

WATER DETAILS

WATER DETAILS: LIST OF DRAWINGS

DT 01/W	FIRE HYDRANT TYPE 1
DT 02/W	FIRE HYDRANT TYPE 2
DT 03/W	FIRE HYDRANT LAYOUT FROM OVERHEAD WATERMAIN. TYPE 3
DT 04/W	DETAIL OF FIRE HYDRANT KEY
DT 05/W	DETAIL OF HDPE WATERPIPING NEXT TO BUILDINGS.
DT 06/W	OPEN PIPE DUCT IN ROAD AND WALKWAYS WITH STANDARD RECTANGULAR, HORIZONTAL GRATING COVER.
DT 07/W	COLUMN, SUPPORT, BRACKETS AND FOUNDATION DETAILS FOR OVERHEAD WATER RETICULATION.
DT 08/W	PIPE BRACKET TO SECURE WATERPIPING TO BUILDINGS.
DT 11-1/W	CONCRETE VALVE BOX DETAILS.
DT 11-2/W	TYPICAL PIPE SCHEDULE SHEET
DT 11-3/W	VALVE BOX DETAILS FOR ISOLATING VALVE
DT 11-4/W	CONCRETE VALVE BOX DETAILS FOR ZONE METER
DT 11-5/W	CONCRETE VALVE BOX DETAILS FOR ZONE METER
DT 12/W	JUNCTION OF HDPE PIPE IN SIDEWALL
DT 16/W	CONCRETE VALVE BOX TYPE 2
DT 17/W	CONCRETE VALVE BOX TYPE 3
DT 19/W	EXISTING MANHOLE INLET OVER EXISTING SERVICE DUCT
DT 20/W	NEW WATER CONNECTION TO BUILDING OVER EXISTING SERVICE
DT 21/W	NEW WATER CONNECTION TO BUILDING
DT 24/W	CONCRETE VALVE BOX
DT 26/W	CONCRETE MANHOLE DETAILS
DT 27/W	CONCRETE MANHOLE DETAILS
DT 28/W	TYPICAL BOOSTER CONNECTION IN HDPE CHAMBER
DT 28-1/W	PLAN OF HDPE BOOSTER CHAMBER
DT 28-2/W	PLAN OF TYPICAL HDPE JUNCTION MANHOLE
DT 29/W	TYPICAL FIRE HYDRANT IN HDPE CHAMBER
DT 29-1/W	PLAN OF FIRE HYDRANT CHAMBER - IN LINE TYPE
DT 29-2/W	PLAN OF FIRE HYDRANT CHAMBER - ANGLED TYPE
DT 30/W	TYPICAL DETAILS OF PREFABRICATED HDPE CHAMBERS
DT 31/W	ROOF AND ACCESS COVER OF HDPE MANHOLE OVER TRAFFIC AREAS
DT 32/W	TYPICAL DETAILS OF SLEEVE PIPE SYSTEM AND ACCESS POINTS



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DIAGRAMMATIC CIVIL
ENGINEERING DETAILS
FOR DOLOMITIC SOILS.

title
WATER:
WATER DETAILS
LIST OF DRAWINGS.

scale
N.A.

date
30-09-2017

drawing number / type number
TYPE NO DT 00/W



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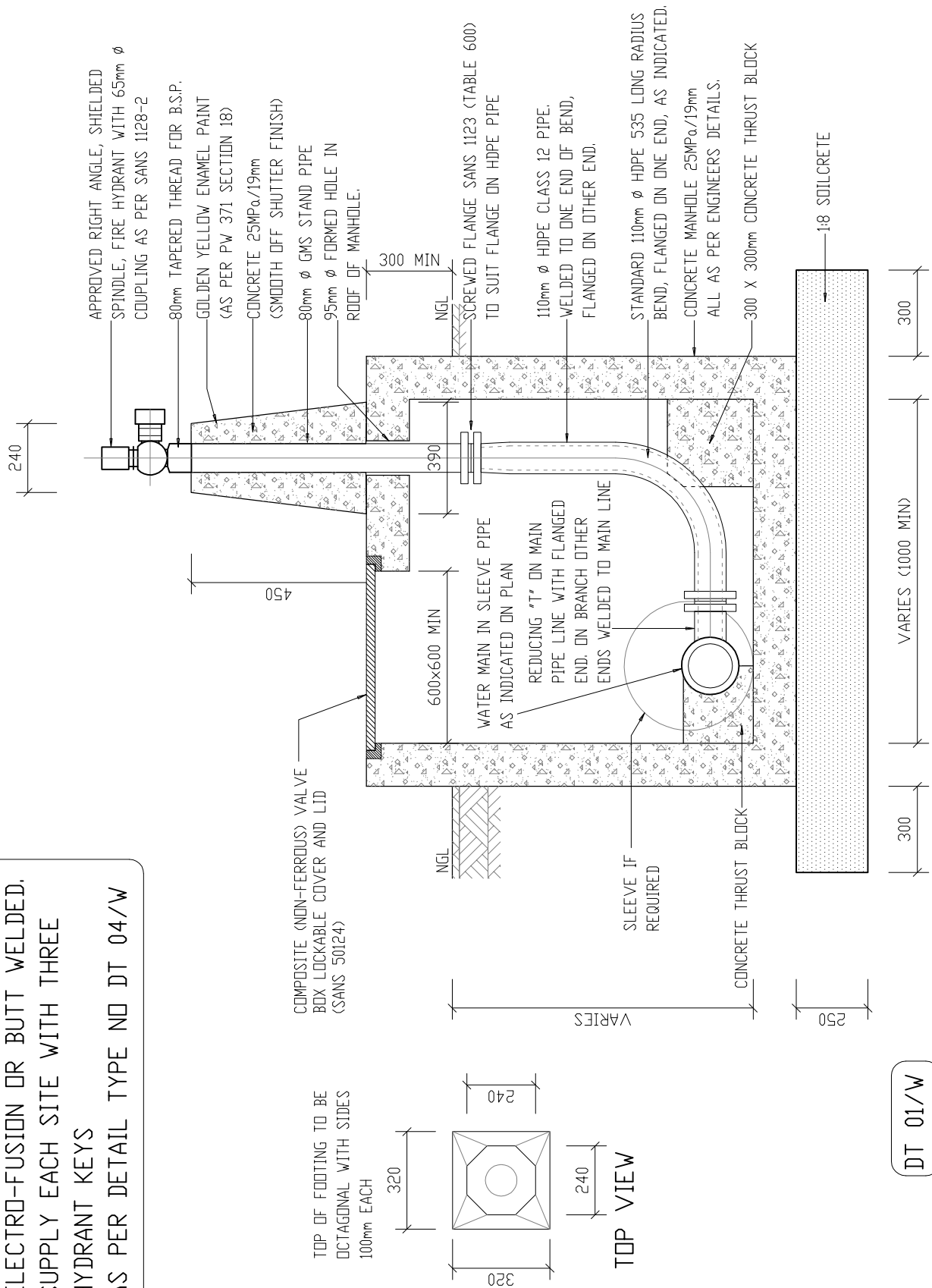
title
WATER:
FIRE HYDRANT.
TYPE 1.
(DIAGRAMMATIC)

scale
1 : 20

date
30-09-2017

drawing number / type number
TYPE NO DT 01/W

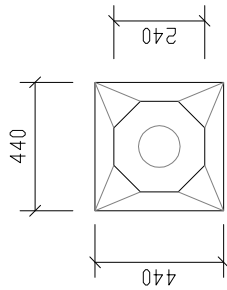
NOTE:
-ALL HDPE CONNECTIONS TO BE
ELECTRO-FUSION OR BUTT WELDED.
-SUPPLY EACH SITE WITH THREE
HYDRANT KEYS
AS PER DETAIL TYPE NO DT 04/W



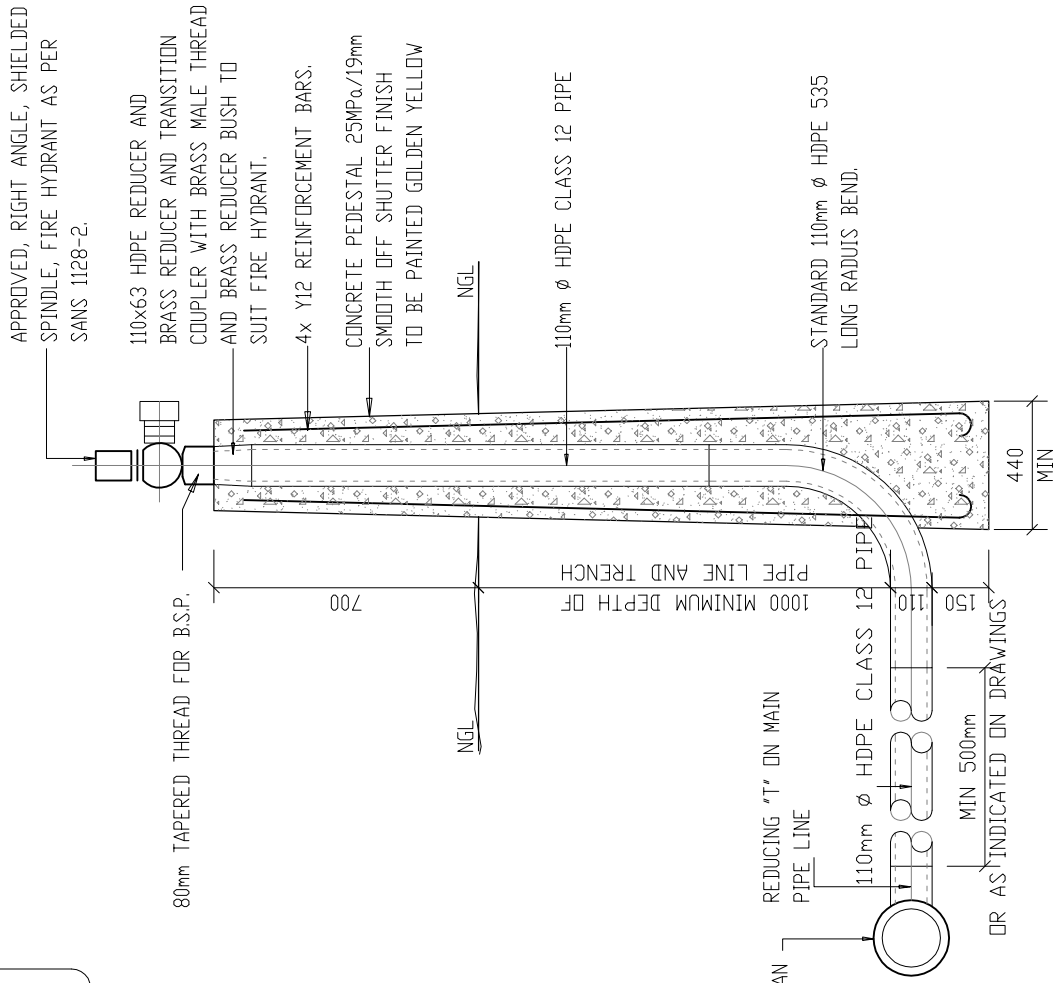
NOTE:

- ALL HDPE CONNECTIONS TO BE ELECTRO-FUSION OR BUTT WELDED.
- SUPPLY EACH SITE WITH THREE HYDRANT KEYS AS PER DETAIL TYPE NO DT 04/W

TOP OF FOOTING TO BE OCTAGONAL WITH SIDES 100mm EACH



TOP VIEW



DT 02/W



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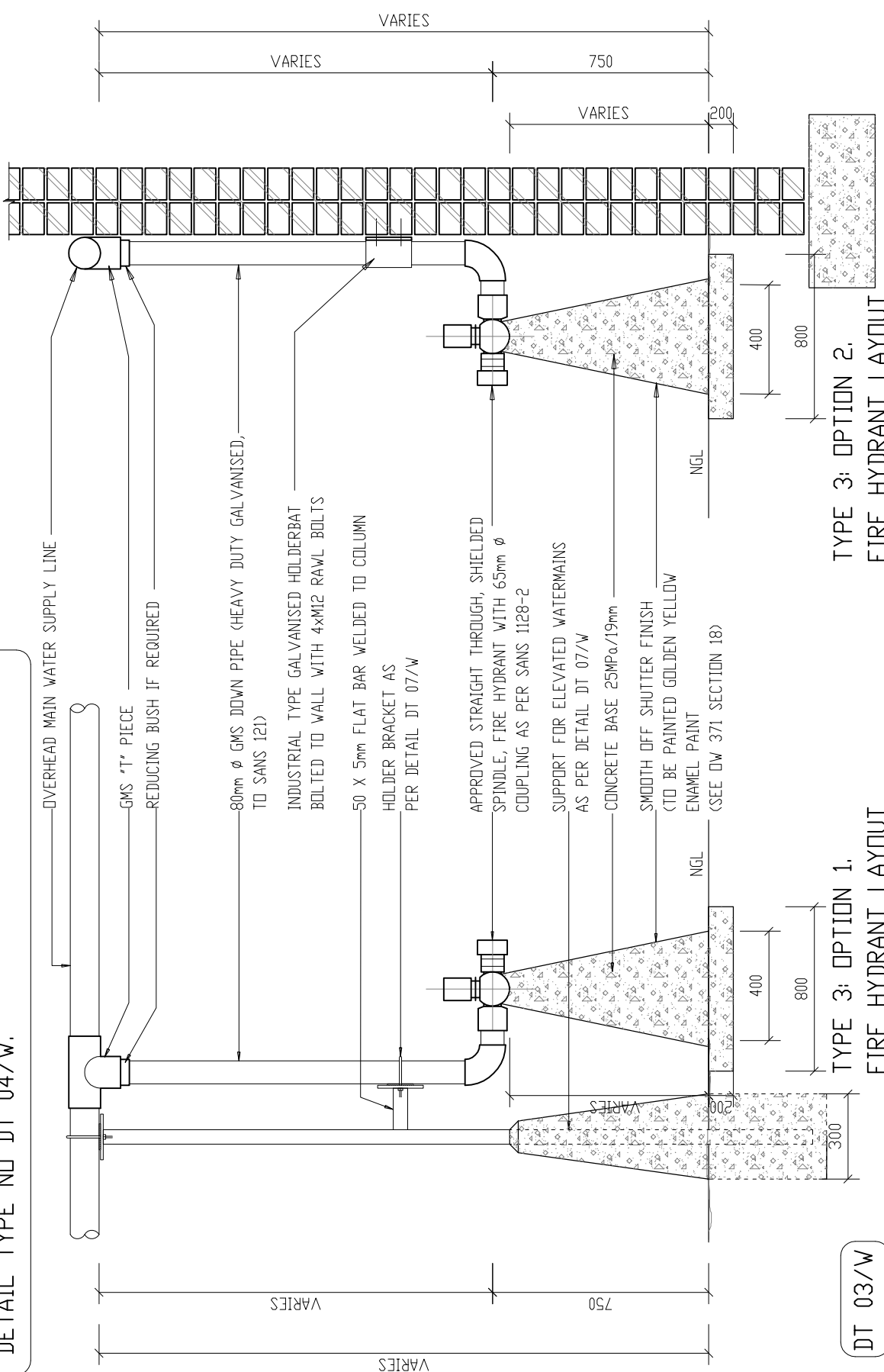
title
WATER:
FIRE HYDRANT.
TYPE 2.
(DIAGRAMMATIC)

scale
1 : 20

date
30-09-2017

drawing number / type number
TYPE NO DT 02/W

NOTE:
 -COMPLETE UNIT TO BE HOT DIPPED GALVANISED
 -AFTER MANUFACTURING. (SANS 32/SANS 121) HEAVY DUTY
 -SUPPLY EACH SITE WITH THREE HYDRANT KEYS AS PER
 DETAIL TYPE NO DT 04/W.



DT 03/W

TYPE 3: OPTION 2.
 FIRE HYDRANT LAYOUT
 AGAINST BUILDING

TYPE 3: OPTION 1.
 FIRE HYDRANT LAYOUT
 FROM OVERHEAD WATERMAIN



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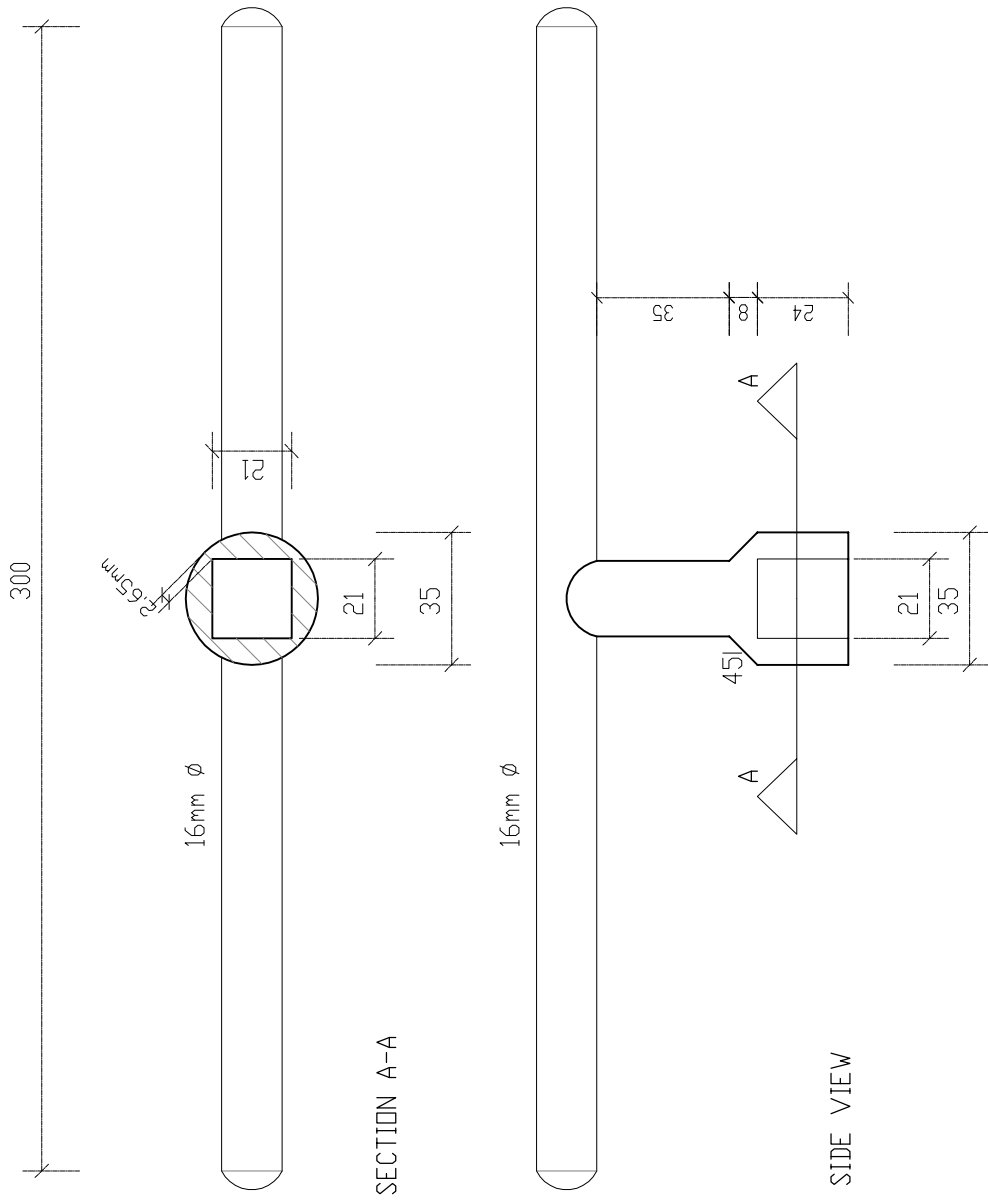
title
 WATER:
 FIRE HYDRANT LAYOUT
 FROM OVERHEAD WATERMAIN.
 TYPE 3.
 (DIAGRAMMATIC)

scale
 1 : 20

date
 30-09-2017

drawing number / type number
 TYPE NO DT 03/W

NOTE:
 -COMPLETE UNIT TO BE HOT DIPPED
 GALVANIZED AFTER MANUFACTURING
 HEAVY DUTY(SANS 32 / SANS 121).



