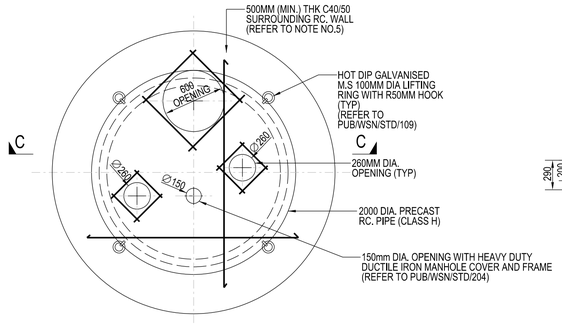
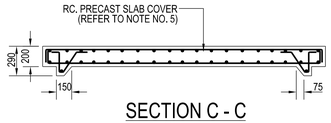


SECTION A-A

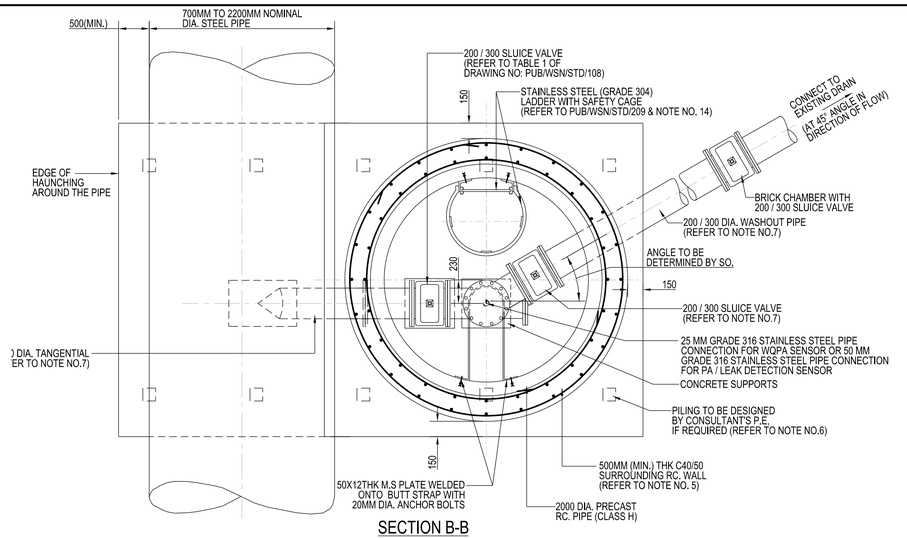
DETAILS OF PRECAST RC. COVER SLAB

SCALE 1:30



