

SENIORS LIVING AND RACF DEVELOPMENT - VILLAGE GREEN PENRITH

DEVELOPMENT APPLICATION



LOCALITY AERIAL
NOT TO SCALE

SOURCE : SIX MAPS

DRAWING SCHEDULE		
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Penrith, 15/10/2019 13:30:03 Logon Name: daniel Cod File: 1:577001 Drawings\dwg\245\DWG\Drawn\DWG\1:01 Cover Sheet.dwg

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PROJECT MANAGER

ARCHITECT


PTY LTD



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CONSULTING ENGINEERS

■ Hydraulic Services

■ Fire Services

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■ Sydney Water Accredited Water Servicing Co-ordinator and Designer





TITLE

COVER SHEET

SCALE

AS SHOWN

DRAWN

M.Cz.

DESIGNED

L.Si.

CHECKED

L.Sh.

APPROVED

M.C.

JOB No.

5778001

DRAWING No.

C1.01

ISSUE

4

DATE

OCT 2019

STATUS

DEVELOPMENT APPLICATION

Plot Date

Ver: 1.078001 TB_A.H
 Pdf Date: 16.10.2019@13:47:35
 Log Name: dtaulal
 Cad File: T:\5778001\Drawings\AutoCAD\Civil\Design\Civil 2D\CI 102 Specification Notes.dwg

GENERAL

- G1. DESIGN HEREIN HAS BEEN PREPARED BY WARREN SMITH AND PARTNERS PTY LTD CONSULTING CIVIL ENGINEERS, LEVEL 9, 233 CASTLEREAGH ST, SYDNEY NSW 2000. TEL:- (02) 9299 1312, FAX:- (02) 9290 1295.
- G2. THE DRAWINGS HEREIN SHALL BE READ AS REQUIRED IN CONJUNCTION WITH ARCHITECT DRAWINGS BY: OLSSON & ASSOCIATES ARCHITECTS PTY LTD LEVEL 5, 68 - 72 WENTWORTH AVENUE, SURRY HILLS NSW 2010. TEL:- (02) 9281 0181
- G3. ALL DIMENSIONS IN MILLIMETRES UNO. REDUCED LEVELS AND CHAINAGES ARE IN METRES. DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS.
- G4. THE PROPOSED WORKS DETAILED HEREIN SHALL BE CONSTRUCTED TO THE REQUIREMENTS OF COUNCIL GENERALLY AS DETAILED HEREUNDER.
- G5. ALL EXISTING SERVICES SHALL BE VERIFIED FOR DEPTH AND HORIZONTAL POSITION BY PHYSICAL MEANS PRIOR TO EXCAVATION. ANY DISCREPANCIES SHALL BE BROUGHT FORTHWITH TO THE PROJECT MANAGER'S ATTENTION.
- G6. REFERENCE SHALL BE MADE TO THE CONSTRUCTION MANAGEMENT PLAN FOR ALL SITE WORKS DETAILED HEREIN.

STORMWATER & SUB-SOIL DRAINAGE MATERIALS:

- STW1. PIPES AND FITTINGS FOR STORMWATER DRAINAGE SHALL BE AS FOLLOWS UNO ON THE DRAWINGS:
A. SEWER GRADE uPVC (SN8) WITH SOLVENT WELDED JOINTS FOR BELOW GROUND DRAINAGE UP TO 225mm.
B. FIBRE REINFORCED CEMENT WITH RUBBER RINGS FOR PIPE DIA'S GREATER THAN 225mm. UNO.
C. REINFORCED CONCRETE WHERE REQUIRED BY AS 3500 FOR EXCESSIVE DEPTH.
D. INSTALL IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3500 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- STW2. PIPES & FITTINGS FOR SUBSOIL DRAINAGE SHALL BE SLOTTED POLYVINYL CHLORIDE (PVC) WITH SOLVENT WELDED JOINTS, MIN. 150mm DIAMETER.
- STW3. IN GROUND DRAINAGE PIPEWORK SERVING DP's SHALL BE MINIMUM 150mm DIA. UNO.
- STW4. GRATED DRAINS SHALL BE 150mm NOM.
A. 150mm NOM. WIDTH IN NON TRAFFICABLE AREAS.
B. 225mm NOM. WIDTH IN TRAFFICABLE AREAS.
- STW5. STORMWATER PITS ARE AS SHOWN & SPECIFIED ON THE PLANS . PRECAST TYPE ACCEPTABLE WITH STEP IRONS FOR DEPTH GREATER THAN 1200. BENCH ALL PITS MIN. 30mm & FORM SMOOTH TRANSITION FROM INLET TO OUTLET.
- STW6. SELECT FILL SHALL BE MATERIAL OBTAINED FROM EXCAVATION OF THE PIPE TRENCH OR IMPORTED WITH A PARTICLE SIZE FOR ROCK NOT GREATER THAN 75mm OR FOR OTHER THAN ROCK NOT GREATER THAN 150mm.
- STW7. IMPORTED FILL SHALL BE EITHER, AND GENERALLY CONSIST OF SINGLE SIZED AGGREGATE WITH PARTICLE SIZE NOT GREATER THAN 5mm WRAPPED ALL ROUND WITH GEOTEXTILE FILTER FABRIC OR APPROVED HIGH COMPACTION SAND OR APPROVED CRUSHED ROAD GRAVEL CONFORMING TO RTA FORM 3051 OR SIMILAR.
- STW8. STORMWATER PITS AND GRATES TO CONFORM WITH STANDARD COUNCIL REQUIREMENTS, WHERE ON PUBLIC LAND. GRATES TO BE SUPPLIED IN CLASS SHOWN ON THE DRAWINGS.

INSTALLATION REQUIREMENTS:

- STW9. PIPES SHALL BE TRUE TO GRADES SHOWN AND ALIGNED SO THAT THE CENTRES OF THE INLET PIPES INTERSECT WITH THE CENTRE OF THE OUTLET PIPE AT THE DOWNSTREAM FACE OF THE PIT.
- STW10. MINIMUM GRADES FOR GRAVITY STORMWATER DRAINAGE SHALL CONFORM TO AS3500 PART3 AS FOLLOWS, UNO:
1% FOR 100 AND 150 mm DIA.
0.5% FOR 225 mm DIA
0.5% FOR 300 mm DIA
0.4% FOR 375 mm DIA

- STW11. MINIMUM DEPTH OF COVER SHALL BE :-
- 300mm IN PRIVATE PROPERTY (NON VEHICULAR TRAFFIC).
- 450mm IN PUBLIC AREAS.
- 600mm IN VEHICULAR TRAFFICABLE AREAS (FOOTWAY/ROADWAY)
- STW12. BED ALL PIPES FIRMLY AND EVENLY ONTO IMPORTED BEDDING FILL MATERIAL.
- STW13. LAY AND JOINT ALL PIPES IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND AS 3725-1989 BURIED FLEXIBLE PIPELINES AS 2566-1998 LOADS ON BURIED FLEXIBLE PIPELINES AS 1597.2-1996 PRECAST REINFORCED CONCRETE BOX CULVERTS.
AS 3500-1990 NATIONAL PLUMBING & DRAINAGE CODE. PART 2, SANITARY PLUMBING AND SANITARY DRAINAGE. SYDNEY WATER REQUIREMENTS.

- STW14. ALLOW TO TEST ALL PIPES AND PITS TO MANUFACTURERS REQUIREMENTS.

CONCRETE WORKS

- C1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600, THE STANDARDS ASSOCIATION AUSTRALIA, STANDARDS CITED IN AS3600, THE DRAWINGS AND THE SPECIFICATION.
- C2. ALL CONCRETE SHALL BE 80mm NOMINAL SLUMP, 20mm MAXIMUM AGGREGATE WITH NO ADMIXTURES OR FLY ASH, UNLESS OTHERWISE APPROVED. ALL CONCRETE WORK IN CONTACT WITH SEWER TO HAVE TYPE SL PORTLAND CEMENT, OTHERWISE TYPE A CEMENT FOR BRIDGE WORKS, A MAXIMUM 56 DAYS SHRINKAGE OF 600 MICROSTRAIN, A MINIMUM CEMENT CONTENT 350kg/m3 AND MAXIMUM WATER:CEMENT RATIO OF 0.40.
- C3. STRENGTH GRADE OF CONCRETE SHALL BE : 25 MPa (KERBS, EDGE STRIPS & CONCRETE ENCASEMENT) AND 32 MPa ELSEWHERE.
- C4. CONSTRUCTION JOINTS SHALL BE PROPERLY FORMED AND USED ONLY WHERE SHOWN OR APPROVED. GENERALLY FOR HAND PLACED KERB & GUTTER 6mm THICK APPROVED BITUMINOUS MASTIC JOINTING MATERIAL SHALL BE PROVIDED AT INTERVALS NOT EXCEEDING 6m. FOR MACHINE PLACED KERB & GUTTER 6mm THICK APPROVED BITUMINOUS MASTIC JOINTING MATERIAL SHALL BE PROVIDED AT INTERVALS NOT EXCEEDING 12m & GUILLOTINED DUMMY GROOVED JOINTS, 25mm IN DEPTH, SHALL BE FORMED EVERY 3m OF GUTTER. JOINTS ARE ALSO REQUIRED AT EACH END OF GUTTER CROSSING AND GULLY PITS. JOINTS SHALL BE SET VERTICAL AND SQUARE TO THE KERB.
- C5. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.
- C6. ELDDING OR SPLICES IN REINFORCEMENT SHALL BE USED ONLY IN POSITIONS APPROVED BY THE ENGINEER.
- C7. CONCRETE CURING SHALL BE IN ACCORDANCE WITH AS3600. CURING SHALL BE COMMENCED WITHIN TWO HOURS OF FINISHING OPERATIONS AND SHALL BE CONTINUED FOR A MINIMUM OF SEVEN DAYS BY AN APPROVED PROPRIETARY COMPOUND OR BY KEEPING CONTINUOUSLY WET.
- C8. FORMWORK SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AS3610. FORMWORK SHALL NOT BE STRIPPED NOR PROPS REMOVED WITHOUT APPROVAL.
- C9. FABRIC LAP DETAILS SHALL BE IN ACCORDANCE WITH FIG.13.2.4 OF AS3600.
- C10. HOOKS, LAPS AND BENDS SHALL BE IN ACCORDANCE WITH AS3600 UNO.
- C11. ALL CHEMICAL ANCHORS SHALL BE EITHER 'CHEMSET' BY 'RAMSET' WITH THE GLASS CAPSULE SYSTEM INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS OR HILTI HVU ADHESIVE ANCHOR WITH FOIL CAPSULE SYSTEM INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTION.
- C12. ALL CHEMICAL ANCHORS SHALL BE HOT DIPPED GALVANIZED AND BE MIN M16 DIA. U.N.O.

GENERAL EARTHWORKS, SITEWORKS & FILLING: FILLING:

- SGE1. THESE CLAUSES SHALL BE READ IN CONJUNCTION WITH GEOTECHNICAL INVESTIGATION.
- SGE2. THE RECOMMENDATIONS CONTAINED IN THE GEOTECH REPORT SHALL OVERRIDE THE CLAUSES PRESENTED HEREIN.
- SGE3. STRIP ALL TOPSOIL AND UNDERLYING FILL AND STOCKPILE TOPSOIL FOR LATER REUSE FOR

LANDSCAPING PURPOSES.

- SGE4. NEW FILL REQUIRED TO REINSTATE CUT LEVELS TO PROPOSED BENCHING LEVELS SHALL BE SOURCED FROM OTHER PARTS OF THE EXCAVATION AS SELECT FILL OR IMPORTED FILL AS SPECIFIED BELOW IN SGE 5 AND SGE 6.
- SGE5. SELECT FILL SHALL CONSIST OF LOCALLY DERIVED OR CUT NATURAL CLAYS.
- SGE6. IMPORTED FILL SHALL CONSIST OF RIPPED SANDSTONE OR SHALE OR SIMILAR MATERIAL WITH MAXIMUM PARTICLE SIZE NOT GREATER THAN 120mm AND A MOISTURE CONTENT WITHIN 2-3% OF STANDARD OPTIMUM.
- SGE7. ALL FILL (COHESIVE SOIL) SHALL BE PLACED IN LAYERS OF 200mm MAXIMUM THICKNESS, COMPACTED BY MACHINE ROLLING TO ACHIEVE A DRY DENSITY RATIO OF NOT LESS THAN 98% STANDARD MAXIMUM AT A CORRESPONDING MOISTURE CONTENT WITHIN 2-3% OF STANDARD OPTIMUM.
- SGE8. IN AREAS WHERE HIGH IMPACT ROLLING IS USED TEST EACH FINAL LAYER OF NOT GREATER THAN 300mm TO 400mm TO ACHIEVE A DRY DENSITY SGE8. RATIO OF NOT LESS THAN 98% STANDARD MAXIMUM AT A CORRESPONDING MOISTURE CONTENT WITHIN 2-3% OF STANDARD OPTIMUM.

EXCAVATION BATTERS:

- SGE9. ALL TEMPORARY BATTERS CUT IN CLAY SUBSTRATE SHALL BE 1 HORIZ : 1 VERT. ALL LONG TERM EXPOSED BATTERS CUT IN CLAY SUBSTRATE SHALL BE 2 HORIZ : 1 VERT. ALL DETENTION BASIN BATTERS IN CLAY SUBSTRATE SHALL BE 3 HORIZ : 1 VERT. ALL DETENTION BASIN BATTERS IN ROCK SUBSTRATE SHALL BE NEAR VERTICAL.
- SGE10. GEOTECHNICAL TESTING IS TO BE UNDERTAKEN TO AT LEAST LEVEL 1 CONTROL OF FILL COMPACTION STANDARD, AS DEFINED IN AS. 3738 AS FOLLOWS
- FOR GENERAL FILL OR CUT AREAS OVER THE AREA PROVIDE ONE (1) TEST PER 200mm LAYER, OVER AN AREA NOT GREATER THAN 50m²
- FOR GENERAL FILL AREAS IN CONCENTRATED AREAS ADJACENT TO AND BEHIND THE STRUCTURE AND ADJACENT TO AND BEHIND RETAINING WALLS PROVIDE ONE (1) TEST PER 200mm LAYER, OVER AN AREA NOT GREATER THAN 50m²
- SGE11. SUBMIT ALL GEOTECHNICAL TEST RESULTS TO WARREN SMITH & PARTNERS FOR REVIEW PRIOR TO CONTINUATION WITH SUBSEQUENT SECTION OF WORK.

EARTH WORKS FOR SERVICES

- E1. EXCAVATE TRENCHES AND STOCKPILE ALL MATERIAL FOR INSPECTION WITH REGARD TO RE-USE FOR TRENCH BACKFILL. REMAINING MATERIAL TO BE REMOVED FROM SITE.
- E2. BEDDING MATERIAL SHALL CONSIST OF IMPORTED FILL ONLY. THICKNESS OF BEDDING LAYER SHALL BE 75mm IN O.T.R. AND 200mm IN ROCK.
- E3. EMBED ALL PIPES WITH IMPORTED FILL. PROVIDE 200mm SIDE SUPPORT AND 150mm OVERLAY ABOVE PIPE CROWN.
- E4. TRENCH FILL ABOVE THE EMBEDMENT ZONE TO THE UNDERSIDE OF THE ROAD PAVEMENT OR FOOTWAY FILL MATERIAL SHALL BE AS FOLLOWS :

UNDER ROADWAY

TRENCH FILL MATERIAL SHALL CONSIST OF IMPORTED FILL AS SPECIFIED HEREIN OF EITHER HIGH GRADE COMPACTION SAND OR APPROVED CRUSHED ROAD GRAVEL CONFORMING TO RTA FORM 3051 OR SIMILAR.

