CIVIL DRAWINGS



DRAWING LIST DRAWING TITLE DRAWING NUMBER COVER SHEET, DRAWING INDEX AND LOCALITY PLAN GPPS-MHT-00-00-DR-C-1010 GPPS-MHT-00-00-DR-C-1020 STANDARD NOTES GPPS-MHT-00-00-DR-C-1060 **EROSION AND SEDIMENT CONTROL PLAN SHEET 1** GPPS-MHT-00-00-DR-C-1061 **EROSION AND SEDIMENT CONTROL PLAN SHEET 2** GPPS-MHT-00-00-DR-C-1065 **EROSION AND SEDIMENT CONTROL DETAILS** GPPS-MHT-00-00-DR-C-1070 **BULK EARTHWORKS PLAN SHEET 1** GPPS-MHT-00-00-DR-C-1071 **BULK EARTHWORKS PLAN SHEET 2** GPPS-MHT-00-00-DR-C-1080 BULK EARTHWORKS LONGITUDINAL SECTIONS GPPS-MHT-00-00-DR-C-1101 **CIVIL SITEWORKS PLAN SHEET 1** CIVIL SITEWORKS PLAN SHEET 2 GPPS-MHT-00-00-DR-C-1102 PAVEMENT PLAN SHEET 1 GPPS-MHT-00-00-DR-C-1110 PAVEMENT PLAN SHEET 2 GPPS-MHT-00-00-DR-C-1111 CIVIL DETAILS SHEET 1 GPPS-MHT-00-00-DR-C-1200 GPPS-MHT-00-00-DR-C-1201 CIVIL DETAILS SHEET 2 GPPS-MHT-00-00-DR-C-1710 STORMWATER DRAINAGE PIT SCHEDULE

ENVIRONMENTAL MANAGEMENT PLAN PRIOR TO THE COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL PREPARE A SITE MANAGEMENT PLAN FOR APPROVAL BY THE SUPERINTENDENT. ITEMS TO BE ADDRESSED INCLUDE:

- EROSION AND SEDIMENT CONTROL
- FLORA AND FAUNA CONSERVATION WATER QUALITY MANAGEMENT
- DUST CONTROL
- NOISE CONTROL
- ACCESS MANAGEMENT
- WASTE MANAGEMENT
- POLLUTION CONTROL MONITORING AND REPORTING
- CORRECTIVE ACTION

ATTENTION TO CONTRACTOR **OH & S REQUIREMENTS**

- IN ACCORDANCE WITH CLAUSE 15 OF AS2124-1992, THE CONTRACTOR MUST ENSURE THE SAFETY OF THE CONTRACTOR'S EMPLOYEES AND ALL OTHER PEOPLE WHO ARE ON OR ADJACENT TO THE SITE. THE CONTRACTOR MUST COMPLY WITH THE NSW WHS ACT
- THE CONTRACTOR MUST ENSURE THAT ALL PEOPLE EMPLOYED ON THE SITE WEAR APPROVED SAFETY APPAREL. THIS INCLUDES SAFETY HELMETS, SAFETY BOOTS, EAR AND EYE PROTECTION, WHERE APPROPRIATE.
- . THE CONTRACTOR IS NOT PERMITTED TO BREAK-IN TO AN EXISTING LIVE PIPELINE. ENTER A LIVE ACCESS CHAMBER OR REMOVE THE COVER TO A LIVE ACCESS
- 4. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING SERVICES IN WORKS AFFECTED AREAS PRIOR TO COMMENCING ANY WORKS.

THE CONTRACTOR SHALL BE

TOTALLY RESPONSIBLE FOR AND

AT ALL TIMES PROVIDE A SAFE

WORKING ENVIRONMENT IN THE

VICINITY OF THE SITE OF WORKS

IN FULL COMPLIANCE WITH THE

SAFETY REGULATIONS.

OCCUPATIONAL HEALTH AND

HEALTH AND SAFETY

- THE OBLIGATION OF MEINHARDT [OR OTHER RELEVANT MEINHARDT ENTITY] (MEINHARDT) AS THE DESIGN ENGINEER IS LIMITED TO ENSURING THAT THOSE PARTS OF THE BUILDING OR STRUCTURE THAT ARE TO BE USED AS A WORKPLACE ARE, AS FAR AS REASONABLY PRACTICABLE, DESIGNED TO BE SAFE AND WITHOUT RISKS TO THE HEALTH OF THOSE PERSONS USING THE BUILDING OR STRUCTURE AS A WORKPLACE FOR THE PURPOSE FOR WHICH IT WAS DESIGNED IN ACCORDANCE WITH SECTION 22 OF THE NSW WHS ACT 2011.
- MEINHARDT IS NOT RESPONSIBLE FOR THE OCCUPATIONAL HEALTH AND SAFETY OF PERSONS AT THE SITE AS THOSE OBLIGATIONS RESIDE WITH THE CONTRACTORS AND/OR SUB-CONTRACTORS WHO OCCUPY OR HAVE CONTROL OF THE SITE IN ACCORDANCE WITH APPLICABLE OCCUPATIONAL HEALTH AND SAFETY LEGISLATION, CODES OR PRACTICE, GUIDANCE NOTES, AUSTRALIAN STANDARDS AND OTHER RELEVANT DOCUMENTATION.
- ANY ADVICE OR GUIDANCE CONCERNING OCCUPATIONAL HEALTH AND SAFETY ISSUES ARISING AT THE SITE SHOULD BE DIRECTED TO THE HEALTH AND SAFETY EXECUTIVE OR

THIS PROJECT SHOULD BE READ IN CONJUNCTION WITH ALL OTHER SERVICES CONSULTANTS ASSOCIATED WITH THIS PROJECT BEFORE COMMENCEMENT OF ANY WORKS.

ALL EXISTING PROPERTY SERVICES' LOCATIONS AND DEPTHS ARE APPROXIMATE AND MUST BE VERIFIED ON SITE. THE CONTRACTOR SHOULD SUPPLY PRECISE LOCATIONS AND DEPTHS TO THE SUPERINTENDENT FOR REVIEW PRIOR TO ANY WORKS THAT MAY AFFECT THESE SERVICES.

GEOTECHNICAL DESIGN COMPLIANCE AND SITE INSPECTION ATTENDANCE

THESE DESIGN PLANS SHALL BE READ IN CONJUNCTION WITH GEOTECHNICAL REPORT No.A201023.0722.03 A v 1f DATED 28 FEBRUARY 2024 PREPARED BY ADE CONSULTING GROUP. THE PROVISIONS AND RECOMMENDATION CONTAINED WITHIN THE REPORT ARE TO BE STRICTLY COMPLIED WITH.

ALL COMPACTION REQUIREMENT RESULTS SHALL BE CARRIED OUT IN ACCORDANCE WITH GEOTECHNICAL REPORT RECOMMENDATIONS.

LATENT CONDITIONS (SUBGRADE IMPROVEMENTS)

ANY ADDITIONAL WORKS WHICH MAY LEAD TO A VARIATION SHALL BE APPROVED BY THE SUPERINTENDENT PRIOR TO THE COMMENCEMENT OF ANY WORKS AND INCLUDE THE FOLLOWING PROVISIONS:

- a) NOTIFICATIONS FOR INSPECTIONS TO SUPPORT POTENTIAL VARIATION CLAIMS REQUIRE MINIMUM 48 HOUR NOTICE PERIOD. (SITE REPRESENTATION WILL BE AT THE DISCRETION OF THE SUPERINTENDENT).
- b) SUBGRADE IMPROVEMENTS ARE TO BE MANAGED BY THE PROJECT GEOTECHNICAL ENGINEER WITH INPUT FROM THE SUPERINTENDENT. c) CONSULTANT COSTS FOR GEOTECHNICAL REPRESENTATION
- AND REPORTING TO BE BORNE BY THE CONTRACTOR d) ADDITIONAL INSPECTIONS BY THE SUPERINTENDENT TO SUPPORT VARIATION CLAIMS FOR LATENT CONDITIONS SHALL

BE BORNE BY CONTRACTOR



WARNING

PROPOSED SERVICES

THE LOCATION AND EXTENT OF PROPOSED SERVICES IS INDICATIVE ONLY AND ARE NOT TO BE USED FOR CONSTRUCTION. REFER TO AUTHORISED DOCUMENTATION BY RELEVANT AUTHORITY FOR CONSTRUCTION DETAILS

WARNING

THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

BEWARE OF UNDERGROUND SERVICES

100 % SCHEMATIC DESIGN ISSUE - WIP 100 % SCHEMATIC DESIGN ISSUE

REQUIREMENTS OF THOSE AUTHORITIES.

IMPORTANT NOTES

ON SITE, THE CONTRACTOR MUST VERIFY THE

FEASIBILITY OF THE OUTFALL STORMWATER

FORMING THE LEGAL POINT OF DISCHARGE

DISCHARGE AS DOCUMENTED BY:

OTHER AUTHORITY SERVICES.

SUPERINTENDENT.

DRAINAGE SYSTEM/S TO THE LEGAL POINT OF

- VERIFICATION OF THE INVERT LEVEL OF THE DRAIN

- VERIFICATION THAT THE ROUTE FROM THE SITE TO

CONTRACTOR MUST IMMEDIATELY NOTIFY THE

THE LEGAL POINT/S OF DISCHARGE IS CLEAR OF ALL

IF EITHER OF THE ABOVE CANNOT BE VERIFIED. THE

PRIOR TO THE COMMENCEMENT OF ANY WORKS, THE

SERVICES, NOTIFY THE AUTHORITIES RESPONSIBLE FOR

CONTRACTOR SHALL LOCATE ALL UNDERGROUND

THOSE SERVICES AND COMPLY WITH ALL OF THE

PRIOR TO THE COMMENCEMENT OF BUILDING WORKS

MEIN-ARDT Meinhardt Infrastructure and Environment PTY. LTD. A.C.N. 051 627 591

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School Infrastructure NSW

COVER SHEET, DRAWING INDEX

AND LOCALITY PLAN

SCHEMATIC DESIGN

GREENWAY PARK PRE SCHOOL

WYATTVILLE DRIVE, CARNES HILL NSW 2171

NOT TO BE USED FOR CONSTRUCTION

DRAWN DESIGNED CHECKED APPROVED DATE SCALE @ A M.D G.P N.T.S GPPS-MHT-00-00-DR-C-1010 P2

DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT

1.2 IF ANY DISCREPANCY OCCURS ON THE DRAWINGS OR BETWEEN THE DRAWINGS AND SPECIFICATION. THE TENDERER SHALL DURING TENDER REFER THE DISCREPANCY TO THE SUPERINDENDENT. OR ASSUME THAT THE DRAWINGS TAKE PRECEDENCE OVER THE SPECIFICATION. ANY DISCREPANCY SHALL BE REFERRED TO THE SUPERINTENDENT FOR WRITTEN CLARIFICATION BEFORE PROCEEDING WITH THE WORK.

1.3 THESE DRAWINGS MUST NOT BE SCALED.

PRIOR TO PROCEEDING WITH WORKS.

1.4 ALL DIMENSIONS AND REDUCED LEVELS MUST BE VERIFIED ON SITE BEFORE THE COMMENCEMENT OF ANY WORK.

1.5 THE CONTRACTOR SHALL SET OUT THE WORKS FROM THE NOMINATED DESIGN LINES, SURVEY BENCHMARKS AND CONTROL POINTS SHOWN ON THE PLANS AND TO THE SPECIFIED DETAILS. UPON REQUEST AN ELECTRONIC BASE PLAN OF THE CIVIL DRAWING CAN BE SUPPLIED FOR INFORMATION, MEINHARDT HOLDS NO LIABILITY TO THE ACCURACY OF ELECTRONIC FILES.

1.6 ALL LEVELS SHOWN ARE TO THE AUSTRALIAN HEIGHT DATUM AND ALL COORDINATES ARE TO MAP GRID OF AUSTRALIA (MGA 2020).

1.7 ALL SPOT LEVELS SHOWN ARE TO INVERT (FACE) OF KERB OR EDGE OF PAVEMENT WHERE APPLICABLE, UNLESS SHOWN OTHERWISE.

1.8 EXISTING SURFACE CONTOURS, WHERE SHOWN, ARE INTERPOLATED AND MAY NOT BE ACCURATE

1.9 GRADE EVENLY BETWEEN FINISHED SURFACE SPOT LEVELS. FINISHED SURFACE CONTOURS ARE SHOWN FOR CLARITY. WHERE FINISHED SURFACE LEVELS ARE NOT SHOWN, THE SURFACE SHALL BE GRADED SMOOTHLY SO THAT IT WILL DRAIN AND MATCH ADJACENT SURFACES OR STRUCTURES.

1.10 MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN AND RESPONSIBLE AUTHORITY STANDARDS.

1.11 THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS OF AUTHORITIES HAVING JURISDICTION OVER THE WORKS.

1.12 ONLY SUBSTITUTIONS APPROVED IN WRITING BY THE SUPERINTENDENT SHALL BE ACCEPTED.

1.13 ALL WORKS WITHIN THE ROAD RESERVE SHALL BE IN ACCORDANCE WITH THE RESPONSIBLE ROAD AUTHORITY SPECIFICATIONS AND DRAWINGS AND ENGINEERING, DESIGN AND CONSTRUCTION MANUAL/S.

1.14 SERVICE INFORMATION SHOWN IS BASED ON PLANS SUPPLIED BY AUTHORITIES AND IS APPROXIMATELY ONLY, PRIOR TO COMMENCEMENT OF ANY WORKS, THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND SERVICES AND COMPLY WITH ALL REQUIREMENTS OF THOSE AUTHORITIES.

1.15 WHERE CIVIL DRAWINGS HAVE BEEN PROVIDED IN AUTOCAD OR DIGITAL FORMAT. THE CONTRACTOR SHALL UTILISE THESE FOR INFORMATION ONLY. DESIGN DRAWINGS ARE TO BE REFERENCED FOR SURFACE LEVELS AND WILL TAKE PRECEDENCE FOR SETOUT OVER 3D MODELS. ANY INFORMATION EXTRACTED FROM 3D MODELS ARE TO BE CROSSCHECKED WITH FORMALLY ISSUED PDF FILES AND SITE CONDITIONS, IF ANY DISCREPANCIES EXIST, THE SUPERINTENDENT IS TO BE CONSULTED FOR REVIEW.

1.16 SHOP DRAWING REVIEW OF SUBCONTRACTOR DRAWINGS ARE NOT WITHIN THE CIVIL SCOPE. WHERE SHOP DRAWINGS ARE PRODUCED, MEINHARDT DOES NOT TAKE ANY RESPONSIBILITY TO THE SUITABILITY OF ACCURACY OF THESE DRAWINGS.

1.17 THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF ALL TEMPORARY WORKS.

2. EARTHWORKS AND GEOTECHNICAL

2.1 THE CONTRACTOR SHALL COMPLY WITH THE CURRENT EDITIONS OF THE FOLLOWING ROAD AUTHORITY AND AUSTRALIAN STANDARDS: - AS 1289 TESTING SOILS FOR ENGINEERING PURPOSES - AS 3798 GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS

- ROAD AUTHORITY SPECIFICATION - SITE CLEARING

2.2 GRANULAR MATERIAL SPECIFIED AS PER GEOTECHNICAL REPORT SUBJECT TO SUPERINTENDENT'S APPROVAL.

2.3 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CARRYING OUT ALL CONTROL AND COMPLIANCE EXAMINATION AND TESTING OF MATERIALS AND WORK. UNLESS OTHERWISE SPECIFIED, ALL TESTS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE APPROPRIATE AUSTRALIAN STANDARD TEST METHOD. WHERE THERE IS NO RELEVANT AUSTRALIAN STANDARD TEST METHOD THEN THE CURRENT APPROPRIATE ROAD AUTHORITY TEST METHOD OR OTHER SPECIFIED TEST METHOD SHALL BE USED. ALL TESTS SHALL BE CONDUCTED BY EXPERIENCED TESTING OFFICERS IN A LABORATORY ACCREDITED BY THE NATIONAL ASSOCIATION OF TESTING AUTHORITIES (NATA).

