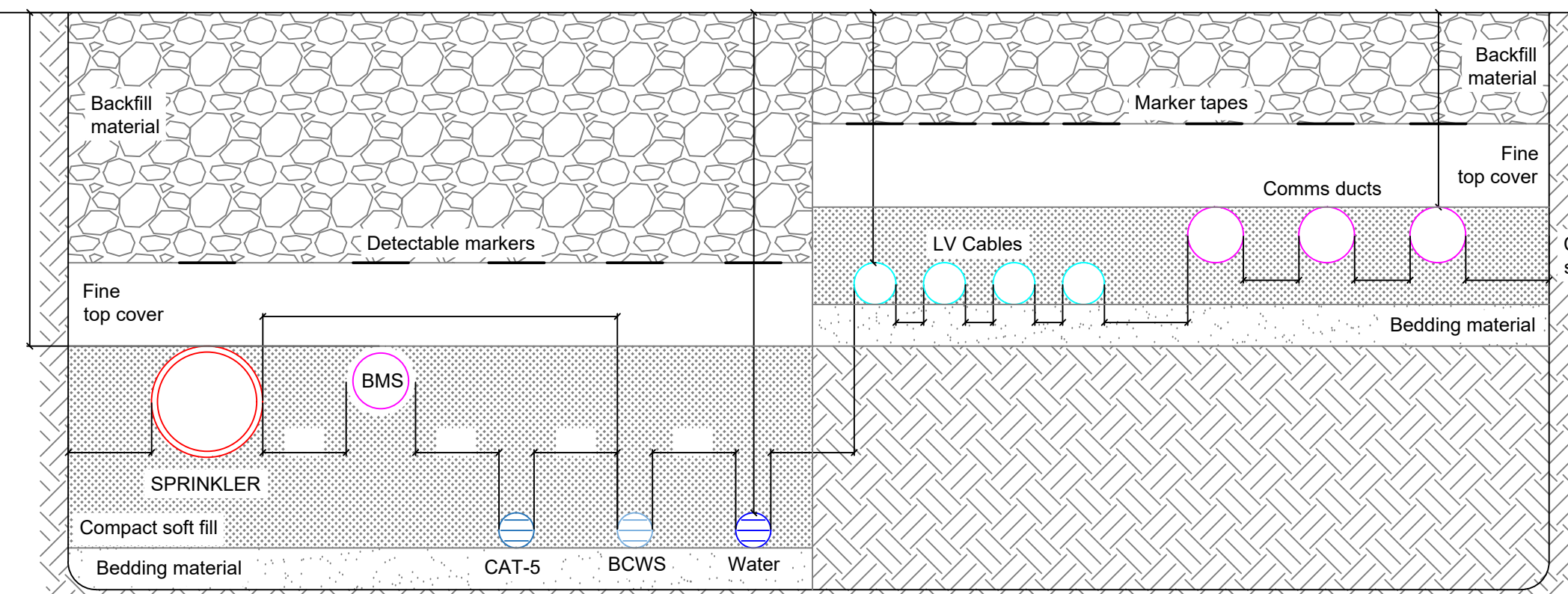
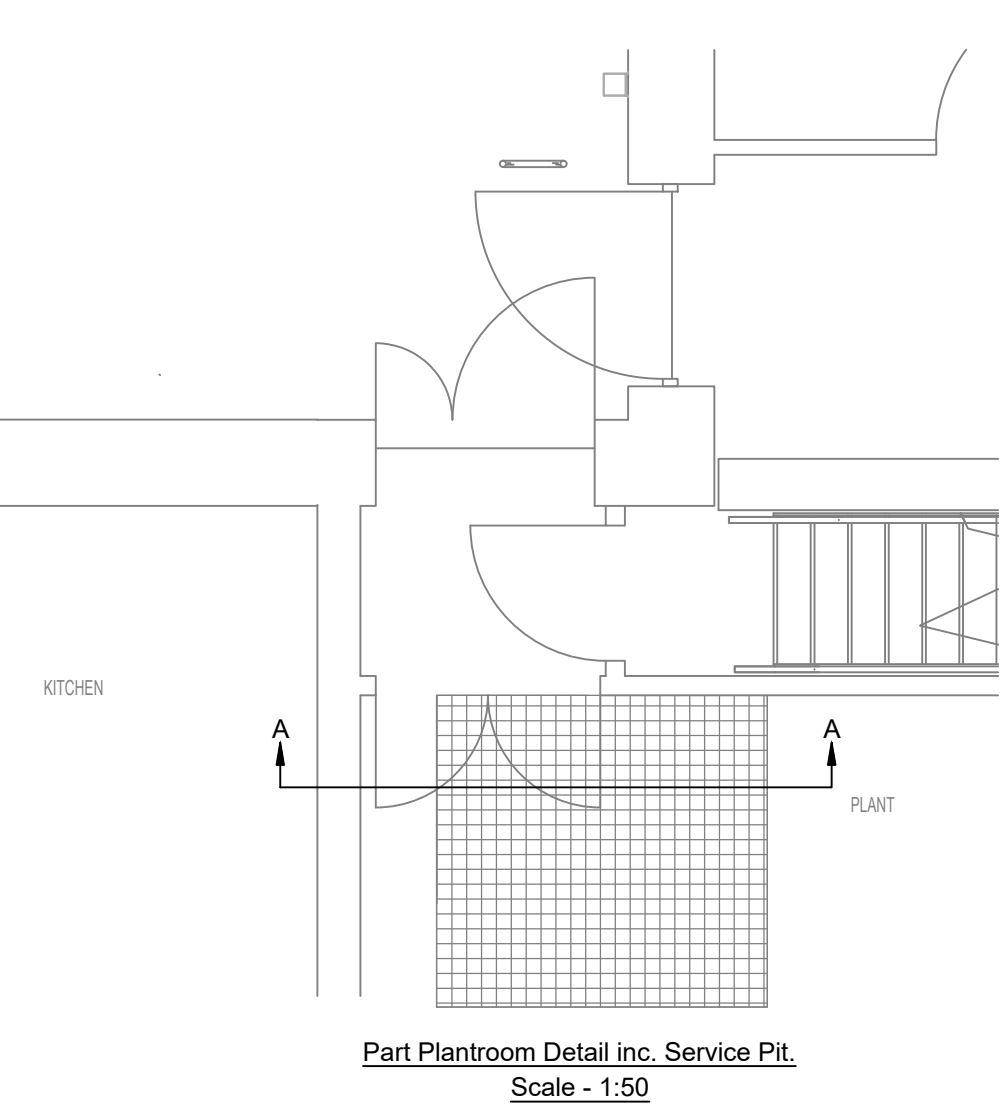
Section B-B (through GRP Enclosure)

