

IJ U EROSION AND SEDIMENTATION CONTROL NOTES: SITE MANAGEMENT INCLUDING DUST REVEGETATION/STABILISATION The following notes may not be relevant to each development 38 Priority shall be given to the prevention, or at least the minimisation, of soil erosion, rather than the trapping of displaced 75 Temporary Stabilisation may be attained using vegetation, non rewettable soil polymers, or pneumatically applied erosion SEDIMENTATION AND EROSION CONTROL PLAN SHEET sediment. Such a clause shall not reduce the responsibility to apply and maintain, at all times, all necessary ESC measures. ESCP refers to Erosion and Sediment Control Plan or a Soil and Water Management Plan (SWMP). 39 Measures used to control wind erosion shall be appropriate for the location and prevent soil erosion at all times, including 76 All cut and fill earth batters less than 3m in elevation shall be topsoiled, and grass seeded/hydromulched within 10 days of 2ESC refers to erosion and sediment control. 3 Sediment, includes, but is not limited to, clay, silt, sand, gravel, soil, mud, cement, and ceramic waste. working hours, out of hours, weekends, public holidays, and during any other shutdown periods. completion of grading in consultation with Counc 4 Any reference to the Blue Book refers to Managing Urban Stormwater — Soils and Construction. Landcom, 2004. 40 The application of liquid or chemical-based dust suppression measures shall ensure that sediment-laden runoff resulting from 77 Once cut/fill operations have been finalised in a section, all disturbed areas that are not being worked on shall be stabilised 5 Any reference to the IECA White Books (2008) refers to IECA 2008. Best Practice Erosion and Sediment Control. Books such measures does not create a traffic or environmental hazard. in accordance with time lines in the Blue Boo SEDIMENTATION AND EROSION CONTROL NOTES 1-6.International Erosion Control Association (Australasia). Picton NSW. 41 All cut and fill earth batters less than 3m in elevation shall be topsoiled, and grass seeded/hydromulched within 10 days of 78 The PSCC Seed mix shall be used unless stated on the ESCP/SWMI 6 Any material deposited in any conservation area from works associated with the development shall be removed immediately by 1. SELECTIVE CLEARING OF VEGETATION TO BE RESTRICTED TO NOMINATED AREAS WITH CLEARED VEGETATION WIND measures involving minimal ground and/or vegetation disturbance and no machinery, or following directions by Council and/or 79 The pH level of topsoil shall be appropriate to enable establishment and growth of specified vegetation prior to initiating the 42 Once cut/fill operations have been finalised in a section, all disturbed areas that are not being worked on shall be stabilised ROWED ON THE CONTOUR. in accordance with time lines in the Blue Book. THE ESCP 7 The FSCP and its associated ESC measures shall be constantly monitored, reviewed, and modified as required to correct 2. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED PRIOR TO SITE DISTURBANCE. 80 Non rewettable binder shall be used in all hydromulch/hydroseed/polymer mixes on slopes or works adjacent to a water 43 All reasonable and practicable measures shall be taken to prevent, or at least minimise, the release of sediment from the deficiencies. Council has the right to direct changes if, in its opinion, the measures that are proposed or have been installed 3. TOPSOIL FROM ALL AREAS THAT WILL BE DISTURBED TO BE STRIPPED AND STOCKPILED AT THE NOMINATED SITE. are inadequate to prevent pollution 81 Soil ameliorants shall be added to the soil in accordance with an approved Landscape Plan, Vegetation Management Plan, 44 Suitable all—weather maintenance access shall be provided to all sediment control devices. 4. NO MORE THAN 150m OF TRENCH TO BE OPEN AT ANY ONE TIME. 8 Prior to any activities onsite, the responsible person(s) is to be nominated. The responsible person(s) shall be responsible for and/or soil analysis. 45 Sediment control devices, other than sediment basins, shall be de-silted and made fully operational as soon as reasonable the ESC measures onsite. The name, address and 24 hour contact details of the person(s) shall be provided to Council in 5. CUT AND FILL BATTER GRADIENTS OF 1:2 (MAXIMUM). 82 Surface soil density, compaction and surface roughness shall be adjusted prior to seeding/planting in accordance with an writing. Council shall be advised within 48 hours of any changes to the responsible person(s), or their contact details, in and practicable after a sediment-producing event, whether natural or artificial, if the device's sediment retention capacity falls approved Landscape Plan, Vegetation Management Plan, and/or soil analysis. 6. A STRIP OF TURF 450mm WIDE IS TO BE PLACED IMMEDIATELY BEHIND THE KERB ON ALL NEW ROAD 83 Procedures for initiating a site shutdown, whether programmed or un-programmed, shall incorporate revegetation of all soil disturbances unless otherwise approved by Council. The stabilisation works shall not rely upon the longevity of non-vegetated erosion control blankets, or temporary soil binders. 9 At least 14 days before the natural surface is disturbed in any new stage, the contractor shall submit to the Certifier, a plan TO ACT AS A FILTER TRAP. REFER TO DETAIL SD6-13. 