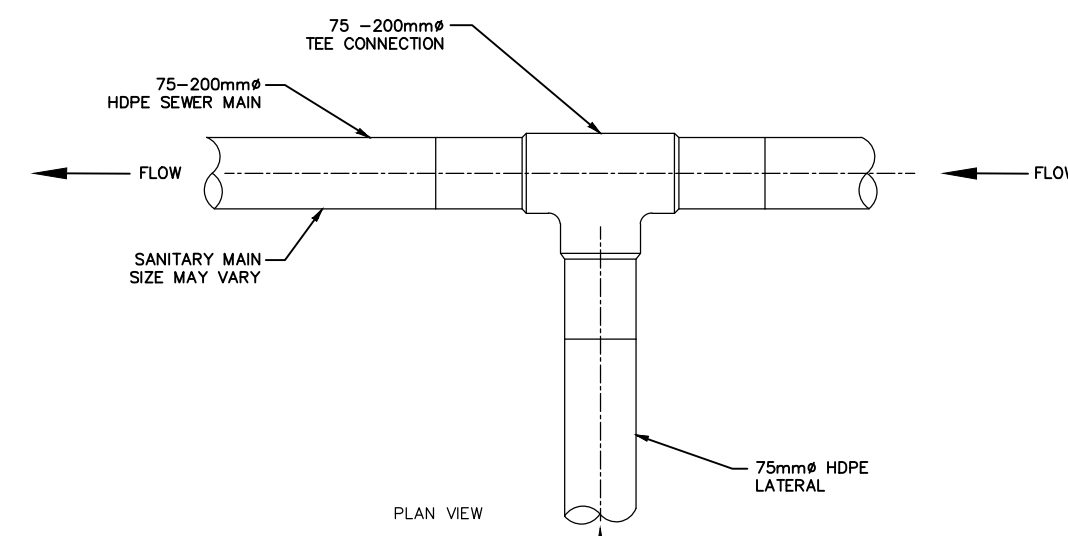
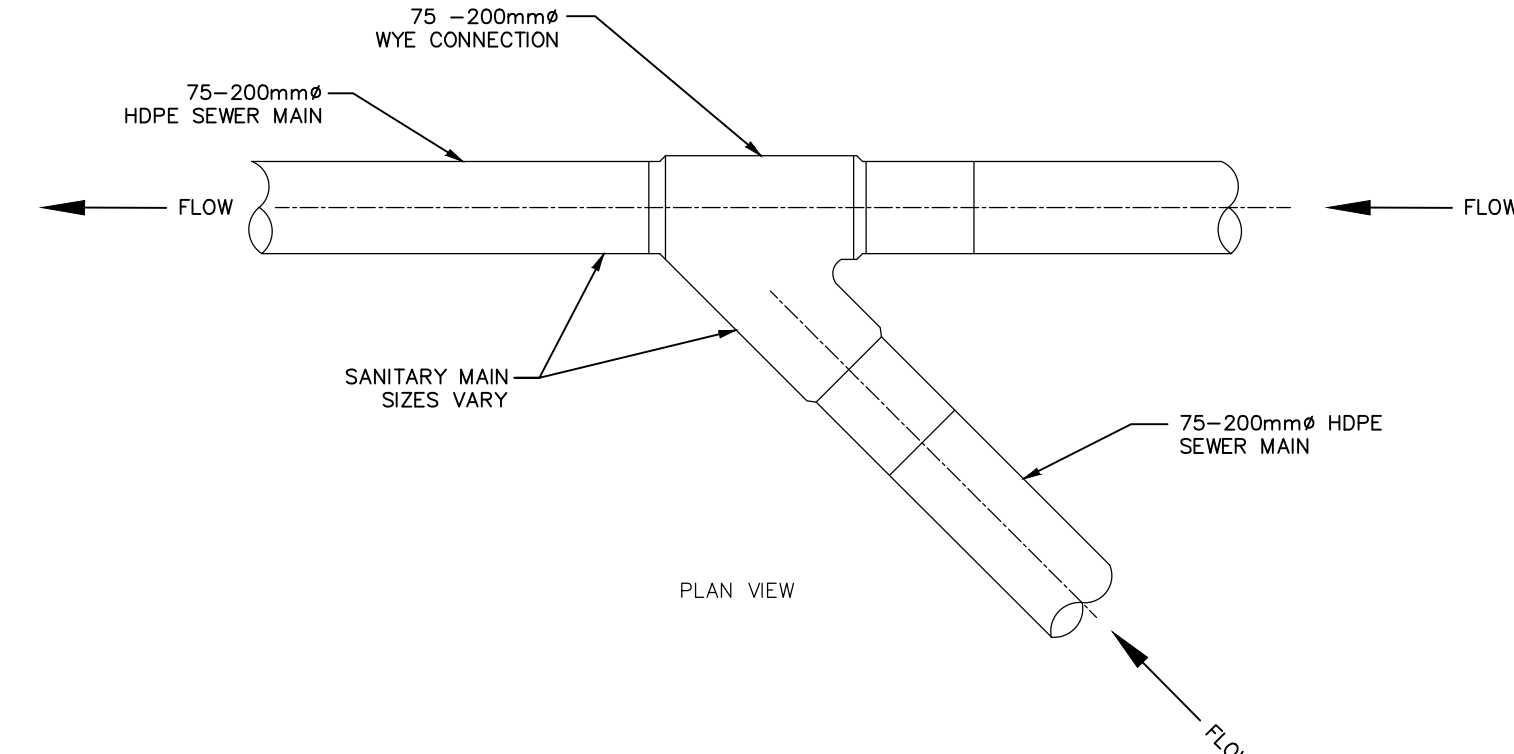