Scale - 1:50



External GRP Incoming NGED Enclosure

Scale - 1:50



Typical combined services trench

(Not to scale)

Pipe Trench and Backfilling

- Trench width to be a minimum 300mm for pipes up to 150mm and extend at least 150mm beyond the pipe run. Contractor to determine safe excavation method to suit trench width and depth.
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- If in a combined trench, bedding and fill layers can be adjusted to suit with deeper compact soft fill layer covering both mechanical and electrical services with top cover layer over.

Health & Safety Hazards and Risks

All works indicated on this drawing are to be carried out by a Contractor competent to undertake the works.  
Specific hazards relating to the works are indicated on this drawing.  
These are in addition to the normal hazards and risks faced by a competent person or contractor when dealing with the types of works indicated on this drawing.

General Notes

- Do not scale from this drawing.
- All dimensions are in millimetres unless stated otherwise.
- Prior to commencing any works all relevant dimensions & site features are to be verified against contractual information.
- All proprietary components are to be installed in accordance with the Manufacturer's current written instructions.

Health and Safety Notes

No excavations are to commence until the contractor has satisfied himself that existing below ground services have been identified. The contractor must satisfy himself that he has taken all appropriate steps to identify existing below ground services prior to commencing any excavations.  
Hand digging may be required where the location of below ground services is uncertain.

