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LAHC & SAMCRAWFORD ARCHITECTS

PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287

COVER SHEET, LOCALITY PLAN AND SCHEDULE OF DRAWINGS

SCHEDULE OF DRAWINGS	
DRAWING No.	DESCRIPTION
	GENERAL
80822046-CI-0001	COVER SHEET, LOCALITY PLAN AND SCHEDULE OF DRAWINGS
80822046-CI-0002	CIVIL CONSTRUCTION NOTES
	PLANS AND SCHEDULES
80822046-CI-1101	STORMWATER DRAINAGE PLAN GROUND FLOOR
80822046-CI-1201	SEDIMENTATION AND EROSION CONTROL PLAN
80822046-CI-1301	CUT AND FILL PLAN
80822046-CI-1401	WSUD CATCHMENT PLAN
	STANDARD DETAILS
80822046-CI-2101	STORMWATER DETAILS SHEET 1
80822046-CI-2102	STORMWATER PIT SCHEDULE
80822046-CI-2103	STORMWATER DETAILS SHEET 2 - OSD TANK 1 DETAILS
80822046-CI-2104	STORMWATER DETAILS SHEET 3 - OSD TANK 2 DETAILS
80822046-CI-2105	STORMWATER DETAILS SHEET 4 - OSD TANK 3 DETAILS
80822046-CI-2106	STORMWATER DETAILS SHEET 4 - TYPICAL ESK20 DETAIL
80822046-CI-2201	SEDIMENTATION AND EROSION CONTROL DETAILS
80822046-CI-2301	DRIVEWAY VERTICAL CLEARANCE DETAILS
80822046-CI-2302	CIVIL WORKS DETAILS



INDICATIVE AREA
OF WORKS

LOCALITY PLAN
N.T.S

9	02/05/2024	COORDINATION ISSUE	PDP	JMB	JMB
8	28/03/2024	COORDINATION ISSUE	PDP	JMB	JMB
7	08/03/2024	COORDINATION ISSUE	PDP	JMB	JMB
6	14/02/2024	COORDINATION ISSUE	PDP	JMB	JMB
5	30/11/2023	COORDINATION ISSUE	PDP	JMB	JMB
4	25/01/2023	COORDINATION ISSUE	A.L.	R.O.	R.O.
3	26/09/2022	AM2 ISSUE	G.M.	C.F.	C.F.
2	17/08/2022	DRAFT 70% ISSUE	G.M.	C.F.	C.F.
1	10/02/2021	PRELIMINARY ISSUE	G.M.	K.P.	C.F.
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Drawn A.L.	Date JAN' 2023	Status	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Checked R.O.	Date JAN' 2023				
Designed A.L.	Date JAN' 2023				
Verified R.O.	Date JAN' 2023	Datum AHD	Scale AS SHOWN	Size A1	
Approved		Drawing Number 80822046-CI-0001		Revision 9	

GENERAL CIVIL NOTES

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS, SPECIFICATIONS, STANDARDS, LOCAL GOVERNMENT ORDINANCES AND ADDITIONAL WRITTEN INSTRUCTIONS THAT MAY BE ISSUED DURING THE COURSE OF THE CONTRACT.
- THE INFORMATION CONTAINED ON THESE DRAWINGS IS FOR CIVIL ENGINEERING PURPOSES ONLY.
- ALL DISCREPANCIES THAT COULD RESULT IN CHANGES TO THE CIVIL DETAILS SHALL BE REFERRED TO THE CIVIL ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
- THE CONTRACTOR SHALL CHECK AND BE RESPONSIBLE FOR THE CORRECTNESS OF ALL DIMENSIONS AND ANY DISCREPANCY SHALL BE REPORTED IMMEDIATELY TO THE SUPERINTENDENT. DIMENSIONS SHALL NOT BE OBTAINED (INCLUSIVE OF ELECTRONIC COPIES) BY SCALING FROM THE DRAWINGS.
- ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES U.N.O.
- IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THE SAFETY AND STABILITY OF NEW AND EXISTING STRUCTURES, TEMPORARY STRUCTURES, EXCAVATIONS, SHORING AND THE LIKE DURING CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER FORTY EIGHT (48) HOURS BEFORE ANY SITE INSPECTION IS REQUIRED.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT AUSTRALIAN STANDARDS AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.
- ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH ALL WORKCOVER REQUIREMENTS AND OCCUPATIONAL HEALTH AND SAFETY ACT REGULATIONS.
- ALL PROPRIETARY PRODUCTS AND APPROVED EQUIVALENTS NOTED ON THE DRAWINGS SHALL BE SUPPLIED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
- SUBSTITUTIONS OF NOMINATED PRODUCTS AND MATERIALS SHALL ONLY OCCUR IF APPROVED BY STANTEC. NO SUBSTITUTIONS SHALL BE MADE OR SIZES OF STRUCTURAL MEMBERS VARIED WITHOUT OBTAINING THE APPROVAL OF THE ENGINEER. THE APPROVAL OF A SUBSTITUTION FROM THE ENGINEER SHALL NOT BE AN AUTHORISATION FOR AN EXTRA EXPENSE CLAIM. ANY EXTRA COST INVOLVED SHALL BE TAKEN UP WITH THE SUPERINTENDENT BEFORE THE WORK COMMENCES.
- NO CHANGES SHALL BE MADE WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.
- CONSTRUCTION FROM THESE DRAWINGS AND ASSOCIATED CONSULTANTS' DRAWINGS SHALL NOT COMMENCE UNTIL APPROVED BY THE LOCAL AUTHORITIES AND PRINCIPAL CERTIFYING AUTHORITY.
- CONTRACTOR IS NOT TO ENTER UPON NOR DO ANY WORK WITHIN ADJACENT LANDS OR PROPERTIES WITHOUT THE PERMISSION OF THE OWNERS AND SUPERINTENDENT.
- THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL WHICH COMPLIES WITH AS1742.3 - 2018. A COPY OF THE PLAN SHOWING LAYOUT OF PROPOSED TRAFFIC CONTROL FOR THE COMMENCEMENT OF WORK AND CERTIFIED BY A SUITABLY QUALIFIED PERSON IS TO BE SUBMITTED TO COUNCIL PRIOR TO COMMENCEMENT OF ANY WORK. FURTHER PLANS ARE TO BE SUBMITTED IF WORK SITE ALTERS.
- ANY QUANTITIES GIVEN ARE FOR GUIDANCE ONLY.

STORMWATER DRAINAGE NOTES

- STORMWATER DRAINAGE SHALL BE GENERALLY IN ACCORDANCE WITH AS3500.3-2018.
- PIPES Ø675mm AND LARGER SHALL BE CLASS 3 APPROVED SPIGOT AND SOCKET REINFORCED CONCRETE PIPES WITH RUBBER RING JOINTS U.N.O. IN ACCORDANCE WITH AS/NZS3725-2007.
- PIPES Ø375mm TO Ø600mm SHALL BE CLASS 2 APPROVED SPIGOT AND SOCKET REINFORCED CONCRETE PIPES WITH RUBBER RING JOINTS U.N.O. IN ACCORDANCE WITH AS/NZS3725-2007.
- PIPES UP TO AND INCLUDING Ø300mm SHALL BE uPVC DWV (GRADE CLASS SN8) U.N.O. IN ACCORDANCE WITH AS/NZS1260-2017. ENLARGERS, CONNECTIONS, TAPERS, JUNCTIONS ETC TO BE PREFABRICATED PURPOSE MADE FITTINGS WITH SOLVENT WELDED JOINTS.
- SUBSOIL PIPES AND FITTINGS TO BE PERFORATED PLASTIC IN ACCORDANCE WITH AS2439.1-2007. LAY PIPES ON FLOOR OF TRENCH WITH MINIMUM 1% GRADE AND OVERLAY WITH FILTER MATERIAL EXTENDING TO WITHIN 200mm OF SURFACE. PROVIDE FILTER FABRIC OF PERMEABLE POLYPROPYLENE BETWEEN FILTER MATERIAL AND TOPSOIL.
- HEAVY DUTY uPVC PIPES TO BE IN ACCORDANCE WITH AS/NZS1254-2010 MAY BE USED WITHIN ALLOTMENTS.
- EQUIVALENT STRENGTH FIBROUS REINFORCED CONCRETE (F.R.C.) AND/OR HIGH DENSITY POLYETHYLENE (H.D.P.E.) MAY BE USED SUBJECT TO APPROVAL BY THE SUPERINTENDENT.
- CONTRACTOR TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.
- ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH WITH NO PROTRUSIONS.
- BEDDING MATERIAL SHALL BE TYPE H2 U.N.O. FOR PIPES NOT UNDER PAVEMENTS, AND TYPE HS2 FOR PIPES UNDER PAVEMENTS IN ACCORDANCE WITH AS/NZS3725-2007.
- ALL PIPES ARE TO BE UNIFORMLY SUPPORTED ALONG THE LENGTH OF THE BARREL BY SUITABLE FILL MATERIAL. PIPES WITH SOCKETS SHALL BE LAID WITH RECESSES IN BEDDING MATERIAL TO ENSURE PIPES DO NOT BEAR ON THEIR SOCKETS.
- MINIMUM GRADE TO STORMWATER LINES TO BE 1% U.N.O.
- ANY PIPES OVER 16% GRADE SHALL HAVE CONCRETE BULKHEADS AT ALL JOINTS.
- CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
- PROVIDE 3m LENGTH OF Ø100mm SUBSOIL DRAINAGE LINE OR 200mm 'NYLEX' STRIP DRAIN SURROUNDED WITH 150mm OF 20mm BLUE METAL OR GRAVEL, AND WRAPPED IN 'BIDIM' A24 GEOTEXTILE FILTER FABRIC OR APPROVED EQUIVALENT, AT INVERT OF EACH INCOMING UPSTREAM PIPE TRENCH ON EACH PIT.
- ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE uPVC PRESSURE PIPE GRADE 6. ENSURE ALL VERTICALS AND DOWNPIPES ARE uPVC PRESSURE PIPE, GRADE 6 FOR A MIN OF 3.0m IN HEIGHT.
- WHERE SUBSOIL DRAINAGE LINES PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC DWV (GRADE CLASS SN8) PIPE SHALL BE USED.
- UNLESS NOTED OTHERWISE ON THE PLANS, PROVIDE THE FOLLOWING MINIMUM COVER TO ALL STORMWATER PIPES:
UNDER LANDSCAPE & PAVEMENT - 300mm
UNDER ROAD (TRAFFIC) - 600mm
- REFER TO AS/NZS3725-2007 TABLE B1 FOR REQUIRED FILL DEPTHS ABOVE PIPE BARREL PRIOR TO USE OF COMPACTION MACHINERY OR TRAVERSING OF PIPES BY GENERAL SITE EQUIPMENT. THE CONTRACTOR IS TO ENSURE COMPACTION EQUIPMENT IS APPROPRIATE FOR THE PIPE CLASS USED. WHERE WORKING METHODS REQUIRE HIGHER CLASS PIPE, THE CONTRACTOR SHALL REFER TO AS3725-2007 TO DETERMINE THE APPROPRIATE PIPE CLASS. PROPOSED CHANGES TO PIPE CLASS SHALL BE REVIEWED BY STANTEC PRIOR TO INSTALLATION.
- BACKFILL PIPE TRENCHES WITH SANDY LOAM OR APPROVED GRANULAR BACKFILL TO MINIMUM COVER ABOVE THE PIPE. WHERE THE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO PAVEMENT SUBGRADE WITH SAND OR APPROVED GRAVEL SUB-BASE COMPACTED IN 150mm LAYERS TO 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75).
- FOR ALL IN-SITU CONCRETE ELEMENTS REFER TO CIVIL CONCRETE NOTES FOR CONCRETE STRENGTH AND COVER.
- PRECAST CONCRETE PITS MAY BE INSTALLED IN LIEU OF CAST IN-SITU PITS, WHEN PIPE JUNCTIONS ARE ACCOMMODATED WITHIN THE OVERALL DIMENSIONS OF THE PIT, AND APPROVED BY STANTEC.
- PITS DEEPER THAN 1200mm, MEASURED FROM TOP OF GRATE TO INVERT OF PIT, SHALL HAVE STEP IRONS INSTALLED IN ACCORDANCE WITH THE LOCAL OR STATUTORY AUTHORITY REQUIREMENTS.
- ACCESS COVERS AND GRATES TO BE INSTALLED IN ACCORDANCE WITH AS3996-2019.
- ALL GRATES IN PAVEMENTS TO BE CYCLE SAFE AND WHERE IN ROADWAYS TRAFFICABLE HEAVY DUTY.
- ALL BOX CULVERTS SHALL BE STRUCTURALLY DESIGNED BY THE MANUFACTURER AND DELIVERED TO SITE AS FIT FOR PURPOSE.
- AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
- ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS.

EROSION AND SEDIMENT CONTROL NOTES

- ALL WORKS SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH:
 - LOCAL AUTHORITY REQUIREMENTS
 - EPA REQUIREMENTS
 - NSW DEPARTMENT OF HOUSING MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH 2004 (THE BLUE BOOK).
- EROSION AND SEDIMENT CONTROL DRAWINGS AND NOTES ARE PROVIDED FOR THE WHOLE OF THE WORKS. SHOULD THE CONTRACTOR STAGE THESE WORKS THEN THE DESIGN MAY REQUIRE TO BE MODIFIED. VARIATIONS TO THESE DETAILS MAY REQUIRE TO BE APPROVED BY THE RELEVANT AUTHORITIES. THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE IMPLEMENTED AND ADOPTED TO MEET THE VARYING SITUATIONS AS WORK ON SITE PROGRESSES.
- MINIMISE THE AREA OF SITE BEING DISTURBED AT ANY ONE TIME.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONTROL OF EROSION AND SEDIMENTATION AND THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS DOCUMENTED OR AS OTHERWISE DIRECTED BY THE SUPERINTENDENT.
- ALL SOIL AND WATER CONTROL MEASURES ARE TO BE PUT BACK IN PLACE AT THE END OF EACH WORKING DAY AND MODIFIED TO BEST SUIT SITE CONDITIONS.
- PREVENT SITE RUNOFF ENTERING NEWLY CONSTRUCTED STORMWATER PITS UNLESS SEDIMENT FENCES ARE ERECTED AROUND THEM.
- MAINTAIN ALL STORMWATER PIPES AND PITS CLEAR OF DEBRIS AND SEDIMENT. INSPECT STORMWATER SYSTEM AND CLEAN OUT AS REQUIRED PARTICULARLY FOLLOWING EACH STORM EVENTS.
- MAINTAIN ALL EROSION AND SEDIMENT CONTROL DEVICES, ENSURING THEY ARE IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND/OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED PARTICULARLY FOLLOWING EACH STORM EVENTS.
- WHERE PRACTICAL, THE SOIL EROSION HAZARDS ON THE SITE ARE TO BE KEPT AS LOW AS POSSIBLE AND WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE TO MINIMISE THE RISKS:
 - INSTALL A SEDIMENT FENCE ALONG THE BOUNDARIES AS SHOWN ON PLAN. REFER DETAIL.
 - CONSTRUCT STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA AT THE LOCATION SHOWN ON THE DRAWINGS OR AS DETERMINED BY SUPERINTENDENT/ENGINEER. REFER DETAIL.
 - INSTALL ANY SEDIMENT BASINS AND SEDIMENT TRAPS AS SHOWN ON DRAWINGS. REFER DETAIL.
 - UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE, PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.
- DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
- CONTROL WATER FROM UPSTREAM OF THE SITE SUCH THAT IT DOES NOT ENTER THE DISTURBED SITE.
- ALL CONSTRUCTION VEHICLES SHALL ENTER THE SITE VIA THE TEMPORARY CONSTRUCTION ENTRY/EXIT.
- ALL VEHICLES LEAVING THE SITE SHALL BE CLEANED AND INSPECTED BEFORE LEAVING.
- STOCKPILES ARE NOT TO BE LOCATED IN ROADWAYS, WITHIN 2 METRES OF HAZARD AREAS OR DRAINAGE PITS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS, WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS. SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE SCOUR AND EROSION TO DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.
- ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
- WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE OR DEVICE.
- TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.
- ACCEPTABLE RECEPTACLES WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHTWEIGHT WASTE MATERIALS AND LITTER.
- ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
 - PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE
 - ENSURING THAT NOTHING IS NAILED TO THEM
 - PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS.
 - ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE AND THE TRUNK, WHICHEVER IS THE GREATER
 - A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS PLACED UNDER ALL FILL LAYERS OF MORE THAN 300mm DEPTH
 - CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.
- FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.
- ANY REVEGETATED AREAS WHICH FAIL TO ESTABLISH WITHIN THREE MONTHS MUST BE RE-SOWN.