OTHER THAN ROADWAY

TRENCH FILL MATERIAL EXCAVATED SHALL CONSIST OF SELECT FILL AS SPECIFIED HEREIN AND SHALL NOT CONTAIN MORE THAN 20% OF STONES OF SIZE BETWEEN 75mm & 150mm AND NONE LARGER THAN 150mm. PRIOR TO THE USE OF THE EXCAVATED MATERIAL IT SHALL BE INSPECTED AND APPROVED BY THE CONSULTANT.

- E5. COMPACT BEDDING, EMBEDMENT AND TRENCH FILL MATERIALS AS FOLLOWS:
- EMBEDMENT:- FOR GRANULAR FILL MATERIAL (NON-COHESIVE SOILS) EG. COARSE AGGREGATE FILL, HIGH GRADE COMPACTION SAND, THE DENSITY INDEX (ID) SHALL BE NOT LESS THAN 70%.

TRENCH FILL:- FOR GRANULAR MATERIAL (NON-COHESIVE SOILS), THE DENSITY INDEX (ID) SHALL BE NOT LESS THAN 70%.

FOR NON-GRANULAR FILL MATERIAL (COHESIVE SOILS), THE DRY DENSITY RATIO (RD) SHALL BE NOT LESS THAN 95%.

E6. MEASURE OF COMPACTION:- THE DEGREE OF COMPACTION SHALL BE MEASURED BY ONE OF THE FOLLOWING PARAMETERS :-

GRANULAR FILL (NON-COHESIVE SOILS). THE DENSITY INDEX (ID) DETERMINED IN ACCORDANCE WITH AS 1289.E6.1 BASED ON THE MAXIMUM AND MINIMUM DRY DENSITIES IN ACCORDANCE WITH AS 1289.E5.1 AND THE FIELD DRY DENSITY IN ACCORDANCE WITH AS 1289.5.3.2, AS 1289.E3.5 OR AS 1289.E8.1.

NON-GRANULAR FILL (COHESIVE SOILS). THE DRY DENSITY RATION (RD) DETERMINED IN ACCORDANCE WITH AS 1289.5.4.1 BASED ON THE FIELD DRY DENSITY IN ACCORDANCE WITH AS 1289.5.3.2 AND THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289.5.1.1

E7. GEOTECHNICAL TESTING IS TO BE UNDERTAKEN TO AT LEAST LEVEL 1 CONTROL OF FILL COMPACTION STANDARD, AS DEFINED IN AS. 3738 AS FOLLOWS:

- TEST EACH 300mm LAYER ABOVE PIPE CROWN.
- TEST BASE & SUB-BASE LAYERS WHERE APPLICABLE.
- TESTS SHALL BE REQUIRED AT EACH 50m CENTRES WHERE THE LENGTH OF TRENCH IS WITHIN THE 50m REQUIREMENT.

E8. SUBMIT ALL GEOTECHNICAL TEST RESULTS TO WARREN SMITH & PARTNERS FOR REVIEW PRIOR TO CONTINUATION WITH SUBSEQUENT SECTION OF WORK.

RESTORATION:

- RES1. RESTORE ALL TRAFFIC AREAS TO PRE EXISTING CONDITION.
- RES2. FOR ALL SURFACES OTHER THAN IN TRAFFIC AREAS RESTORE DISTURBED SURFACES TO PRE-EXISTING CONDITIONS AND COMPACT AS SPECIFIED.
- RES3. RESTORE ALL AUTHORITY OWNED AREAS TO LOCAL COUNCIL STANDARDS

ROAD WORKS, DRIVEWAYS & CARPARKS

- R1. ALLOW FOR LEVEL 2 TESTING AND SUB-GRADE CONDITIONS & PAVEMENT THICKNESS TO BE VERIFIED BY GEOTECHNICAL CONSULTANT AFTER INSPECTION OF PRELIMINARY BOXING.
- R2. ALLOW FOR ANY SUB-GRADE REPLACEMENT WORK TO BE DETERMINED AS REQUIRED BY GEOTECHNICAL CONSULTANT AT THE TIME OF PAVEMENT CONSTRUCTION.
- R3. MINIMUM DRY DENSITY RATIOS (AS 1289 3.4.1-1993) TO BE:
BASE COURSE: 98% MODIFIED
SUB-BASE: 95% MODIFIED
SUB-GRADE: 100% STANDARD
SUB-GRADE REPLACEMENT: 100% STANDARD
- R4. PAVEMENT MATERIALS TO COMPLY WITH RMS SPECIFICATION No. 3051 OR SIMILAR AS APPROVED BY GEOTECHNICAL CONSULTANT.
- R5. PROVIDE (1) TEST FOR EACH LAYER NOT EXCEEDING 250mm THICK BEING BASECOURSE, SUB-BASE & SUB-GRADE OVER AN AREA NOT GREATER THAN 500m²
- R6. SUBMIT ALL GEOTECHNICAL TEST RESULTS TO WARREN SMITH & PARTNERS FOR REVIEW PRIOR TO CONTINUATION WITH SUBSEQUENT SECTION OF WORK.

APPROVALS

- A1. THE AS CONSTRUCTED WORKS SHALL BE INSPECTED BY DESIGN CONSULTANT. MINIMUM 48 HOURS NOTICE SHALL APPLY TO ALL INSPECTIONS.
- A2. THE DESIGN PLANS HEREIN ARE SUBJECT TO LOCAL COUNCIL APPROVAL PRIOR TO CONSTRUCTION. OBTAIN EXPRESS (WRITTEN) ADVICE TO PROCEED FROM PROJECT MANAGER PRIOR TO COMMENCEMENT.
- A3. SUBMIT WORK-AS-EXECUTED DRAWINGS IN CIVILCAD OR DXF DIGITAL FORMAT AND HARD COPY FORMAT. VERIFY ALL CONSTRUCTION WORKS SHOWN HEREON.
- A4. CERTIFY THAT THE AS CONSTRUCTED SYSTEM HAS BEEN BUILT IN ACCORDANCE WITH THE APPROVED PLANS ISSUED FOR CONSTRUCTION.

SERVICES UNDER ROAD SURFACES

- S1. ALL OTHER SERVICES INCLUDING BUT NOT LIMITED TO WATER, HYDRANT, GAS, SEWER, ELECTRICAL AND COMMUNICATIONS CONDUITS OR CABLES SHALL BE LAID WITH MINIMUM 600mm U.N.O. COVER BELOW PROPOSED ROAD SURFACE OR APPROVED OTHER MEANS TO PROTECT DURING CONSTRUCTION.

ROAD SIGNS & LINE MARKING

- RS1. ALL SIGNS AND LINEMARKING SHALL BE TO ROADS & TRAFFIC AUTHORITY STANDARDS AND SPECIFICATIONS AND AS.1742. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
- RS2. ALL LINEMARKING SHALL BE AUGMENTED BY RETROREFLECTIVE RAISED PAVEMENT MARKERS (RRPMs) AND ALL SHALL BE TO AS 1742.2 - 1994 AND AS 1742.2 /AMDT 1/1997-10-05
- RS3. ALL ROAD SIGNS AND POSTS SHALL BE TO AS 1742.2 - 1994 AND AS 1742.2 /AMDT 1/1997-10-05

PROTECTION OF FLORA - REFER SPECIFICATION

1. ANY TRENCHES WITHIN 3m OF TREES SHALL BE HAND DUG TO AVOID DAMAGE TO TREE ROOTS.
2. IF IT IS CONSIDERED NECESSARY TO PERFORM ANY WORK ON TREES, INCLUDING TRIMMING, LOPPING, ROOT CUTTING, REPAIR AND REMOVAL, APPLICATION IN WRITING SHALL BE MADE BY THE CONTRACTOR TO THE SUPERINTENDENT. ANY WORK PERMITTED TO BE DONE ON TREES TO BE RETAINED SHALL BE PERFORMED IN ACCORDANCE WITH THE ARBORISTS REPORT.
3. MATURE TREES AND SHRUBS ARE TO BE REMOVED IN ACCORDANCE WITH THE ARBORISTS REPORT.

AUTHORITY STANDARDS

- LGA 1. THE DRAWINGS HEREIN SHALL BE READ IN CONJUNCTION WITH PENRITH CITY COUNCIL STANDARDS & SPECIFICATIONS WHICH SHALL OVERRIDE SPECIAL DETAILS SHOWN ON THE DRAWINGS.

TRAFFIC NOTE:

1. A TRAFFIC CONTROL PLAN IS TO BE PREPARED BY AN ACCREDITED RMS 1. TRAFFIC CONTROLLER AND SUBMITTED TO COUNCIL. THIS TRAFFIC PLAN IS TO BE CERTIFIED BY AND IMPLEMENTED TO THE SATISFACTION OF AN ACCREDITED RMS TRAFFIC CONTROLLER

PRIOR TO COMMENCEMENT OF WORK

2. ALL TRAFFIC CONTROL WORKS SHALL ONLY BE CARRIED OUT BY 2. ACCREDITED RMS TRAFFIC CONTROLLERS.

CLOSED CIRCUIT COLOUR TV (CCTV)

- CCTV 1. UNDERTAKE A CCTV INSPECTION OF ALL THE COMPLETED DRAINAGE IN ACCORDANCE WITH THE GUIDELINES OF THE AUSTRALIAN CONDUIT CONDITION EVALUATION MANUAL (ACCCEM)
- CCTV 2. APPLY THE FOLLOWING REQUIREMENTS TO THE CCTV INSPECTION:-
A. USE DATA CAPTURE SOFTWARE APPROVED BY SYDNEY WATER

B. USE CERTIFIED CCTV OPERATORS C. THE CCTV FOOTAGE SHALL BE OF QUALITY TO ALLOW ACCURATE ASSESSMENT OF THE INTERNAL CONDITION OF THE PIPE. FURNISH TO THE DESIGN CONSULTANT:-
- CCTV 3. A. VIDEOS IN MPG FORMAT
B. CCTV REPORT AND SURVEY DATA IN PDF FORMAT

PRELIMINARY - NOT FOR CONSTRUCTION

DO NOT SCALE FROM DRAWINGS, CHECK & VERIFY ALL DIMENSIONS & LEVELS BEFORE COMMENCEMENT OF ANY WORK.

THIS DRAWING IS NOT TO BE COPIED IN PART OR WHOLE WITHOUT WRITTEN PERMISSION FROM WARREN SMITH AND PARTNERS.

REVISION	AMENDMENT	DATE	REVISION	AMENDMENT	DATE
1	ISSUE FOR DA	07/12/18			
2	RE-ISSUE FOR DA	07/06/19			
3	RE-ISSUE FOR DA	16/10/19			

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PROJECT

SENIORS LIVING AND RACF DEVELOPMENT - VILLAGE GREEN PENRITH

PREPARED BY



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CONSULTING ENGINEERS

Hydraulic Services

Civil Services

Fire Services

Sydney Water Accredited Water Servicing Co-ordinator and Designer

SERVING THE CONSTRUCTION INDUSTRY SINCE 1981.



TITLE				
SPECIFICATION NOTES				
SCALE	DRAWN	DESIGNED	CHECKED	APPROVED
AS SHOWN	M.Cz.	L.Si.	L.Sh.	M.C.
JOB No.		DRAWING No.	ISSUE	
5778001		C1.02	3	
DATE	STATUS			
OCT 2019	DEVELOPMENT APPLICATION			

LEGEND

SITE FENCE

SITE GATE

X

SEDIMENT FENCE

VEHICLE ENTRY SHAKER GRID

SITE STOCKPILE

EXISTING BUILDING TO BE DEMOLISHED

SEDIMENT TRAP FOR KERB INLET
- SAND BAGS

NOTES:

1.

INSTALLATION OF ALL EROSION AND SEDIMENT CONTROL MEASURES IS TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE 'BLUE BOOK - MANAGING URBAN STORMWATER'. ALL CONTROLS ARE TO BE INSTALLED PRIOR TO CONSTRUCTION COMMENCING.

2.

THE CONTRACTOR IS RESPONSIBLE FOR THE CORRECT INSTALLATION AND ONGOING MAINTENANCE OF THE CONTROLS. REFER TO DRG EW-C2.02 FOR MAINTENANCE REQUIREMENTS.

3.

STOCKPILES ARE TO REMAIN CLEAR OF SITE ACCESS, DRAINS AND PAVED AREAS. HEIGHT OF STOCKPILE SHALL NOT EXCEED 2m.

4.

SUITABLE AND APPROVED BINS SHALL BE UTILISED FOR THE CONTAINMENT OF ALL HARD WASTE, INCLUDING CONCRETE SLURRIES, BUILDING WASTE AND LITTER. IN THE CASE OF ACCIDENTAL SPILLS OF SOIL OR OTHER MATERIAL, PARTICULARLY IN THE PUBLIC RESERVE, THE MATERIAL SHALL BE SWEEPED AND CONTAINED AND NOT WASHED INTO A GUTTER.

5.

ALL STORMWATER GRATED INLET PITS OR GRATED TRENCH DRAINS LOCATED ADJACENT TO THE DEVELOPMENT SITE ARE TO BE FITTED WITH GEOTEXTILE INLET FILTERS TO PREVENT THE INGRESS OF ANY SEDIMENT FROM THE PROPOSED WORKS.

PRELIMINARY - NOT FOR CONSTRUCTION

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NORTH

5.00

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2.5

5.0

7.5

10.0m

PLAN

SCALE 1:250

A1 SHEET

REVISION	AMENDMENT	DATE	REVISION	AMENDMENT	DATE
1	ISSUE FOR DA	07/12/18			
2	RE-ISSUE FOR DA	07/06/19			
3	RE-ISSUE FOR DA	16/10/19			

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VILLAGE GREEN PENRITH

PREPARED BY

Warren
Smith &
Partners

CONSULTING ENGINEERS

Hydraulic Services Fire Services
Civil Services Sydney Water Accredited Water
Servicing Co-ordinator and Designer

SERVING THE CONSTRUCTION INDUSTRY
SINCE 1981.