2.4 DETERMINATION OF THE NATURE AND QUANTITY(IES) OF THE EXISTING SITE MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR (GEOTECHNICAL REPORT PREPARED BY OTHERS).

THE GEOTECHNICAL REPORT WAS USED AS THE BASIS OF DESIGN. INTERPRETATION OF THE REPORT/S SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL ENGAGE THEIR OWN GEOTECHNICAL ENGINEER DURING CONSTRUCTION TO VERIFY ACTUAL SITE CONDITIONS.

2.5 THE CONTRACTOR SHALL BE DEEMED TO HAVE ALLOWED IN THE CONTRACT SUM FOR EXCAVATION IN ALL MATERIAL, NO ADDITIONAL PAYMENT SHALL BE MADE FOR EXCAVATION IN ROCK NOR ANY HARD

SUITABLE MATERIAL EXCAVATED FROM THE SITE MAY BE USED AS FILL ONLY WHERE APPROVED IN WRITING BY THE SUPERINTENDENT, OR WHERE SHOWN ON THE DRAWINGS IMPORTED FILL SHALL BE APPROVED MATERIALS COMPRISING GRANULAR IGNEOUS WEATHERED ROCK OR QUARRY WASTE (SUCH AS 40mm CLASS 3 OR CLASS 4), SANDY CLAY OR WEATHERED SEDIMENTARY ROCK. THE FILL MATERIAL MAXIMUM PARTICLE SIZE

AFTER COMPACTION SHALL NOT EXCEED 40mm, NOT LESS THAN 50% OF THE MATERIAL SHALL BE COARSER THAN 75 MICRON AND IT SHALL HAVE A LIQUID LIMIT NOT EXCEEDING 35%. GRANULAR MATERIAL SHALL BE WELL GRADED.

UNSUITABLE MATERIAL SHALL MEAN ANY MATERIAL WHICH CONTAINS VEGETABLE MATTER, ROOTS, STUMPS AND OR ANY OTHER PERISHABLE, FOREIGN OR DELETERIOUS MATTER, OR CONTAINS CLAY HAVING A LIQUID LIMIT EXCEEDING 80% AND OR A PLASTICITY INDEX EXCEEDING 50% OR CONTAINS ROCK, GRAVEL OR OTHER PIECES WHOSE LEAST DIMENSION EXCEEDS 100mm, OR IS SILTY MATERIAL OR IS OTHERWISE CONSIDERED AS BEING UNSUITABLE.

2.6 WHEN A SURFACE IS UNABLE TO SUPPORT CONSTRUCTION EQUIPMENT OR IT IS NOT POSSIBLE TO COMPACT THE OVERLYING MATERIALS BECAUSE OF HIGH MOISTURE CONTENT, THEN ONE OR MORE OF THE FOLLOWING ALTERNATIVE ACTIONS MAY BE TAKEN: A) ALLOW THE MATERIAL TO DRY TO A MOISTURE CONTENT WHICH ALLOW IT TO BE COMPACTED AND ALLOW THE PLACEMENT AND COMPACTION OF OVERLYING MATERIAL

B) SCARIFY THE MATERIAL TO A DEPTH OF 200mm AND WORK AS NECESSARY TO ACCELERATE DRYING. RECOMPACT AS SPECIFIED WHEN MOISTURE CONTENT APPROXIMATES OPTIMUM EXCAVATE AND REPLACE THE SOFT MATERIAL THE ACTION TO BE ADOPTED SHALL BE AT THE CONTRACTOR'S DISCRETION AND EXPENSE, BUT SHALL BE ADVISED TO THE SUPERINTENDENT BEFORE ACTION COMMENCES. IF THE CONTRACTOR ELECTS PURSUANT TO (A) ABOVE TO ALLOW THE MATERIAL TO DRY, RESULTING DELAYS, IF ANY, SHALL NOT CONSTITUTE GROUNDS FOR AN EXTENSION OF CONTRACT PERIOD OR DATE OF PRACTICAL COMPLETION.

2.7 THE NATURAL SUBGRADE SHALL BE MOISTURE CONDITIONED TO WITHIN THE RANGE 98% TO 102% OF STANDARD OPTIMUM MOISTURE CONTENT AND COMPACTED TO ACHIEVE A MINIMUM STANDARD DRY DENSITY RATIO TO A MINIMUM DEPTH OF 200mm. IF REQUIRED THE AREA SHOULD BE TYNED AND SCARIFIED FULL DEPTH TO FACILITATE THIS PROCESS.

2.8 ANY SOFT, WEAK OR UNSTABLE AREAS EXPOSED BY THE COMPACTION PROCESS, OR DURING TEST ROLLING, AND WHICH DO NOT RESPOND TO FURTHER COMPACTION OR MOISTURE CONDITIONING SHALL BE EXCAVATED AND REPLACED. THE CONTRACTOR SHALL BE DEEMED TO HAVE ASSESSED THE EXTENT OF UNSTABLE AREAS AND SHALL BE DEEMED TO HAVE INCLUDED IN THE CONTRACT SUM FOR ALL ACTIVITIES REQUIRED FOR UNSTABLE AREA RECTIFICATION INCLUDING THE DELIVERY PLACING AND COMPACTING OF APPROVED MATERIAL AS WELL AS THE EXCAVATION AND DISPOSAL OF REPLACED MATERIAL

2.9 THE FINISHED SUBGRADE SHALL NOT BE DISTURBED BY TRAFFIC OR OTHER OPERATIONS, AND SHALL BE PROTECTED AND MAINTAINED BY THE CONTRACTOR UNTIL THE FIRST LAYER OF FILL OR SUB-BASE IS PLACED THEREON. THE SUBGRADE SHALL BE KEPT DRAINED AND COMPLETELY FREE OF STANDING WATER AT ALL TIMES. THE CONTRACTOR SHALL PLAN AND CARRY OUT THE WHOLE OF THE WORKS TO MINIMISE THE EFFECTS OF RUN-OFF AND EROSION ON THE SITE AND ON DOWNSTREAM AREAS. THE CONTRACTOR SHALL AVOID UNNECESSARY GROUND DISTURBANCE AND PROVIDE AS NECESSARY FOR THE PROPER CONTROL OF STORMWATER RUN-OFF AT EVERY STAGE OF THE WORKS.

2.10 ALL FILL AND PAVEMENT MATERIALS SHALL BE COMPACTED IN LAYERS NOT EXCEEDING A MAXIMUM LOOSE THICKNESS OF 250mm TO THE DENSITIES SPECIFIED BELOW:

A) LANDSCAPED AREAS 95% STANDARD DRY DENSITY B) FILL UNDER ANY FOOTINGS AND FLOOR SLABS FOR ANY STRUCTURE 98% MODIFIED DRY DENSITY

- FINE CRUSHED ROCK C) FILL UNDER ROAD PAVEMENTS - FINE CRUSHED ROCK D) ROAD PAVEMENT MATERIALS - SUBBASE AND BASE COURSE 98% MODIFIED DRY DENSITY

UNSATISFACTORY RESULTS.

98% MODIFIED DRY DENSITY

2.11 WHERE EXCAVATED MATERIAL IS NOT SUITABLE FOR FILLING. "IMPORTED FILL" SHALL BE USED. COMPACT IMPORTED BULK FILL IN LAYERS OF 150mm MAXIMUM COMPACTED DEPTH AND AT OPTIMUM MOISTURE CONTENT. THE CONTRACTOR SHALL CARRY OUT TESTING AT A FREQUENCY WHICH IS SUFFICIENT TO ENSURE THAT THE MATERIALS AND WORK SUPPLIED UNDER THE CONTRACT COMPLIES WITH THE SPECIFIED REQUIREMENTS AND CONFORMING TO AS3798

2.12 EXCAVATION TO THE LINES, LEVELS AND GRADES AS REQUIRED FOR UNDERGROUND SERVICES SPECIFIED IN THE RELEVANT SERVICES SECTIONS, INCLUDING DRAINAGE, HYDRAULIC, ELECTRICAL AND THE LIKE. UNLESS OTHERWISE SPECIFIED MAKE THE TRENCHES STRAIGHT BETWEEN MANHOLES. INSPECTION POINTS, JUNCTIONS AND THE LIKE, WITH VERTICAL SIDES AND UNIFORM GRADES. DEPTH SHALL BE AS REQUIRED BY THE RELEVANT SERVICES AND ITS BEDDING. CUT BACK ROOTS ENCOUNTERED IN TRENCHES TO LESS THAN 600mm CLEAR OF THE RELEVANT SERVICE. REMOVE SUCH OTHER OBSTRUCTIONS INCLUDING ROOTS, STUMPS, BOULDERS, REDUNDANT SERVICES AND THE LIKE WHICH MAY, IN THE

TABLE 8.1 (ADOPTING WHICHEVER GIVES THE MOST TEST RESULTS).

NO FILL SHALL BE PLACED OVER LAYERS NOT TESTED AND HAVING

OPINION OF THE SUPERINTENDENT, INTERFERE WITH THE PROPER FUNCTIONING OF THE SERVICE. LAY AND BED SERVICES IN ACCORDANCE WITH THE RELEVANT

SERVICES SPECIFICATION SECTION.

2.13 BACKFILL AND COMPACT SERVICE TRENCHES AS SOON AS POSSIBLE AFTER APPROVAL OF LAID AND BEDDED SERVICE. COMPACT BACKFILL IN PIPE TRENCHES SO THAT THE PIPE IS BUTTRESSED BY THE WALLS OF THE TRENCH.

2.14 WHERE FILLING IS DESIGNATED BY THE CONTRACT OR IS SHOWN ON THE DRAWINGS AS STRUCTURAL OR CONTROLLED FILL THE CONTRACTOR SHALL ENGAGE AN INDEPENDENT GEOTECHNICAL TESTING AUTHORITY TO SUPERVISE SUBGRADE PREPARATION, FILL PLACEMENT, COMPACTION AND TO UNDERTAKE SAMPLING AND TESTING AND REPORTING TO SATISFY THE REQUIREMENTS OF THIS SPECIFICATION AND THOSE OF AS 2870 AND AS 3798, FOR CONTROLLED FILL.

2.15 UNLESS OTHERWISE PERMITTED, NO FILLING SHALL BE PLACED AGAINST ANY STRUCTURES, WING WALLS OR RETAINING WALLS WITHIN FOURTEEN DAYS OF CASTING. STRUT WALLS AS NECESSARY TO PREVENT MOVEMENT DURING PLACING AND COMPACTION. PLACE AND COMPACT FILLING OVER AND AROUND PIPES, CULVERTS. BRIDGES AND OTHER STRUCTURES SO AS TO AVOID UNBALANCED LOADING OR MOVEMENT. UNLESS OTHERWISE DETAILED BACKFILL AT STRUCTURES SHALL BE FILLED AS FOLLOWS: A) WHERE THE GAP BETWEEN THE STRUCTURE AND UNDISTURBED GROUND EXCEEDS 2m, BACKFILL THE ZONE WITHIN 2m OF THE STRUCTURE WITH CLASS 3 FINE CRUSHED ROCK AND BACKFILL IN THE ZONE BEYOND 2m OF THE STRUCTURE WITH SELECT FILL TO THE APPROVAL OF THE SUPERINTENDENT OR CLASS 3 FINE CRUSHED ROCK. UNLESS OTHERWISE DETAILED, MATERIAL WITHIN 300mm OF WEEPHOLES SHALL BE AN APPROVED GRANULAR FILTER MEDIUM OF COARSE SAND OR CRUSHED STONE WRAPPED AND SURROUNDED WITH AN APPROVED GEOTEXTILE SEPARATION LAYER.

2.16 AREAS UPON WHICH FILL IS TO BE CONSTRUCTED, ALL LAYERS OF FILLING, AND MATERIALS LESS THAN 150mm BELOW PERMANENT SUBGRADE LEVEL IN CUT, SHALL BE COMPACTED SO AS TO BE CAPABLE OF WITHSTANDING TEST ROLLING, WITHOUT VISIBLE DEFORMATION OR SPRINGING, WITH A PNEUMATIC TYRED ROLLER OR HIGHWAY TRUCK BALLASTED TO COMPLY WITH THE FOLLOWING: A) PNEUMATIC TYRED - NOT LESS THAN 3t PER TYRE WITH TYRES INFLATED TO 550 kPa.

B) HIGHWAY TRUCK - WITH REAR AXLE OR AXLES LOADED TO NOT LESS THAN 8t EACH WITH TYRES INFLATED TO 550 kPa TEST ROLLING SHALL BE CARRIED OUT IMMEDIATELY BEFORE OVERLYING LAYERS ARE PLACED.

WHERE TEST ROLLING IS REQUIRED AT SOME LATER DATE, THE SURFACE SHALL BE MOISTURE CONDITIONED AS REQUIRED AND GIVEN NOT LESS THAN FOUR COVERAGES OF THE TEST ROLLER BEFORE TEST ROLLING COMMENCES.

2.17 THE WORK SHALL NOT BE ACCEPTED AS COMPLETE UNLESS ALL TEST RESULTS ARE PROVIDED TO THE SUPERINTENDENT AND APPROVED. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL PROPERTY AND QUALITY TEST RESULTS TO THE SUPERINTENDENT

3.1 ALL EXISTING REDUNDANT CONCRETE, PAVEMENT, SOIL, RUBBISH AND CONSTRUCTION DEBRIS SHALL BE TAKEN UP AND REMOVED

3.2 PRIOR TO COMPLETION, THE CONTRACTOR SHALL ENSURE THE SITE OF WORKS IS TIDIED AND OBTAIN A CLEARANCE FROM THE SUPERINTENDENT.

3.3 APPROPRIATE CLEANING FACILITIES WILL BE INSTALLED ON SITE TO ENSURE THERE IS NO MUD. SOIL OR DEBRIS DEPOSITED BY VEHICLES ON ABUTTING PUBLIC ROADS.

3.4 SITE ACCESS ROADS AND ABUTTING PUBLIC ROADS TO BE REGULARLY SWEPT TO KEEP THEM CLEAN AND DEBRIS FREE.

4. STORMWATER DRAINAGE

4.1 ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE CURRENT EDITIONS OF THE FOLLOWING AUSTRALIAN STANDARDS. - AS 1260 UNPLASTICISED PVC (UPVC) PIPES AND FITTINGS FOR SEWERAGE APPLICATIONS.

- AS 1597 PRECAST REINFORCED CONCRETE BOX CULVERTS PART 1, SMALL CULVERTS (NOT EXCEEDING 1200mm WIDTH AND 900mm

DEPTH). - AS 1631 CAST IRON NON-PRESSURE PIPES AND PIPE FITTINGS - AS 1650 GALVANISED COATINGS - AS 1657 FIXED PLATFORMS, WALKWAYS, STAIRWAYS AND LADDERS

- AS 2032 CODE OF PRACTICE FOR INSTALLATION OF UPVC PIPE SYSTEMS - AS 2439 PERFORATED PLASTICS DRAINAGE AND EFFLUENT PIPE FITTINGS. PART 1, PERFORATED DRAINAGE PIPE AND ASSOCIATED

FITTINGS - AS 3500.3 NATIONAL PLUMBING AND DRAINAGE CODE, PART 3, STORMWATER DRAINAGE

- AS 3725 LOADS ON BURIED CONCRETE PIPES - AS 3996 METAL ACCESS COVERS, ROAD GRATES AND FRAMES - AS 4058 PRECAST CONCRETE PIPES (PRESSURE AND NON-PRESSURE) - AS 4139 FIBRE REINFORCED CONCRETE PIPES AND FITTINGS

4.2 ALL BEDDING TO BE TYPE H2 IN ACCORDANCE WITH AS3725 UNLESS NOTED OTHERWISE.

4.3 THE CONTRACTOR SHALL COMPLY WITH THE 'MINES (TRENCHES) REGULATIONS 1982' FOR ALL SHORING, SUPPORT OF TRENCHES. QUALIFICATIONS OF PERSONNEL AND NOTIFICATION TO THE RESPONSIBLE AUTHORITY.

