

MIN. ALLOWABLE DEFLECTION ANGLES FOR CONCRETE PIPE

PIPE SIZE	MINIMUM ALLOWABLE DEFLECTION ANGLE				
(mm)	1200 MH	1500 MH	1800 MH	2100 MH	2400 MH
200	90	90	90	90	90
250	90	90	90	90	90
300	90	90	90	90	90
375	90	90	90	90	90
450	90	90	90	90	90
525	110	90	90	90	90
600	115	90	90	90	90
750	N/A	110	90	90	90
900	N/A	135	110	90	90
1050	N/A	N/A	115	110	90

MIN. ALLOWABLE DEFLECTION ANGLES FOR PVC PIPE

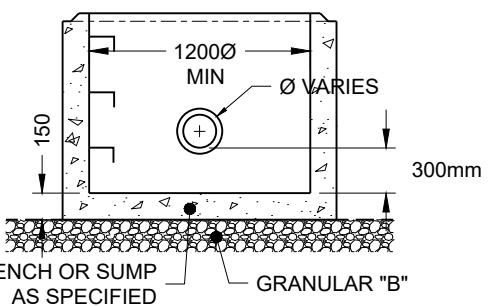
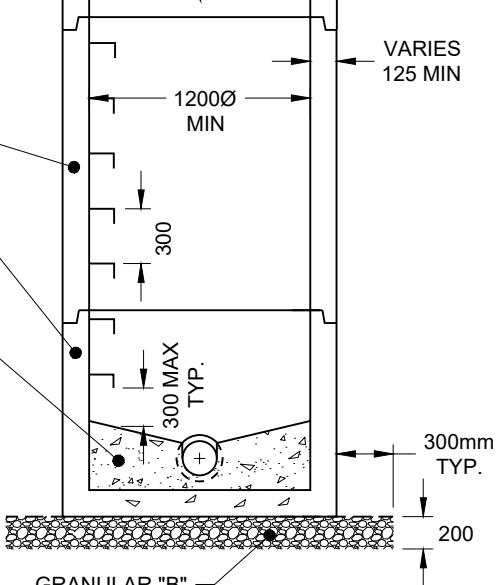
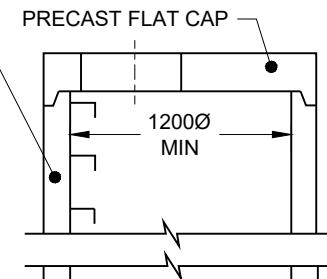
PIPE SIZE	1200 MH	1500 MH	1800 MH	2100 MH	2400 MH
(mm)	MIN ANGLE				
200	90	90	90	90	90
250	90	90	90	90	90
300	90	90	90	90	90
375	90	90	90	90	90
450	90	90	90	90	90
525	95	90	90	90	90
600	110	90	90	90	90
750	N/A	N/A	N/A	95	90
900	N/A	N/A	N/A	110	90
1050	N/A	N/A	N/A	105	95

AS SPECIFIED (SEE NOTE 8 BELOW)

MH TYPE	MIN INVERT DROP
STRAIGHT RUN to 45° TURN	50mm
45° TURN +	150mm

FINAL GRADE ADJUSTMENT SHALL BE COMPLETED UTILIZING ONE OF THE FOLLOWING TWO OPTIONS:

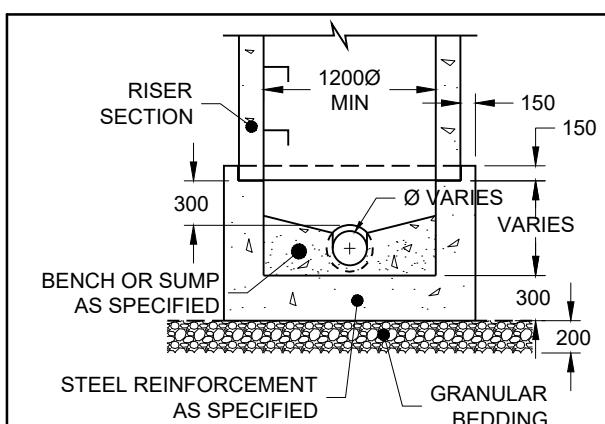
1. AIR ENTRAINED 30 MPa CONCRETE OR AN APPROVED NON-SHRINK GROUT. IF FINAL GRADE ADJUSTMENT EXCEEDS 150 mm IN HEIGHT THEN CIRCULAR 15M REBAR MUST BE INCORPORATED IN THE RAISED SECTION.
2. PRE-CAST CONCRETE GRADE RINGS (MAX. 2 RINGS) WITH A MINIMUM GRADE RING SIZE OF 150 mm



SUMP DETAIL

NOTES:

1. THE SUMP IS MEASURED FROM THE LOWEST INVERT.
2. GRANULAR BACKFILL SHALL BE PLACED TO A MINIMUM OF 300mm ALL AROUND THE MAINTENANCE HOLE.
3. PRECAST CONCRETE COMPONENTS SHALL BE ACCORDING TO MANUFACTURERS SHOP DRAWING.
4. STRUCTURES EXCEEDING 5.0m IN DEPTH SHALL INCLUDE SAFETY PLATFORM ACCORDING TO STANDARD DRAWING 04270.
5. FOR ADJUSTMENT UNIT AND FRAME INSTALLATION, SEE STANDARD DRAWING 04250.
6. ALL DIMENSIONS ARE NOMINAL AND IN MILLIMETERS UNLESS OTHERWISE SHOWN.
7. ALL CONCRETE TO BE 30 MPa TO MEET CSA A23.1, CLASS C-2 EXPOSURE.
8. IF A TRANSITION SLAB IS REQUIRED THE DETAIL SHALL BE PROVIDED BY THE PRECASTER
9. BENCHING
-TO BE 30MPa CONCRETE AND START AT 2/3 THE HEIGHT OF THE PIPE AND SLOPE UPWARDS AT 4:1.
-BENCHING AND CHANNEL TO BE GIVEN STEEL TROWEL FINISH.
-SLOPES SHALL BE MAINTAINED FROM THE OUTLET HOLE OPENING FOR TOP OF BENCHING.
-THERE SHALL BE NO GAP BETWEEN THE PIPE AND THE BENCHING.



B CAST-IN-PLACE BASE