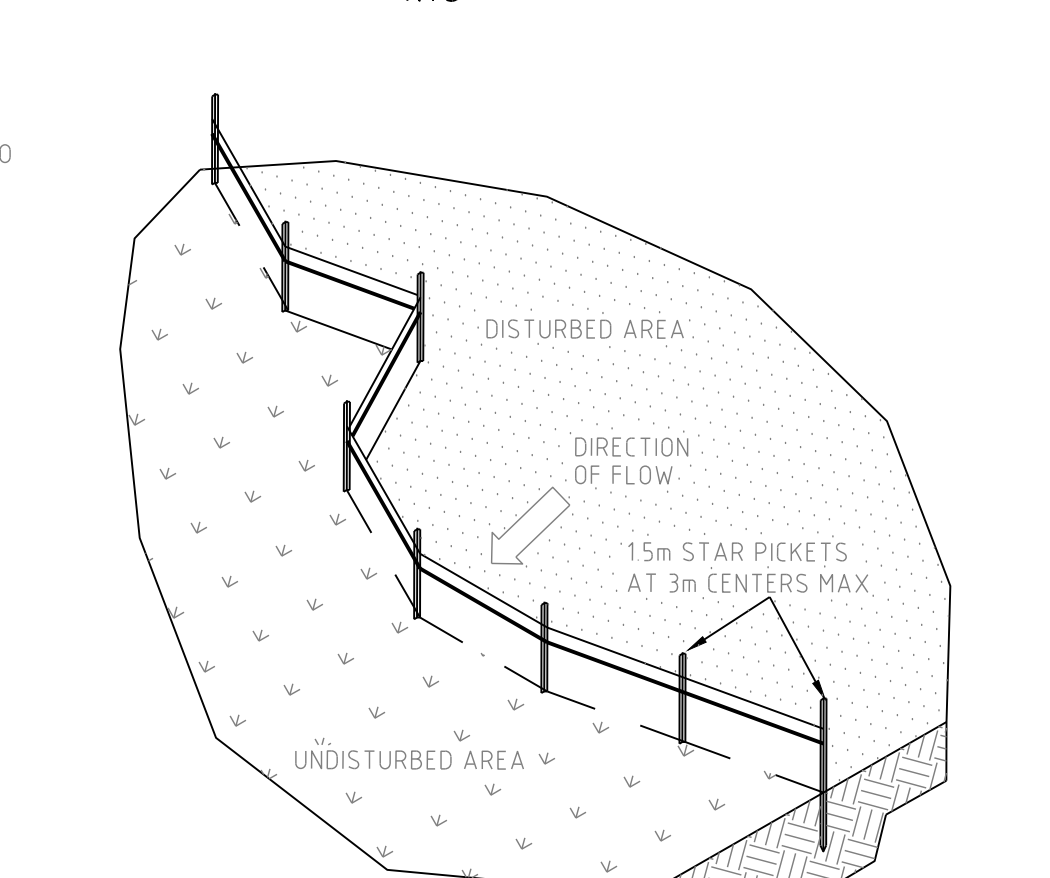
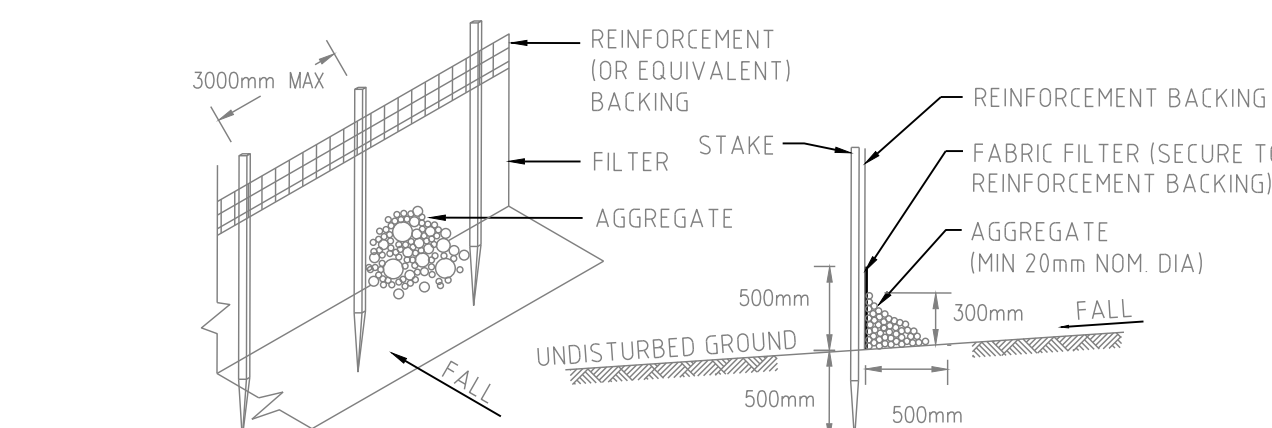
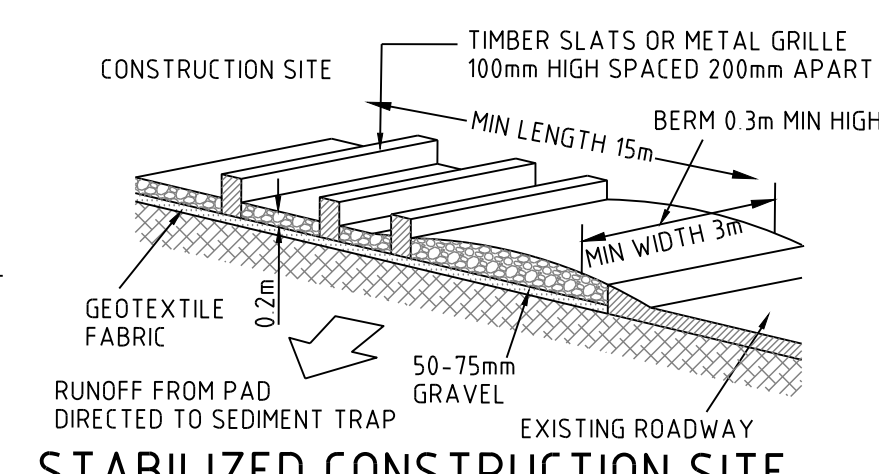
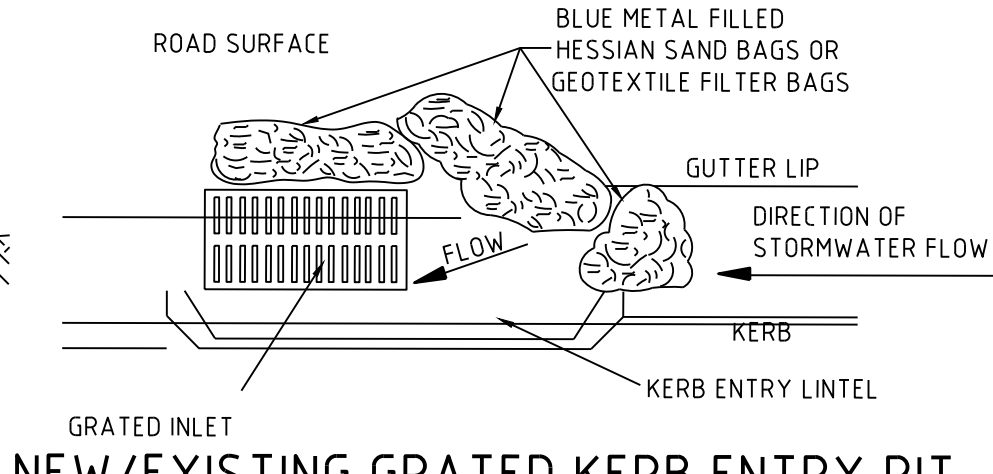
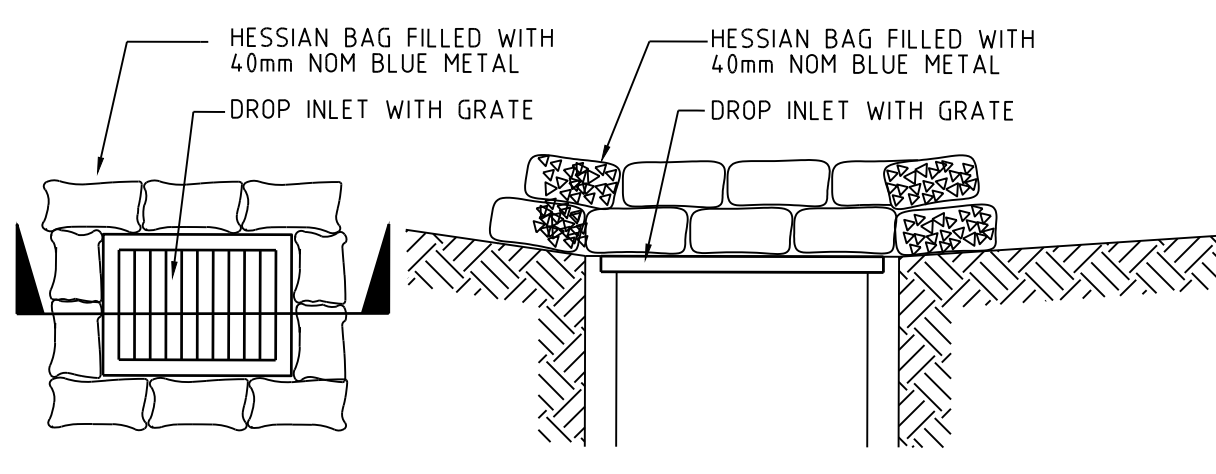
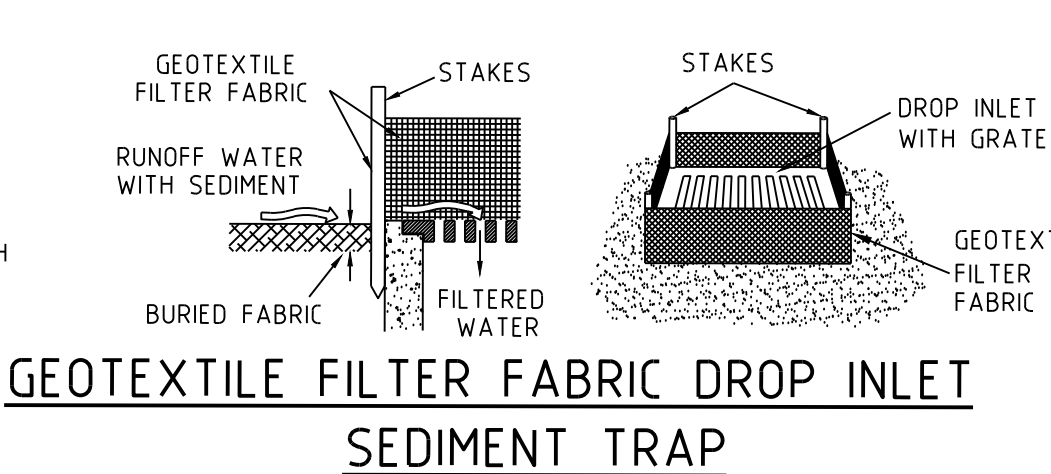
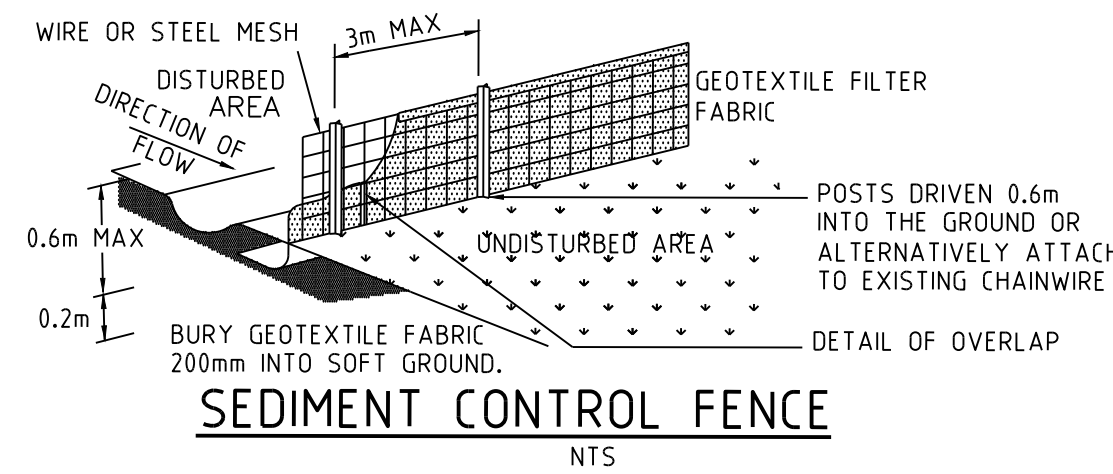
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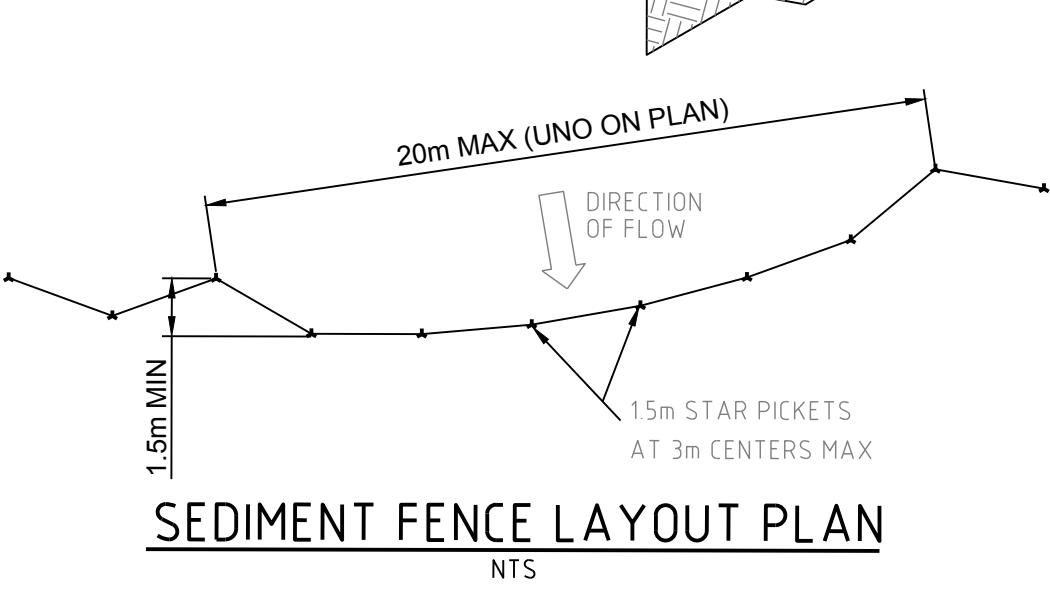
02 9299 1312 wsp@warrensmith.com.au

