

Installation requirements
For the ESB-owned cable route:

ESB-approved 125 mm red solid-wall uPVC duct.
No corrugated or flexible ducting.
Long-radius ESB-approved bends, generally 1.2 m radius.
Continuous 12 mm polypropylene draw rope, knot-free and secured at both ends.
Duct cleaned, grooved and capped before cable installation.
ESB-approved yellow warning tape approximately 300 mm below finished ground level.
Maintain at least 300 mm clearance from other services, subject to ESB approval.
Provide an ESB-approved draw-in chamber where required by ESB Networks.
Duct depth and concrete surround at the pole to be agreed with ESB Networks.
The final upright section at the pole is normally installed or completed by ESB Networks.
For the customer cable between the metering pillar and control panel:
Use a 110 mm heavy-duty red smooth-bore duct as a minimum.
Size the power cable separately for load, starting current, voltage drop and fault protection.
Seal both duct ends against water, gas and vermin.
Keep the power duct separate from telemetry and instrumentation ducts.
Provide a separate 50 mm duct for telemetry/data cables where required.
Avoid intermediate joints in the pump supply cable.
Drawing note
Provide 1 No. 125 mm internal-diameter ESB Networks-approved red solid-wall uPVC duct from the proposed ESB supply pole to the ESB mini-pole/service chamber and from the ESB mini-pole to the customer service and metering pillar. Provide 2 No. 110 mm heavy-duty red smooth-bore customer cable duct and 1 No. 50 mm spare communications duct from the customer service pillar to the booster pump control panel. All ESB duct sizes, numbers, routes, depths, chambers, bends, draw ropes, warning tape and pole-entry arrangements shall be confirmed with ESB Networks before construction.

Supply and install 1 no. 125mm internal diameter ESB approved red solid wall uPVC duct. All ESB duct sizes, numbers, routes, depths chambers, bends, draw ropes, warning tape and pole entry arrangements shall be agreed and confirm with ESB by appointed contractor

NOTE:
UE TO CONNECT NEW WATERMAIN INTO EXISTING MAINS ONLY AFTER TESTING AND CHLORINATION HAS TAKEN PLACE AND CERTIFIED. SLUICE VALVE(GATE) TO BE POSITIONED WITHIN 10M OF CONNECTION POINT.

Construct new Sluice Valve chamber and cover and install new 100mm diameter sluice valve and associated fittings on new 100mm diameter watermain. Install marker post.

Construct new off-line Fire Hydrant chamber and cover and install new 75mm diameter off-line Fire Hydrant and associated fittings on new 100mm diameter watermain. Install marker post.
Note:
This Hydrant is a dedicated washout hydrant.

Proposed Booster Pump Arrangement
The proposed arrangement shall be in accordance with Uisce Eireann Requirements and STD-W-25 Rev3. The schematic above should be used as a guide but final layout to be agreed with Uisce Eireann prior to installation.
Also refer to pricing document for general items to be included for the booster pump set and arrangements

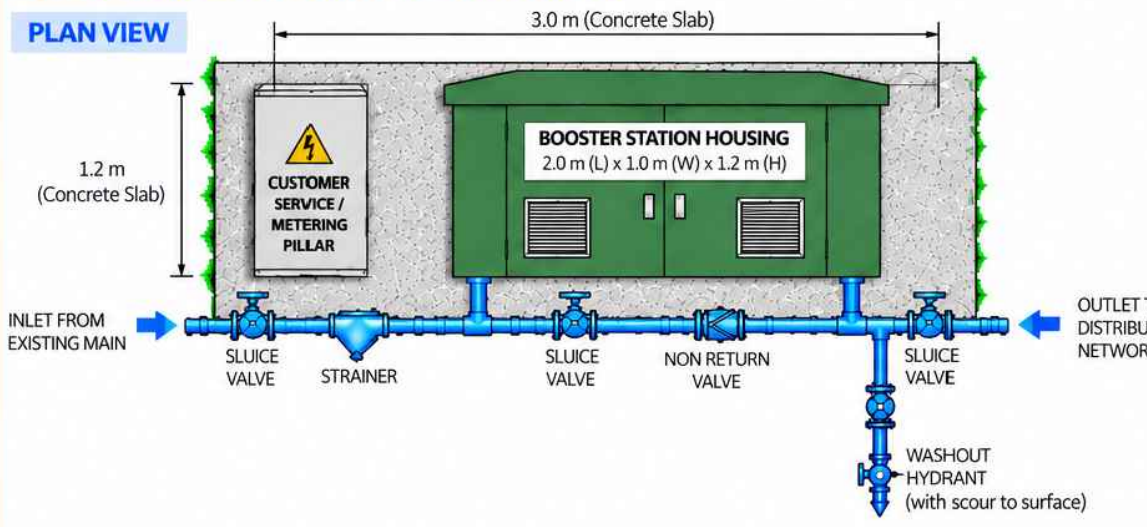
INSTALL NEW BOUNDARY BOX, WATER METER PRV VALVE AND MARKER POST ALL AS PER SPECIFICATION AND TO UE STANDARDS AND CONNECT INTO NEW 100PE MAINS

