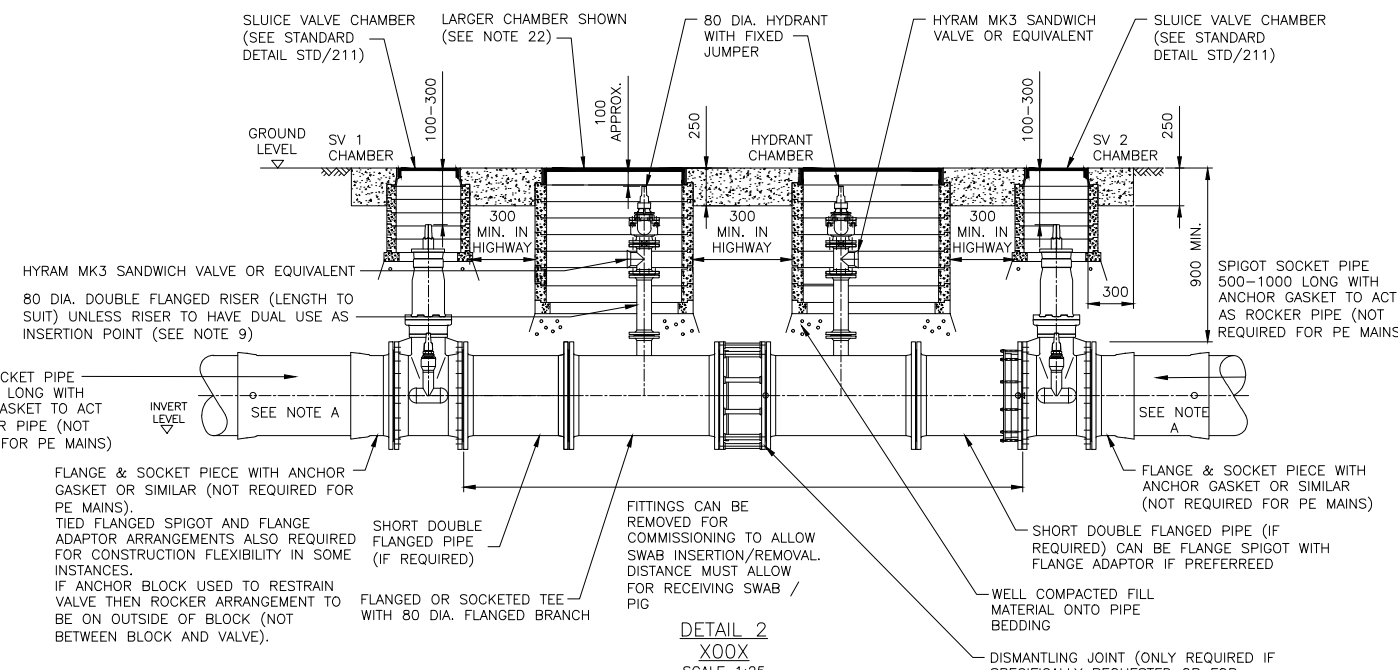
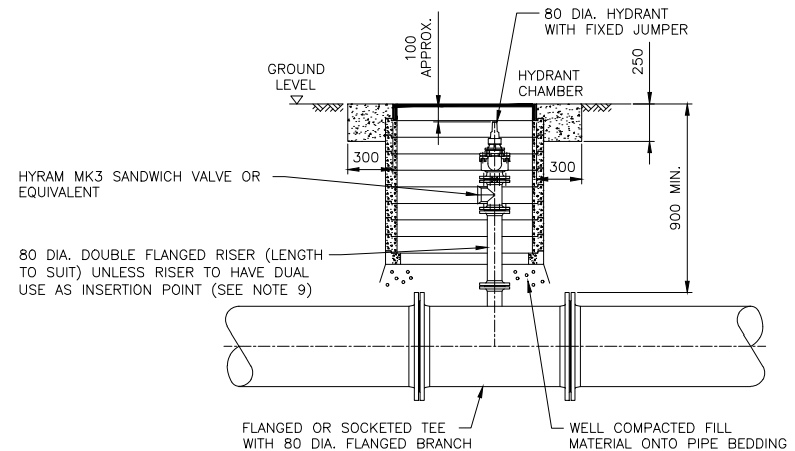