46 All erosion and sediment control measures, including drainage control measures, shall be maintained in proper working order showing ESC measures for that Stage. The degree of design detail shall be based on the disturbed area. 10 At any time during construction, the ESC measures onsite shall be appropriate for the area of disturbance and its 7. ALL SEDIMENT CONTROL STRUCTURES TO BE INSPECTED BY SITE SUPERVISOR AFTER EACH RAINFALL EVENT FOR 47 Washina/flushina of sealed roadways shall only occur where sweeping has failed to remove sufficient sediment and there is a characteristics including soils (in accordance with those required for the site as per DCP). SITE MONITORING AND MAINTENANCE STRUCTURAL DAMAGE AND ALL TRAPPED SEDIMENT TO BE REMOVED TO A NOMINATED STOCKPILE SITE. compelling need to remove the remaining sediment (e.g. for safety reasons). In such circumstances, all reasonable and The implementation of the ESCP shall be supervised by personnel with appropriate qualifications and/or experience in ESC practicable sediment control measures shall be used to prevent, or at least minimise, the release of sediment into receiving waters. Only those measures that will not cause safety and property flooding issues shall be employed. Sediment removed 84 The Applicant shall ensure that appropriate procedures and suitably qualified personnel are engaged to plan and conduct site 8. THE PROJECT MANAGER TO INFORM ALL CONTRACTORS AND SUB-CONTRACTORS OF THEIR OBLIGATIONS UNDER THE The approved ESCP shall be available on—site for inspection by Council officers while work activities are occurring. The approved ESCP shall be up to date and show a timeline of installation, maintenance and removal of ESC measures inspections and water quality monitoring throughout the construction and maintenance phase EROSION AND SEDIMENT CONTROL PLAN. from roadways shall be disposed of in a lawful manner that does not cause ongoing soil erosion or environmental harm. 85 All ESC measures shall be inspected and any maintenance undertaken immediately: 4 All ESC measures shall be appropriate for the Sediment Type(s) of the soils onsite, in accordance with the Blue Book, IECA White Books or other current recognised industry standard for ESC for Australian conditions. 9. NO DISTURBED AREA IS TO REMAIN DENUDED LONGER THAN 14 DAYS. 48 Sediment removed from sediment traps and places of sediment deposition shall be disposed of in a lawful manner that does a) at least daily (when work is occurring on-site); and not cause ongoing soil erosion or environmental harm 10. ALL FILLS ARE TO BE LEFT WITH A LIP AT THE TOP OF THE SLOPE AT THE END OF EACH DAY'S OPERATION. 5 Adequate site data, including soil data from a NATA approved Laboratory, shall be obtained to allow the preparation of an appropriate ESCP, and allow the selection, design and specification of required ESC measures. b) at least weekly (when work is not occurring on-site); and SEDIMENT BASINS - INSTALLATION, MAINTENANCE AND REMOVAL INCLUDING SEDIMENT TRAPS 11. THE CONTRACTOR MUST ENSURE THE SUITABILITY AND INTEGRITY OF ALL WORKS AT THE END OF EACH DAY'S WORK. c) within 24hrs of expected rainfall; and 49 As-Constructed plans shall be prepared for all constructed Sediment Basins and