Exact routes for all below ground pipework to be agreed on site to suit site constraints. Ensure "as installed" routes are recorded.

Schedule of Symbols

- NGED - HV. Direct buried. Indicative route taken from NGED drawing: 5103180.1
- NGED - LV. Direct buried.
- Client - LV (incoming sub-main cables from external MCCB Cubicle panel). Direct buried.
- LV Ducts (150mmØ. External services - Sub-mains, Lighting, CCTV, etc).
- BT Ducts (150mmØ. Incoming Fibre & Dark Fibre).
- Data / Comms Ducts (150mmØ. External services, CCTV, EV Charging, etc).
- MCWS. 63mmØ MDPE. Direct buried.
- Fire Main (to sprinkler tank). 63mmØ MDPE (min. inflt 18/min). Direct buried.
- Fire Main (from sprinkler tank). 180mmØ OD (to be confirmed by specialist). Direct buried.
- Cat 5 Wash down. 20mmØ MDPE. Direct buried.
- BMS Ducts (150mmØ).
- Rain Water Harvesting 50mmØ Black & Green MDPE. Direct buried.

- External Lighting. Column mounted. See external electrical services drawing for details.
- External CCTV. Column mounted. See external electrical services drawing for details.
- Twin EV Charger location. See external electrical services drawing for details.
- ⊗ Cable chamber / draw pit location.

| Rev | Date       | Description                               | By |
|-----|------------|-------------------------------------------|----|
| C24 | 21.01.2024 | Indicative RWHP pipe route added          | MC |
| C23 | 27.11.2023 | Indicative RWHP pipe route added          | MC |
| C22 | 10.11.2023 | Updated in line with MS comments          | MC |
| C21 | 02.08.2023 | Construction issue.                       | MC |
| P3  | 29.08.2023 | Preliminary issue for review and comment. | MC |
| P2  | 22.05.2023 | Preliminary issue for review and comment. | MC |
| P1  | 20.05.2023 | Preliminary issue for review and comment. | MC |

| Suitability Number Key                 |
|----------------------------------------|
| WIP                                    |
| SU - Work in Progress *                |
| Shared                                 |
| S1 - Fit for co-ordination **          |
| S2 - Fit for information               |
| Archive                                |
| S3 - Fit for internal review & comment |
| S4 - Fit for construction approval     |
| Documentation                          |
| D1 - Fit for costing                   |
| D2 - Fit for tender                    |
| D3 - Fit for Contractor design         |
| D4 - Fit for manufacture / procurement |

| BS 1192:2007                           |
|----------------------------------------|
| Documentation Sign-off                 |
| A - Fit for construction               |
| B - Fit for construction with comments |
| C - Comprehensive revisions needed     |
| AB - As Built                          |
| FC - Final construction                |
| ** For internal pre-issue usage only   |
| ** For model file usage only           |

|               |                                       |
|---------------|---------------------------------------|
| Project Title | Goetre Primary School                 |
| Client        | Merthyr Tydfil County Borough Council |
| Drawing Title | M&E Site Plan                         |
|               | External Service Routes               |

|         |                                                                 |
|---------|-----------------------------------------------------------------|
| Client  | Mitie Technical Services Ltd                                    |
| Address | Canton House<br>435-451 Cowbridge Road East<br>Cardiff CF11 1JH |
| Phone   | Tel: 029 2022 1431<br>Fax: 029 2023 7644                        |
| Website | www.hollowaypartnership.co.uk                                   |

|                                                        |                            |
|--------------------------------------------------------|----------------------------|
| Discipline                                             | Mechanical & Electrical    |
| Scale                                                  | 1/250/1:50                 |
| Job Number                                             | 252615                     |
| Date                                                   | July 2025                  |
| Drawing Status                                         | Construction               |
| Suitability                                            | A                          |
| Revision                                               | C04                        |
| Project - Origin - Zone - Level - Type - Role - Number | 28CB01-MIT-30-XX-D-OE-0001 |