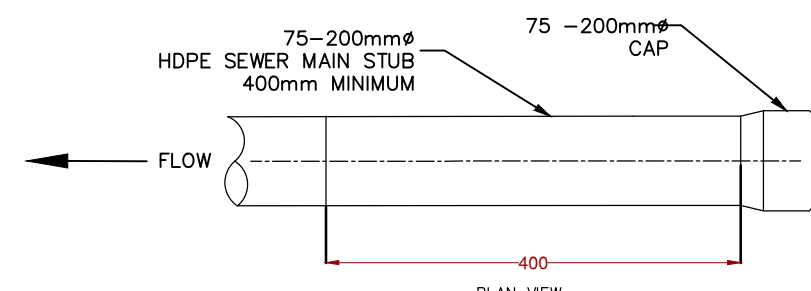
LATERAL TO MAIN CONNECTION (TYP)



LATERAL TO MAIN CONNECTION (TYP)

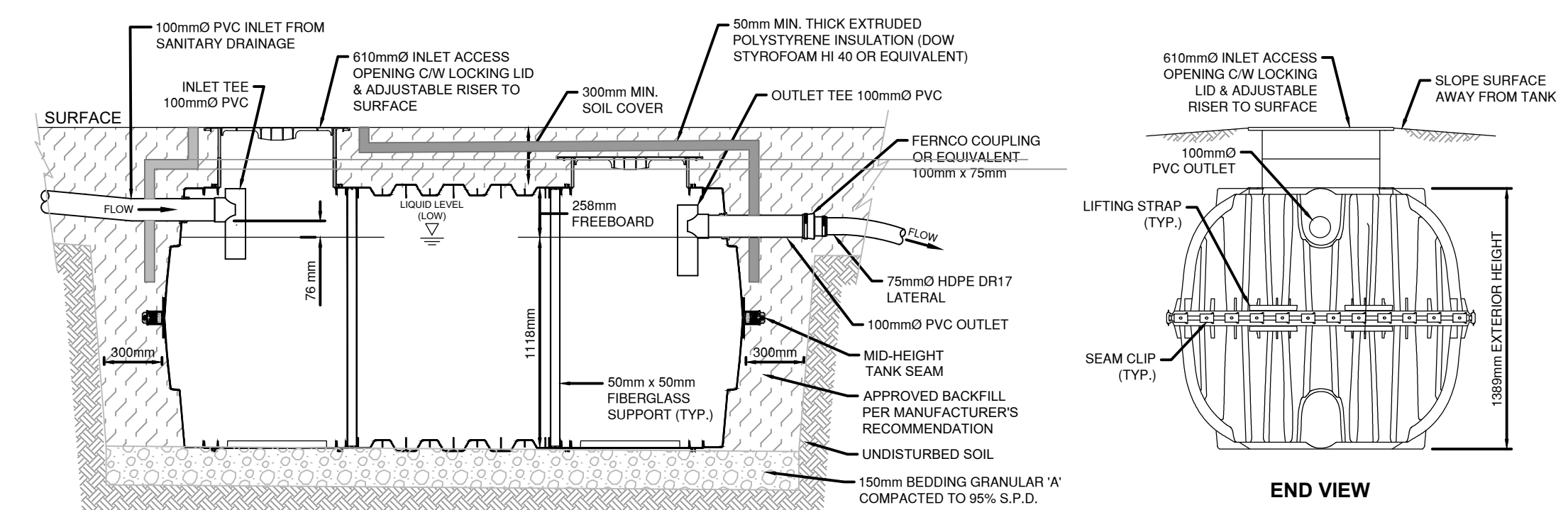


MAIN TO MAIN CONNECTION (TYP)

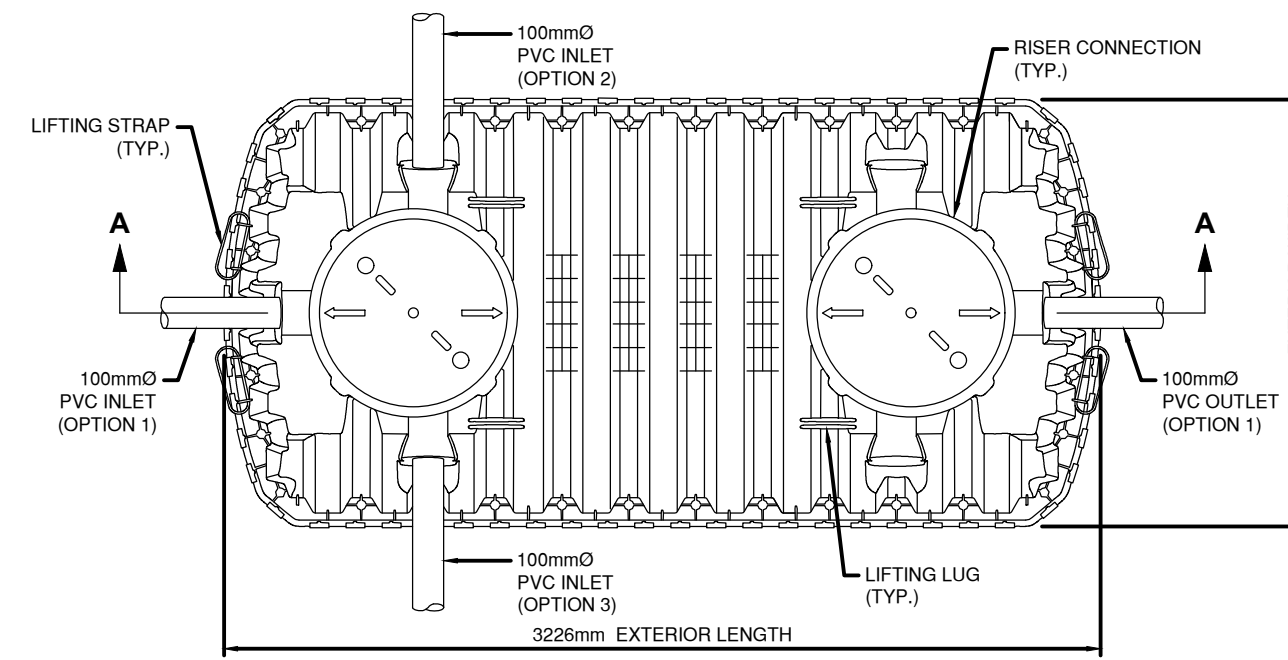


END CAP-FUTURE PHASE CONNECTION

NOTE: END CAPS TO BE CUT OFF & A NEW CONNECTION PERFORMED BY AN APPROVED FUSION TECHNOLOGY IN SUBSEQUENT PHASES.

