

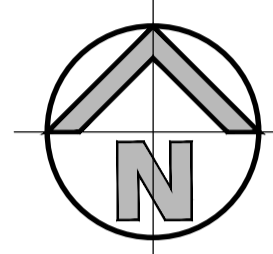
PROPOSED CENTRE BASED CHILDCARE

72 MULGOA ROAD, JAMISONTOWN, NSW

CIVIL ENGINEERING WORKS

GENERAL NOTES:

- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH PENRITH CITY COUNCIL SPECIFICATION. CONTRACTOR TO OBTAIN AND RETAIN A COPY ON SITE DURING THE COURSE OF THE WORKS.
- ALL NEW WORKS ARE TO MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS AND MARRY IN A 'WORKMANLIKE' MANNER.
- THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL SERVICES WITH EACH RELEVANT AUTHORITY. ANY DAMAGE TO SERVICES SHALL BE RECTIFIED BY THE CONTRACTOR OR THE RELEVANT AUTHORITY AT THE CONTRACTOR'S EXPENSE. SERVICES SHOWN ON THESE PLANS ARE ONLY THOSE EVIDENT AT THE TIME OF SURVEY OR AS DETERMINED FROM SERVICE DIAGRAMS. H & H CONSULTING ENGINEERS PTY. LTD CANNOT GUARANTEE THE INFORMATION SHOWN NOR ACCEPT ANY RESPONSIBILITY FOR INACCURACIES OR INCOMPLETE DATA.
- SERVICES & ACCESSSES TO THE EXISTING PROPERTIES ARE TO BE MAINTAINED IN WORKING ORDER AT ALL TIMES DURING CONSTRUCTION.
- ADJUST EXISTING SERVICE COVERS TO SUIT NEW FINISHED LEVELS TO RELEVANT AUTHORITY REQUIREMENTS WHERE NECESSARY.
- REINSTATE AND STABILISE ALL DISTURBED LANDSCAPED AREAS.
- MINIMUM GRADE OF SUBSOIL SHALL BE 0.5% (1:200) FALL TO OUTLETS.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS, EROSION AND SEDIMENTATION CONTROL PLAN AND PENRITH CITY COUNCIL REQUIREMENTS WHERE APPLICABLE.
- CONTRACTOR TO CHECK AND CONFIRM SITE DRAINAGE CONNECTIONS ACROSS THE VERGE PRIOR TO COMMENCEMENT OF SITE DRAINAGE WORKS.
- PROPERTIES AFFECTED BY THE WORKS ARE TO BE NOTIFIED IN ADVANCE WHERE DISRUPTION TO EXISTING ACCESS IS LIKELY.



LOCALITY SKETCH
SCALE: N.T.S.

EXISTING SERVICES & FEATURES

- THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL (IF REQUIRED) OF ALL EXISTING SERVICES IN AREAS AFFECTED BY WORKS WITHIN THE CONTRACT AREA OR AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT.
- THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED.
- PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL GAIN APPROVAL OF HIS PROGRAM FOR THE RELOCATION/ CONSTRUCTION OF TEMPORARY SERVICES.
- CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN SUPPLY TO EXISTING BUILDING REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE AND COMMISSIONED, THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT.
- INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE TO THE PRINCIPAL. CONTRACTOR TO GAIN APPROVAL FROM THE SUPERINTENDENT FOR TIME OF INTERRUPTION.
- EXISTING SERVICES, BUILDINGS, EXTERNAL STRUCTURES AND TREES SHOWN ON THESE DRAWINGS ARE EXISTING FEATURES PRIOR TO ANY DEMOLITION WORKS.
- EXISTING SERVICES UNLESS SHOWN ON SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE A 'DIAL BEFORE YOU DIG' SEARCH AND TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES VIA PHYSICAL INVESTIGATION OR GROUND PENETRATING RADAR PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
- ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN Ø80 uPVC SEWER GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND EDGE OF PAVING.

DRAWING SCHEDULE

NO.	DESCRIPTION
20820_DA_C000	COVER SHEET, DRAWING SCHEDULE, NOTES & LOCALITY SKETCH
20820_DA_C100	GENERAL ARRANGEMENT PLAN
20820_DA_C200	STORMWATER MISCELLANEOUS DETAILS & PIT LID SCHEDULE
20820_DA_SE01	SEDIMENT & EROSION CONTROL PLAN
20820_DA_SE02	SEDIMENT & EROSION CONTROL DETAILS

SITWORKS NOTES

- DATUM : A.H.D.
- ORIGIN OF LEVELS : REFER TO BENCH OR STATE SURVEY MARKS WHERE SHOWN ON PLAN.
- CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
- ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS & THE DIRECTIONS OF THE SUPERINTENDENT.
- EXISTING SERVICES UNLESS SHOWN ON THE SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
- WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS ACHIEVED.
- THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
- CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATION IS TO BE UNDERTAKEN OVER TELSTRA OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
- CONTRACTOR TO OBTAIN AUTHORITY APPROVALS WHERE APPLICABLE.
- MAKE SMOOTH TRANSITION TO EXISTING SURFACES AND MAKE GOOD.
- THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED LANDSCAPE, ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND SPECIFICATIONS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED RELATING TO DEVELOPMENT AT THE SITE.
- TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MINIMUM OF 50mm IN BITUMINOUS PAVING.
- ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN Ø80 uPVC SEWER GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND EDGE OF PAVING.
- GRADES TO PAVEMENTS TO BE AS IMPLIED BY RL'S ON PLAN. GRADE EVENLY BETWEEN NOMINATED RL'S. AREAS EXHIBITING PONDING GREATER THAN 5mm DEPTH WILL NOT BE ACCEPTED UNLESS IN A DESIGNATED SAG POINT.
- ALL COVERS AND GRATES ETC TO EXISTING SERVICE UTILITIES ARE TO BE ADJUSTED TO SUIT NEW FINISHED SURFACE LEVELS WHERE APPLICABLE.

SUBGRADE PREPARATION - SITWORKS.

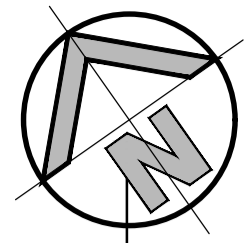
- THE EXISTING SURFACE IS TO BE STRIPPED OF ANY PAVEMENTS, TOPSOIL OR OBVIOUS UNSUITABLE MATERIAL.
- EXCAVATE TO ACHIEVE SUBGRADE LEVELS WHERE NECESSARY.
- THE EXPOSED SUBGRADE AFTER STRIPPING AND/OR EXCAVATION TO BE PROOF ROLLED USING NOT FEWER THAN 5 PASSES OF A MINIMUM 8 TONNE DEAD WEIGHT STEEL SMOOTH-DRUM ROLLER UNDER THE SUPERVISION OF AN EXPERIENCED GEOTECHNICAL ENGINEER OR AN EXPERIENCED CIVIL ENGINEER. ANY AREAS ON THE SUBGRADE EXHIBITING EXCESSIVE DEFLECTION / MOVEMENT UNDER ROLLER TO BE EXCAVATED TO A MIN. DEPTH OF 0.5m AND REPLACED WITH APPROVED GRANULAR MATERIAL COMPACTED IN 250mm LOOSE LAYERS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- ENGINEERED FILL FOR REPLACEMENT OF SOFT OR HEAVING AREAS OR FOR BULK FILLING TO COMPRISE ESSENTIALLY OF GRANULAR MATERIALS (EG EXCAVATED SHALE), WITH A PARTICLE SIZE NOT GREATER THAN 75mm DIAMETER. ENGINEERED FILL TO BE PLACED IN LAYERS NOT EXCEEDING 250mm THICKNESS AND COMPACTED TO BETWEEN 98% AND 102% OF STANDARD MAXIMUM DRY DENSITY (SMDD) WITHIN 2% OF OPTIMUM MOISTURE CONTENT (OMC).
- IMPORTED FILLING (IF REQUIRED) IS TO BE TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER. THE CONTRACTOR IS TO NOMINATE THE SOURCE AND PROVIDE A SAMPLE FOR APPROVAL PRIOR TO IMPORTATION AND PLACEMENT ON SITE.
- ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SUPERINTENDENT AND SHALL COMPLY WITH THE FOLLOWING. FREE FORM ORGANIC AND PERISHABLE MATTER
MAXIMUM PARTICLE SIZE = 75mm
MAXIMUM PLASTICITY INDEX = 15%
- IN GENERAL THERE WILL BE SHALE BEDROCK AT SUBGRADE LEVEL THROUGH MUCH OF THE LOWER BASEMENT, PROBABLY WITH A TRANSITION TO CLAY IN THE WESTERN PART OF THE SITE. WHERE SHALE IS PRESENT THERE IS NO SPECIFIC SUBGRADE PREPARATION REQUIRED THOUGH ANY AREAS THAT HAVE BECOME 'CHURNED-UP' BY CONSTRUCTION ACTIVITIES AND/OR AFFECTED BY WATER MUST BE STRIPPED OUT AND REPLACED WITH GOOD QUALITY FILL SUCH AS ROAD BASE. IN THE WESTERN AREA SUBGRADE PREPARATION SHOULD INVOLVE PROOF ROLLING WITH THE HEAVIEST PRACTICABLE ROLLER AND REMEDIATION OF ANY SOFT OR HEAVING AREAS WITH ENGINEERED FILL. ENGINEERED FILL SHOULD COMPRISE GOOD QUALITY GRANULAR MATERIALS SUCH AS CRUSHED SANDSTONE, PLACED IN LAYERS WHICH ARE UNIFORMLY COMPACTED TO NOT LESS THAN 98% OF STANDARD MAXIMUM DRY DENSITY (SMDD). USE OF A WORKING PLATFORM OF ROAD BASE TYPE MATERIAL SHOULD BE CONSIDERED FOR THE CLAY SUBGRADE AS THE CLAY WILL BE UNTRAFFICABLE IF ALLOWED TO BECOME WET.