4	25/01/2023	COORDINATION ISSUE		A.L.	R.O. R.O.
3	26/09/2022	AM2 ISSUE		G.M.	C.F. C.F.
2	17/08/2022	DRAFT 70% ISSUE		G.M.	C.F. C.F.
1	10/02/2021	PRELIMINARY ISSUE		K.P.	K.P. C.F.
Rev.	Date	Description		Des.	Verif. Appd.

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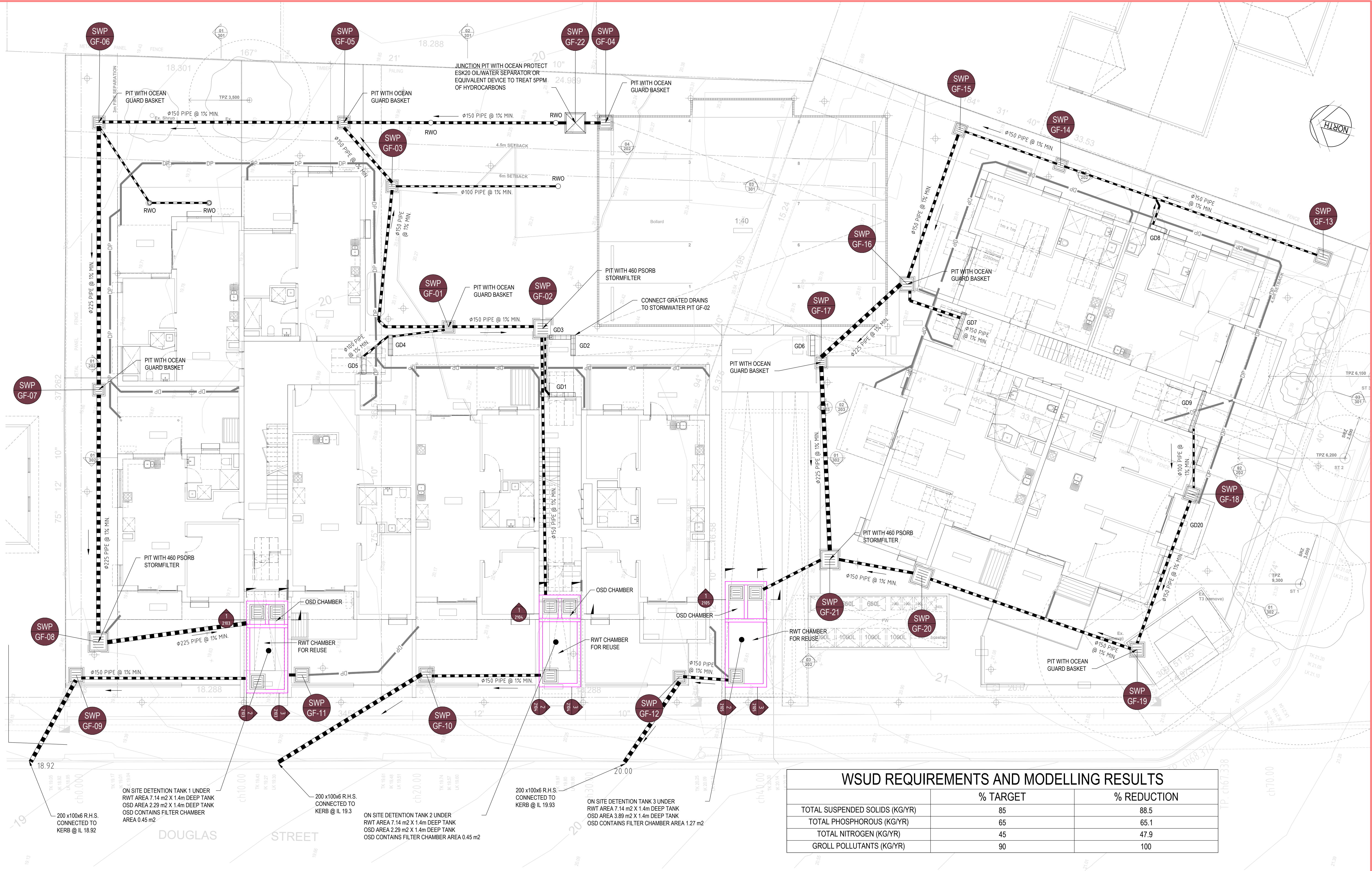
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Checked R.O.	Date JAN' 2023	Project PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287
Designed A.L.	Date JAN' 2023	Status NOT TO BE USED FOR CONSTRUCTION PURPOSES
Verified R.O.	Date JAN' 2023	Datum AHD
Approved		Scale N/A
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		Revision 4

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CAD File: C:\Users\depasquale\OneDrive - Stantec\Douglas Street Wallsend\80822046-CI-1101.dwg



WSUD REQUIREMENTS AND MODELLING RESULTS		
	% TARGET	% REDUCTION
TOTAL SUSPENDED SOLIDS (KG/YR)	85	88.5
TOTAL PHOSPHOROUS (KG/YR)	65	65.1
TOTAL NITROGEN (KG/YR)	45	47.9
GROLL POLLUTANTS (KG/YR)	90	100

8	02/05/2024	COORDINATION ISSUE	PDP	JMB	JMB
7	22/03/2024	COORDINATION ISSUE	PDP	JMB	JMB
6	14/02/2024	COORDINATION ISSUE	PDP	JMB	JMB
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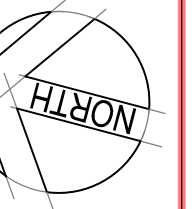
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Verified R.O.	Date JAN' 2023	
Approved		

Status NOT TO BE USED FOR CONSTRUCTION PURPOSES	FOR APPROVAL
Datum AHD	Scale 1:100
Drawing Number 80822046-CI-1101	Size A1
Revision 8	



Status			
PRELIMINARY			
NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Date		Scale	Size
AHD		1:100	A1
Drawing Number			Revision
80822046-CI-1201			7

XREFs: X-GROUND FLOOR; X-SURVEY; X-CUT AND FILL
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4	14/02/2024	COORDINATION ISSUE	PDP	JMB	JMB
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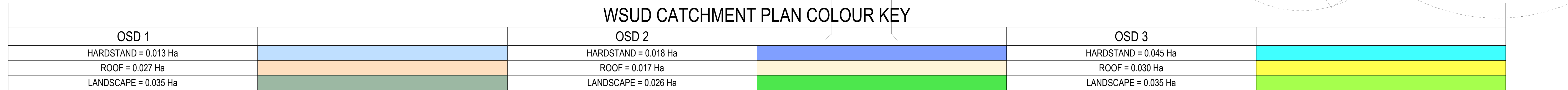


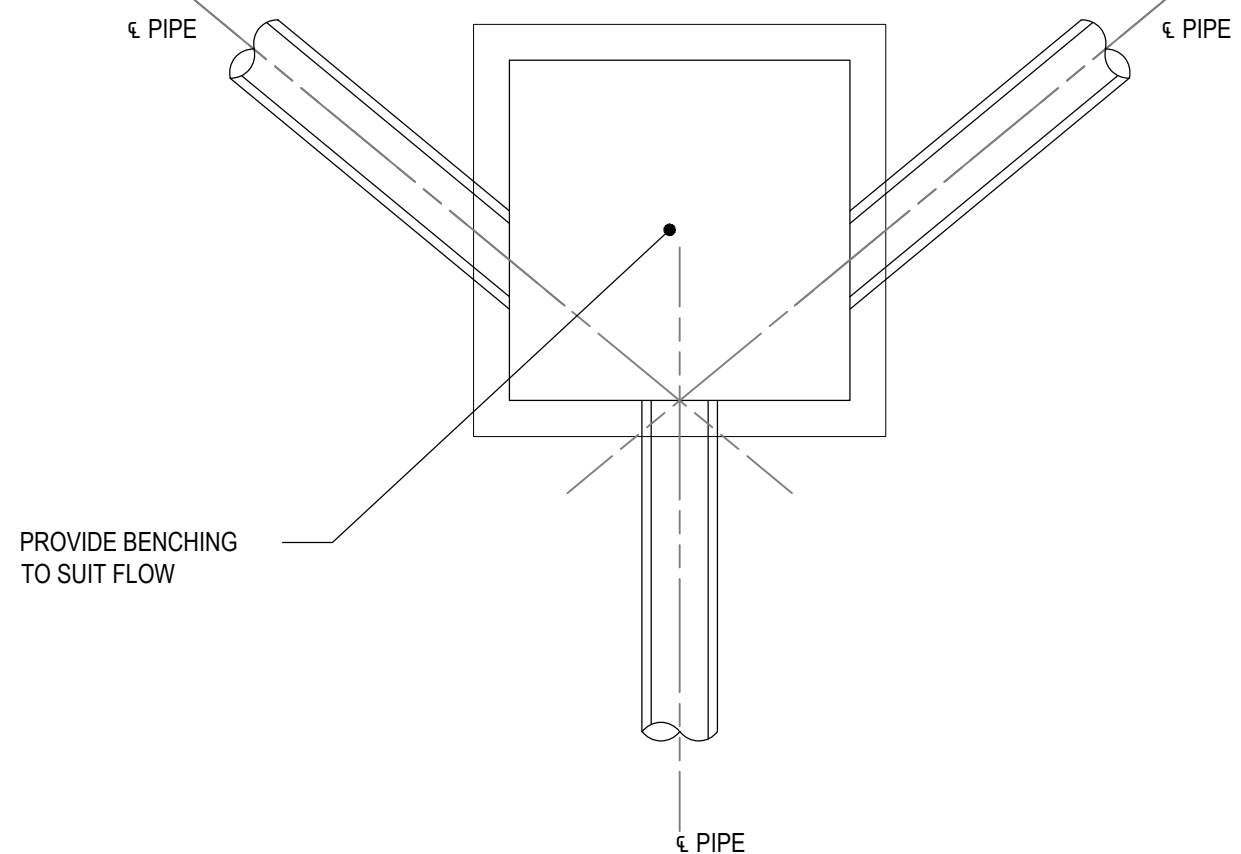
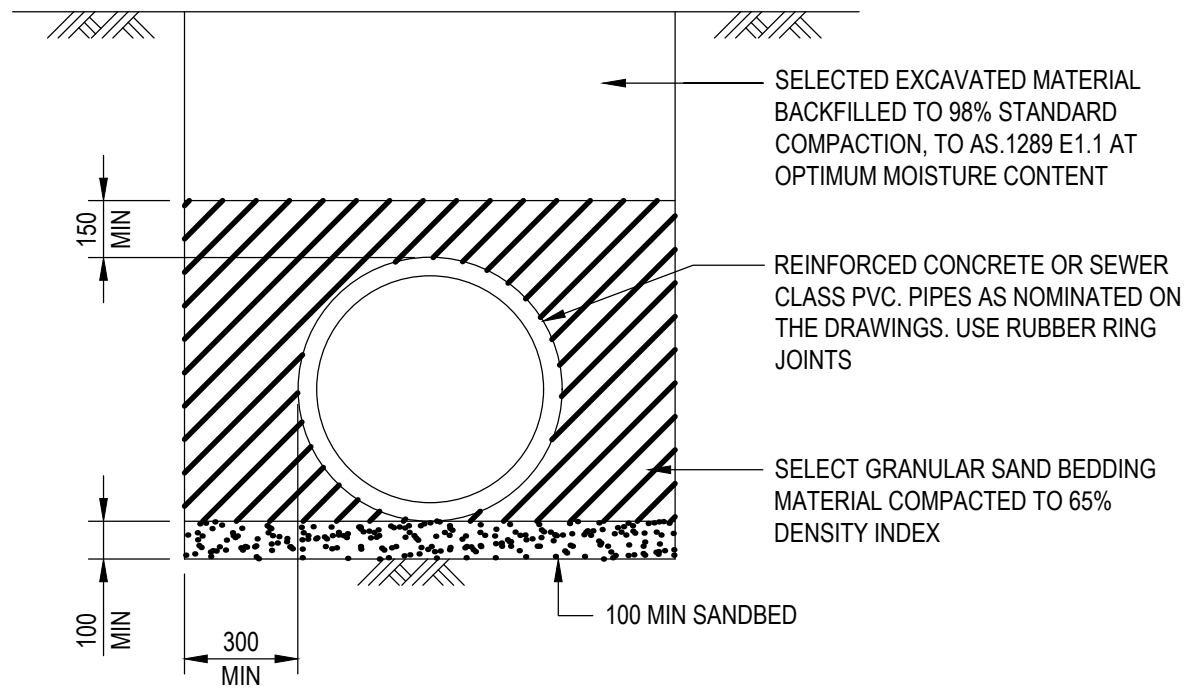
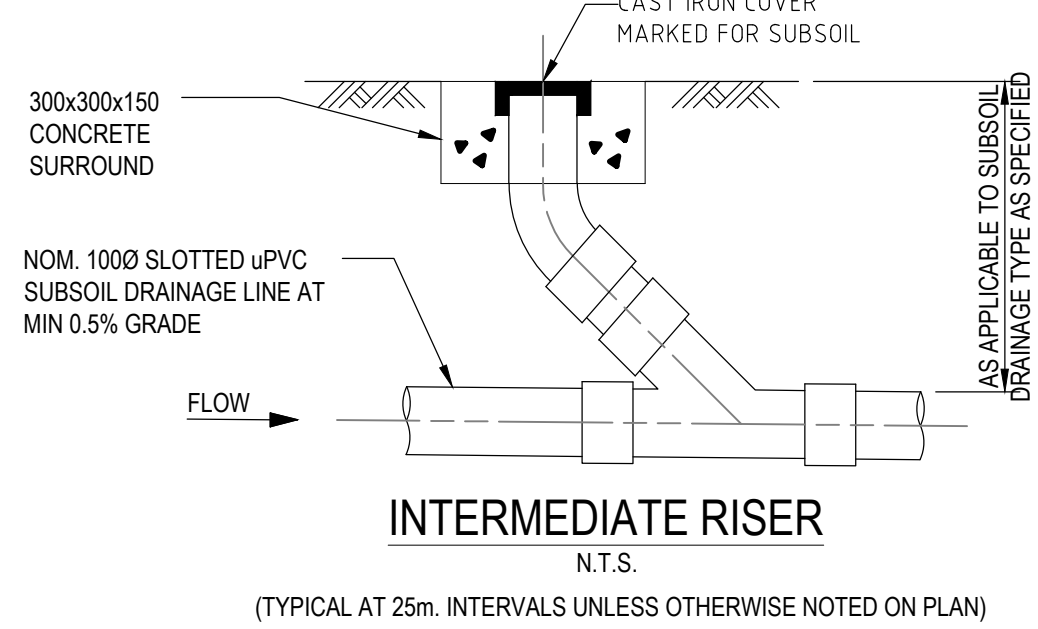
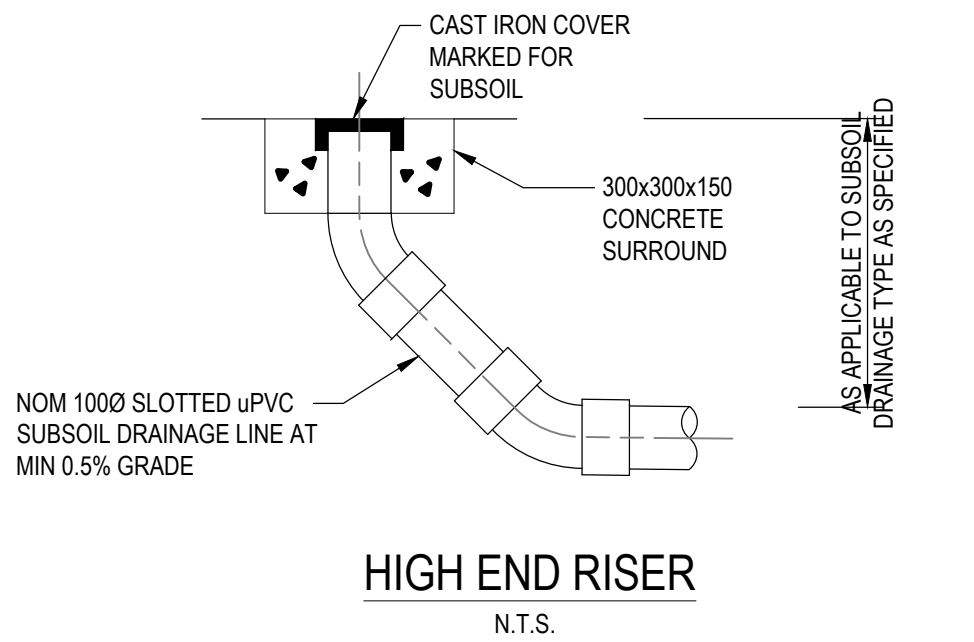
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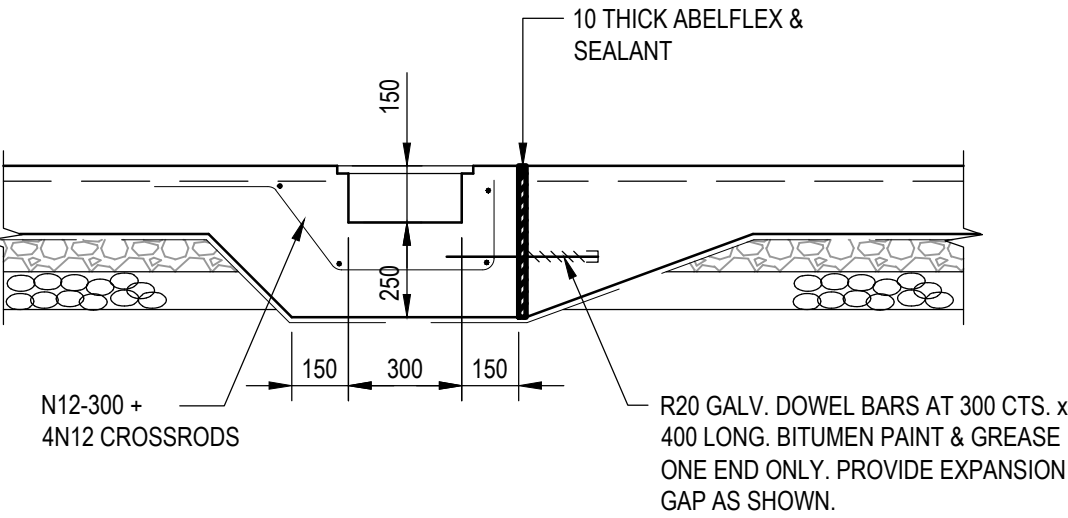
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Designed A.L.	Date JAN' 2023	Title CUT AND FILL PLAN
Verified R.O.	Date JAN' 2023	
Approved		
Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Datum AHD	Scale 1:100	Size A1
Drawing Number 80822046-CI-1301	Revision 4	

