



WASTEWATER PUMPING STATION, COMPRISING 1.8m x 2.5m REINFORCED CONCRETE PUMPING STATION WITH ADJACENT VALVE CHAMBER OF SAME SIZE. DUTY AND STANDBY PUMPS REQUIRED. EXPLOSION PROOF PUMPS SHOULD BE CAPABLE OF HANDLING WASTEWATER AND UNSCREENED RAW SEWAGE, CONTAINING SOLIDS UP TO 80mm THICK. ULTRASOUND LEVEL CONTROLLER & TRANSDUCER HEAD WITH HIGH LEVEL ALARM TO BE LINKED TO TELEMETRY SYSTEM.

PEAK FLOW = 2.900 l/s
COVER LEVEL = 71.050m
INLET LEVEL = 69.064m
OUTLET LEVEL = 69.750m
SUMP LEVEL = 68.718m
RISING MAIN DISTANCE = 20.150m
STATIC HEAD = 1.850m

35.0m³ EMERGENCY STORAGE PROVIDED IN 2 No. GRP UNDERGROUND TANKS, EACH 1.8m Ø x 6.900m LONG. OVERFLOW FROM EACH TANK TO CONNECT TO WET WELL AT LEVEL OF 69.168m VIA 160mm Ø uPVC PIPEWORK. 160mm Ø uPVC DRAIN DOWN PIPEWORK LOCATED AT BOTTOM OF TANK LEVEL = 67.518m. NON-RETURN VALVES TO BE INSTALLED AT DRAIN DOWN OUTLETS WITHIN PUMP STATION

PE100 SDR17 HDPE (DIAMETER TBC BY SUPPLIER) WITH ELECTROFUSION JOINTS. RISING MAIN FROM PUMPING STATION TO BE LAID BENEATH LEVEL B2 SLAB, THEN PENETRATE THE BASEMENT WALL AT UNDERSIDE OF LEVEL 0G SLAB BEFORE CONNECTING TO NEW DISCHARGE CHAMBER F1 AT GROUND LEVEL

DO NOT SCALE FROM THE DRAWING. ONLY FIGURED DIMENSIONS ARE TO BE USED.
ALL DIMENSIONS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR.
ALL DIMENSIONS ARE IN MILLIMETERS U.N.O.
THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.

- LEGEND**
- PROPOSED SURFACE WATER DRAINAGE PIPEWORK
 - 110mm Ø uPVC CONNECTING SURFACE WATER PIPEWORK
 - PROPOSED FOUL WATER DRAINAGE PIPEWORK
 - 110mm Ø uPVC CONNECTING FOUL PIPEWORK
 - PROPOSED FOUL WATER RISING MAIN FROM PUMPING STATION
 - EXISTING PUBLIC FOUL SEWER
 - EXISTING PRIVATE FOUL SEWER
 - EXISTING PUBLIC STORM SEWER
 - EXISTING PRIVATE STORM SEWER
 - EXISTING SEWER TO BE ABANDONED
 - INSPECTION CHAMBER CONNECTED TO DIFFUSER BOX
 - MANHOLE CHAMBER
 - CATCH PIT CHAMBER
 - PRECAST CONCRETE ROAD GULLY WITH 160mm Ø uPVC CONNECTING PIPE
 - RWP RAINWATER DOWNPIPE
 - SVP WASTE WATER UPSTAND
 - FG INTERNAL FLOOR GULLY
 - BIGT BACK INLET GULLY TRAP
 - AREA OF TYPE C PERMEABLE PAVEMENT CONSTRUCTION (REFER TO DETAILS)
 - AREA OF IMPERMEABLE CATCHMENT DRAINING TO PERMEABLE PAVEMENT
 - TYPE 5 NARROW FIN DRAIN
 - 110mm Ø PERFORATED STRUCTURED WALL PIPE BEHIND RETAINING WALLS
 - TYPE H FILTER DRAIN WITH 225mm Ø STRUCTURED WALL PERFORATED PIPE
 - uPVC SQUARE TOP RODDING EYE TO SUIT PIPE DIAMETER

NOTES

THE EXACT LOCATION OF THE EXISTING DRAINAGE IS TO BE DETERMINED ON SITE BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS, AND ANY CHANGES TO BE NOTIFIED TO THE ENGINEER. THE EXISTING DRAINAGE NETWORK WITHIN THE SITE SHOULD BE SURVEYED BY CCTV, AND A DRAWING SHOWING THE ROUTES SHOULD BE SUBMITTED TO THE CIVIL ENGINEER.

WHERE EXISTING MANHOLES WITHIN THE SITE ARE TO BE RETAINED, THEY MUST BE RE-BUILT UP TO THE PROPOSED GROUND LEVEL, AND BE FITTED WITH NEW CAST IRON COVERS TO THE APPROVAL OF THE CIVIL ENGINEER.

ANY EXISTING PIPEWORK WHICH CANNOT BE REMOVED, WITH THE AGREEMENT OF THE CIVIL ENGINEER, MAY BE CAPPED AND PUMPED FULL OF LEAN MIX CONCRETE.

WHERE A MANHOLE CHAMBER IS LOCATED IN AN AREA SURFACED WITH PAVING BLOCKS, A DUCTILE IRON RECESSED COVER SHOULD BE USED, AND INFILLED APPROPRIATELY.