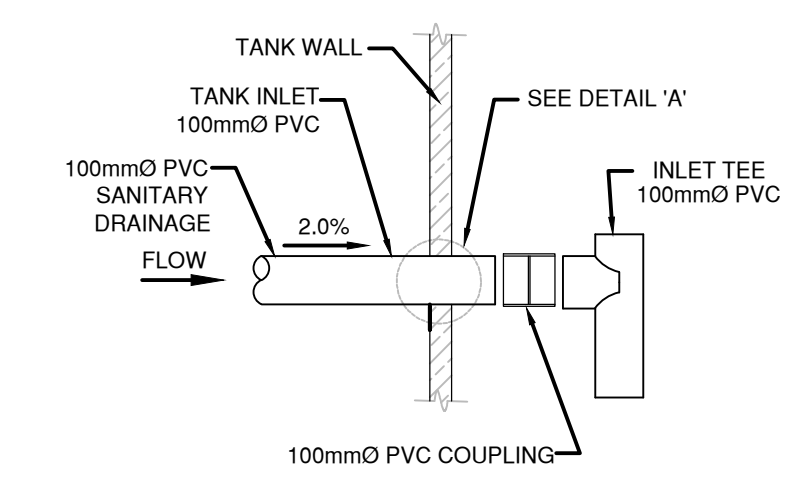


SECTION A-A WITH EXCAVATION DETAIL

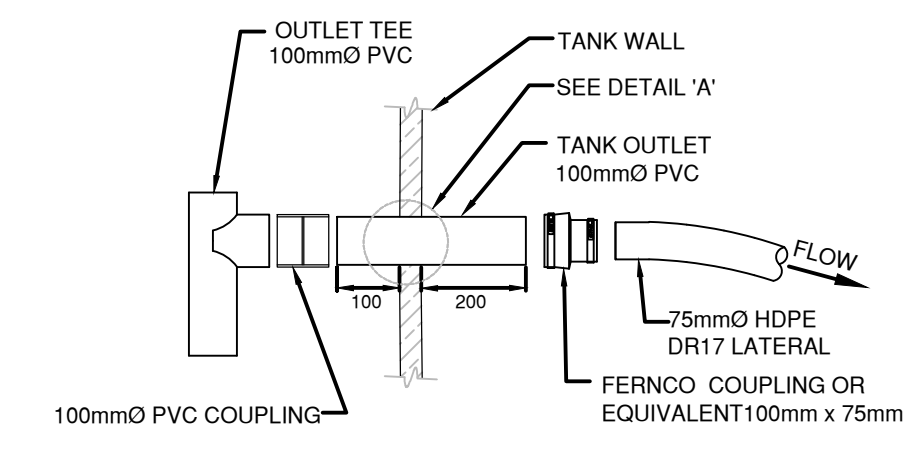


CLEARFORD INTERCEPTOR TANK DETAIL (TYP.) N.T.S.

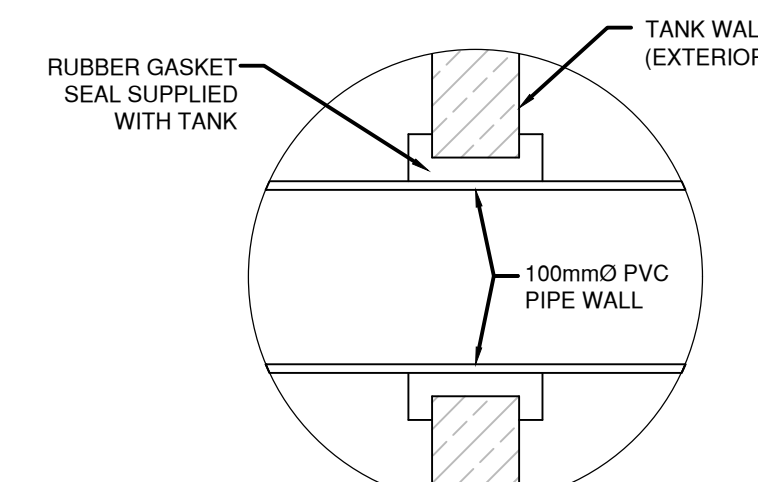
- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
  2. PVC PIPES AND FITTINGS TO BE SDR 35 PER CSA B182.1.
  3. ALL PVC PARTS TO BE GLUED TOGETHER WITH APPROPRIATE SOLVENT CEMENT AND PRIMER.
  4. CONTRACTOR SHALL TO PROVIDE SHOP DRAWINGS OF PVC COMPONENTS AND COUPLINGS.



CLEARFORD INTERCEPTOR TANK INLET DETAIL N.T.S.



CLEARFORD INTERCEPTOR TANK OUTLET DETAIL N.T.S.



DETAIL 'A' - RUBBER GASKET PIPE SEAL N.T.S.

NOTE:  
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.