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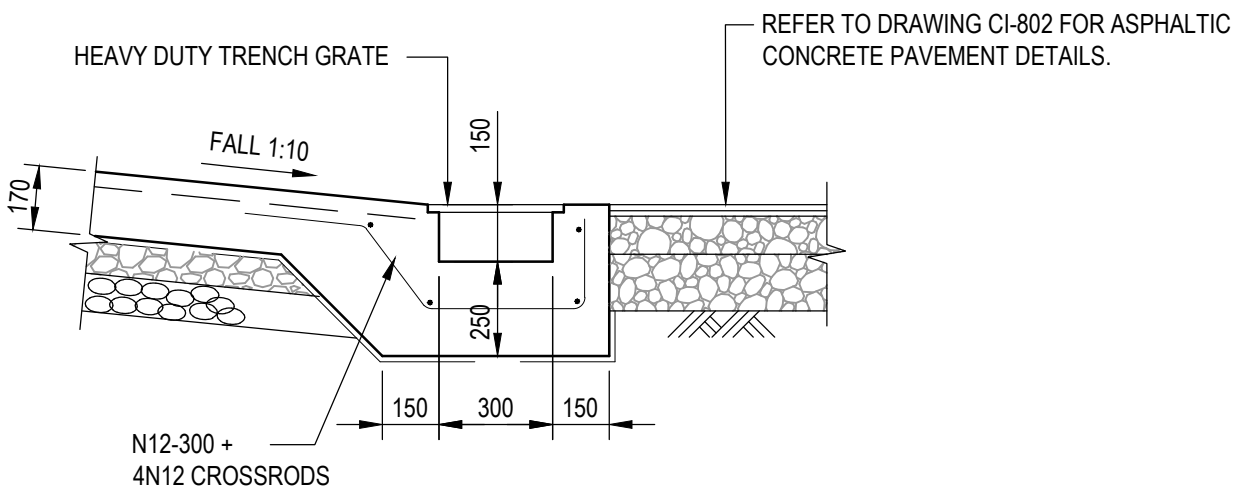
JUNCTION PIT SET OUT DETAILS

N.T.S.



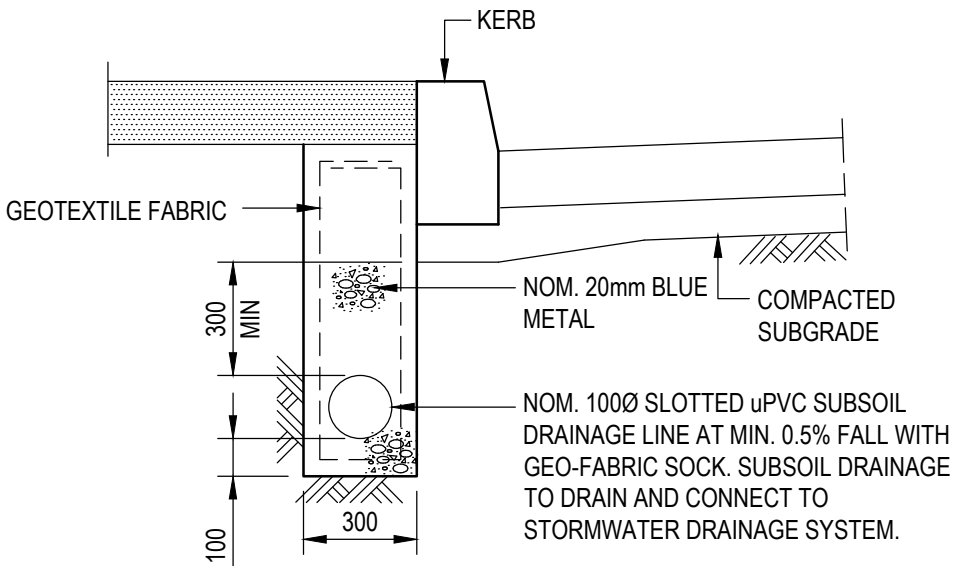
GRADED DRAIN DETAIL

SCALE 1:20

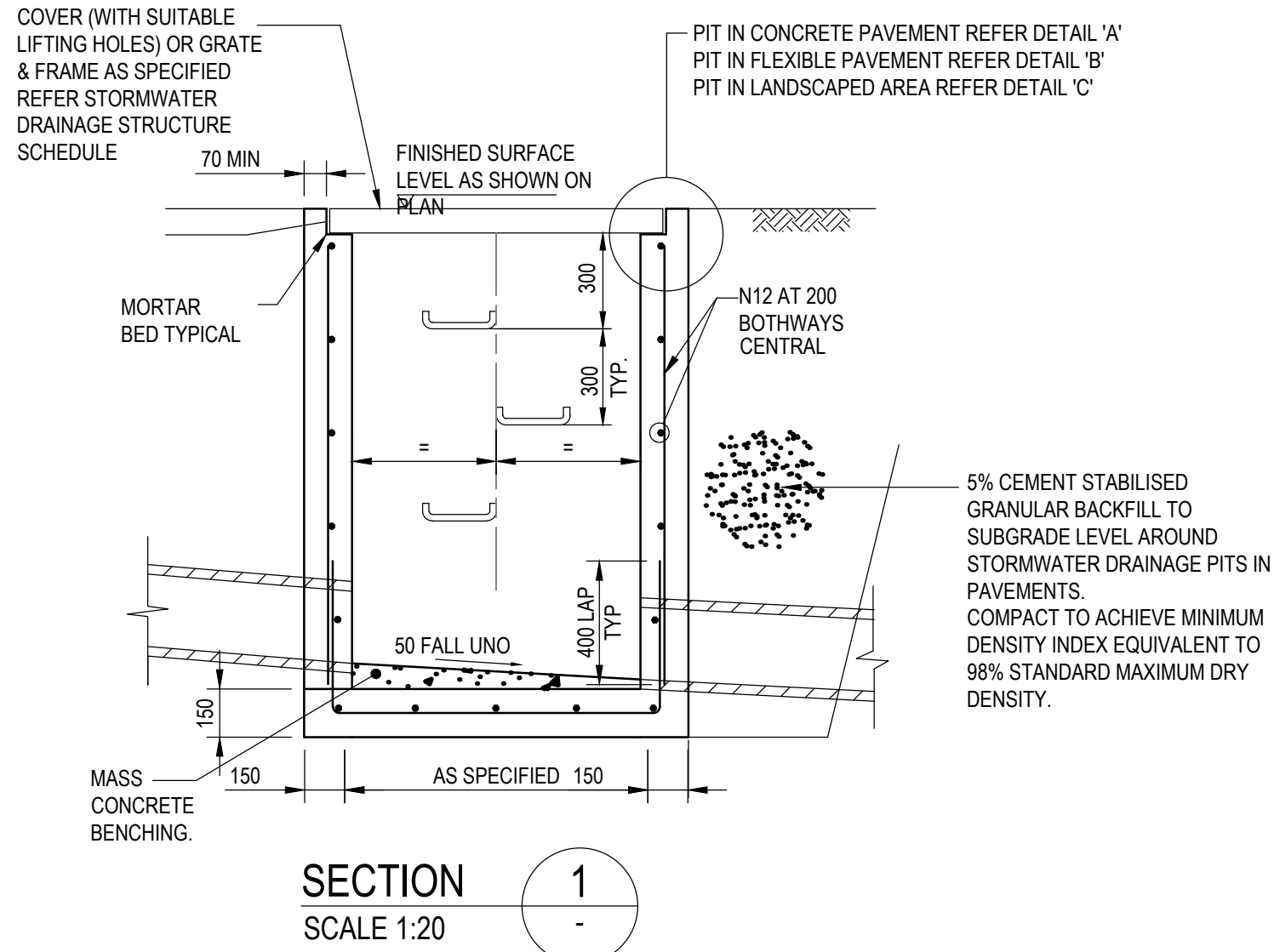
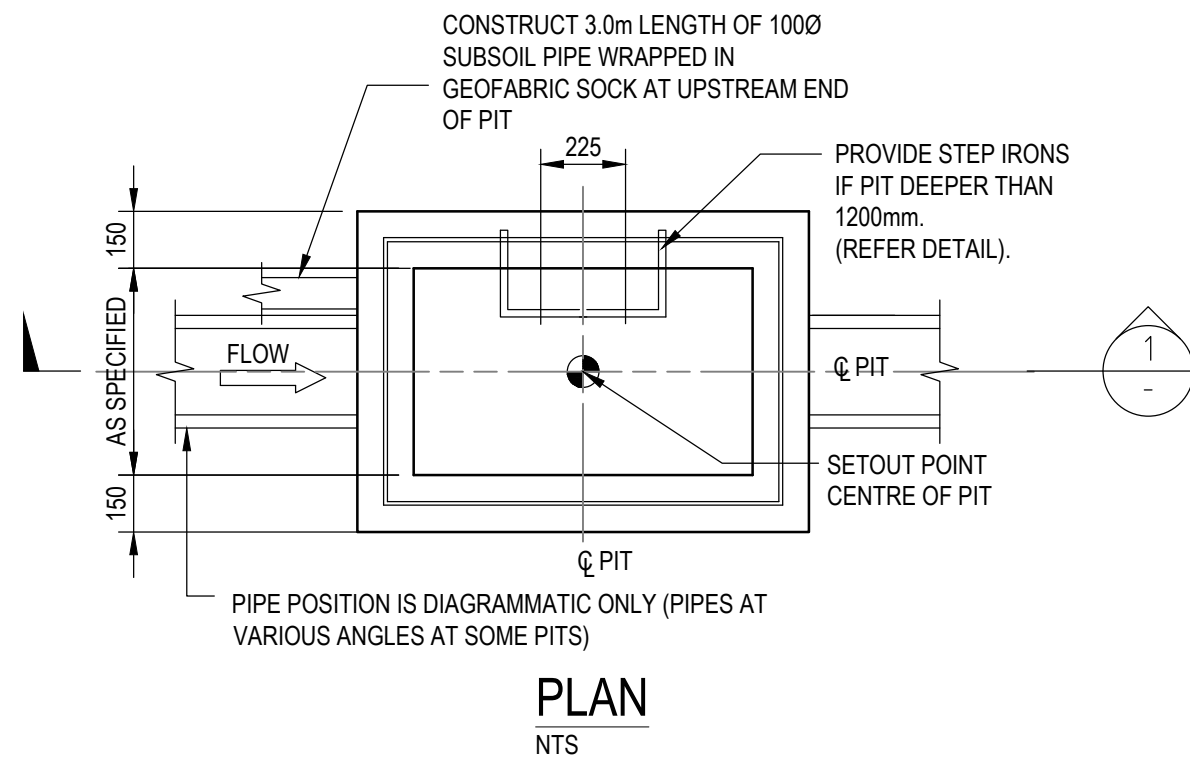
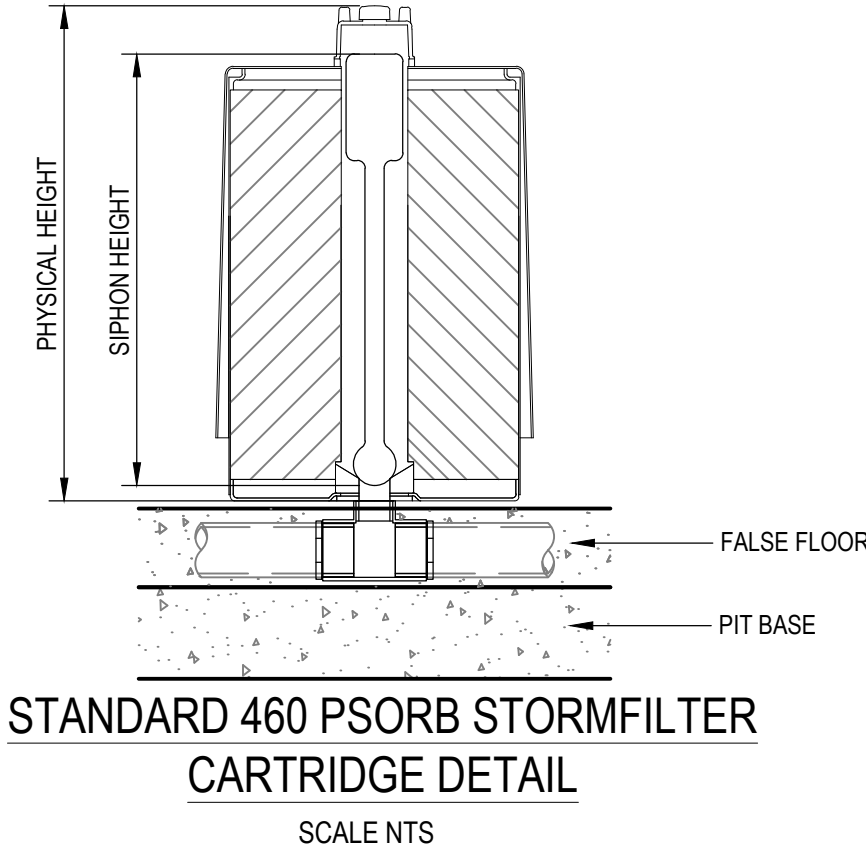
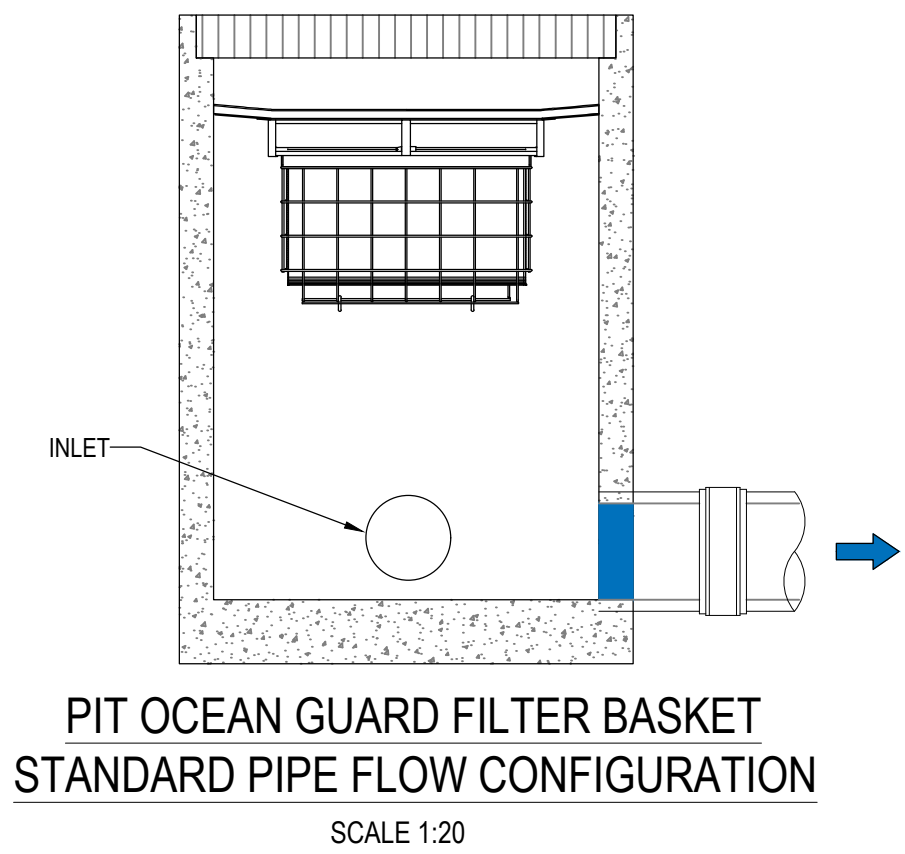