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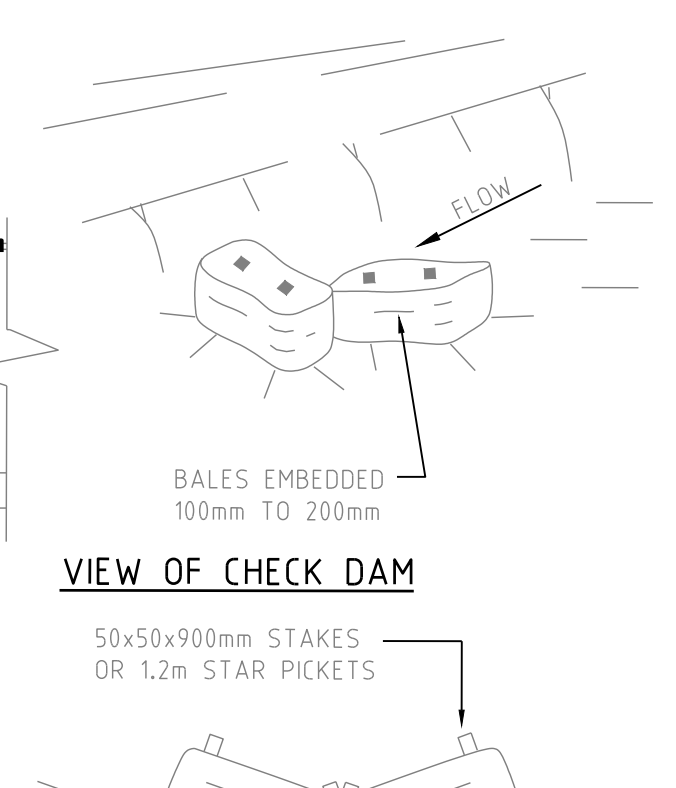
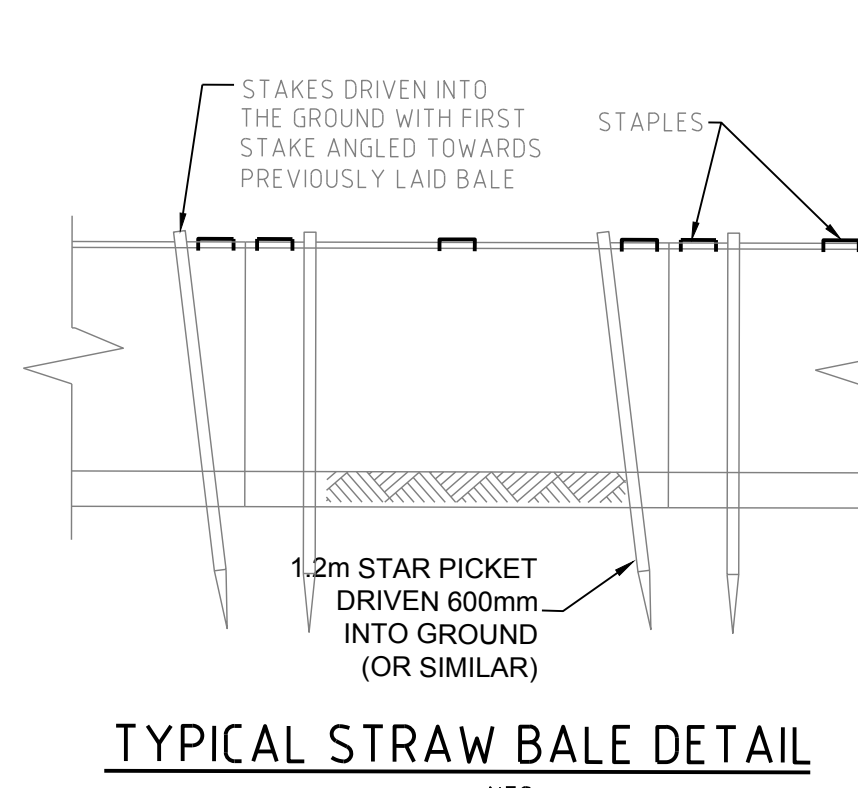
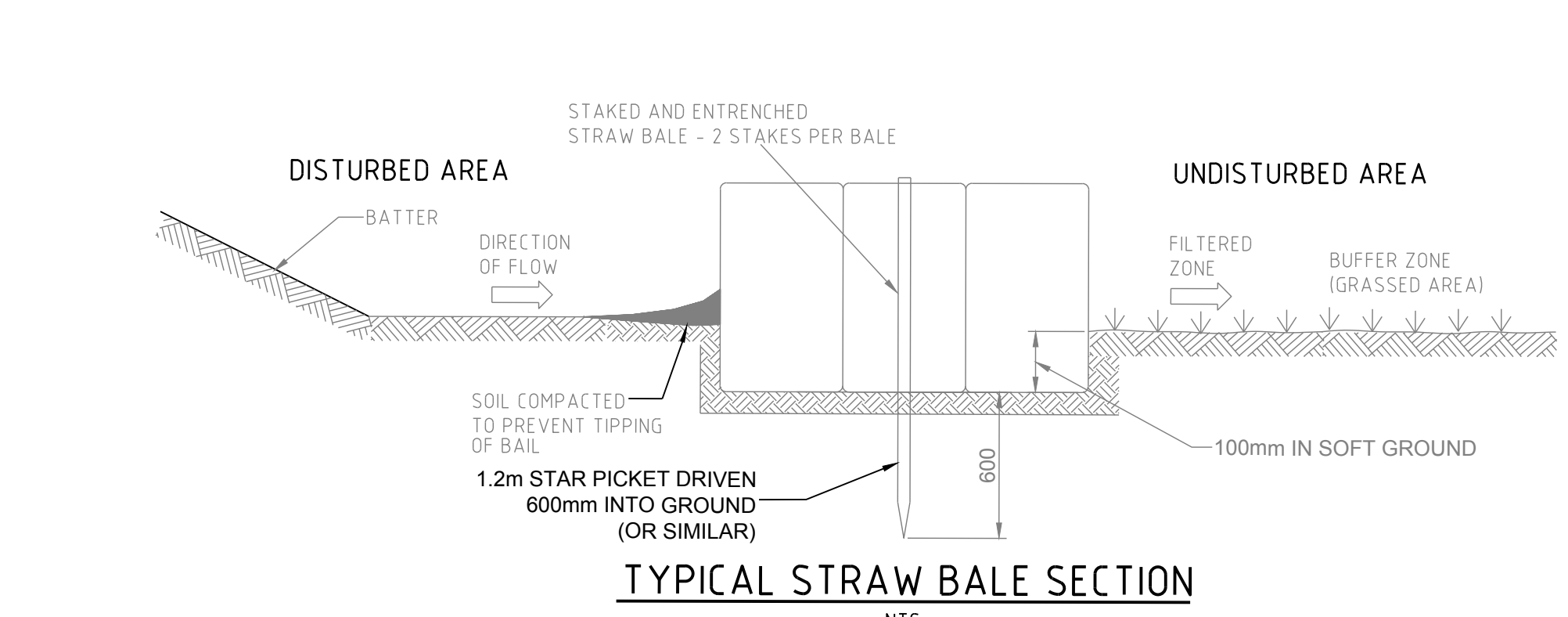
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SCALE AS SHOWN	DRAWN M.Cz.	DESIGNED L.Sl.	CHECKED L.Sh.	APPROVED M.C.
JOB No. 5778001	DRAWING No. C2.01		ISSUE 3	
DATE OCT 2019	STATUS DEVELOPMENT APPLICATION			



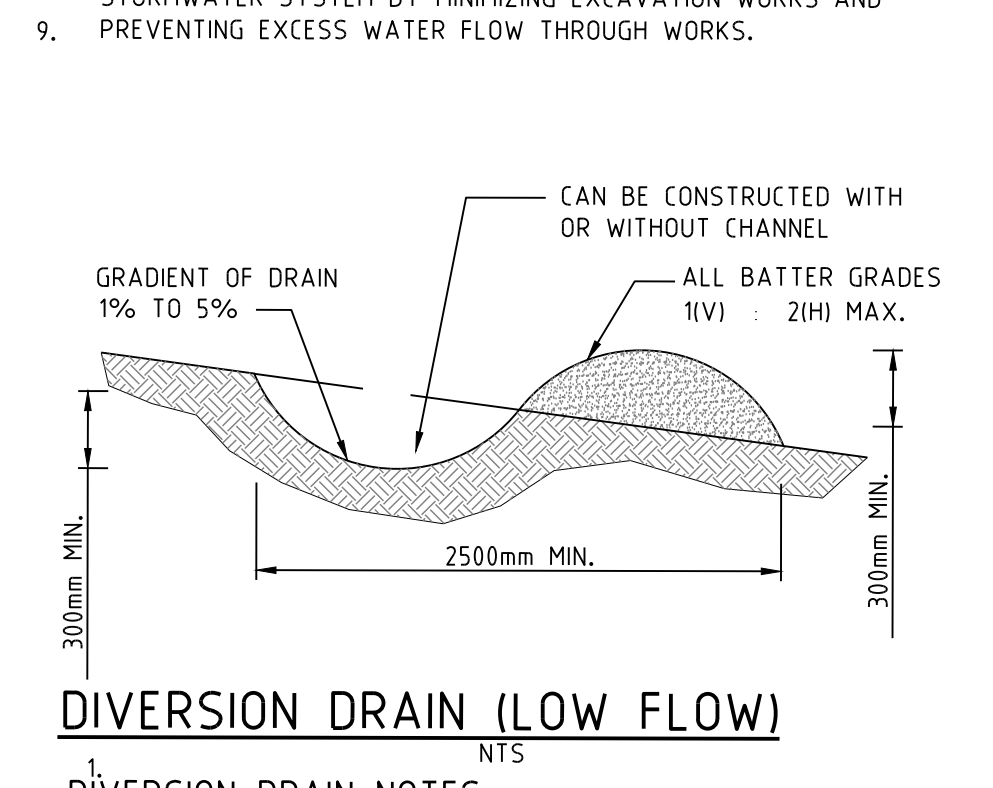
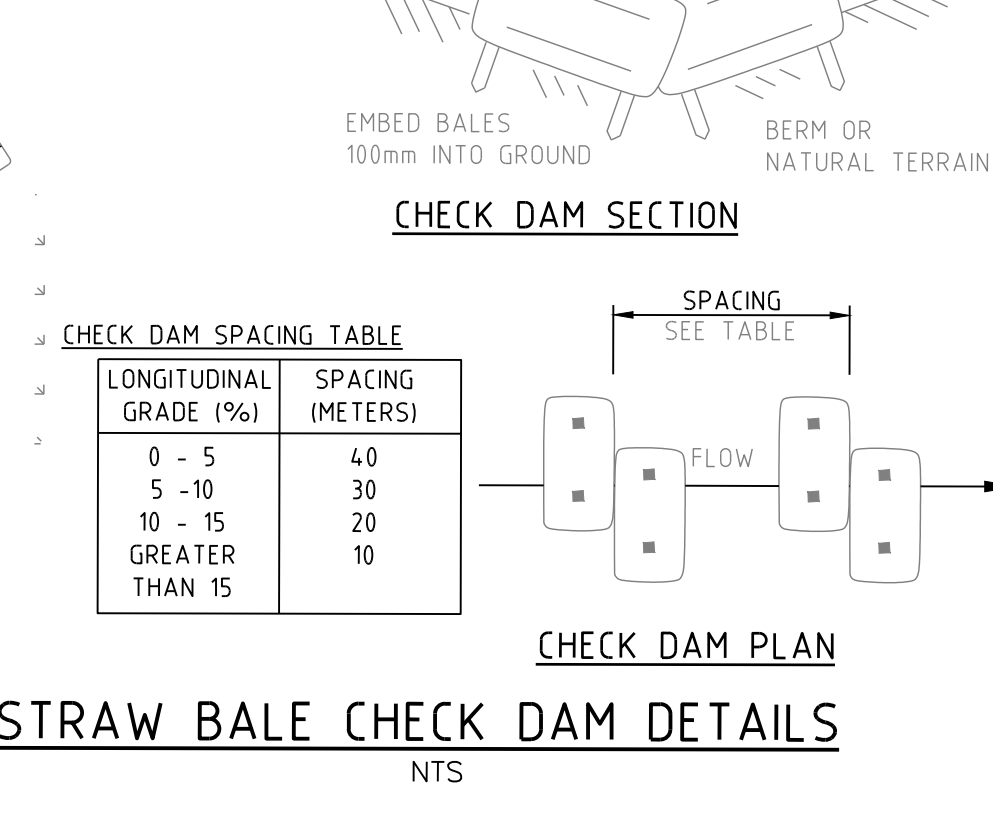
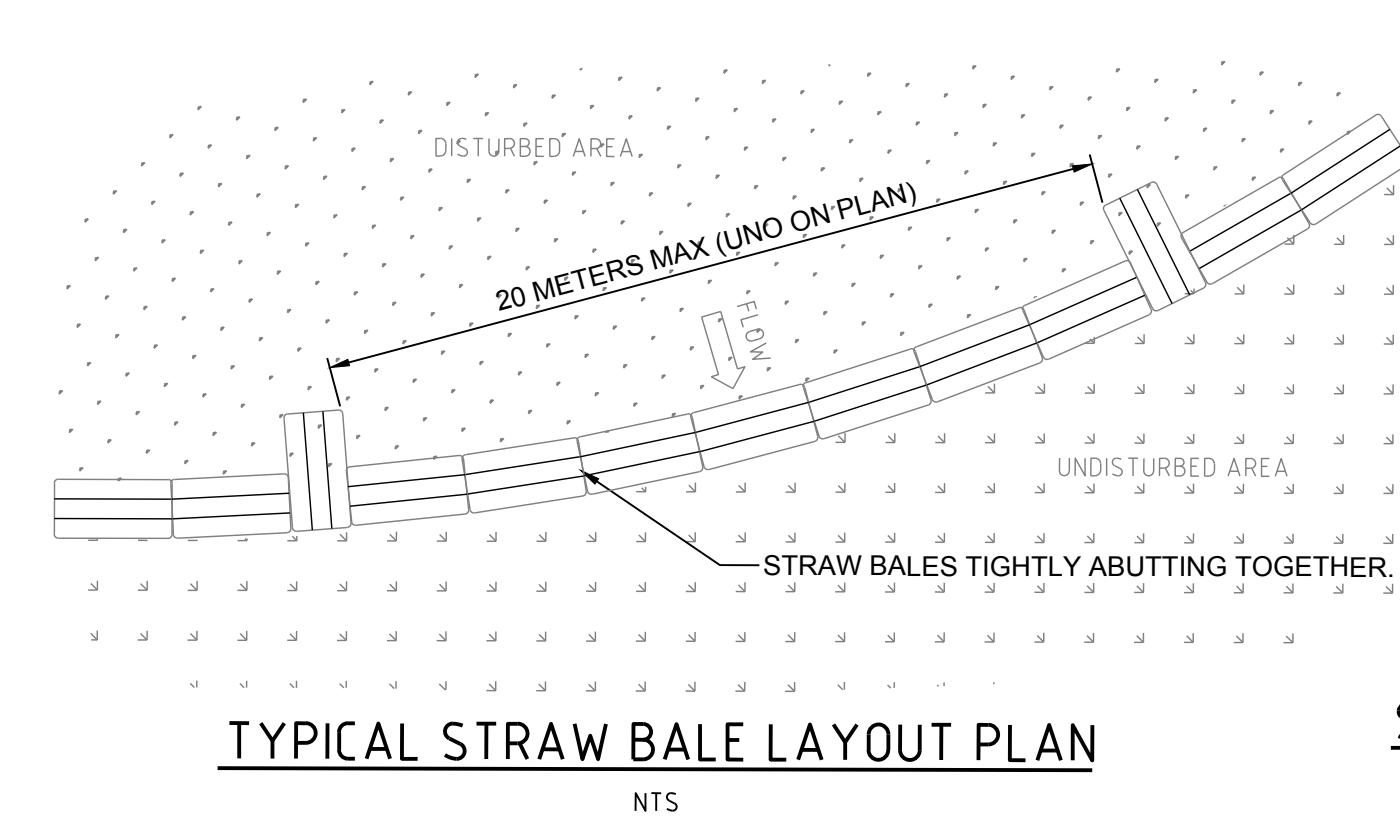
- SEDIMENT FENCE NOTES:-**
1. CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE OR AT THE TOE OF A SLOPE.
 2. DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND SUFFICIENT TO PROVIDE RIGID SUPPORT, 3 METERS APART, WHERE THERE IS INSUFFICIENT SOIL DEPTH OVER ROCK, HOLES ARE TO BE DRILLED INTO ROCK TO ACCEPT THE STAR PICKETS.
 3. ON SOFT GROUND MATERIALS, DIG A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED. BACKFILL TRENCH OVER BASE OF FABRIC & COMPACT.
 4. FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES OR AS RECOMMENDED BY THE GEOTEXTILE MANUFACTURER. USE A REINFORCEMENT BACKING WITH NON SELF-SUPPORTING GEOTEXTILE FABRIC.
 5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
 6. ON HARD OR ROCKY GROUND, SMOOTH A 500mm WIDE STRIP UPSLOPE OF THE FENCE LINE. TURN THE BOTTOM 500mm OF THE FABRIC UPSLOPE AND ANCHOR IN PLACE WITH SUITABLE AGGREGATE.
 7. WHERE A SEDIMENT FENCE IS CONSTRUCTED DOWN SLOPE FROM A DISTURBED BATTER THE FENCE SHOULD BE LOCATED 1.5 TO 2.0 METERS DOWN SLOPE FROM THE TOE OF THE BATTER.
 - 8.



- EXCAVATED SEDIMENT TRAP NOTES:-**
1. REMOVE THE SEDIMENT WHEN IT HAS ACCUMULATED TO HALF THE DESIGN DEPTH OF THE TRAP AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS.
 2. PROVIDE 50 cu.m/Ha OF SEDIMENT STORAGE VOLUME.
 3. REFER TO THE MAINTENANCE REQUIREMENTS.