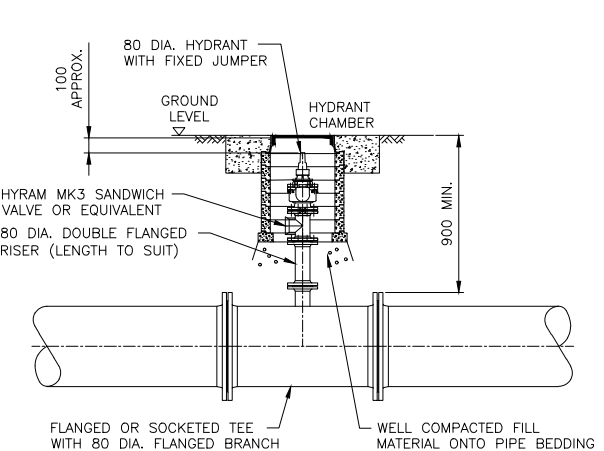
DETAIL 1
SCALE 1:25



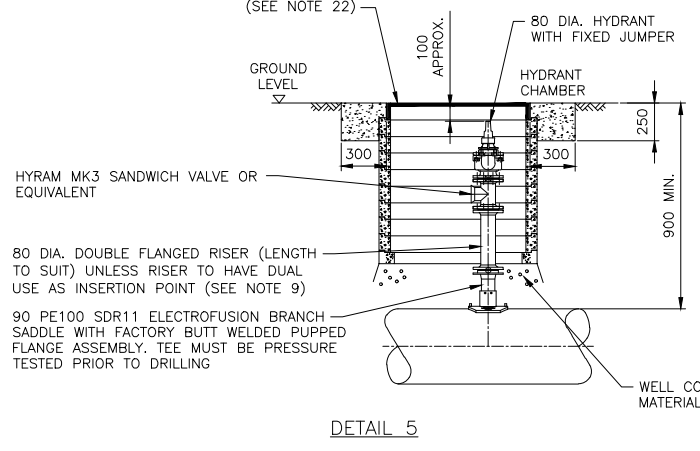
DETAIL 2
XOX
SCALE 1:25



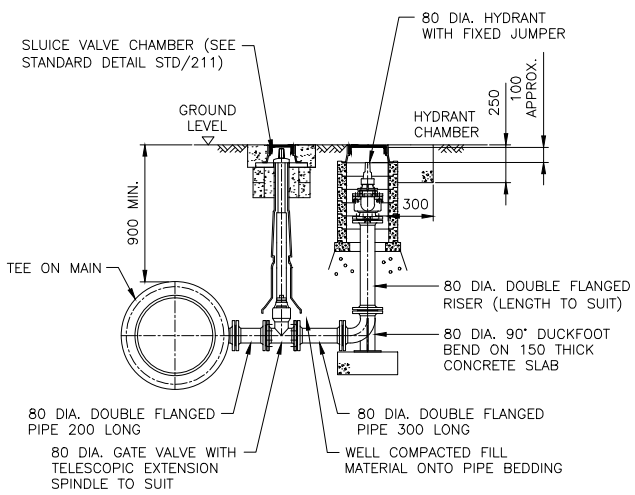
DETAIL 3
LARGER CHAMBER INSTALLATION
SCALE 1:25 (SEE NOTE 22)