DT 04W



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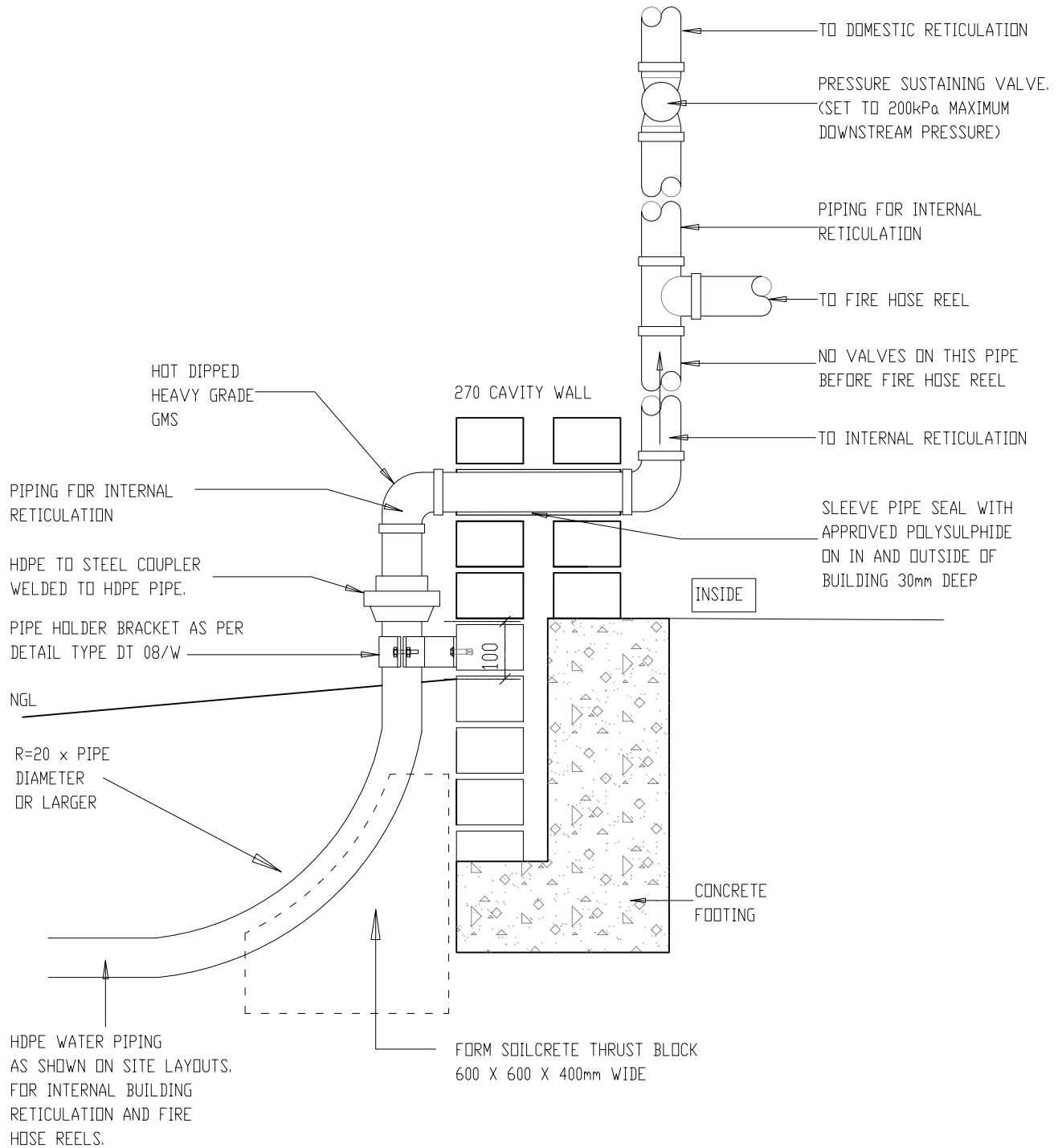
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 FOR DOLOMITIC SOILS.

title
 WATER:
 DETAIL OF FIRE
 HYDRANT KEY.
 (DIAGRAMMATIC)

scale
 1 : 2

date
 30-09-2017

drawing number / type number
 TYPE NO DT 04/W



DETAIL OF HDPE WATERPIPING
(UP TO 63mm \square) NEXT TO BUILDINGS.

DT 05/W



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title
WATER:
DETAIL OF HDPE
WATERPIPING NEXT
TO BUILDINGS.
(DIAGRAMMATIC)

scale
1 : 10

date
30-09-2017

drawing number / type number
TYPE NO DT 05/W



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title
WATER:
OPEN PIPE DUCT IN ROAD
AND WALKWAYS WITH
STANDARD RECTANGULAR
HORIZONTAL GRATING COVER
(DIAGRAMMATIC)

scale
1 : 10

date
30-09-2017

drawing number / type number
TYPE NO DT 06/W

NOTE:
-COMPLETE UNIT TO BE HOT DIPPED
GALVANIZED AFTER MANUFACTURING
HEAVY DUTY (SANS 32 / SANS 121).
-ALLOW FOR WATER DRAINAGE
FROM DUCT TO STORMWATER
SYSTEM

RECTANGULAR CATWALK TYPE HORIZONTAL
STEEL GRATING TRENCH COVER (HEAVY DUTY)
EDGE AND CROSS BARS 40 X 4.5mm
LONGITUDINAL BARS 25 X 4.5mm
GRATING TO BE HOT DIPPED
GALVANISED AFTER MANUFACTURING
GRATING TO BE "BANDED".

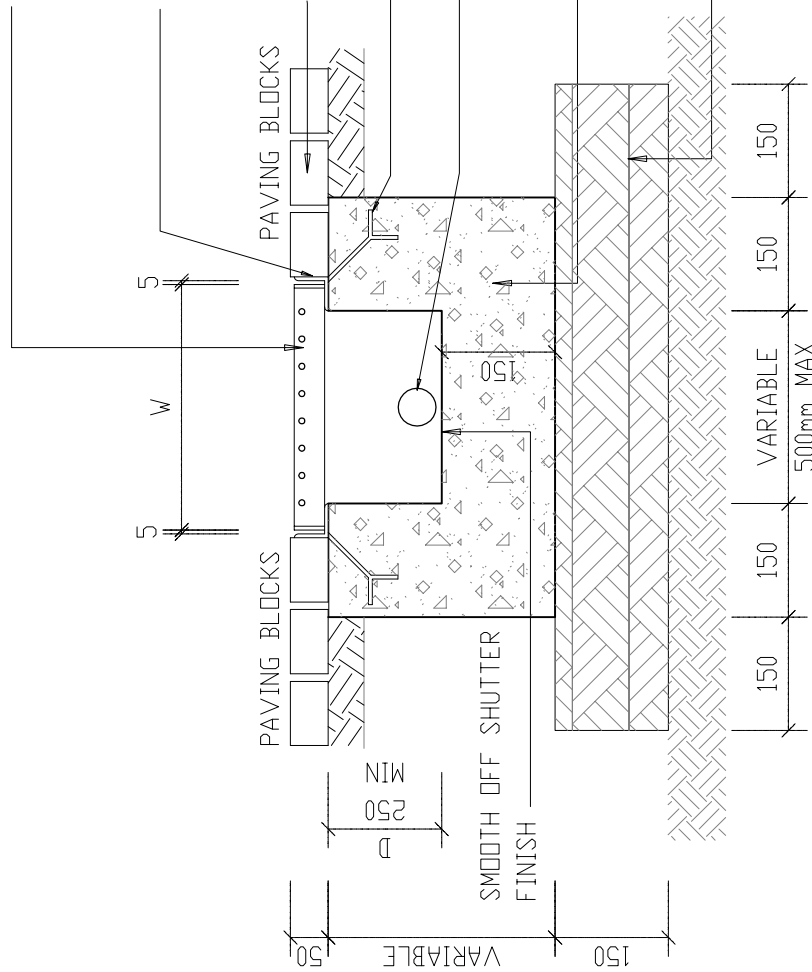
45X45mmX5mm HOT DIPPED GALVANISED
ANGLE IRON TO SEAT GRATING,
WITH TIE BACK BAR.

50mm THICK PAVING BLOCKS
75 x 25 x 5mm FLAT IRON
ANCHOR IN CONCRETE

GMS PIPE

30 MPa / 19mm CONCRETE

COMPACT TO 95% OF MOD AASHTO
MAXIMUM DRY DENSITY AT OPTIMUM
MOISTURE CONTENT.



DT 06/W



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title
WATER:
COLUMN, SUPPORT,
BRACKETS AND FOUNDATION
DETAILS FOR OVERHEAD
WATER RETICULATION.
(DIAGRAMMATIC)

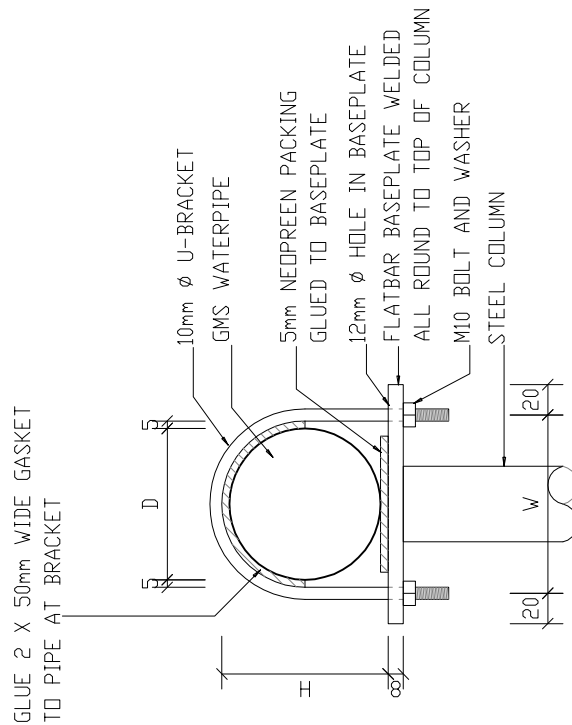
scale
1:5 & 1:20

date
30-09-2017

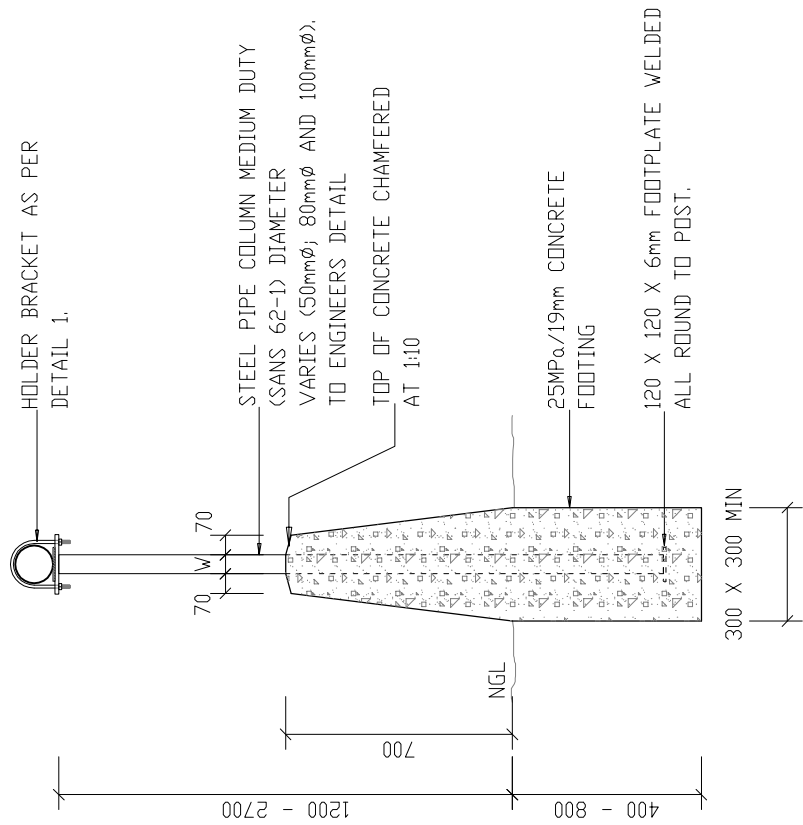
drawing number / type number
TYPE NO DT 07/W

NOTE:

-COMPLETE UNIT TO BE HOT DIPPED
GALVANIZED AFTER MANUFACTURING
HEAVY DUTY(SANS 32 / SANS 121).
-W AND D TO ENGINEERS DETAIL
FOR COLUMN AND PIPE SIZE
SYSTEM



DETAIL 1:
TOP HOLDER BRACKET FOR
OVERHEAD WATER RETICULATION.
SCALE 1:5

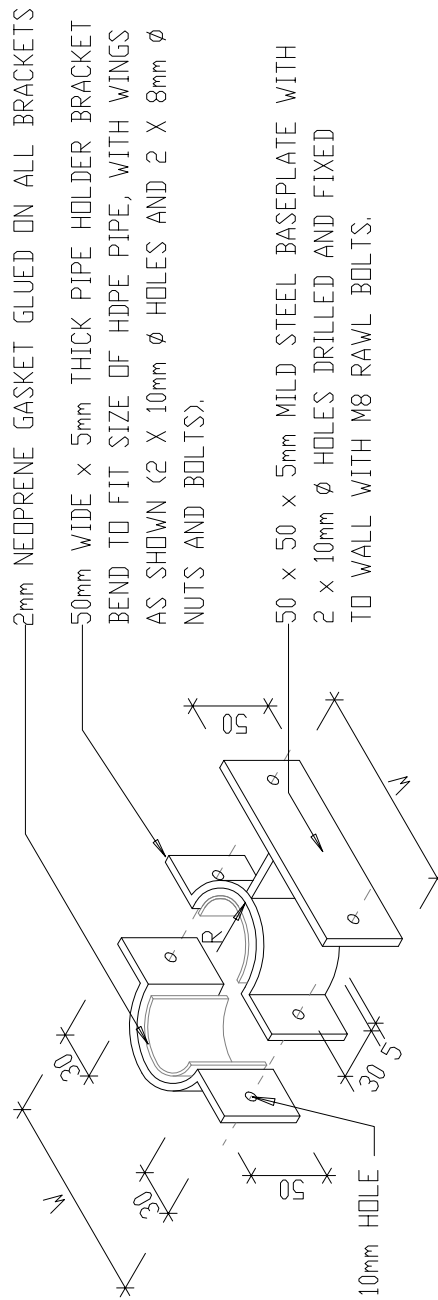


OVERHEAD WATERPIPE
SUPPORT STAYS.
SCALE 1:20

DT 07/W

NOTE:

- COMPLETE UNIT TO BE HOT DIPPED GALVANIZED AFTER MANUFACTURING HEAVY DUTY (SANS 32 / SANS 121).
- BRACKET SUITABLE FOR PIPE SIZE UP TO 63mm ϕ .



R = PIPE DIAMETER (OD) + 2mm
 W = R + 72mm



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title
 WATER:
 PIPE BRACKET TO SECURE
 WATERPIPING TO
 BUILDINGS.
 (DIAGRAMMATIC)

scale
 1 : 5

date
 30-09-2017

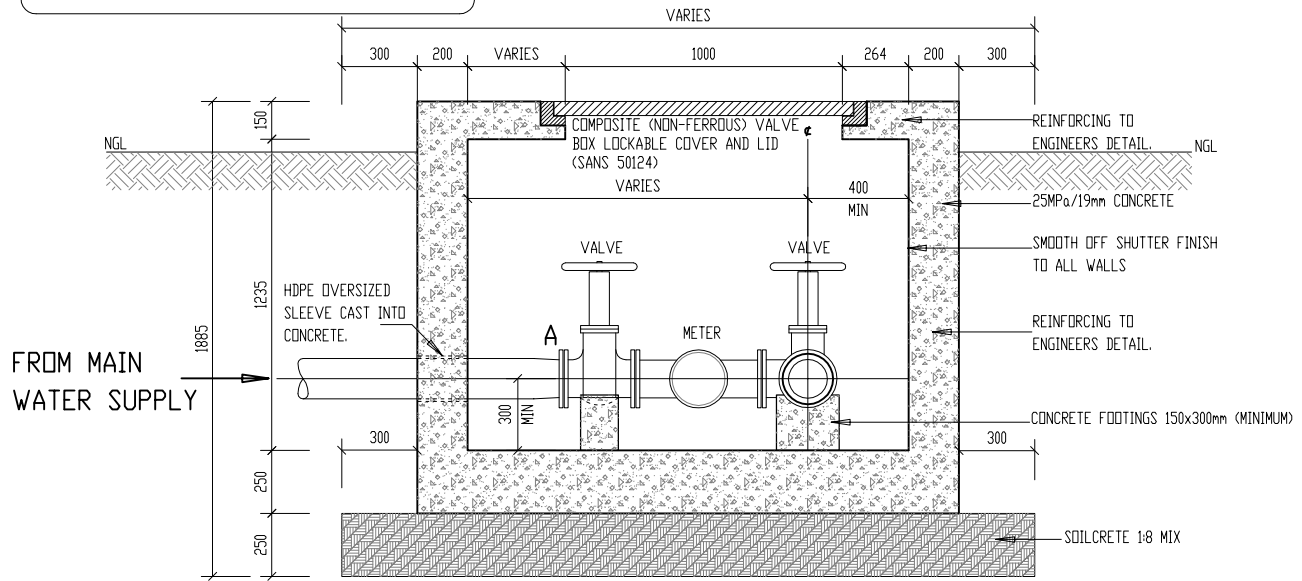
drawing number / type number
 TYPE NO DT 08/W