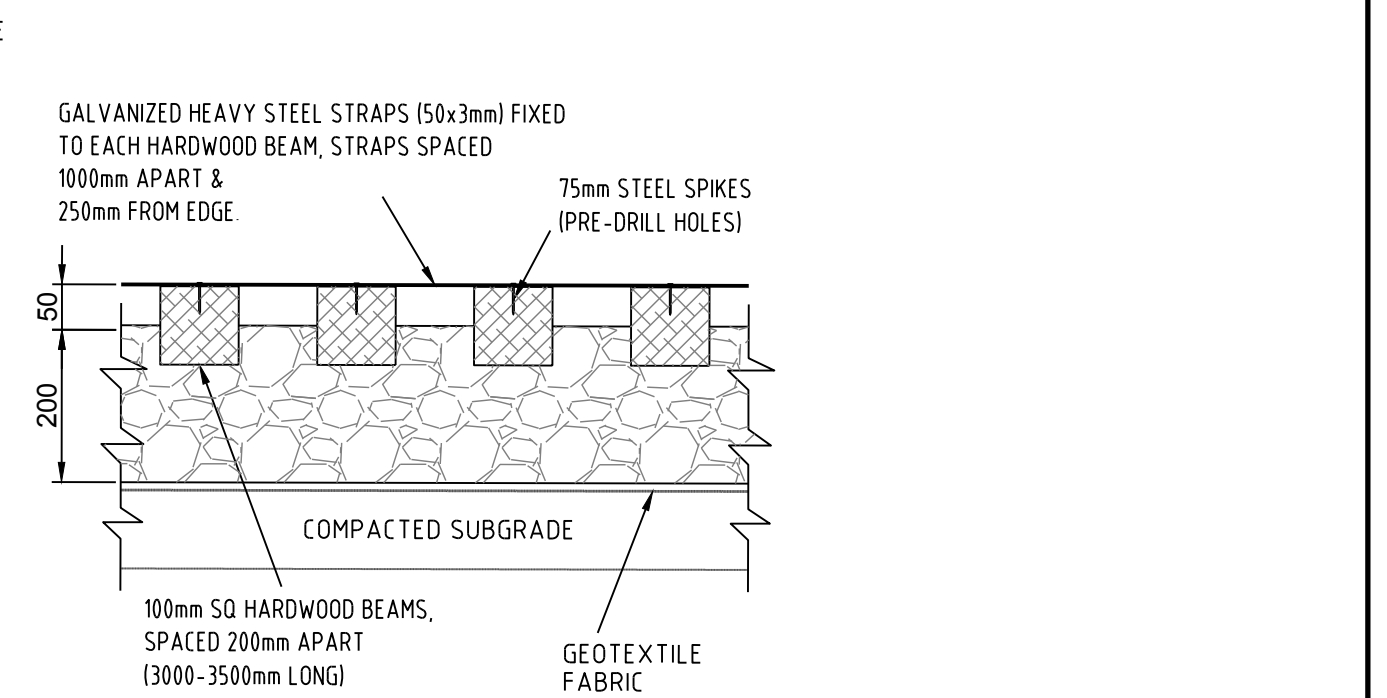


- STRAW BALE NOTES:-**
1. CONSTRUCT STRAW BALE FILTER AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE OR AT THE TOE OF A SLOPE.
 2. PLACE BALES LENGTHWISE IN A ROW WITH ENDS TIGHTLY ABUTTING. USE STRAW TO FILL ANY GAPS BETWEEN BALES. STRAWS TO BE PLACED PARALLEL TO GROUND.
 3. MAXIMUM HEIGHT OF FILTER IS ONE BALE.
 4. ON SOFT MATERIALS, EMBE EACH BALE IN THE GROUND 75mm TO 100mm AND ANCHOR WITH TWO 1.2 METRE STAR PICKETS. ANGLE THE FIRST STAKE IN EACH BALE TOWARDS THE PREVIOUSLY LAID BAIL. DRIVE STAKES 600mm INTO THE GROUND AND FLUSH WITH THE TOP OF THE BALES.
 5. WHERE A STRAW BALE FILTER IS CONSTRUCTED DOWN SLOPE FROM A DISTURBED BATTER THE BALES SHOULD BE LOCATED 1.5 TO 2.0 METERS DOWN SLOPE FROM THE TOE OF THE BATTER.
 6. WHERE REQUIRED WRAP GEOTEXTILE FILTER FABRIC AROUND BALES AND STAPLE IN POSITION.



- DIVERSION DRAIN NOTES:-**
1. CONSTRUCT WITH GRADIENT OF 1 PER CENT TO 5 PER CENT.
 2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE.
 3. DRAINS TO BE OF CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTION NOT V-SHAPED.
 4. EARTH BANKS TO BE ADEQUATELY COMPACTED IN ORDER TO PREVENT FAILURE.
 5. PERMANENT OR TEMPORARY STABILIZATION OF THE EARTH BANK TO BE COMPLETED WITHIN 10 DAYS OF CONSTRUCTION.
 6. ALL OUTLETS FROM DISTURBED LANDS ARE TO FEED INTO A SEDIMENT BASIN OR SIMILAR.
 7. DISCHARGE RUN OFF COLLECTED FROM UNDISTURBED LANDS ONTO EITHER A STABILIZED OR AN UNDISTURBED DISPOSAL SITE WITHIN THE SAME SUBCATCHMENT AREA FROM WHICH THE WATER ORIGINATED.
 8. COMPACT BANK WITH A SUITABLE IMPLEMENT IN SITUATIONS WHERE THEY ARE REQUIRED TO REMAIN FOR MORE THAN FIVE DAYS.
 9. EARTH BANKS TO BE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT WILL IMPEDE NORMAL FLOW.

- SITE ENTRY/EXIT NOTES:-**
1. ALL VEHICLE ENTRANCES & EXITS TO THE CONSTRUCTION SITE MUST BE STABILIZED TO PREVENT THEM BECOMING A SOURCE OF SEDIMENT, BY PROVIDING A VEHICLE SHAKE AREA. THIS MAY CONSIST OF A TIMBER, CONCRETE OR STEEL SHAKER GRID OR RUBBLE AREA.
 2. THE VEHICLE EXIT AREA IS TO BE MAINTAINED IN A CLEAN & SERVICEABLE CONDITION DURING THE TOTAL TIME OF USAGE.
 3. ANY UNSEALED ROAD BETWEEN THE DEVICE AND COUNCILS ROADWAY IS TO BE TOPPED WITH 100mm THICK, 40mm NOMINAL SIZE AGGREGATE.
 4. PUBLIC ROADS MUST BE KEPT FREE OF DIRT AND MUD. SEDIMENT TRACKED ONTO THE PUBLIC ROADWAY BY VEHICLES LEAVING THE CONSTRUCTION SITE IS TO BE SWEEPED UP IMMEDIATELY.
 5. FENCES SHOULD BE ERECTED TO ENSURE VEHICLES CAN NOT BYPASS THE STABILIZED ACCESS POINTS, UNLESS COMING FROM A STABILIZED AREA.



- SITE ENTRY/EXIT CONSTRUCTION NOTES:-**
1. STRIP TOP SOIL & LEVEL SITE. PROVIDE CATCH DRAIN AT SIDES TO DIRECT RUNOFF WATER TO SEDIMENT TRAPS.
 2. COMPACT SUBGRADE AND REMOVE ANY HIGH POINTS.
 3. COVER AREA WITH GEOTEXTILE FABRIC. THIS MAY BE WOVEN OR NEEDLE PUNCHED PRODUCT WITH A MINIMUM CBR BURST STRENGTH (AS3706.4-90) OF 2500 N.
 4. CONSTRUCT 200mm THICK RUBBLE PAD OVER GEOTEXTILE USING ROAD BASE OR 30-40mm AGGREGATE. MINIMUM LENGTH IS 15 METRES OR TO BUILDING ALIGNMENT. MINIMUM WIDTH 3 METRES. CONSTRUCT 300mm HIGH HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT TRAP.
 5. WHERE GRIDS ARE USED FIRST CONSTRUCT A 150 THICK PAD OVER GEOTEXTILE FABRIC. LEVEL THIS IN BOTH DIRECTIONS. LOWER GRID ON TO THE PREPARED BASE AND ENSURE THAT NO PART IS SITTING ON ANY HIGH POINTS. BACKFILL THE SPACES BETWEEN THE GRIDS TO WITHIN 50mm OF THE TOP.
 6. PROVIDE RAMPS AT ENDS AND SIDE OF GRIDS. IF DEPRESSIONS OCCUR IN THE RAMPS DURING USE. ADD ADDITIONAL MATERIAL.

- MAINTENANCE REQUIREMENTS:-**
1. ACCUMULATED SILT & SEDIMENT MUST BE REMOVED AT REGULAR INTERVALS AND AFTER EACH MAJOR STORM.
 2. SILT & SEDIMENT MUST BE REMOVED FROM OFF THE SITE OR TO A COUNCIL APPROVED LOCATION WITHIN THE SITE, WHERE IT WILL NOT ERODE.
 3. THE SEDIMENT FENCES, BALES & TRAPS SHALL BE REGULARLY INSPECTED, ESPECIALLY AFTER RAIN AND KEPT IN GOOD REPAIR AND FUNCTIONING CONDITION AT ALL TIMES.
 4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT SEDIMENT, EROSION & WATER POLLUTION SHALL BE MINIMIZED.
 5. THE SEDIMENT TRAPS SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE CONSTRUCTION AREA HAS BEEN PROPERLY STABILIZED.

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1	ISSUE FOR DA	07/12/18			
2	RE-ISSUE FOR DA	07/06/19			
3	RE-ISSUE FOR DA	16/10/19			

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PROJECT

SENIORS LIVING AND RACF DEVELOPMENT - VILLAGE GREEN PENRITH

PREPARED BY

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CONSULTING ENGINEERS

Hydraulic Services Fire Services
Civil Services Sydney Water Accredited Water
Serving Co-ordinator and Designer

SERVING THE CONSTRUCTION INDUSTRY SINCE 1981.

TITLE

SOIL AND WATER MANAGMENT DETAILS

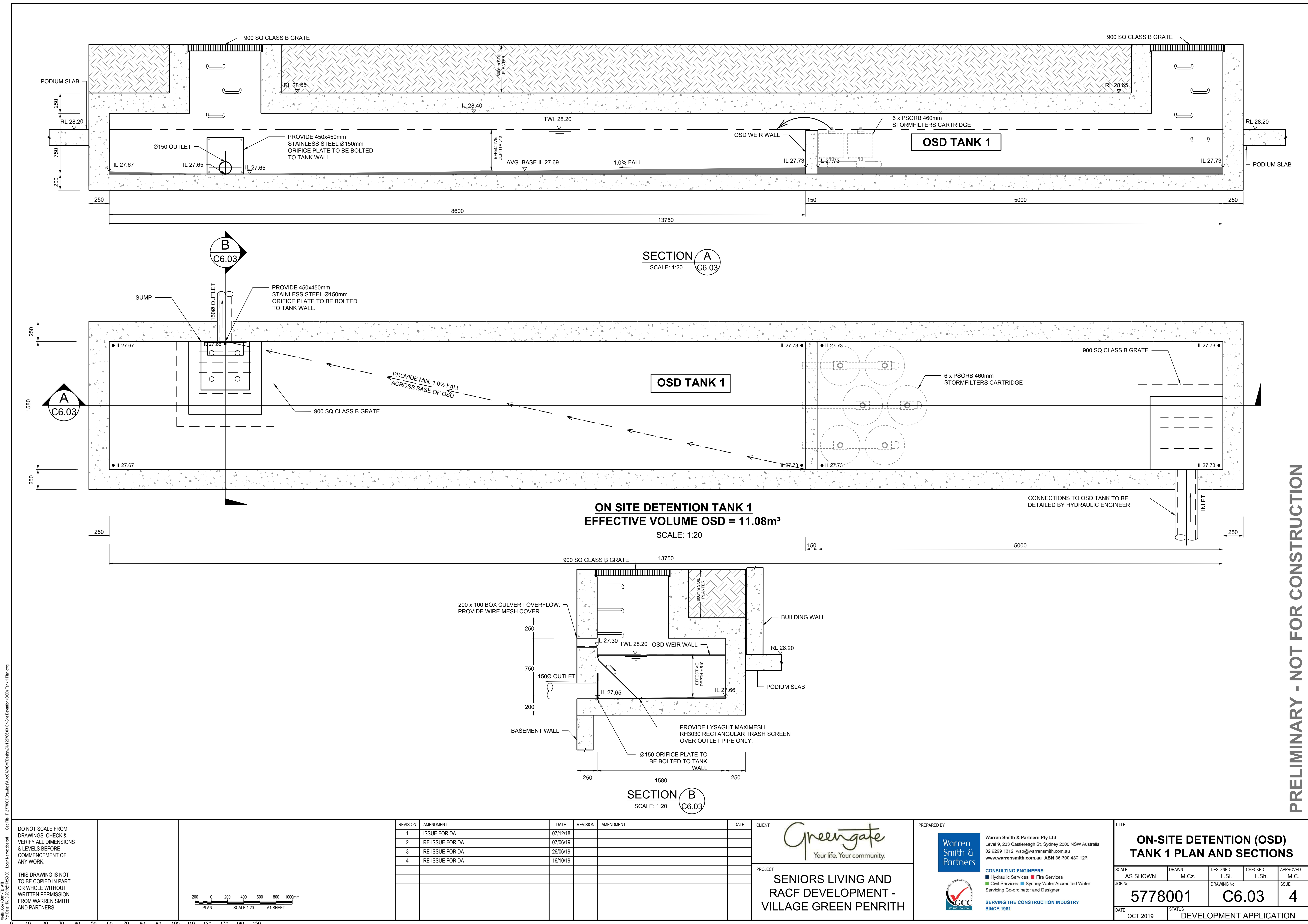
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JOB No 5778001
DATE OCT 2019

DRAWN M.Cz.
DESIGNED L.Si.
DRAWING No C2.02
STATUS DEVELOPMENT APPLICATION

CHECKED L.Sh.
ISSUE 3

APPROVED M.C.