GRADED DRAIN DETAIL AT ENTRY ROAD

SCALE 1:20



SUBSOIL DRAINAGE LINE IN LANDSCAPED AREAS ADJACENT TO ROADS



SURFACE INLET/JUNCTION PIT (SIP/JP)

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Drawn A.L. Date JAN' 2023 Client LAHC & SAMCRAWFORD ARCHITECTS
Checked R.O. Date JAN' 2023 Project PROPOSED DEVELOPMENT AT
Designed A.L. Date JAN' 2023 19-23 DOUGLAS STREET AND 6 NEAL PLACE
Verified R.O. Date JAN' 2023 WALLSEND 2287
Approved Title STORMWATER DETAILS
SHEET 1

Status **FOR APPROVAL**
NOT TO BE USED FOR CONSTRUCTION PURPOSES
Datum AHD Scale AS SHOWN Size A1
Drawing Number 80822046-CI-2101 Revision 5

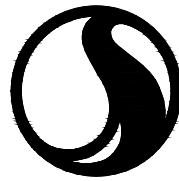
STORMWATER PIT SCHEDULE								
SWP No.	PIT COVER LEVEL RL.	PIT INVERT LEVEL IL.	DEPTH (mm)	INTERNAL PIT SIZE	PIT TYPE	COVER TYPE	COVER CLASS	REMARKS
GF-1	20.20	19.75	450	450X450	SIP	GRATE	C	
GF-2	20.28	19.69	590	900X900	SIP	GRATE	C	
GF-3	20.10	19.66	440	450X450	SIP	GRATE	B	
GF-4	20.40	19.76	640	600X600	SIP	GRATE	D	
GF-5	20.00	19.61	390	450X450	SIP	GRATE	B	
GF-6	19.85	19.47	380	450X450	SIP	GRATE	B	
GF-7	19.85	19.32	530	450X450	SIP	GRATE	B	
GF-8	19.60	19.18	420	900X900	SIP	GRATE	B	
GF-9	19.42	18.97	450	600X600	SIP	GRATE	B	
GF-10	20.10	19.39	710	600X600	SIP	GRATE	B	
GF-11	19.80	19.13	670	600X600	SIP	GRATE	B	
GF-12	20.30	20.00	300	450X450	SIP	GRATE	B	
GF-13	21.23	20.57	660	600X600	SIP	GRATE	B	
GF-14	20.90	20.41	490	450X450	SIP	GRATE	B	
GF-15	20.85	20.35	500	450X450	SIP	GRATE	B	
GF-16	21.00	20.26	740	600X600	SIP	GRATE	B	
GF-17	20.70	20.20	500	450X450	SIP	GRATE	C	
GF-18	21.05	20.34	710	600X600	SIP	GRATE	B	
GF-19	21.050	20.240	810	600X600	SIP	GRATE	B	
GF-20	21.050	20.110	940	900X900	SIP	GRATE	B	
GF-21	20.842	19.962	880	600X600	SIP	GRATE	B	
GF-22	20.380	19.580	800	900x900	JIP	CONCRETE	D	

5	02/05/2024	COORDINATION ISSUE	PDP	JMB	JMB	
4	25/01/2023	COORDINATION ISSUE	A.L.	R.O.	R.O.	
3	26/09/2022	AM2 ISSUE	G.M.	C.F.	C.F.	
2	17/08/2022	DRAFT 70% ISSUE	G.M.	C.F.	C.F.	
1	10/02/2021	PRELIMINARY ISSUE	K.P.	K.P.	C.F.	
Rev.	Date	Description	Des.	Verif.	Appd.	

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ACN 165 409 567 Nominated Architect Sam Crawford 6498

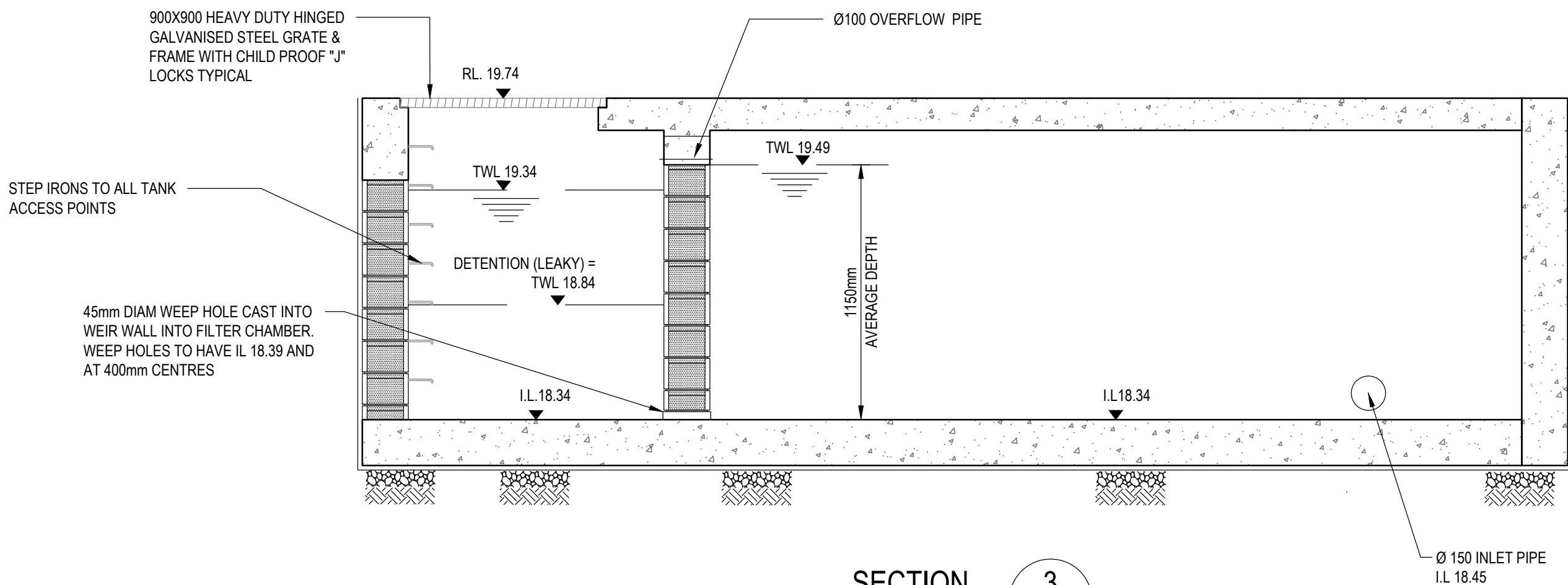
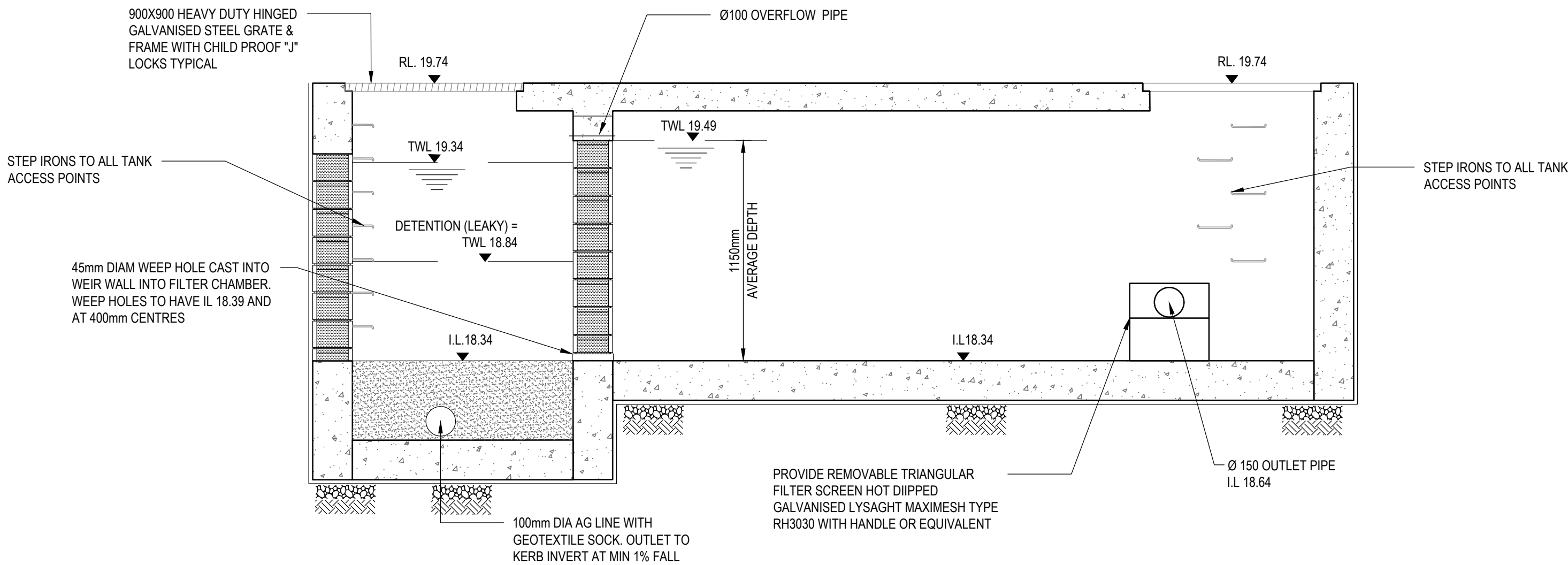
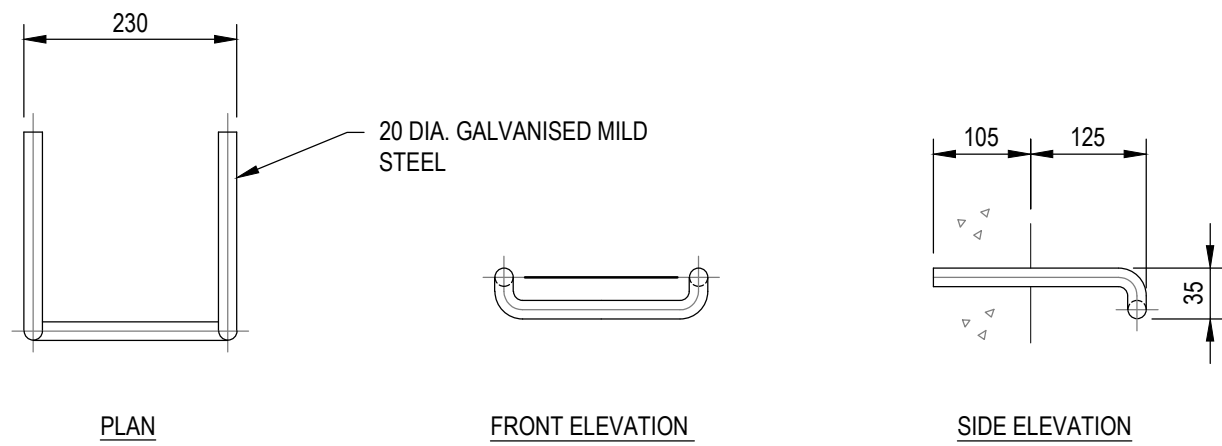
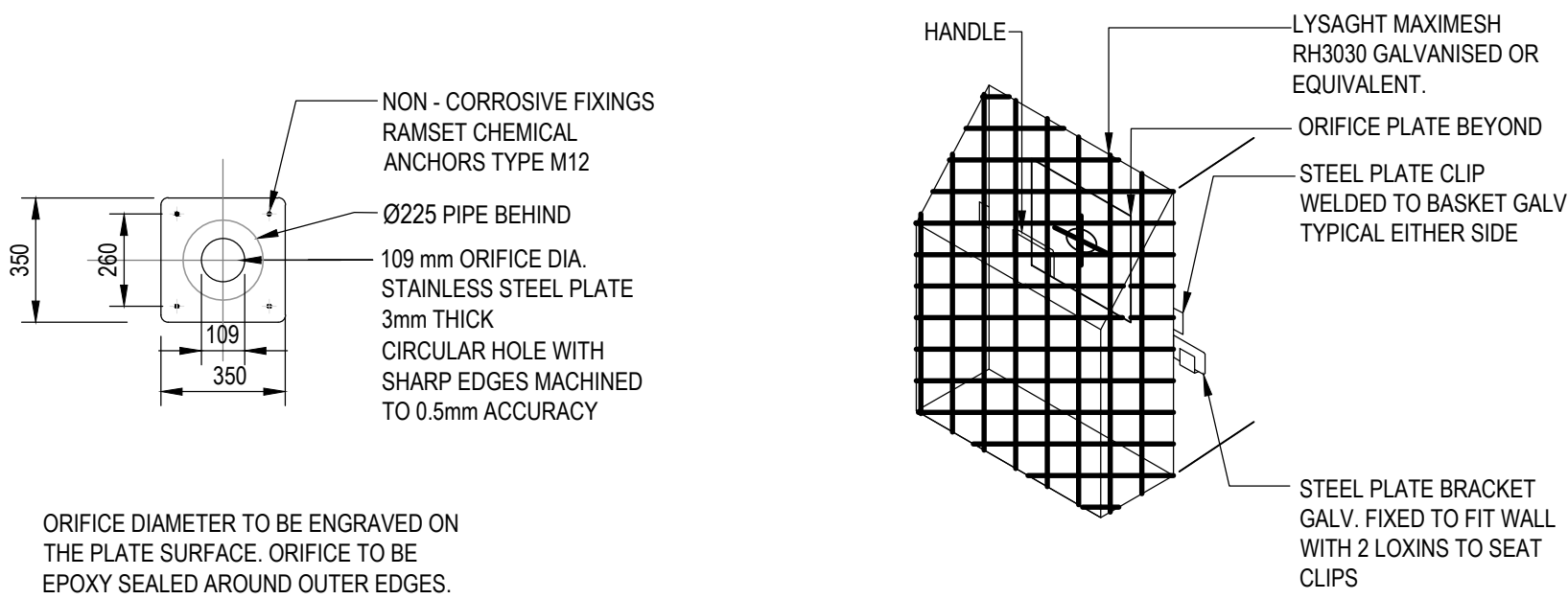
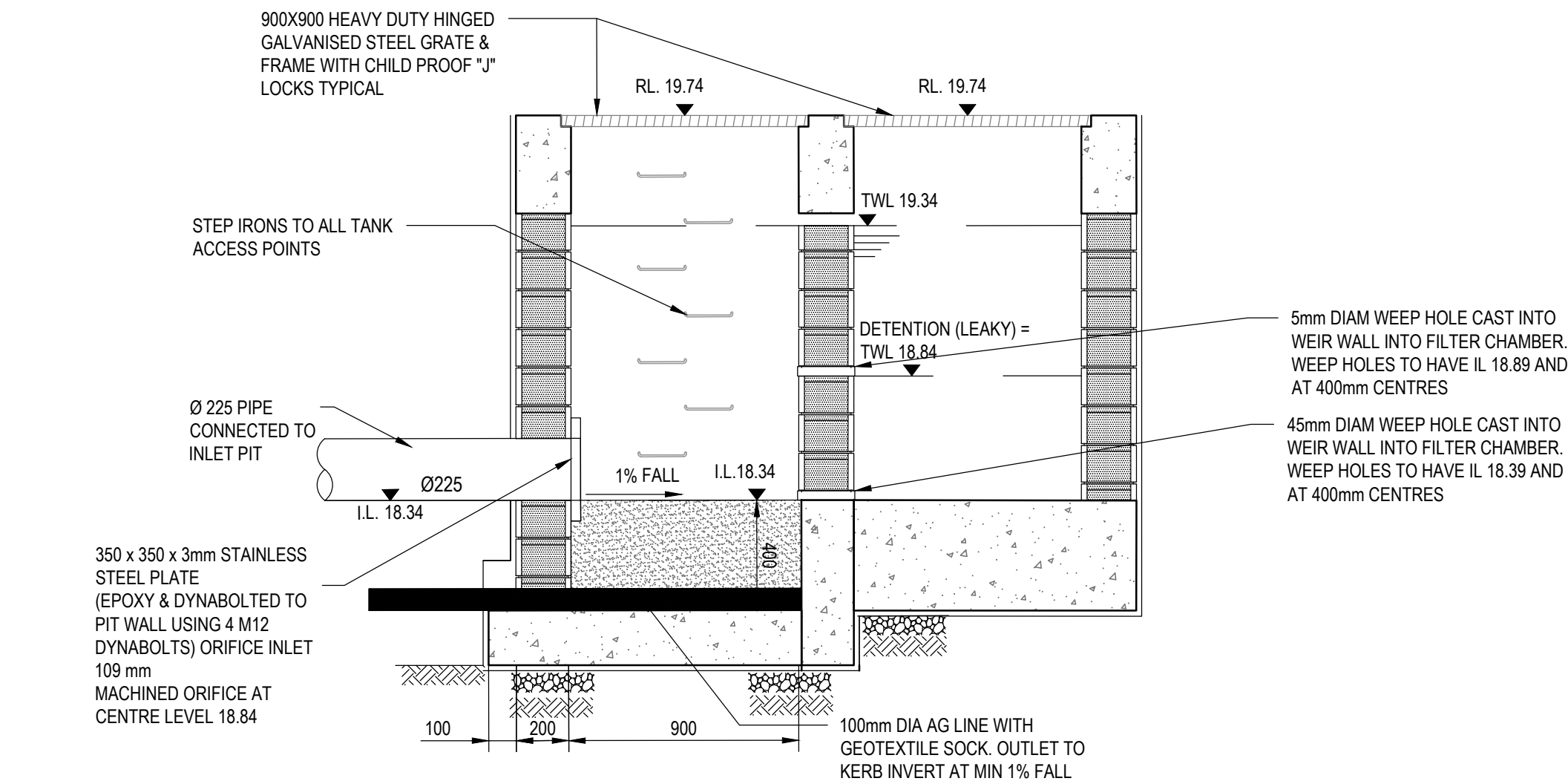
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Checked R.O.	Date JAN' 2023	Project PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287
Designed A.L.	Date JAN' 2023	Title STORMWATER DETAILS PIT SCHEDULE
Verified R.O.	Date JAN' 2023	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES
Approved		Datum AHD
		Scale N/A
		Size A1
		Drawing Number 80822046-CI-2102
		Revision 5