4.4 TRENCHES MUST BE KEPT CLEAR OF WATER AT ALL TIMES AND TIMBERED >1m DEPTH WHERE NECESSARY TO PREVENT COLLAPSE.

4.5 SUITABLE SAFETY BARRIERS SHALL BE PROVIDED AROUND THE EXCAVATION AT ALL TIMES. THE BARRIERS SHALL BE SUITABLY ILLUMINATED OVERNIGHT TO THE SATISFACTION OF THE SUPERINTENDENT.

STANDARD CIVIL NOTES

4.6 PIPES SHALL BEAR EVENLY ON THE BED PREPARED AS SPECIFIED ABOVE AND LAID WITH THE SOCKETS POINTED UPGRADE. ALL PIPES SHALL BE LAID IN STRAIGHT LINES, TO TRUE INVERT LEVELS AND GRADES AS SHOWN ON PLANS. EACH PIPE SHALL BE SEPARATELY LEVELLED BETWEEN ACCURATELY ESTABLISHED GRADE POINTS. THE CONTRACTOR SHALL ADHERE TO THE DRAWINGS AND SHALL NOT BE PERMITTED TO VARY THE LINE, LEVELS OR LOCATION OF THE DRAIN WITHOUT THE SUPERINTENDENT'S WRITTEN APPROVAL.

4.7 ALL PIPE JOINTING SHALL BE CARRIED OUT IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN SPECIFICATIONS FOR THE TYPE OF PIPE BEING USED.

4.8 FOR REACTIVE CLAY SITES, ALL STORMWATER DRAINAGE CONNECTIONS SHALL BE PROVIDED WITH A MECHANICAL FLEXIBLE JOINT AT THE INTERFACE BETWEEN THE STRUCTURE AND IN-GROUND PIPE INSTALLATION.

4.9 WHERE ANY PIPE IS CUT INTO A LARGER PIPE, SUCH CONNECTION SHALL BE NEATLY MADE AND NO PART OF THE PIPE OR DOWNPIPE SHALL BE ALLOWED TO PROJECT. ANY CUT-IN JUNCTION SHALL BE MADE IN THE TOP HALF OF THE LARGER PIPE. SUCH JUNCTION TO CONCRETE PIPES SHALL BE SURROUNDED WITH A NEAT COLLAR OF CEMENT MORTAR AS DIRECTED BY THE SUPERINTENDENT OR AS DETAILED ON THE DRAWINGS. JUNCTIONS BETWEEN PVC PIPES SHALL USE PROPRIETY FITTINGS INTENDED FOR THE PURPOSE.

4.10 THE ENDS OF PIPES WHICH CONNECT WITH SIDE ENTRY, JUNCTION OR OTHER PITS SHALL BE NEATLY CUT TO FIT THE INNER FACE OF THE CONCRETE. WHERE UPVC PIPES ENTER/LEAVE PITS A RUBBER RING JOINT MANHOLE COUPLING SHALL BE CAST INTO THE PIT WALL.

4.11 ALL PITS AND ENDWALLS SHALL BE CONSTRUCTED IN THE POSITIONS AND TO THE LEVELS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE SUPERINTENDENT. PIT COVERS SHALL BE PLACED IN ACCORDANCE WITH THE DETAIL SITE PLANS AND PIT SCHEDULE (IF PROVIDED) IN REGARD TO TYPE,

SIZE, LOCATION AND LEVEL. THE BASE OF EACH PIT SHALL BE INFILLED AND SHAPED WITH CONCRETE OR CEMENT MORTAR TO PROVIDE A SMOOTH FLOW

PIT COVER LEVELS ARE SHOWN FOR GUIDANCE ONLY. THE CONTRACTOR SHALL ALLOW TO CONSTRUCT THE COVERS ON A SLOPE AS REQUIRED TO SUIT THE FINAL SURFACE SHAPES AND

4.12 ALL DRAINAGE TO BE SETOUT A MINIMUM OF 1000mm FROM ADJACENT BUILDINGS UNLESS NOTED OTHERWISE.

4.13 ALL DRAINAGE PITS TO BE EITHER CAST IN-SITU CONCRETE PITS AS DETAILED OR AN APPROVED PRECAST PIT COMPLYING WITH THE RELEVANT AUSTRALIAN STANDARDS. CONTRACTOR TO OBTAIN APPROVAL FROM THE MAINTAINING AUTHORITY TO INSTALL PRECAST PITS. PITS LOCATED IN GROUND WATER OR COASTAL AREAS SHALL HAVE MINIMUM 80mm COVER TO REINFORCEMENT AT ALL FACES.

4.14 UNLESS NOTED OTHERWISE, ALL DRAINAGE PITS SHALL BE FITTED WITH BOLT-DOWN CONCRETE INFILL COVERS AND/OR FABRICATED STEEL GRATES COMPLYING WITH AS 3996 AS REQUIRED. OR AS DIRECTED BY SUPERINTENDENT.

4.15 UNLESS NOTED OTHERWISE, ALL PIT COVERS SHALL MEET THE FOLLOWING MINIMUM CLASS: CLASS B FOR PITS WITHIN LANDSCAPING OR AREAS NOT SUBJECT TO VEHICLE TRAFFIC CLASS C FOR PITS WITHIN LIGHT-VEHICLE TRAFFICKED AREAS AND

PRIVATE ROADWAYS CLASS D FOR PITS WITHIN HEAVY-VEHICLE TRAFFICKED AREAS AND/OR PUBLIC ROADWAYS

IF ANY DISCREPANCY EXISTS BETWEEN THE ABOVE AND THE PIT SCHEDULE DRAWING, THE DISCREPANCY SHALL BE REFERRED TO THE SUPERINTENDENT FOR REVIEW AND DIRECTION.

4.16 CONTRACTOR TO ALLOW TO FINISH PITS FLUSH WITH SURROUNDING LEVELS ON COMPLETION. COVER LEVELS ON THE DRAWINGS AND PIT SCHEDULE ARE TO THE CENTER OF THE PIT AND MAY BE MODIFIED ONSITE ± 20mm TO MEET CONSTRUCTION TOLERANCES AND FINISHED PAVEMENT LEVELS.

4.17 ALL DOWNPIPES SHALL BE CONNECTED TO THE END OF A PIPE OR ELBOW AND WHICH THEY SHALL ENTER CENTRALLY. WHERE PVC DOWNPIPES AND UNDERGROUND DRAINAGE ARE USED. THE DOWNPIPES SHALL BE CONNECTED TO THE UNDERGROUND DRAINS WITH SUITABLE STANDARD FITTINGS, BENDS ETC AND WITH SOLVENT JOINTS. THE CONTRACTOR SHALL LAY AND GRADE DRAINS FROM DOWNPIPES TO COMPLY WITH THE REQUIREMENTS FOR PIPE MATERIAL AND COVER REQUIRED BY AS3500.3. WHERE THE REQUIREMENTS OF AS3500.3 CANNOT BE MET THE CONTRACTOR SHALL REFER THE MATTER TO THE SUPERINTENDENT.

4.18 UNLESS NOTED OTHERWISE, ALL DOWNPIPES & GRATED INLETS SHALL BE CONNECTED TO PITS OR MAIN STORMWATER DRAINS WITH PVC SN8 OR SN10 OF THE FOLLOWING SIZES LAID AT MINIMUM GRADE OF 1 IN 100:

A) 100Ø SN10 FOR DOMESTIC CONSTRUCTION B) 150Ø SN8 FOR COMMERCIAL/INDUSTRIAL CONSTRUCTION C) 100Ø SN10 FOR BASEMENT GRATED INLETS D) IF U.P.V.C. OR OTHER PIPES ARE TO BE USED, APPROVAL MUST BE GIVEN BY THE SUPERINTENDENT

E) GREEN STAR PROJECTS SHALL SUBSTITUTE PVC WITH APPROVED EQUIVALENT HDPE OR PP PIPES.

4.19 ALL IN GROUND DOWNPIPE CONNECTIONS ARE TO BE 150Ø UPVC OR EQUAL TO THE DOWNPIPE SIZE, WHICHEVER IS GREATER, UNLESS SHOWN OTHERWISE. DOWNPIPE CONNECTIONS TO THE MAIN STORMWATER DRAINAGE SHALL BE VIA A 45° OBLIQUE JUNCTION OR BANDAGE JOINT AS DETAILED OR DIRECT TO A STORMWATER PIT. SUSPENDED DOWNPIPE CONNECTIONS WITHIN THE BUILDING ARE TO BE SUPPORTED WITH APPROVED HANGERS AT 1.2m CENTRES. THE ALIGNMENT OF SUSPENDED DRAINS IS SCHEMATIC ONLY. THE FINAL

ALIGNMENT IS TO COMPLY WITH THE ARCHITECTURAL PLANS.

C) CLASS 2 F.R.C. OR SHOWN OTHERWISE ON PLAN TO AS4139

BE GIVEN BY THE SUPERINTENDENT.

OTHERWISE.

D) IF U.P.V.C. OR OTHER PIPES ARE TO BE USED, APPROVAL MUST

E) ALL STORMWATER DRAINAGE PIPES 225Ø AND LESS TO BE SEWER

QUALITY UPVC WITH SOLVENT WELDED JOINTS, UNLESS NOTED

HYDRAULIC DRAWINGS FOR SIZE OF ALL CONNECTIONS BETWEEN

DOWNPIPES AND MAIN STORMWATER DRAINS. THE CONNECTOR TO

RESERVE AND CLASS 400 UPVC AGI (AG) DRAINS ELSEWHERE WITH

20mm N.S. SCREENINGS BACKFILL SHALL BE INSTALLED BEHIND ALL

KERBING AND RETAINING WALLS UNLESS OTHERWISE NOTED, AT

MINIMUM GRADE OF 1 IN 250 AND CONNECTED TO THE NEAREST

DRAIN OR PIT. WHERE AGI DRAINS PASS UNDER SLABS OR

PAVEMENTS, UNSLOTTED SECTIONS OF PIPE ARE TO BE USED.

4.23 THE CONTRACTOR SHALL ENSURE THAT CONSTRUCTION

MACHINERY DOES NOT TRAFFIC DIRECTLY OVER STORMWATER

THE DURATION OF THE WORKS. WHERE MINIMUM COVER OVER

STORMWATER DRAINAGE IS NOT AVAILABLE. THE CONTRACTOR

4.24 FOR BASEMENTS WITHIN THE GROUNDWATER TABLE, ALL

THE DRAINAGE SYSTEM, AND FIXED IN PLACE TO PREVENT

FLOTATION DUE TO BUOYANCY, UNLESS NOTED OTHERWISE

4.25 UNLESS NOTED OTHERWISE, GROUNDWATER IS NOT TO BE

PERMANENT CONDITION. IT IS THE CONTRACTOR'S RESPONSIBILITY

AUTHORITY FOR THE TEMPORARY DISCHARGE OF GROUNDWATER

DISCHARGED INTO THE LOCAL STORMWATER SYSTEM IN THE

TO OBTAIN A TRADE WASTE AGREEMENT WITH THE RELEVANT

4.26 IN CIRCUMSTANCES WHERE FIRE TEST DRAINS HAVE BEEN

CARRIED OUT WITHIN ONE HOUR OF A STORM EVENT.

CONNECTED TO THE STORMWATER SYSTEM, TESTS CANNOT BE

4.27 OUTFALL DRAINAGE CONNECTION INVERT LEVELS ARE TO BE

WORKS ON SITE. ANY DISCREPANCIES TO BE NOTIFIED TO THE

4.28 SUPPLY APPARATUS AND MATERIALS NECESSARY FOR, AND

JOINTS EXPOSED TO ENABLE OBSERVATION DURING THE TESTS.

ENSURE PVC SOLVENT CEMENT JOINTS HAVE BEEN CURED FOR AT

4.29 THE CONTRACTOR SHALL PRESSURE TEST WITH WATER, ALL

4.30 WHERE WATER TANKS ARE SPECIFIED, APPROPRIATE FILTERS

ARE TO BE INCORPORATED TO ENSURE GROSS POLLUTANTS AND

LITTER ARE PREVENTED FROM ENTERING THE TANKS. NOMINAL

FILTERS IS TO BE ADOPTED TO ENSURE SYSTEM REMAINS FULLY

4.31 PROPRIETARY STORMWATER FILTRATION/TREATMENT SYSTEMS

CONSIDERED A LIGATURE RISK. THE CONTRACTOR IS RESPONSIBLE

5.1 ALL WORKMANSHIP AND CONCRETE MATERIALS SHALL COMPLY

STANDARDS AS APPLICABLE, THE SPECIFICATION AND DETAILS ON

- AS 1303 HARD DRAWN STEEL REINFORCING WIRE FOR CONCRETE

THE WATER USED SHALL BE FREE OF ALL SUBSTANCES HARMFUL TO

CONCRETE AND ITS REINFORCEMENT, ADMIXTURES SHALL NOT BE

SUPERINTENDENT, ALL CONCRETE SHALL BE READY MIXED

- AS 1304 HARD DRAWN STEEL WIRE REINFORCING FABRIC FOR

WITH THE REQUIREMENTS OF THE FOLLOWING AUSTRALIAN

THE DRAWINGS UNLESS INSTRUCTED OTHERWISE BY THE

- AS 1478 CHEMICAL ADMIXTURES FOR USE IN CONCRETE

- AS 1302 STEEL REINFORCING BARS FOR CONCRETE

USED WITHOUT WRITTEN PERMISSION FROM THE

- AS 1012 METHODS OF TESTING CONCRETE

- AS 3972 PORTLAND AND BLENDED CEMENTS

- AS 2758.1 DENSE NATURAL AGGREGATES

- AS 1379 READY MIXED CONCRETE

- AS 3600 CONCRETE STRUCTURES

AS 3610 FORMWORK FOR CONCRETE

FOR PROCURING SUITABLE ANTI-LIGATURE PRODUCTS FOR PIT LIDS,

APERTURE SIZE OF 5mm IS RECOMMENDED. AN EFFECTIVE

AND PUMPS ARE TO BE INSTALLED AND CONSTRUCTED IN

ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.

4.32 FOR SITES WHERE STORMWATER INFRASTRUCTURE IS

MAINTENANCE PROGRAM INCLUDING REGULAR CLEANING OF

STORMWATER PIPEWORK IN OR UNDER THE STRUCTURE, IN

CARRY OUT THE TESTS REQUIRED BY THE SPECIFICATION OR

SUPERINTENDENT AND THE RELEVANT AUTHORITY. LEAVE PIPE

REGULATORY AUTHORITIES, IN THE PRESENCE OF THE

VERIFIED & CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF ANY

DURING CONSTRUCTION.

SUPERINTENDENT.

LEAST 24 HOURS BEFORE TESTING.

ACCORDANCE WITH AS 3500.3.

FUNCTIONAL.

GRATES, ETC.

5. CONCRETE

SUPERINTENDENT:

CONCRETE

CONCRETE.