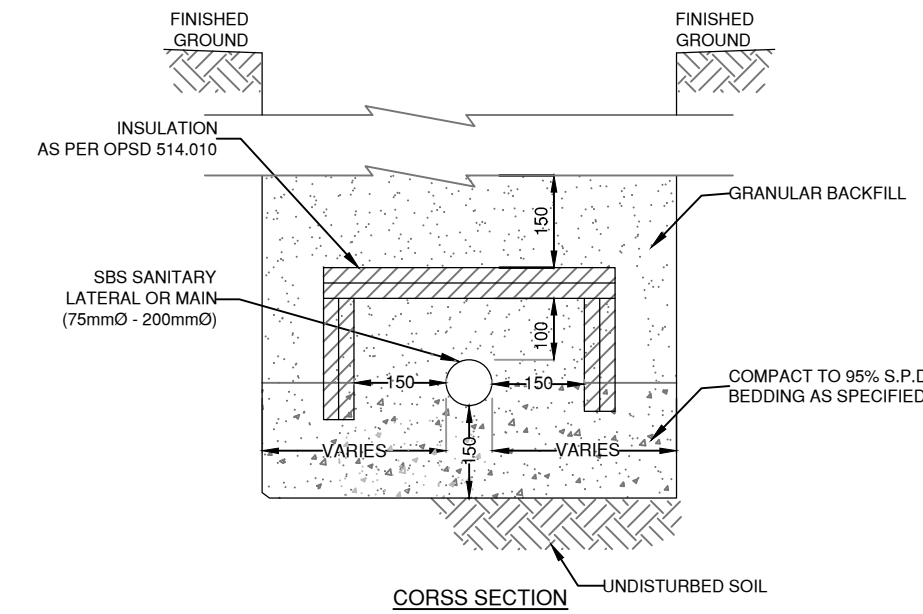
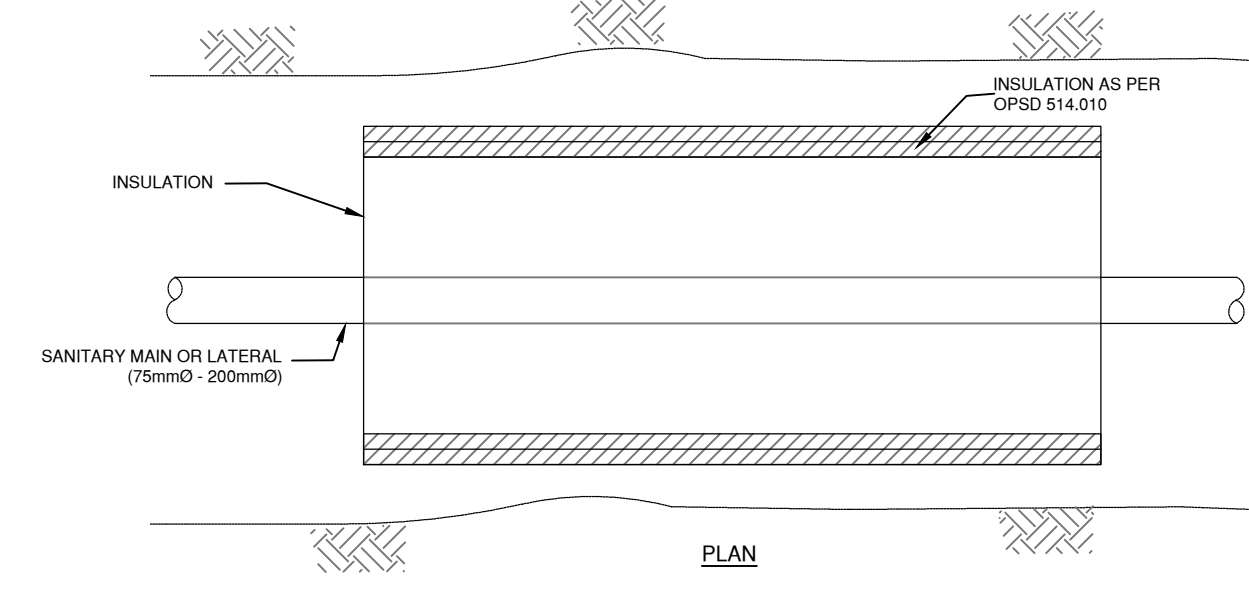
No.	REVISION	DATE	BY	No.	REVISION	DATE	BY
8.	ISSUED WITH ADDENDUM #2 (NO CHANGES)	JAN 5/24	ARM	8.	ISSUED WITH ADDENDUM #2 (NO CHANGES)	JAN 5/24	ARM
7.	ISSUED FOR TENDER - PHASE 1B-2 (NO CHANGES)	DEC 7/23	ARM	7.	ISSUED FOR TENDER - PHASE 1B-2 (NO CHANGES)	DEC 7/23	ARM
6.	ISSUED FOR REVIEW - PHASE 1B-2 (NO CHANGES)	JUL 25/23	ARM	6.	ISSUED FOR REVIEW - PHASE 1B-2 (NO CHANGES)	JUL 25/23	ARM
5.	ISSUED FOR CONSTRUCTION - PHASE 1B (NO CHANGES)	NOV 4/21	ARM	5.	ISSUED FOR CONSTRUCTION - PHASE 1B (NO CHANGES)	NOV 4/21	ARM
4.	ISSUED FOR REGISTRATION - PHASE 2A	APR 26/21	ARM	4.	ISSUED FOR REGISTRATION - PHASE 2A	APR 26/21	ARM
3.	ISSUED FOR CONSTRUCTION	AUG 14/20	ARM	3.	ISSUED FOR CONSTRUCTION	AUG 14/20	ARM
2.	REVISED PER CLEARFORD REVIEW	JUL 14/20	ARM	2.	REVISED PER CLEARFORD REVIEW	JUL 14/20	ARM
9.	REVISED PER CITY COMMENTS (NO CHANGES)	FEB 9/24	ARM	9.	REVISED PER CITY COMMENTS (NO CHANGES)	FEB 9/24	ARM
10.	REVISED PER CITY COMMENTS (NO CHANGES)	FEB 20/24	ARM	10.	REVISED PER CITY COMMENTS (NO CHANGES)	FEB 20/24	ARM