associated emergency spillways. Such plans All works shall be carried out in accordance with the approved ESCP (as amended from time to time) unless d) within 18hrs of a rainfall event that causes runoff on the site. 12. ORANGE BARRIER TAPE TO BE AFFIXED TO TOP OF SEDIMENT CONTROL BARRIER TO IDENTIFY WORK AREA. shall verify the basin's dimensions, levels and volumes comply with the approved design drawings. These plans may be compliance with the ESCP would increase the potential for environmental harm; or requested by the Certifier or Council. 86 Written records shall be kept onsite of ESC monitoring and maintenance activities conducted during the construction and 13.ALL SEDIMENTATION & EROSION CONTROL MEASURES ARE TO STRICTLY COMPLY WITH THE GUIDELINES DETAILED IN THE maintenance periods, and be available to Council officers on request circumstances change during construction and those circumstances could not have been foreseen; or 50 Sediment basins shall be constructed and fully operational prior to any other soil disturbance in their catchment. DEPARTMENT OF HOUSING PUBLICATION, "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION", 4TH EDITION.) Council determines that unacceptable off-site sedimentation is occurring as a result of a land-disturbing activity. In 51 Install an internal gated valve, or similar, in any outlet pipe once pipes installed, or install a sacrificial pipe from basin 87 All environmentally relevant incidents shall be recorded in a field log that shall remain accessible to all relevant regulatory either case, the person(s) responsible may be required to take additional, or alternative protective action, and/or undertake through wall to external outlet point. The valve shall be connected to a riser made from slotted pipe in the basin. The valve may be opened once captured water meets water quality requirements. The final setup for temporary internal outlet 14. WATER TRUCKS TO BE USED AS REQUIRED TO PREVENT WIND EROSION. reasonable restoration works within the timeframe specified by the Council. 88 All water quality data, including dates of rainfall, dates of testing, testing results and dates of water release, shall be kept in 15. SUBGRADE MATERIAL TO BE CONSTRUCTED IMMEDIATELY FOLLOWING FILL Additional ESC measures shall be implemented, and a revised ESCP submitted for approval to the certifier (within five structures to be confirmed prior to construction with Council. This setup will enable discharge of treated water from site an on-site register. The register is to be maintained up to date for the duration of the approved works and be available business days of any such amendments) in the event that: on-site for inspection by [insert name of regulatory authority] on request. a) there is a high probability that serious or material environmental harm may occur as a result