DT 08/W

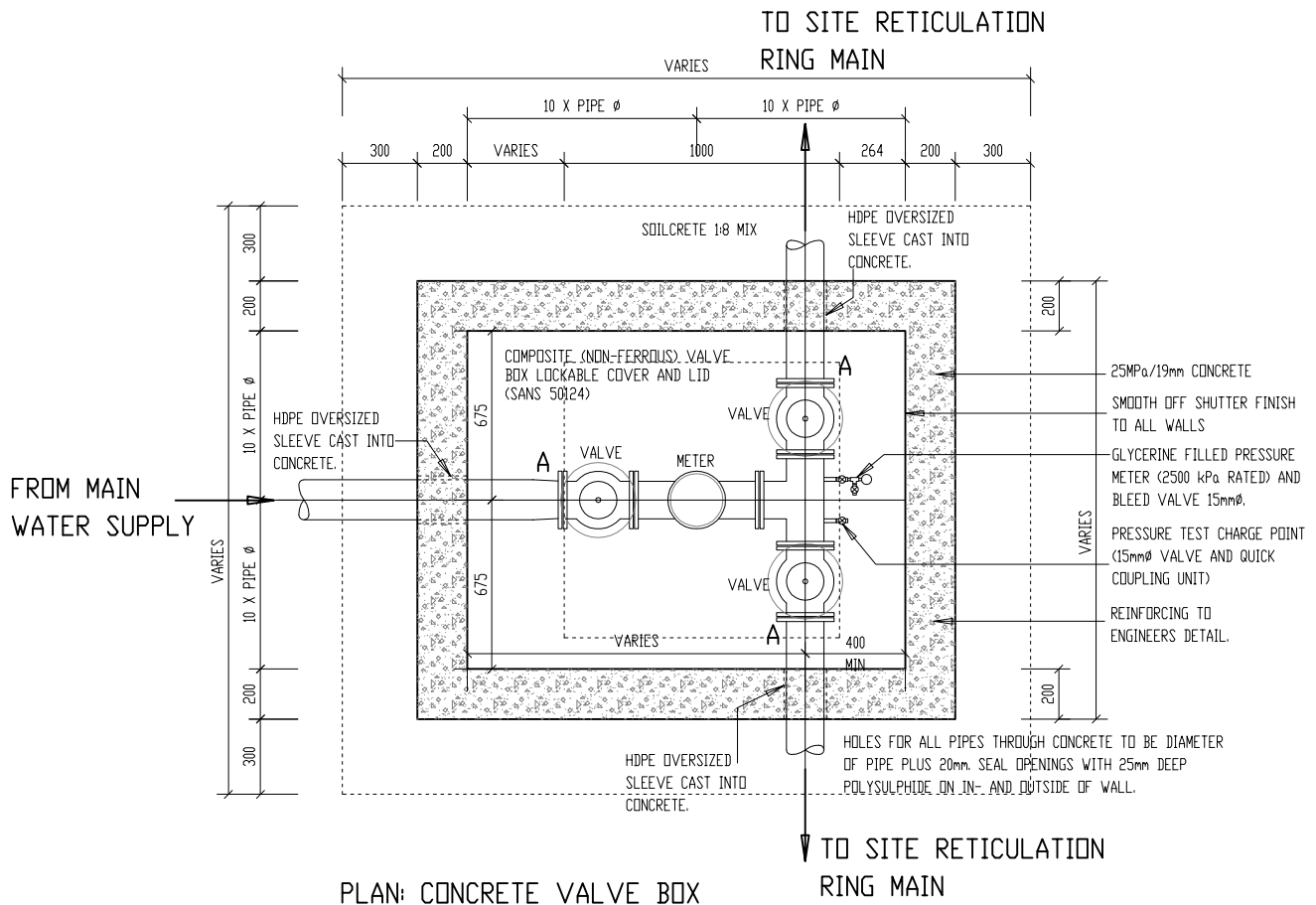
NOTE:

- FOR PIPE SCHEDULE FORMAT SEE
DETAIL TYPE NO DT 11(2)/W
- ALL VALVES TO BE RIGHT
HAND CLOSING.

A = STUB AND FLANGE WELDED TO HDPE PIPE
AND FLANGE ADAPTORS TO PIPE END AND VALVE
AS WELL AS VJ (STEPPED IF NEEDED) COUPLING
IN BETWEEN TO LOOSEN FITTINGS IN VALVE BOX
ALL FITTINGS TO BE NUMBERED P1,P2 ETC.
AND INDICATED IN PIPE SCHEDULE.



SECTION: CONCRETE VALVE BOX



PLAN: CONCRETE VALVE BOX

TO SITE RETICULATION RING MAIN



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title
WATER:
CONCRETE VALVE BOX
DETAILS.
(DIAGRAMMATIC)

scale
1 : 30

date
30-09-2017

drawing number / type number
TYPE NO DT 11-1/W



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title
WATER:
TYPICAL PIPE SCHEDULE
SHEET.
(DIAGRAMMATIC)

scale
N.A.

date
30-09-2017

drawing number / type number
TYPE NO DT 11-2/W

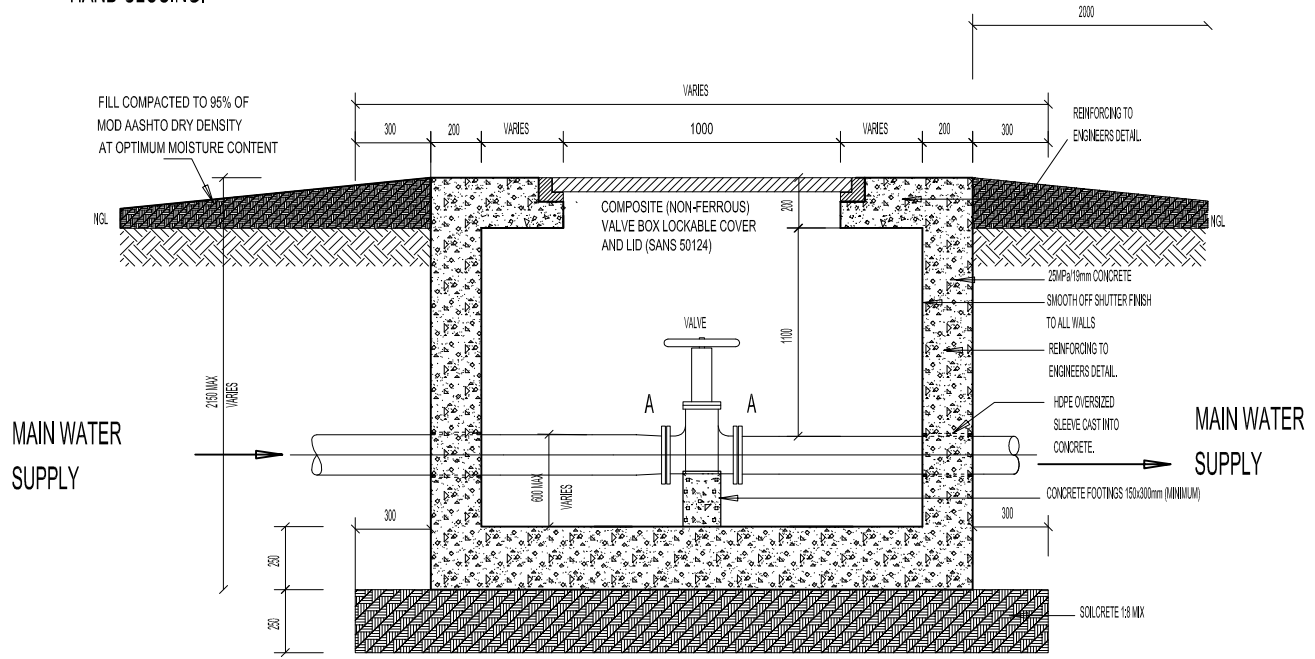
PIPE MARK OR FITTING	NUMBER	DIAMETER	DESCRIPTION	MATERIALS	SABS (SPEC)	CLASS	DRILLING TABLE	THREAD SIZE
P1								
P2								
P3								
P4								
P5								
P6								
P7								
P8								
P9								
P10								
P11								
P12								
P13								
P14								
P15								
P16								
P17								
P18								
P19								
P20								
P21								
P22								

TYPICAL PIPE SCHEDULE SHEET.

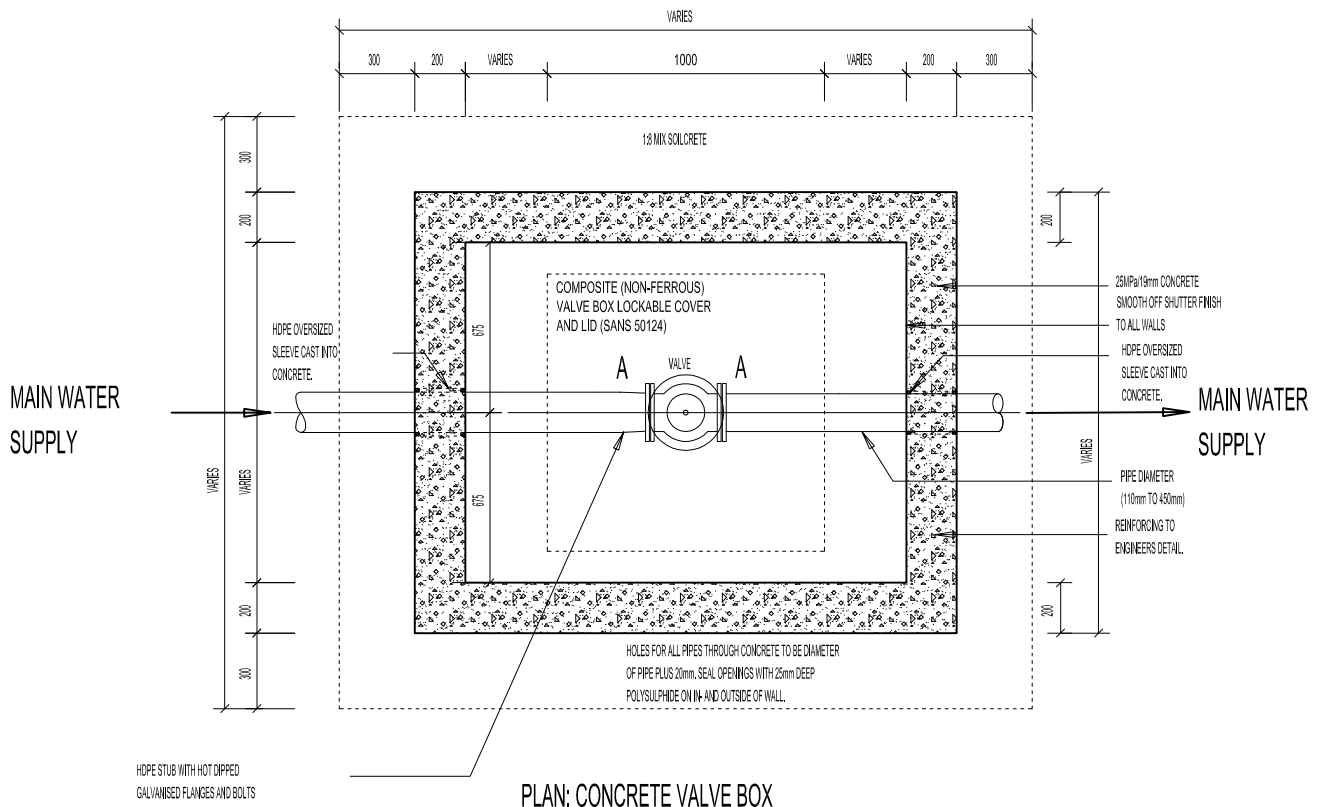
NOTE:

-ALL VALVES TO BE RIGHT
HAND CLOSING.

A = STUB AND FLANGE WELDED TO HDPE PIPE



SECTION: CONCRETE VALVE BOX



PLAN: CONCRETE VALVE BOX



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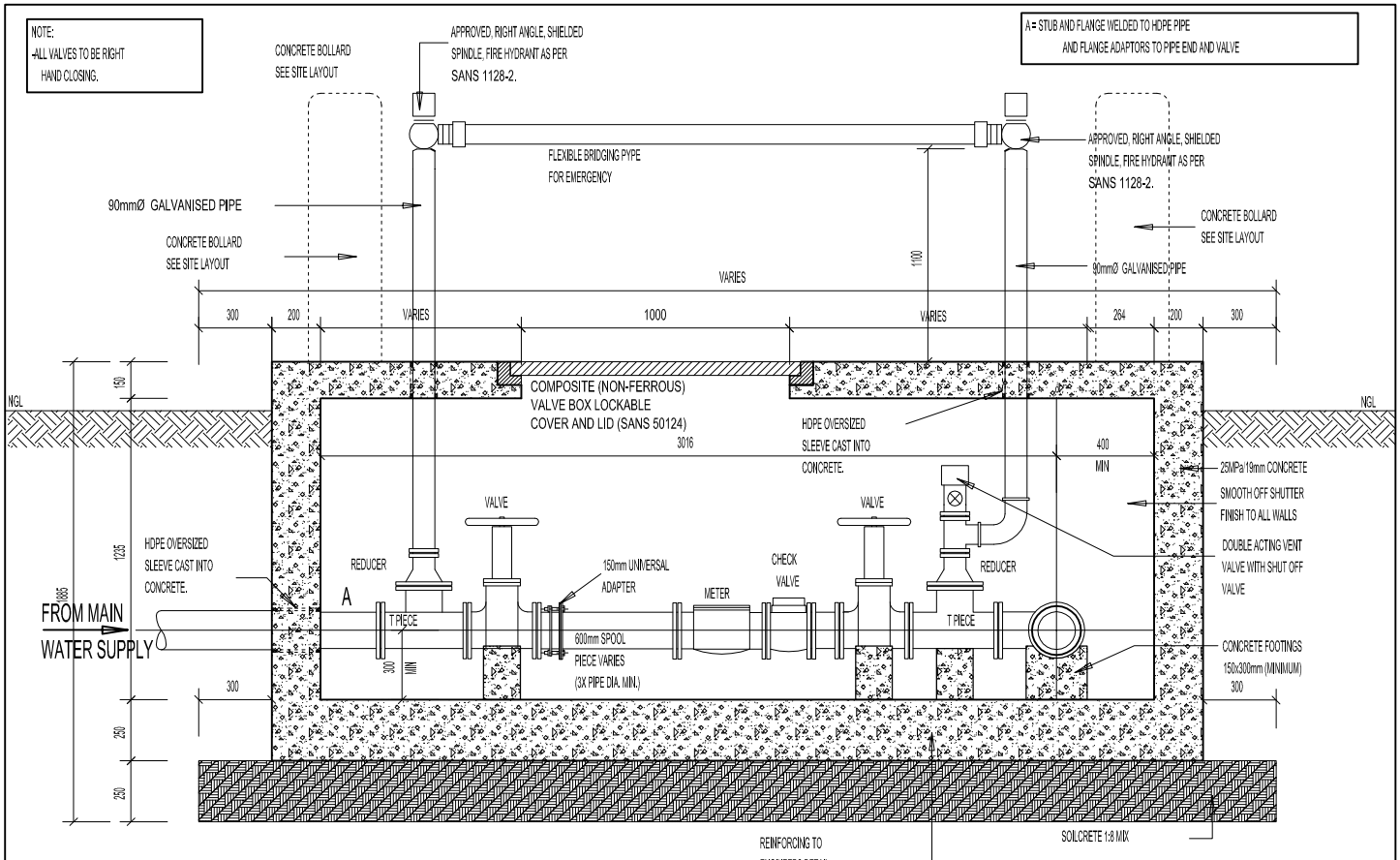
departmental
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FOR DOLOMITIC SOILS.

title
WATER:
CONCRETE VALVE BOX
DETAILS FOR ISOLATING
VALVE ON BULK SYSTEM.
(DIAGRAMMATIC)

scale
1:30

date
30-09-2017

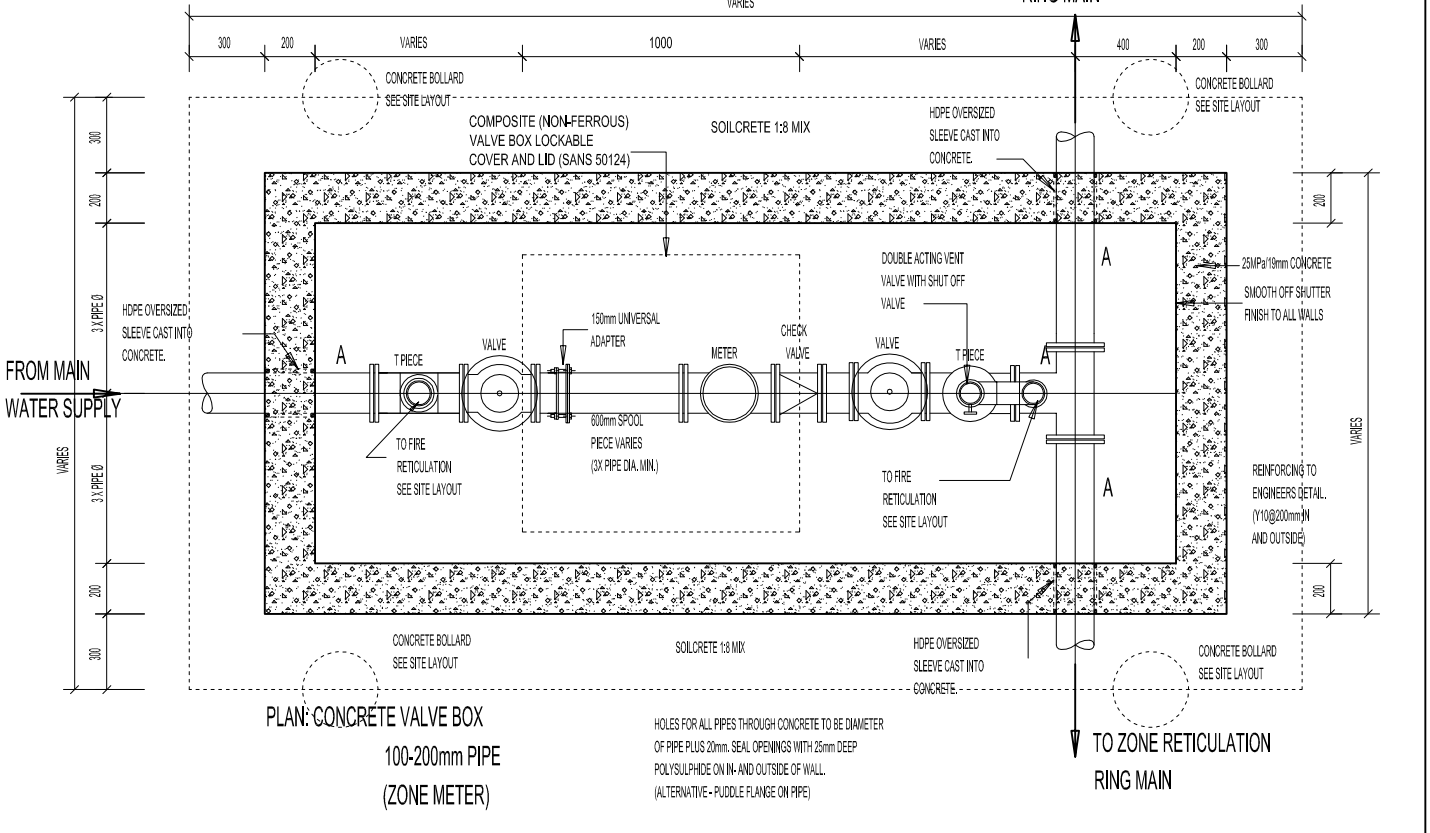
drawing number / type number
TYPE NO DT 11-3/W