OF THE PIPE OR INCREASE THE CLASS OF THE PIPE.

SHALL USE APPROPRIATE MEASURES TO PROTECT THE INTEGRITY

STORMWATER DRAINAGE CONNECTIONS ARE TO BE SEALED WITH AN

APPROVED SEALANT TO PREVENT GROUNDWATER INGRESS INTO

DRAINAGE. WHERE THIS IS NOT POSSIBLE, ENSURE THAT MINIMUM

300mm COVER IS PROVIDED OVER THE STORMWATER DRAINAGE FOR

4.21 FOR SYPHONIC ROOF DRAINAGE SYSTEMS, REFER TO

THE STORMWATER SYSTEM SHALL HAVE THREE TIMES THE

CAPACITY OF THE FLOW RATE FROM THE SYPHONIC SYSTEM.

4.22 FOR SUBSOIL DRAINAGE, 100Ø CLASS 1000 IN THE ROAD

DIRECTED BY THE SUPERINTENDENT, REINFORCEMENT FOR 4.20 ALL MAIN STORMWATER DRAINS SHALL BE CONSTRUCTED USING CONCRETE SHALL BE FREE FROM ANY COATING WHICH WILL REDUCE, ONE OF THE FOLLOWING TYPES OF PIPES WITH RUBBER RING OR PREVENT BONDING OF THE CONCRETE TO THE STEEL.

5.3 UNLESS OTHERWISE SHOWN ON THE DRAWINGS, THE MINIMUM A) 300Ø AND ABOVE, MIN. CLASS 2 RCP OR SHOWN OTHERWISE ON PLAN IN ACCORDANCE WITH AS4058 CLEAR COVER TO REINFORCEMENT SHALL BE 1.5 TIMES THE DIAMETER OF THE BARS OR 40mm, WHICHEVER IS GREATER, AND B) 100Ø STIFFNESS SN10. 150Ø AND ABOVE STIFFNESS SN8 P.V.C. IN ACCORDANCE WITH AS1260 80mm COVER IN GROUNDWATER OR COASTAL AREAS.

> 5.4 ALL KERBS, KERB & CHANNEL, SPOON DRAINS ETC. SHALL BE LAID OVER 75mm MINIMUM DEPTH OF COMPACTED CLASS 2 CRUSHED ROCK, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

5.2 UNLESS OTHERWISE SPECIFIED, SHOWN ON THE DRAWINGS, OR

5.5 WHERE REQUIRED MATCH ALL NEW KERBS TO EXISTING LEVEL NEATLY, ENSURING MINIMUM 1 IN 200 GRADE, SAW CUTTING AND REINSTATING PAVEMENT IN FRONT OF KERB TO FALL TOWARDS OR AWAY FROM NEW KERB LEVEL.

5.6 SCHEDULE OF CONCRETE PROPERTIES TO BE USED FOR THE PARTICULAR SECTION OF WORK SHALL BE AS FOLLOWS UNLESS STATED OTHERWISE INSTRUCTED OR SHOWN ON THE DRAWINGS: (MIX DESIGNS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE SUPERINTENDENT FOR INSPECTION 28 DAYS PRIOR TO POUR).

LOCATION	GRADE (MPa)	MAX. AGGREGATE (mm)	SLUMP (mm)
KERBS, PITS, HEADWALLS	N25	20	80 ±15
FOOTPATHS, RETAINING WALLS	N32	20	80 ±15
VEHICULAR PAVEMENT	N32 TYPE 1	20	80 ±15
·			

TYPE 1 CONCRETE SHALL HAVE THE PROPERTIES OF NORMAL N32 CONCRETE WITH A FLEXURAL STRENGTH OF F't=4.4MPa

5.7 ALL REINFORCEMENT IN SLABS AND BEAMS SHALL BE SUPPORTED ON CHAIRS TO GIVE THE REQUIRED COVER. SPACING OF REINFORCEMENT CHAIRS SHALL NOT EXCEED 800mm IN ANY DIRECTION.

5.8 MINIMUM LAPS FOR REINFORCEMENT SHALL BE AS FOLLOWS,

LESS NOTED OTHERWIS	E:		
FABRIC	2 CROSS WIRES + 25	ōmm.	
N12:	400mm.	N24:	1100mi
N16:	600mm.	N28:	1350mr
N20:	800mm.	N32:	1500mr

5.9 ALL BAR CRANKS SHALL BE NO GREATER THAN 1 IN 6, UNLESS NOTED OTHERWISE. REINFORCEMENT GRADES SHALL BE AS

NOTED OTHERWISE.

FOLLOWS: GRADE 500N TO AS/NZS 4671. FABRIC: HARD DRAWN WIRE FABRIC TO AS/NZS 4671. LIGS & TIES: HARD DRAWN WIRE, GRADE 450W, TO

COG AND HOOK PIN DIAMETERS AND OVERALL DIMENSIONS

SHALL BE AS PER THE REQUIREMENTS OF AS 3600 UNLESS

AS/NZS 4671. ANY STEELWORK SOURCED FROM MILLS LOCATED OUTSIDE AUSTRALIA ARE TO BE PROVIDED WITH CERTIFICATES PROVING ABOVE REQUIREMENTS VERIFIED BY NATA REGISTERED ORGANISATIONS.

5.10 CONSTRUCTION JOINTS, WHERE NOT SHOWN ON THE DRAWINGS, SHALL BE LOCATED TO THE APPROVAL OF THE SUPERINTENDENT.

5.11 THE MINIMUM CLEAR SPACING BETWEEN CONDUITS, CABLES, PIPES AND BARS SHALL BE AS REQUIRED BY AS 3600 BUT NOT LESS THAN THREE DIAMETERS HORIZONTALLY FOR HORIZONTAL CONDUITS, ETC. IN SLABS, WALLS AND FOOTINGS AND NOT LESS THAN ONE DIAMETER FOR ALL OTHER CONDUITS, ETC.

ALL PRIMARY REINFORCEMENT SHALL BE PLACED OUTERMOST

5.12 CONCRETE SHALL NOT BE PLACED UNTIL THE SUPERINTENDENT HAS EXAMINED BOTH FORMWORK AND REINFORCEMENT IN PLACE AND GIVEN THEIR CONSENT TO PROCEED. 48 HOURS NOTICE SHALL BE GIVEN TO THE SUPERINTENDENT BEFORE PLACEMENT OF ANY CONCRETE HAS COMMENCED. CONCRETE SHALL NOT BE PLACED. UNDER WATER OR DROPPED THROUGH A DISTANCE GREATER THAN 1.5M WITHOUT THE CONSENT OF THE SUPERINTENDENT. DURING AND IMMEDIATELY AFTER THE PLACING OPERATION CONCRETE SHALL BE THOROUGHLY COMPACTED BY TAMPING, VIBRATION OR OTHER MEANS APPROVED BY THE SUPERINTENDENT. THE CONCRETE SHALL BE SPRAYED WITH AN APPROVED CURING MEMBRANE SUCH AS CONCURE WB, IN STRICT ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION.

6. CONCRETE JOINTING

6.1 THE JOINTS IN THE NEW WORK SHALL COINCIDE WITH THOSE IN ABUTTING CONCRETE PAVING, OR OTHER JOINTED WORK, WHICH IS EITHER EXISTING OR PROPOSED. IF THE SPACING OF THE JOINTS IN EXISTING OR PROPOSED WORK IS VERY MUCH GREATER THAN THAT SPECIFIED FOR THE NEW WORK THEN ONE OR MORE EQUALLY SPACED JOINTS SHALL BE MADE IN THE NEW WORK BETWEEN EXISTING OR PROPOSED JOINTS SUCH THAT THE SPECIFIED SPACING WILL BE RETAINED AS NEATLY AS POSSIBLE.

6.2 2 X N12 DIAGONAL CORNER BARS 1200 LONG ARE REQUIRED AT ALL RE-ENTRANT CORNERS OF OPENINGS IN FOOTPATHS.

6.3 EDGINGS

WHEN USING AN EXTRUSION MACHINE THE JOINTS SHALL BE MADE BY A METHOD APPROVED BY THE SUPERINTENDENT. WHEN USING FORMWORK, THEY SHALL CONSIST OF 3mm THICK STEEL PLATE PROFILED TO MATCH THE ITEM BEING CONSTRUCTED AND SHALL

HAVE AN AREA NOT LESS THAN 75% OF THE SECTION BEING CONSTRUCTED. AS SOON AS IT IS PRACTICABLE AFTER THE FINISHING OF ANY WORK, THE TEMPLATES SHALL BE REMOVED AND THE RESULTANT GAP FINISHED WITH A GROOVING TOOL TO A DEPTH OF NOT LESS THAN 25mm TO PRODUCE A NEAT GROOVE WITH ROUNDED ARISES. JOINTS SHALL BE AT REGULAR INTERVALS AND THE SPACING BETWEEN JOINTS SHALL NOT EXCEED 3 METRES WITHOUT THE APPROVAL OF THE SUPERINTENDENT.

6.4 PROVIDE EXPANSION JOINTS AT 30m MAXIMUM CENTRES AND OR COINCIDE WITH THE JOINT SPACING IN THE ADJACENT ROADS OR FOOTPATHS. EXPANSION JOINTS SHALL ALSO BE PLACED AT EACH TANGENT POINT (START AND END OF HORIZONTAL CURVES) AND EACH SIDE OF LAYBACKS OR THE LIKE. THE EXPANSION JOINTS SHALL CONSIST OF 15mm THICK PREFORMED CORK OF THE FULL SHAPE OF THE ABUTTING KERB OR KERB AND CHANNEL ETC. NO EXPANSION OR OTHER CONSTRUCTION JOINT SHALL BE MADE WITHIN A DISTANCE OF 3m OF ANY RETURN IN THE KERBS OR FINISHING POINT OF THE CHANNEL.

6.5 FOOTPATHS AND SURFACING

EXPANSION JOINTS SHALL BE PLACED AT INTERVALS NOT EXCEEDING 15m, ON EITHER SIDE OF VEHICLE CROSSINGS, AT CHANGES IN DIRECTION, AND AT JUNCTIONS WITH BRIDGES. THEY SHALL BE 15mm WIDE AND FILLED WITH AN APPROVED CORK FILLER EXTENDING FOR THE FULL WIDTH AND FULL DEPTH OF THE PAVING. THE FILLER SHALL BE PLACED IN POSITION

CONCRETE IS PLACED, AND SHALL BE HELD FIRMLY IN POSITION DURING THE PLACING OF THE CONCRETE. WHERE POSSIBLE IT SHALL BE GLUED WITH AN APPROVED WATERPROOF GLUE TO THE EXISTING FACE OF THE

TOOLED OR SAWCUT JOINTS AT LEAST 30mm DEEP AND 5mm WIDE SHALL BE FORMED WITH A CUTTING TOOL AT INTERVALS NOT EXCEEDING 2.5m OR AS DIRECTED BY THE SUPERINTENDENT.

6.6 JOINTS BETWEEN EDGINGS/FOOTPATHS/SURFACING/STRUCTURES: EXCEPT ON NARROW MEDIANS (LESS THAN 0.6m WIDE) SURFACED FULL WIDTH, BOND BETWEEN THE CONCRETE ELEMENT AND OTHER STRUCTURE SHALL BE PREVENTED BY USING A STRIP OF 12mm PREFORMED CORK

FILLER OR OTHER APPROVED MATERIAL BETWEEN THEM.

6.7 VEHICULAR PAVEMENT JOINTS

JOINTING SHALL BE CONSTRUCTED AS DOCUMENTED. WHERE AN ALTERNATIVE JOINTING SOLUTION HAS BEEN ADOPTED WITHOUT THE SUPERINTENDENT'S APPROVAL, THE CONTRACTOR IS RESPONSIBLE FOR ANY LIABILITY ARISING FROM THE PERFORMANCE OF THE PAVEMENTS.

6.8 DOWELLED SAWCUT, EXPANSION AND CONSTRUCTION JOINTS SHALL BE PROVIDED AS SPECIFIED TO ALL VEHICULAR PAVEMENTS NOT EXCEEDING 6.0m INTERVALS. JOINT SPACING SHALL ENSURE SLAB LENGTH IS NO GREATER THAN 1.5 TIMES SLAB WIDTH. EXPANSION JOINTS SHALL BE NO GREATER THAN 25m INTERVALS.

6.9 ALTERNATIVE DOWEL SYSTEMS MUST NOT BE USED WITHOUT THE PRIOR CONSENT OF THE SUPERINTENDENT. THE SUBCONTRACTOR SHALL SUBMIT A MANUFACTURER SPECIFICATION AND TESTING DATA OF THE PROPOSED SAMPLE FOR APPROVAL.

6.10 EXPOSED SURFACES

ALL EDGINGS SHALL BE RENDERED WITH A STEEL TROWEL FINISH UNLESS SPECIFIED OTHERWISE BY THE LANDSCAPE ARCHITECT. FRESH FOOTPATH AND SURFACING CONCRETE SHALL BE COMPACTED AND WORKED UNTIL ALL OF THE COARSE AGGREGATE IS BELOW THE SURFACE THE MORTAR COMES TO THE TOP. IT SHALL THEN BE STRUCK OFF AND FINISHED WITH A WOODEN FLOAT. AS SOON AS THE CONCRETE HAS SET SUFFICIENTLY, SUITABLE FILLING SHALL BE PLACED AND THOROUGHLY COMPACTED BEHIND AND UP TO THE LEVEL OF THE TOP OF THE KERB.

7. PAVEMENTS

7.1 ALL PAVEMENT MATERIALS SHALL COMPLY WITH THE RESPONSIBLE STATE/ROAD AUTHORITY STANDARD SPECIFICATIONS AND BE OF CONSISTENT QUALITY.

7.2 ALL BASE COURSE AND SUB-BASE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL UNLESS SPECIFIED OTHERWISE AND COMPLY WITH THE RESPONSIBLE STATE/ROAD AUTHORITY STANDARD SPECIFICATIONS.

7.3 AS AN ALTERNATIVE TO THE USE OF IGNEOUS ROCK AS A SUB-BASE MATERIAL, A CERTIFIED RECYCLED CRUSHED CONCRETE MATERIAL COMPLYING WITH STATE/ROAD AUTHORITY STANDARDS WILL BE CONSIDERED SUBJECT TO MATERIAL SAMPLES AND APPROPRIATE CERTIFICATIONS BEING PROVIDED TO THE SATISFACTION OF THE

7.4 CONCRETE PAVEMENT

SUPERINTENDENT.

N16 DIAGONAL CORNER BARS 1200mm LONG ARE REQUIRED AT ALL RE-ENTRANT CORNERS OF OPENINGS IN PAVEMENT SLABS.

7.5 ALL EXISTING PAVEMENT ADJACENT TO THE PROPOSED KERB OR

PROPOSED JOINTS SHALL BE SAWCUT IN A NEAT LINE TO THE SATISFACTION OF THE SUPERINTENDENT AND HAVE 300mm OVERLAP.

7.6 ALL TRENCHING WORKS IN EXISTING PAVEMENTS SHALL BE NEATLY SAWCUT, NEW PAVEMENT REINSTATED WITH DOWELS AND TO NEATLY MATCH EXISTING LEVELS.

7.7 ASPHALT PAVEMENT

ASPHALT LAYERS UP TO 50mm THICKNESS SHALL BE COMPACTED TO 94% CHARACTERISTIC VALUE OF DENSITY RATIO ASPHALT LAYERS GREATER THAN 50mm THICKNESS SHALL BE COMPACTED TO 96% CHARACTERISTIC VALUE OF DENSITY RATIO. ASPHALT WEARING COURSE SHALL NOT BE LAID IN THE RAIN, AND THE PREPARED PAVEMENT BASE LAYERS SHALL BE DRY AND FREE OF EXCESS MOISTURE PRIOR TO THE LAYING OF ASPHALT.