SCALE	REVISION	CHECKED	DRAWN	APPROVED
AS SHOWN				



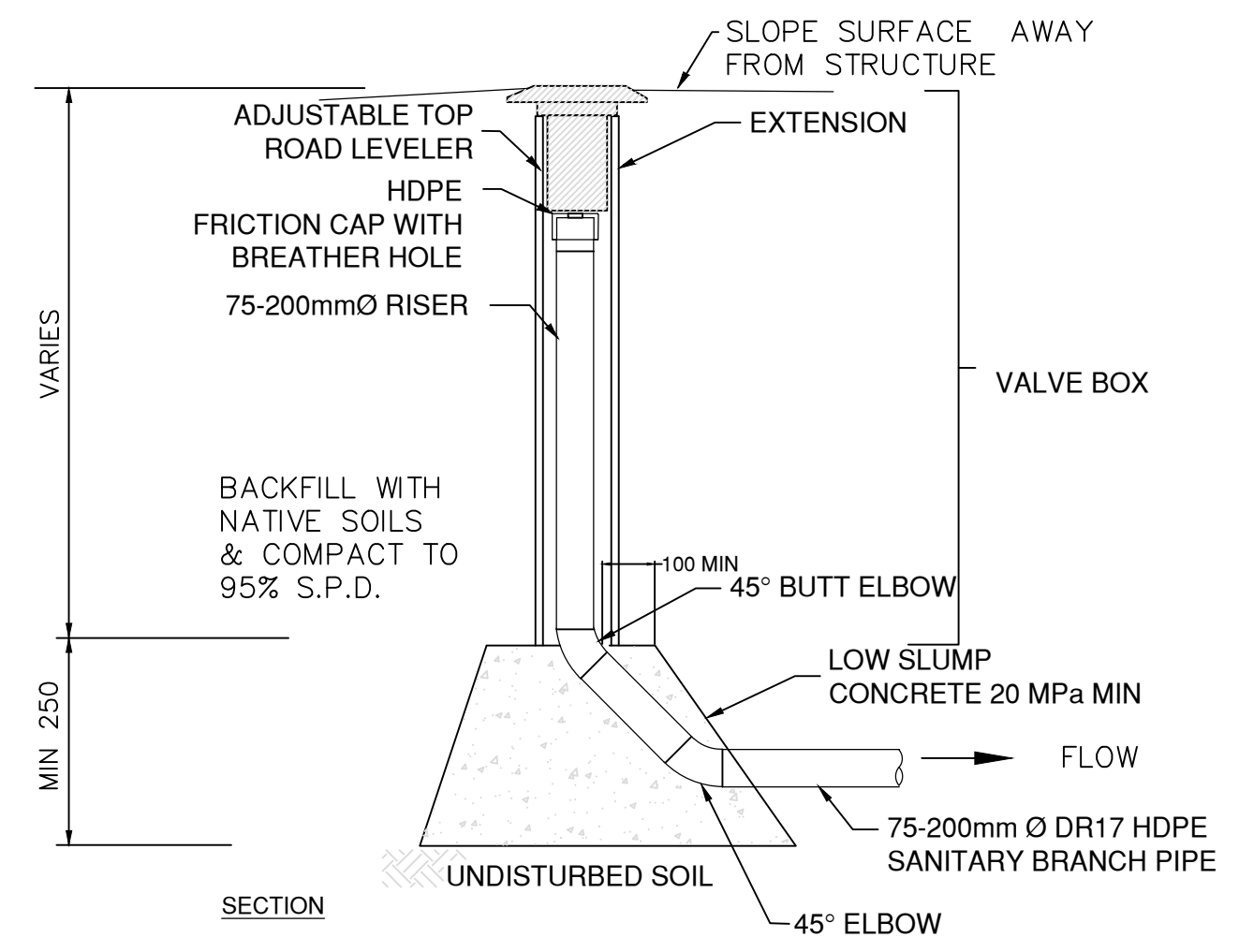
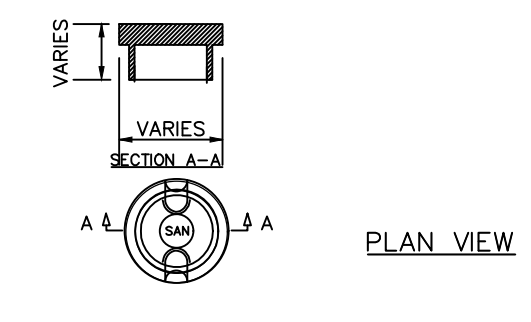
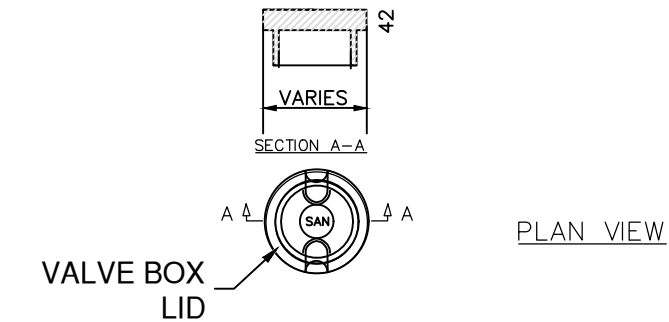
LOCATION CITY OF OTTAWA WEST CAPITAL AIRPARK - PHASE 2A RESIDENTIAL		PROJECT No. 102085-03
CLEARFORD SBS™ DETAIL SHEET		REV # 10
DRAWING No. 102085-C1		