of sediment leaving the site; 52 A sediment storage level marker post shall be with a cross member set just below the top of the sediment storage zone (as 89 At nominated instream water monitoring sites, a minimum of 3 water samples shall be taken and analysed, and the average specified on the approved ESCP). At least a 75mm wide post shall be firmly set into the basin floor. b) the implemented works fail to achieve Council's water quality objectives specified in these conditions; or **LEGEND** 53 The Site Manager shall obtain the relevant approvals from the relevant organisations to discharge treated water from any site conditions significantly change; or existing basins. Organisations may include, but not be limited to, Hunter Water, and Council. d) site inspections indicate that the implemented works are failing to achieve the "objective" of the ESCP. 90 All instream works (including in or adjacent to watercourses natural or manmade, flowing or not) shall be carried out in 18 A copy of any amended ESCP shall be forwarded to an appropriate Council Officer, within five business days of any such 54 Where more than one stage is to be developed at one time, or before the preceding stage is complete, the sediment accordance with the IECA White Books. DENOTES ALLOWABLE AREA basin(s) for these stages shall have sufficient capacity to cater for all area directed to the basin(s) 55 Prior to any forecast weather event likely to result in runoff, any basins/traps shall be dewatered to provide sufficient FOR TEMPORARY STOCKPILING SITE ESTABLISHMENT INCLUDING CLEARING AND MULCHING capacity to capture sediment laden water from the site. 19 No land clearing shall be undertaken unless preceded by the installation of adequate drainage and sediment control measures OF CUT SOIL MATERIAL, 56 Sufficient quantities of chemicals/agents to treat captured water shall be placed such that water entering the basin mixes unless such clearing is required for the purpose of installing such measures, in which case, only the minimum clearing REFER TO DETAIL SD4-1 with the chemical/agents and is carried into the basin to speed up clarification required to install such measures shall occur. 57 Any basin shall be dewatered within the X-day rainfall depth used to calculate the capacity of the basin, after a rainfall 20 Bulk tree clearing and grubbing of the site shall be immediately followed by specified temporary erosion control measures (e.g. temporary grassing or mulching) prior to commencement of each stage of construction works. 58 Sufficient quantities of chemicals/agents to treat turbid water shall be securely stored on-site to provide for at least three 21 Trees and vegetation cleared from the site shall be mulched onsite within 7 days of clearing. DENOTES ROCK CHECK DAM, complete treatments of all basins requiring chemically treatment onsite. 