Construct new off-line Fire Hydrant chamber and cover and install new 75mm diameter off-line Fire Hydrant and associated fittings on new 100mm diameter watermain. Install marker post.

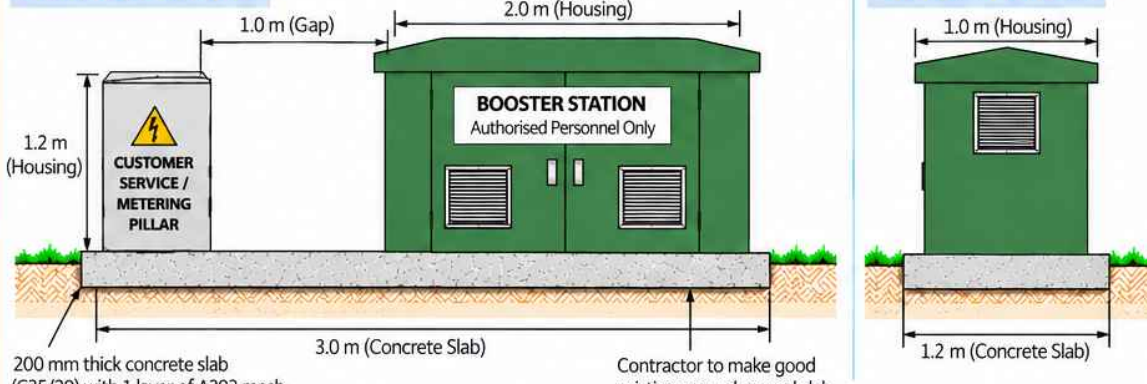
REMOVE EXISTING DOMESTIC BOUNDARY BOX AND INSTALL NEW BOUNDARY BOX, WATER METER PRV VALVE AND MARKER POST ALL AS PER SPECIFICATION AND TO UE STANDARDS AND CONNECT INTO NEW 100PE MAINS

RAHEEN GROUP WATER SCHEME
BOOSTER STATION – TYPICAL ARRANGEMENT
(AS PER UISCÉ ÉIREANN STD-W-25 REV 3)

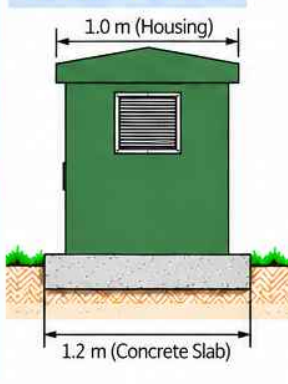
PLAN VIEW



FRONT ELEVATION



SIDE ELEVATION



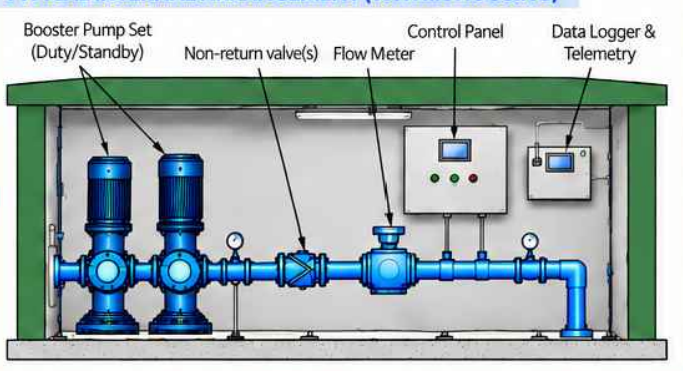
NOTES:

- Arrangement to comply with UISCÉ ÉIREANN STD-W-25 Rev 3 and associated specifications.
- Housing (look): 2.0 m (L) x 1.0 m (W) x 1.2 m (H) on 3.0 m x 1.2 m concrete slab.
- Provide a proprietary external customer service and metering pillar suitable for the approved three-phase supply and metering arrangement (to ESB Networks requirements).
- The ESB Networks mini-pillar is not required unless specified by ESB Networks. Where ESB Networks requires a mini-pillar, it shall be provided in accordance with ESB Networks requirements and located a minimum of 2.0 m from the customer service pillar.
- Incoming main to include sluice valve, strainer and branch to booster pump housing.
- Booster discharge to include non-return valve(s), flow meter and sluice valve after pumps.
- External bypass arrangement to include sluice valves, non-return valve, flow meter and washout hydrant as per UISCÉ ÉIREANN STD-W-25.
- Sluice valves to be used (not isolation valves).
- Concrete slab to be 200 mm thick, C35/20, with 1 layer of A393 mesh.
- Contractor to supply and install slab and make good existing ground around same.
- All pipework, valves and fittings to potable water standard.
- Provide adequate access, ventilation, heating and lighting.
- Final layout, levels and details to be confirmed at detailed design stage.
- Customer cables and ducts shall not pass through any ESB Networks mini-pillar vault.
- See Pricing Document for full booster pump requirements.

KEY:



TYPICAL INTERNAL ARRANGEMENT (WITHIN HOUSING)



ELECTRICAL SUPPLY NOTE:

Provide a proprietary external three-phase customer service and metering pillar suitable for the approved Maximum Import Capacity and metering arrangement.
The ESB Networks mini-pillar is not required unless specified by ESB Networks. Final point of connection, supply cable size, ducting, duct number, duct diameter, metering arrangement and earthing requirements shall be agreed with ESB Networks prior to construction. Where ESB Networks requires a mini-pillar, it shall be provided in accordance with ESB Networks requirements and located a minimum of 2.0 m from the customer service pillar.