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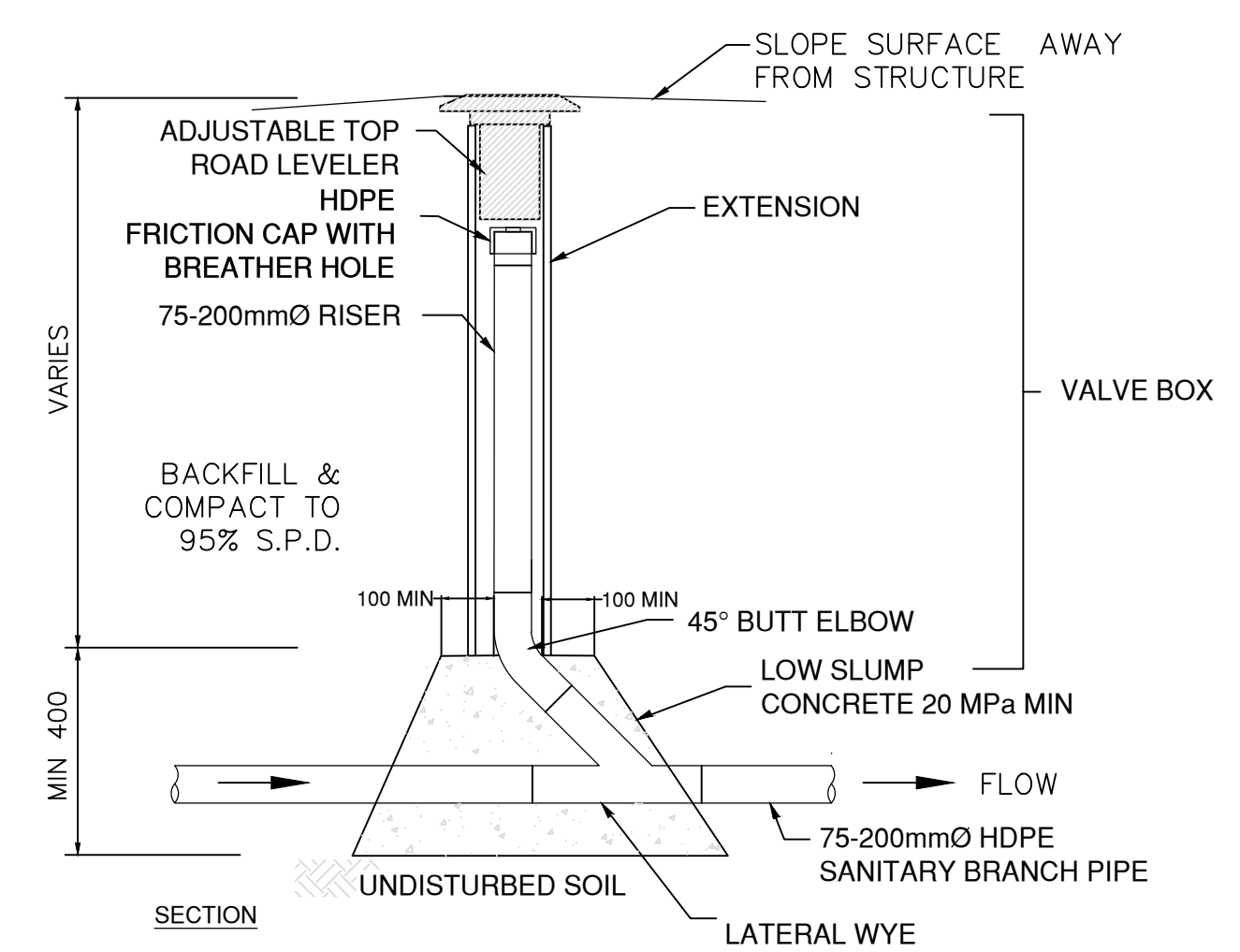


- NOTES:
- EARTH COVER DEPTH LESS THAN 1.2m REQUIRES SPECIAL DESIGN
  - STAGGER JOINTS OF MULTIPLE SHEETS

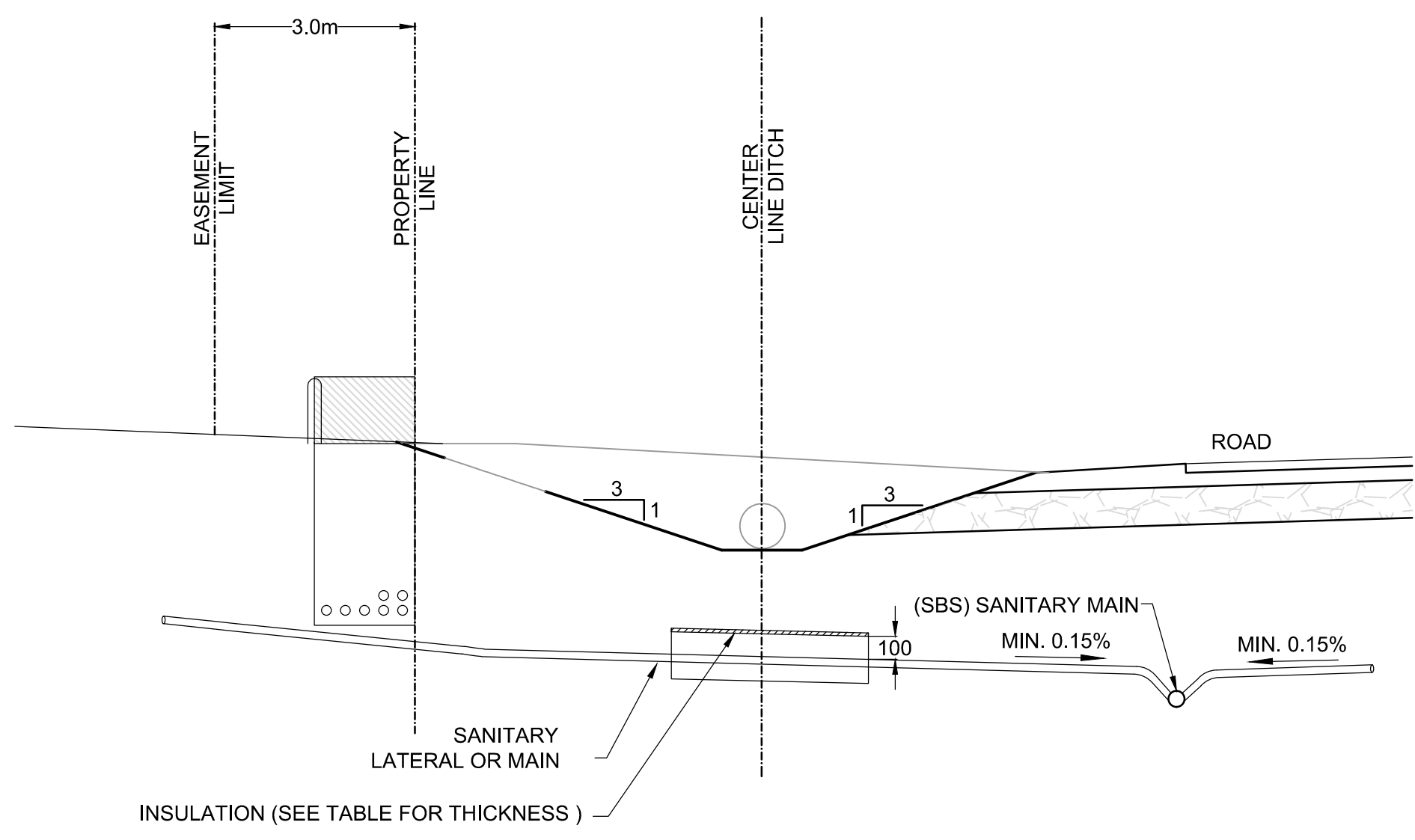
INSULATION IN TRENCH DETAIL (TYP)