SECTION C - C

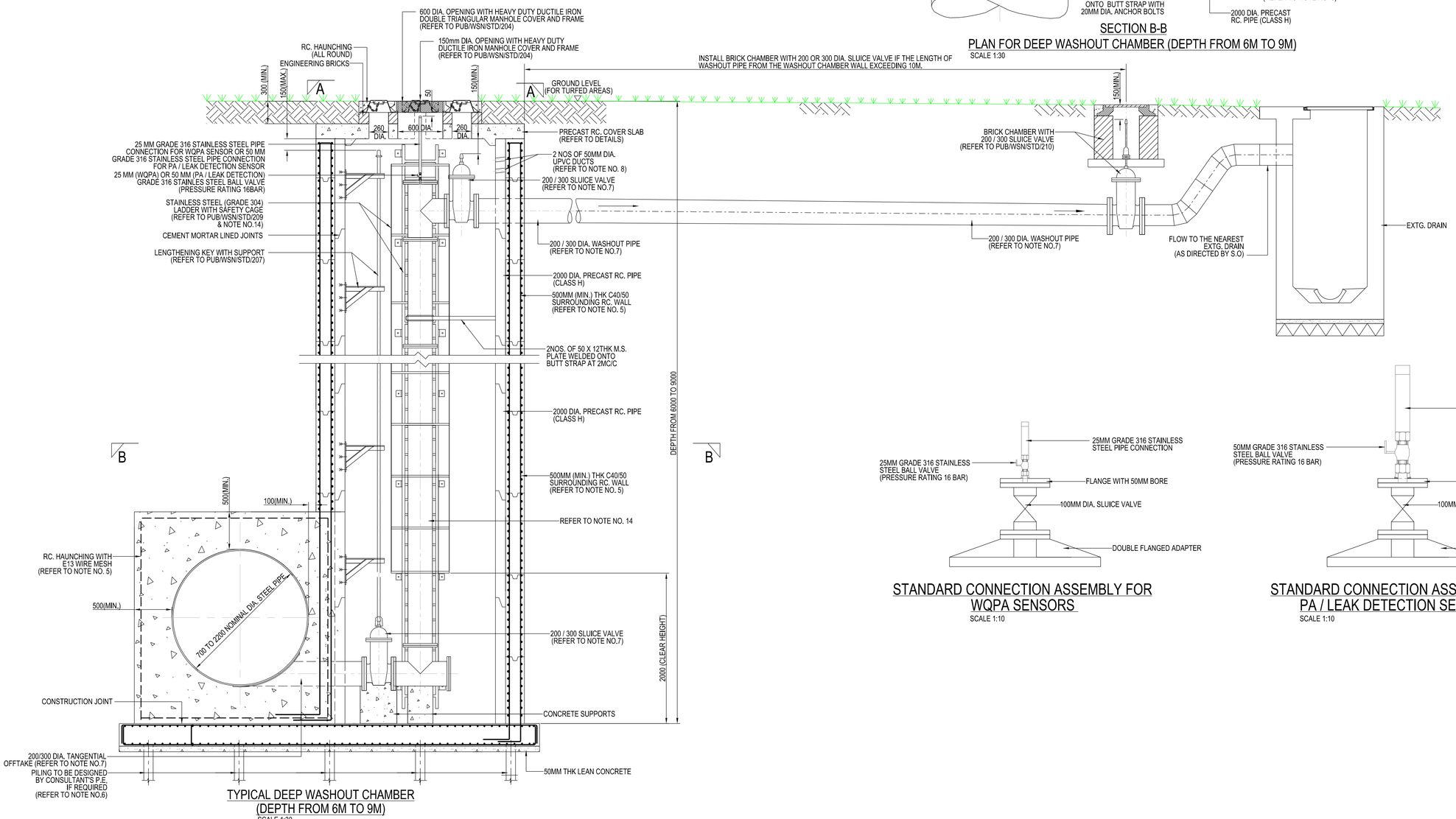
SCALE 1:30



SECTION B-B

PLAN FOR DEEP WASHOUT CHAMBER (DEPTH FROM 6M TO 9M)

SCALE 1:30



TYPICAL DEEP WASHOUT CHAMBER (DEPTH FROM 6M TO 9M)

