

ON - LINE HYDRANT FOR POLYETHYLENE (P.E.) PIPE
(BASED ON IRISH WATER STANDARD DETAIL STD-W-18 Rev 2)

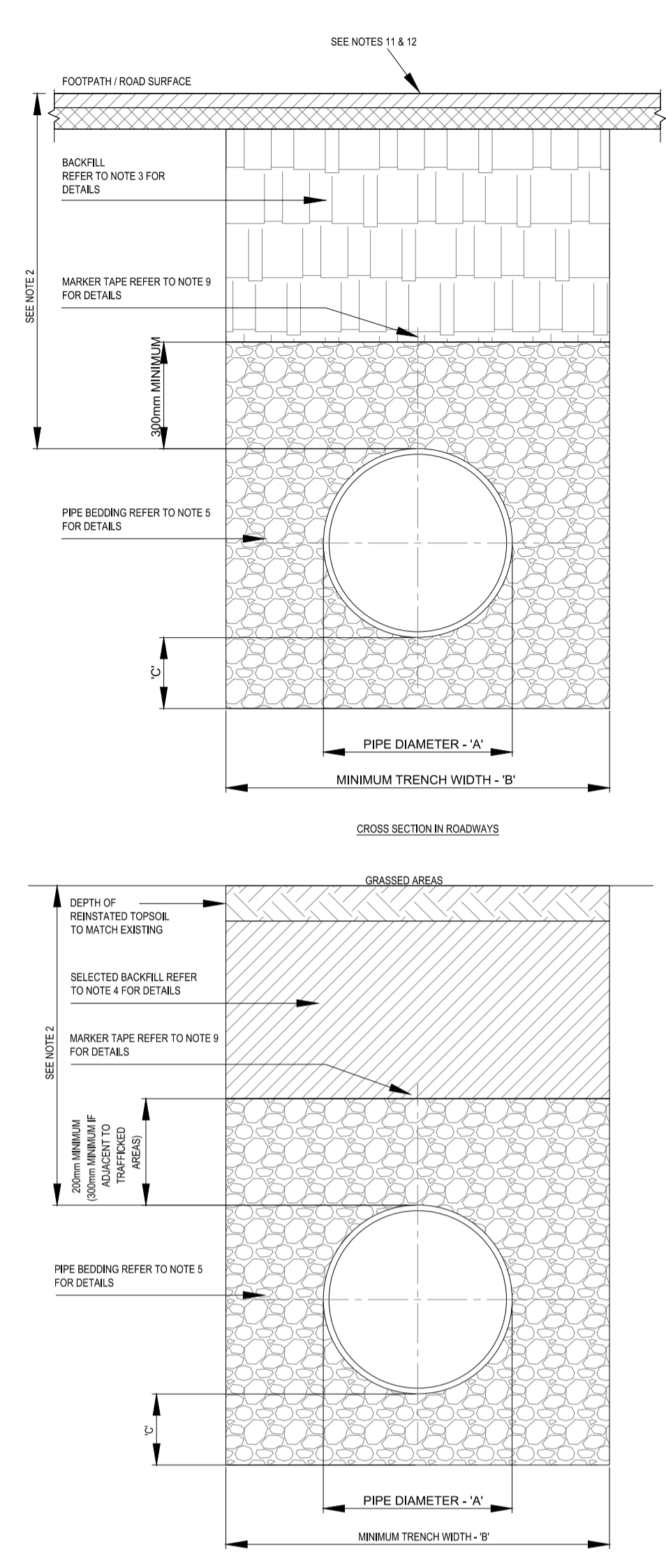
ON - LINE HYDRANT FOR DUCTILE IRON (D.I.) PIPE
(BASED ON IRISH WATER STANDARD DETAIL STD-W-18 Rev 2)

SLURRY VALVE FOR POLYETHYLENE (P.E.) PIPE (< 350mm DIA.)
(BASED ON IRISH WATER STANDARD DETAIL STD-W-15 Rev 2)

SLURRY VALVE FOR DUCTILE IRON (D.I.) PIPE (< 350mm DIA.)
(BASED ON IRISH WATER STANDARD DETAIL STD-W-14 Rev 3)