LOAD BEARING SAP (SYSTEM ACCESS POINT) END OF LINE (TYP)



LOAD BEARING SAP (SYSTEM ACCESS POINT) IN LINE (TYP)



- NOTES:
- FOR MAINS AND SERVICES IN DITCHED AREAS WHERE DEPTH OF COVER OR SEPARATION IS LESS THAN 2200mm.
  - THE INSULATION SHALL BE MINIMUM 1.2m WIDE AND SHALL BE CENTERED OVER THE PIPE.
  - INSULATION SHALL EXTEND 1000mm BEYOND THE DEFINED DITCH SECTION.
  - IF DEPTH FROM BOTTOM OF DITCH TO TOP OF PIPE IS LESS THAN 1000mm, SPECIAL DESIGN IS REQUIRED.
  - ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

EFFECTIVE EARTH COVER $H_c(m)$	REQUIRED THICKNESS (mm)
$1.9 \leq H_c < 2.2$	25
$1.6 \leq H_c < 1.9$	50
$1.3 \leq H_c < 1.6$	75
$1.0 \leq H_c < 1.3$	100

INSULATION UNDER SWALE DETAIL (TYP)

GENERAL NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED. PIPE DIAMETER SIZES ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
- REPORT ANY UNUSUAL CONDITIONS TO THE INSPECTING ENGINEER IMMEDIATELY.
- REINSTATE SANITARY UTILITY CUTS TO ORIGINAL OR BETTER CONDITION WITH APPROVED BASE GRANULAR MATERIALS. PAVEMENT RESTORATION IF APPLICABLE, TO O.P.S.D. 509.01 REVISION 1.
- IN THE EVENT OF HIGH GROUNDWATER TABLE, CRUSHED STONE AND APPROVED DEWATERING TECHNIQUES SHALL BE EMPLOYED. CONTRACTOR SHALL SUBMIT GROUNDWATER REMOVAL PLAN TO THE ENGINEER FOR APPROVAL BEFORE PROCEEDING.
- CONTRACTOR SHALL SUPPLY AND INSTALL ALL PIPING AND APPURTENANCES AS SHOWN FROM THE CLARIFIER OUTLET. CONNECTIONS TO THE CLARIFIER FROM THE RESIDENCE WILL BE PROVIDED BY THE BUILDING PLUMBER.
- EXISTING UTILITY ALIGNMENT AND ELEVATIONS ARE FOR INFORMATION ONLY. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITY ALIGNMENTS & ELEVATIONS PRIOR TO CONSTRUCTION ON SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE CROSSING OF EXISTING UTILITIES INCLUDING ANY SUPPORTS AND PRECAUTIONS REQUIRED.
- THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS. ANY ERRORS AND/OR OMISSIONS SHALL BE REPORTED TO THE ENGINEER WITHOUT DELAY.
- BUILDING DRAINS (NOT IN SCOPE) WHICH FLOW TO THE CLARIFIERS SHALL BE SUFFICIENTLY STRONG TO RESIST SURFACE LOAD AND SHALL BE INSTALLED AT A MINIMUM GRADE OF 2%. APPLICATION OF THERMAL INSULATION SHALL TAKE PLACE WHERE DRAINS ARE GREATER THAN 1.5m LONG AND/OR SHALLOW BURY TAKES PLACE AND/OR RISK OF FROST PENETRATION DUE TO SIDEWALKS, STORMWATER DITCHES, DRIVEWAYS OR OTHER UNUSUAL EXPOSURES. REF. O.B.C. 7.3.5.4.