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2	RE-ISSUE FOR DA	07/06/19			
3	RE-ISSUE FOR DA	26/06/19			
4	RE-ISSUE FOR DA	16/10/19			

PROJECT

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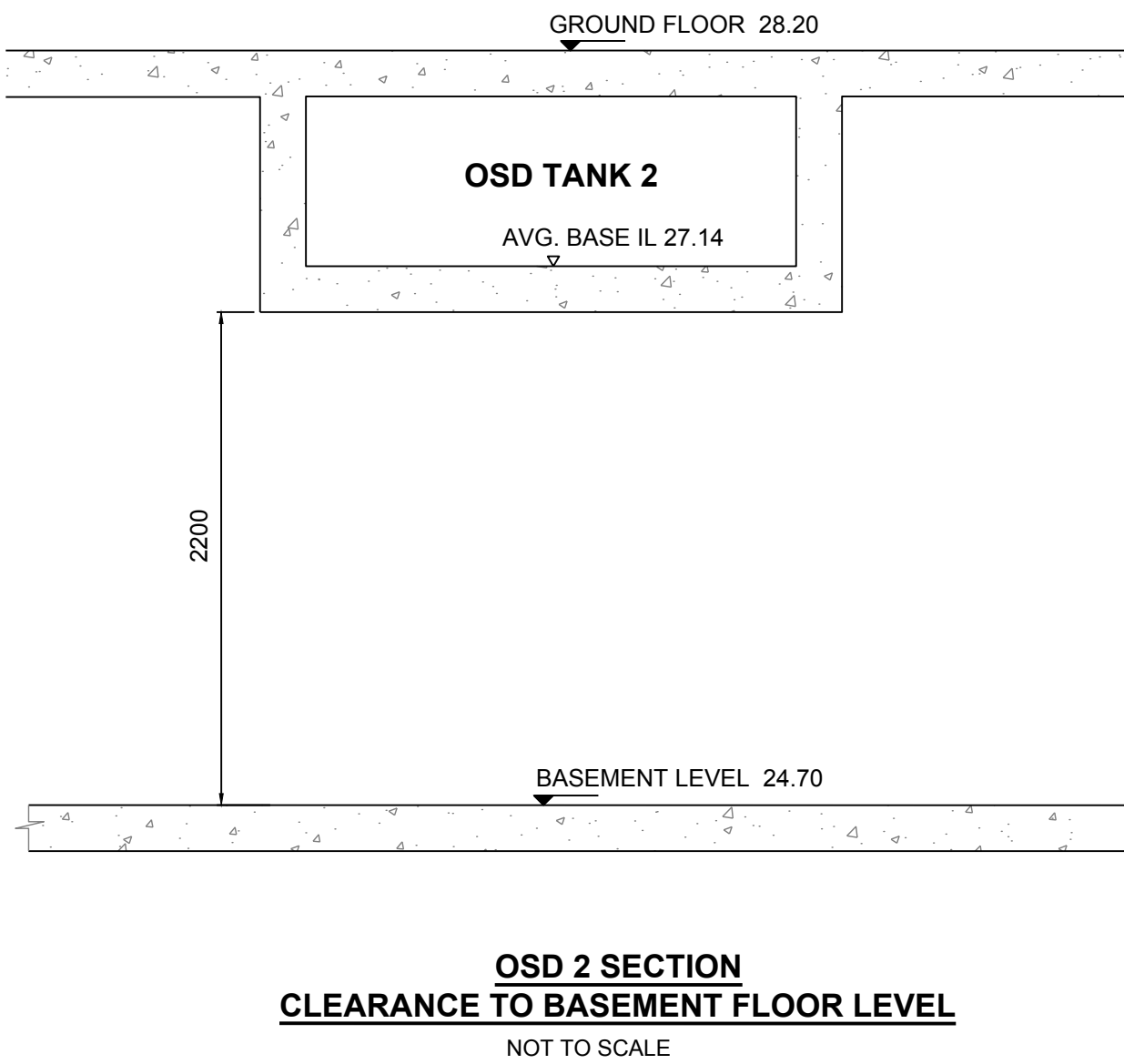
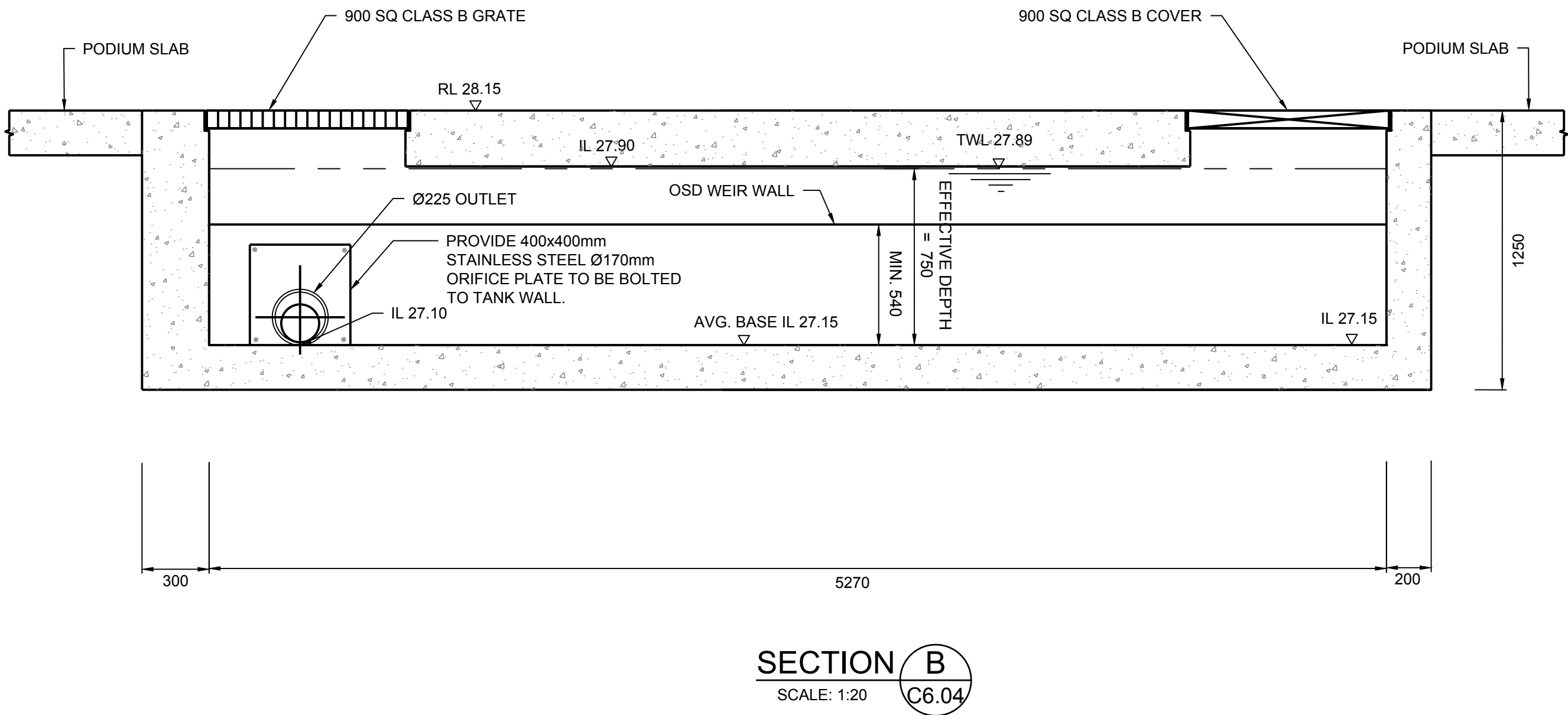
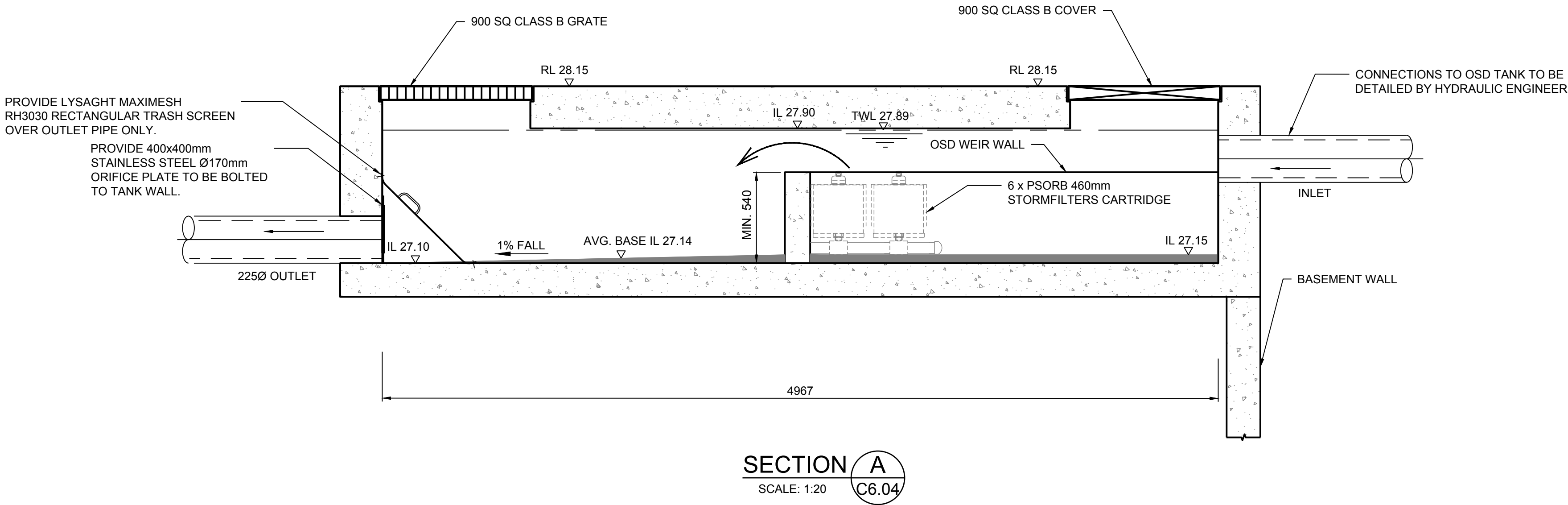
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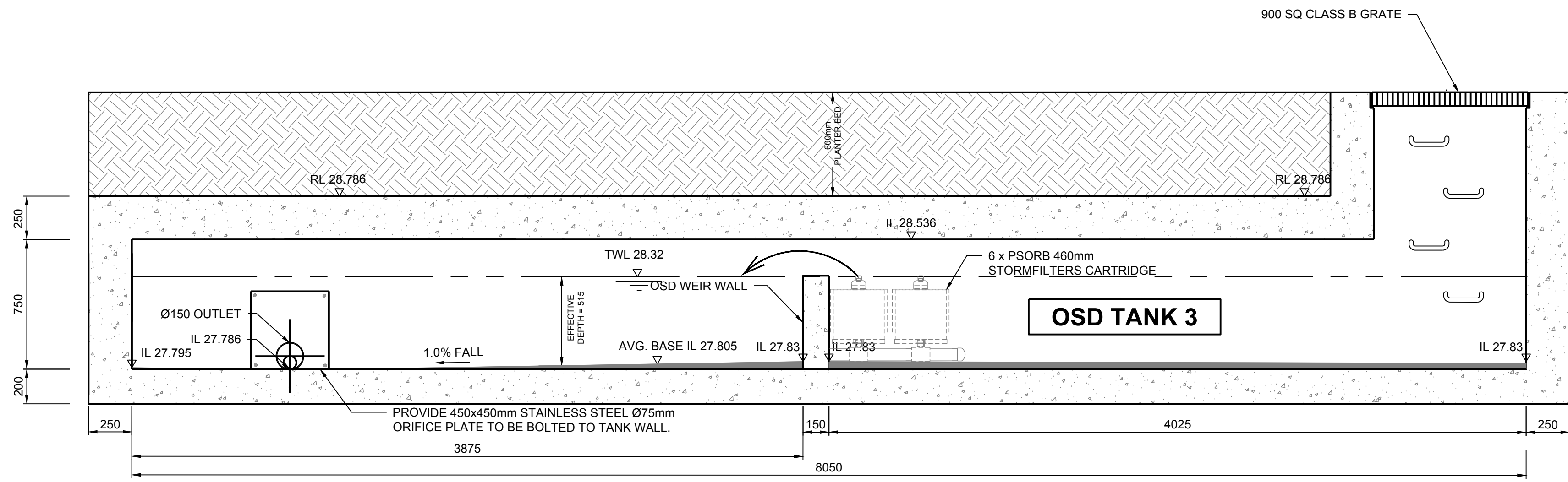
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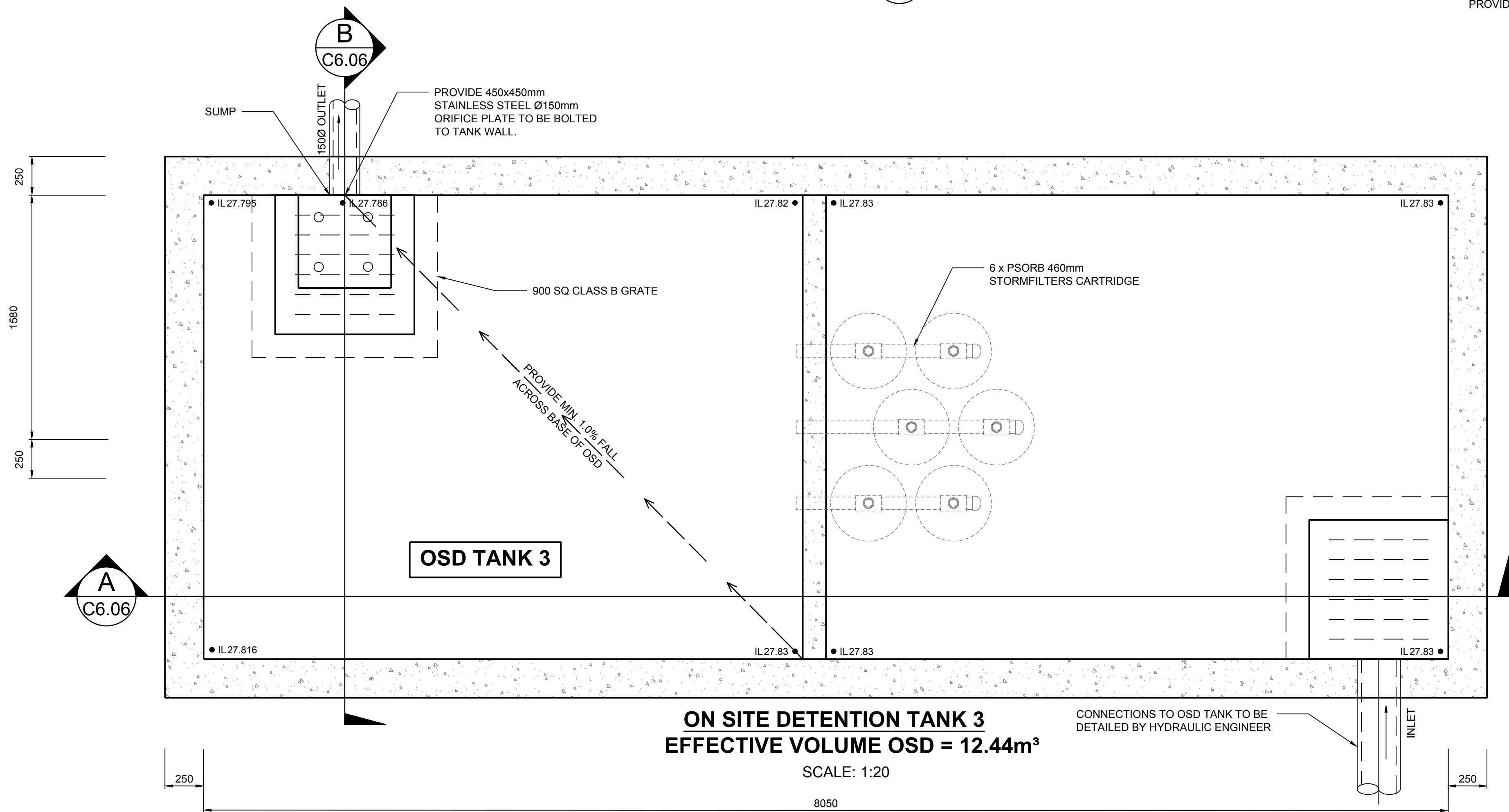
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AS SHOWN	M.Cz.	L.Si.	L.Sh.	M.C.	
JOB No.		DRAWING No.		ISSUE	
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DATE	STATUS				
OCT 2019	DEVELOPMENT APPLICATION				