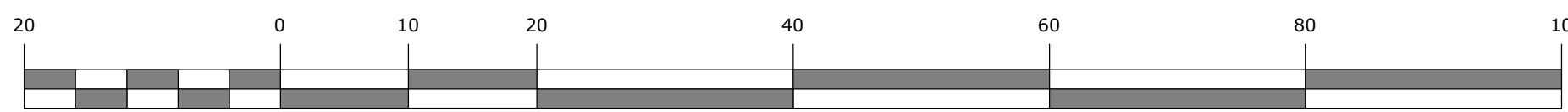
NOTES

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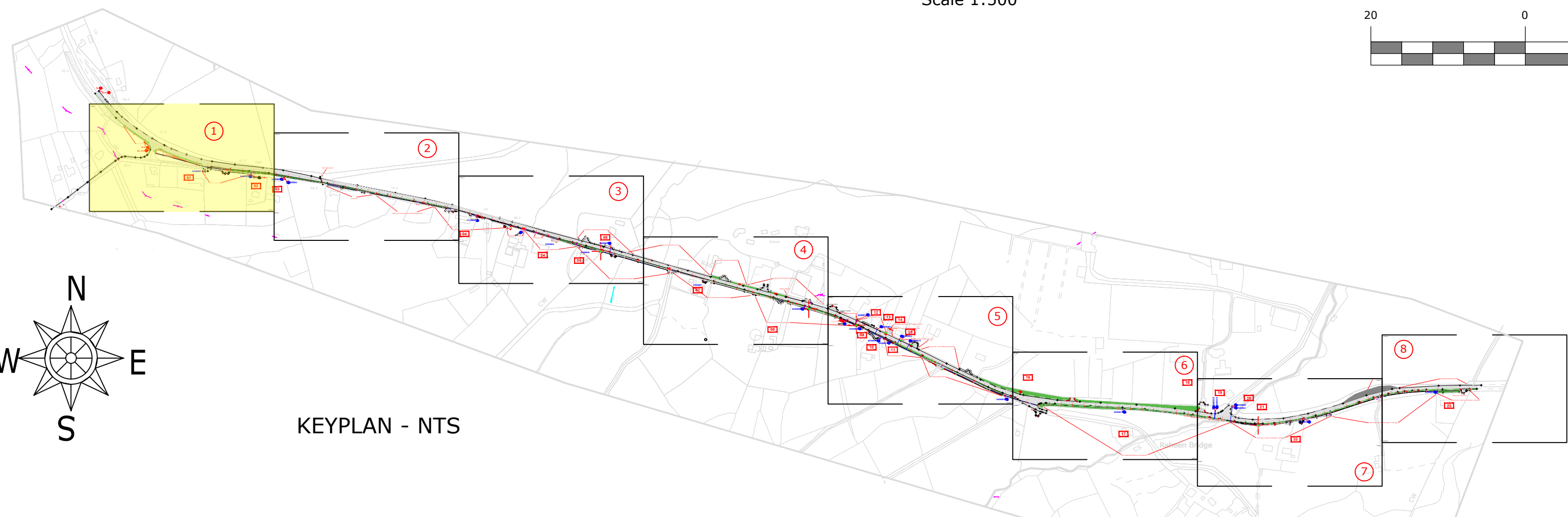
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GENERAL NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES AND ALL LEVELS ARE IN METRES UNLESS NOTED OTHERWISE. DO NOT SCALE FROM THIS DRAWING. FIGURED DIMENSIONS SHALL TAKE PRECEDENCE.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LEVELS, ALIGNMENTS, EXISTING SERVICES AND SITE CONDITIONS PRIOR TO COMMENCEMENT OF THE WORKS. ANY DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING.
- THE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE CONTRACT DRAWINGS, WORKS REQUIREMENTS, CIVIL ENGINEERING SPECIFICATION, BILL OF QUANTITIES, CURRENT Uisce Eireann REQUIREMENTS, APPLICABLE IRISH/EUROPEAN STANDARDS, ROAD OPENING LICENCE CONDITIONS AND THE REQUIREMENTS OF THE RELEVANT STATUTORY AUTHORITIES.
- ALL WATER INFRASTRUCTURE SHALL COMPLY WITH THE CURRENT Uisce Eireann CODE OF PRACTICE FOR WATER INFRASTRUCTURE LOCATION AND WATER INFRASTRUCTURE STANDARD DETAILS, INCLUDING ANY PROJECT-SPECIFIC REQUIREMENTS OR DEPARTURES APPROVED BY Uisce Eireann.
- THE CONTRACTOR SHALL CONFIRM THE LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND AND OVERHEAD SERVICES BEFORE EXCAVATION. SERVICE DRAWINGS ARE INDICATIVE ONLY. CAT/GPR SURVEYING AND TRIAL HOLES SHALL BE UNDERTAKEN AS NECESSARY. EXISTING SERVICES SHALL BE PROTECTED AND SUPPORTED DURING THE WORKS.
- PROPOSED WATERMAINS SHALL BE PERIODICALLY TESTED FOR LEAKS. COMPONENTS SHALL BE SUITABLE FOR POTABLE WATER SERVICE AND SHALL COMPLY WITH THE SPECIFICATION AND Uisce Eireann REQUIREMENTS.
- UNLESS OTHERWISE SHOWN OR APPROVED, MINIMUM COVER TO WATERMAINS SHALL BE AS INDICATED ON THE CONTRACT DRAWINGS. PARTICULAR ATTENTION SHALL BE GIVEN TO ROAD CROSSINGS. EXISTING CULVERTS, SERVICES AND OTHER LOCATIONS WHERE REDUCED COVER MAY OCCUR, NO REDUCED-COVER ARRANGEMENT SHALL BE CONSTRUCTED WITHOUT THE ENGINEER'S APPROVAL.
- PIPE TRENCHES, REDDING, HAUNCHING, SURROUND, BENDS, AND COMPACTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT SPECIFICATION, Uisce Eireann STANDARD DETAILS AND THE REQUIREMENTS OF THE ROAD OPENING LICENCE WHERE APPLICABLE.
- ALL VALVES, HYDRANTS, AIR VALVES, WASHOUTS, METERS, BOUNDARY BOXES, PRV, CHAMBERS, MARKER POSTS AND ASSOCIATED FITTINGS SHALL BE INSTALLED AT THE LOCATIONS SHOWN OR AS AGREED WITH THE ENGINEER ON SITE.
- THE CONTRACTOR SHALL MAINTAIN THE EXISTING WATER SUPPLY TO CONSUMERS THROUGHOUT THE WORKS. CONNECTIONS, SHUTDOWNS AND CHANGEDOVERS SHALL BE PLANNED AND AGREED IN ADVANCE WITH THE EMPLOYER, ENGINEER AND Uisce Eireann WHERE APPLICABLE.
- EXISTING WATER INFRASTRUCTURE SHALL NOT BE ABANDONED, DISCONNECTED OR DECOMMISSIONED UNTIL THE NEW WORKS HAVE BEEN SUCCESSFULLY PRESSURE TESTED, FLUSHED, DISINFECTED, WATER-QUALITY TESTED, COMMISSIONED AND AUTHORISED FOR USE.
- ALL ROAD AND FOOTPATH OPENINGS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE ROAD OPENING LICENCE AND THE GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS ('PURPLE BOOK'). PERMANENT REINSTATEMENT SHALL COMPLY WITH THE APPLICABLE STANDARD DETAIL, INCLUDING SD6, SD7 AND SD11, AS RELEVANT TO THE LOCATION AND TYPE OF OPENING.