SBS™ SANITARY MAIN & LATERAL NOTES

- ALL SANITARY MAINS SHALL HAVE 2.2m COVER OR SPECIFIED COVER (MINIMUM) AS NOTED ON DRAWINGS.
- ALL SANITARY MAINS SHALL BE BEDDED ON A SHAPED BEDDING OF COMPACTED GRANULAR 'A' MEASURING 150mm IN DEPTH. GRANULAR 'A' BEDDING SHALL BE COMPACTED TO 95% S.P.D. AND SHALL BE 200mm ABOVE THE CROWN OF THE PIPE AND SHALL EXTEND 300mm (MINIMUM) Laterally IN ALL CASES. SOFT FOUNDATION MATERIALS MAY REQUIRE ADDITIONAL COMPACTED FILL SUPPORT AS DIRECTED BY THE GEOTECHNICAL ENGINEER. TRENCH BACKFILL TO ROAD SUBGRADE ELEVATION SHALL CONSIST OF GRANULAR 'B' OR APPROVED NATIVE MATERIALS COMPACTED TO 95% S.P.D.
- COATED No. 12 GAUGE TRACER WIRE SHALL BE INSTALLED ALONG ALL SBS SEWER MAINS.
- UNLESS OTHERWISE NOTED, ALL SBS SANITARY SEWER MAINS, LATERALS AND CONNECTIONS SHALL BE THERMALLY WELDED HDPE DR17 PIPE IN ACCORDANCE WITH CAN/CSA-B182.11-06 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE DRAWINGS, O.P.S.D. SPECIFICATIONS AND CLEARFORD INDUSTRIES' SPECIFICATIONS FOR THE INSTALLATION OF HDPE SBS SANITARY SEWERS AND FORCEMAINS.
- SANITARY SEWERS SHALL BE WATER TESTED TO OPSD 410.07.16.04 TO ENSURE LEAK-PROOF CONSTRUCTION. COMPLETED MAINS SHALL BE CCTV INSPECTED.
- SANITARY LATERALS FROM THE CLARIFIER TO THE MAIN SHALL BE HDPE DR17 PIPE UNLESS OTHERWISE NOTED. WHERE RADII ARE SHOWN ON THE DRAWINGS, SANITARY MAINS AND LATERALS MAY EMPLOY LONG RADIUS CURVATURE OF 25 x OUTSIDE DIAMETER FOR 75 mm THROUGH 200mm HDPE DR17 IN LIEU OF FITTINGS.
- NO CONNECTIONS, OTHER THAN APPROVED RESIDENTIAL SANITARY LATERALS, ARE PERMITTED TO THE CLARIFIER OR SANITARY SEWER MAINS.

SBS™ SYSTEM ACCESS POINTS NOTES

- CAST IRON SYSTEM ACCESS POINT (SAP) FRAMES C/W COVERS AND SPECIFICATIONS WILL BE SUPPLIED BY CONTRACTOR AND APPROVED BY CLEARFORD ENGINEERS. EQUIVALENT PRE-CAST CONCRETE FRAMES MAY BE CONSIDERED.
- CONTRACTOR IS RESPONSIBLE FOR SOURCING, STORAGE AND INSTALLATION OF SAPS. CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION AGAINST DAMAGE.

SBS™ CLARIFIER & STRUCTURES NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR UNLOADING, STORAGE AND INSTALLATION. CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION AGAINST DAMAGE.
- CLARIFIERS SHALL BE INSTALLED IN AREAS NOT SUBJECT TO WHEEL LOADINGS UNLESS SPECIFIED AS LOAD BEARING.
- CLARIFIERS SHALL BE INSULATED ON THE TOP AND SIDES OF TANK TO 610mm BELOW TOP OF TANK IN EARTH AND TO 1200mm BELOW TOP OF TANK IN ROCK OR AS PER CLEARFORD DRAWING. INSULATION SHALL BE STYROFOAM™ DOW HIG BOARD OR EQUIVALENT.
- CLARIFIERS SHALL BE PLACED ON 200mm GRANULAR A BEDDING COMPACTED TO 95% STANDARD PROCTOR DENSITY (S.P.D.) UNLESS OTHERWISE NOTED ON THE DRAWING.
- CLARIFIERS INSTALLED IN HIGH GROUNDWATER CONDITIONS SHALL BE BALLASTED WITH WATER DURING INSTALLATION TO PREVENT UPLIFT. ONCE INSTALLED 300mm (MINIMUM) OF BACKFILL SOIL MUST BE PLACED ON TOP OF THE CLARIFIER TANK IN ORDER TO EVACUATE THE CONTENTS.

WEST CAPITAL AIRPARK DEVELOPMENT

- FUTURE PHASING INFORMATION FOR DEVELOPMENT OF RESIDENTIAL & COMMERCIAL FACILITIES SHALL BE PROVIDED TO CLEARFORD INDUSTRIES FOR REVIEW & APPROVAL TO ENSURE CAPACITY WITHIN THE COLLECTION SYSTEM.

U:\0202-102085-CAD-PHASE2\314\DETAILS-102085-C1-C2.dwg, 102085-C1-C2.dwg, 102085-C2-FAB-21-2024 - 3.01mm, 102085

NOTE:  
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

No.	REVISION	DATE	BY	No.	REVISION	DATE	BY
8.	REVISED PER CITY COMMENTS (NO CHANGES)	FEB 9/24	ARM	1.	ISSUED FOR REVIEW	JUL 10/20	ARM
7.	ISSUED WITH ADDENDUM #2 (NO CHANGES)	JAN 5/24	ARM	2.	ISSUED FOR CONSTRUCTION	AUG 14/20	ARM
6.	ISSUED FOR TENDER - PHASE 1B-2 (NO CHANGES)	DEC 7/23	ARM	3.	ISSUED FOR REGISTRATION - PHASE 2A	APR 26/21	ARM
5.	ISSUED FOR REVIEW - PHASE 1B-2 (NO CHANGES)	JUL 25/23	ARM	4.	ISSUED FOR REGISTRATION - PHASE 1B (NO CHANGES)	NOV 4/21	ARM
4.	ISSUED FOR CONSTRUCTION - PHASE 1B (NO CHANGES)	NOV 4/21	ARM	5.	ISSUED FOR TENDER - PHASE 1B-2 (NO CHANGES)	JUL 25/23	ARM
3.	ISSUED FOR REGISTRATION - PHASE 2A	APR 26/21	ARM	6.	ISSUED FOR TENDER - PHASE 1B-2 (NO CHANGES)	DEC 7/23	ARM
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9.	REVISED PER CITY COMMENTS (NO CHANGES)	FEB 20/24	ARM				

SCALE	DESIGN
AS SHOWN	CHECKED
	DRAWN
	CHECKED
	APPROVED

LOCATION  
CITY OF OTTAWA  
WEST CAPITAL AIRPARK - PHASE 2A RESIDENTIAL

CLEARFORD SBS™ DETAIL SHEET

PROJECT No. 102085-03  
REV # 9  
DRAWING No. 102085-C2