FOR DA ONLY

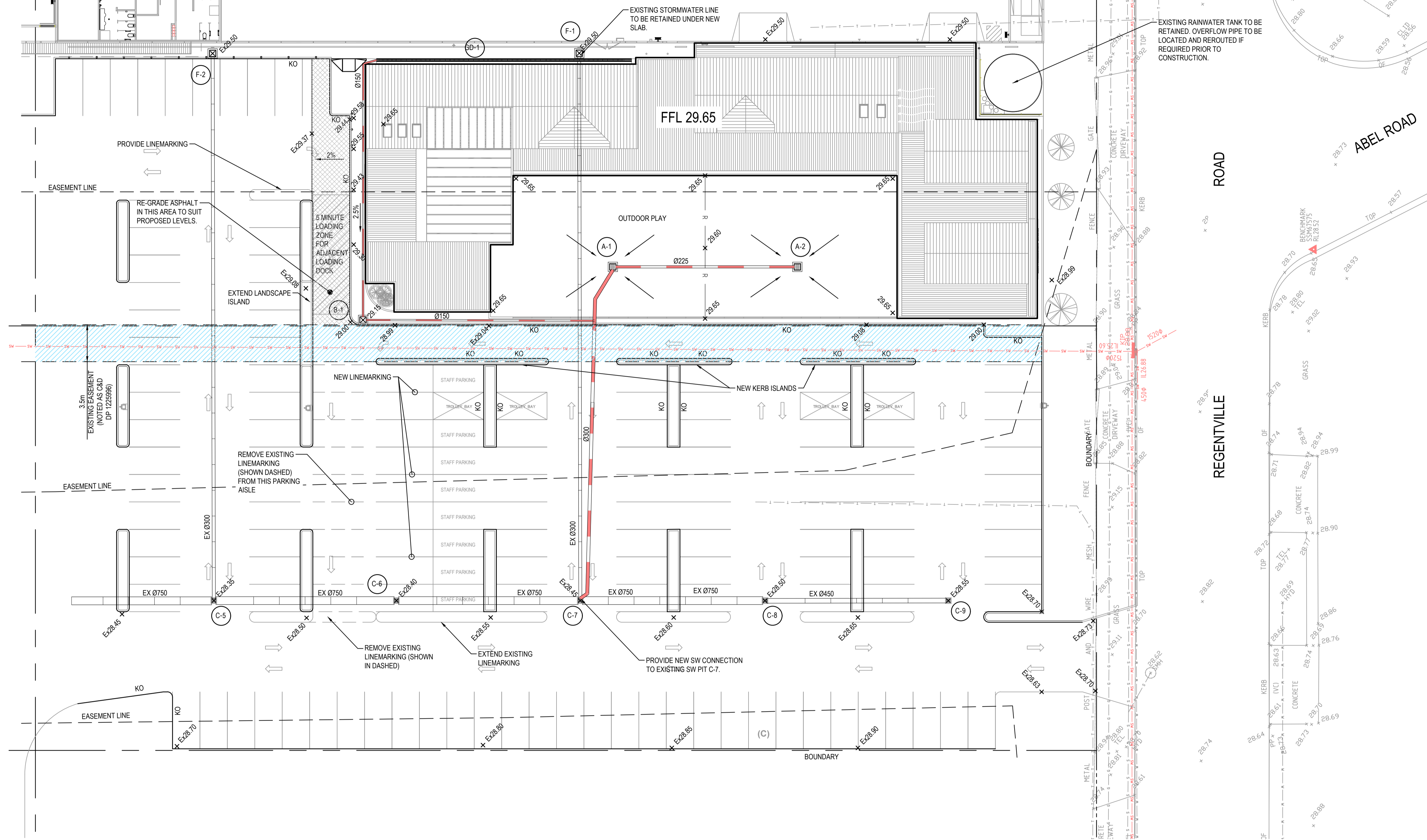
REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR DA ONLY		MS	TR	04.09.2020				

Client	HomeCo	Project	PROPOSED CENTRE BASED CHILDCARE 72 MULGOA ROAD, JAMISONTOWN, NSW
Architect	FIVE CANONS ARCHITECTURE	Drawn	M.Stimova
	This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.	Designed	T.Rozeznal
		Checked	T.Rozeznal
		Approved	A.Francis
		Scale	AS NOTED
		Drawing number	20820_DA_C000
		Revision	01

Suite 2.01 828 Pacific Highway Gordon NSW 2072	Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hhconsult.com.au www.henryandhymas.com.au	
--	---	--



EXISTING WAREHOUSE (FORMELY MASTERS HOME IMPROVEMENT CENTRE)



LEGEND	
	PROPOSED LIMIT OF WORK
	EXISTING BOUNDARY
	EASEMENT LINE
	PROPOSED JUNCTION PITS
	PROPOSED SURFACE INLET PITS
	PROPOSED LINTEL ONGRADE & SAG PITS
	PROPOSED PIT TAG
	PROPOSED GRATED DRAIN
	EXISTING STORMWATER PIPE
	PROPOSED STORMWATER PIPE
	PROPOSED SPOT LEVEL
	EXISTING SPOT LEVEL
	PROPOSED KERB ONLY
	EXISTING ELECTRICAL MAINS LINE
	EXISTING GAS LINE
	EXISTING SEWER LINE
	EXISTING TELSTRA LINES
	EXISTING WATER LINE
	EXISTING STORMWATER LINE

NOTE
1. ALL ROOF WATER TO BE CONNECTED TO PITS A-1 & A-2
REFER TO HYDRAULIC ENGINEERS DRAWING FOR DETAILS.

GENERAL ARRANGEMENT PLAN
SCALE: 1:200



FOR DA ONLY

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR DA ONLY	MS	TR	04.09.2020					

Client
HomeCo

Architect
FIVE CANONS ARCHITECTURE

This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.

Suite 2.01
828 Pacific Highway
Gordon NSW 2072

Telephone
+61 2 9417 8400

Facsimile
+61 2 9417 8337

Email
email@hhconsult.com.au
www.henryandhymas.com.au



Project
**PROPOSED CENTRE BASED CHILDCARE
72 MULGOA ROAD, JAMISONTOWN, NSW**

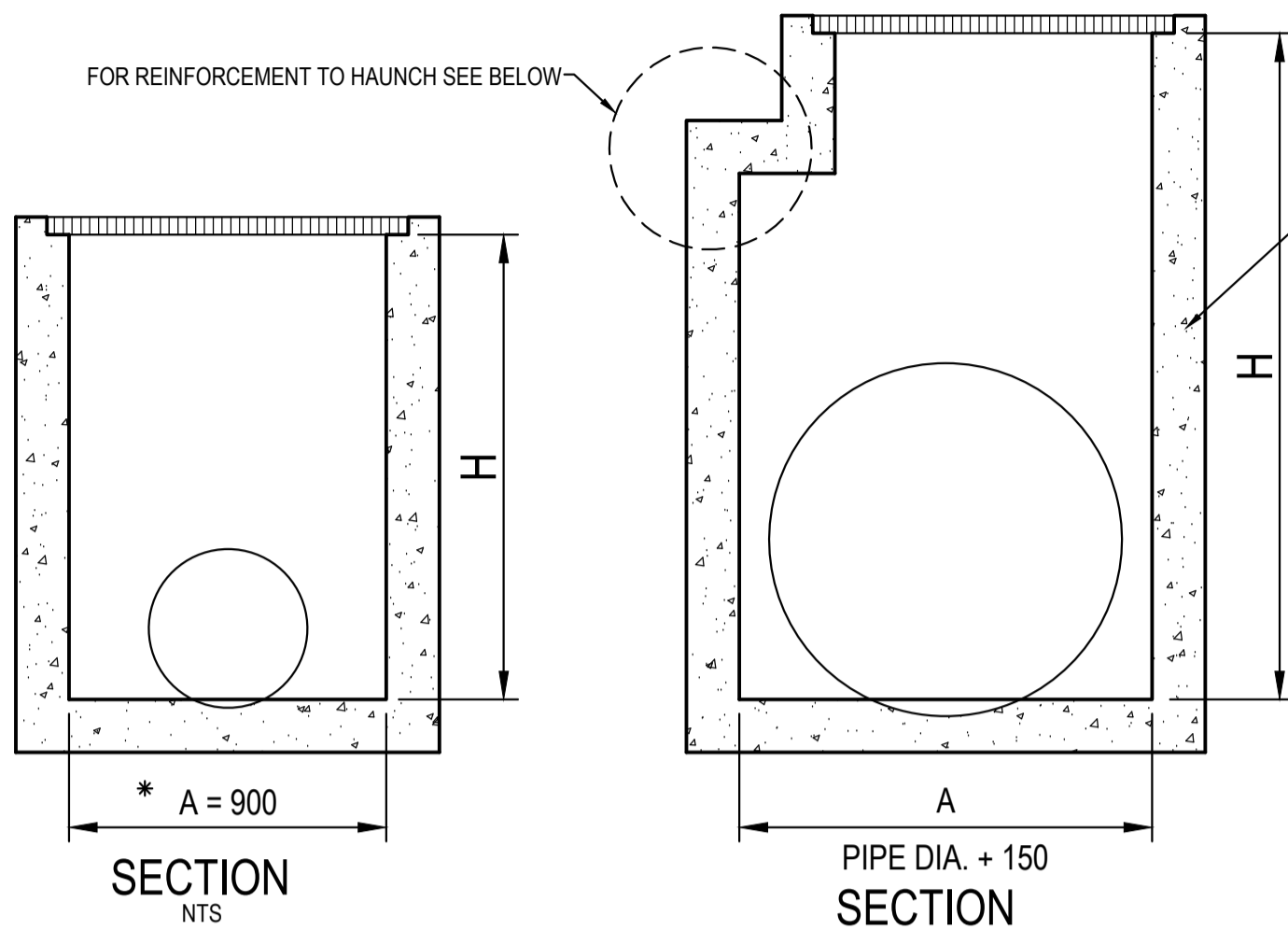
Title
GENERAL ARRANGEMENT PLAN

Drawn	Designed	Date
M.Stimova	T.Rozehnal	SEP 2020
Checked	Approved	Scale
T.Rozehnal	A.Francis	B/A1
Drawing number		Revision
20820_DA_C100		01

TYPICAL PIT CHAMBER SIZES
IT IS THE CONTRACTORS RESPONSIBILITY TO SELECT PIT CHAMBER SIZE WITH REGARDS TO PIPE SIZE, DEPTH TO INVERT AND SKEW ANGLE. REFER SKETCHES BELOW.