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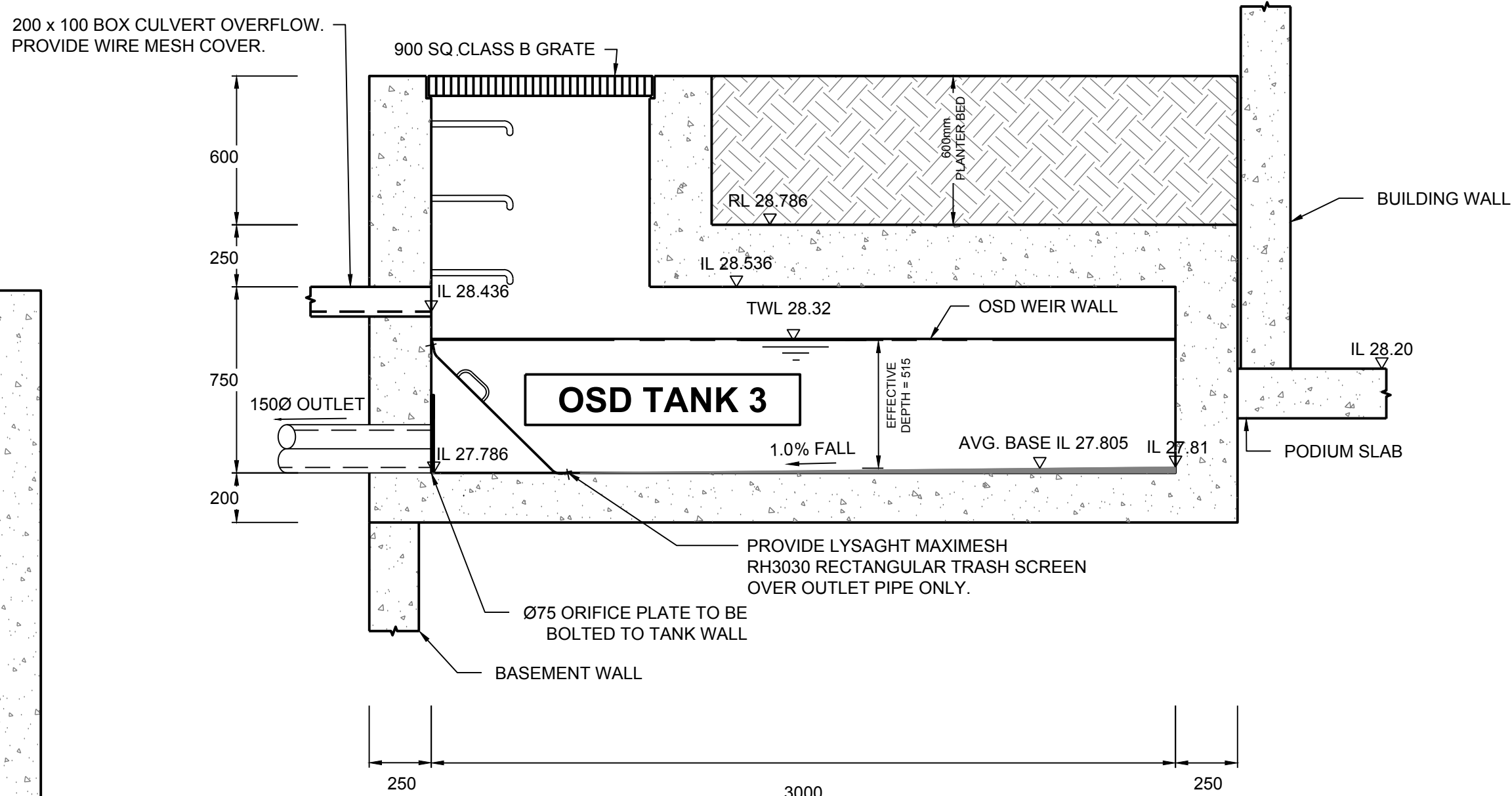


SECTION A
SCALE: 1:20
C6.06



ON SITE DETENTION TANK 3
EFFECTIVE VOLUME OSD = 12.44m³

SCALE: 1:20



SECTION B
SCALE: 1:20
C6.06

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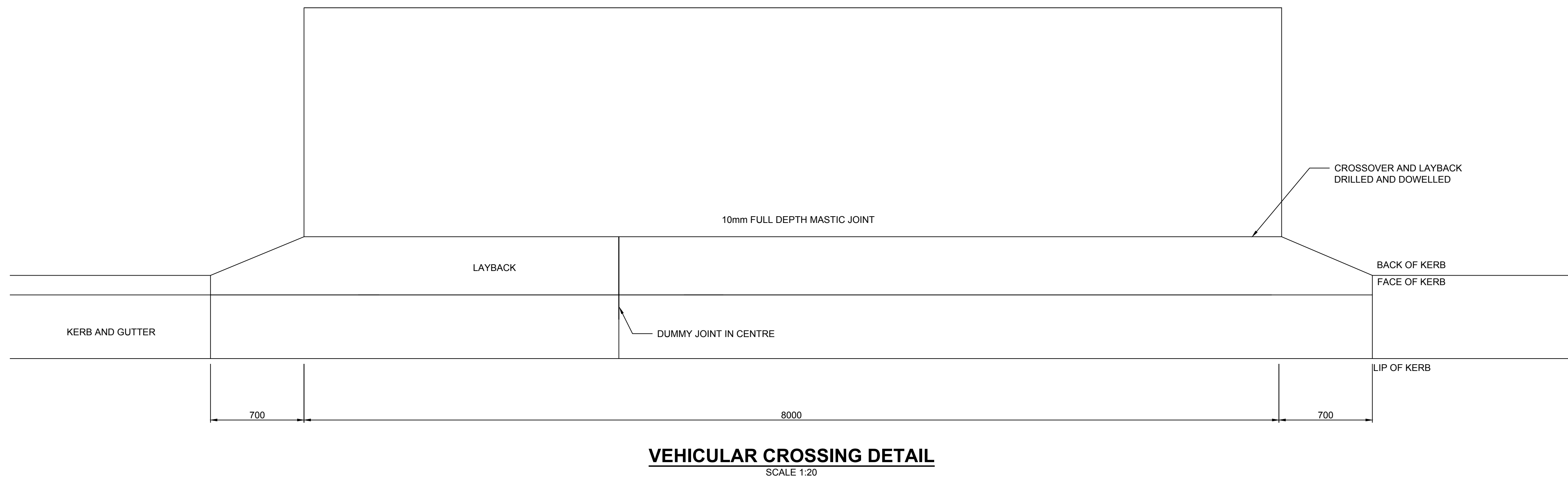
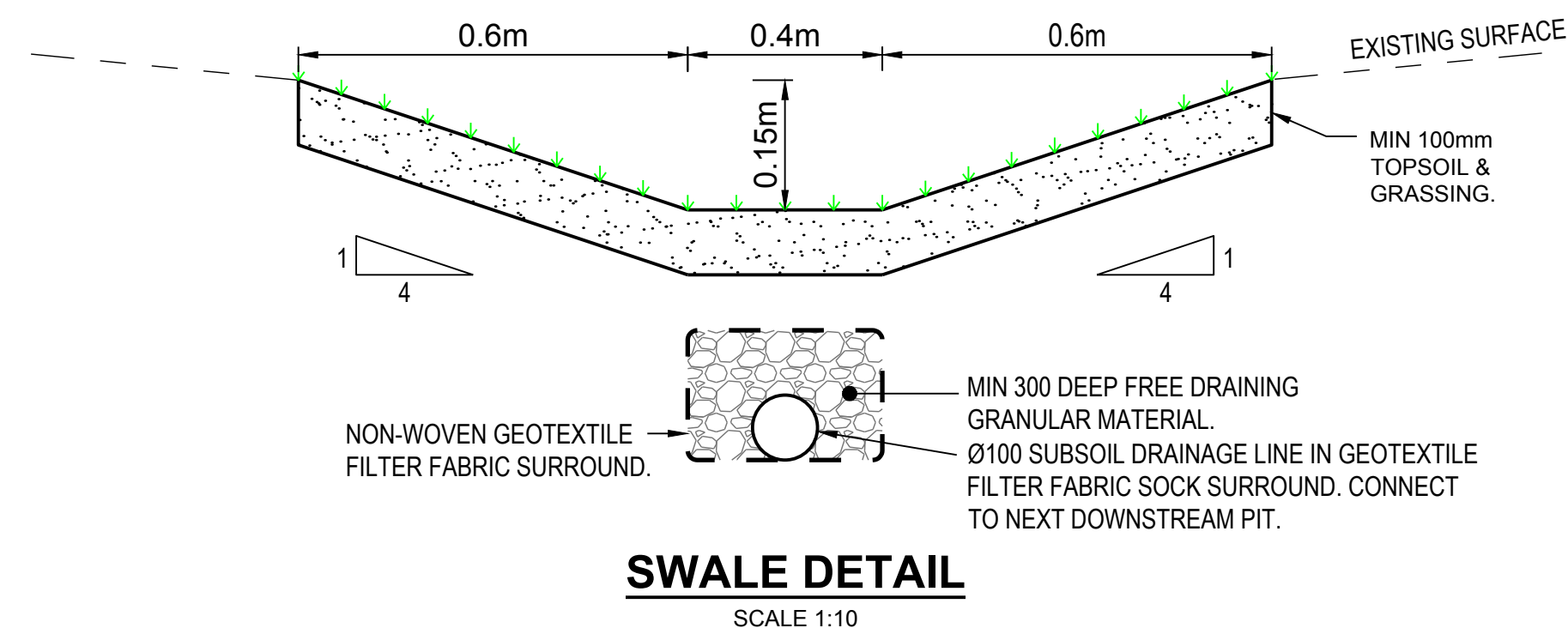
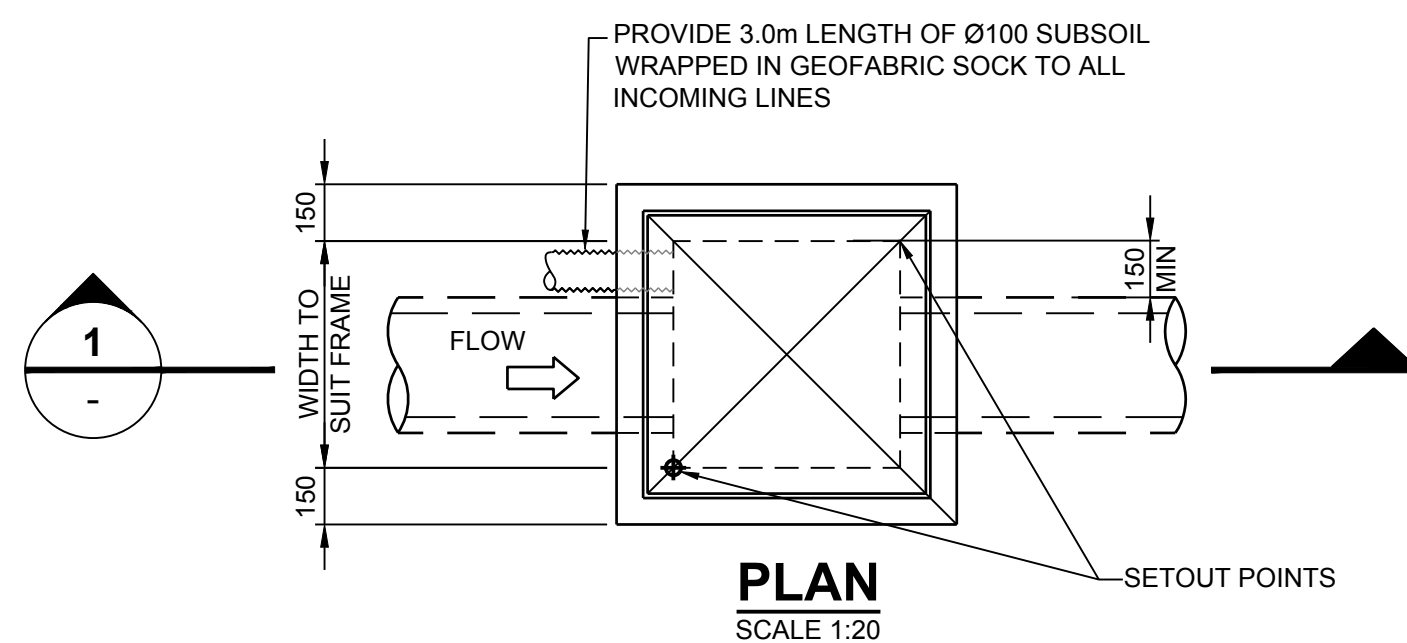
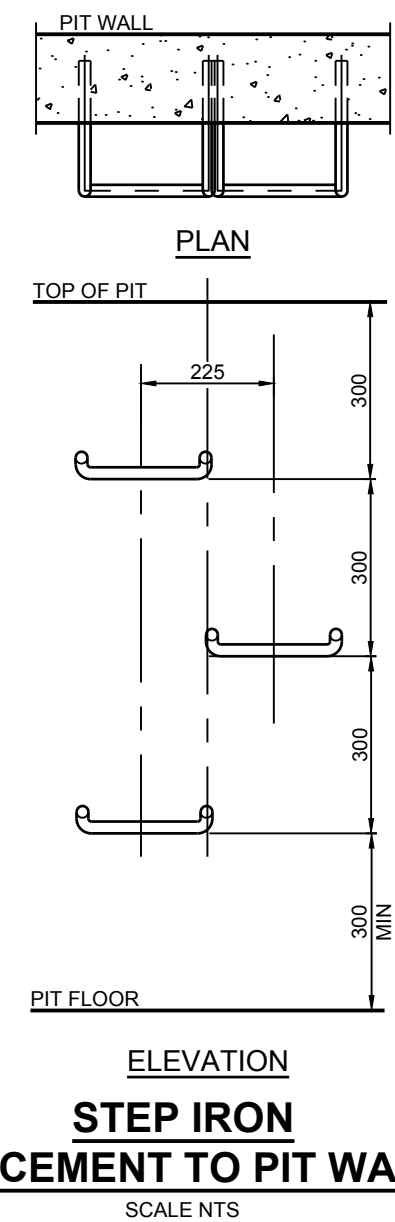
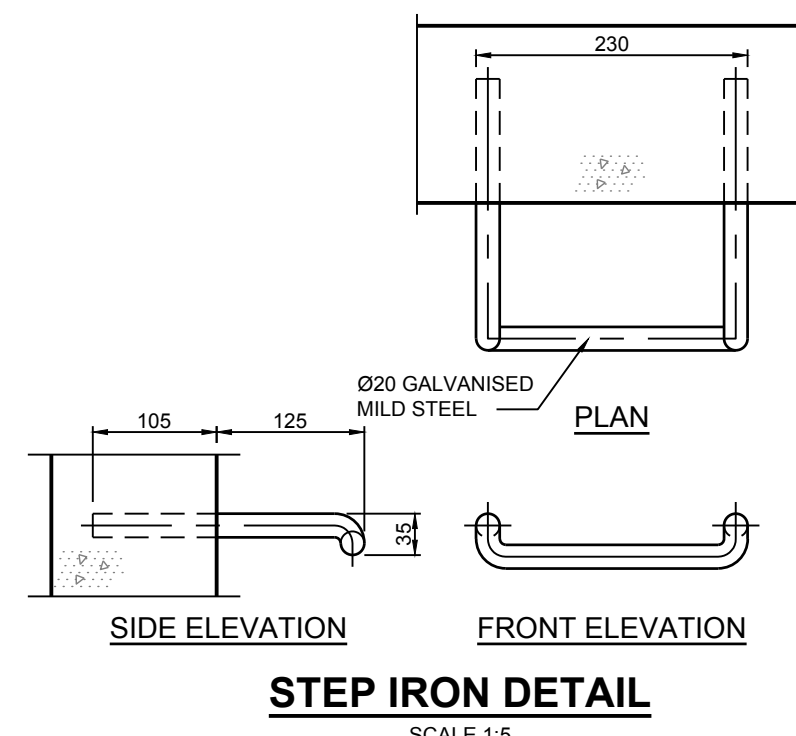
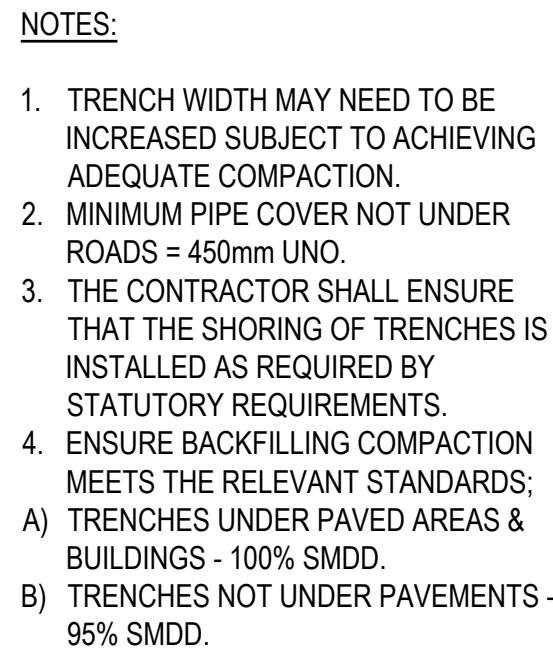
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TITLE				
ON-SITE DETENTION (OSD) TANK 3 PLAN AND SECTIONS				
SCALE AS SHOWN	DRAWN M.Cz.	DESIGNED L.Si.	CHECKED L.Sh.	APPROVED M.C.
JOB No. 5778001		DRAWING No. C6.06	ISSUE 4	
DATE OCT 2019	STATUS DEVELOPMENT APPLICATION			