SECTION: CONCRETE VALVE BOX


FLANGE DRILLING TO:
BS4594 TABLE 16
SANS 1123 TABLE 16

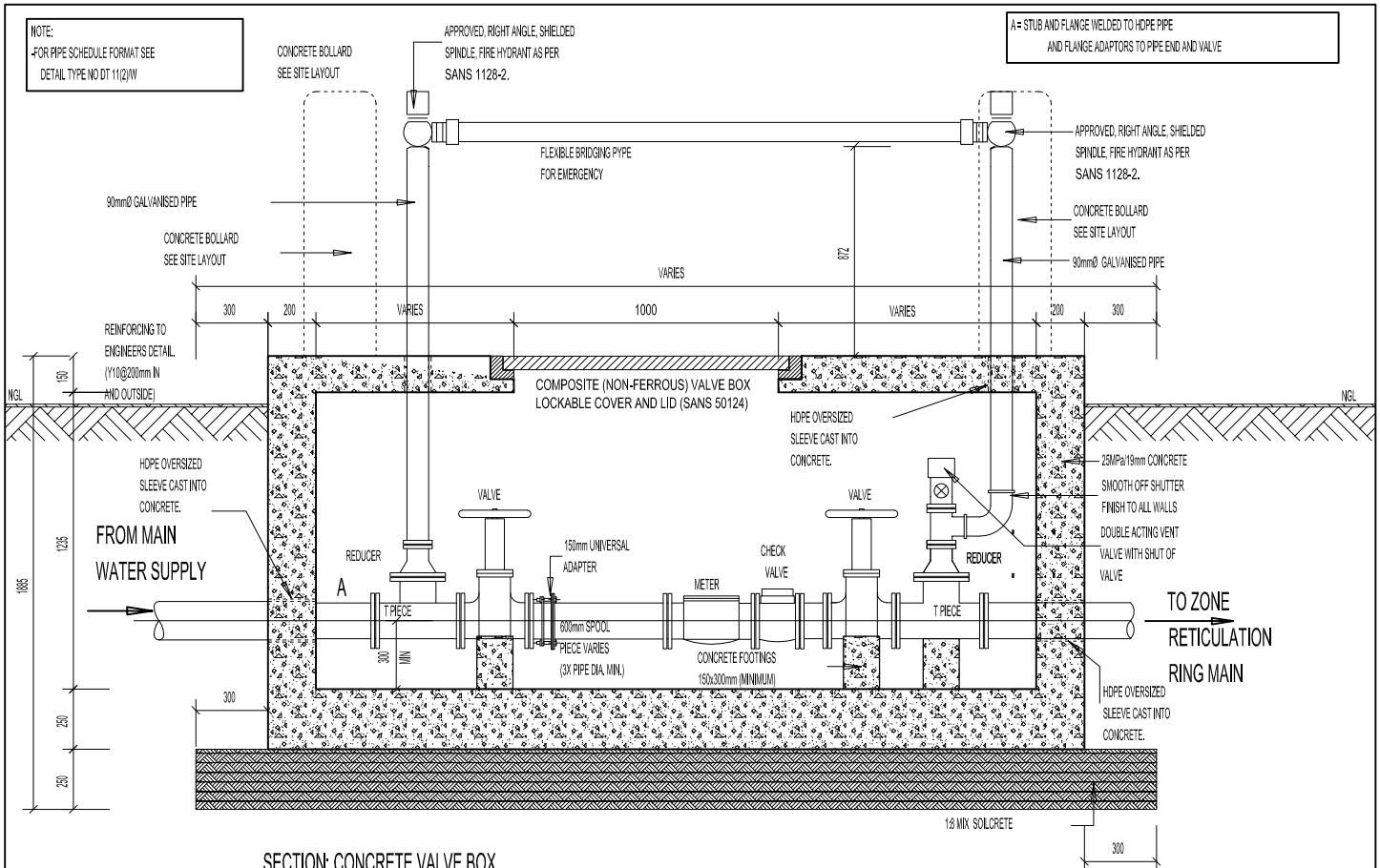
TO ZONE RETICULATION
RING MAIN



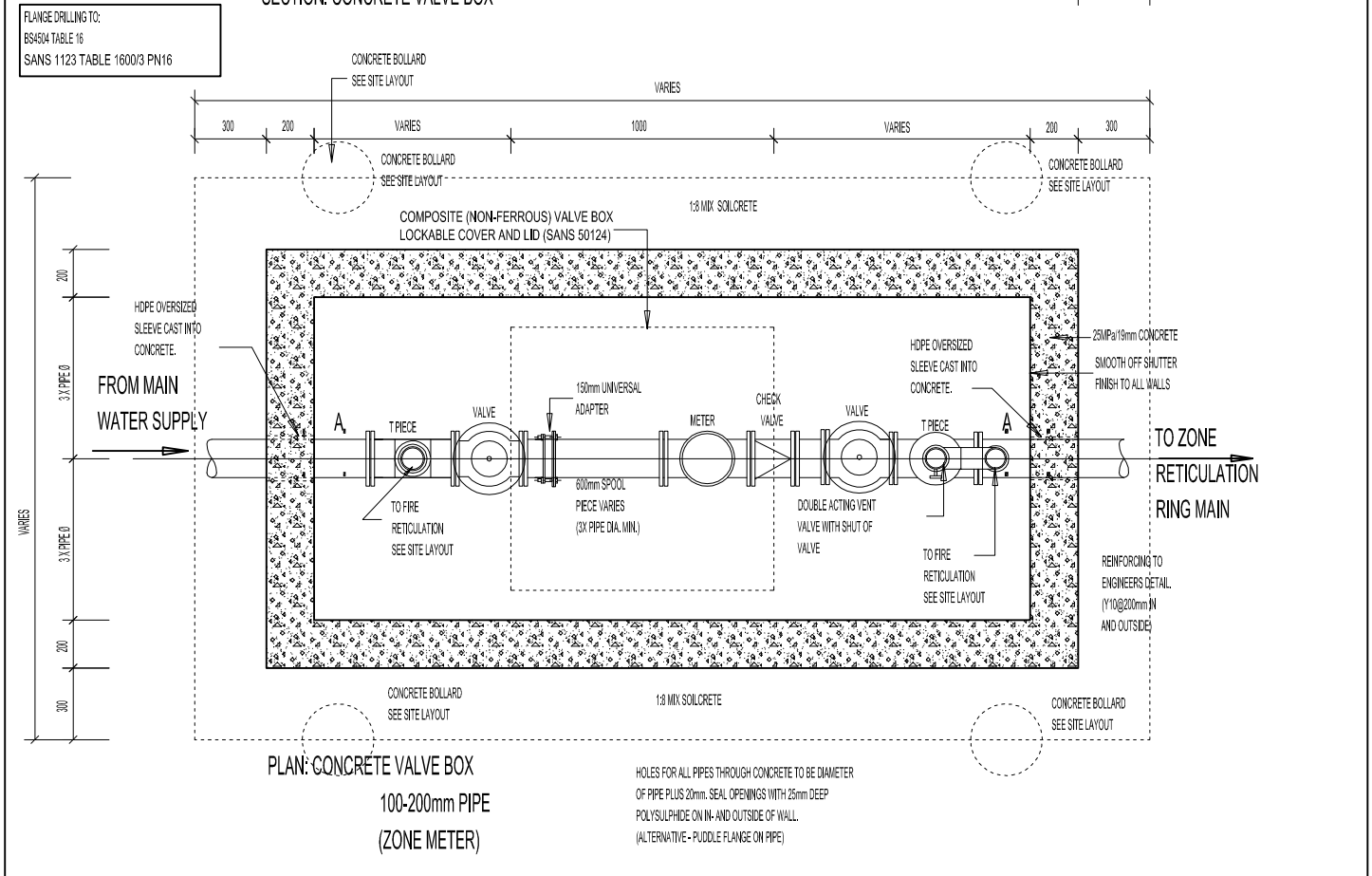
PLAN: CONCRETE VALVE BOX
100-200mm PIPE
(ZONE METER)

HOLES FOR ALL PIPES THROUGH CONCRETE TO BE DIAMETER OF PIPE PLUS 20mm. SEAL OPENINGS WITH 25mm DEEP POLYSULPHIDE ON IN- AND OUTSIDE OF WALL. (ALTERNATIVE - PUDDLE FLANGE ON PIPE)

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			<p>drawing number / type number TYPE NO DT 11-4/W</p>	



SECTION: CONCRETE VALVE BOX




PLAN: CONCRETE VALVE BOX
100-200mm PIPE
(ZONE METER)

HOLE FOR ALL PIPES THROUGH CONCRETE TO BE DIAMETER OF PIPE PLUS 20mm. SEAL OPENINGS WITH 25mm DEEP POLYSULPHIDE ON IN- AND OUTSIDE OF WALL. (ALTERNATIVE - PUDDLE FLANGE ON PIPE)

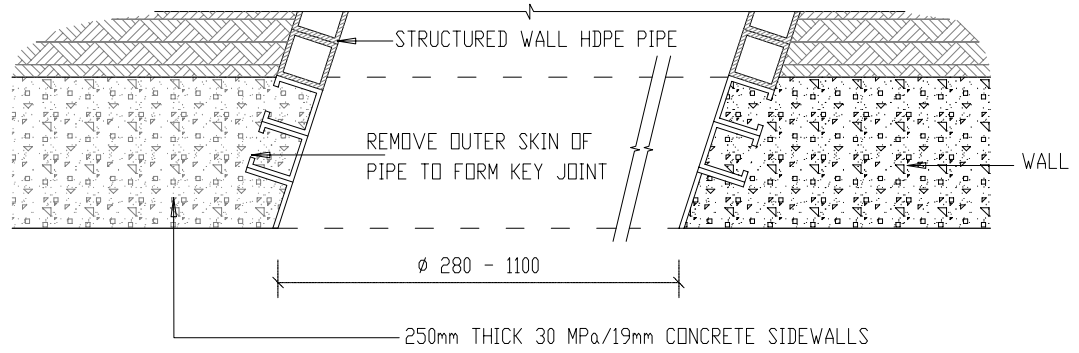
NOTE:
FOR PIPE SCHEDULE FORMAT SEE
DETAIL TYPE NO DT 11/2/W

A= STUB AND FLANGE WELDED TO HDPE PIPE
AND FLANGE ADAPTORS TO PIPE END AND VALVE

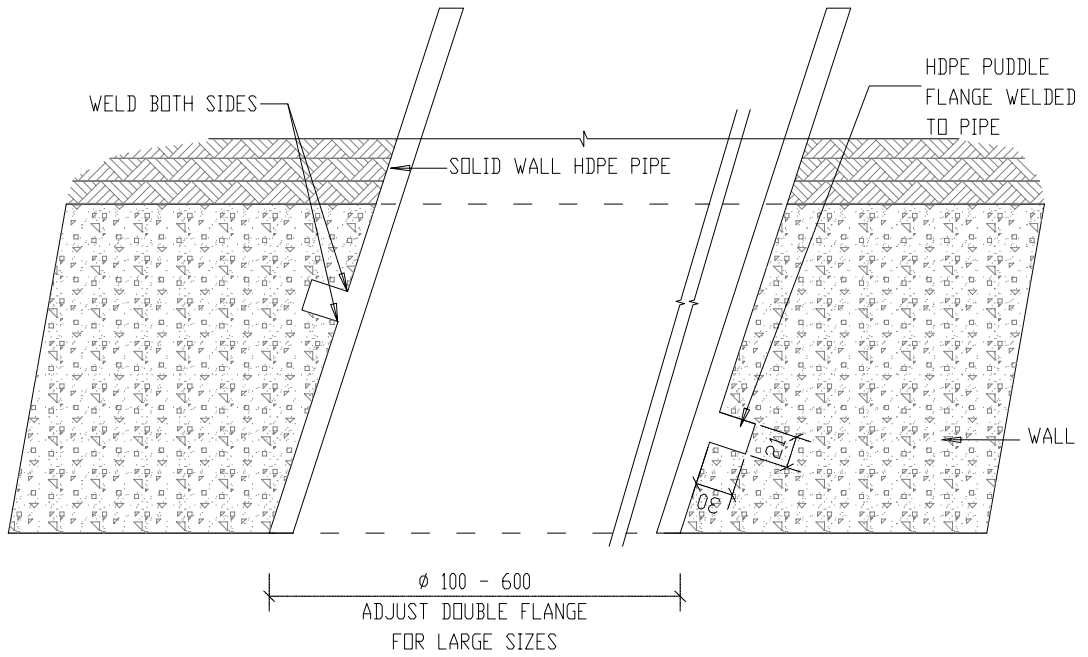
FLANGE DRILLING TO:
BS4594 TABLE 16
SANS 1123 TABLE 1600/3 PN16

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	<p>drawing number / type number TYPE NO DT 11-5/W</p>			

NOTE:
 DETAIL APPLICABLE TO WATER,
 SEWER AND STORMWATER



DETAIL 1:
 JUNCTION OF STRUCTURED WALL
 HDPE PIPE IN CONCRETE SIDEWALL.



DETAIL 2:
 JUNCTION OF SOLID WALL HDPE
 PIPE IN CONCRETE SIDEWALL



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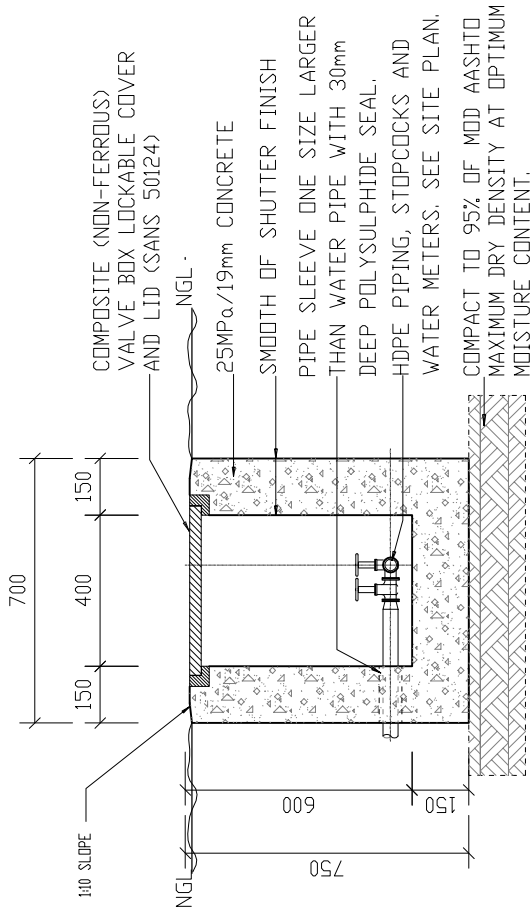
departmental
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 FOR DOLOMITIC SOILS.

title
 WATER:
 JUNCTION OF HDPE PIPE
 IN SIDEWALL.
 (DIAGRAMMATIC)

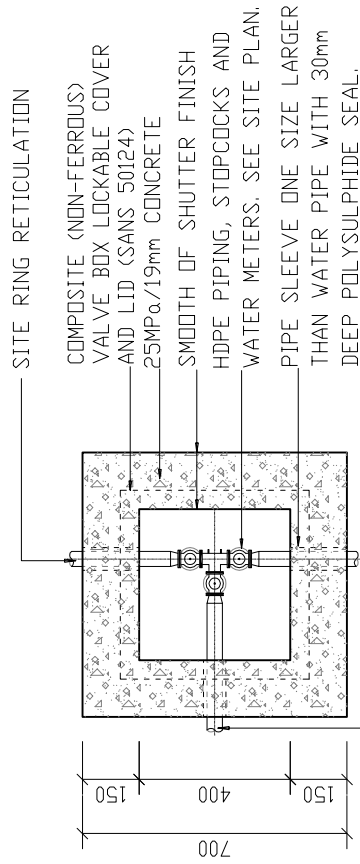
scale
 N.A.

date
 30-09-2017

drawing number / type number
 TYPE NO DT 12/W



SECTION: CONCRETE VALVE BOX FOR CONNECTIONS TO BUILDINGS
TYPE 2



CONNECTION TO BUILDING
(SLEEVE IF REQUIRED)

PLAN: CONCRETE VALVE BOX FOR
CONNECTIONS TO BUILDINGS
TYPE 2

DT 16/W



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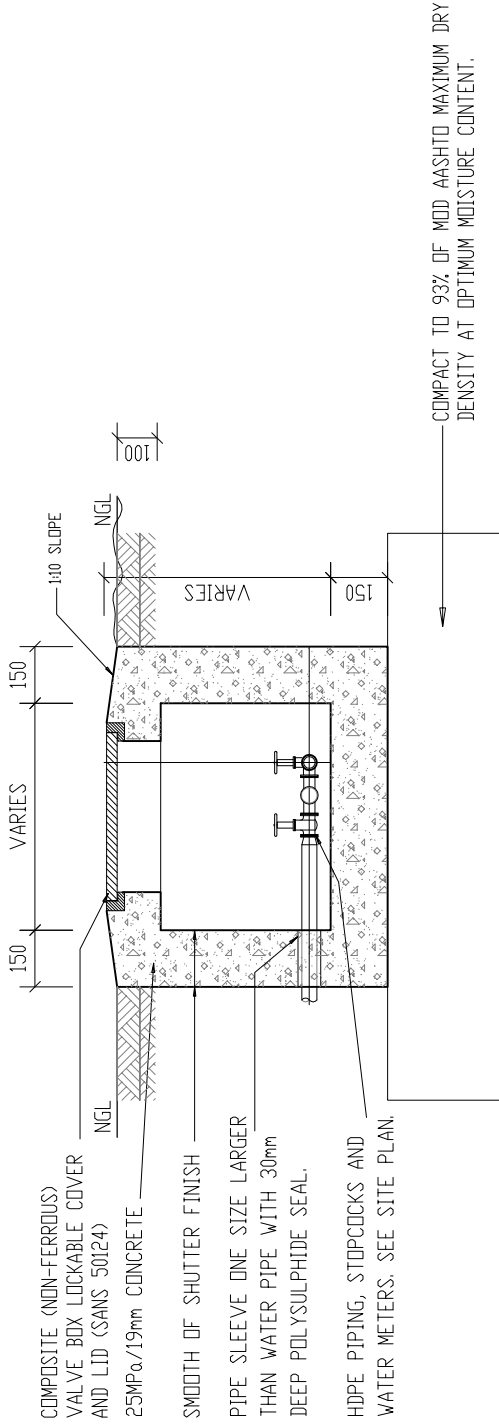
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FOR DOLOMITIC SOILS.