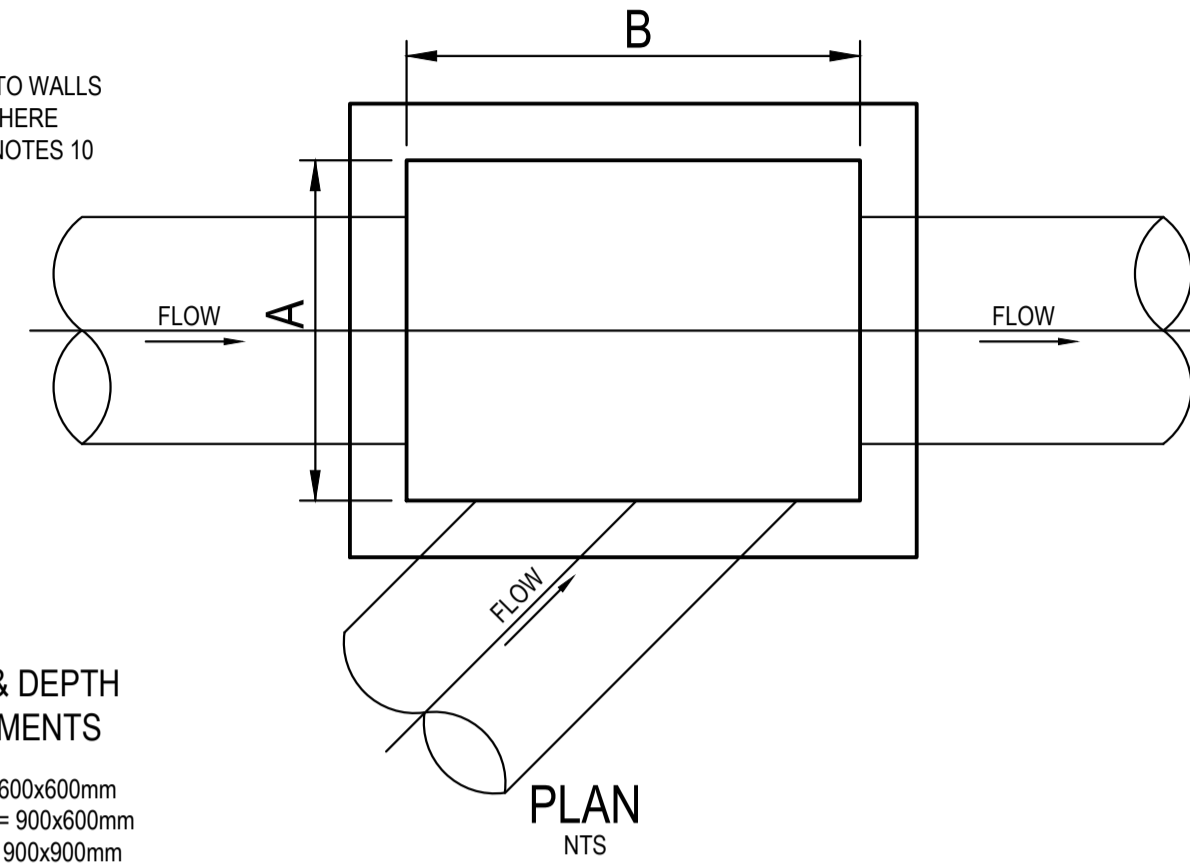
1. SELECT PIT CHAMBER USING THE STEPS BELOW:
2. SELECT PIT CHAMBER SIZE DEPENDING ON THE PIPE DIAMETERS.
3. CHECK PIT CHAMBER SIZE TO SATISFY DEPTH TO INVERT REQUIREMENTS.
4. CHECK PIT CHAMBER DIMENSIONS TO SATISFY THE SKEW ANGLE IN THE TABLE.

FOR B = 600mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 225mm
 FOR B = 900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 375mm
 FOR B = 1200mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 600mm
 FOR B = 1500mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 825mm
 FOR B = 1800mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 1050mm



2 PIT SIZE & DEPTH REQUIREMENTS

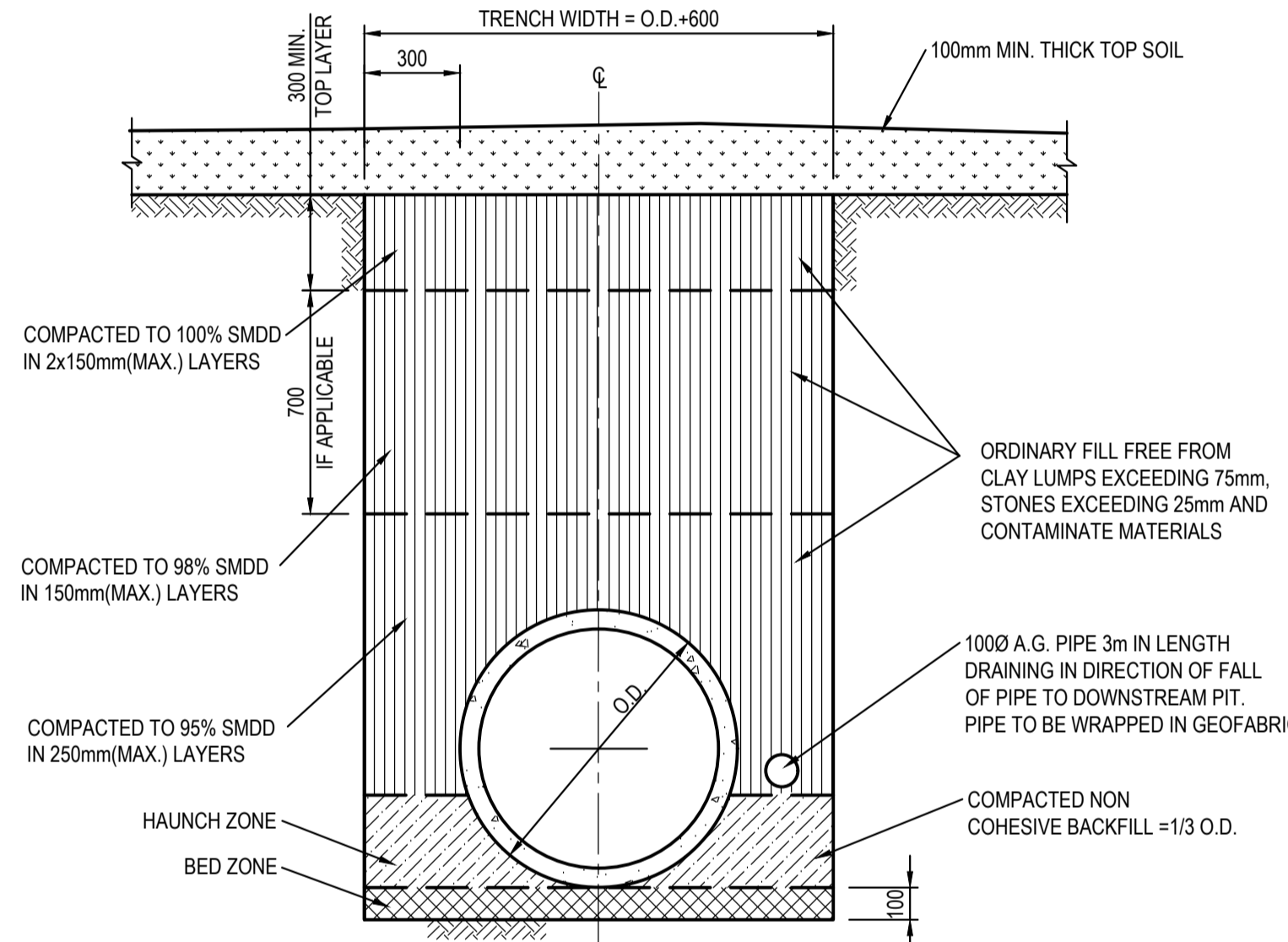
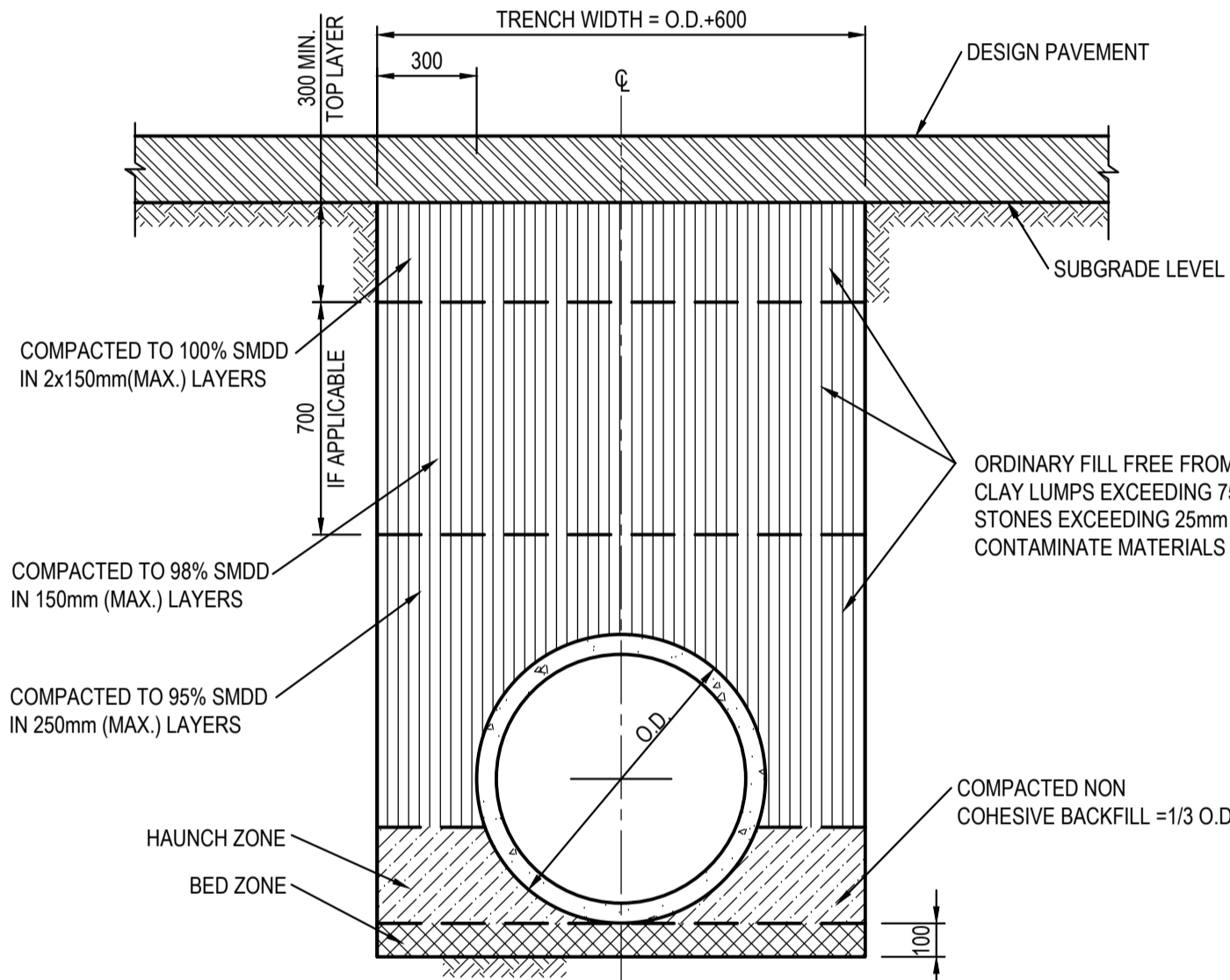
H = 0-900mm - Ax B = 600x600mm
 H = 900-1200mm - Ax B = 900x600mm
 H = >1200mm - Ax B = 900x900mm