22 Appropriate measures shall be undertaken to control any dust originating due to the mulching of vegetation onsite. REFER TO DETAIL SD5-4 59 Prior to the controlled discharge (e.g. de-watering activities) from excavations and/or sediment basins, the following water 23 All office facilities and operational activities shall be located such that any effluent, including wash-down water, can be totally contained and treated within the site. a) Total Suspended Solids (TSS) to a maximum 50mg/L; 24 All reasonable and practicable measures shall be taken to ensure stormwater runoff from access roads and stabilised DENOTES EARTH BANK (LOW FLOW), b) water pH between 6.5 and 8.5, unless otherwise required by the Council: entry/exit systems, drains to an appropriate sediment control device. REFER TO DETAIL SD5-5 25 Site exit points shall be appropriately managed to minimise the risk of sediment being tracked onto sealed, public roadways. c) Turbidity (measured in NTUs) to a maximum of 60 NTU); and 26 Stormwater runoff from access roads and stabilised entry/exit points shall drain to an appropriate sediment control device. d) EC levels no greater than background levels. 27 The Applicant shall ensure an adequate supply of ESC, and appropriate pollution clean—up materials are available on—site at 60 The Development Approval may require testing of additional water quality elements prior to discharge. E.g. heavy metals. 61 A sample of the released treated water shall be kept onsite in a clear container with the sample date recorded on it. 28 All temporary earth banks, flow diversion systems, and sediment basin embankments shall be machine-compacted, seeded and DENOTES SEDIMENT POND. 62 Water quality samples shall be taken at a depth no less than 200mm below the water surface of the basin. mulched within ten (10) days of formation for the purpose of establishing a vegetative cover, or lined appropriately. 374m³ SETTLING ZONE, POND 1 63 No Aluminium based products may be used treat captured water onsite without the prior written permission from an 29 Sediment deposited off site as a result of on-site activities shall be collected and the area cleaned/rehabilitated as soon as appropriate Council Officer. The applicant shall have a demonstrated ability to use such products correctly and without 187m³ SEDIMENT STORAGE. environmental harm prior to any approval. REFER TO DETAIL SD6-4 30 Concrete waste and chemical products, including petroleum and oil-based products, shall be prevented from entering any 64 The chemical/agent used in Type D and Type F basins to treat captured water captured in the basin shall be applied in internal or external water body, or any external drainage system, excluding those on-site water bodies specifically designed to concentrations sufficient to achieve Council's water quality objectives within the X-day rainfall depth used to calculate the contain and/or treat such material. Appropriate measures shall be installed to trap these materials onsite. capacity of the basin, after a rainfall event. 