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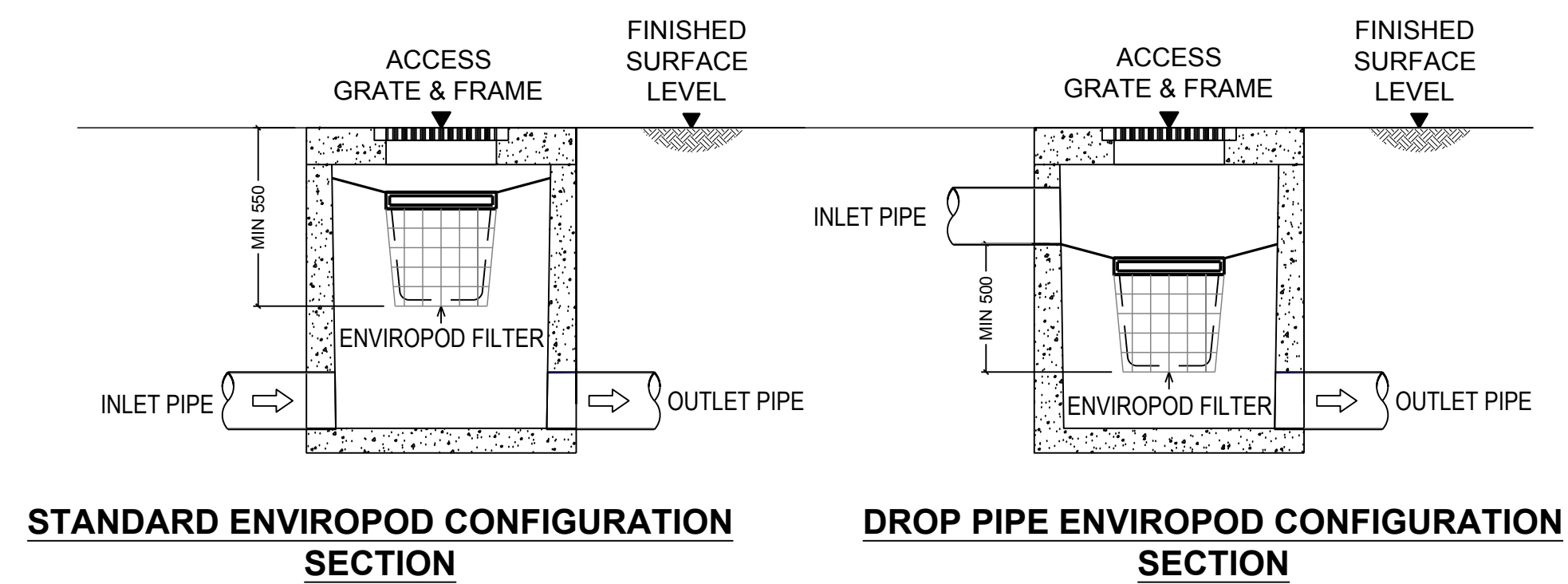
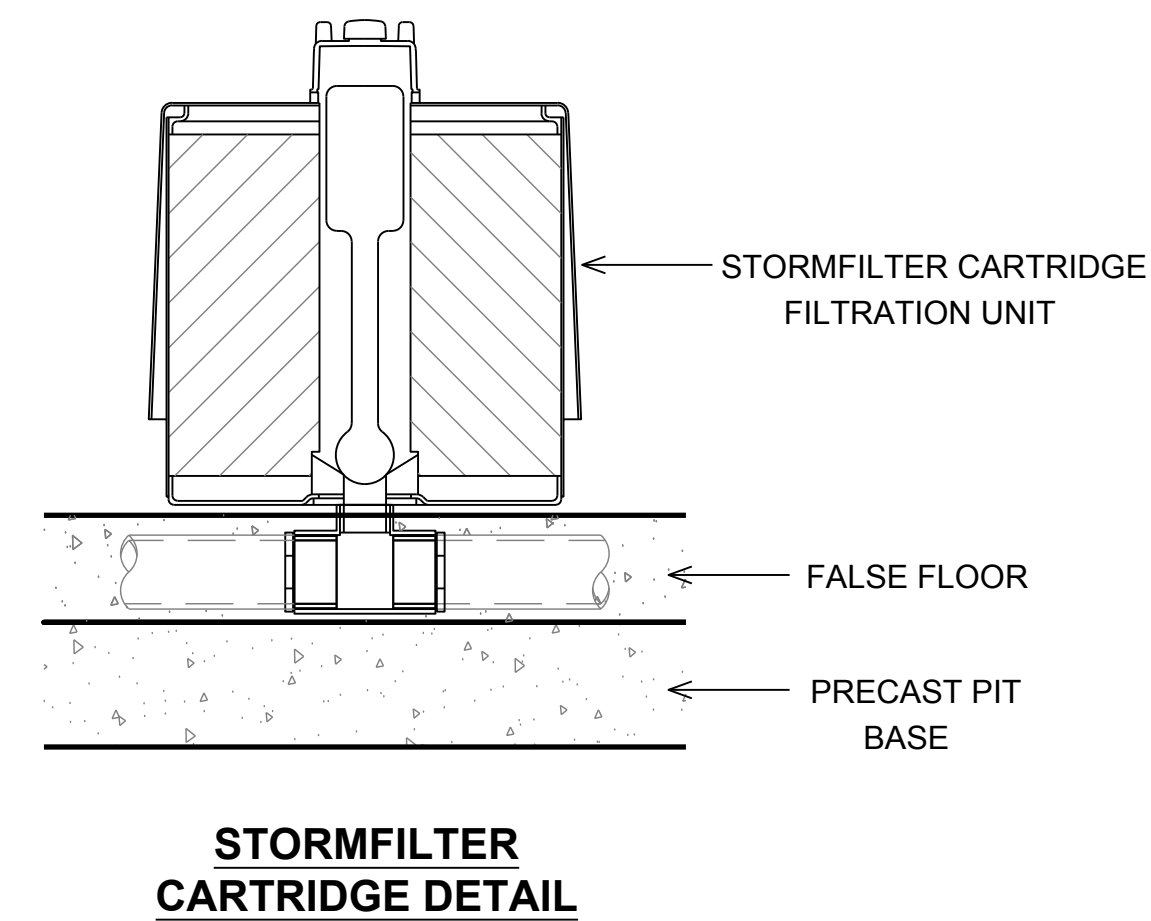
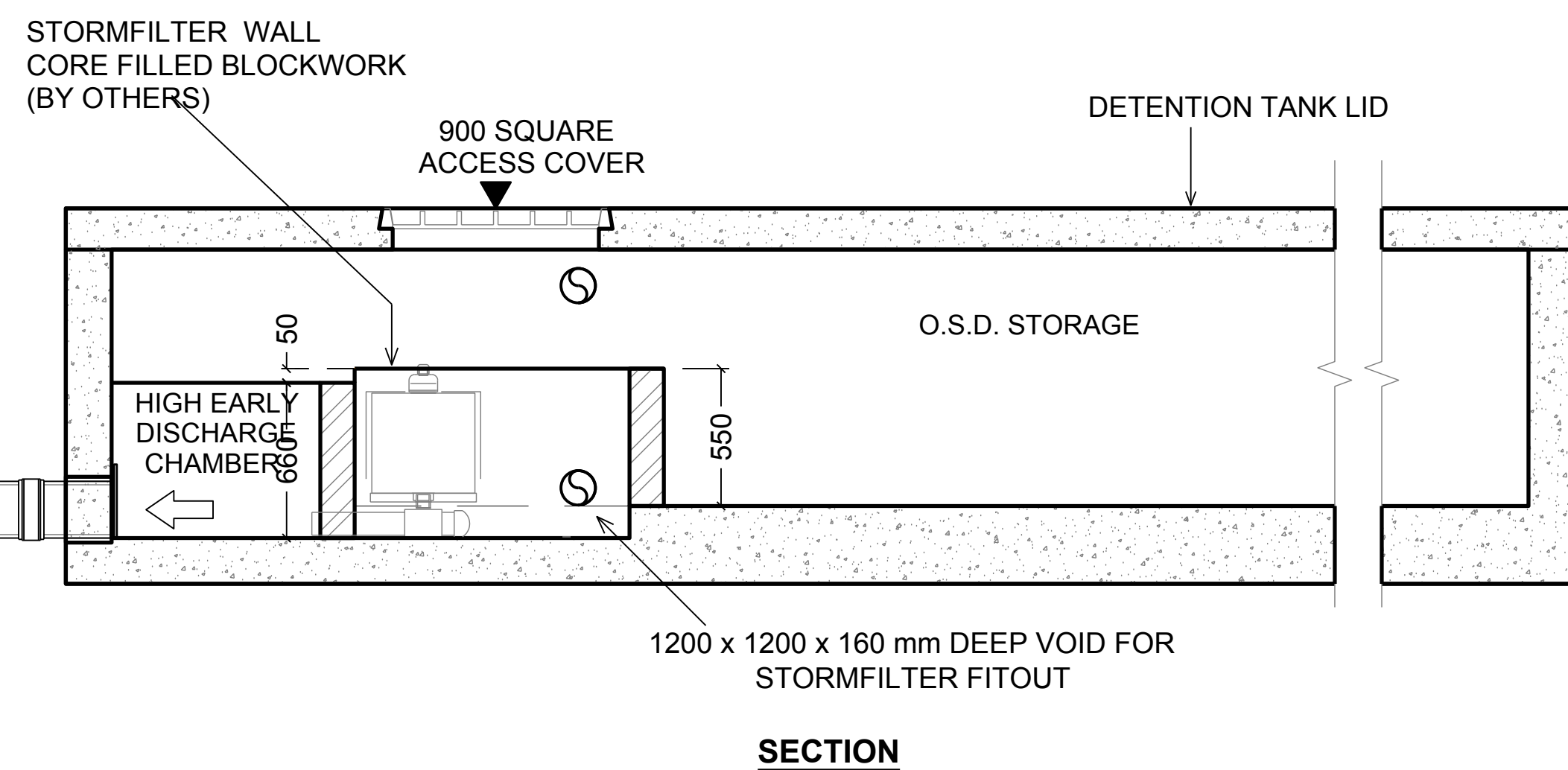
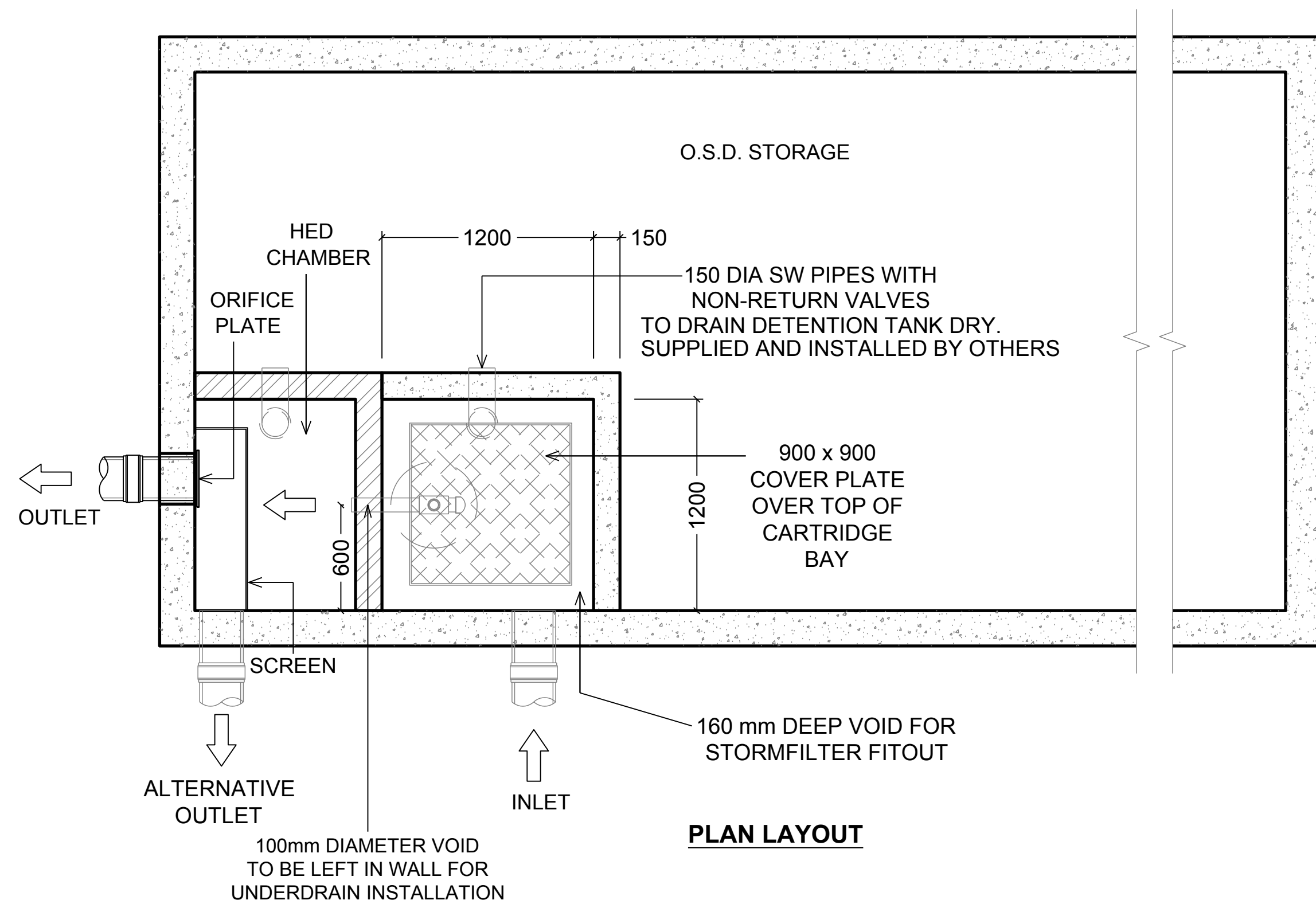
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TITLE				
TYPICAL DRAINAGE DETAILS				
SCALE	DRAWN	DESIGNED	CHECKED	APPROVED
AS SHOWN	M.Cz.	L.Si.	L.Sh.	M.C.
JOB No.	DRAWING No.		ISSUE	
5778001		C6.07		3
DATE	STATUS			
OCT 2019	DEVELOPMENT APPLICATION			

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STORMWATER360 TREATMENT DEVICE TYPICAL

SCALE	DRAWN	DESIGNED	CHECKED	APPROVED
AS SHOWN	M.Cz.	L.Si.	L.Sh.	M.C.
JOB No.	DRAWING No.	ISSUE		
5778001	C6.08	3		
DATE	STATUS			
OCT 2019	DEVELOPMENT APPLICATION			