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. HYDRANT CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO BS 261 OR BS 524 COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO REVIEW BY BRISH WATER.
3. ALL HYDRANTS, SURFACE BOX FRAMES & COVERS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 1439, BS EN 10744 & BS 793. FIRE HYDRANTS SHALL BE TYPE 2, THE HYDRANT INLET SHALL BE 80mm DIAMETER WITH PNL.
4. ALL HYDRANTS SHALL BE CLOSUREWIRE CLOSING.
5. HYDRANT CHAMBERS TO BE CONSTRUCTED OF PRECAST CONCRETE UNITS OR HIGH DENSITY BLOCKWORK, ALTERNATIVELY PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED, SUBJECT TO REVIEW BY BRISH WATER. ROOF SLABS SHALL BE DESIGNED TO CARRY ALL LIVE LOADS & DEAD LOADS, & CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE GRADE C30/37 WITH A MINIMUM THICKNESS OF 150mm. ALTERNATIVELY PRECAST CONCRETE ROOFS MAY BE USED, SUBJECT TO BRISH WATER REVIEW & COMPLIANCE WITH BS 9011, Part 4. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 8B MATERIAL AS PER STD-W-13.
6. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH EN 545, PE PIPES AND FITTINGS TO BE IN ACCORDANCE WITH EN 12201/2011.
7. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
8. THRUST BLOCKS NOT SHOWN ON DRAWING, TO BE PROVIDED AS PER STANDARD DRAWING STD-W-24 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
9. ALL CONCRETE TO BE IN ACCORDANCE WITH BS EN 206.
10. ANTI CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
11. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
12. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
13. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF 'GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS' BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. SLURRY VALVE CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO BS 261 OR BS 524. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO REVIEW BY BRISH WATER.
3. ALL SLURRY VALVES SHALL BE RESILIENT SEATED AND SHALL COMPLY WITH BS 5163-1, BS 5163-2, BS EN 10744, BS EN 10742 OR EQUIVALENT (I.L.) SPECIFICATIONS.
4. ALL SLURRY VALVES SHALL BE ANTI-CLOSUREWIRE CLOSING.
5. VALVE CHAMBER TO BE CONSTRUCTED OF PRECAST CONCRETE UNITS OR HIGH DENSITY BLOCKWORK, ALTERNATIVELY PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED, SUBJECT TO REVIEW BY BRISH WATER. ROOF SLABS SHALL BE DESIGNED TO CARRY ALL LIVE LOADS & DEAD LOADS, & CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE GRADE C30/37 WITH A MINIMUM THICKNESS OF 150mm. ALTERNATIVELY PRECAST CONCRETE ROOFS MAY BE USED, SUBJECT TO BRISH WATER REVIEW & COMPLIANCE WITH BS 9011, Part 4. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 8B MATERIAL AS PER STD-W-13.
6. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH EN 545.
7. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
8. THRUST BLOCKS NOT SHOWN ON DRAWING, TO BE PROVIDED AS PER STANDARD DRAWING STD-W-24 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
9. ALL CONCRETE TO BE IN ACCORDANCE WITH BS EN 206.
10. ANTI CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
11. ALL THRUST FLANGES TO BE SECURELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-24. THRUST BLOCKS NOT SHOWN FOR CLARITY.
12. 450 x 450mm INTERNAL DIMENSION CHAMBERS MAY BE PROVIDED SUBJECT TO REVIEW BY BRISH WATER. SUCH CHAMBERS SHALL BE PROVIDED WITH GRADE 'X' HEAVY DUTY COVER & FRAME & STAMPED 'SV'.
13. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
14. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
15. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF 'GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS' BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.



TRENCH BACKFILL AND BEDDING
(BASED ON IRISH WATER STANDARD DETAIL STD-W-13 Rev 1)