title
WATER:
CONCRETE VALVE BOX.
TYPE 2.
(DIAGRAMMATIC)

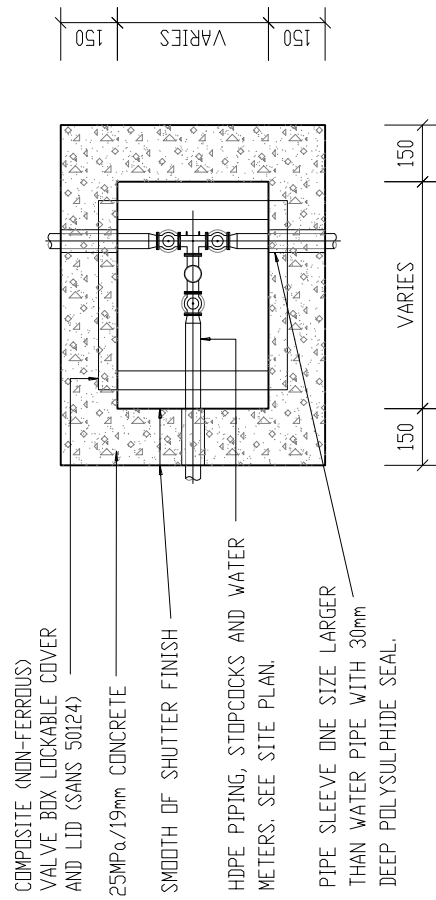
scale
1 : 20

date
30-09-2017

drawing number / type number
TYPE NO DT 16/W



SECTION: CONCRETE VALVE BOX FOR CONNECTION TO BUILDING TYPE 3



PLAN: CONCRETE VALVE BOX FOR CONNECTION TO BUILDING TYPE 3

DT 17/W



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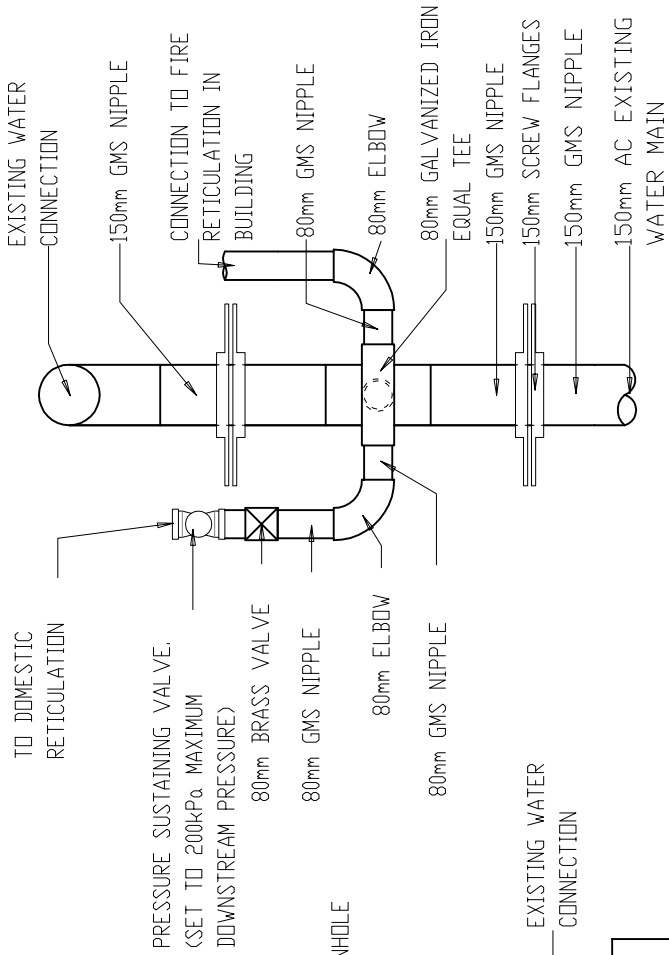
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FOR DOLOMITIC SOILS.

title
WATER:
CONCRETE VALVE BOX.
TYPE 3.
(DIAGRAMMATIC)

scale
1 : 10

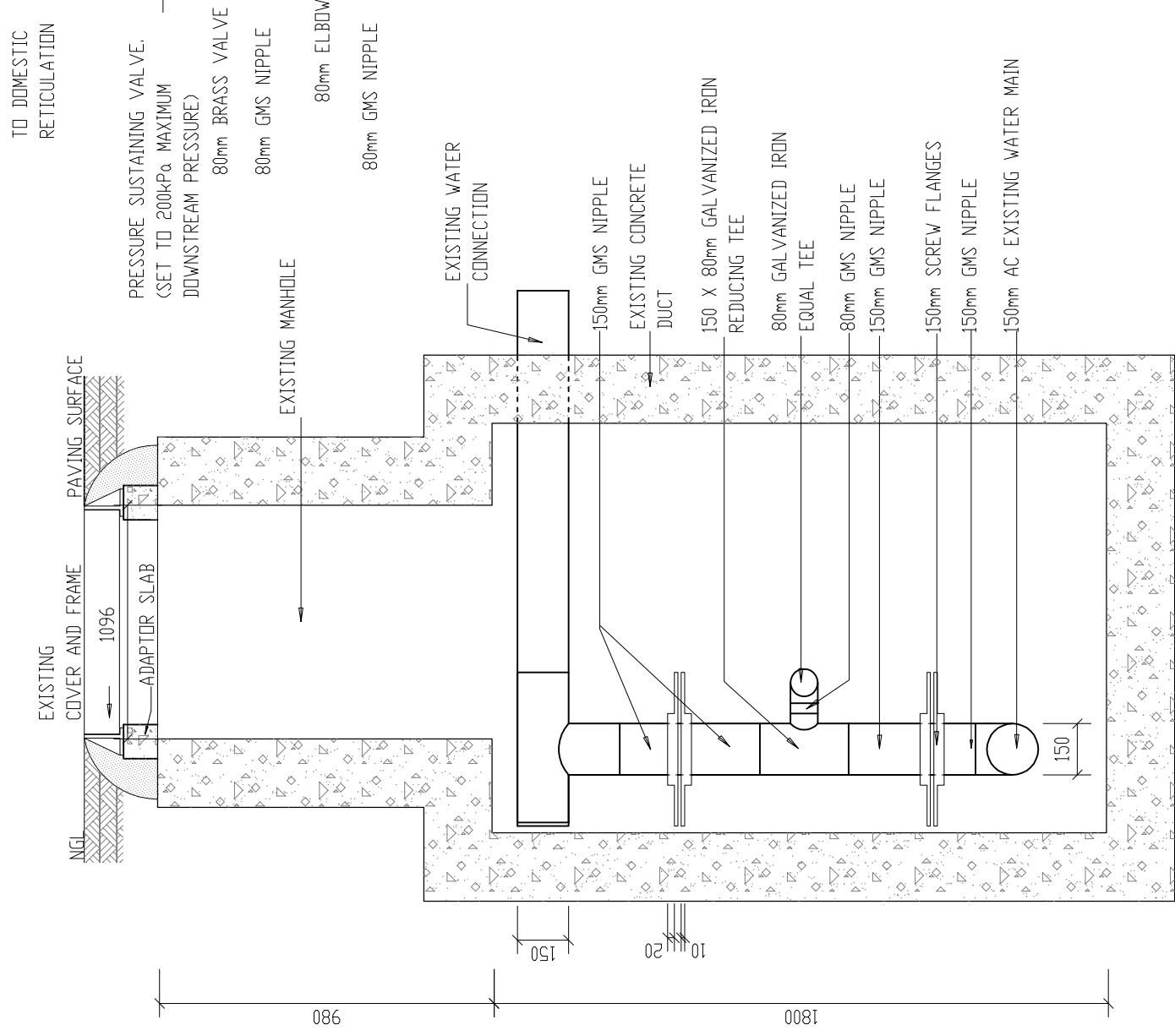
date
30-09-2017

drawing number / type number
TYPE NO DT 17/W



FRONT VIEW

NOTE:
 ALL PIPES TO BE HOT DIPPED
 HEAVY-DUTY GALVANIZED TO
 SANS 32 / SANS 121
 AFTER MANUFACTURING AND
 CUTTING SCREW THREADS,
 TREAT JOINT WITH MASTIC
 COMPOUND ACCORDING TO
 MANUFACTURER'S SPECIFICATION



SIDE VIEW



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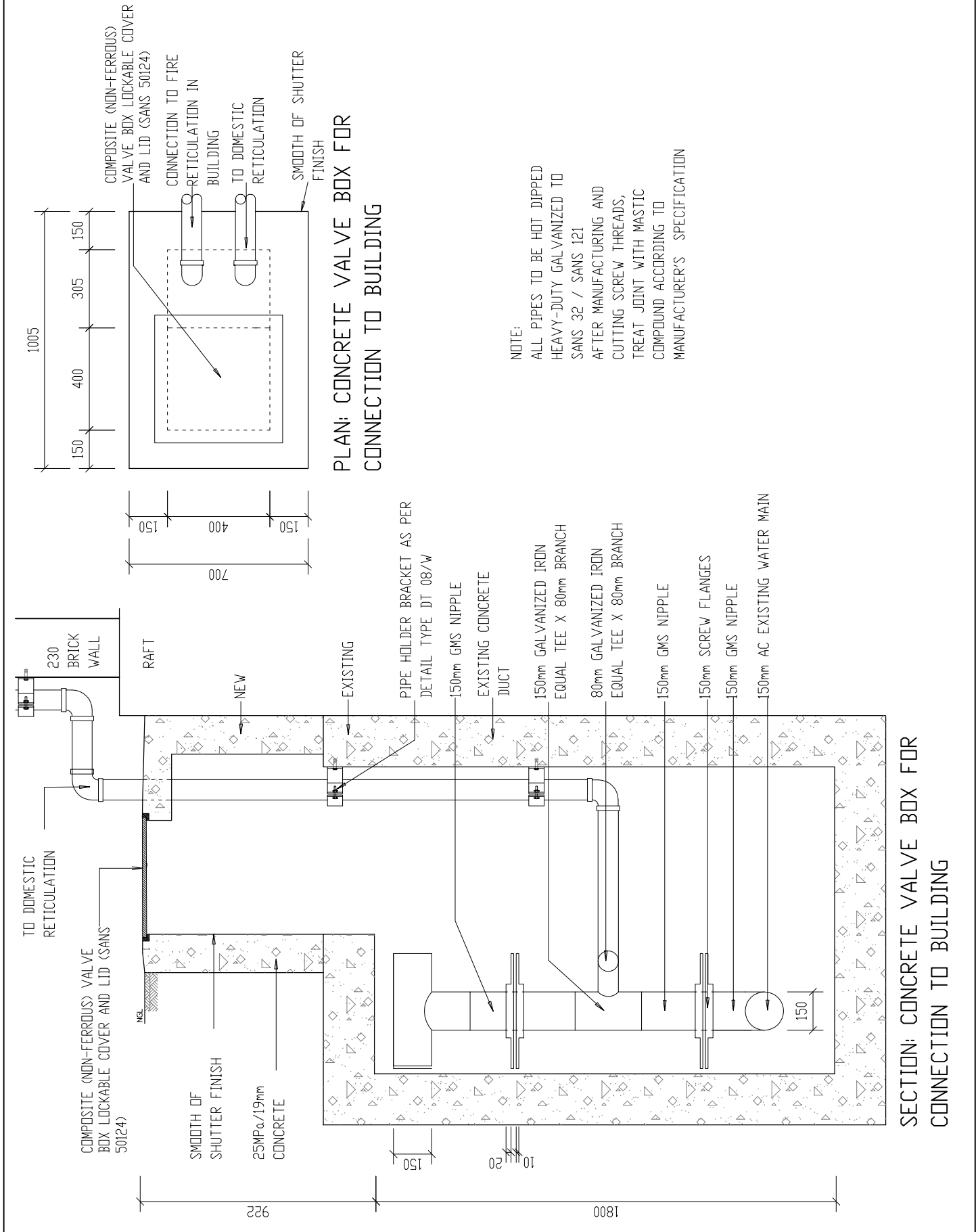
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 FOR DOLOMITIC SOILS

title
 WATER:
 EXISTING MANHOLE INLET
 OVER EXISTING SERVICE
 DUCT (DIAGRAMMATIC)

scale
 1:20

date
 30-09-2017

drawing number / type number
 TYPE NO DT 19/W



PLAN: CONCRETE VALVE BOX FOR CONNECTION TO BUILDING

SECTION: CONCRETE VALVE BOX FOR CONNECTION TO BUILDING

NOTE:
 ALL PIPES TO BE HOT-DIPPED
 HEAVY-DUTY GALVANIZED TO
 SANS 32 / SANS 121
 AFTER MANUFACTURING AND
 CUTTING SCREW THREADS,
 TREAT JOINT WITH MASTIC
 COMPOUND ACCORDING TO
 MANUFACTURER'S SPECIFICATION



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title
 WATER:
 NEW WATER CONNECTION TO
 BUILDING OVER
 EXISTING SERVICE
 DUCT (DIAGRAMMATIC)

scale
 1:20

date
 30-09-2017

drawing number / type number
 TYPE NO DT 20/W



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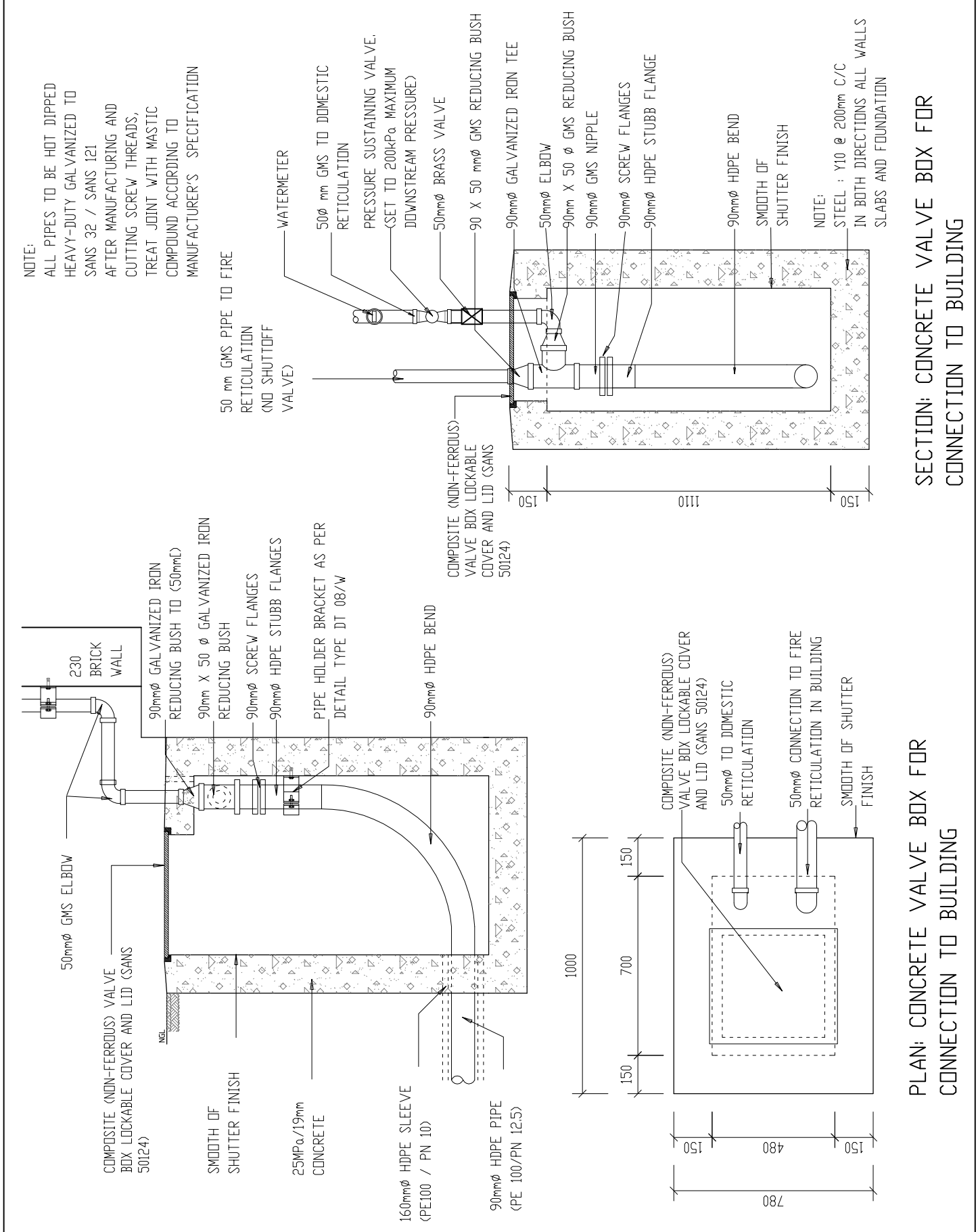
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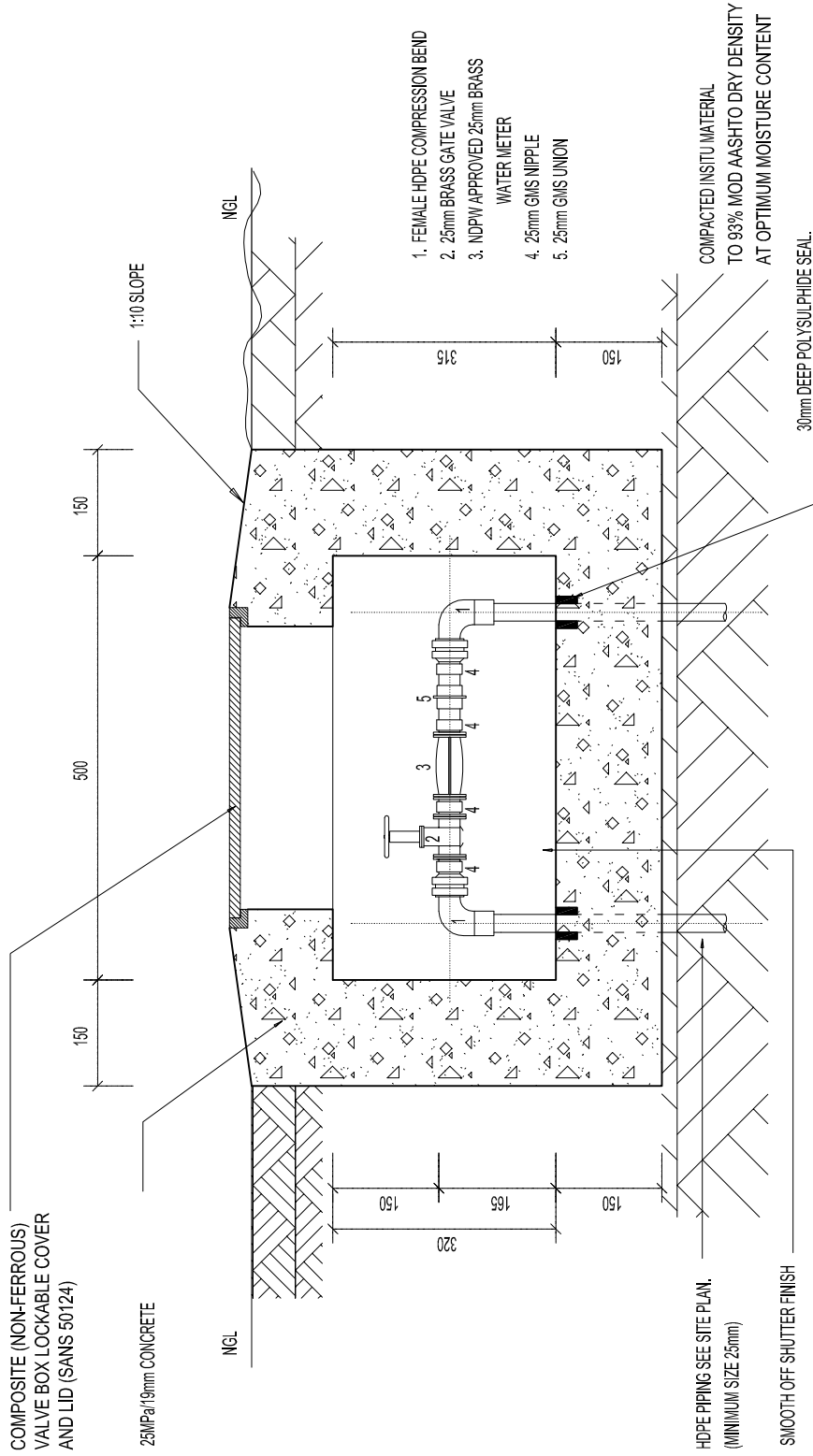
title
WATER:
NEW WATER CONNECTION TO
BUILDING

