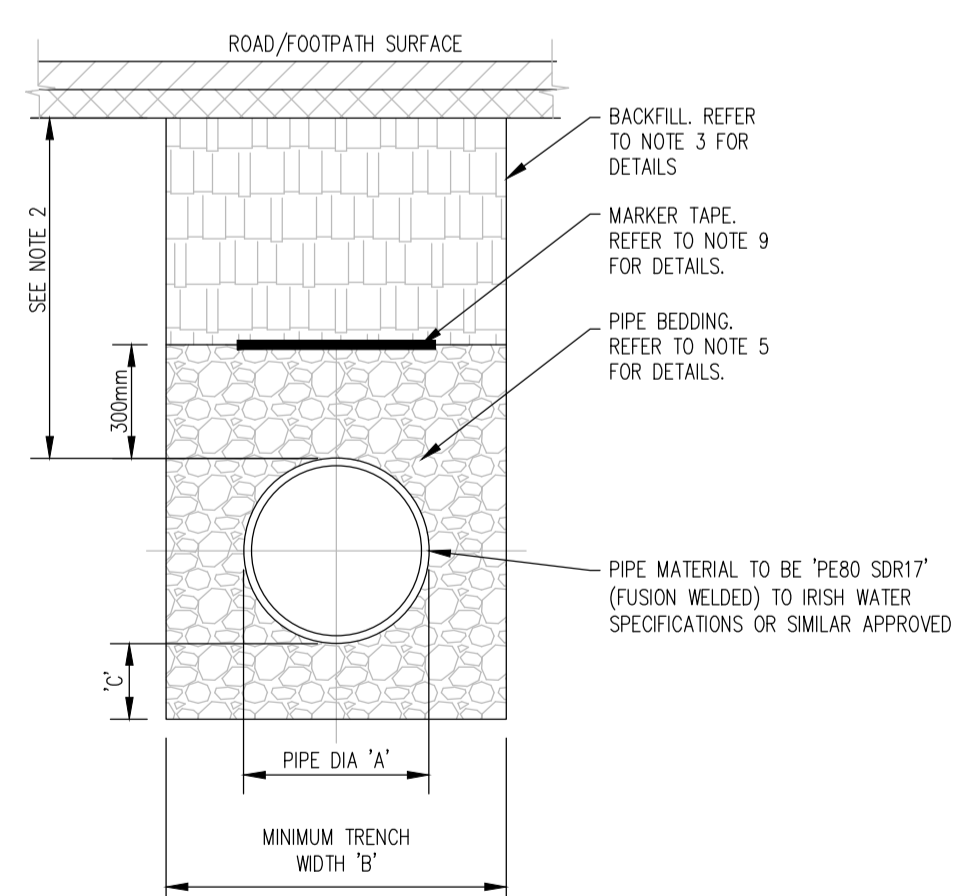
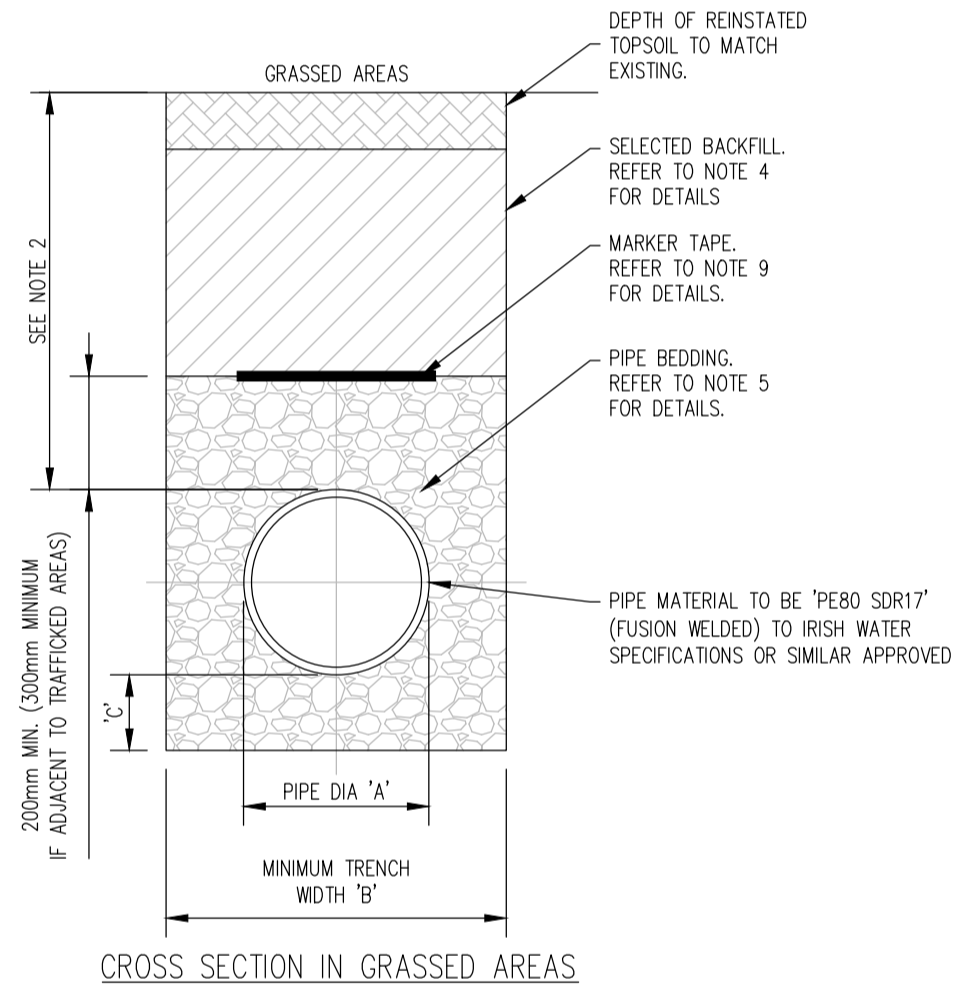