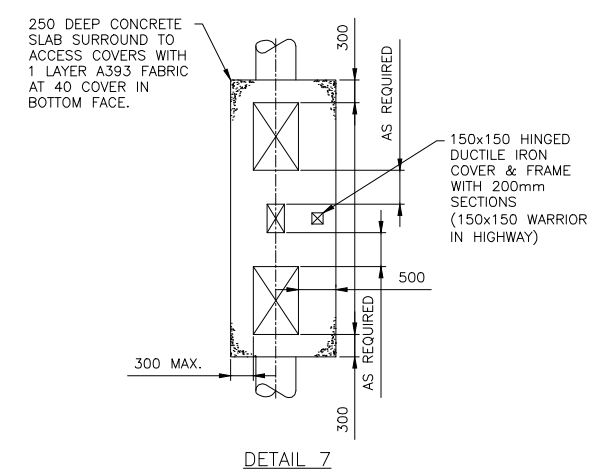
DETAIL 4
SMALL CHAMBER INSTALLATION WITH WARRIOR TYPE COVER
SCALE 1:25



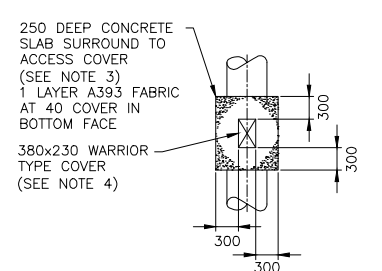
DETAIL 5



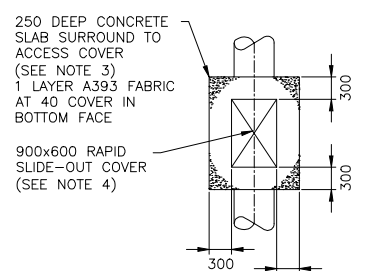
DETAIL 6
SCALE 1:25 (ALTERNATIVE TO DETAIL 3 & 4)



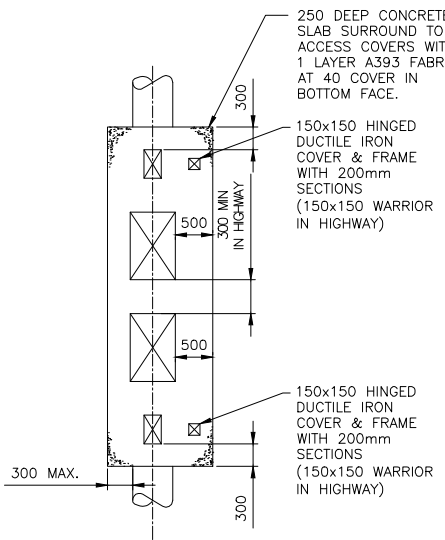
DETAIL 7
TYPICAL COVER SLAB DETAILS
SCALE 1:50



DETAIL 8
TYPICAL COVER SLAB DETAILS
SCALE 1:50



DETAIL 9
SCALE 1:50



DETAIL 10
SCALE 1:50

COVER SPEC:

COVERS FOR CHAMBERS:

- 915x610 CHAMBER TO HAVE 900x600 DUCTILE IRON SAINT GOBAIN RAPID SLIDE-OUT COVER & FRAME IN FIELDS OR SAINT GOBAIN OPT-EMAX D400-N COVER & FRAME IN TRAFFICKED ROADS & TRACKS.
- 430x280 CHAMBER TO BE 380x230 DUCTILE IRON WARRIOR TYPE.

DETAIL No.	DESCRIPTION
DETAIL 1	'OXO' COMPLEX ARRANGEMENT
DETAIL 2	'XOX'/'XOXO' COMPLEX ARRANGEMENT (CAN BE SINGLE OR DOUBLE HYDRANT)
DETAIL 3	LARGER CHAMBER INSTALLATION
DETAIL 4	SMALL CHAMBER INSTALLATION WITH WARRIOR TYPE COVER
DETAIL 5	HYDRANT DETAIL ON PE MAIN
DETAIL 6	OFF-LINE HYDRANT DETAIL (ALTERNATIVE OPTION)
DETAIL 7	COVER SLAB DETAIL OXO
DETAIL 8	COVER SLAB DETAIL HYDRANT - SMALL CHAMBER
DETAIL 9	COVER SLAB DETAIL HYDRANT - LARGER CHAMBER
DETAIL 10	COVER SLAB DETAIL XOX / XOXO

NOTES CONTINUED:

16. A SINGLE CONCRETE MARKER POST & PLATE IS REQUIRED FOR EACH NON-HIGHWAY COMPLEX.

17. FIRE HYDRANT BOWL TO BE FITTED WITH RED 2 PIECE SCREW ON ANTI-TAMPER SECURITY FITTING. WASHOUT HYDRANT TO BE FITTED WITH SAME BUT BLUE.

18. HYDRANT BOWL TO BE MAX. OF 300 BELOW CHAMBER COVER.

19. FOR VALVE SPECIFICATION SEE DS 226 AND STANDARD DRAWING STD/211.

20. DISMANTLING JOINTS ONLY REQUIRED IF VALVE(S) INCORPORATED INTO COMPLEX. ALL DISMANTLING JOINTS TO HAVE 50mm FLEXIBILITY UP TO 700 DIA. (16 & 25 BAR). IF NO VALVES INCORPORATED NO DISMANTLING JOINTS ARE REQUIRED.