7.8 THE SURFACE FINISH OF THE ASPHALT LAYERS SHALL BE OF UNIFORM COMPOSITION AND OF CONSISTENT DENSITY, ANY 'BONEY' OR UNEVEN AREAS THAT ARE EVIDENT SHALL BE FULLY REWORKED TO THE SUPERINTENDENT'S SATISFACTION.

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School Infrastructure NSW

GREENWAY PARK PRE SCHOOL WYATTVILLE DRIVE, CARNES HILL NSW 2171

STANDARD NOTES

SCHEMATIC DESIGN NOT TO BE USED FOR CONSTRUCTION

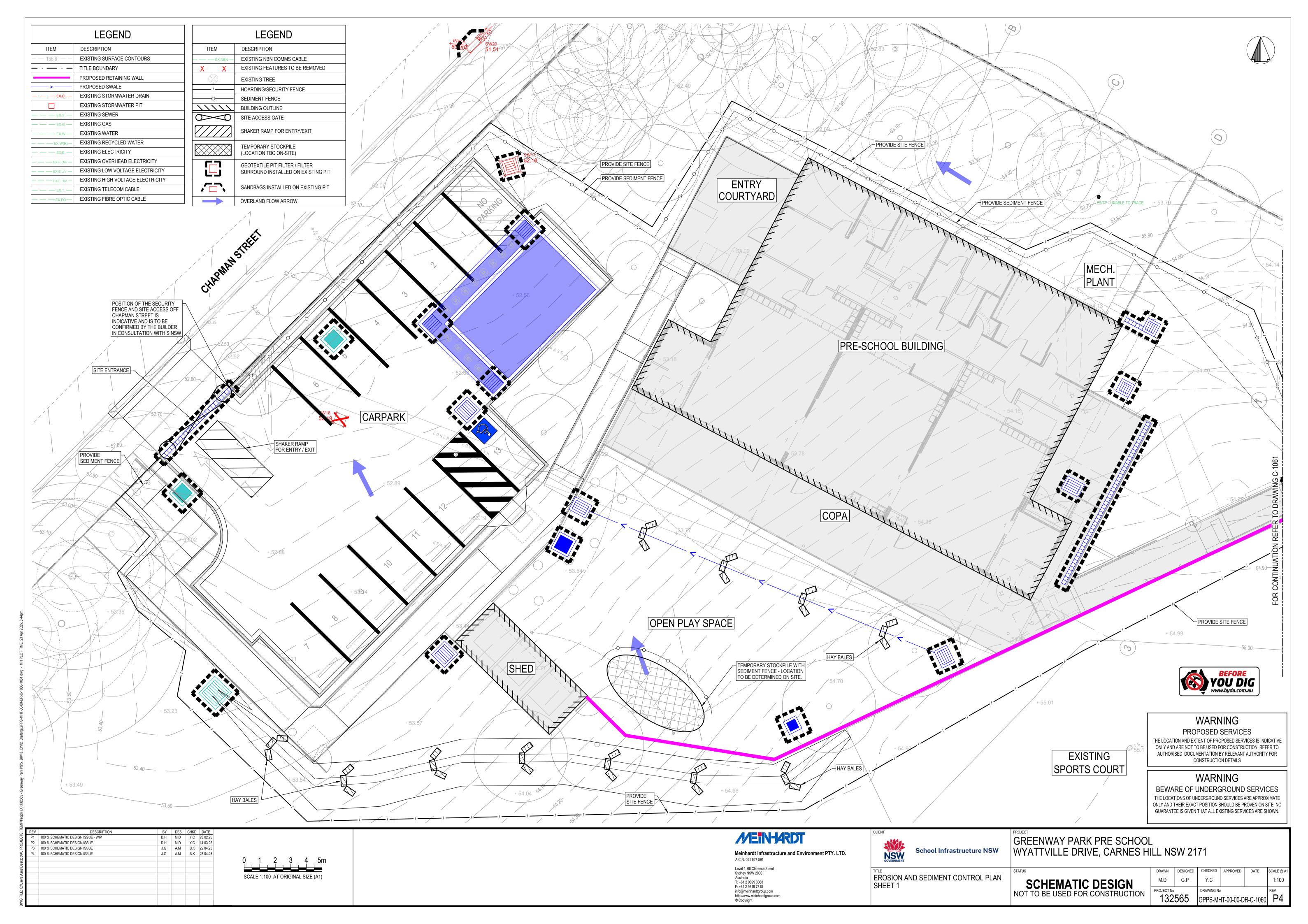
DRAWN DESIGNED CHECKED APPROVED DATE SCALE @ A M.D G.P Y.C PROJECT No DRAWING No 132565 GPPS-MHT-00-00-DR-C-1020 P2

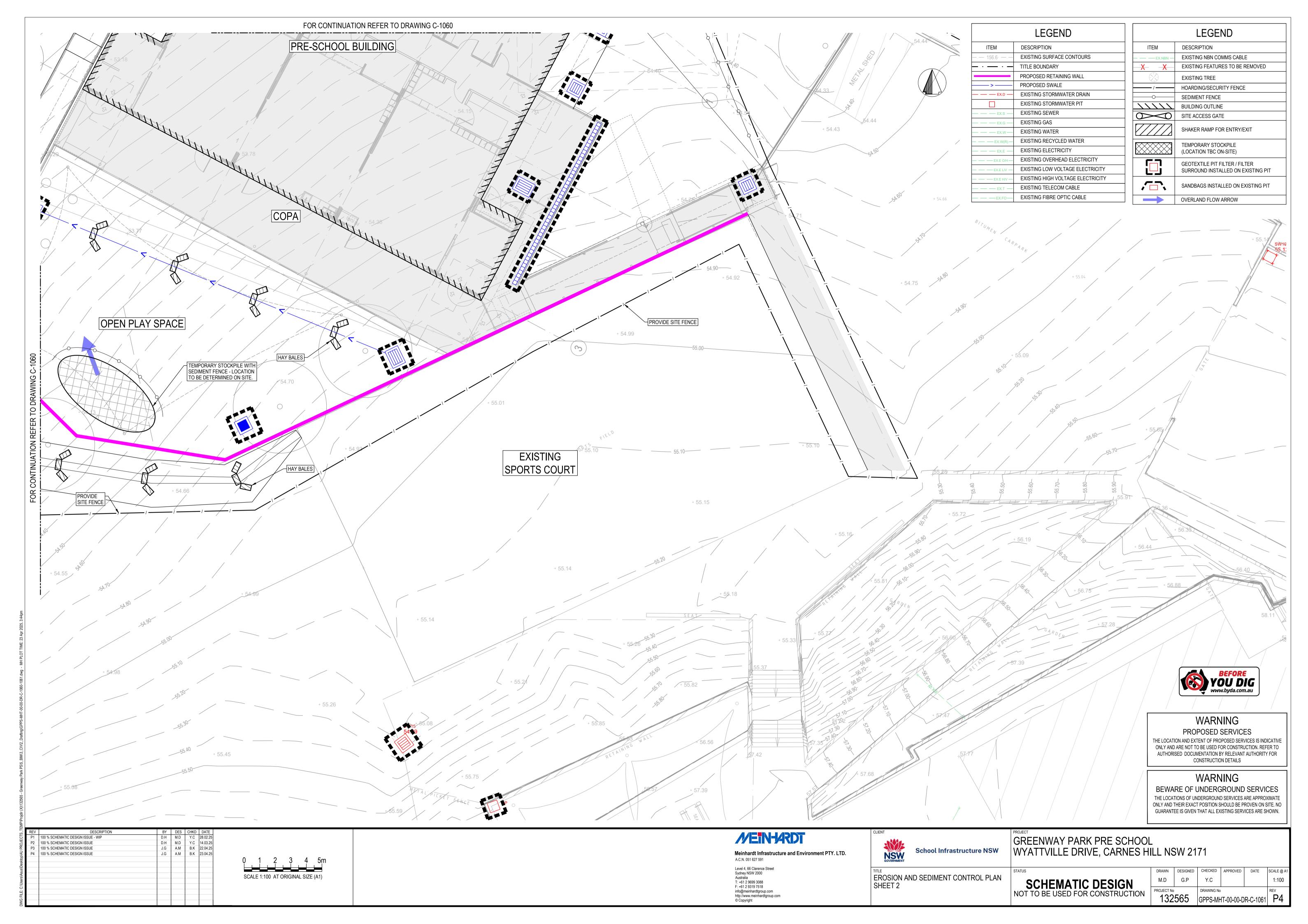
N.T.S

100 % SCHEMATIC DESIGN ISSUE - WIP

100 % SCHEMATIC DESIGN ISSUE

Meinhardt Infrastructure and Environment PTY. LTD. A.C.N. 051 627 591





SOIL AND WATER MANAGEMENT NOTES

- 1. IT HAS BEEN ASSUMED THAT HOARDINGS/SILT FENCING WILL BE PROVIDED TO THE STAGE BOUNDARY SUFFICIENT TO PREVENT SEDIMENT RUNOFF FROM LEAVING SITE (EXCEPT IN THE CASE OF ENTRY/EXIT LOCATIONS WHERE TEMPORARY CONSTRUCTION ENTRY/EXIT SEDIMENT TRAP ARE PROVIDED). IF THIS IS NOT THE CASE, PROVIDE SEDIMENT FENCE TO STANDARD DETAIL BELOW AS REQUIRED TO PREVENT SEDIMENT FROM LEAVING SITE, DIRECT RUNOFF TO SEDIMENT BASIN.
- 2. ALL SEDIMENT CONTROL MEASURES TO BE INSTALLED IN ACCORDANCE WITH LANDCOM MANAGING URBAN STORMWATER "BLUE BOOK".
- 3. MINIMISE CLEARING OUTSIDE BASEMENT EXTENT AND IN ACCORDANCE WITH THE ARBORIST REPORT.
- SEDIMENT CONTROL FOR LANDSCAPED WORKS DOWNSTREAM OF THE BUILDING TO INCLUDE A SILTFENCE AND SANDBAGS AS REQUIRED. INSTALL BUND TO DIVERT UPSTREAM CATCHMENT AWAY FROM DISTURBED SOIL AREA. TO BE MANAGED AT A RATE OF 166L/S PER HA BY THE CONTRACTOR ON SITE.

SEDIMENT CONTROL CONDITIONS

- . SEDIMENT FENCES WILL BE INSTALLED AS SHOWN AND ELSEWHERE AT THE DISCRETION OF THE SITE MANAGER TO CONTAIN COARSER SEDIMENT FRACTIONS INCLUDING AGGREGATED FINES) AS NEAR AS POSSIBLE TO THEIR SOURCE.
- 2. SEDIMENT REMOVED FROM ANY TRAPPING DEVICE WILL BE RELOCATED WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS & WATERWAYS CANNOT
- 3. STOCKPILES WILL BE PLACED WHERE SHOWN ON DRAWING OR ELSEWHERE AT THE DISCRETION OF THE SITE MANAGER AND NOT WITHIN 5m OF HAZARD AREAS INCLUDING LIKELY AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS. PAVED AREAS & DRIVEWAYS.
- 4. WATER WILL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM WITH INLET FILTERS (SEE DETAILS) UNLESS IT IS
- 5. TEMPORARY SEDIMENT TRAPS WILL BE RETAINED UNTIL AFTER THE LANDS THEY ARE PROTECTING ARE COMPLETELY REHABILITATED.
- 6. CONTRACTOR TO DESIGN/SIZE/CONSTRUCT TEMPORARY SEDIMENT BASIN, WATER SHOULD BE ALLOWED TO SETTLE BEFORE DISCHARGE. CONTRACTOR MUST VERIFY THAT WATER QUALITY MEETS AUTHORITIES REQUIREMENTS PRIOR TO DISCHARGE. ACCUMULATED SEDIMENT SHOULD THEN BE REMOVED & DISPOSED OF IN ACCORDANCE WITH ENVIRONMENTAL MANAGEMENT PROCEDURES.

SITE INSPECTION & MAINTENANCE CONDITIONS THE SITE MANAGER WILL INSPECT THE SITE AT LEAST WEEKLY AND WILL:

- ENSURE THAT DRAINS OPERATE PROPERLY & TO EFFECT ANY NECESSARY REPAIRS
- 2. REMOVE SPILLED SAND OR OTHER MATERIALS FROM HAZARD AREAS, INCLUDING LANDS CLOSER THAN 5m FROM AREAS OF LIKELY CONCENTRATED OR HIGH VELOCITY FLOWS ESPECIALLY WATERWAYS & PAVED AREAS.
- 3. REMOVE TRAPPED SEDIMENT WHENEVER LESS THAN DESIGN CAPACITY REMAINS WITHIN THE STRUCTURE
- 4. ENSURE REHABILITATED LANDS HAVE EFFECTIVELY REDUCED THE EROSION HAZARD AND TO INITIATE UPGRADING OR REPAIR AS APPROPRIATE.
- 5. CONSTRUCT ADDITIONAL EROSION AND/OR SEDIMENT CONTROL WORKS AS MIGHT BECOME NECESSARY TO ENSURE THE DESIRED PROTECTION IS GIVEN TO DOWNSLOPE LANDS AND WATERWAYS.
- 6. MAINTAIN EROSION & SEDIMENT CONTROL MEASURES IN A FULLY FUNCTIONING CONDITION UNTIL ALL EARTHWORK ACTIVITIES ARE COMPLETED AND THE SITE IS REHABILITATED.
- 7. REMOVE TEMPORARY SOIL CONSERVATION STRUCTURES AS THE LAST ACTIVITY IN THE REHABILITATION PROGRAM.

AS PART OF THE STATUTORY 'DILIGENCE OF CARE' RESPONSIBILITIES, THE SITE MANAGER WILL KEEP A LOGBOOK MAKING ENTRIES AT LEAST WEEKLY, IMMEDIATELY BEFORE FORECAST RAIN AND AFTER RAINFALL. ENTRIES WILL INCLUDE:

- 1. THE VOLUME & INTENSITY OF ANY RAINFALL EVENTS
- 2. THE CONDITION OF ANY SOIL & WATER MANAGEMENT WORKS
- 3. THE CONDITION OF VEGETATION & ANY NEED TO IRRIGATE
- 4. THE NEED FOR DUST PREVENTION STRATEGIES
- 5. ANY REMEDIAL WORKS TO BE UNDERTAKEN

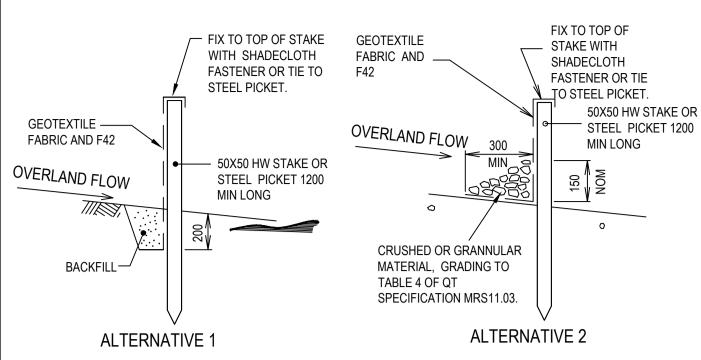
THE BOOK WILL BE KEPT ONSITE & MADE AVAILABLE TO ANY AUTHORISED PERSON ON REQUEST. IT WILL BE GIVEN TO THE PROJECT MANAGER AT THE CONCLUSION OF WORKS.