scale
1:20

date
30-09-2017

drawing number / type number
TYPE NO DT 21/W





SECTION: CONCRETE VALVE BOX FOR CONNECTION TO BUILDING

DT 24/W



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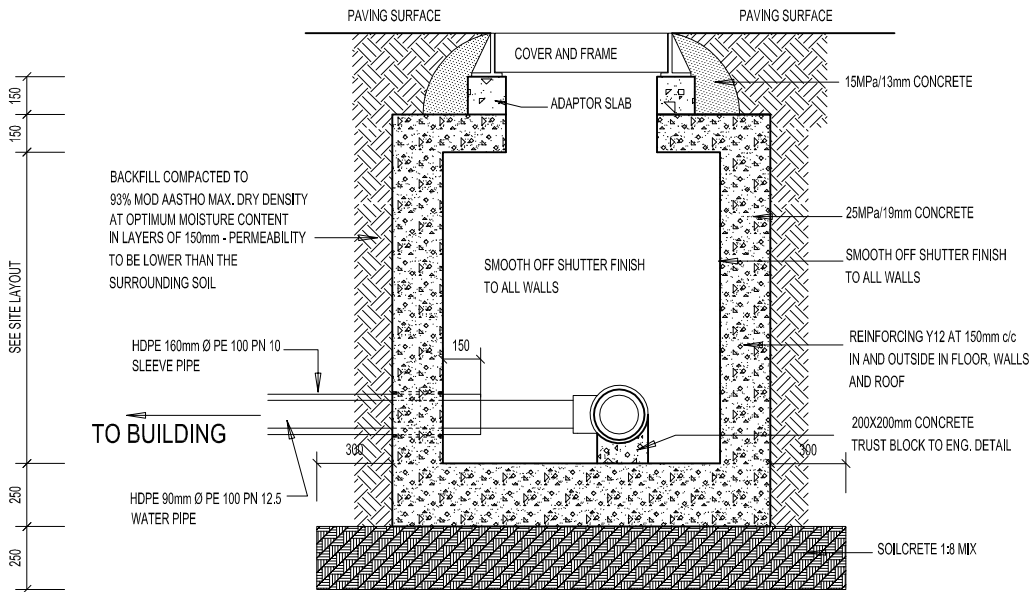
title
 WATER:
 CONCRETE VALVE BOX. (DIAGRAMMATIC)

scale
 1:10

date
 30-09-2017

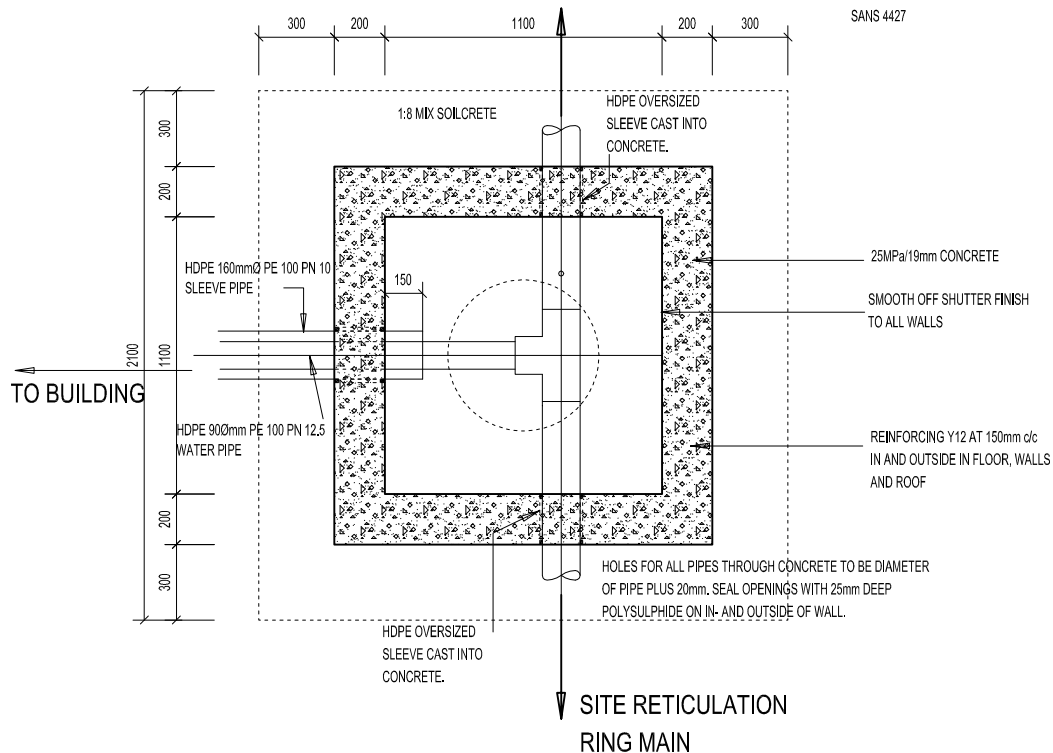
drawing number / type number
 TYPE NO DT 24/W

HEAVY DUTY COMPOSITE (NON-FERROUS)
COVER AND FRAME FOR ROADS (SANS 50124)



SECTION: CONCRETE WATER MANHOLE

SITE RETICULATION
RING MAIN



PLAN: CONCRETE WATER MANHOLE

NOTE:

- uPVC PIPES TO COMPLY TO SANS 791
- SEWER PIPES TO BE HDPE PE100 PN10 SANS 4427
- WATER PIPES SMALLER THAN 63mm dia HDPE PE100 PN 16 SANS4427
- WATER PIPES BIGGER THAN 75mm dia HDPE PE100 PN 12.5 SANS 4427



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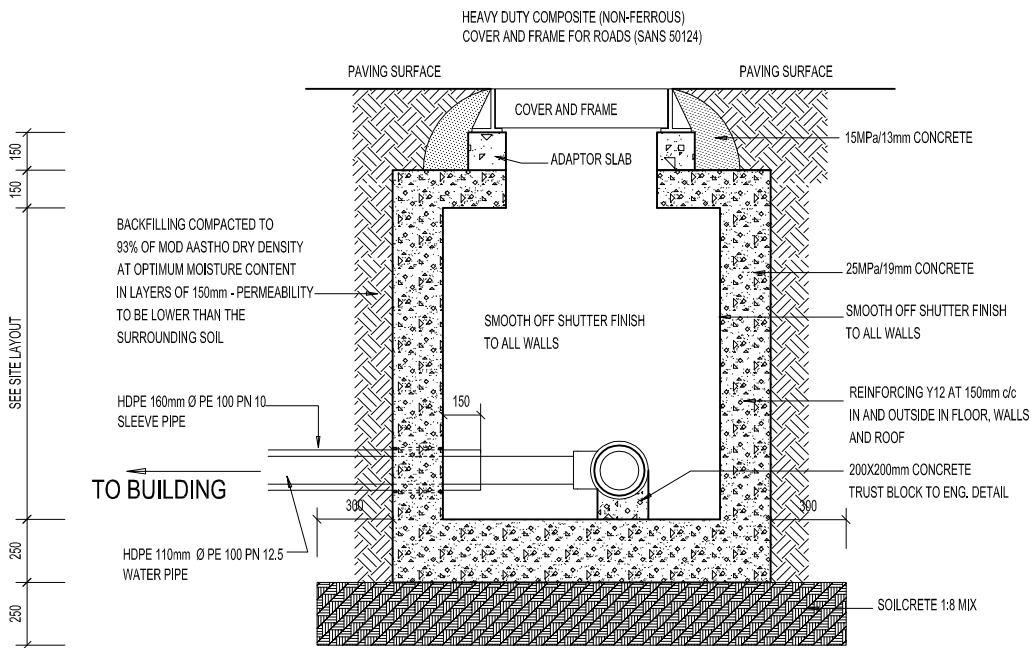
departmental
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ENGINEERING DETAILS
FOR DOLOMITIC SOILS.

title
WATER:
CONCRETE MANHOLE
DETAILS.
(DIAGRAMMATIC)

scale
1 : 30

date
30-09-2017

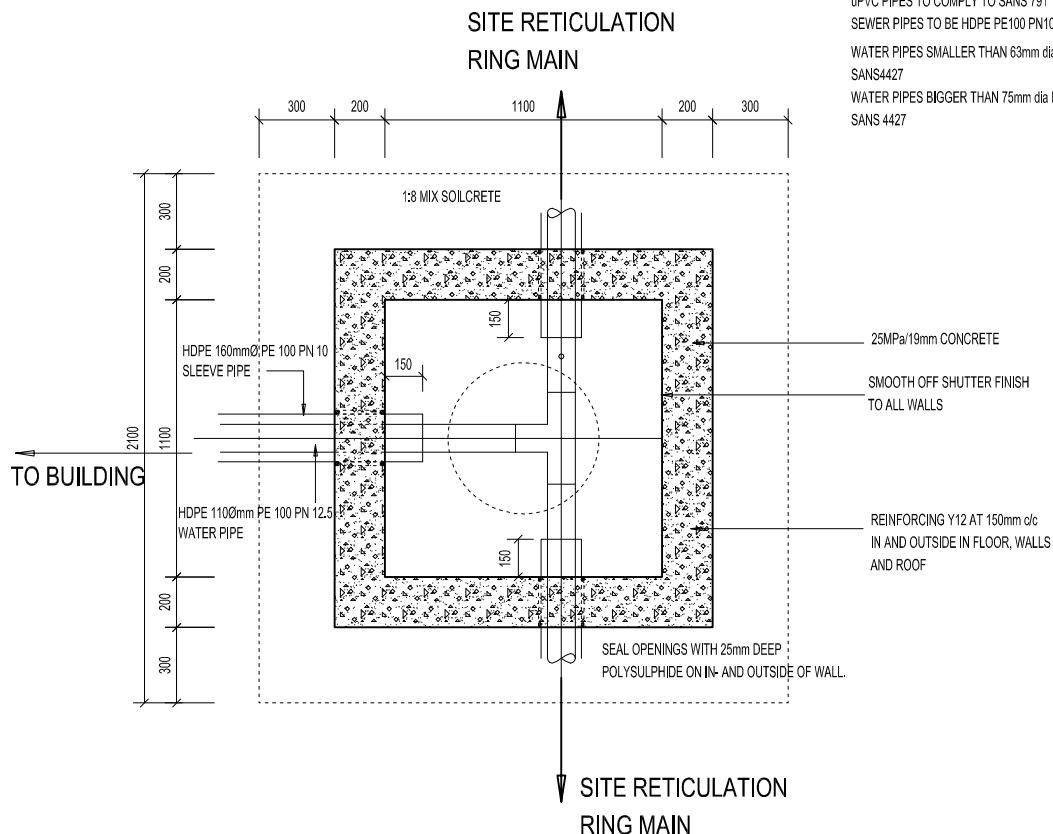
drawing number / type number
TYPE NO DT 26/W



SECTION: CONCRETE WATER MANHOLE

NOTE:

- uPVC PIPES TO COMPLY TO SANS 791
- SEWER PIPES TO BE HDPE PE100 PN10 SANS 4427
- WATER PIPES SMALLER THAN 63mm dia HDPE PE100 PN 16 SANS4427
- WATER PIPES BIGGER THAN 75mm dia HDPE PE100 PN 12.5 SANS 4427



PLAN: CONCRETE WATER MANHOLE WITH HDPE PIPES



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title
WATER:
CONCRETE MANHOLE
DETAILS.
(DIAGRAMMATIC)

scale
1 : 30

date
30-09-2017

drawing number / type number
TYPE NO DT 27/W

GENERAL NOTE:

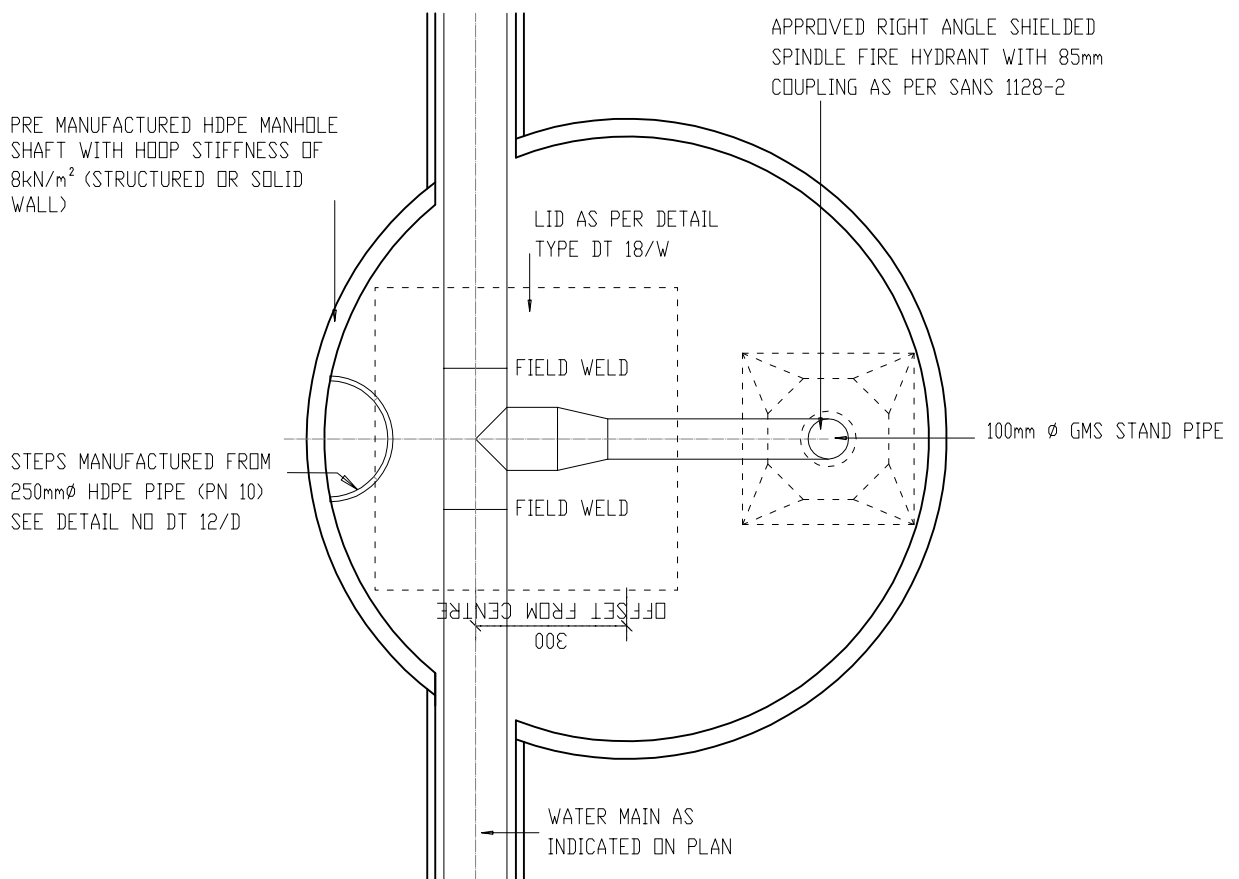
- ALL MATERIALS TO BE HDPE PE-100 AS PER SANS 4427
- HOOP STIFFNESS OF MANHOLE SHAFT TO BE 8kN/m^2

GENERAL WELDING SPECIFICATION:

- BUTT WELDING OF PIPES TO COMPLY TO SANS 10268-1.
- HOT GAS WELDING TO COMPLY TO SANS 10268-3
- HOT GAS EXTRUSION WELDING TO COMPLY TO SANS 10268-4

OTHER RELEVANT MANUFACTURING STANDARDS:

- SANS 10268-1
- SANS 10269
- SANS 10270
- SANS 1655
- SANS 1671-1



HDPE MANHOLE
PLAN
SCALE 1:15



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ENGINEERING DETAILS
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title
PLAN OF HDPE BOOSTER
CHAMBER

scale
1 : 15

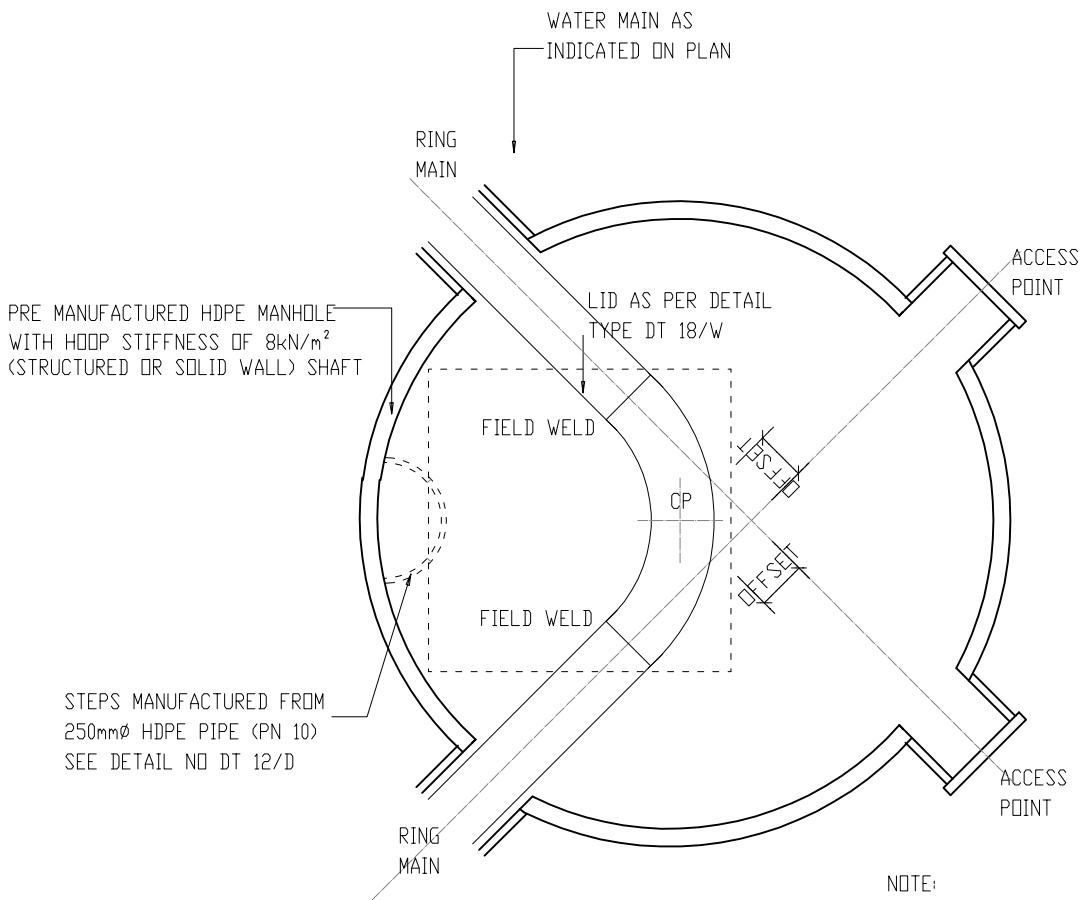
date
30-09-2017

drawing number / type number
TYPE NO DT 28-1/W

GENERAL NOTE:
 - ALL MATERIALS TO BE HDPE PE-100 AS PER SANS 4427
 HOOP STIFFNESS OF MANHOLE SHAFT TO BE 8kN/m²

GENERAL WELDING SPECIFICATION:
 - BUTT WELDING OF PIPES TO COMPLY TO SANS 10268-1
 - HOT GAS WELDING TO COMPLY TO SANS 10268-3
 - HOT GAS EXTRUSION WELDING TO COMPLY TO SANS 10268-4

OTHER RELEVANT MANUFACTURING STANDARDS:
 SANS 10268-1
 SANS 10269
 SANS 10270
 SANS 1655
 SANS 1671-1



NOTE:
 125mmØ FITTINGS
 30 RADIUS BENDS
 90 DEGREES, 580 c/mm, OFFSET 250
 45 DEGREES, 360 c/mm, OFFSET 200
 TEE, 400 c/mm, OFFSET 100
 90mmØ FITTINGS
 30 RADIUS BENDS
 90 DEGREES, 400 c/mm, OFFSET 250
 45 DEGREES, 400 c/mm, OFFSET 200
 TEE, 400 c/mm, OFFSET 100

**HDPE MANHOLE
 PLAN
 SCALE 1:15**



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title
 PLAN OF TYPICAL HDPE
 JUNCTION MANHOLE

scale
 1 : 15

date
 30-09-2017

drawing number / type number
 TYPE NO DT 28-2/W

NOTE:

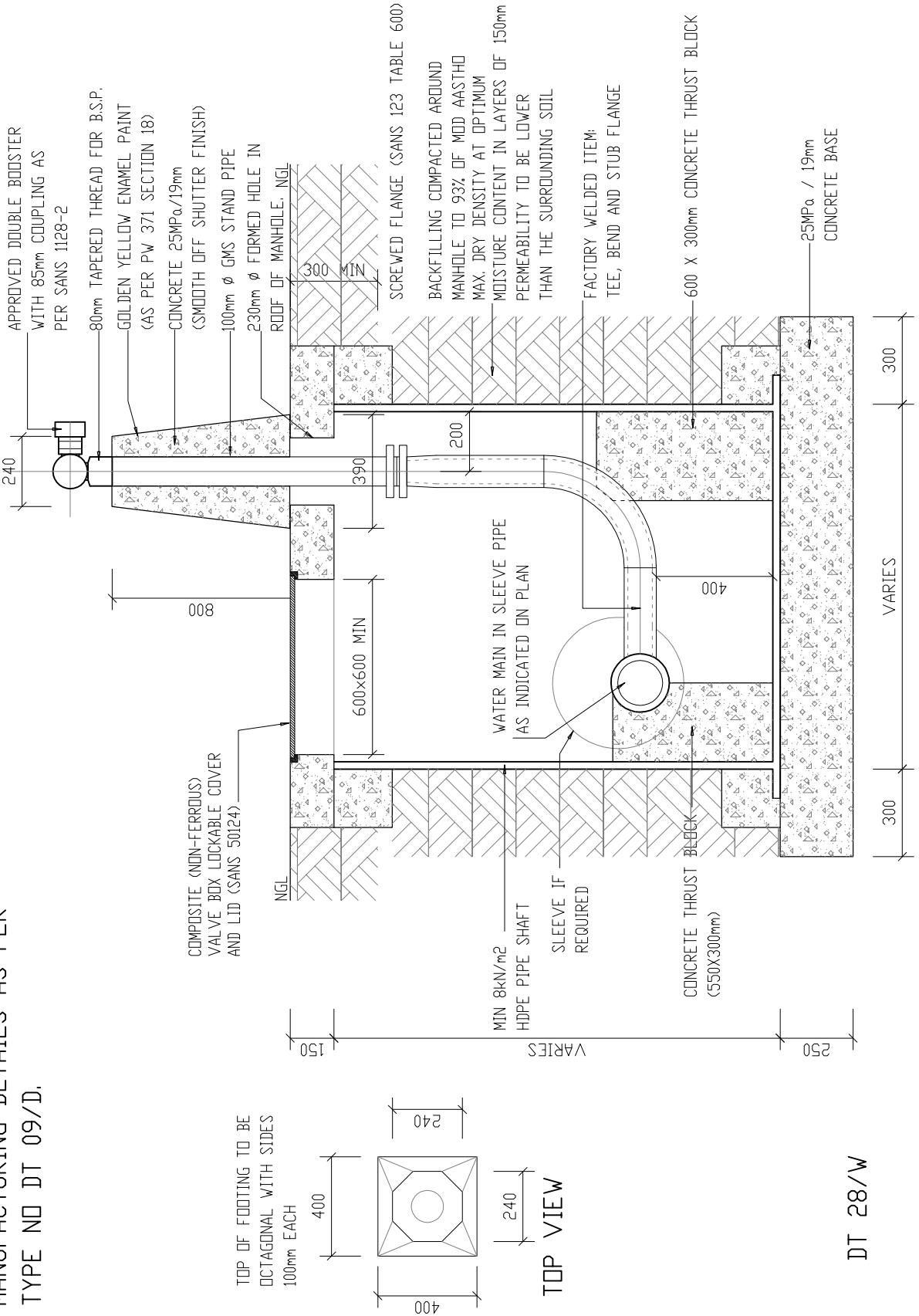
- BENCHING AND SPECIFICATION THEREOF SIMILAR AS PER DETAILS TYPE NO DT 05/D.
- MANUFACTURING DETAILS AS PER TYPE NO DT 09/D.

PRECAST CONCRETE

- ROOF SLAB (HEAVY DUTY) WITH:
 1. TYPE 1A (SANS 558) COVER AND FRAME FOR ROADS OR/
 2. HEAVY DUTY C.I. TYPE 4 (SANS 558) MANHOLE COVER AND FRAME WITH ONE ADAPTOR SLAB FOR PAVED OR OPEN AREAS.

NOTE:

- ALL HDPE CONNECTIONS TO BE ELECTRO-FUSION OR BUTT WELDED.
- SUPPLY EACH SITE WITH THREE HYDRANT KEYS
- AS PER DETAIL TYPE NO DT 04/W



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title
WATER:
TYPICAL BOOSTER
CONNECTION IN
HDPE CHAMBER
(DIAGRAMMATIC)

scale
1 : 20

date
30-09-2017

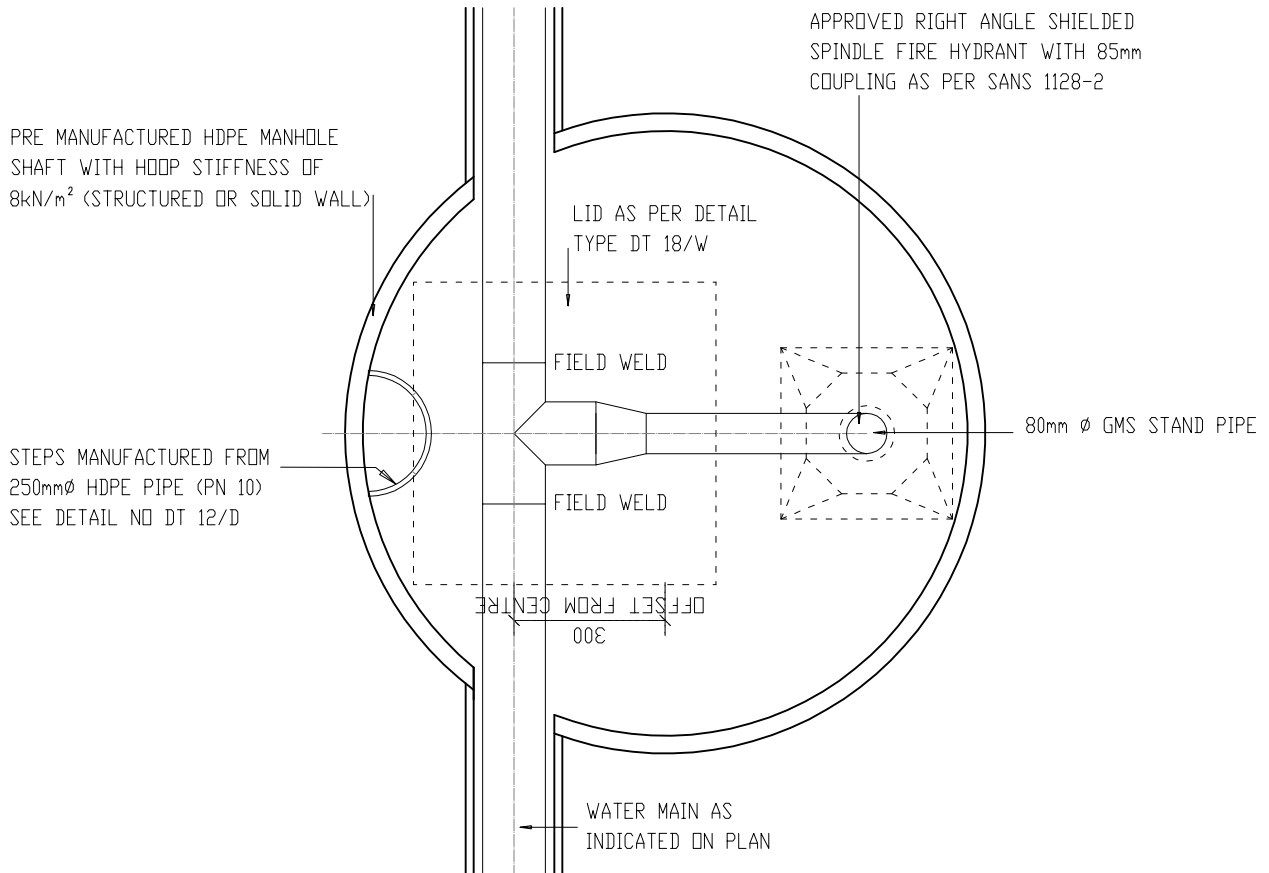
drawing number / type number
TYPE NO DT 28/W

DT 28/W

GENERAL NOTE:
 - ALL MATERIALS TO BE HDPE PE-100 AS PER SANS 4427
 HOOP STIFFNESS OF MANHOLE SHAFT TO BE 8kN/m²

GENERAL WELDING SPECIFICATION:
 - BUTT WELDING OF PIPES TO COMPLY TO SANS 10268-1
 - HOT GAS WELDING TO COMPLY TO SANS 10268-3
 - HOT GAS EXTRUSION WELDING TO COMPLY TO SANS 10268-4

OTHER RELEVANT MANUFACTURING STANDARDS:
 SANS 10268-1
 SANS 10269
 SANS 10270
 SANS 1655
 SANS 1671-1



HDPE MANHOLE
 PLAN
 SCALE 1:15



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 ENGINEERING DETAILS
 FOR DOLOMITIC SOILS

title
 PLAN OF FIRE
 HYDRANT CHAMBER
 IN LINE TYPE

scale
 1 : 15

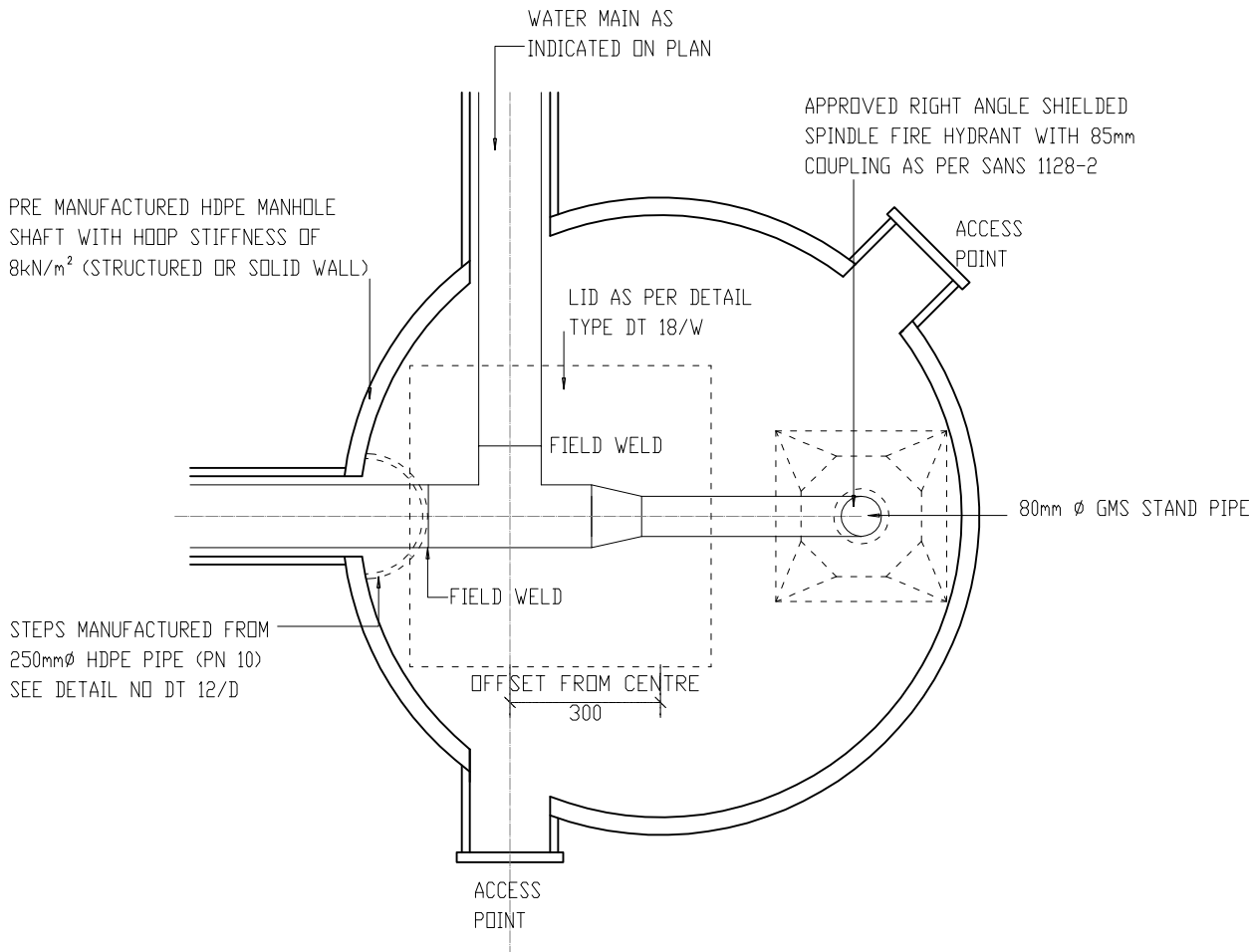
date
 30-09-2017

drawing number / type number
 TYPE NO DT 29-1/W


GENERAL NOTE:
 - ALL MATERIALS TO BE HDPE PE-100 AS PER SANS 4427
 HOOP STIFFNESS OF MANHOLE SHAFT TO BE 8kN/m²

GENERAL WELDING SPECIFICATION:
 - BUTT WELDING OF PIPES TO COMPLY TO SANS 10268-1
 - HOT GAS WELDING TO COMPLY TO SANS 10268-3
 - HOT GAS EXTRUSION WELDING TO COMPLY TO SANS 10268-4.

OTHER RELEVANT MANUFACTURING STANDARDS:
 SANS 10268-1
 SANS 10269
 SANS 10270
 SANS 1655
 SANS 1671-1



**HDPE MANHOLE
 PLAN
 SCALE 1:15**

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			drawing number / type number TYPE NO DT 29-2/W	

NOTE:

- BENCHING AND SPECIFICATION THEREOF SIMILAR AS PER DETAILS TYPE NO DT 05/D, MANUFACTURING DETAILS AS PER TYPE NO DT 09/D.

PRECAST CONCRETE

- ROOF SLAB (HEAVY DUTY) WITH:
 1. TYPE 1A (SANS 558) COVER AND FRAME FOR ROADS OR/
 2. HEAVY DUTY COMPOSITE (NON-FERROUS) SANS 50124 MANHOLE COVER AND FRAME WITH ONE ADAPTOR SLAB FOR PAVED OR OPEN AREAS.

NOTE:

- ALL HDPE CONNECTIONS TO BE ELECTRO-FUSION OR BUTT WELDED.
- SUPPLY EACH SITE WITH THREE HYDRANT KEYS
- AS PER DETAIL TYPE NO DT 04/W

- APPROVED RIGHT ANGLE SHIELDED SPINDLE FIRE HYDRANT WITH 85mm COUPLING AS PER SANS 1128-2

80mm TAPERED THREAD FOR B.S.P.