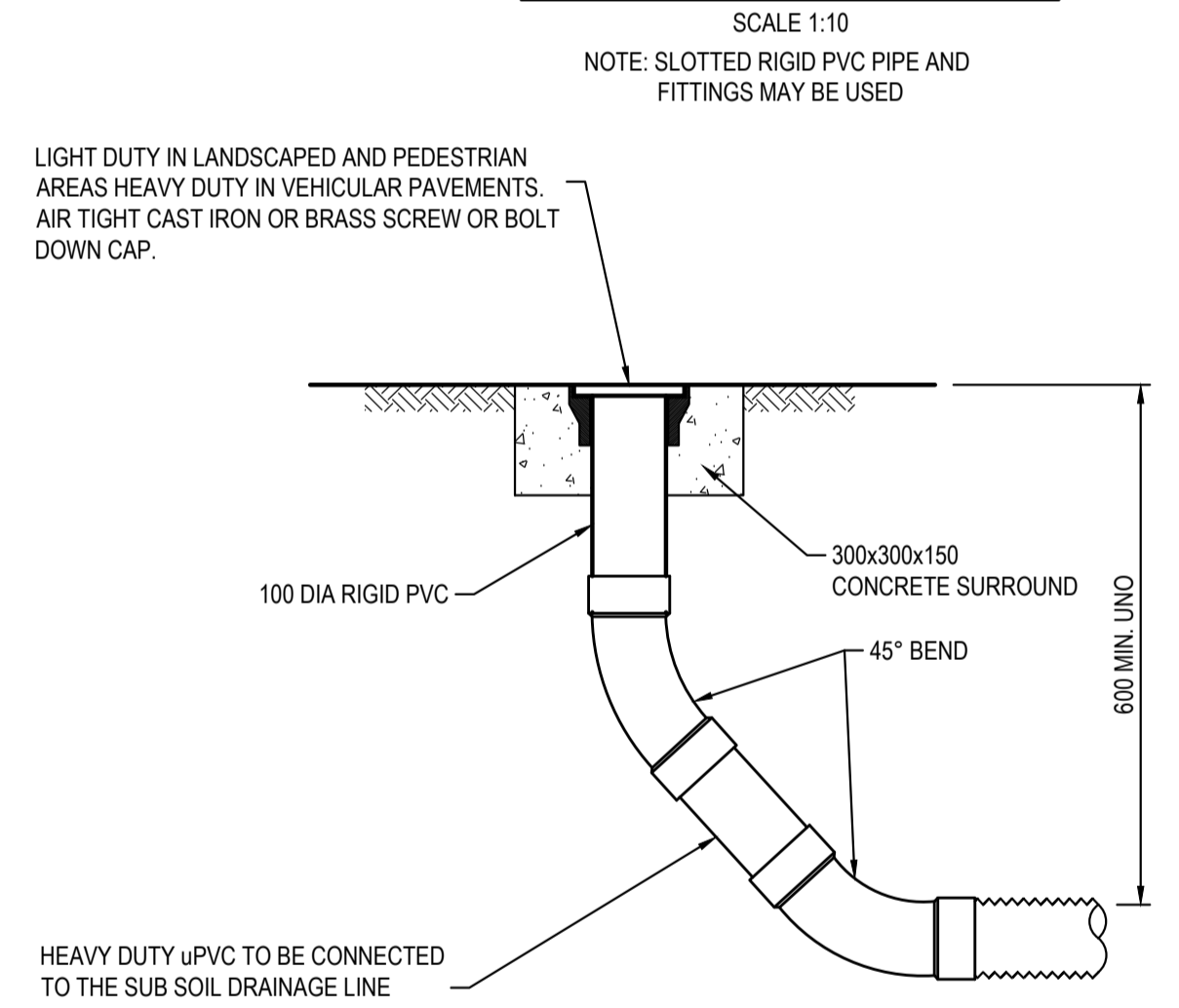
3 PIT CHAMBER FOR SIDE ENTRY ON SKEW

1 PIT CHAMBER DIMENSIONS FOR PIPES UP TO 375 DIA.

1 PIT CHAMBER FOR PIPES GREATER THAN 600 DIA.



INTERMEDIATE RISER (IR) SCALE 1:10



FLUSHING POINT (FP) SCALE 1:10

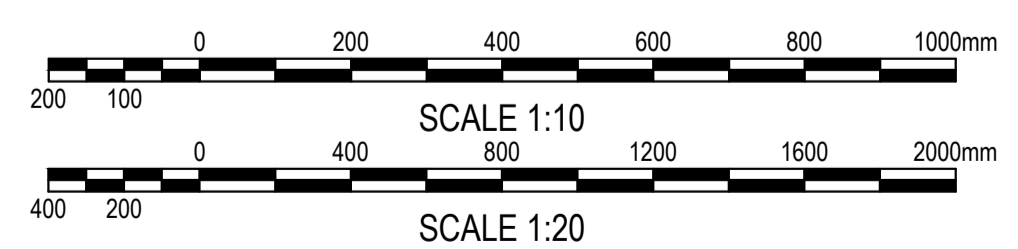
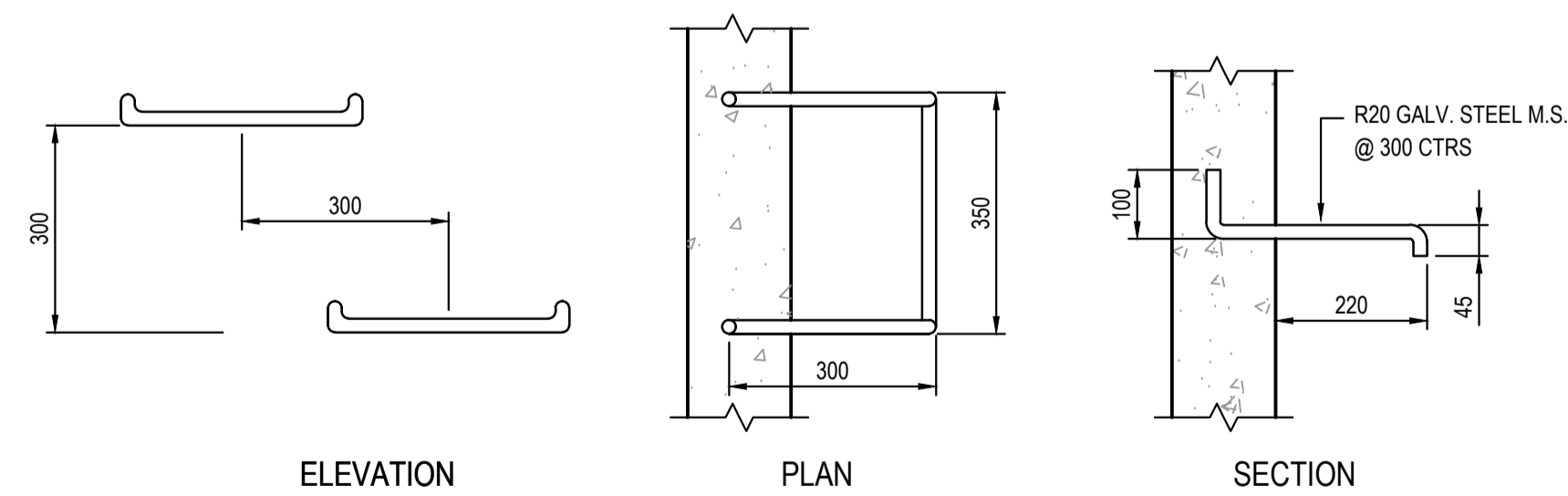
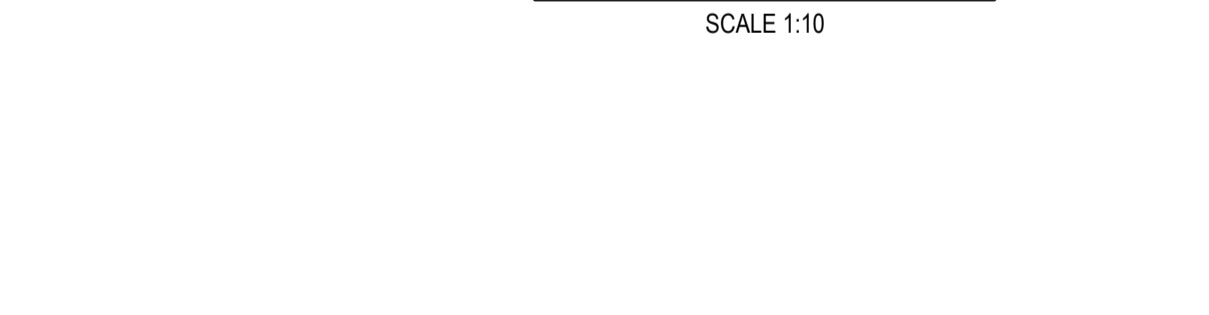