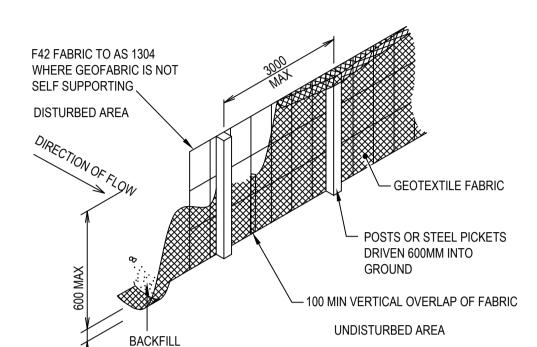
TREE PROTECTION

REFER TO ARBORIST REPORT FOR THE EXTENT OF TREES PROTECTION ZONE AND THE PROTECTION MEASURES REQUIRED.

AILCORP

ALL SURFACE WATER TO BE EITHER DIVERTED INTO SWALE OR DIRECTED TOWARDS SEDIMENTATION TANK TO PREVENT ATER INFILTRATION TOWARDS TUNNELS AS DOCUMENTED ON THIS SHEET.





SEDIMENT FENCE

ELEVATION

NOT TO SCALE

JUTE MESH FABRIC OR
TO ENVIRONMENTAL
CONSULTANTS
SPECIFICATIONS

ROCK OR GRAVEL
ANCHORING

SANDBAG OR
ROCK ANCHORING

TRENCH MESH
SUPPORTS AT 2m CTRS

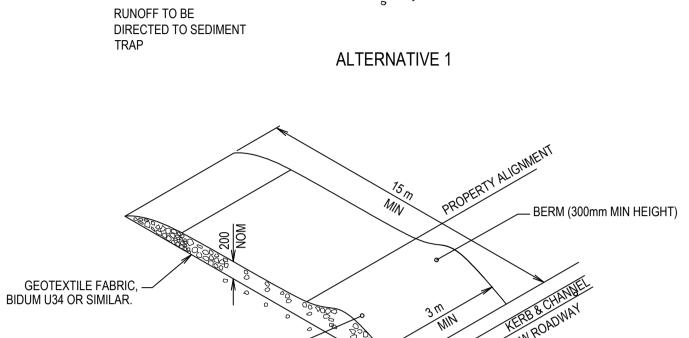
ALTERNATIVE SEDIMENT FENCE

ALTERNATIVE SEDIMENT FENCE NOTES

- 1. INSTALL THIS TYPE OF SEDIMENT FENCE WHEN USE OF SUPPORT POSTS IS NOT DESIRABLE OR NOT POSSIBLE. SUCH CONDITIONS MIGHT APPLY, FOR EXAMPLE, WHERE APPROVAL IS GRANTED FROM THE
- APPROPRIATE AUTHORITIES TO PLACE THESE FENCES IN HIGHLY SENSITIVE ESTUARINE AREAS.

 2. USE BENT TRENCH MESH TO SUPPORT THE F82 WELDED MESH FACING AS SHOWN ON THE DRAWING ABOVE. ATTACH THE JUTE MESH TO THE WELDED MESH FACING USING UV-RESISTANT CABLE TIES.
- 3. STABILISE THE WHOLE STRUCTURE WITH SANDBAG OR ROCK ANCHORING OVER THE TRENCH MESH AND THE LEADING EDGE OF THE JUTE MESH. THE ANCHORING SHOULD BE SUFFICIENTLY LARGE TO ENSURE STABILITY OF THE STRUCTURE IN THE DESIGN STORM EVENT, USUALLY THE 10 YEAR EVENT.

GEOFABRIC FABRIC, BIDUM U34 OR SIMILAR CONSTRUCTION SITE CATTLE GRID 3.0M NOM WIDTH SET 300MM ABOVE GROUND OR TIMBER SLEEPER 100MM HIGH AT 200 CTS RERB 8 CHANNEL WERB 8 CHANNEL WERB 8 CHANNEL AMA ROMONAP UNBOUND PAVEMENT MATERIAL (GRAVEL) RUNOFF TO BE DIRECTED TO SEDIMENT TRAP



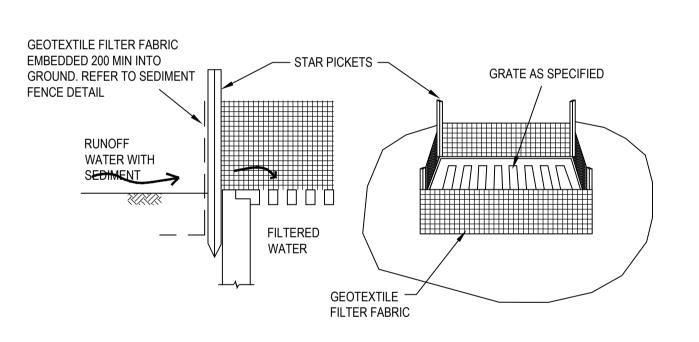
ALTERNATIVE 2

TEMPORARY CONSTRUCTION VEHICLE ENTRY/EXIT SEDIMENT TRAP

NOT TO SCALE

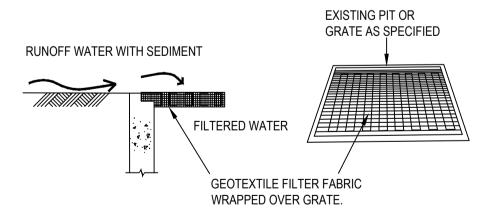
RUNOFF FROM PAD -

DIRECTED TO SEDIMENT TRAP.

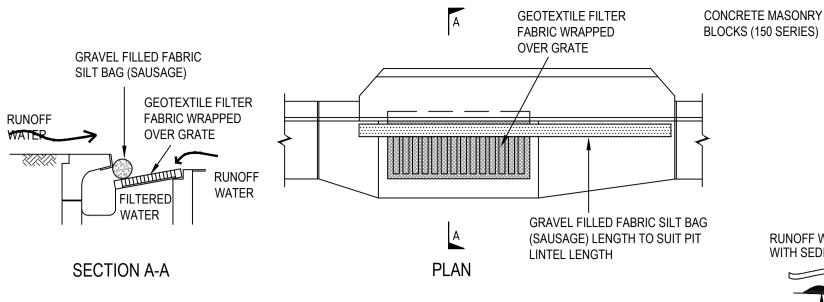


GEOTEXTILE PIT FILTER 1

NOT TO SCALE



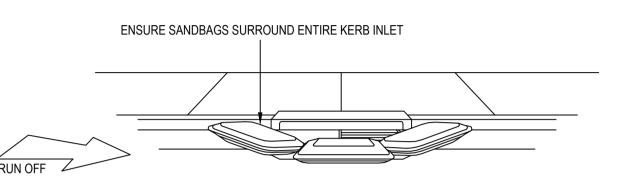
GEOTEXTILE PIT FILTER 2 NOT TO SCALE



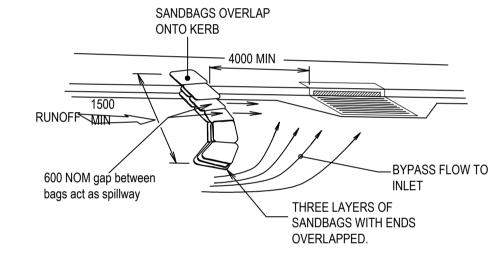
KERB INLET SEDIMENT TRAP

NOT TO SCALE

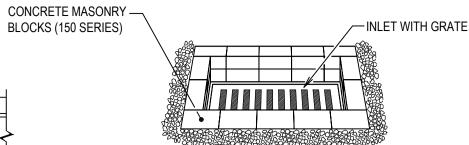
NOT TO SCALE

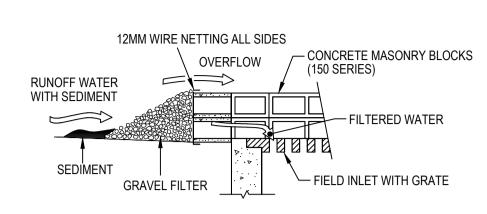


SANDBAG KERB INLET SEDIMENT TRAP NOT TO SCALE



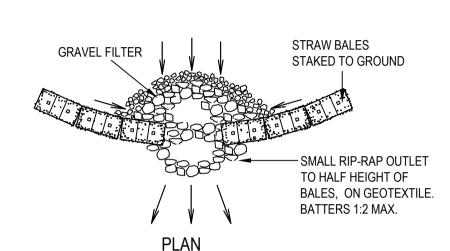
ON GRADE KERB INLET SEDIMENT TRAP





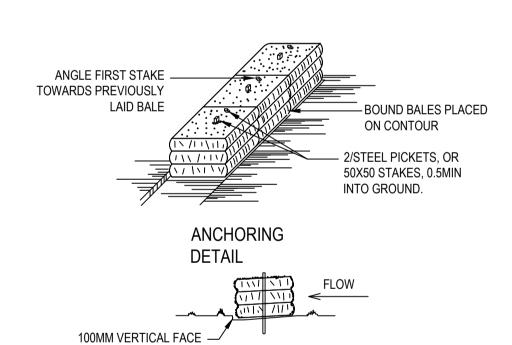
FIELD INLET SEDIMENT TRAP

NOT TO SCALE



STRAW BALE AND STONE TRAP SEDIMENT CONTROL (CONCENTRATE FLOW)

NOT TO SCALE



BEDDING DETAIL

STRAW BALE BANK SEDIMENT CONTROL

NOT TO SCALE



WARNING

BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE
ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO
GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

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Sydney NSW 2000

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TITLE EROSION AND SEDIMENT CONTROL DETAILS

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GREENWAY PARK PRE SCHOOL WYATTVILLE DRIVE, CARNES HILL NSW 2171

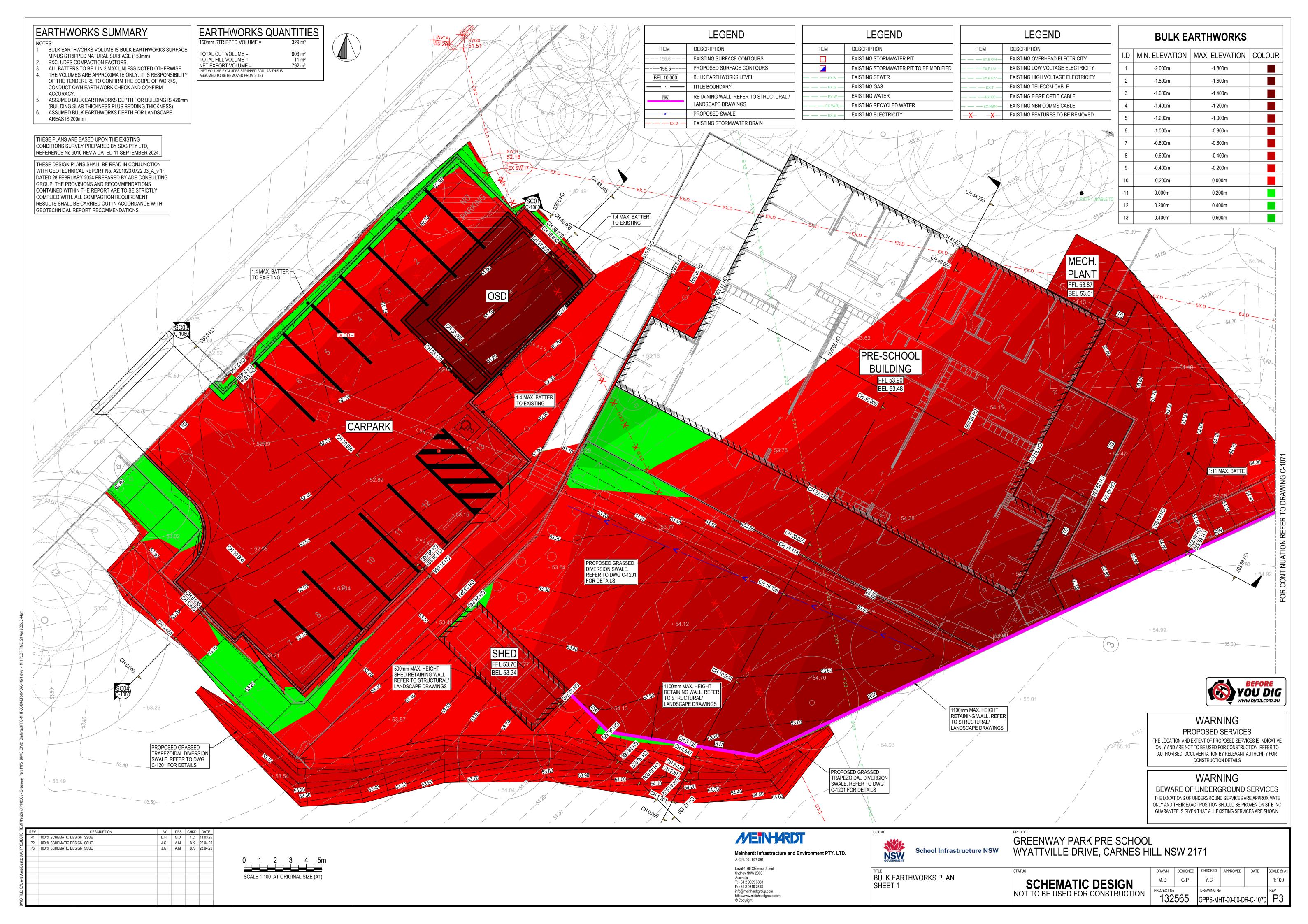
SCHEMATIC DESIGN
NOT TO BE USED FOR CONSTRUCTION

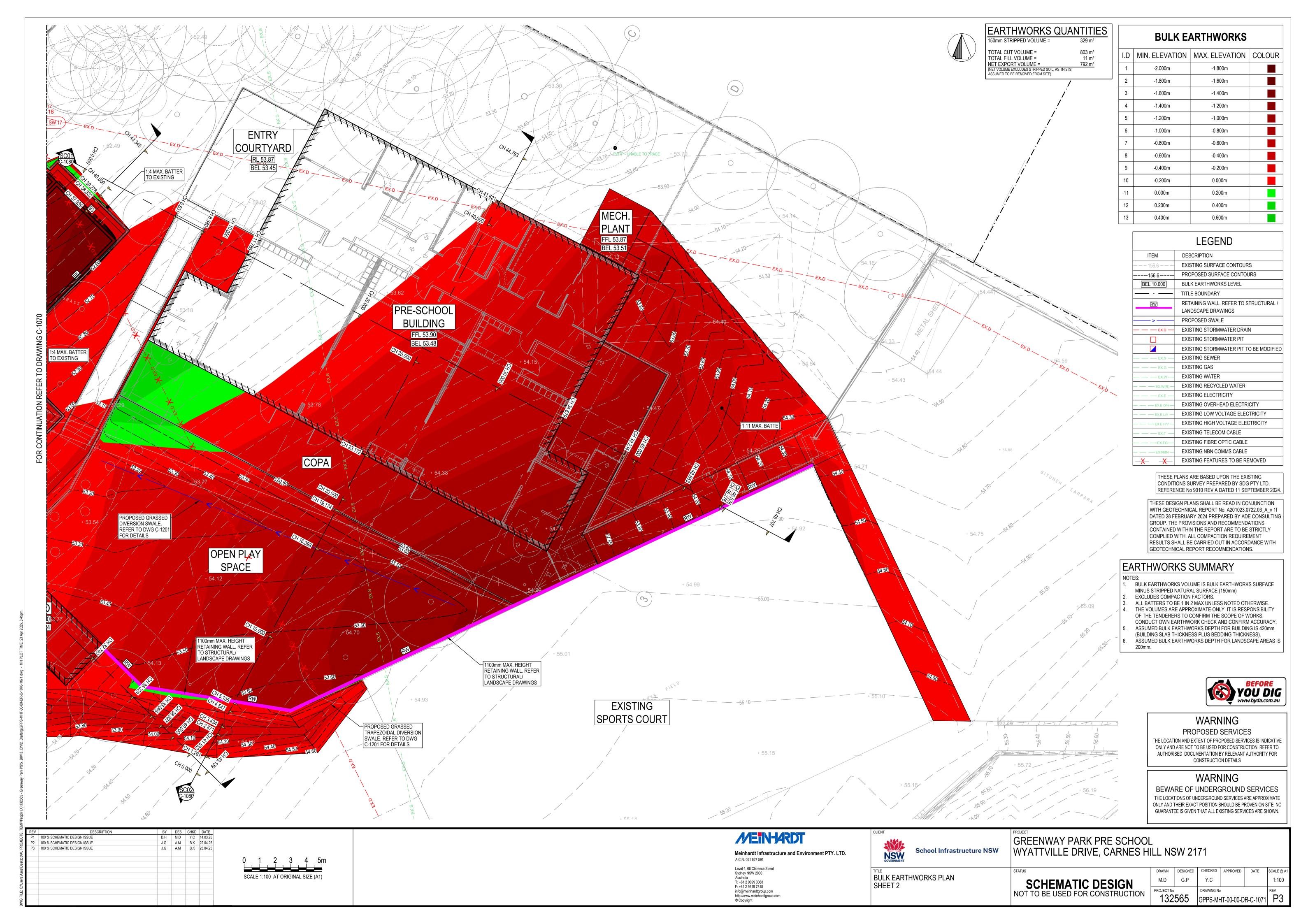
 DRAWN
 DESIGNED
 CHECKED
 APPROVED
 DATE
 SCALE @ AT