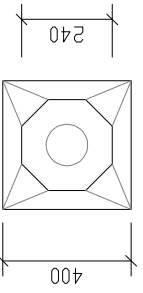
GOLDEN YELLOW ENAMEL PAINT (AS PER PW 371 SECTION 18)

CONCRETE 25MPa/19mm (SMOOTH OFF SHUTTER FINISH)

80mm Ø GMS STAND PIPE

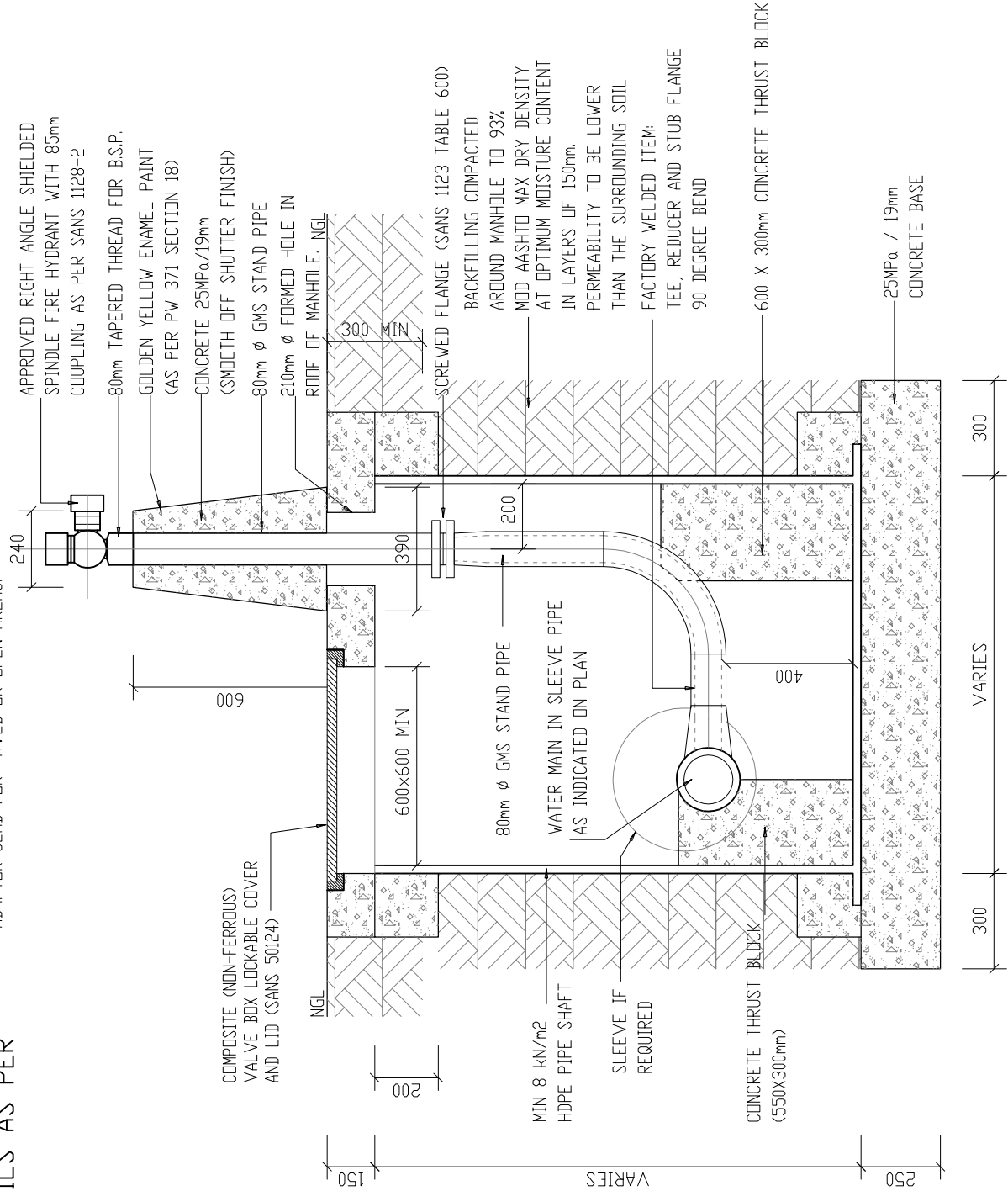
210mm Ø FORMED HOLE IN ROOF OF MANHOLE, NGL

300




TOP OF FOOTING TO BE OCTAGONAL WITH SIDES 100mm EACH

TOP VIEW



DT 29/W

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			1 : 20	30-09-2017
			drawing number / type number	
			TYPE NO DT 29/W	

PRECAST CONCRETE

ROOF SLAB (HEAVY DUTY) WITH:

1. TYPE 1A (SANS 558) COVER AND FRAME FOR ROADS OR/

2. HEAVY DUTY COMPOSITE (NON-FERROUS) SANS 50124

MANHOLE COVER AND FRAME WITH ONE

ADAPTOR SLAB FOR PAVED OR OPEN AREAS.

NOTE:

- BENCHING AND SPECIFICATION

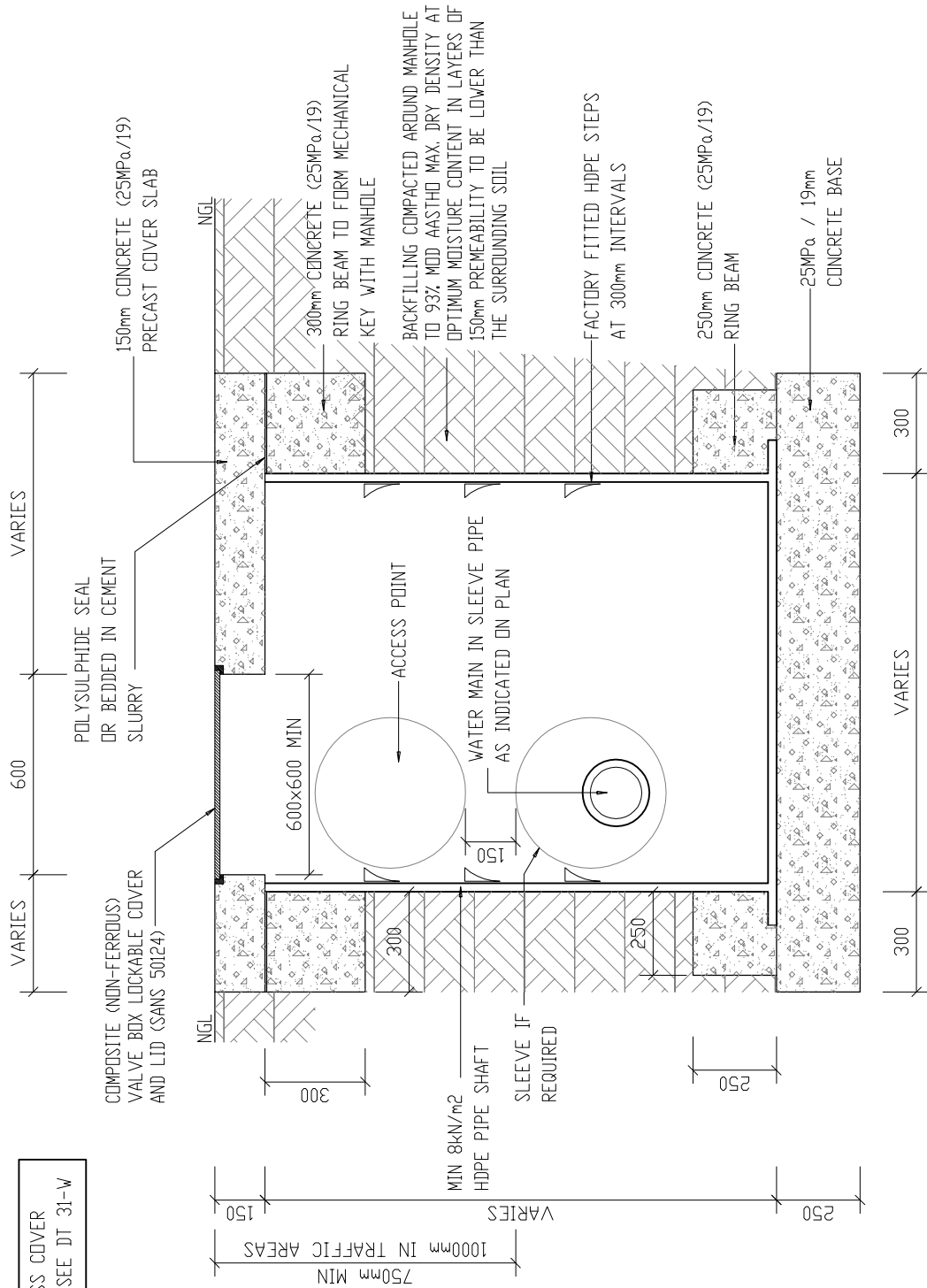
THEREOF SIMILAR AS PER DETAILS

TYPE NO DT 05/D.

- MANUFACTURING DETAILS AS PER

TYPE NO DT 09/D.

FOR ROOF AND ACCESS COVER
IN SURFACED AREAS SEE DT 31-W



DT 30/W



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ENGINEERING DETAILS
FOR DOLOMITIC SOILS.

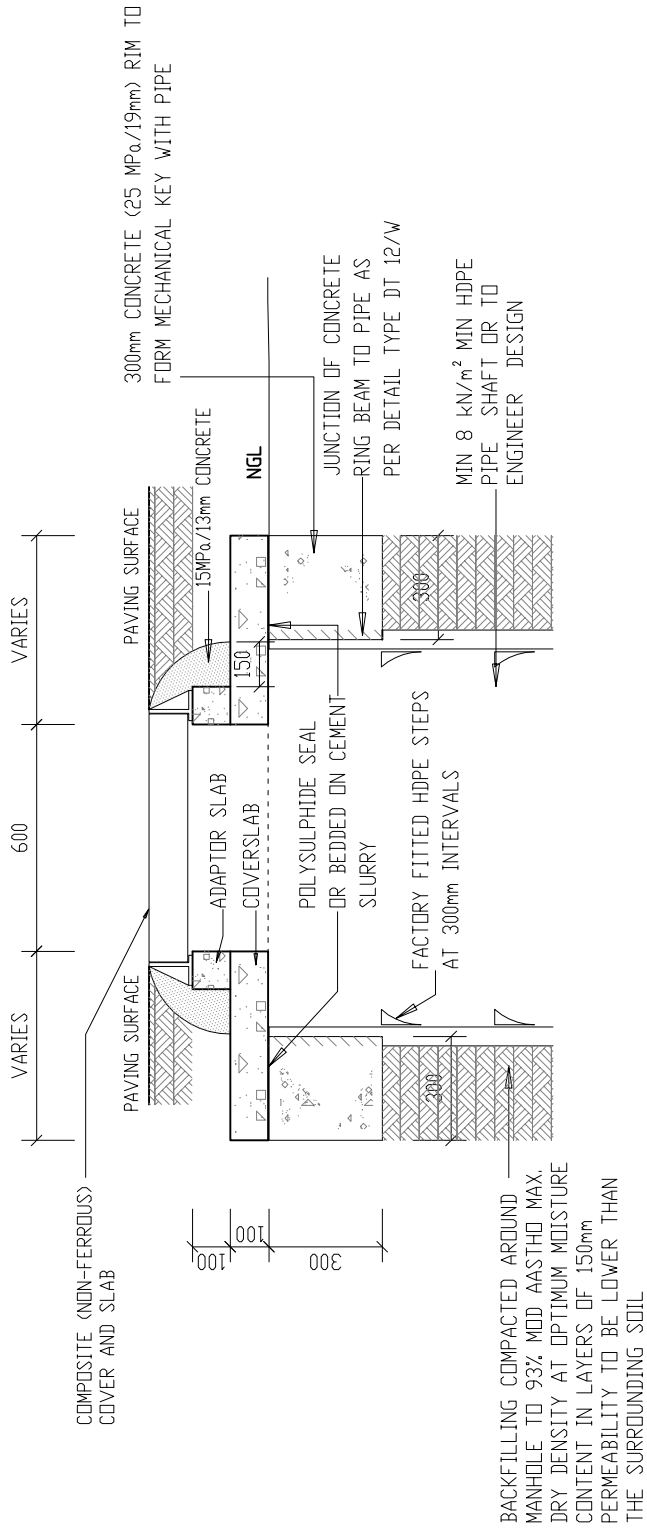
title
WATER:
TYPICAL DETAILS
OF PREFABRICATED
HDPE CHAMBERS
(DIAGRAMMATIC)

scale
1 : 20

date
30-09-2017

drawing number / type number
TYPE NO DT 30/W

- PRECAST CONCRETE
 ROOF SLAB (HEAVY DUTY) WITH:
 1. TYPE 1A (SANS 558) COVER AND
 FRAME FOR ROADS OR/
 2. HEAVY DUTY COMPOSITE (NON-FERROUS) SANS 51024)
 MANHOLE COVER AND FRAME WITH ONE
 ADAPTOR SLAB FOR PAVED OR OPEN AREAS.



ROOF AND ACCESS COVER OF
 HDPE MANHOLE ON MAIN WATER LINE
 IN TRAFFIC OF SURFACED AREAS

DT 31/W



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 FOR DOLOMITIC SOILS

title
 WATER:
 SECTION OF 900-1200mm
 MANHOLE ON MAIN
 SEWER LINE
 TRAFFIC / SURFACED AREAS
 (DIAGRAMMATIC)

scale
 1 : 20

date
 30-09-2017

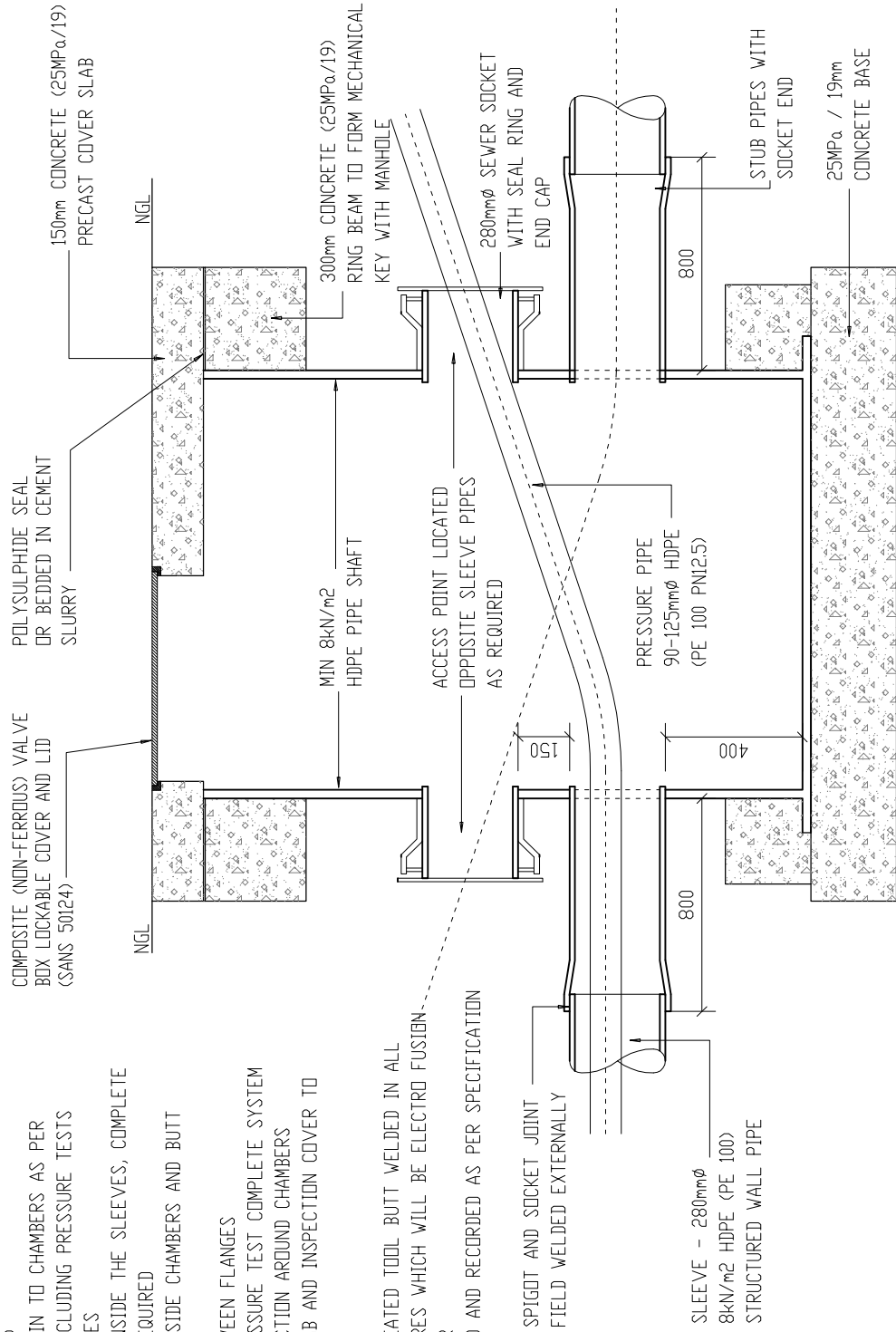
drawing number / type number
 TYPE NO DT 31/W

NOTE: INSTALLATION PROCEDURE FOR HDPE SLEEVE PIPE SYSTEM AND ACCESS POINTS

SLEEVE PIPE SYSTEM AND ACCESS POINTS

1. EXCAVATE FOR PIPE TRENCHES AND CHAMBERS
2. CONSTRUCT IN SITU CONCRETE BASES FOR CHAMBERS
3. SET MANHOLE ON BASE IN CEMENT SLURRY AND CONSTRUCT IN SITU CONCRETE ANCHOR RING
4. PREPARE BEDDING FOR SLEEVE PIPES WITH EVEN GRADE BETWEEN CHAMBERS TO ENSURE DRAINAGE (IF COMPLETELY LEVEL THEN CREATE A HIGH POINT MIDWAY BETWEEN TO PROVIDE 0.5% FALL EACH WAY)
5. INSTALL SLEEVE PIPES AND JOIN TO CHAMBERS AS PER STORMWATER SPECIFICATION INCLUDING PRESSURE TESTS BACKFILL AND COMPACT TRENCHES
7. INSERT THE PRESSURE PIPES INSIDE THE SLEEVES, COMPLETE WITH STUB FLANGES WHERE REQUIRED
8. LOCATE HDPE PIPE FITTINGS INSIDE CHAMBERS AND BUTT WELD IN PLACE
9. PRESSURE TEST SECTIONS BETWEEN FLANGES
10. INSTALL ALL FITTINGS AND PRESSURE TEST COMPLETE SYSTEM
11. COMPLETE BACKFILL AND COMPACTION AROUND CHAMBERS
12. INSTALL RING BEAM, COVER SLAB AND INSPECTION COVER TO COMPLETE THE CHAMBER

NOTE:
PRESSURE PIPE JOINTS WILL BE HEATED TOOL BUTT WELDED IN ALL CASES, EXCEPT UNAVOIDABLE CLOSURES WHICH WILL BE ELECTRO FUSION WELDED AS APPROVED BY ENGINEER
ALL WELDS ARE TO BE REFERENCED AND RECORDED AS PER SPECIFICATION



DT 32/W

TYPICAL DETAILS OF SLEEVE PIPE SYSTEM AND ACCESS POINTS



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title
WATER:
TYPICAL DETAILS
OF SLEEVE PIPE SYSTEM
AND ACCESS POINTS

scale
1 : 20

date
30-09-2017

drawing number / type number
TYPE NO DT 32/W