31 Brick, tile or masonry cutting shall be carried out on a pervious surface (e.g. grass or open soil) and in such a manner 65 All Manufacturers' Instructions shall be followed for any chemicals/agents used onsite, except where approved by the that any resulting sediment—laden runoff is prevented from discharging into a gutter, drain or water. Appropriate measures shall be installed to trap these materials onsite. Responsible Person or an appropriate Council Officer 66 The Applicant shall ensure that on each occasion a Type F or Type D basin was not de-watered prior to being surcharged by DENOTES SEDIMENT POND, 32 Newly sealed hard-stand areas (e.g. roads, driveways and car parks) shall be swept thoroughly as soon as practicable after a following rainfall event, a report is presented to an appropriate Council officer within 5 days identifying the circumstance 567m³ SETTLING ZONE, sealing/surfacing to minimise the risk of components of the surfacing compound entering stormwater drains. and proposed amendments, if any, to the basin's operating procedures. POND 2 283m3 SEDIMENT STORAGE, 33 Stockpiles of erodible material shall be provided with an appropriate protective cover (synthetic or organic) if the materials 67 Settled sediment shall be removed as soon as reasonable and practicable from any sediment basin if: are likely to be stockpiled for more than 10 days. REFER TO DETAIL SD6-4 a) it is anticipated that the next storm event is likely to cause sediment to settle above the basin's sediment storage zone; 34 Stockpiles, temporary or permanent, shall not be located in areas identified as no-go zones (including, but not limited to, restricted access areas, buffer zones, or areas of non-disturbance) on the ESCP. b) the elevation of settled sediment is above the top of the basin's sediment storage zone; or 35 No more than 150m of a stormwater, sewer line or other service trench shall to be open at any one time. c) the elevation of settled sediment is above the basins sediment marker line. 36 Site spoil shall be lawfully disposed of in a manner that does not result in ongoing soil erosion or environmental harm. 68 Scour protection measures placed on sediment basin emergency spillways shall appropriately protect the spillway chute and its 37 Wherever reasonable and practicable stormwater runoff entering the site from external areas and non-sediment laden (clean) DENOTES SEDIMENT POND side batters from scour, and shall extend a minimum of 3m beyond the downstream toe of the basin's embankment stormwater runoff entering a work area or area of soil disturbance, shall be diverted around or through that area in a 69 Suitable all-weather maintenance access shall be provided to all sediment control devices. 