 M.D
 G.P
 Y.C
 N.T.S

 PROJECT No
 DRAWING No
 REV

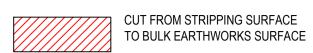
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 P2

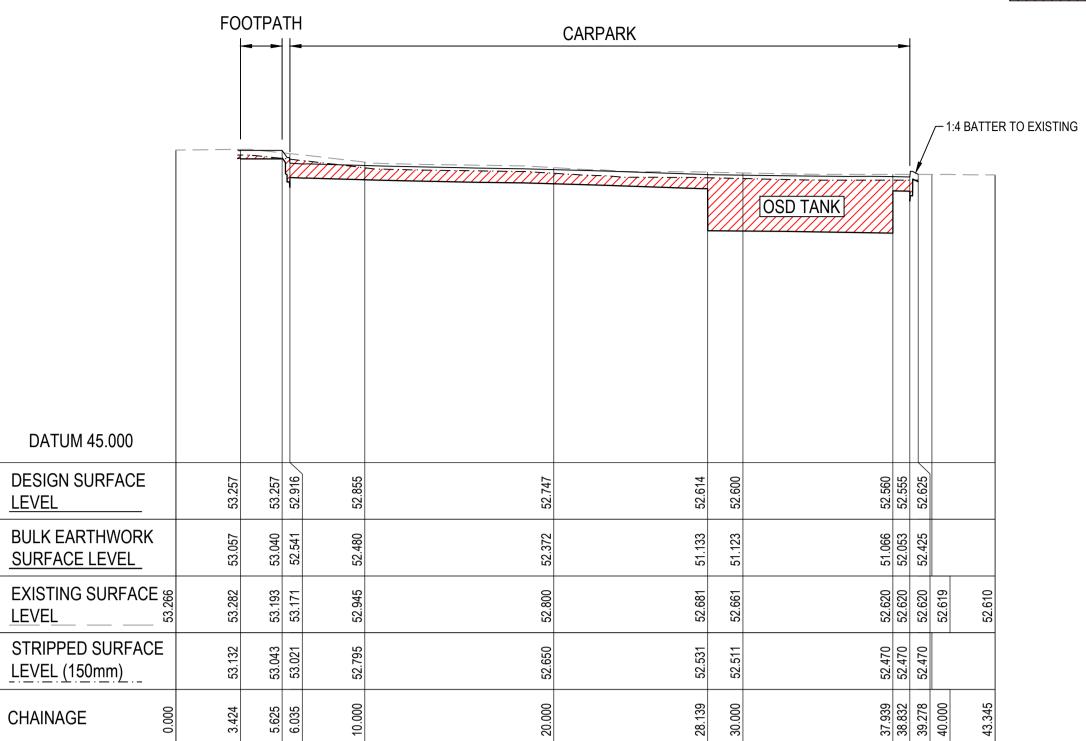






FILL FROM STRIPPING SURFACE TO BULK EARTHWORKS SURFACE





SECTION SC04 1:200 (H) 1:100 (V)

													DRG FC	R TO STRUCTURAL OR SUSPENDED SLAB OUNDATION DETAILS.		
						1 -	OPE	EN PLAY SPACE	_ 1	С	OPA					
	PROPOSED GRASSED — TRAPEZOIDAL DIVERSIOI SWALE. REFER TO DWG C-1201 FOR DETAILS	N							•			, [//	PRE-SC	CHOOL BUILDING FFL 53.900		
	1100mm MAX. HE RETAINING WALL REFER TO STRUG LANDSCAPE DRA	 CTUF	RAL /				DIVERSIO	DWG C-1201						BEL 53.480		
I	DATUM 47.000															
	ESIGN SURFACE	54.608	54.263	54.274	54.549 54.592		53.708	53.550	53.830	53.838	53.900		53.900	23 900	53.900	
	JLK EARTHWORK JRFACE LEVEL	54.408	54.063	54.074	54.349	54.392	53.508	53.350	53.531	53.418	53.480		53.480	53 480	53.480	
EX LE	KISTING SURFACE ಜ್ಞ		54.576	54.564	54.553	54.546	54.478	54.351	54.277	54.248	54.135		53.933	53 676	53.645	62 630
	RIPPED SURFACE VEL (150mm)	54.460	54.426	54.414	54.403	54.396	54.328	54.201	54.127	54.098	53.985		53.783	53 576	53.495	
СН	IAINAGE §	1.261	2.871	3.434	4.547	5.135	10.000	16.398	19.174	20.000	23.172		30.000	40 000	41.621	44 703

1:4 BATTER TO EXISTING				CARPARK		+ +	OTI	PATH	SHED [FFL 53.700] [BEL 53.340] 1:3 MAX. BATTER					/ T	RAPE WALE	SED GRASSED ZOIDAL DIVERSION . REFER TO DWG FOR DETAILS
DATUM 46.000																
DESIGN SURFACE LEVEL	52.594	52.708	52.699	52.685	53.082	53.098	53.280	53.280	53.700	53.700	54.201	54.027	54.066	54.554		
BULK EARTHWORK SURFACE LEVEL	52.394	52.508	52.324	52.310	52.707	52.723	53.060	53.055 53.340	53.340	53.340	54.001	53.827	53.866	54.354		
EXISTING SURFACE	52.582	52.593	52.657	52.769	53.250	53.271	53.306	53.421	53.833	53.983	54.198	54.317	54.377	54.556	54.653	
STRIPPED SURFACE LEVEL (150mm)	52.432	52.443	52.507	52.619	53.100	53.121	53.156	53.271	53.683	53.833	54.048	54.167	54.227	54.406		
CHAINAGE §	2.754	3.396	3.696	10.000	20.000	20.397	21.086	23.287	30.000	32.740	36.329	38.066	38.927	40.000	43.139	

REFER TO STRUCTURAL DRG FOR SUSPENDED SLAB AND FOUNDATION DETAILS. RAMP COPA GARDEN RAMP GARDEN PRE-SCHOOL BUILDING FFL 53.900 - 1100mm MAX. HEIGHT RETAINING WALL. REFER TO STRUCTURAL / LANDSCAPE DRAWINGS **DATUM 47.000** DESIGN SURFACE LEVEL **BULK EARTHWORK** 52.874 54.061 54.726 SURFACE LEVEL 52.880 52.995 53.075 53.174 EXISTING SURFACE 5 54.867 54.873 LEVEL 52.730 52.845 52.925 53.024 STRIPPED SURFACE 54.717 54.723 54.457 54.488 LEVEL (150mm) CHAINAGE

SCALE 1:200 HORIZONTAL 1:100 VERTICAL

AT ORIGINAL SIZE (A1)