SCALE 1:30

STANDARD CONNECTION ASSEMBLY FOR WQPA SENSORS

SCALE 1:10

STANDARD CONNECTION ASSEMBLY FOR PA / LEAK DETECTION SENSORS

SCALE 1:10

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
2. THE CONTRACTOR SHALL REFER TO THE GENERAL NOTES IN DRAWING NO. PUB/WSN/GN/001.
3. THIS DRAWING PROVIDES THE CONCEPTUAL DESIGN OF WASHOUT CHAMBERS UP TO 9M DEPTH AND IS NOT VALID FOR CHAMBERS EXCEEDING 9M DEPTH FROM GROUND LEVEL. FOR SUCH CHAMBERS, THE CONSULTANT SHALL SUBMIT THE DRAWINGS FOR THE BOARD'S CLEARANCE.
4. ALL CHAMBERS SHALL BE DESIGNED BY THE CONSULTANT AND SUBMITTED TO BCA FOR APPROVAL.
5. THE DRAWING SHOWS THE TYPICAL ARRANGEMENT OF REINFORCEMENT WITHIN THE CONCRETE ELEMENTS. THIS IS FOR REFERENCE ONLY. THE P.E. SHALL UNDERTAKE DETAILED CALCULATIONS TO DETERMINE THE DETAILS OF THE REBAR REQUIRED AND SUBMIT (TOGETHER WITH THE ACCREDITED CHECKER, APPOINTED BY THE BOARD) TO BCA FOR APPROVAL.
6. THE CONSULTANT SHALL UNDERTAKE GEOTECHNICAL ANALYSIS TO ASSESS THE ALLOWABLE BEARING CAPACITY OF THE SOIL AND EXPECTED SETTLEMENT OF THE CHAMBER AND SUBMIT A REPORT TO THE BOARD. IN ADDITION, THE CONTRACTOR SHALL UNDERTAKE PLATE LOAD TESTS TO VERIFY THE IN-SITU SOIL BEARING CAPACITY IN ACCORDANCE WITH BS EN ISO 22476-13. WHERE THE BEARING CAPACITY IS DEEMED INADEQUATE AND/OR SETTLEMENT IS EXCESSIVE, THE CHAMBER SHALL BE SUPPORTED ON PILES. THE CONSULTANT SHALL DESIGN ALL PILING WORKS AND SUBMIT (IN CONJUNCTION WITH THE ACCREDITED CHECKER APPOINTED BY THE BOARD), TO THE BUILDING AND CONSTRUCTION AUTHORITY (BCA) FOR APPROVAL.
7. DIAMETER OF WASHOUT AND ASSOCIATED PIPES:
   200MM FOR 700-1600MM DIA MAIN PIPE
   300MM FOR 1800-2200MM DIA MAIN PIPE
8. INSTALL BRICK CHAMBER WITH 200 OR 300MM DIA. SLUICE VALVE NEAR THE DRAIN IF THE LENGTH OF THE WASHOUT PIPE FROM THE WASHOUT CHAMBER WALL IS EXCEEDING 10M.
9. ALL MANHOLE COVERS TO BE OF HEAVY DUTY DUCTILE IRON TO GRADE A1 UNDER SS30.
10. 40MM THK APPROVED JOINT SEALING COMPOUND TO BE APPLIED TO WASHOUT PIPE WHERE IT PUNCTURES THE RC. PIPE. PRIOR TO APPLICATION OF THE SEALING COMPOUND, BITUMINOUS WRAPPING SHALL BE REMOVED FROM THE STEEL PIPE AND PIPE SURFACE SHALL BE SMOOTHENED AND DRIED.
11. UPVC DUCTS FOR CABLE LAYING (BY OTHERS) ARE TO BE INFILLED WITH SEALING COMPOUND. POSITION OF UPVC DUCTS ARE INDICATIVE AND SHALL BE CONFIRMED ON SITE.
12. OPENINGS SHALL BE CENTRED OVER THE VALVE SPINDLES. POSITION OF OPENINGS ARE INDICATIVE AND SHALL BE CONFIRMED ON SITE.
13. LENGTHENING KEYS FOR VALVES SHALL EXTEND WITHIN 150MM BELOW THE SOFFIT OF THE PRECAST RC COVER SLAB.
14. SAFETY CAGE SHALL BE PROVIDED FOR ALL LADDERS EXCEEDING 3M HEIGHT (REFER TO PUB/WSN/STD/209).
15. LEAK DETECTION SENSORS ARE TO BE PROVIDED AT EVERY 750M C/C INTERVAL ALONG THE PIPELINE.

ISSUED : NOV 2020	SCALE	**TYPICAL DEEP WASHOUT CHAMBER (DEPTH FROM 6M TO 9M)**
LAST REVIEWED : NOV 2020	AS SHOWN	PUB SINGAPORE'S NATIONAL WATER AGENCY WATER SUPPLY(NETWORK) DEPARTMENT DRAWING NO. **PUB/WSN/STD/111**