OSD SYSTEM DESIGN 1 PARAMETER
AS PER THE NEWCASTLE CITY COUNCIL SECTION 7.06
STORMWATER GUIDELINES, MINIMUM STORAGE
REQUIRED FOR,

SITE AREA = 24219m²
IMPERVIOUS AREA = 1533.7m² = 63.32 % IMPERVIOUS,

RWT STORAGE REQUIRED FOR SITE = 30 m³
OSD STORAGE REQUIRED FOR SITE = 11.8 m³
PSD 5 MIN 5 YEAR ARI = 23 L/s

RWT STORAGE PROVIDED IN THIS TANK = 10m³
OSD STORAGE PROVIDED IN THIS TANK = 3.21m³

OSD TANK DETAIL
TOP WATER LEVEL = 19.34
DEPTH OF WATER = 1.0m
TANK AREA = 2.29 m² INCLUDING 0.454m² OF FILTER
CHAMBER
ORIFICE DIAMETER = 109mm

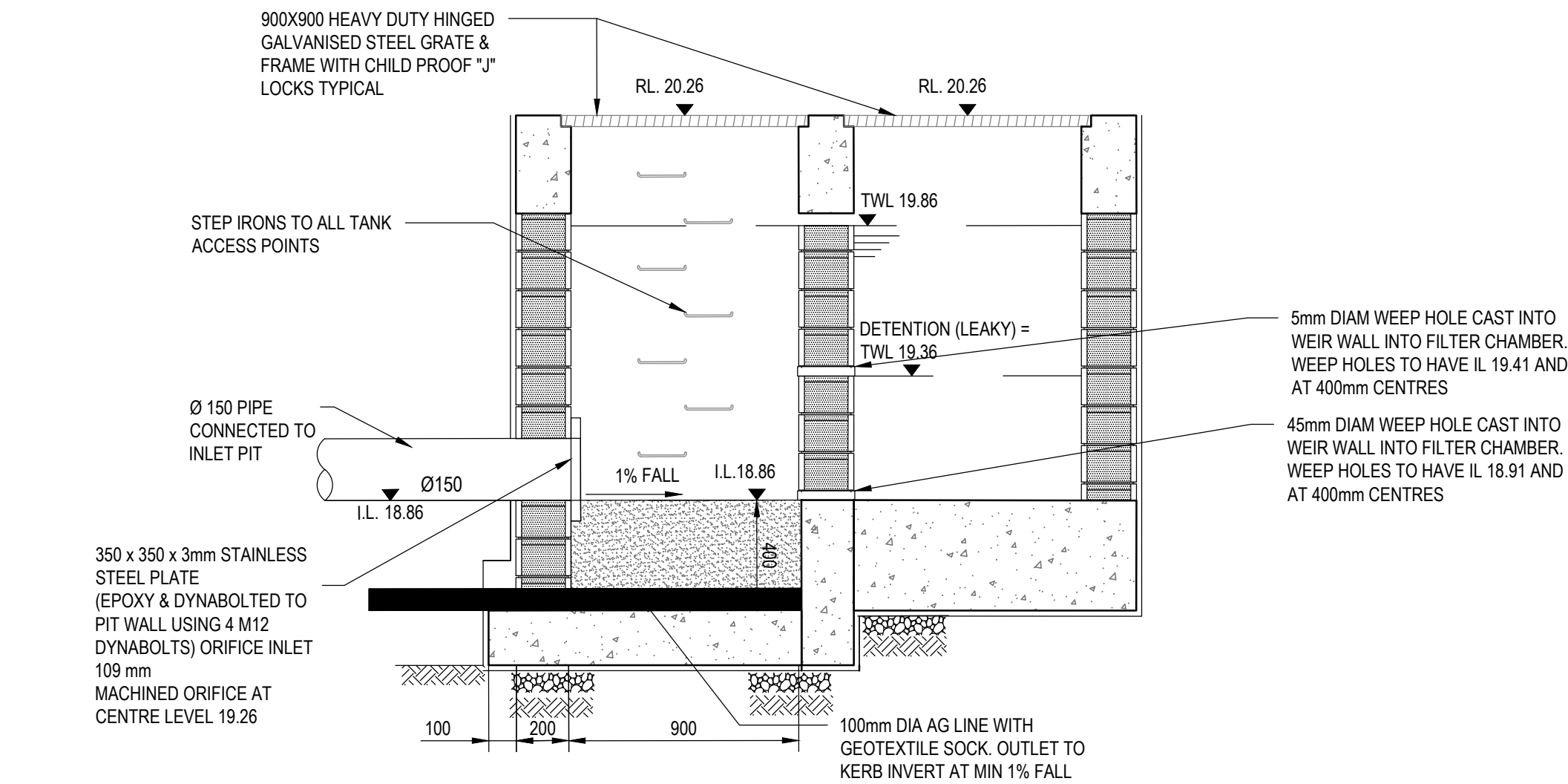
Rev.	Date	Description	Des.	Verif.	Appd.
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5	30/11/2023	COORDINATION ISSUE	PDP	JMB	JMB
4	25/01/2023	COORDINATION ISSUE	A.L.	R.O.	R.O.
3	26/09/2022	AM2 ISSUE	G.M.	C.F.	C.F.
2	17/08/2022	DRAFT 70% ISSUE	G.M.	C.F.	C.F.
1	10/02/2021	PRELIMINARY ISSUE	K.P.	K.P.	C.F.

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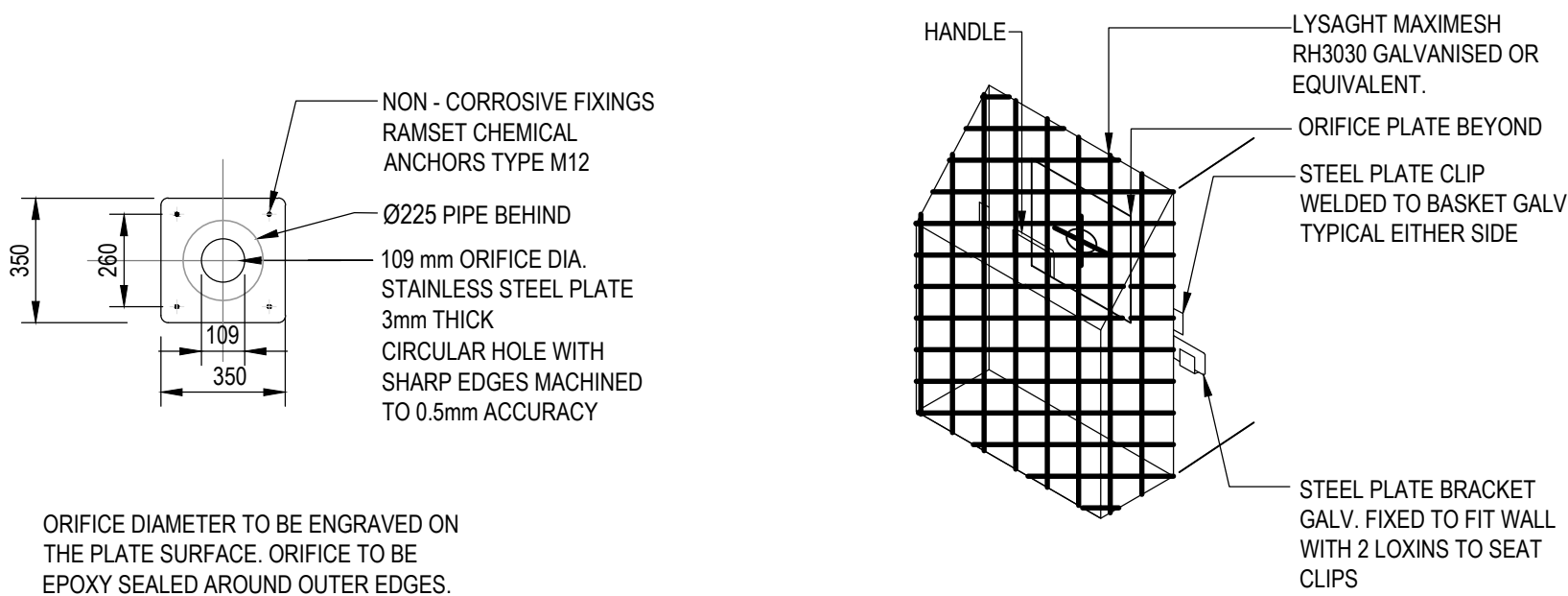
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Checked R.O.	Date JAN' 2023	Project PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287
Designed A.L.	Date JAN' 2023	Title STORMWATER DETAILS SHEET 2 OSD TANK 1 DETAILS
Verified R.O.	Date JAN' 2023	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES
Approved		Datum AHD
		Scale AS SHOWN
		Size A1
		Drawing Number 80822046-CI-2103
		Revision 6

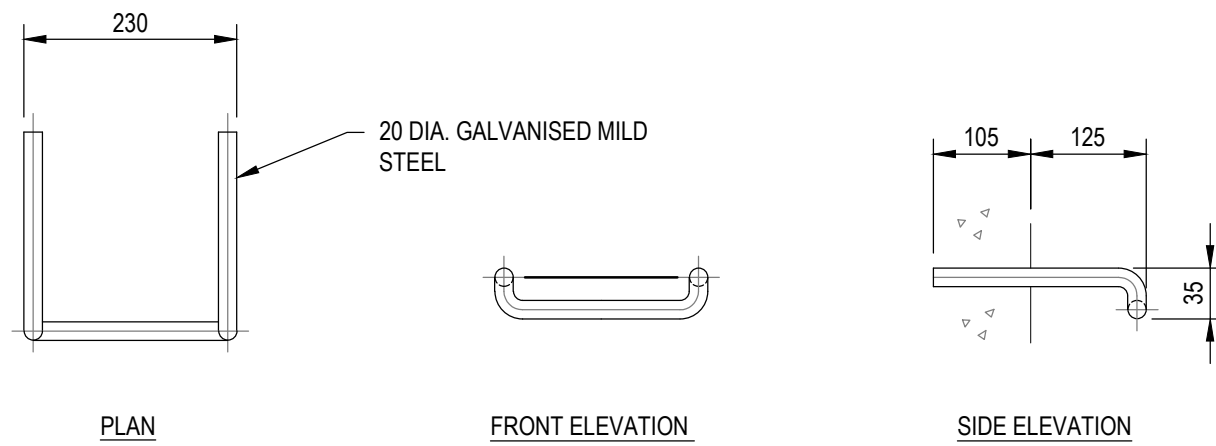


SECTION 1
NOT TO SCALE
2104

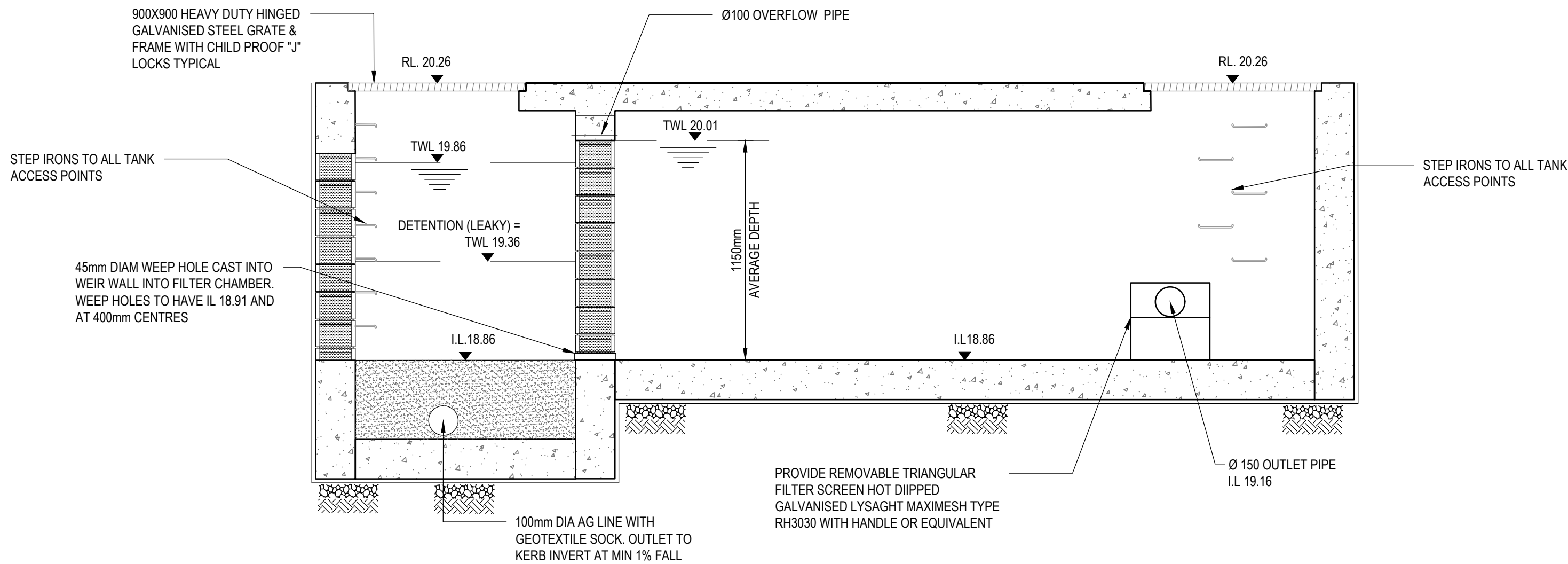


ORIFICE PLATE DETAIL - OSD
N.T.S.