21. DRAWING INCLUDES DETAILS FOR DIFFERENT PIPE DIAMETERS/MATERIALS AND PIPELINE VALVE ARRANGEMENTS.

22. LARGER CHAMBER INSTALLATION TO ONLY BE UTILISED WHERE ISOLATION IS REQUIRED FOR INSERTION PURPOSES. SEE DS643 AND DS226.

23. CHAMBER SECTIONS CAN BE RC OR COMPOSITE/PLASTIC MATERIAL.

- SITE ID
- NGR
- NOTES
- ANY MAPS SHOWN ON THIS DRAWING ARE REPRODUCED FROM THE ORDNANCE SURVEY MAP WITH THE PERMISSION OF HER MAJESTY'S STATIONERY OFFICE © CROWN COPYRIGHT RESERVED, LICENCE No 100019539
 - UNLESS NOTED OTHERWISE ALL DIMENSIONS ARE IN MILLIMETRES & ALL LEVELS ARE IN METRES AOD.
 - ALL CONCRETE TO BE MIN. GRADE C16/20. CONCRETE SLABS NOT REQUIRED IN HIGHWAYS.
 - 380x230 (WARRIOR TYPE) HYDRANT COVER AND FRAME TO BE DUCTILE IRON, BADGED WATER (FOR WOH HYDRANT) OR FH (FOR ADOPTED FIRE HYDRANTS. LARGER CHAMBERS WILL NOT HAVE ID BADGING.
 - FOR HIGHWAY INSTALLATIONS CONCRETE (WITHOUT REINFORCEMENT) TO BE BELOW BASE COURSE FORMATION NOT FINISHED GROUND LEVEL.
 - THRUST RESTRAINT NOT SHOWN (SEE STANDARD DRAWING STD/218.
 - VALVES MUST BE END RESTRAINED TO ALLOW SAFE OPERATION.
 - XOX/XOXO (VALVE-HYDRANT-VALVE) TO BE USED WHERE SWAB REMOVAL IS REQUIRED DURING COMMISSIONING OR WHERE 3RD PARTIES WILL NOT ALLOW SIGNIFICANT WATER TO BE DISCHARGED DURING COMMISSIONING. IF WATER DISCHARGE IS NOT AN ISSUE OR IF SWAB CAPTURE IS NOT NECESSARY THEN AN OXO ARRANGEMENT SHOULD BE USED.
 - FOR INSERTION POINT (WHERE APPLICABLE) RISER MUST BE SIZED SO THAT TOP FLANGE IS NOT MORE THAN 800 FROM SOFFIT OF MAIN BORE OF TEE.
 - FOR MAIN LINE VALVE(S) SEE STANDARD DRAWING STD/211 AND DESIGN STANDARD DS226 FOR SPECIFICATION.
 - IF NO ISOLATION REQUIRED BELOW HYDRANT THEN CHAMBER, COVER & FRAME TO BE REDUCED, IN ACCORDANCE WITH TABLES (i.e. DETAIL 6 SOLUTION ONLY).
 - REINFORCED SUPPORT SLAB BENEATH BURIED FLANGED COMPLEXES TO BE CONSIDERED IN POOR AND MADE GROUND.
 - ORIENTATION OF HYDRANT CHAMBERS CAN BE ALTERED TO SUIT.
 - DISMANTLING JOINTS ONLY REQUIRED IF VALVE(S) INCORPORATED INTO COMPLEX. ALL DISMANTLING JOINTS TO HAVE 50mm FLEXIBILITY UP TO 700 DIA. (16 & 25 BAR). IF NO VALVES INCORPORATED NO DISMANTLING JOINTS ARE REQUIRED.
 - DRAWING INCLUDES DETAILS FOR DIFFERENT PIPE DIAMETERS/MATERIALS AND PIPELINE VALVE ARRANGEMENTS.
- NOTES CONTINUED BELOW

E	COMPANY LOGO CHANGED	CAM	CAM	SWRN	17/09/2019
D	DRAWING UPDATED	CAM	CAM	JB	25/05/2018
C	COMPLETE REDRAW	CAM	C/JN	JZH	19/03/2013
MK	REVISIONS	DRN	CHK	APP	DATE

FIRE HYDRANT, WASHOUT AND OXO INSTALLATIONS

STANDARD DRAWING

ORIGINAL DRAWING SIZE	A1
INITIALS	DATE
DESIGNED: SC	23/04/2007
DRAWN BY: CN	23/04/2007
DRAWING NUMBER	REV.
STD/214	E