TABLE 1

SIEVE SIZE (MM)	WEIGHT PASING (%)
75.0	100
9.5	100 TO 50
2.36	100 TO 30
0.60	50 TO 15
0.075	25 TO 0

TABLE 2

SIEVE SIZE (MM)	WEIGHT PASING (%)
19.0	100
2.36	100 TO 50
0.60	90 TO 20
0.30	60 TO 10
0.15	25 TO 0
0.075	10 TO 0

TABLE 3

SUPPORT TYPE	BED ZONE X	HAUNCH ZONE Y	BED AND HAUNCH ZONES COMPACTION	MAX BEDDING FACTOR
HS1	100 IF D<=1500, OR 150 IF D>=1500	0.1D	50	2.0
HS2		0.3D	60	2.5
HS3		0.3D	70	4.0

PIT LID SCHEDULE

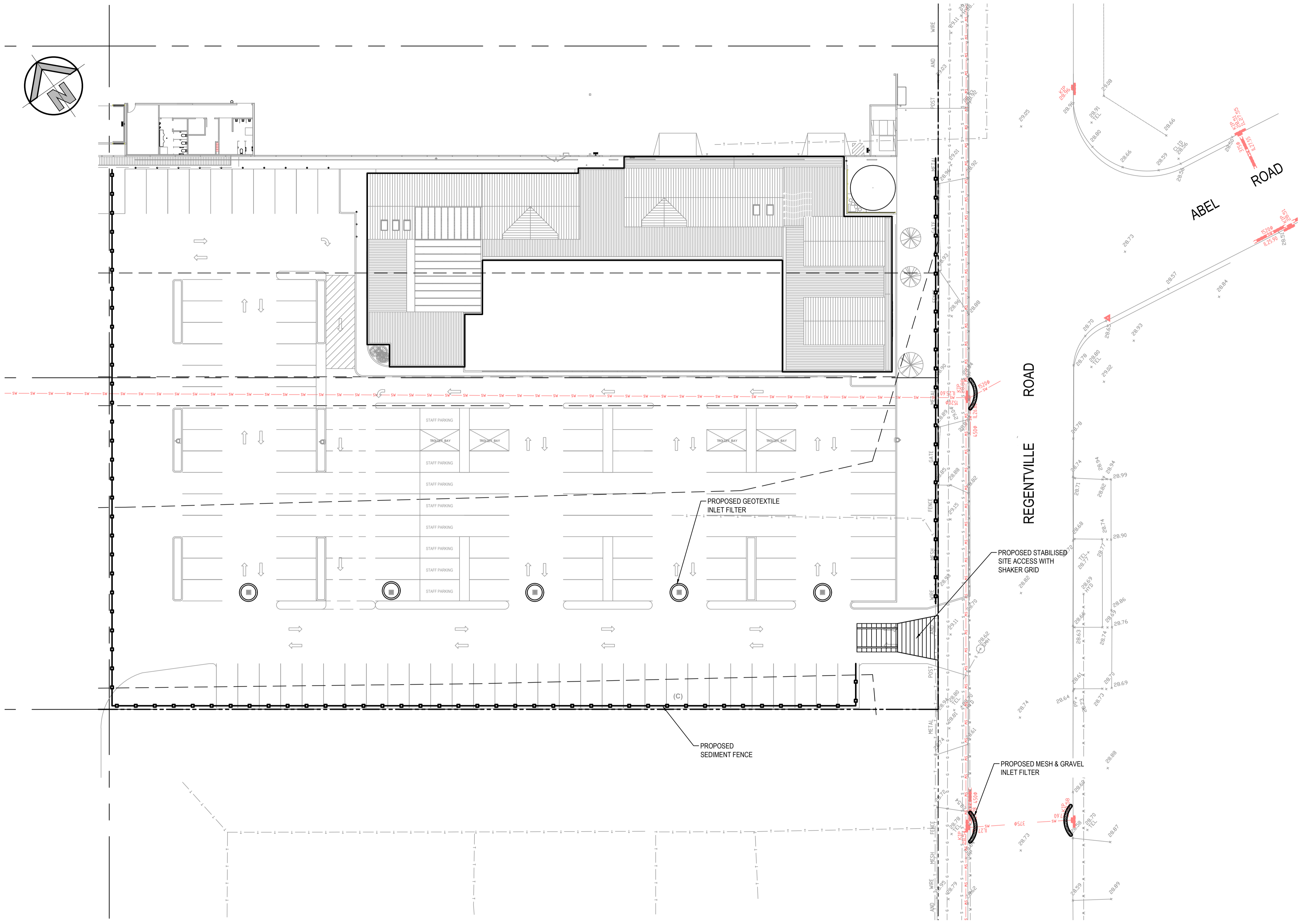
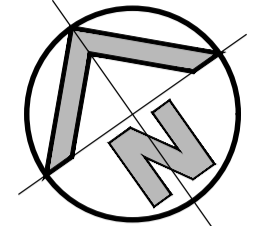
PIT/STRUCTURE NUMBER	DESCRIPTION
A-1 A-2	PROPOSED 600x600 GRATED LIGHT DUTY LID CLASS 'B', IN ACCORDANCE WITH PENRITH CITY COUNCIL REQUIREMENTS.
C-5 C-6 C-7 C-8 C-9 F-1 F-2	EXISTING STORMWATER PITS TO REMAIN
SD-1	150mm WIDE LIGHT DUTY GRATED DRAIN AND LIGHT DUTY FRAME CLASS 'B' IN ACCORDANCE WITH PENRITH CITY COUNCIL REQUIREMENTS.

DRAINAGE NOTES:

1. ALL STORMWATER WORK TO COMPLY WITH AS 3500 PART 3.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE MINIMUM COVER OF 600mm ON ALL PIPES.
3. PROTECTION OF PIPES DUE TO LOADS EXCEEDING W7 WHEEL LOAD SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
4. BEDDING TYPE SHALL BE TYPE H2 FOR RCP. WHERE NECESSARY THE OVERLAY ZONE SHALL BE REDUCED TO ACCOMMODATE PAVEMENT REQUIREMENTS. REFER TO THIS DRAWING FOR DETAILS.
5. MINIMUM COVER OVER EXISTING PIPES FOR PROTECTION DURING CONSTRUCTION SHALL BE 800mm.
6. NO CONSTRUCTION LOADS SHALL BE APPLIED TO PLASTIC PIPES.
7. FINISHED SURFACE LEVELS SHOWN ON LAYOUT PLAN DRGS TAKE PRECEDENCE OVER DESIGN DRAINAGE SURFACE LEVELS.
8. ALL PIPES UP TO AND INCLUDING 300 DIA. SHALL BE SOLVENT OR RUBBER RING JOINTED PVC CLASS SH PIPE TO AS1260. ALL OTHER PIPES TO BE RCP USING CLASS 2 RUBBER RING JOINTED PIPE. HARDIES FRC PIPE MAY BE USED IN LIEU OF RCP IF DESIRED IN GROUND. ALL AERIAL PIPES TO BE PVC CLASS SH.
9. ALL PITS IN NON TRAFFICABLE AREAS TO BE PREFABRICATED POLYESTER CONCRETE 'POLYCRETE' WITH 'LIGHT DUTY' CLASS B GALV. MILD STEEL GRATING AND FRAME. ALL PITS IN TRAFFICABLE AREAS (CLASS 'D' LOADING MAX) TO HAVE 150mm THICK CONCRETE WALLS AND BASE CAST IN-SITU f_c=32 MPa. REINFORCED WITH N12-200 BOTH LOADING WAYS CENTRALLY PLACE U.N.O. ON SEPARATE DESIGN DRAWINGS IN THIS SET. GALV. MILD STEEL GRATING AND FRAME TO SUIT DESIGN LOADING. PRECAST PITS, RECTANGULAR OR CIRCULAR IN SHAPE, MAY BE USED IN LIEU AND SHALL COMPLY WITH RELEVANT AUSTRALIAN STANDARDS.
10. ALL PITS, GRATINGS AND FRAMES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION AND TO BE IN ACCORDANCE WITH AS3500.3 AND AS3596.
11. PIT CHAMBER DIMENSIONS ARE TO BE SELECTED TO SATISFY THE FOLLOWING:
 - PIPE SIZE
 - DEPTH TO INVERT
 - SKEW ANGLE
 REFER TYPICAL PIT CHAMBER DETAILS BELOW
 IF PIT LID SIZE IS SMALLER THAN THE PIT CHAMBER SIZE THEN THE PIT LID IS TO BE CONSTRUCTED ON THE CORNER OF THE PIT CHAMBER WITH THE STEP IRONS DIRECTLY BELOW. ALTERNATIVELY THE PIT LID TO BE USED, IS TO BE THE SAME SIZE AS THE PIT CHAMBER.
12. FOR PIPE SIZES GREATER THAN Ø300mm, PIT FLOOR IS TO BE BENCHED TO FACILITATE FLOW.
13. GALVANISED STEP IRONS SHALL BE PROVIDED AT 300 CTS FOR PITS HAVING A DEPTH EXCEEDING 1200mm. SUBSOIL DRAINAGE PIPE SHALL BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES. (MINIMUM LENGTH 3m).
14. ALL SUBSOIL PIPES SHALL BE 100mm SLOTTED PVC IN A FILTER SOCK, UNO, WITH 3m INSTALLED UPSTREAM OF ALL PITS.
15. ALL PIPEWORK SHALL HAVE MINIMUM DIAMETER 100.
16. MINIMUM GRADE FOR ROOFWATER DRAINAGE LINES SHALL BE 1%.
17. ALL PIPE JUNCTIONS AND TAPER UP TO AND INCLUDING 300 DIA. SHALL BE VIA PURPOSE MADE FITTINGS.
18. ALL ROOF DRAINAGE TO BE INSTALLED IN ACCORDANCE WITH AS3500, PART 3. TESTING TO BE UNDERTAKEN AND REPORTS PROVIDED TO THE SUPERINTENDENT.
19. LOCATION OF THE DIRECT DOWN PIPE CONNECTIONS MAY VARY ON SITE TO SUIT SITE CONDITIONS, WHERE CONNECTION SHOWN ON LONG SECTIONS CHAINAGES ARE INDICATIVE ONLY.
20. PITS IN EXCESS OF 1.5 m DEEP TO HAVE WALL AND FLOOR THICKNESS INCREASED TO 200mm. REINFORCED WITH N12@200 CTS CENTRALLY PLACED BOTH WAYS THROUGHOUT U.N.O. ON SEPARATE DESIGN DRAWINGS IN THIS SET. IF DEPTH EXCEEDS 5m CONTACT ENGINEER.
21. SUBSOIL DRAINAGE LINES FOR LANDSCAPE AREA NOT SHOWN ON THESE DRAWINGS. REFER TO LANDSCAPING PLANS FOR DETAILS.
22. ALL STORMWATER PITS TO HAVE Ø100 uPVC SLOTTED SUBSOIL PIPES CONNECTED TO THEM. THESE SUBSOILS TO EXTEND 3m UPSTREAM OF THE PIT AT A MINIMUM GRADE.