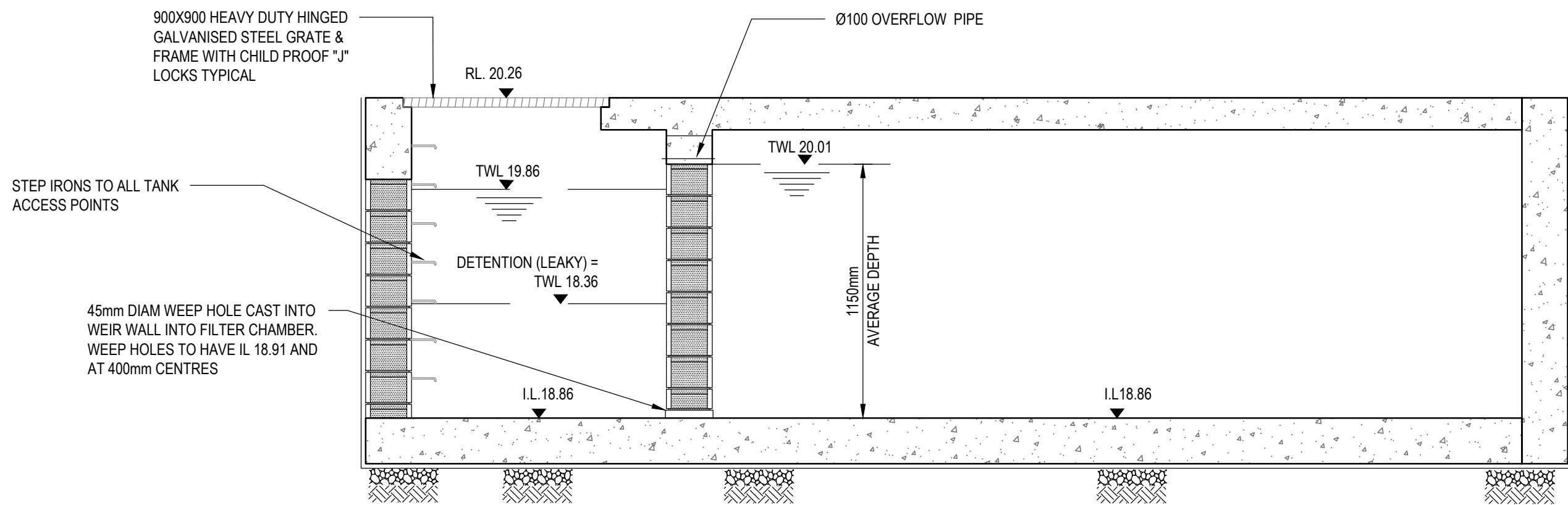
TRASH SCREEN DETAIL
N.T.S.



STEP IRON DETAIL
N.T.S.



SECTION 2
NOT TO SCALE
2104



SECTION 3
NOT TO SCALE
2104

OSD SYSTEM DESIGN 2 PARAMETER
AS PER THE NEWCASTLE CITY COUNCIL SECTION 7.06
STORMWATER GUIDELINES, MINIMUM STORAGE
REQUIRED FOR,

SITE AREA = 2421.9m²
IMPERVIOUS AREA = 1533.7m² = 63.32 % IMPERVIOUS,

RWT STORAGE REQUIRED FOR SITE = 30 m³
OSD STORAGE REQUIRED FOR SITE = 11.8 m³
PSD 5 MIN 5 YEAR ARI = 23 L/s

RWT STORAGE PROVIDED IN THIS TANK = 10m³
OSD STORAGE PROVIDED IN THIS TANK = 3.21m³

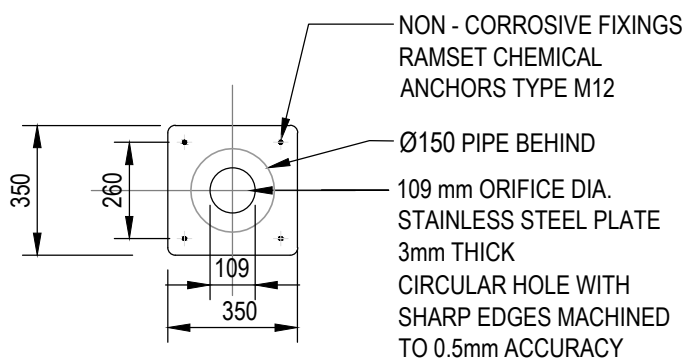
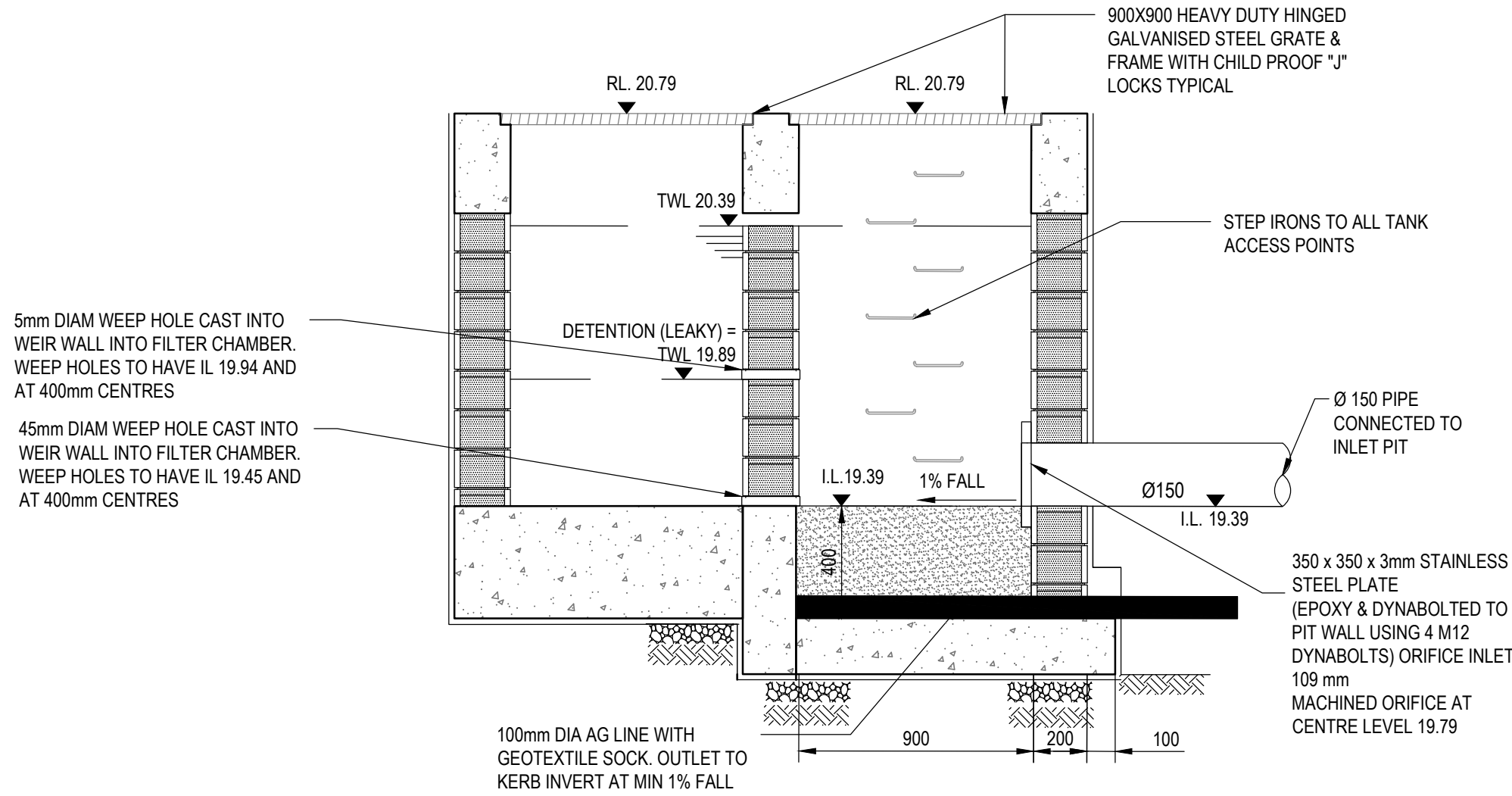
OSD TANK DETAIL
TOP WATER LEVEL = 19.34
DEPTH OF WATER = 1.0m
TANK AREA = 2.29 m² INCLUDING 0.454m² OF FILTER
CHAMBER
ORIFICE DIAMETER = 109mm

Rev.	Date	Description	Des.	Verif.	Appd.
6	18/04/2024	COORDINATION ISSUE	PDP	JMB	JMB
5	30/11/2023	COORDINATION ISSUE	PDP	JMB	JMB
4	25/01/2023	COORDINATION ISSUE	A.L.	R.O.	R.O.
3	26/09/2022	AM2 ISSUE	G.M.	C.F.	C.F.
2	17/08/2022	DRAFT 70% ISSUE	G.M.	C.F.	C.F.
1	10/02/2021	PRELIMINARY ISSUE	K.P.	K.P.	C.F.

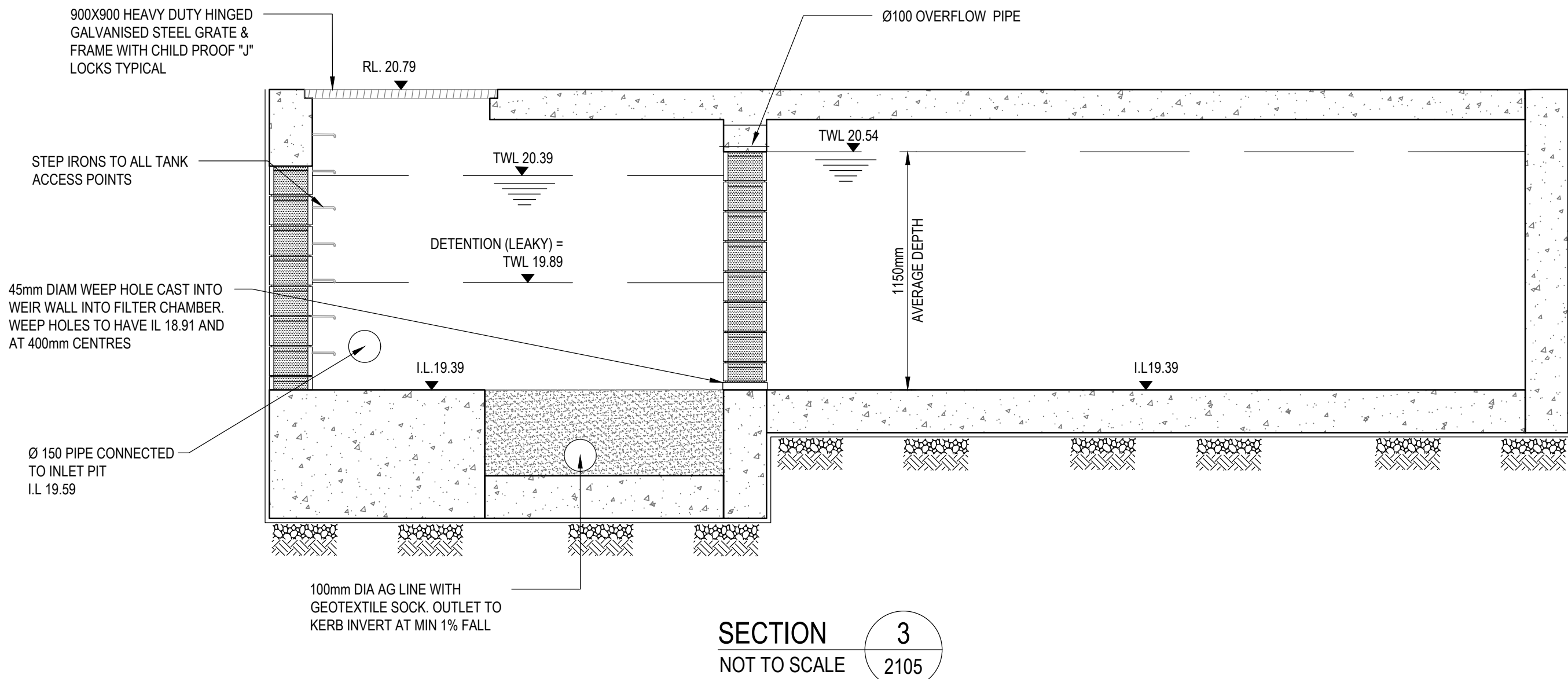
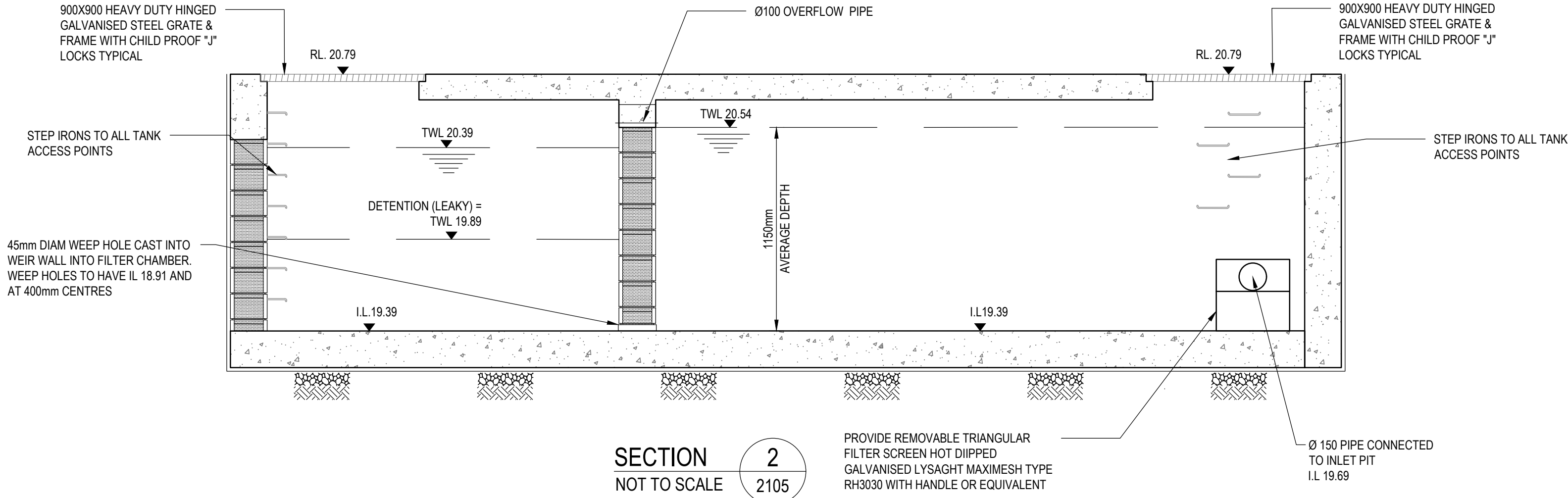
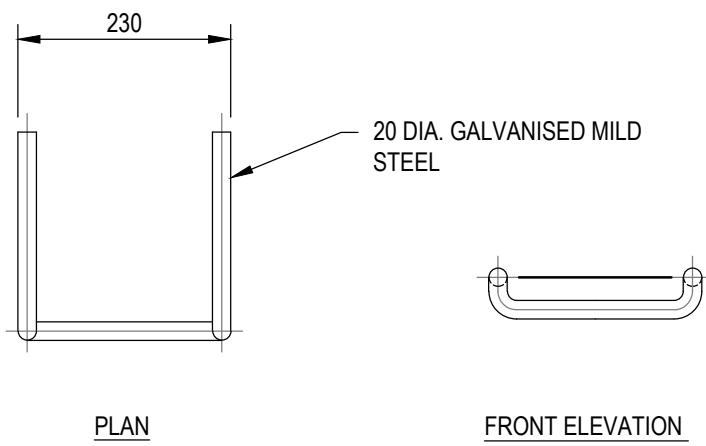
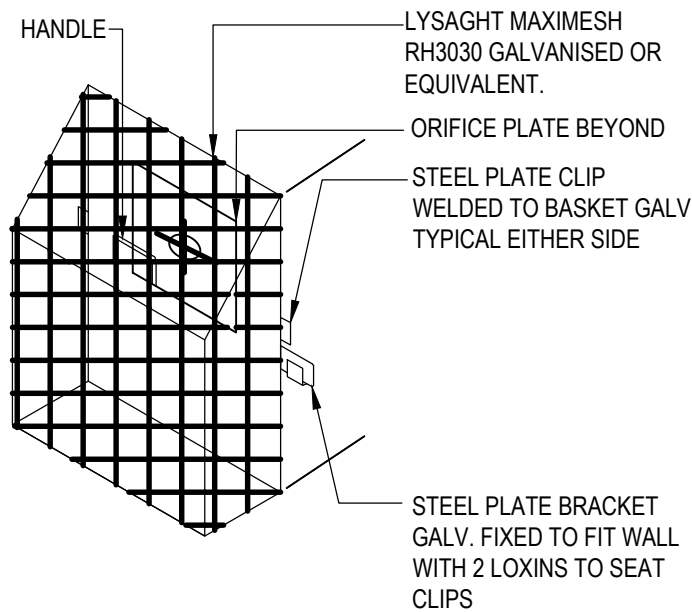
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Checked R.O.	Date JAN' 2023	Project PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287
Designed A.L.	Date JAN' 2023	Title STORMWATER DETAILS SHEET 3 OSD TANK 2 DETAILS
Verified R.O.	Date JAN' 2023	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES
Approved		Datum AHD
		Scale AS SHOWN
		Size A1
		Drawing Number 80822046-CI-2104
		Revision 6