NOTES: BE GRANULAR SUPPORTED MATERIAL 1 ALL DIMENSIONS ARE IN MILLIMETRES (mm) ON SHALL UNLESS NOTED OTHERWISE. STONES BE OR LAID 2 THE MINIMUM DEPTH OF COVER FROM THE ROCKS, ABOVE FINISHED SURFACE TO THE EXTERNAL CROWN OR THIS OF THE PIPE SHALL BE 750mm FOR SERVICE ANY VOID CONNECTIONS, 900mm FOR WATER MAINS. HARD BACKFILL GREATER DEPTHS OF COVER AND/OR PIPE OBJECT MATERIAL. STRENGTH AND/OR A HIGHER CLASS OF AT BEDDING MATERIAL MAY BE REQUIRED WHERE 8 ANY HIGH TRAFFIC LOADING IS ANTICIPATED. THE SHOULD POINT MAXIMUM COVER SHOULD NOT EXCEED 1.2M MINIMUM ALONG WHERE PRACTICABLE. COVER THE NOT 3 CLAUSE 808 MATERIAL IN ACCORDANCE WITH TRENCH. BE THE TRANSPORT INFRASTRUCTURE IRELAND ROCK ACHIEVABLE, SPECIFICATION FOR ROAD WORKS IS TO BE SHALL CONCRETE USED AS BACKFILL MATERIAL WHERE THE BE GRADE WATER MAIN IS LOCATED IN ROADS EXCAVATED CS/10 FOOTPATHS OR WHEN THE NEAREST PART OF TO SHALL THE TRENCH IS WITHIN 1M OF THE PAVED A BE EDGE OF THE ROADWAY, CLAUSE 808 IS TO DEPTH USED BE COMPACTED AS PER CLAUSE 802 OF THE OF AS TRANSPORT INFRASTRUCTURE IRELAND 150mm BACKFILL SPECIFICATION FOR ROAD WORKS. BELOW MATERIAL. THE 4 SELECTED EXCAVATED MATERIAL MAY BE USED ACTUAL 9 IN GREEN-FIELD AREAS ABOVE GRANULAR DEPTH MARKER PIPE SURROUNDING MATERIAL SUBJECT TO THE APPROVAL OF IRISH WATER. THE TO 5 PIPE BEDDING SHALL COMPLY WITH WS TRENCH BE 4-08-02 AND ION 4-08-01 GRANULAR WITH 400mm MATERIAL SHALL BE 14mm TO 5mm GRADED THE WIDE AGGREGATE OR 10mm SINGLE SIZE VIO BLUE AGGREGATE IS EN 13242. FILLED POLYETHYLENE WITH MATERIAL 6 IN SOFT GROUND CONDITIONS (CBR < 5) THE CLAUSE IN MATERIAL SHOULD BE EXCAVATED OUT AND 804 ACCORDANCE DISPOSED OF IN ACCORDANCE WITH THE MATERIAL WITH WASTE MANAGEMENT ACT AND CLAUSE 808 IN DV MATERIAL IN ACCORDANCE WITH THE ACCORDANCE 12163. TRANSPORT INFRASTRUCTURE IRELAND WITH PLASTIC SPECIFICATION FOR ROAD WORKS SHALL THE PIPES REPLACE THE EXCAVATED MATERIAL, WRAPPED TRANSPORT SHALL IN GEO-TEXTILE WRAPPING, ALTERNATIVELY, INFRASTRUCTURE HAVE SPECIAL PIPE SUPPORT ARRANGEMENTS, IRELAND WARNING INCLUDING PILING ETC. MAY BE REQUIRED SPECIFICATION TAPE WHERE THE DEPTH OF SOFT MATERIAL IS FOR INCORPORATED EXCESSIVE. SUCH ARRANGEMENTS SHALL BE ROAD A SUBJECT TO ASSESSMENT BY IRISH WATER WORKS. REINFORCED BEFORE ADVANCING WITH THE WORK. THE BAND 7 BRACING PIPES WIRE. SHALL SERVICE NOT PIPES SHALL HAVE 200mm WIDE MESH TAPE. MARKER TAPE TO BE LAD AT TOP OF PIPE BEDDING LAYER. TO TRENCH WIDTHS FOR PIPE SIZES 300mm MAY BE <math><300\text{mm}</math>, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.

PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
< 200	150
> 250	200

PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
< 80	< SEE NOTE 10.
100	500
150	600
200	600
250	750
300	750
350	750
400	900
450	900



TRENCH BACKFILL AND BEDDING (STD - W - 13) SCALE 1:20

NOTES:

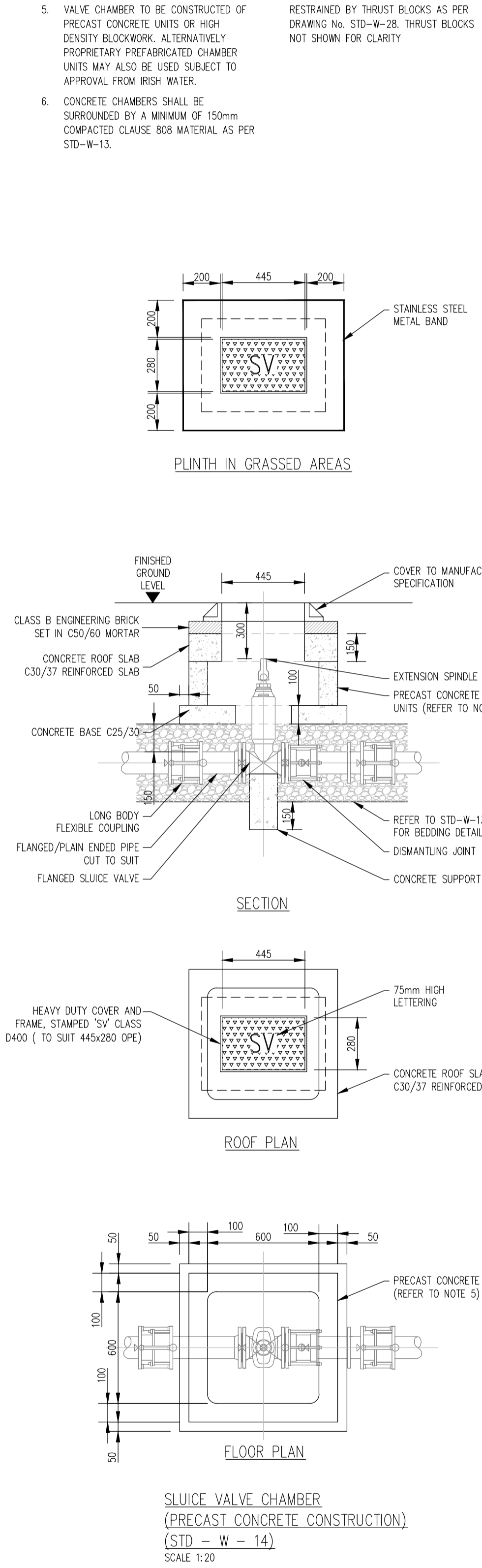
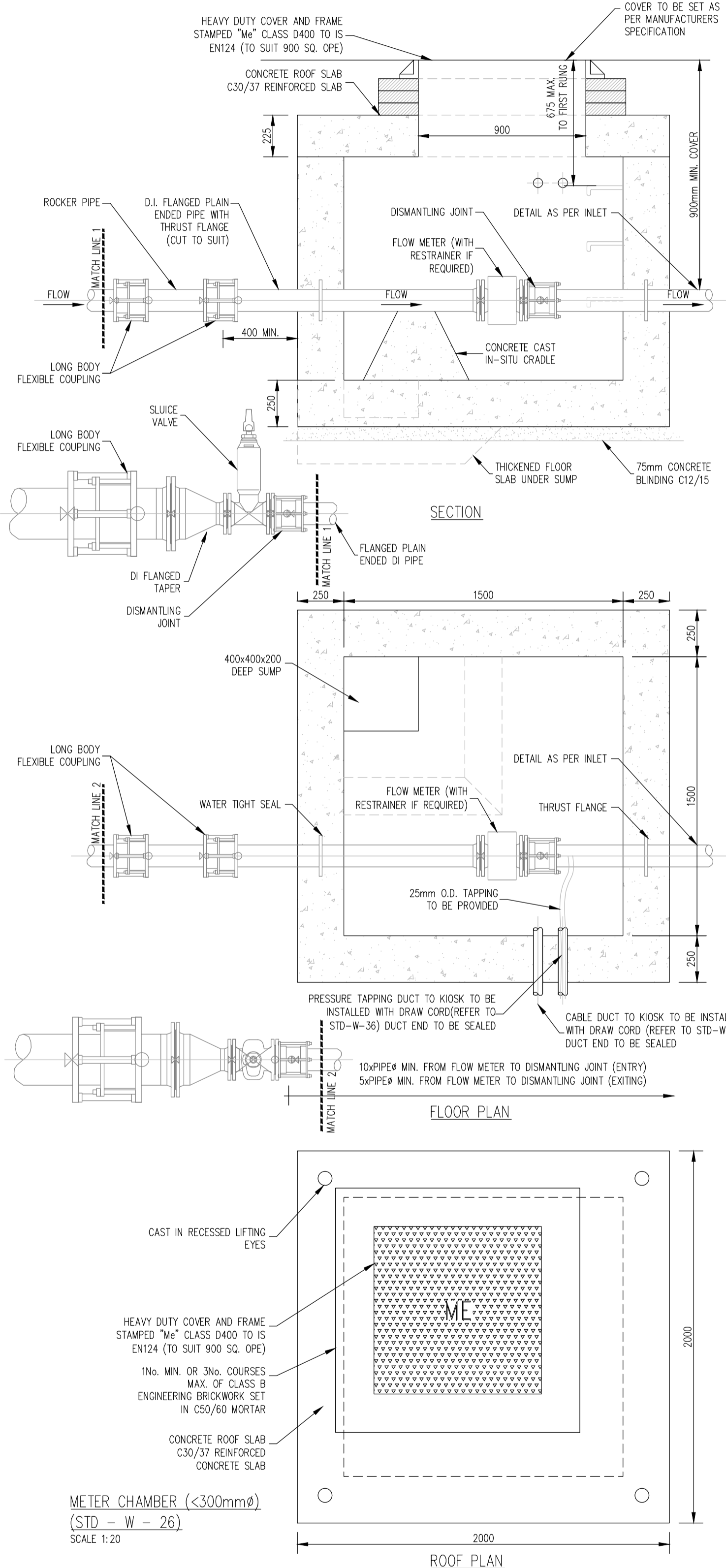
- ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- STRUCTURAL DESIGN AND REINFORCEMENT DETAIL TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IRISH WATER FOR REVIEW.
- CONCRETE FOR FLOW METER CHAMBER TO BE C30/37
- PRECAST METER CHAMBER(WITH CONCRETE SURROUND) MAY BE USED SUBJECT TO IRISH WATER APPROVAL.
- METER CHAMBER SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO

IS EN124 RATING D400. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH WATER. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH WITH PROTECTIVE STAINLESS STEEL METAL BAND AROUND COVER IN GRASS AREAS. ANTI CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN545. PE PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 12201:201.

PIPEWORK TO BE DOWNSIZED TO ACCOMMODATE THE REQUIRED RANGE OF THE FLOW METER. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM OF THE METER TO BE PROVIDED. IF THE METER IS NOT CAPABLE OF ACCURATE NIGHT FLOW MEASUREMENTS, A BY-PASS FLOW METER SHALL BE PROVIDED WITH APPROPRIATE VALVES, FITTINGS AND PIPEWORK. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN206.