FOR DA ONLY

Client: HomeCo				Suite 2.01, 828 Pacific Highway, Gordon NSW 2072				Telephone: +61 2 9417 8400, Facsimile: +61 2 9417 8337, Email: email@hthconsult.com.au, Web: www.henryandhymas.com.au				Project: PROPOSED CENTRE BASED CHILDCARE 72 MULGOA ROAD, JAMISONTOWN, NSW				Drawn: M.Stimova, Designed: T.Rozezhnal, Date: SEP 2020			
Architect: FIVE CANONS ARCHITECTURE				This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.				henry&hymas				Checked: T.Rozezhnal, Approved: A.Francis, Scale: B/A1, AS NOTED							
01 ISSUED FOR DA ONLY				MS TR 04.09.2020				Drawing number: 20820_DA_C200				Revision: 01							



LEGEND

- SITE BOUNDARY
- TRAFFIC MANOEUVRING
- PROPOSED SEDIMENTATION FENCE
- PROPOSED VEHICLE SHAKER GRID
- PROPOSED STABILISED SITE ACCESS
- PROPOSED MESH & GRAVEL INLET FILTER
- GEOTEXTILE INLET FILTER

GENERAL INSTRUCTIONS

1. THIS SEDIMENT AND EROSION CONTROL WORKS FOR THE SITE SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION, 4TH EDITION (2004)" BY LANDCOM.
2. AS REQUIRED BY BLACKTOWN CITY COUNCIL SEDIMENT CONTROL MEASURES WILL BE REQUIRED DURING THE CONSTRUCTION OF ALL DEVELOPMENTS/BUILDING WORKS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY THAT THE WORKS ARE CARRIED OUT IN ACCORDANCE WITH THE SEDIMENT AND EROSION CONTROL PLAN AND COUNCIL'S REQUIREMENTS.
3. THE CONTRACTOR SHALL ENSURE THAT ALL SUBCONTRACTORS ARE INFORMED OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE AREAS.
4. THE NON-DISTURBED PORTION OF THE CATCHMENT OUTSIDE OF OPERATING AREA IS TO BYPASS THE BASINS BY MEANS OF LINED CATCH DRAINS.
5. WHERE PRACTICABLE, THE SOIL EROSION HAZARD SHALL BE KEPT AS LOW AS POSSIBLE. LIMITATIONS TO ACCESS ARE TO BE VIA THE SEALED ACCESS ROAD UNLESS OTHERWISE APPROVED BY COUNCIL.
6. ENSURE THAT ALL DRAINS ARE OPERATING EFFECTIVELY AND SHALL MAKE ANY NECESSARY REPAIRS. REMOVE TRAPPED SEDIMENT WHERE THE CAPACITY OF THE TRAPPING DEVICE FALLS BELOW 60%.
7. CONSTRUCT ADDITIONAL EROSION OR SEDIMENT CONTROL WORKS AS MAY BE APPROPRIATE TO ENSURE THE PROTECTION OF DOWNSLOPE LANDS AND WATERWAYS.
8. MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES IN A FULLY FUNCTIONING CONDITION AT ALL TIMES UNTIL THE SITE IS REHABILITATED.
9. REMOVE TEMPORARY SOIL CONSERVATION STRUCTURES AS THE LAST ACTIVITY IN THE REHABILITATION PROGRAM.
10. THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN ON THIS PLAN ARE FOR THE INITIAL EARTHWORKS STAGES OF THE LOTS. IT ASSUMES THAT THE SURROUNDING ROADS HAVE ALREADY BEEN CONSTRUCTED AT THIS STAGE. AS CONSTRUCTION OF THE SITE PROGRESSES GEOTEXTILE INLET FILTERS WILL BE REQUIRED TO BE INSTALLED AROUND THE PROPOSED STORMWATER PITS.
11. ENSURE THAT ALL PITS IN SURROUNDING ROADS TO THIS SITE HAVE MESH & GRAVEL INLET FILTERS PLACED.

EROSION CONTROL REQUIREMENTS

1. CLEARLY VISIBLE BARRIER FENCING SHALL BE INSTALLED AT THE DISCRETION OF THE SITE SUPERINTENDENT TO ENSURE TRAFFIC CONTROL AND PROHIBIT UNNECESSARY SITE DISTURBANCE. VEHICULAR ACCESS TO THE SITE SHALL BE LIMITED TO ONLY THAT ESSENTIAL FOR CONSTRUCTION WORK AND SHALL ENTER THE SITE ONLY THROUGH THE STABILISED ACCESS POINT.
2. SOIL MATERIALS SHALL BE REPLACED IN THE SAME LAYERS THEY ARE REMOVED FROM THE GROUND i.e. ALL SUBSOILS ARE TO BE BURIED AND TOPSOIL IS TO BE RESPREAD ON THE SURFACE AT THE COMPLETION OF WORKS.
3. ALL DISTURBED AREAS ARE TO BE STABILISED WITHIN SEVEN WORKING DAYS OF THE COMPLETION OF LAND SHAPING. ALL DISTURBED AREAS ARE TO BE PROTECTED SO THAT THE LAND IS PERMANENTLY STABILISED WITHIN SIX MONTHS. TOPSOIL SHALL BE RESPREAD OVER THE SITE, OTHER THAN LOT RE-GRADING AREAS, TO A MINIMUM DEPTH OF 100mm ON BARE BUT TYNED SOIL SURFACES AND THE SITE SHALL BE REVEGETATED IN ACCORDANCE WITH THE FOLLOWING:

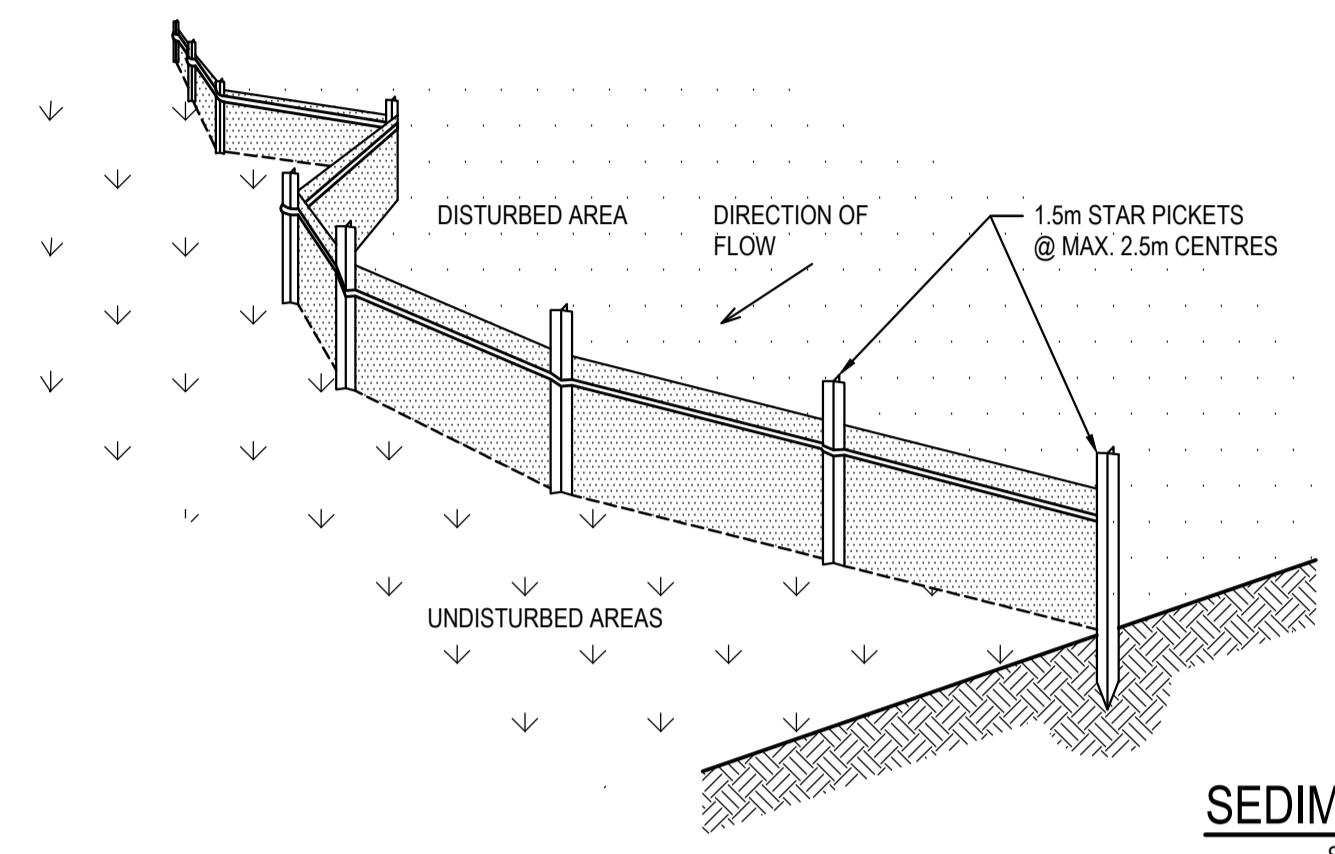
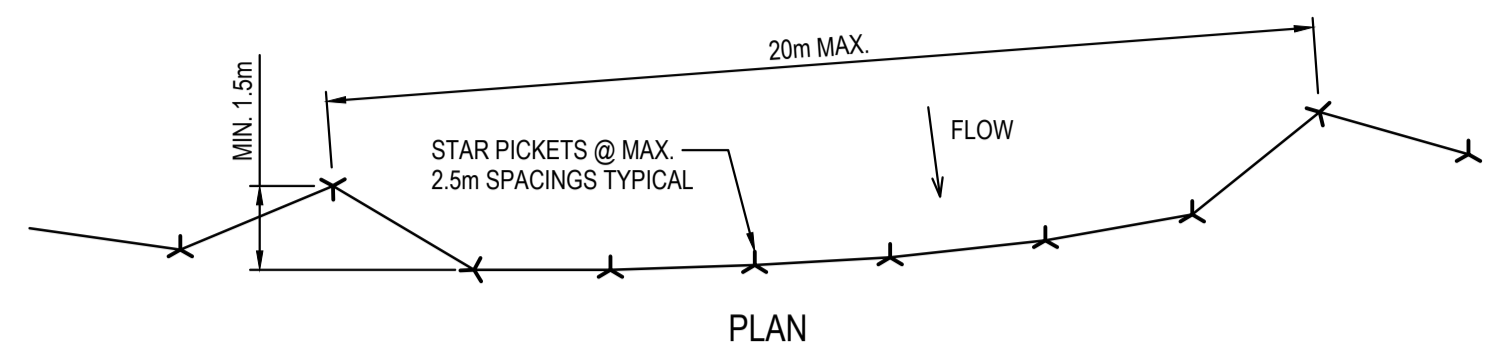
SEDIMENT & EROSION CONTROL PLAN