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. THE MINIMUM DEPTH OF COVER FROM THE FINISHED GROUND LEVEL TO THE EXTERNAL CROWN OF THE PIPE SHALL BE 900mm WHERE THE PIPE IS TO BE LOCATED IN HOUSING ESTATE ROADS, GREATER DEPTHS OF COVER AND/OR PIPE STRENGTH AND/OR HIGHER CLASS OF BEDDING MATERIAL MAY BE REQUIRED WHERE HIGH TRAFFIC LOADINGS ARE ANTICIPATED. THE DESIRABLE COVER FOR A WATERMAIN SHOULD BE 1200mm, WHERE PRACTICABLE & SHOULD NOT EXCEED 3000.
3. CLAUSE 8B/18B MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS TO BE USED AS BACKFILL MATERIAL WHERE THE WATER MAINS IS LOCATED IN ROADS, FOOTPATHS OR WHEN THE HIGHEST PART OF THE TRENCH IS ABOVE THE FINISHED EDGE OF THE ROADWAY. CLAUSE 8B/18B IS TO BE COMPACTED AS PER CLAUSE 802 OF THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. CLAUSE 802 IS TO BE USED WITH 500mm OF CEMENT BOUND MATERIALS. CONCRETE PAVEMENTS, CONCRETE STRUCTURES OR CONCRETE PRODUCTS, OTHERWISE CLAUSE 8B/18B MATERIAL, ARE NOT TO BE USED AS BACKFILL MATERIAL TO THAT DESCRIBED ABOVE (CLAUSE 804 OR CLAUSE 806 OF THE PIPE TRENCH WILL ONLY BE ALLOWED BY BRISH WATER WHERE THE ROAD AUTHORITY IN WATSE FUNCTIONAL AREA THE DEVELOPMENT IS LOCATED, PROVIDES WRITTEN APPROVAL TO THE DEVELOPER TO USE SUCH MATERIALS).
4. SELECTED EXCAVATED MATERIAL MAY BE USED IN GREEN-FIELD AREAS ABOVE GRASSLAND. PIPE SURROUND MATERIAL SUBJECT TO REVIEW BY BRISH WATER. MATERIAL SHALL BE 15mm TO 50mm GRADED AGGREGATE OR 10mm SINGLE SIZED AGGREGATE TO BE USED.
5. IN SOFT GROUND CONDITIONS (CBR < 5) THE MATERIAL SHOULD BE EXCAVATED OUT AND DEPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 804/180B MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS SHALL REPLACE THE EXCAVATED MATERIAL. WRAPPED IN GEOTEXTILE WRAPPING, ALTERNATIVELY SPECIAL PIPE SUPPORT ARRANGEMENTS, INCLUDING PILING ETC. MAY BE REQUIRED WHERE THE DEPTH OF SOFT MATERIAL IS EXCESSIVE. SUCH ARRANGEMENTS SHALL BE SUBJECT TO ASSESSMENT BY BRISH WATER BEFORE ADVANCING WITH THE WORK.
6. PIPES SHALL NOT BE SUPPORTED ON STONES OR ROCKS, OR ANY HARD OBJECT AT ANY POINT ALONG THE TRENCH. ROCK SHALL BE EXCAVATED TO A DEPTH OF 150mm BELOW THE ACTUAL DEPTH OF THE TRENCH WITH THE VOID FILLED WITH CLAUSE 8B/18B MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAD ABOVE THE VOID BACKFILL MATERIAL.
7. SHOULD MINIMUM COVER NOT BE ACHIEVABLE CONCRETE GRADE C30/37 SHALL BE USED AS BACKFILL MATERIAL.
8. MARKER TAPE TO BE 400mm WIDE BLUE POLYETHYLENE MATERIAL IN ACCORDANCE WITH EN 12163. PLASTIC PIPES SHALL HAVE WARNING TAPE INCORPORATED A REINFORCED SAND BAGGING WIRE. SERVICE PIPES SHALL HAVE 200mm WIDE MESH TAPE. MARKER TAPE TO BE LAD AT TOP OF PIPE BEDDING LAYER.
9. TRENCH WIDTHS FOR PIPE SIZES 450mm MAY BE 450mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.
10. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
11. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF 'GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS' BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.

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- NOTES:
1. Figured dimensions only to be taken from this drawing.
 2. All dimensions to be checked on site.
 3. All levels are in metres O.D. and are related to Ordnance datum at Malin.

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INITIAL ISSUE	ES	30.04.19	P1
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COSGRAVE PROPERTY GROUP.

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TYPICAL WATERMAIN DETAILS (SHEET 1)

Scales:	1:50 @ A1
Drawing No.:	19205-JBB-00-XX-DR-C-01008
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