- EXISTING BITUMINOUS FOOTPATHS SHALL BE REINSTATED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SD11, WHERE REQUIRED BY THE ROAD OPENING LICENCE. FULL WIDTH FOOTPATH REINSTATEMENT SHALL BE PROVIDED.
- DOMESTIC/PRIVATE VEHICULAR ENTRANCES AFFECTED BY THE WORKS ARE TO BE REINSTATED IN BITUMINOUS CONSTRUCTION. AT VEHICULAR CROSSINGS THE AC10 FOOTWAY CONSTRUCTION SHALL BE INCREASED TO A TOTAL SURFACE DEPTH OF 100 mm, SUBJECT TO THE ROAD OPENING LICENCE REQUIREMENTS.
- TRANSVERSE OPENINGS IN THE R461 SHALL BE PERMANENTLY REINSTATED IN ACCORDANCE WITH PURPLE BOOK SD7. LONGITUDINAL OPENINGS AT HEAVY-DUTY ROADWAY LOCATIONS SHALL BE REINSTATED IN ACCORDANCE WITH SD6, SUBJECT IN ALL CASES TO THE ROAD OPENING LICENCE.
- ALL TRAFFIC MANAGEMENT SHALL COMPLY WITH CURRENT STATUTORY AND ROAD AUTHORITY REQUIREMENTS. SAFE VEHICULAR AND PEDESTRIAN ACCESS SHALL BE MAINTAINED. THE EXISTING PEDESTRIAN FOOTPATH ROUTE SHALL BE KEPT SAFELY OPERATIONAL THROUGHOUT THE WORKS, EXCEPT FOR SHORT-DURATION CONTROLLED CLOSURES/DIVERSIONS AGREED IN ADVANCE.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT CONTAMINATION OF EXISTING AND PROPOSED POTABLE WATER INFRASTRUCTURE. OPEN PIPE ENDS SHALL BE SECURELY CAPPED WHEN WORK IS NOT IN PROGRESS.
- ALL CONNECTIONS TO EXISTING MAINS SHALL BE UNDERTAKEN IN A CONTROLLED MANNER AND ONLY FOLLOWING AGREEMENT OF THE CONNECTION/SHUTDOWN PROCEDURE. EXISTING MAINS SHALL BE TREATED AS LIVE UNLESS CONFIRMED OTHERWISE.
- THE COMPLETED WATERMAIN SHALL BE PRESSURE TESTED, FLUSHED, DISINFECTED, SAMPLED AND COMMISSIONED IN ACCORDANCE WITH THE CONTRACT SPECIFICATION AND Uisce Eireann REQUIREMENTS BEFORE BEING PLACED INTO SERVICE.
- THE CONTRACTOR SHALL MAINTAIN ACCURATE AS-BUILT RECORDS THROUGHOUT THE WORKS. FINAL AS-BUILT INFORMATION SHALL INCLUDE WATERMAIN ALIGNMENT, LEVELS WHERE REQUIRED, PIPE SIZE/MATERIAL, VALVES, HYDRANTS, AIR VALVES, WASHOUTS, METERS, BOUNDARY BOXES, SERVICE CONNECTIONS, FUSION JOINTS AND OTHER ASSETS, WITH COORDINATES TO THE REQUIRED IRISH GRID/ITM SYSTEM.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY AROUND CONDITIONS, ROCK, UNCHARTED SERVICES, CULVERTS, STRUCTURES OR OTHER CONDITIONS WHICH OFFER MATERIALLY FROM THOSE INDICATED IN THE CONTRACT DOCUMENTS.
- ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE SAFETY, HEALTH AND WELFARE AT WORK (CONSTRUCTION) REGULATIONS 2013, AS AMENDED, THE PROJECT SAFETY AND HEALTH PLAN AND THE CONTRACTOR'S APPROVED METHOD STATEMENTS.
- WHERE A CONFLICT EXISTS BETWEEN THE DRAWINGS, SPECIFICATION, BILL OF QUANTITIES, STANDARD DETAILS OR SITE CONDITIONS, THE CONTRACTOR SHALL SEEK THE ENGINEER'S INSTRUCTION BEFORE PROCEEDING. NO ASSUMPTION SHALL BE MADE WHICH MAY AFFECT THE PERMANENT WORKS.
- MATERIALS AND PRODUCTS REQUIRING APPROVAL SHALL NOT BE ORDERED OR INCORPORATED INTO THE WORKS UNTIL THE RELEVANT TECHNICAL SUBMITTALS HAVE BEEN ACCEPTED IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY WORKS, TEMPORARY SUPPORT, DEWATERING, TRENCH STABILITY, EXCAVATION SAFETY AND PROTECTION OF ADJACENT ROADS, FOOTPATHS, PROPERTY, STRUCTURES AND SERVICES NECESSARY TO EXECUTE THE PERMANENT WORKS SAFELY.