ORIFICE DIAMETER TO BE ENGRAVED ON THE PLATE SURFACE. ORIFICE TO BE EPOXY SEALED AROUND OUTER EDGES.



OSD SYSTEM DESIGN 3 PARAMETER
AS PER THE NEWCASTLE CITY COUNCIL SECTION 7.06
STORMWATER GUIDELINES, MINIMUM STORAGE
REQUIRED FOR,

SITE AREA = 24219m²
IMPERVIOUS AREA = 1533.7m² = 63.32 % IMPERVIOUS,

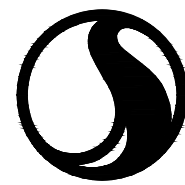
RWT STORAGE REQUIRED FOR SITE = 30 m³
OSD STORAGE REQUIRED FOR SITE = 11.8 m³
PSD 5 MIN 5 YEAR ARI = 23 L/s

RWT STORAGE PROVIDED IN THIS TANK = 10m³
OSD STORAGE PROVIDED IN THIS TANK = 5.45m³

OSD TANK DETAIL
TOP WATER LEVEL = 20.39
DEPTH OF WATER = 1.0m
TANK AREA = 3.89 m² INCLUDING 1.265m² OF FILTER
CHAMBER
ORIFICE DIAMETER = 109mm

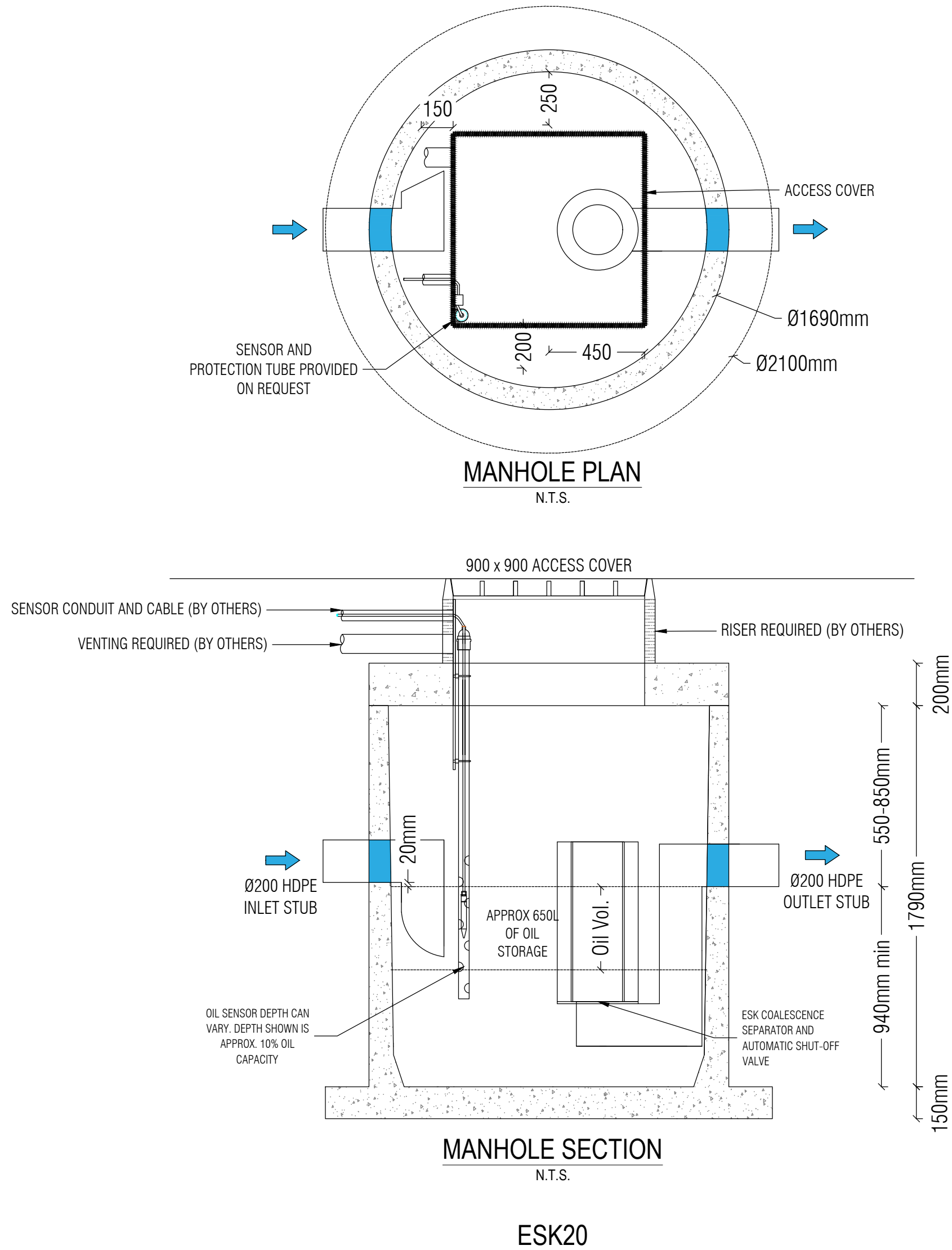
Rev.	Date	Description	Des.	Verif.	Appd.
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3	26/09/2022	AM2 ISSUE	G.M.	C.F.	C.F.
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Checked R.O.	Date JAN' 2023	Project PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287
Designed A.L.	Date JAN' 2023	Title STORMWATER DETAILS SHEET 4 OSD TANK 3 DETAILS
Verified R.O.	Date JAN' 2023	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES
Approved		Datum AHD
		Scale AS SHOWN
		Size A1
		Drawing Number 80822046-CI-2105
		Revision 6



ESK DESIGN NOTES

THE ESK IS A PASSIVE HIGH EFFICIENCY COALESCING SEPARATOR THAT REMOVES FREE OIL FROM CONTAMINATED STORMWATER RUNOFF AND HAS A BUILT-IN SHUTOFF VALVE TO PREVENT SPILLS AND STORAGE CAPACITY EXCESS EXITING THE DEVICE. THE DEVICE IS IDEALLY SUITED FOR SITES WHERE SPECIFIC EFFLUENT TARGETS ARE SPECIFIED, OR FOR SITES WHERE REMOVAL OF OIL AND GREASE IS THE GREATEST CONCERN E.G. FUEL STATION, AROUND TRANSFORMERS, CAR SERVICING WORKSHOPS, ETC. IT IS TYPICALLY SIZED TO REMOVE OIL DROPLETS AS SMALL AS 10 MICRONS AND ACHIEVE AN EFFLUENT CONCENTRATION OF 5MG/L OR LESS.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	XXX
TREATMENT FLOW RATE	20L/S
CATCHMENT AREA	XXX
HYDROCARBON SPECIFIC GRAVITY (SG)	0.85 OR LESS
PEAK FLOW RATE (L/s)	XXX
MINIMUM OIL STORAGE (L)	650
EXTERNAL INLET/OUTLET PIPE SIZE	DIA.200

PIPE DATA:	I.L. / R.L.	MATERIAL	DIAMETER
INLET PIPE #1	XXX	HDPE	200
OUTLET PIPE	XXX	HDPE	200
ACCESS COVER LEVEL (RL)	XXX	N/A	N/A
PIPE CONNECTIONS	BY OTHERS		

GENERAL NOTES:

- OCEAN PROTECT TO PROVIDE ALL MATERIAL AND TANK PENETRATIONS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWING WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR OCEAN PROTECT CONSULTANT VIA www.OCEANPROTECT.com.au, or 1300 354 722.
- PRECAST STRUCTURE TO BE CONSTRUCTED BY OCEAN PROTECT IN ACCORDANCE WITH AS3600.
- STRUCTURE AND ACCESS COVERS DESIGNED TO MEET AUSTRROADS T44 LOAD RATING WITH 0.0m TO 2.0M FILL MAXIMUM (CLASS D).
- THE STRUCTURE THICKNESS MEASUREMENTS SHOWN ARE FOR REPRESENTATIONAL PURPOSES ONLY.
- DEVICE IS TO CONTAIN A COALESCENCE SEPARATION COLUMN TOGETHER WITH AUTOMATIC OUTFLOW CLOSURE VALVE THAT ACTIVATES WHEN THE LIMIT OF OIL STORED IN THE SEPARATOR IS REACHED.
- ESK SYSTEM IS DESIGNED AS A CLASS1 COALESCENCE SEPARATOR AS PER BNES858-1:2002.
- OIL ALARM INCLUDED AS REQUESTED

INSTALLATION NOTES:

- SIZE AND CLASS OF PIPE OR SQUARE KNOCKOUT SIZE TO BE SPECIFIED ON DRAWING BY CLIENT / CONTRACTOR.
- ADDITIONAL RISERS TO BE PROVIDED BY CONTRACTOR (IF REQUIRED)
- ANY BACKFILL DEPTH, SUB-BASE, AND OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS SHALL BE SPECIFIED BY THE ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE
- CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPES.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT DEVICE FROM CONSTRUCTION-RELATED EROSION RUNOFF.

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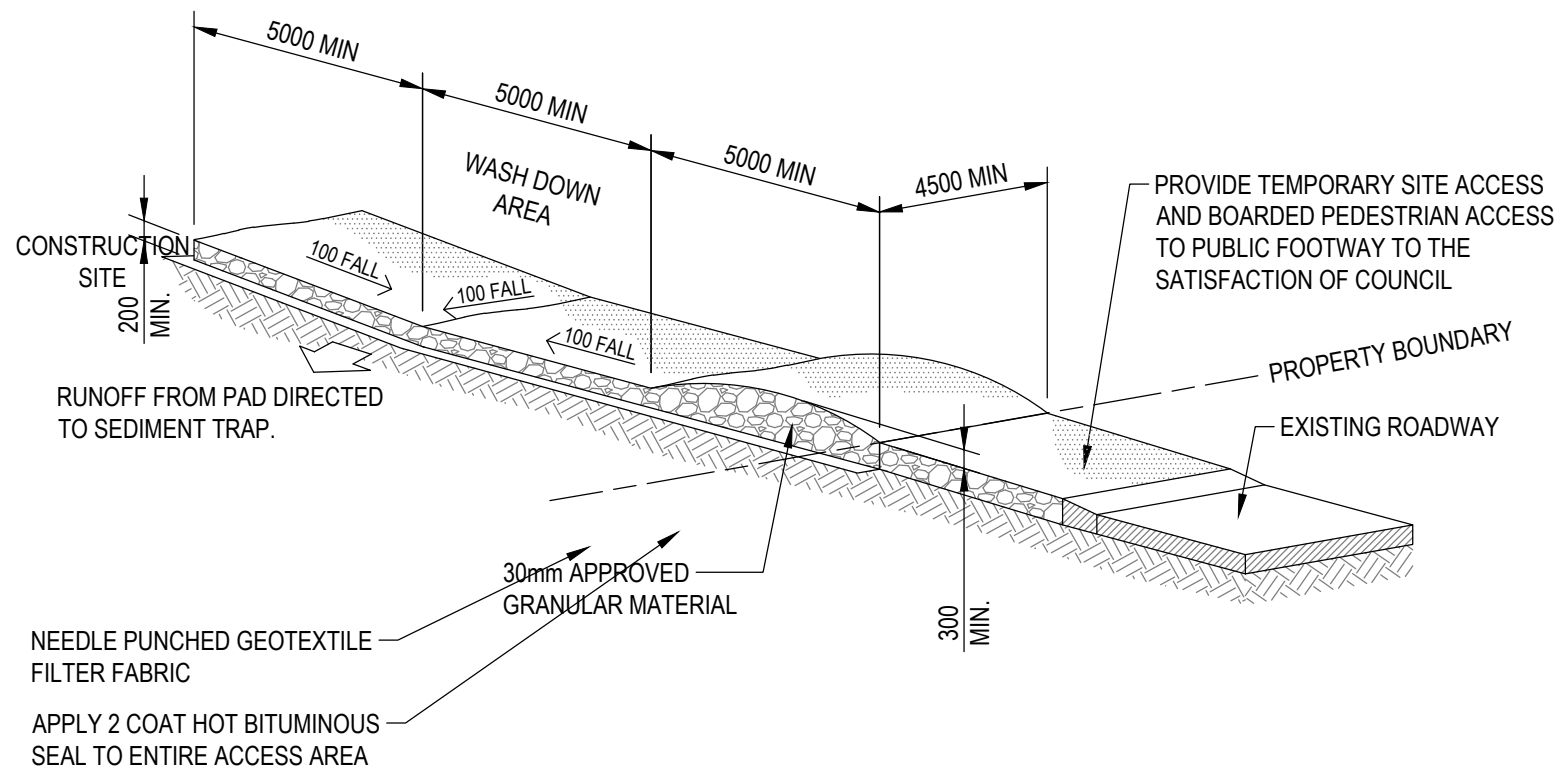
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ACN 165 409 567 Nominated Architect Sam Crawford 6498