100 % SCHEMATIC DESIGN ISSUE

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CHAINAGE



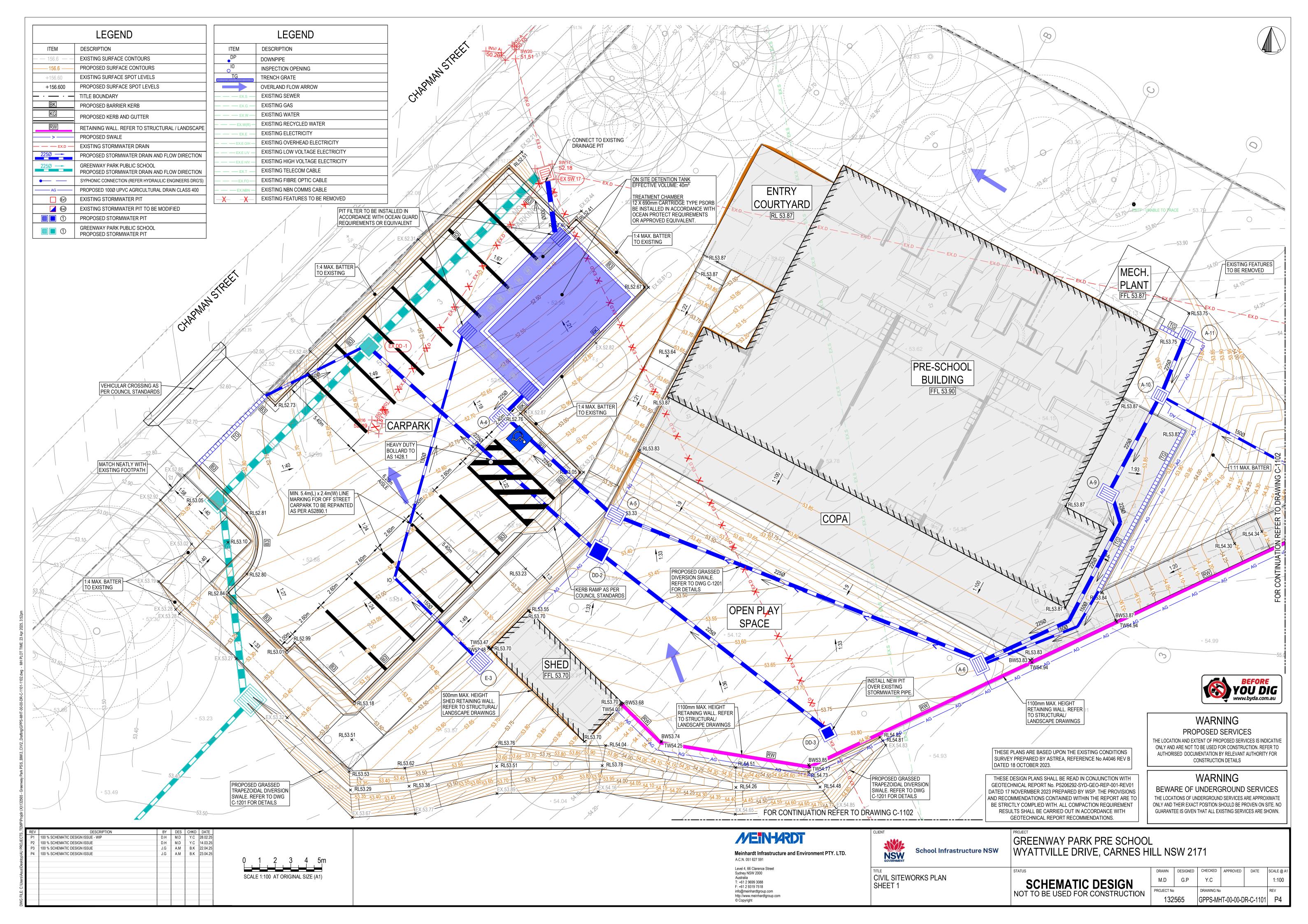
School Infrastructure NSW

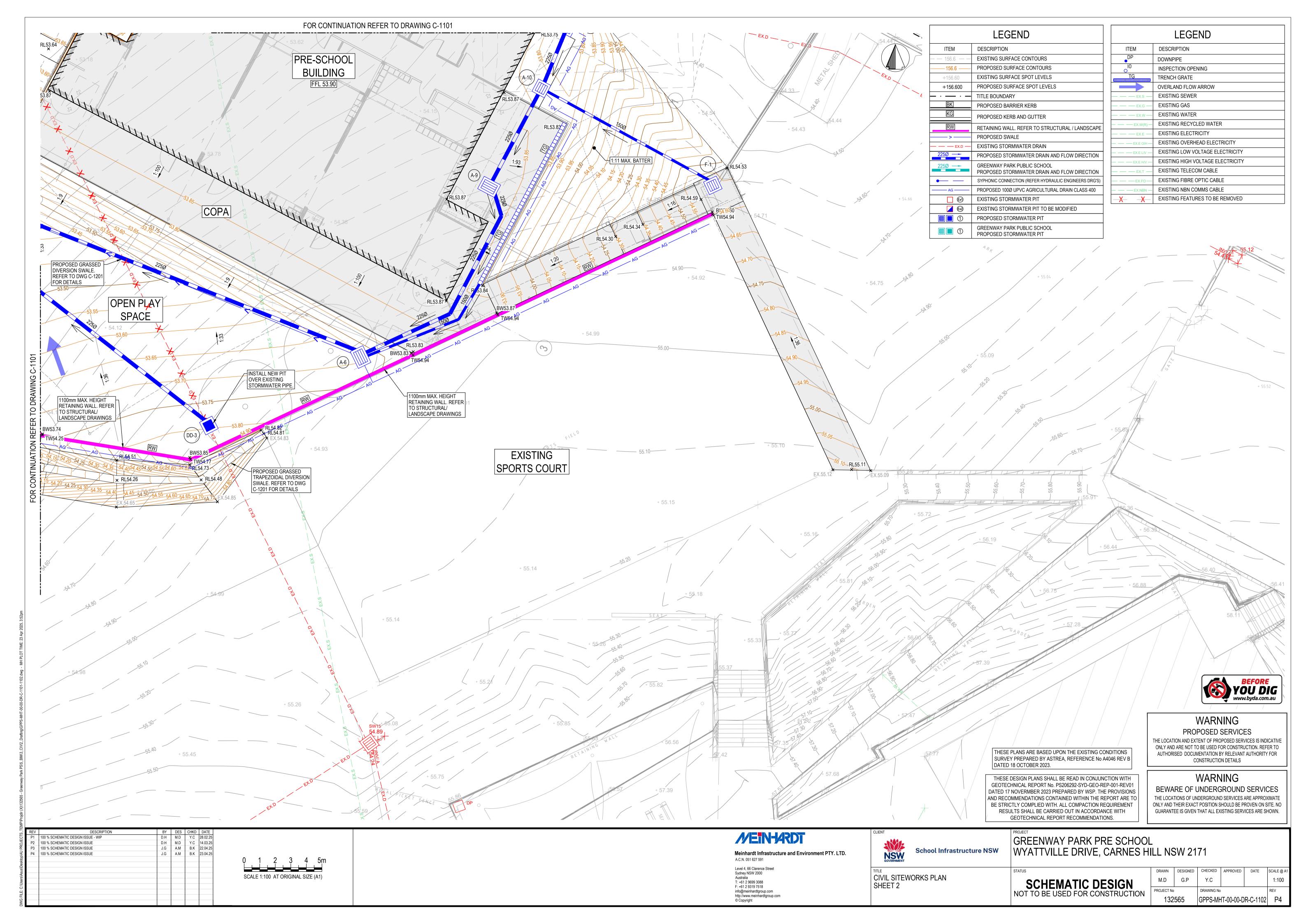
GREENWAY PARK PRE SCHOOL WYATTVILLE DRIVE, CARNES HILL NSW 2171

BULK EARTHWORKS LONGITUDINAL SECTIONS SCHEMAT NOT TO BE USED F

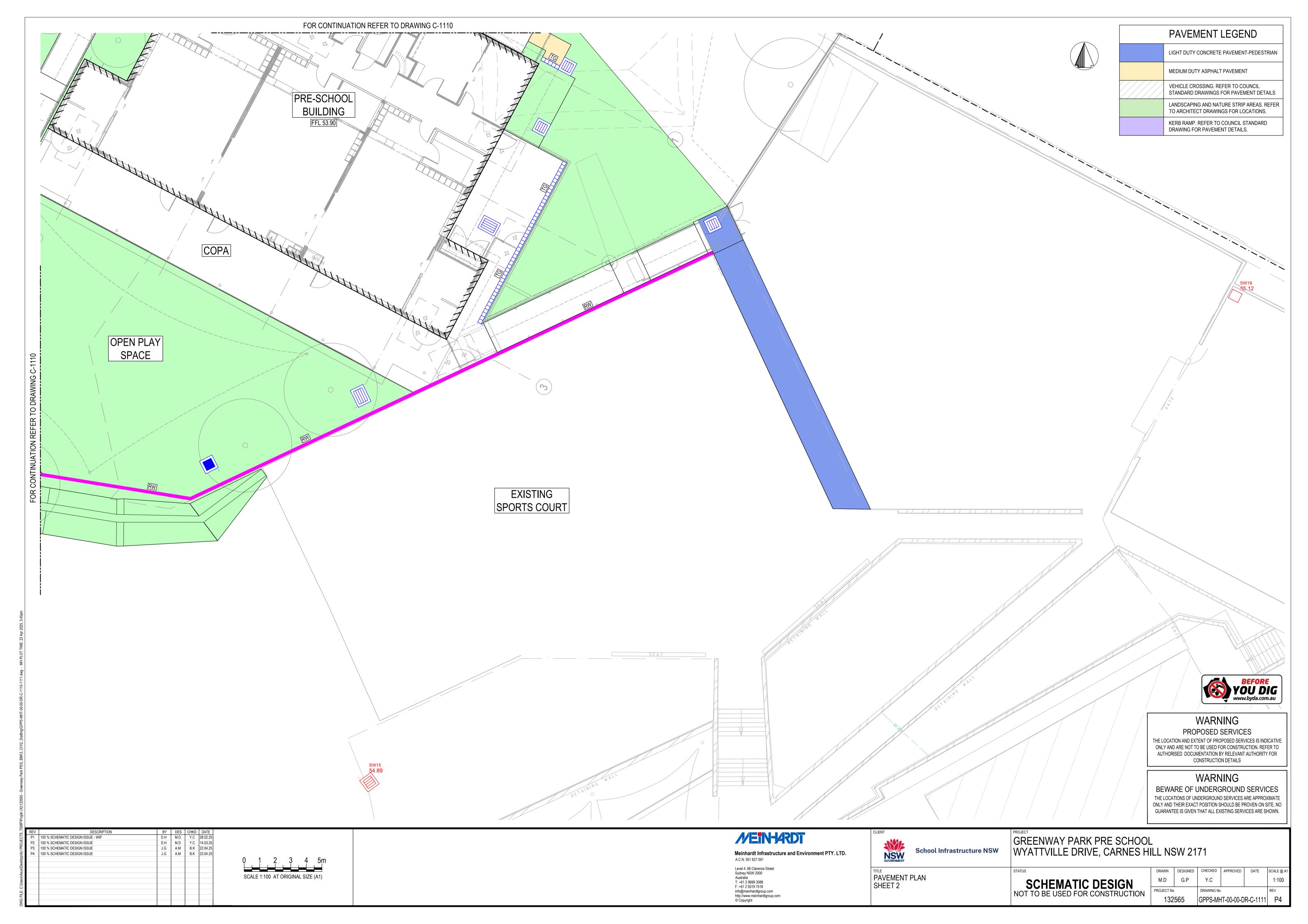
<u> 202</u>

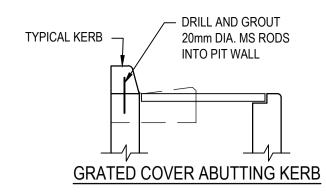
	DRAWN	DESIGNED	CHECKED	APPROVED	DATE	SCALE @ A1
TIC DESIGN	M.D	G.P	Y.C			AS SHOWN
FOR CONSTRUCTION	PROJECT No		DRAWING No			REV
FOR CONSTRUCTION	132	565	GPPS-MH	1T-00-00-D	R-C-1080	P1



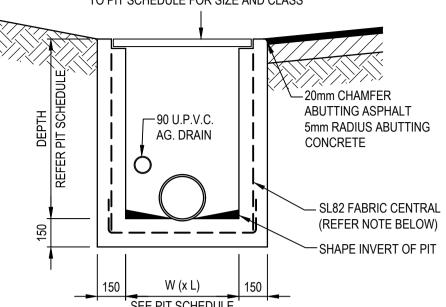








FABRICATED STEEL GRATE TO AS 3996 REFER TO PIT SCHEDULE FOR SIZE AND CLASS



NOTES:

1. PROVIDE 600mm LENGTH OF 90mm DIA. AGRICULTURAL PIPE
CAST THROUGH UPSTREAM WALL OF PIT WITH GEOTEXTILE OR
SIMILAR FILTER OVER.

- 2. REINFORCEMENT NOT REQUIRED IF DEPTH OF PIT IS LESS THAN 1000mm.
- 3. PROVIDE STEP IRONS AT 300mm MAX. CTS. IF DEPTH OF PIT EXCEEDS 1000mm
- 4. PRECAST PITS ARE TO GENERALLY COMPLY WITH THESE DETAILS.

GRATED PIT DETAIL

N.T.S.

STANDARD 100 THICK PRECAST
R.C. JUNCTION PIT COVER WITH
REMOVABLE INSERT. R.L. OF TOP
OF COVER TO MATCH
SURROUNDING GROUND LEVEL.
COVER SIZE TO MATCH PIT - REFER
PIT SCHEDULE FOR INTERNAL SIZE

90 U.P.V.C.
AG. DRAIN

SL82 FABRIC CENTRAL
(REFER NOTE BELOW)

SHAPE INVERT OF PIT

FES: 1. PROVIDE 600mm LENGTH OF 90mm DIA AGRICULTURAL PIPE

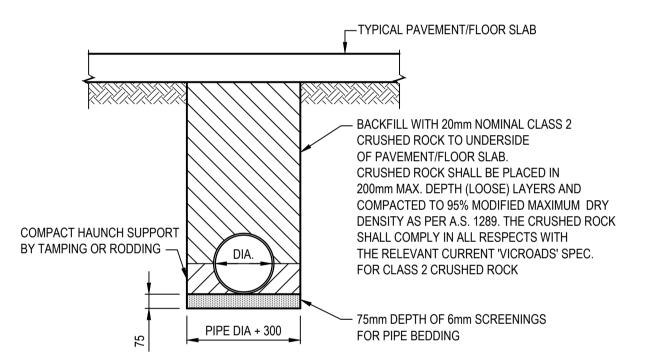
NOTES:

1. PROVIDE 600mm LENGTH OF 90mm DIA. AGRICULTURAL PIPE
CAST THROUGH UPSTREAM WALL OF PIT WITH GEOTEXTILE OR
SIMILAR FILTER OVER.

- 2. REINFORCEMENT NOT REQUIRED IF DEPTH OF PIT IS LESS THAN 1000mm.
- 3. PROVIDE STEP IRONS AT 300mm MAX. CTS. IF DEPTH OF PIT EXCEEDS 1000mm
- 4. PRECAST PITS ARE TO GENERALLY COMPLY WITH THESE DETAILS.

JUNCTION PIT (R.C. COVER)

N.T.S.

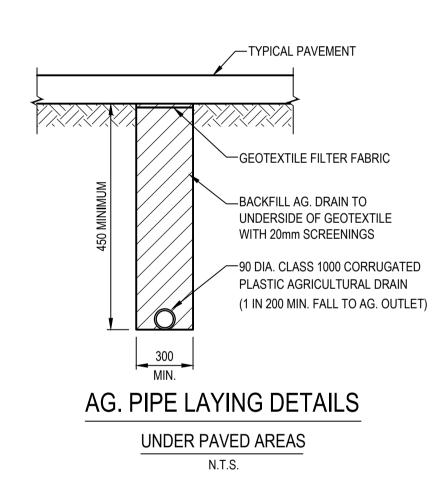


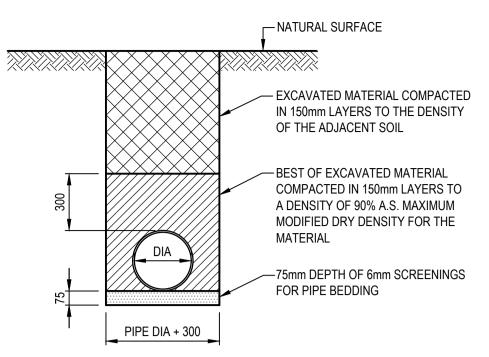
NOTE:
AVOID RUNNING CONSTRUCTION EQUIPMENT OVER THE PIPES
UNTIL BACKFILL MATERIAL IS 300mm MIN. ABOVE CROWN OF PIPE.

PIPE LAYING DETAILS

UNDER ALL PAVEMENTS/FLOORS

N.T.S.

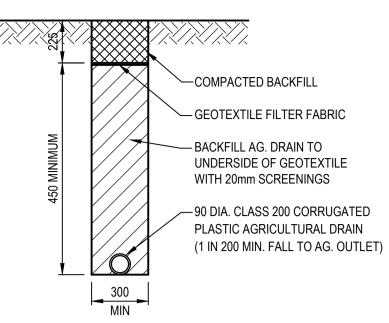




PIPE LAYING DETAILS (ALL PIPES)

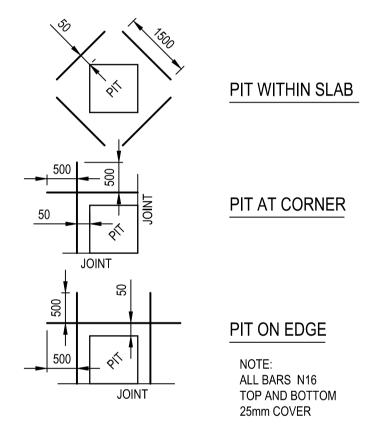
UNDER LANDSCAPED AREAS

N.T.S.



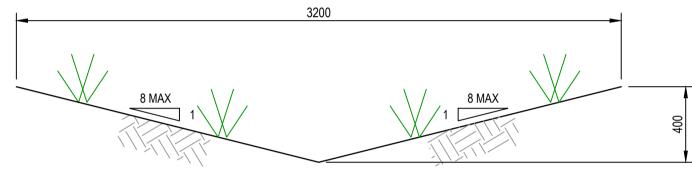
AG. PIPE LAYING DETAILS

UNDER LANDSCAPED AREAS N.T.S.



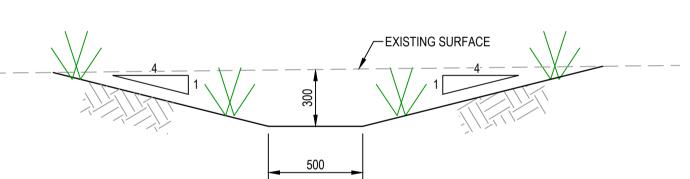
DETAIL OF SLAB REINFORCEMENT AT PITS IN CONCRETE PAVEMENT

N.T.S



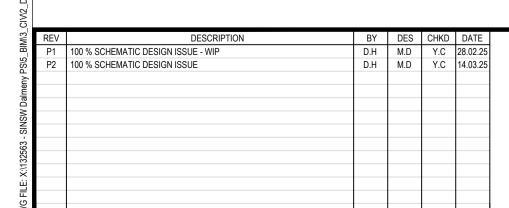
GRASSED DIVERSION SWALE DETAIL

SCALE 1:20



GRASSED TRAPEZOIDAL DIVERSION SWALE DETAIL

SCALE 1:20



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GREENWAY PARK PRE SCHOOL WYATTVILLE DRIVE, CARNES HILL NSW 2171

CIVIL DETAILS SHEET 2

SCHEMATIC DESIGN
NOT TO BE USED FOR CONSTRUCTION

 DRAWN
 DESIGNED
 CHECKED
 APPROVED
 DATE
 SCALE @ A1

 M.D
 G.P
 Y.C
 AS SHOWN

 PROJECT No
 DRAWING No
 REV

 132565
 GPPS-MHT-00-00-DR-C-1201
 P2

	PIT SCHEDULE													
	PIT			INTE	RNAL	INL	.ET	OU	ΓLET	PIT				
NAME	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS		
A-11	SURFACE INLET PIT 600x600	300171.882	6242686.536	0.60	0.60			225	53.03	53.75	0.73			
A-10	SURFACE INLET PIT 600x600	300170.207	6242682.634	0.60	0.60	225	52.98	225	52.96	53.82	0.86			
A-10	SURFACE INLET PIT 600X600	300170.207	0242002.034	0.60	0.60	150	53.05			53.82	0.00			
A-9	SURFACE INLET PIT 900x600	300166.847	6242676.302	0.60	0.90	225	52.89	225	52.87	53.86	0.99			
A-6	SURFACE INLET PIT 900x600	300158.581	6242665.358	0.60	0.90	225	52.72	225	52.70	53.70	4.00			
A-0	SURFACE INLET PIT 900X000	300130.301	0242000.300	0.60	0.90	150	53.07			53.70	1.00			
A-5	SURFACE INLET PIT 900x600	300135.185	6242674.947	0.60	0.90	225	52.44	225	52.42	53.33	0.91			
A-4	SURFACE INLET PIT 900x900	300127.897	6242681.220	0.90	0.90	225	52.06	225	51.91	52.74	1.00			
DD-3	SURFACE INLET PIT 600x600	300148.825	6242660.954	0.60	0.60	225	52.94	225	52.92	53.79	0.87			
DD-2	JUNCTION PIT 900x900	300134.099	6242672.582	0.90	0.90	225	52.67	225	51.43	53.41	1.98			
EX DD-1	JUNCTION PIT 900x900	300119.32	6242685.763	0.90	0.90	225	51.23			52.57	1.46			
E-3	SURFACE INLET PIT 900x900	300126.447	6242665.516	0.90	0.90			150	52.47	53.52	1.05			
F-1	SURFACE INLET PIT 600x600	300181.23	6242676.397	0.60	0.60			150	53.83	54.61	0.78			
EX SW 17	EXISTING PIT	300130.680	6242696.872	0.60	0.60			525	50.93	52.30	1 27	EXISTING PIT		
EV 200 11	EXISTING PIT	300130.68	6242696.872	0.60	0.60	300	50.95			52.30	1.37	EXISTING PIT		

DESCRIPTION

100 % SCHEMATIC DESIGN ISSUE

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STORMWATER DRAINAGE PIT SCHEDULE

SCHEMATIC DESIGN NOT TO BE USED FOR CONSTRUCTION

DRAWN DESIGNED CHECKED APPROVED DATE SCALE @ A1 M.D N.T.S G.P Y.C 132565 | GPPS-MHT-00-00-DR-C-1710 | P1