GRAPHIC SCALE
(in meters)

1:500

SITE LAYOUT PLAN - SHEET 1
Scale 1:500

KEYPLAN - NTS

LEGEND

- Proposed HDPE pipe SDR-17 watermain pipe. Rating to IS EN12201. Diameter as per long section detail
- Existing pvc watermain pipe
- Existing overhead power / communication cables and poles
- Existing underground broadband service cables

- SV Sluice Valve
- AV Air Valve
- SC Scour Valve
- NR Non-Return Valve
- PRV Pressure Reducing Valve
- WH Wash Out Hydrant
- BM Bulk Water Meter
- HY Fire Water Hydrant
- McD Metered Connection - Dwelling House
- McL Metered Connection - Land/Agriculture
- McE Metered Connection - Combined Domestic and Land/Agriculture
- McC Metered Connection - Commercial
- McS Metered Connection - Site

REV.	DESCRIPTION	DATE	BY
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ARCHITECT	
CLIENT	RAHEEN GROUP WATER SCHEME
JOB	
PROPOSED NEW WATERMAIN REPLACEMENT & ASSOCIATED WORKS	
TITLE	Proposed Layout Plan Sheet 1 of 8

STATUS	TENDER STAGE
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Fergal Coughlan Chartered Engineer	
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SCALES	As shown
DATE	June 2026
DRAWN	FC
CHECKED	
APPROVED	
DRG. No.	F2026/RHGS/002