SCALE 1:250



FOR DA ONLY

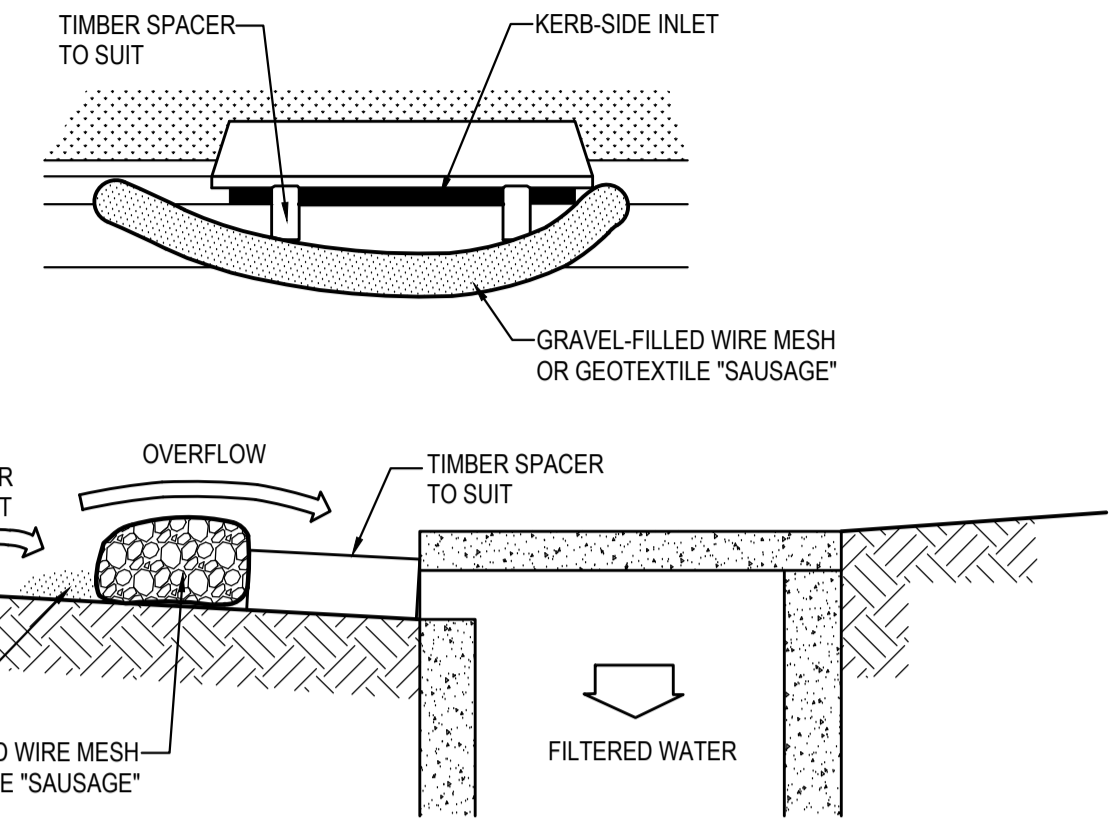
Client HomeCo				Project PROPOSED CENTRE BASED CHILDCARE 72 MULGOA ROAD, JAMISONTOWN, NSW			
Architect FIVE CANONS ARCHITECTURE				Drawn M.Stimova			
This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.				Designed T.Rozeznal			
Suite 2.01 828 Pacific Highway Gordon NSW 2012				Date SEP 2020			
Telephone +61 2 9417 8400				Checked T.Rozeznal			
Facsimile +61 2 9417 8337				Approved A.Francis			
Email email@hthconsult.com.au				Scale @A1 1:250 @ A1			
Web www.henryandhymas.com.au				Drawing number 20820_DA_SE01			
				Revision 01			
01	ISSUED FOR DA ONLY	MS	TR	04.09.2020			
REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DATE



SEDIMENT FENCE
SCALE N.T.S.

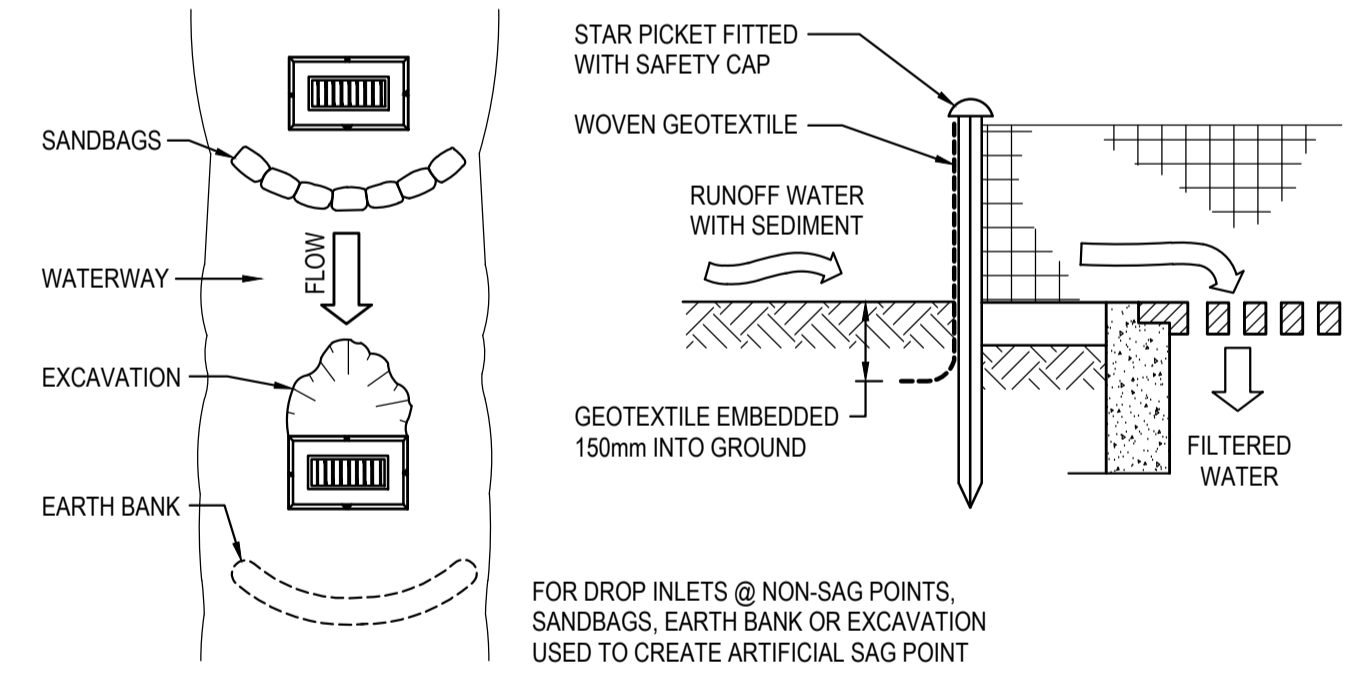
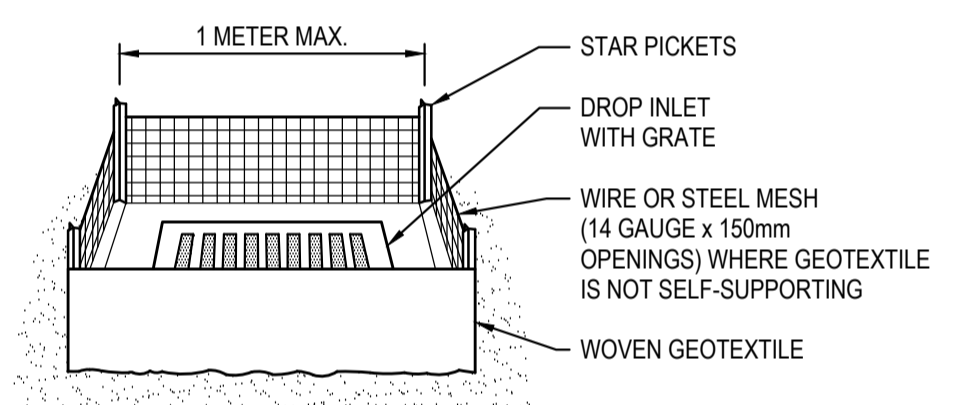
SEDIMENT FENCE CONSTRUCTION NOTES:

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND @ 2.5m INTERVALS (MAX.) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP. 6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.