THE EXACT LOCATION AND TYPE OF INTERNAL FOUL DROPS TO BE CONFIRMED BY M+E ENGINEER PRIOR TO CONSTRUCTION. LOCATIONS ON THIS DRAWING ARE INDICATIVE ONLY.

THE EXACT LOCATIONS OF RAINWATER DOWNPIPES, TYPE AND EXACT ROUTE OF INTERNAL PIPEWORK FROM SANITARY APPLIANCES, UPSTANDS AND SVPs TO BE CONFIRMED BY ARCHITECT PRIOR TO CONSTRUCTION. LINES ON THIS DRAWING ARE INDICATIVE ONLY.

CONTRACTOR TO MAKE ALLOWANCES FOR ALL UNDERGROUND PIPEWORK AND FITTINGS (I.E. WC, WHB, SINKS ETC.) WHICH CONNECT FROM INTERNAL APPLIANCES TO MAIN BUILDING DRAINAGE. TO M+E ENGINEER'S SPECIFICATION.

ALL DRAINAGE TO BE LAID IN ACCORDANCE WITH TECHNICAL BOOKLET H OF THE BUILDING REGULATIONS.

ALL HORIZONTAL BENDS IN PIPEWORK SHOULD BE 45° OR 90° SWEEPING LONG RADIUS TYPE.

VERTICAL BENDS AT BASE OF WASTE WATER STACKS SHOULD BE 87.5° DOUBLE SOCKET REST BENDS.

A RODDING EYE SHOULD BE LAID AT THE HEAD OF EACH LAND DRAINAGE RUN, AND THE MANHOLE INTO WHICH THE LINE CONNECTS SHOULD BE A CATCH PIT CHAMBER

110mm Ø PERFORATED TWINWALL PIPE TO BE LAID TO 'HIGH' SIDE OF ALL RETAINING WALLS. FOR EXACT LOCATION OF PIPE PLEASE REFER TO STRUCTURAL DRAWINGS.

- HAZARD IDENTIFICATION NOTES**
- 1 WORKING ON LIVE SEWERS**
Only personnel with confined space entry certification are permitted to enter manholes or similar confined spaces.
Site personnel to work in pairs at all times when working at live sewers here.
 - 2 WORKING ON PUBLIC ROAD**
All services should be traced and located on site prior to works commencing, this should include hand excavation to visually locate critical services. All excavation should be carried out on the basis that unknown services are present until confirmed otherwise.
 - 3 STABILITY OF PLANT**
Only certified, experienced drivers are to operate plant on site. Appropriate certificates for plant operators must be included in the health and safety plan for inspection.
Movement on slopes is to be restricted to up and down the bank only. If steep they must not be traversed.
 - 4 WORKING AT HEIGHT**
Contractor to provide safe working platforms, and secure edge protection, to the sides of all working excavations.
 - 5 STABILITY OF EARTH FACE**
Site investigation to be referenced.
Excavations greater than 1.2m should be supported by timbering and props or similar proprietary system.
Spoil should not be heaped immediately to the side, a gap equal to the depth of excavation should be left.
All open trenches or holes should be protected with barriers to prevent site personnel and plant falling in.
Trench fill excavations should be refilled with concrete as they are excavated.
 - 6 DRAINAGE WORKS**
The drainage works will require deep excavations, as per usual work methods, any excavation over 1.2m must have side support and works must be undertaken in accordance with standard safe working practices. In certain ground conditions support will be required for trenches less than 1.2m.
The contractor must employ suitable techniques for the ground conditions encountered and provide suitable detailed method statements.
 - 7 DISPOSAL OF SOIL**
Information is not currently available to determine if contamination is a problem. The contractor cannot assume that the ground is contamination free. Investigations must be undertaken before construction commences and the spoil dealt with accordingly.
OR
The ground is known to contain contaminants harmful to human, plant and animal life. Contamination experts must be used to deal with this material and materials must only be moved to licenced contamination dumps. Proof will be required.
- NOTE:**
EVERYDAY OR LOW RISK HAZARDS HAVE NOT BEEN INDICATED ON THIS DRAWING, NEITHER HAVE HAZARDS THAT SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR.
SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED THE CONTRACTOR SHOULD NOTIFY ALL THE RELEVANT PROJECT TEAM LEADERS.

P2	ISSUED FOR PLANNING	09.09.22	CL	AnH
P1	ISSUED FOR PLANNING	22.10.21	CL	AnH
Rev	Amendment	Date	By	Chk

TAYLOR+BOYD
Consulting Structural and Civil Engineers
www.taylor-boyd.co.uk
Belfast: (028) 9066 7951 Derry: (028) 7126 7115

Status: **FOR APPROVAL**

Project: **RESIDENTIAL ACCOMMODATION, MONASTERY ROAD, DUBLIN**

Dwg Name: **BELOW GROUND DRAINAGE LAYOUT (LEVEL B1)**

Client/Architect: **DUDDY GROUP / SHANE BIRNEY ARCHITECTS**

Scale: (@ A1)	Date:	Drawn:	Checked:
1:200	OCTOBER 2021	CL	AnH
Drawing No:	19818-(P1)C201	Rev:	P2