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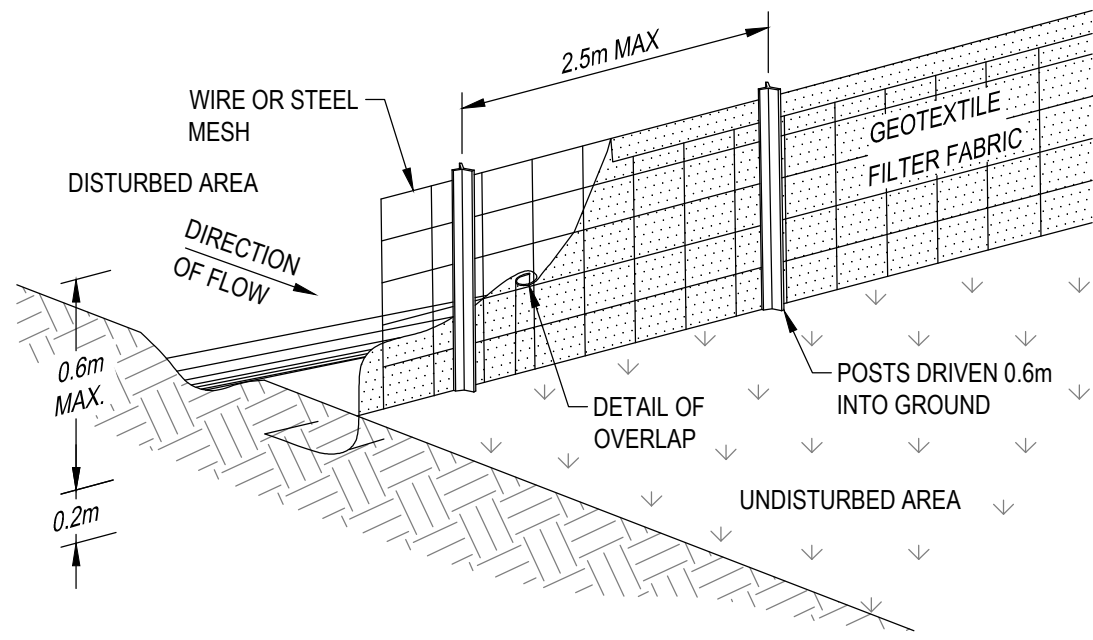
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Designed A.L.	Date JAN' 2023	Title STORMWATER DETAILS SHEET 4 TYPICAL ESK20 DETAIL
Verified R.O.	Date JAN' 2023	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES
Approved		Datum AHD
		Scale AS SHOWN
		Size A1
		Drawing Number 80822046-CI-2101
		Revision 1

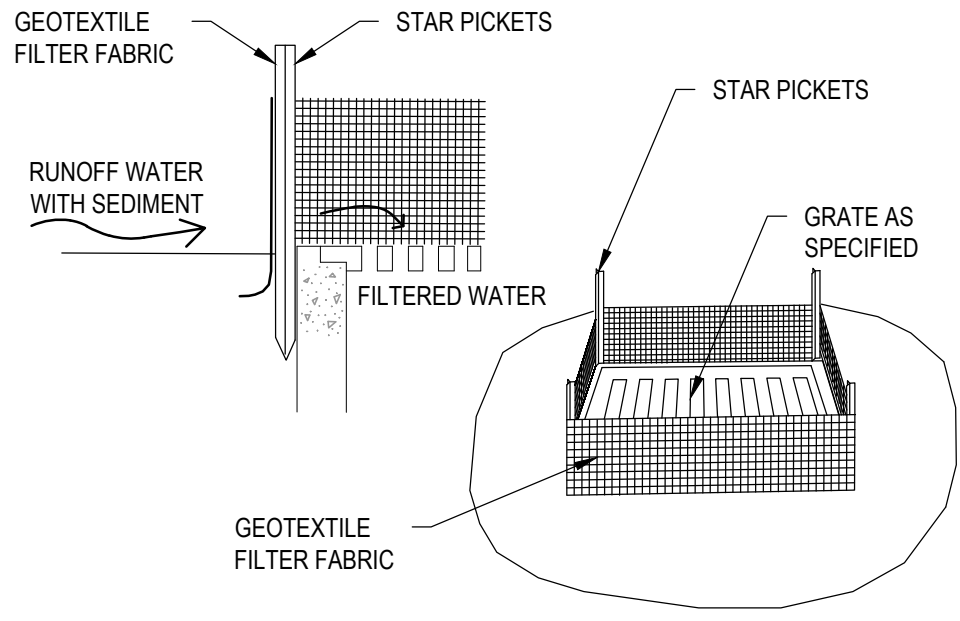
DATE PLOTTED: 12 April 2024 10:21 AM BY: DE PASQUALE, PHILIP



STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA
NTS



SEDIMENT FENCE
NTS



GEOTEXTILE FILTER PIT SURROUND
NTS

XREFs:
CAD File: C:\Users\dpasquale\OneDrive - Stantec\Douglas Street Wallsend\80822046-CI-2201.dwg

Rev.	Date	Description	Des.	Verif.	Appd.
4	25/01/2023	COORDINATION ISSUE	A.L.	R.O.	R.O.
3	26/09/2022	AM2 ISSUE	G.M.	C.F.	C.F.
2	17/08/2022	DRAFT 70% ISSUE	G.M.	C.F.	C.F.
1	10/02/2021	PRELIMINARY ISSUE	K.P.	K.P.	C.F.

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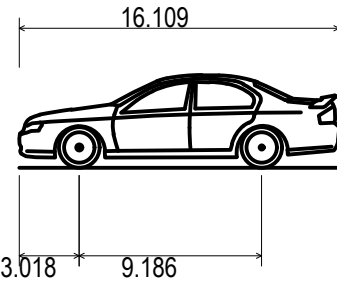
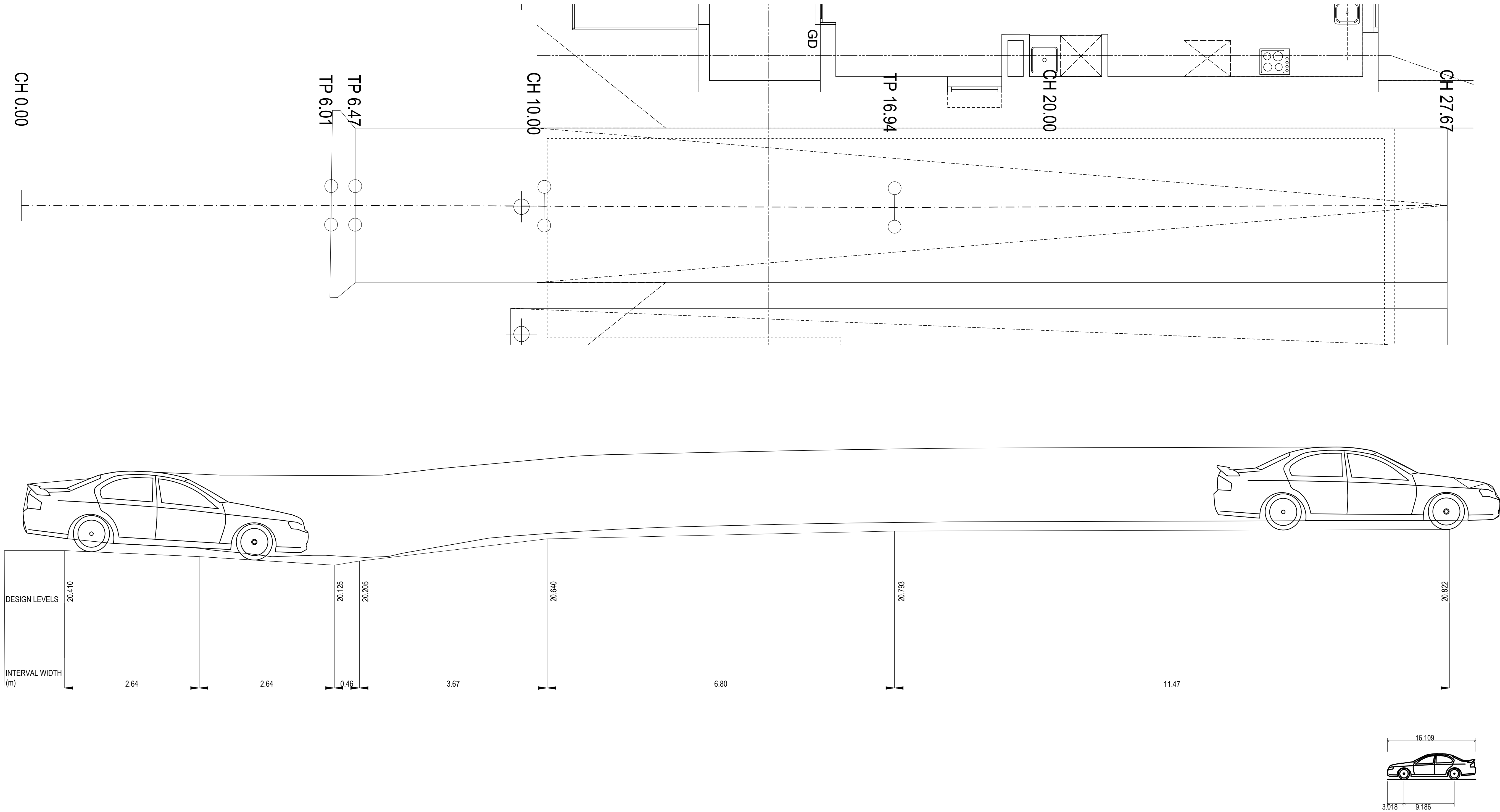
Level 2, 17 Federation Rd, Newtown, Australia NSW 2042
TELEPHONE +612 9519 6800
EMAIL studio@samcrawfordarchitects.com.au **WEB** samcrawfordarchitects.com.au
ACN 165 409 567 Nominated Architect Sam Crawford 6498

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Parramatta, NSW 2150
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Web: www.stantec.com/au

Drawn A.L.	Date JAN' 2023	Client LAHC & SAMCRAWFORD ARCHITECTS
Checked R.O.	Date JAN' 2023	Project PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287
Designed A.L.	Date JAN' 2023	Title SEDIMENTATION AND EROSION CONTROL DETAILS
Verified R.O.	Date JAN' 2023	Status NOT TO BE USED FOR CONSTRUCTION PURPOSES FOR APPROVAL
Approved		Datum AHD
		Scale AS SHOWN
		Size A1
		Drawing Number 80822046-CI-2201
		Revision 4

XREFs: X-GROUND FLOOR: X-GROUND FLOOR-VERT-CLEARANCE
CAD File: C:\Users\dpasquale\OneDrive - Stantec\Douglas Street Wallsend\80822046-CI-2301.dwg
DATE PLOTTED: 12 April 2024 10:22 AM BY: DE PASQUALE, PHILIP



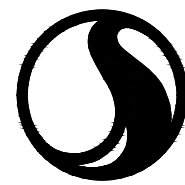
B85 Vertical Clearance (2004)	
Overall Length	16.109ft
Overall Width	6.135ft
Overall Body Height	4.662ft
Min Body Ground Clearance	0.521ft
Track Width	5.807ft
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	18.865ft

Rev.	Date	Description	Des.	Verif.	Appd.
2	28/03/2024	COORDINATION ISSUE	PDP	JMB	JMB
1	08/03/2024	COORDINATION ISSUE	PDP	JMB	JMB

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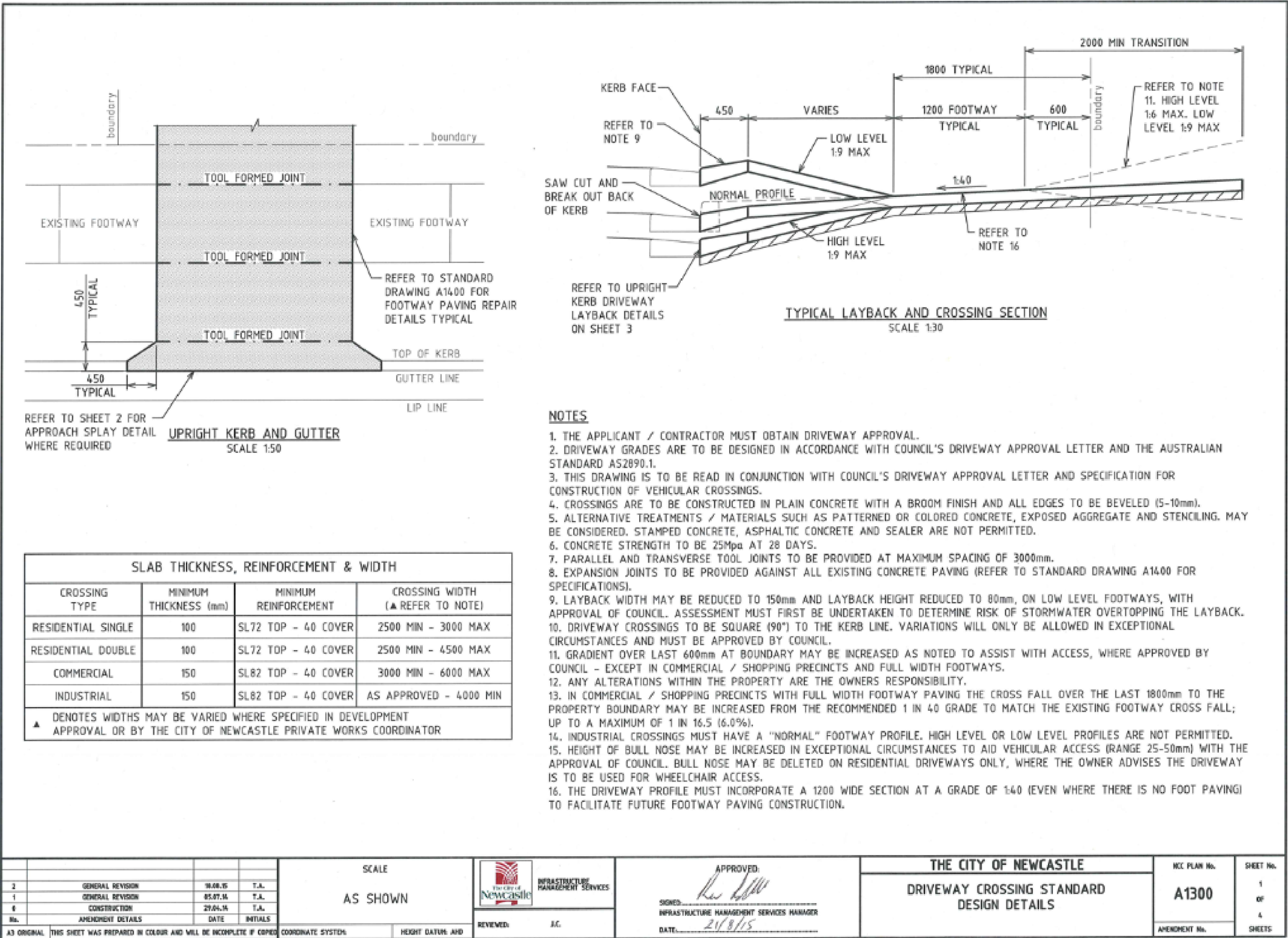
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Drawn P.D.	Date MAR' 2024	Client LAHC & SAMCRAWFORD ARCHITECTS
Checked J.B.	Date MAR' 2024	Project PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287
Designed P.D.	Date MAR' 2024	Title DRIVEWAY VERTICAL CLEARANCE DETAILS
Verified J.B.	Date MAR' 2024	
Approved		
Status NOT TO BE USED FOR CONSTRUCTION PURPOSES		FOR APPROVAL
Datum AHD	Scale AS SHOWN	Size A1
Drawing Number 80822046-CI-2301		Revision 2



NOTES:

1. REFER TO THE CITY OF NEWCASTLE DRAWING NO. A1300 DRIVEWAY CROSSING STANDARD DESIGN DETAILS.

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Drawn P.D. Date MAR' 2024 Client LAHC & SAMCRAWFORD ARCHITECTS
Checked J.B. Date MAR' 2024 Project PROPOSED DEVELOPMENT AT
Designed P.D. Date MAR' 2024 19-23 DOUGLAS STREET AND 6 NEAL PLACE
Verified J.B. Date MAR' 2024 WALLSEND 2287
Approved Title CIVIL WORKS DETAILS

Status FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES
Datum AHD Scale AS SHOWN Size A1
Drawing Number 80822046-CI-2302 Revision 1