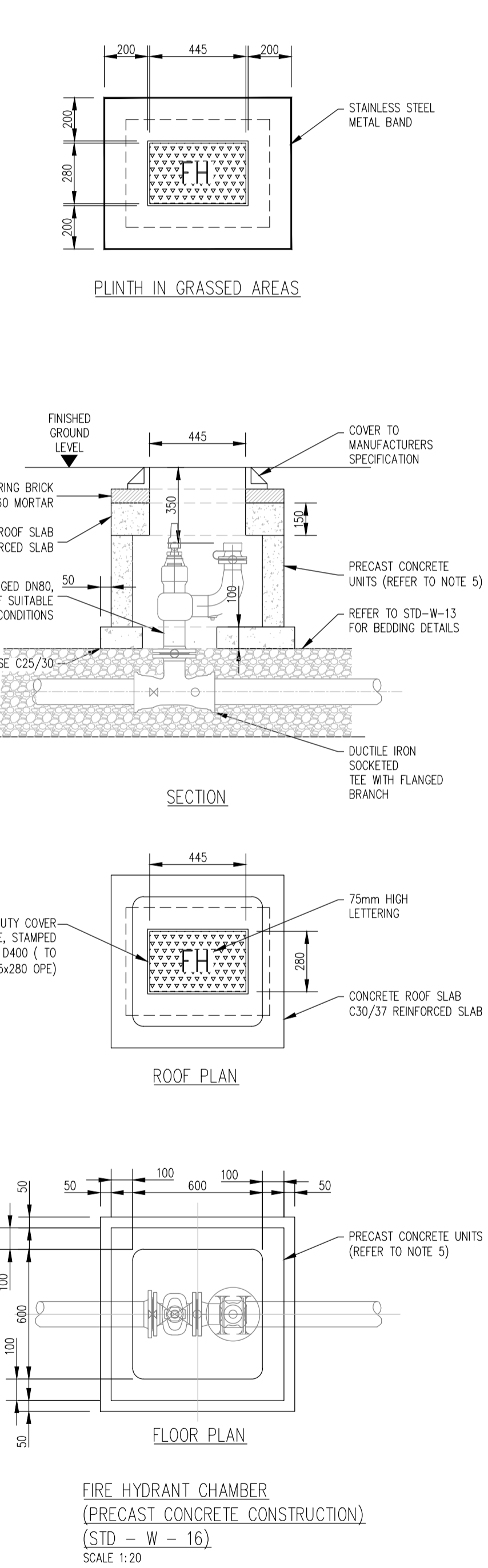
NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- SLUICE VALVE CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 OR BS 5834. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH WATER.
- SLUICE VALVES SHALL BE RESILIENT SEATED AND SHALL COMPLY WITH BS 5163-1, BS 5163-2, IS EN 1074-1, IS EN 1074-2, OR EQUIVALENT U SPECIFICATIONS.
- ALL SLUICE VALVES SHALL BE ANTI-CLOCKWISE CLOSING.
- VALVE CHAMBER TO BE CONSTRUCTED OF PRECAST CONCRETE UNITS OR HIGH DENSITY BLOCKWORK. ALTERNATIVELY PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED SUBJECT TO APPROVAL FROM IRISH WATER.
- CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-W-13.
- DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545.
- 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH WITH PROTECTIVE STEEL METAL BAND AROUND COVER IN GREEN AREAS.
- THRUST BLOCKS(NOT SHOWN ON DRAWING) TO BE PROVIDED AS PER STANDARD DRAWING STD-W-28 AT ALL TEES AND BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
- ANTICORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
- ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206
- ALL THRUST FLANGES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY



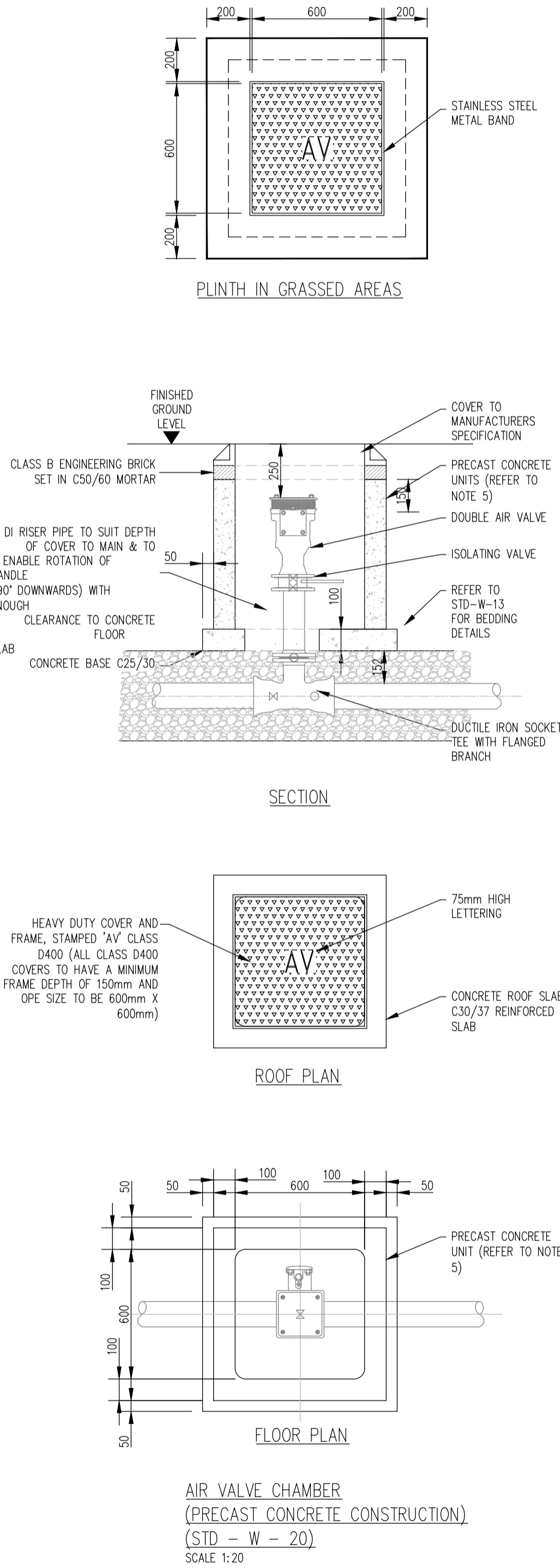
NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- HYDRANT CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 OR BS 5834. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH WATER.
- ALL HYDRANTS, SURFACE BOX FRAMES AND COVERS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF IS EN 14339, IS EN 1074-6 & BS 750. FIRE HYDRANTS SHALL BE TYPE 2. THE HYDRANT INLET SHALL BE 80mm DIAMETER WITH PN16.
- ALL HYDRANTS SHALL BE CLOCKWISE CLOSING.
- VALVE CHAMBER TO BE CONSTRUCTED OF PRECAST CONCRETE UNITS OR HIGH DENSITY BLOCKWORK. ALTERNATIVELY PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED SUBJECT TO APPROVAL FROM IRISH WATER.



NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- AIR VALVE CHAMBERS SHALL BE COVERED WITH APPROVED VENTILATED HEAVY DUTY METAL COVERS TO IS EN 124 RATING D400. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH WATER.
- AIR VALVES SHALL COMPLY WITH THE REQUIREMENTS OF IS EN 1074-4. AIR VALVES SHALL BE DOUBLE AIR VALVE AND SHALL INCLUDE AN ISOLATING VALVE. THE ISOLATING VALVE SHALL BE A GATE VALVE CONFORMING TO IS EN 1074-2 AND SHALL BE OF A BOLTSLESS BONNET DESIGN.
- THE LOCATION OF THE AIR VALVE SHALL BE THE SUBJECT OF PARTICULAR AGREEMENT WITH IRISH WATER TO ENSURE THAT THE RISK OF CONTAMINATION THROUGH THE VALVE IS ELIMINATED.
- SERVICE CONNECTIONS SHALL NOT BE PROVIDED WITHIN 2m OF THE AIR VALVE LOCATION.
- AIR VALVE CHAMBERS TO BE OF PRECAST CONCRETE UNITS OR HIGH DENSITY
- PRECAST CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-W-13.
- DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545.
- 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH WITH PROTECTIVE STEEL METAL BAND AROUND COVER IN GREEN AREAS.
- THRUST BLOCKS(NOT SHOWN ON DRAWING) TO BE PROVIDED AS PER STANDARD DRAWING STD-W-28 AT ALL TEES AND BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
- ANTICORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
- ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206



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Rev. No.	Date	REVISION NOTE	Chkd. by	Appr'd. by

Architect	MCA Architects Ltd Stradbroke Road Development
Title	WATERMAIN DETAILS SHEET 1 OF 2
Dwg. No.	BLK-CSC-ZX-ZX-DR-C-0011
Date	Oct 2020
Dm. by	AB
Chkd. by	GL
Appr'd. by	NB
Scale	AS SHOWN @ A1
Revision	

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