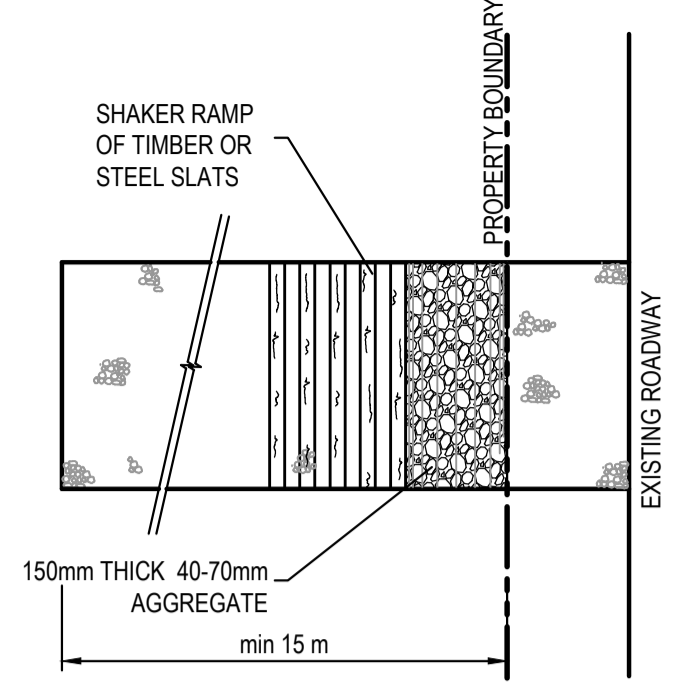
- MESH & GRAVEL INLET FILTER CONSTRUCTION NOTES:**
1. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
 2. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
 3. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
 4. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
 5. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY CAN FIRMLY ABUT EACH OTHER AND SEDIMENT / LADEN WATERS CANNOT PASS BETWEEN.

MESH & GRAVEL INLET FILTER
SCALE N.T.S.

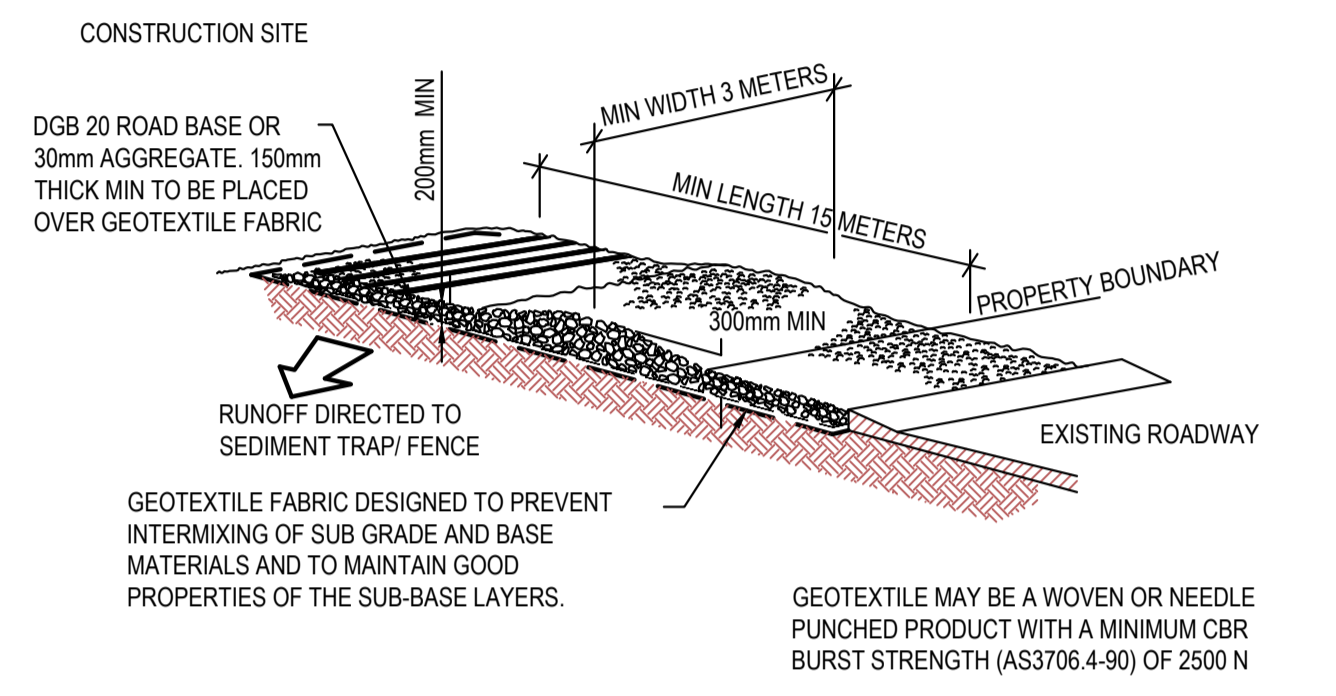


- GEOTEXTILE INLET FILTER CONSTRUCTION NOTES:**
1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE.
 2. PICKET SPACING TO BE MAXIMUM 1.0m.
 3. IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
 4. DO NOT COVER THE INLET WITH GEOTEXTILES UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

GEOTEXTILE INLET FILTER
SCALE N.T.S.



STABILISED SITE ACCESS WITH SHAKER RAMP
N.T.S.



STABILISED SITE ACCESS WITH SHAKER RAMP
N.T.S.

NOTES:

1. THIS DEVICE IS TO BE LOCATED AT ALL EXITS FROM CONSTRUCTION SITE.
2. THIS DEVICE IS TO BE REGULARLY CLEANED OF DEPOSITED MATERIAL SO AS TO MAINTAIN A 50mm DEEP SPACE BETWEEN PLANKS.
3. ANY UNSEALED ROAD BETWEEN THIS DEVICE AND NEAREST ROADWAY IS TO BE TOPPED WITH 100mm THICK 40-70mm SIZE AGGREGATE.
4. ALTERNATIVELY, THREE(3) PRECAST CONCRETE CATTLE GRIDS (AS MANUFACTURED BY *HUMES CONCRETE MAY BE USED. 1, 2 & 3 ABOVE ALSO APPLY.

CONSTRUCTION SEQUENCE

WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:

1. INSTALL SEDIMENT FENCING AND CUT DRAINS TO MEET THE REQUIREMENTS OF THE SEDIMENT AND EROSION CONTROL PLAN. WASTE COLLECTION BINS SHALL BE INSTALLED ADJACENT TO SITE OFFICE.
2. CONSTRUCT STABILISED SITE ACCESS IN ACCORDANCE WITH HORNSBY SHIRE COUNCIL'S REQUIREMENTS.
3. REDIRECT CLEAN WATER AROUND THE CONSTRUCTION SITE.
4. INSTALL SEDIMENT CONTROL PROTECTION MEASURES AT ALL NATURAL AND MAN-MADE DRAINAGE STRUCTURES. MAINTAIN UNTIL ALL THE DISTURBED AREAS ARE STABILISED.
5. CLEAR AND STRIP THE WORK AREAS. MINIMISE THE DAMAGE TO THE GRASS AND LOW GROUND COVER OF NON-DISTURBED AREAS.
6. ANY DISTURBED AREAS, OTHER THAN BUILDING PAD AREAS, SHALL IMMEDIATELY BE COVERED WITH SITE TOPSOIL WITHIN 7 DAYS OF CLEARING. BUILDING PAD AREAS SHALL BE COVERED WITH BITUMEN EMULSION AS SPECIFIED.
7. APPLY PERMANENT STABILISATION TO SITE (LANDSCAPING).

FOR DA ONLY

										Client HomeCo		Suite 2.01 828 Pacific Highway Gordon NSW 2072		Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@thconsult.com.au Web www.henryandhymas.com.au				Project PROPOSED CENTRE BASED CHILDCARE 72 MULGOA ROAD, JAMISONTOWN, NSW			Drawn M.Stimova		Designed T.Rozehnal		Date SEP 2020	
										Architect FIVE CANONS ARCHITECTURE				Title SEDIMENT & EROSION CONTROL DETAILS				Checked T.Rozehnal		Approved A.Francis		Scale @A1 AS NOTED				
01 ISSUED FOR DA ONLY REVISION AMENDMENT DRAWN DESIGNED DATE REVISION AMENDMENT DRAWN DESIGNED DATE										This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.										Drawing number 20820_DA_SE02			Revision 01			



henry&hymas

14 September 2020

Our Ref: 20820/tr

Jeckra
59 Belmont Road
Mosman NSW 2088

Attention: Rory Macleod

Dear Sir,

Re: CIVIL DESIGN STATEMENT FOR PROPOSED CHILDCARE DEVELOPMENT

**SUBJECT PREMISES: 72 MULGOA ROAD,
JAMISONTOWN NSW**

Pursuant to the provisions of the Clause A2.2 of the Building Code of Australia, I hereby certify that the above design is in accordance with best engineering practice and in our opinion meets the requirements of the Environmental Planning and Assessment Regulations of the Building Code of Australia, relevant Australian Standards and conditions of Development Consent. In particular, the design is in accordance with the following:

- AS3500.3 – ‘National Plumbing and Drainage Code’ – Part 3: Stormwater Drainage - 2015
- Australian Rainfall and Runoff, 1987 – Parts 1 & 2
- Penrith City Council’s – Stormwater Drainage Specification
- Landcom – Managing Urban Stormwater - Soils and Construction, Volume 1, 4th Edition March 2004

The stormwater engineering drawings listed on the following page have been designed in accordance with the relevant Australian Standards and codes of practice (listed above) and Council policies/regulations.





henry&hymas

20820_DA_C000	COVER SHEET, DRAWING SCHEDULE, NOTES & LOCALITY SKETCH	01
20820_DA_C100	GENERAL ARRANGEMENT PLAN	01
20820_DA_C200	STORMWATER MISCELLANEOUS DETAILS & PIT LID SCHEDULE	01
20820_DA_SE01	SEDIMENT & EROSION CONTROL PLAN	01
20820_DA_SE02	SEDIMENT & EROSION CONTROL DETAILS	01

Designer: Thomas Rozehnal (Civil Engineer)
 Qualifications: B.E. (Civil)
 Employer: H & H Consulting Engineers Pty Ltd
 Address: Level 5, 79 Victoria Ave CHATSWOOD
 Business Tel. No: 9417 8400 Fax No: 9417 8337

Independently
 reviewed and
 approved by:

Andrew Francis (Principal)
 Qualifications: B.E. (Civil)
 Employer: H & H Consulting Engineers Pty Ltd
 Address: Level 5, 79 Victoria Ave CHATSWOOD
 Business Tel. No: 9417 8400 Fax No: 9417 8337

Henry & Hymas Consulting Engineers possesses indemnity insurance to the satisfaction of the Client. However, this certificate shall not be construed in any way to relieve any other party of their responsibilities.

Yours faithfully,

THOMAS ROZEHNAL
 For, and on behalf of,
 H & H Consulting Engineers Pty Ltd