294m³ SETTLING ZONE. manner that minimises soil erosion and the contamination of that water for all discharges up to the specified design storm POND 3 70 Materials, whether liquid or solid, removed from any ESC measures during maintenance or decommissioning, shall be disposed 147m3 SEDIMENT STORAGE of in a manner that does not cause ongoing soil erosion or environmental harm REFER TO DETAIL SD6-4 71 All sediment basins shall remain fully operational at all times until the basin's design catchment achieves 70% ground cover 72 The ESC measures installed during the decommissioning and rehabilitation of a sediment basin shall comply with same standards specified for the normal construction works. 73 A sediment basin shall not be decommissioned until all up-slope site stabilisation measures have been implemented and are DENOTES STRAW BALE FILTER. appropriately working to control soil erosion and sediment runot 74 Immediately prior to the construction of the permanent stormwater treatment device, appropriate flow bypass conditions shall REFER TO DETAIL SD6-7 be established to prevent sediment-laden water entering the device. DENOTES SEDIMENT FENCE. REFER TO DETAIL SD6-8 DENOTES MESH AND GRAVEL INLET FILTER, REFER TO DETAIL SD6-11 DENOTES GEOTEXTILE INLET FILTER, REFER TO DETAIL SD6-12 DENOTES STABILISED SITE ACCESS, REFER TO DETAIL SD6-14 DENOTES LEVEL SPREADER MATCH MATCH LINE A LINE A FOR CONSTRUCTION © Copyright MPC Consulting Engineers as date of issue COPYRIGHT **DO NOT SCALE DRAWING** 16 Telford Street. CATHOLIC SCHOOLS OFFICE CATHERINE McAULEY CATHOLIC COLLEGE NEWCASTLE EAST, NSW 2300 THIS DRAWING IS NOT TO BE The concepts and information contained PO BOX 553 in this document are the copyright of ENGINEER No in SET **USED FOR CONSTRUCTION UNLESS ENDORSED BELOW** AT; LOT 412, DP 1063902, THE JUNCTION, NSW 2291 MPC Consulting Engineers J.P. M.S. 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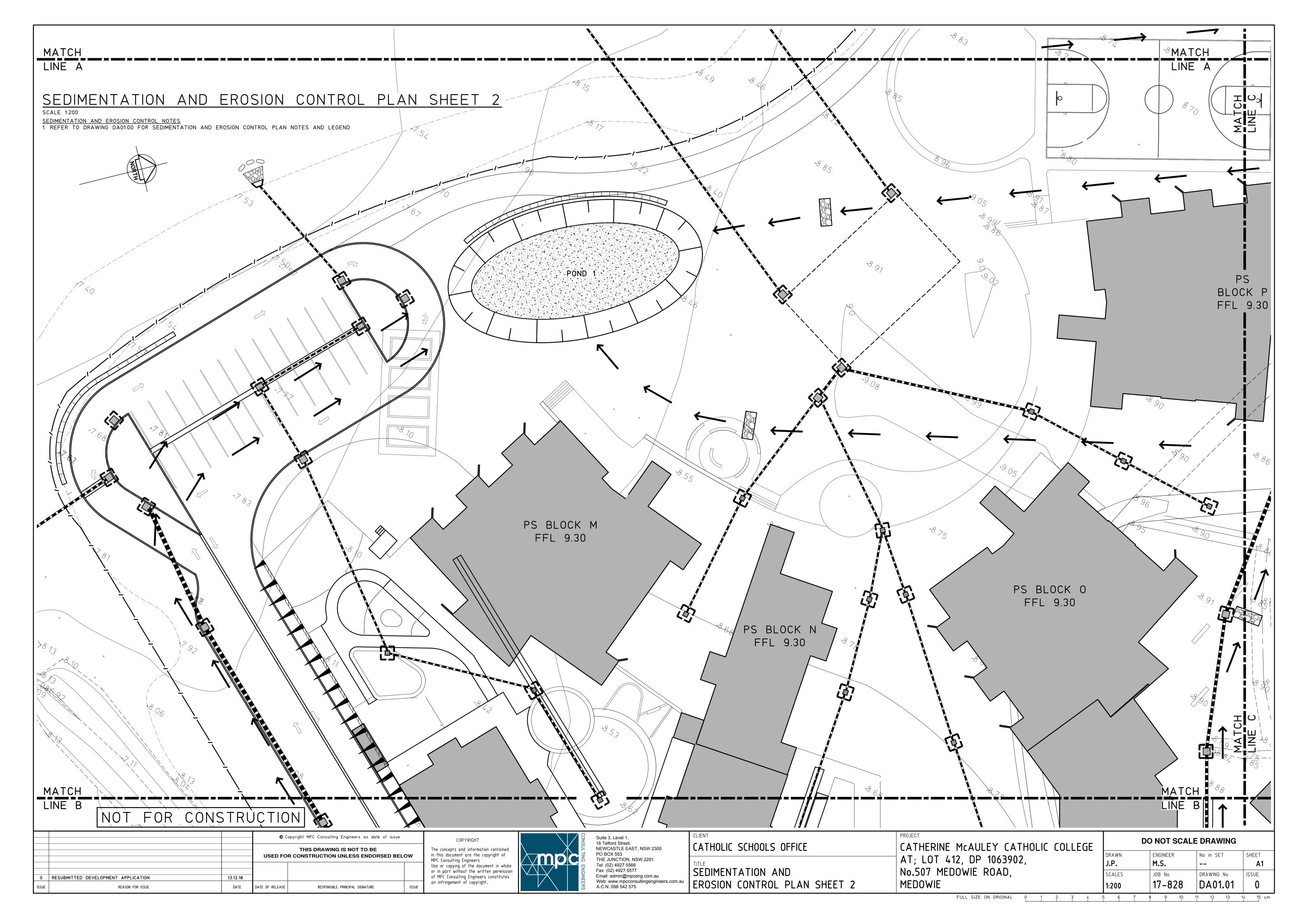
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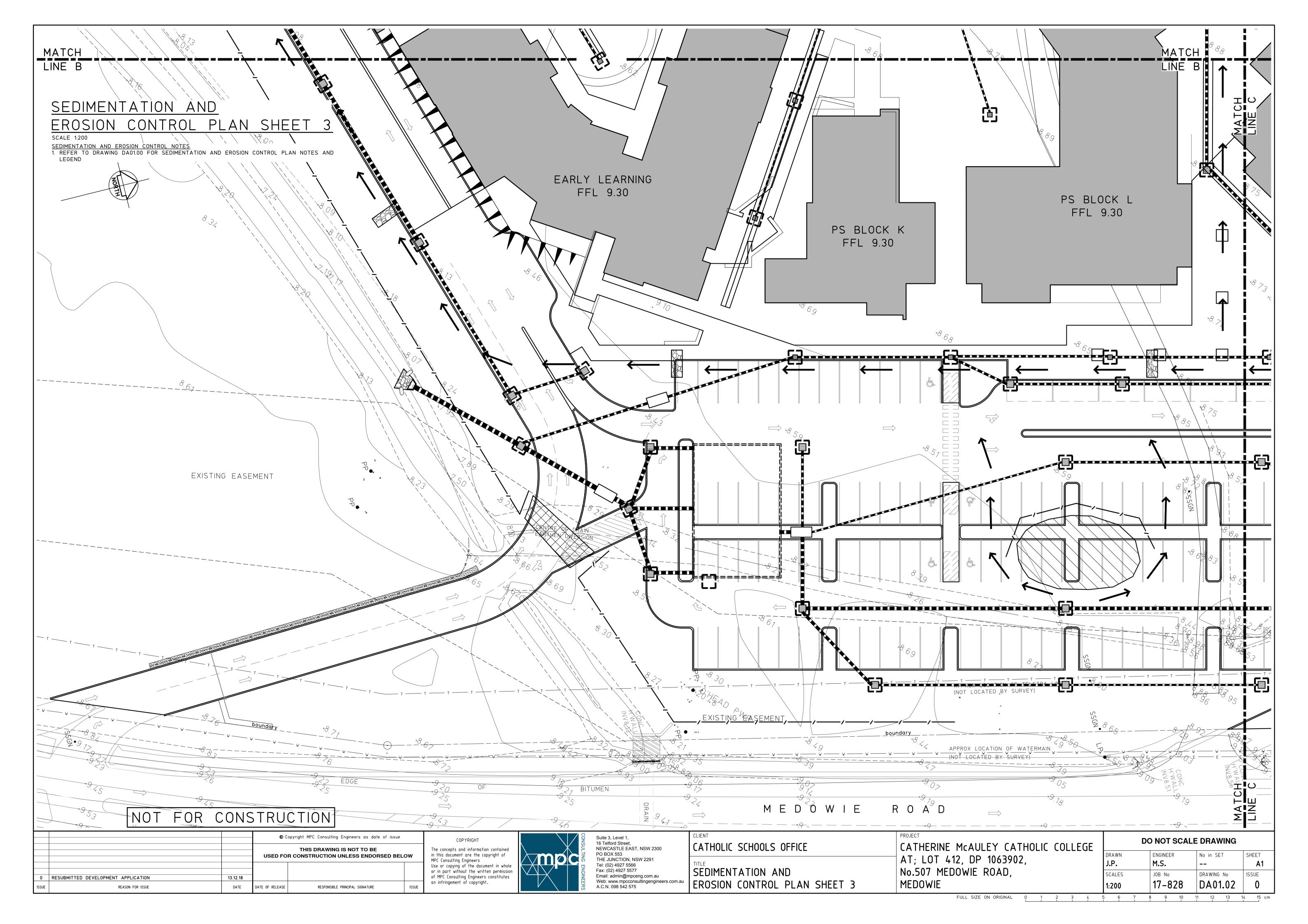
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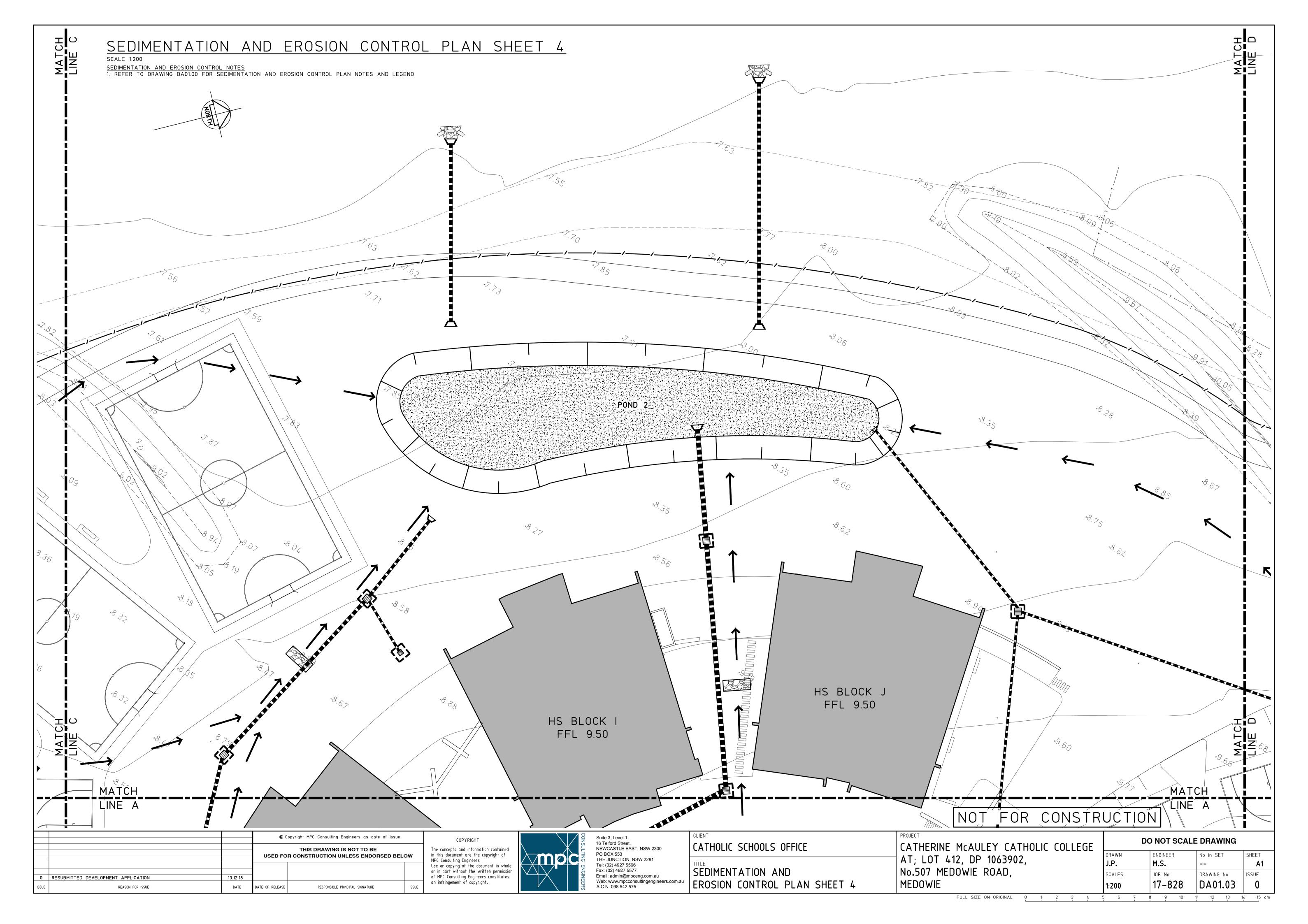
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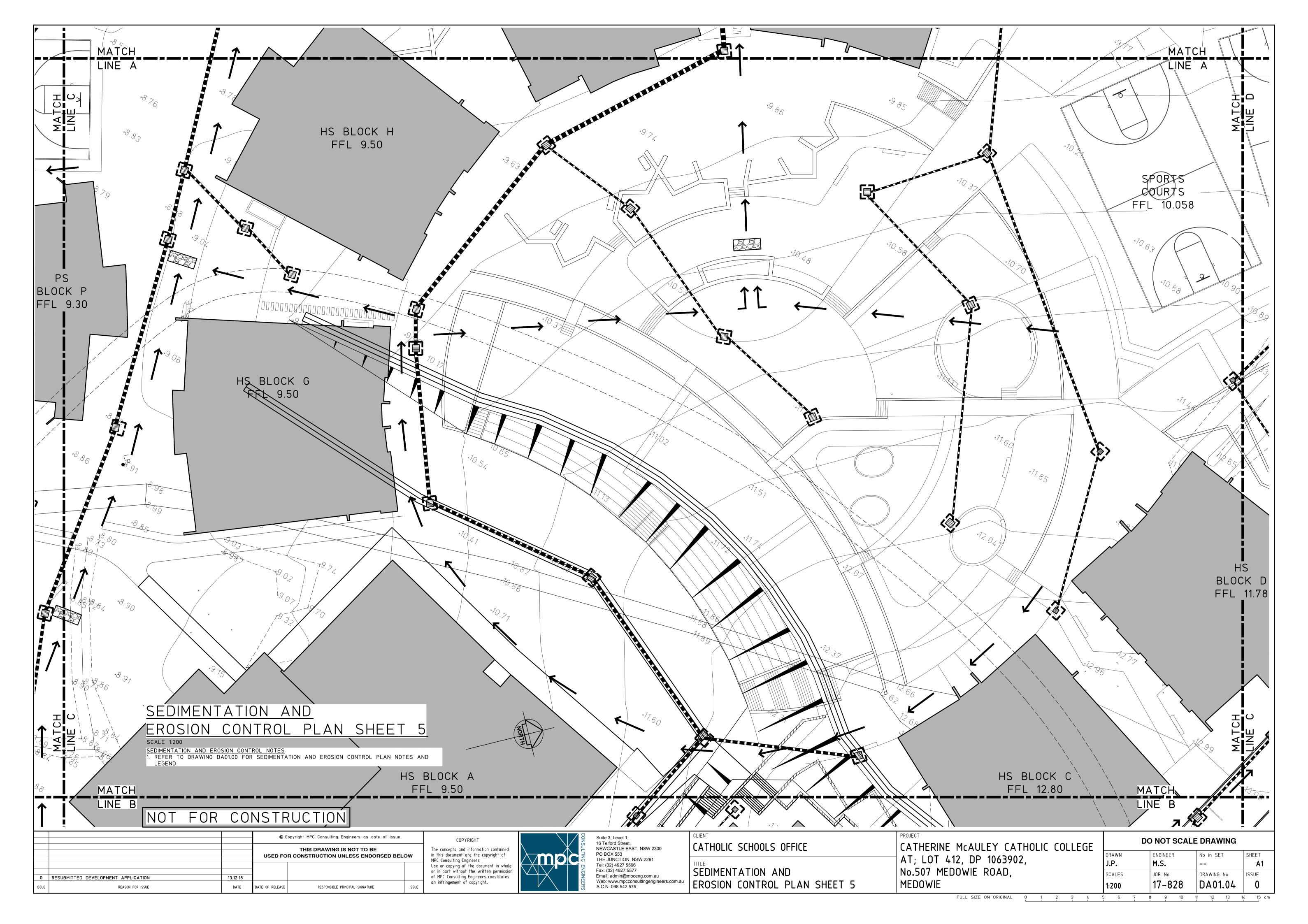
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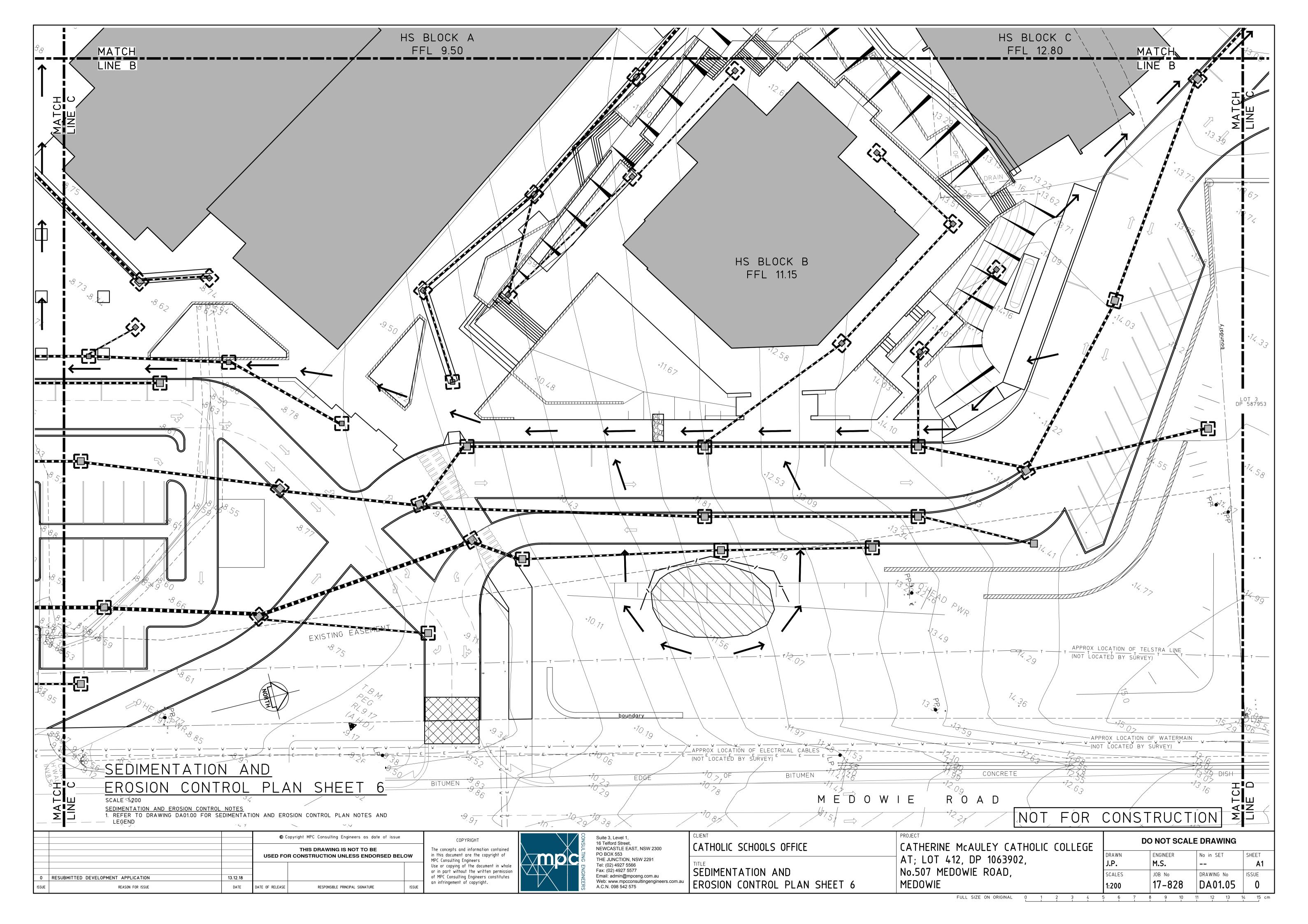
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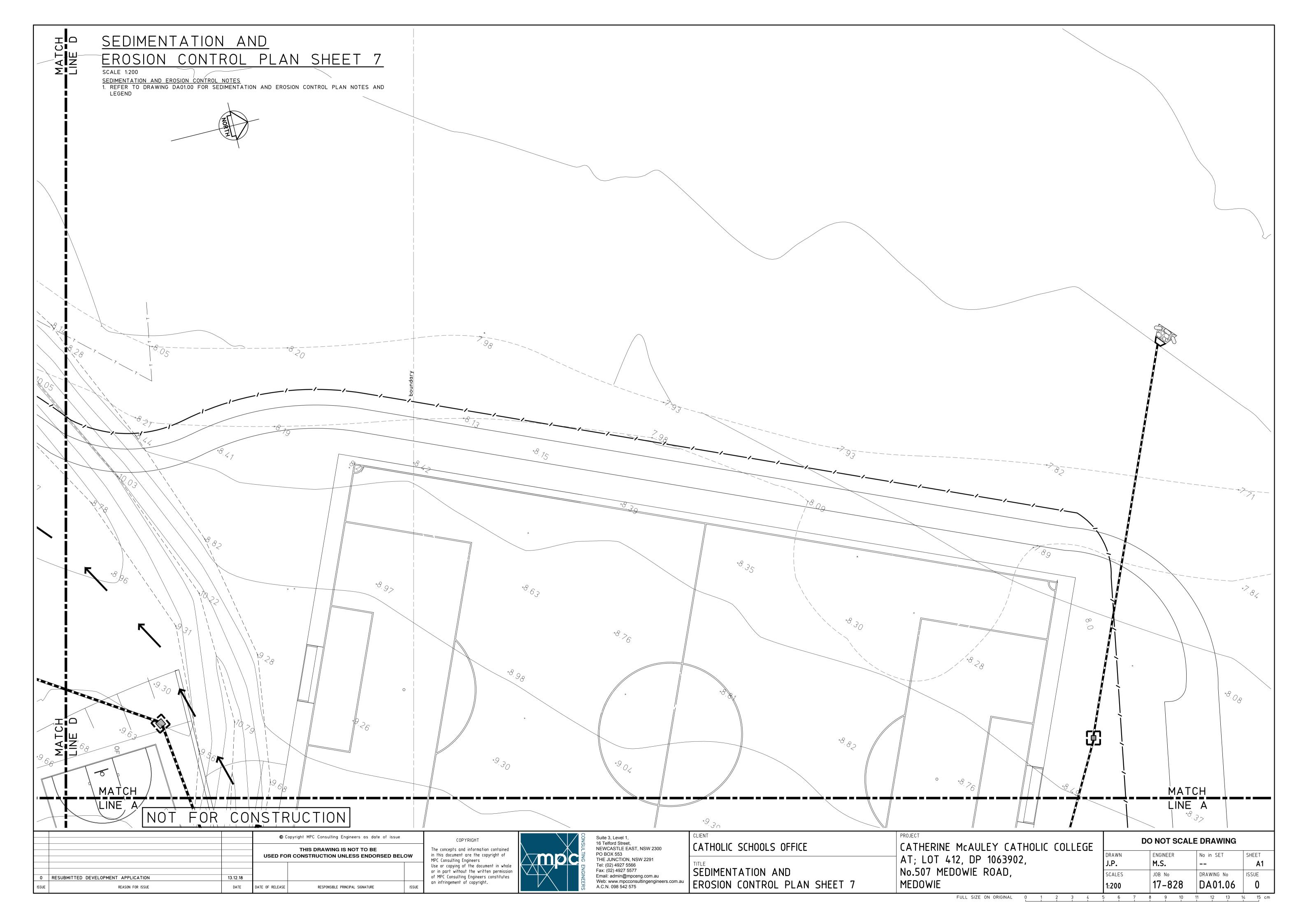


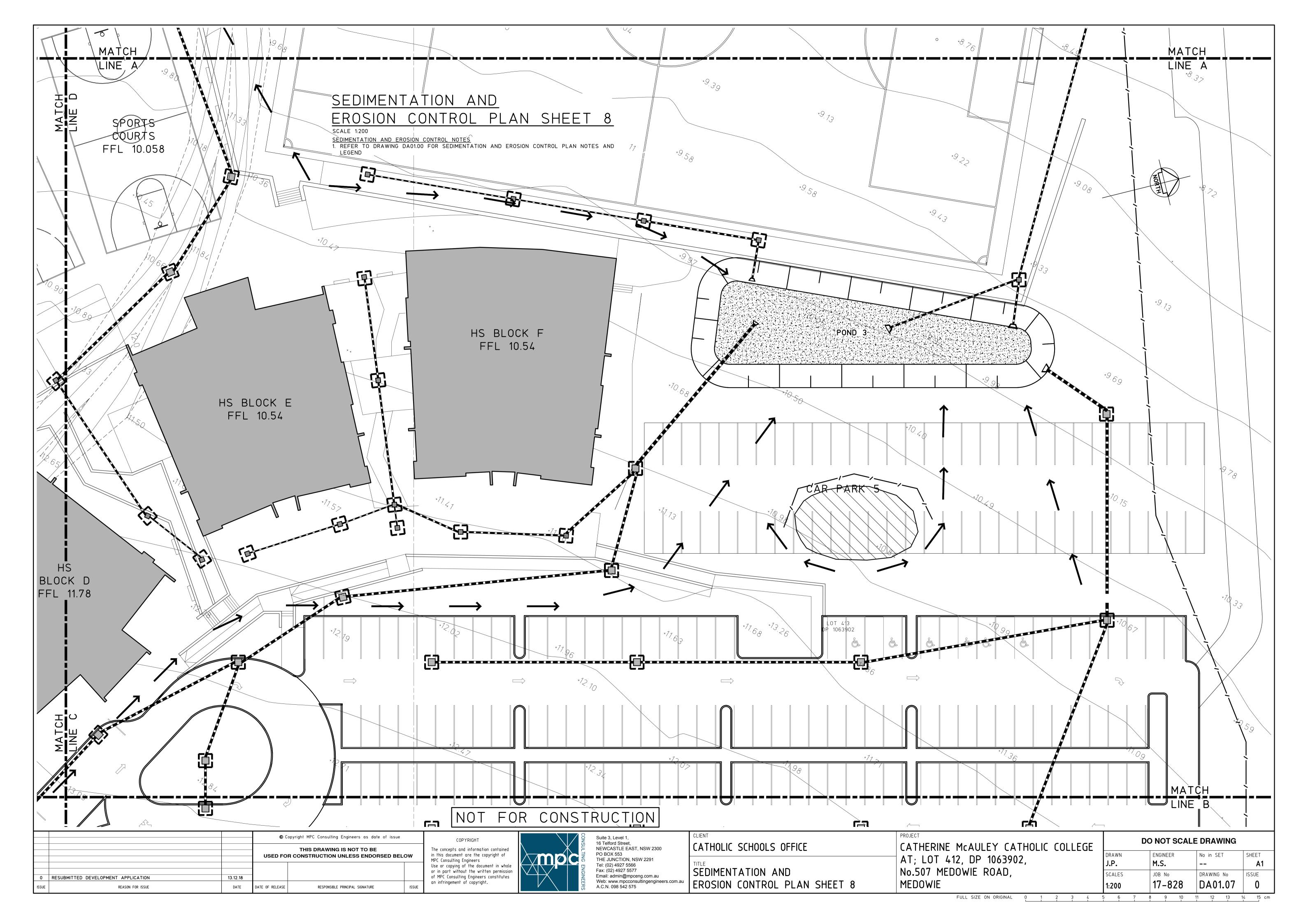


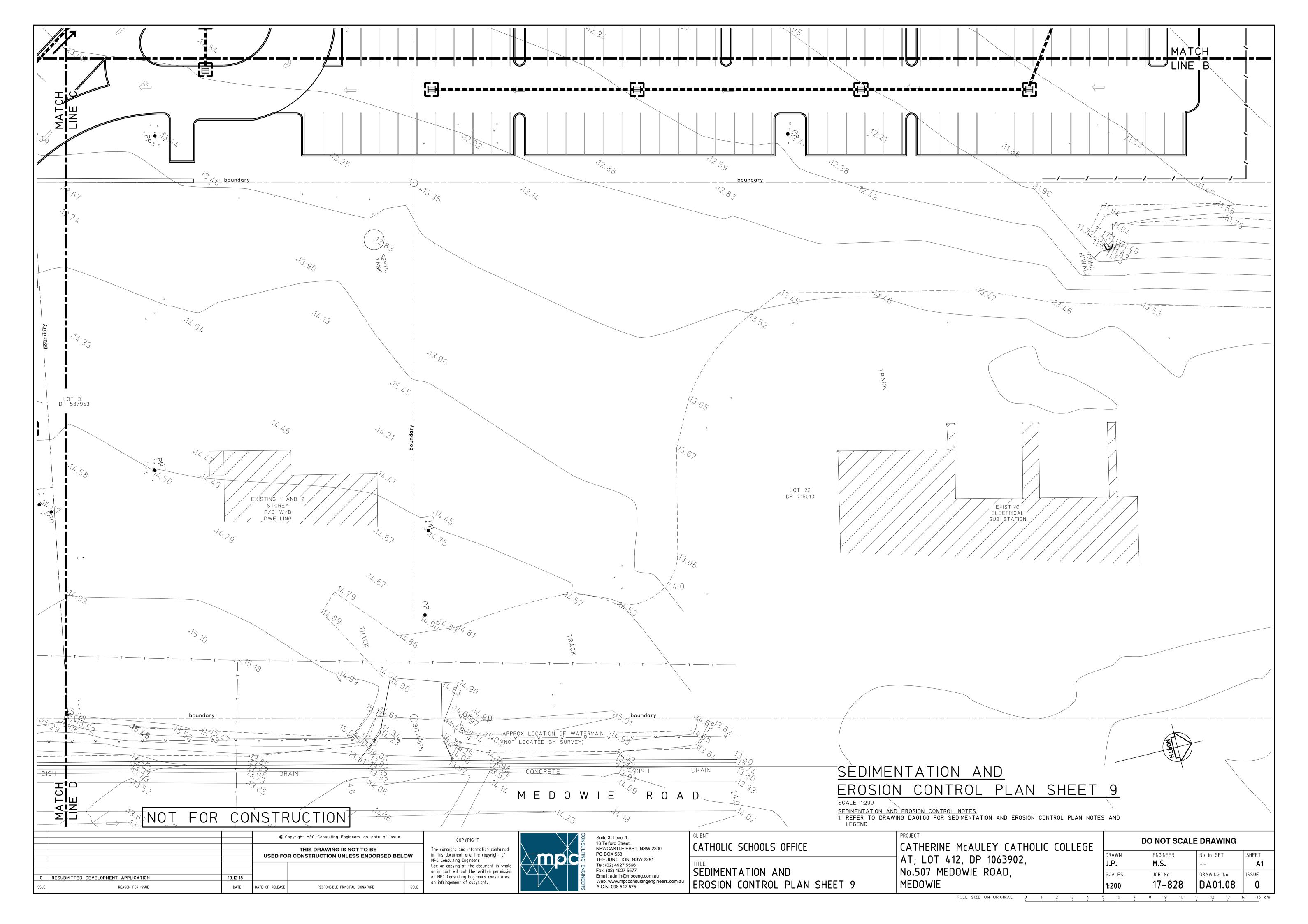


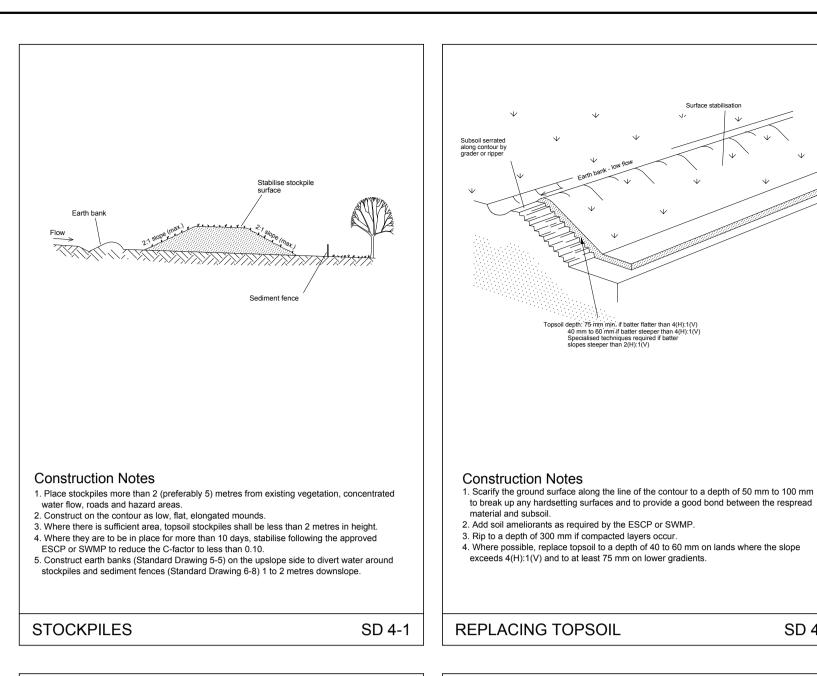


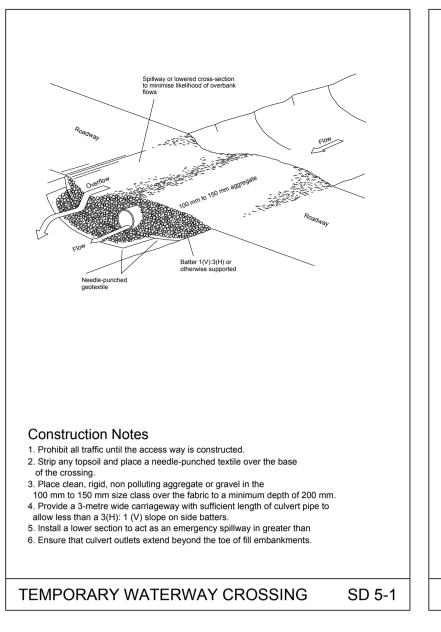


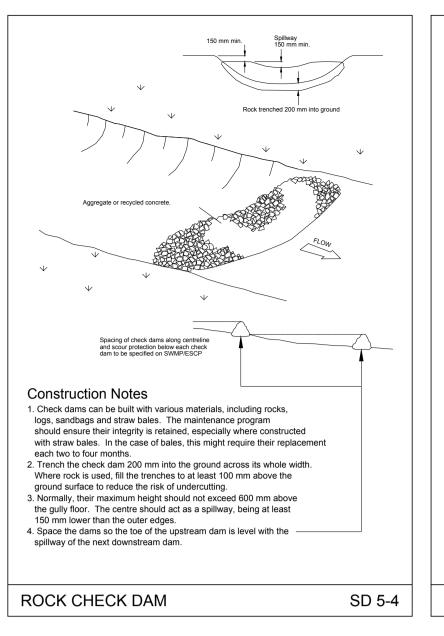


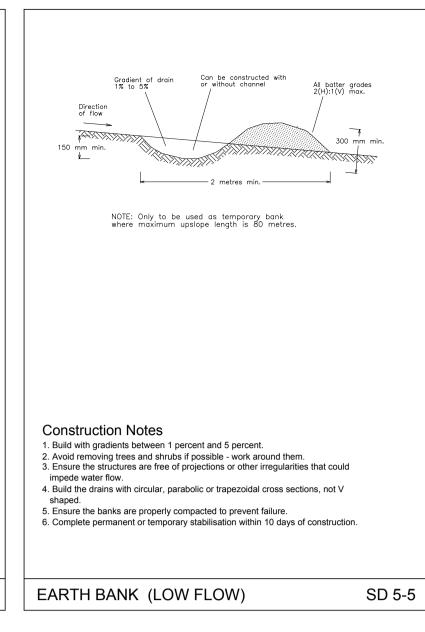


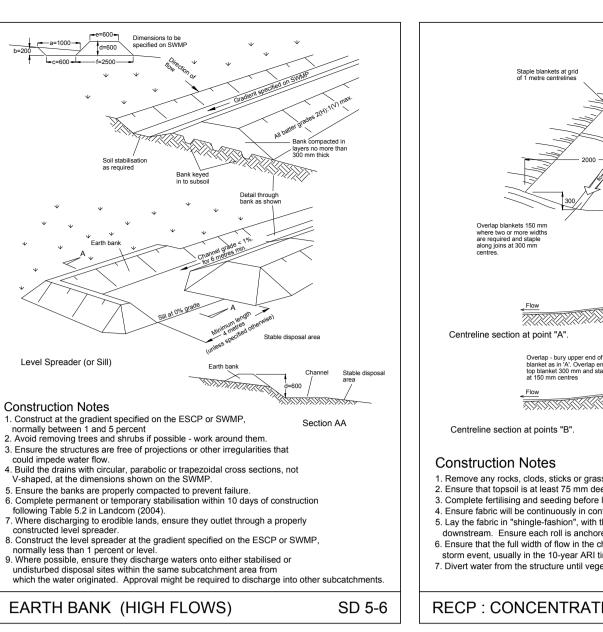


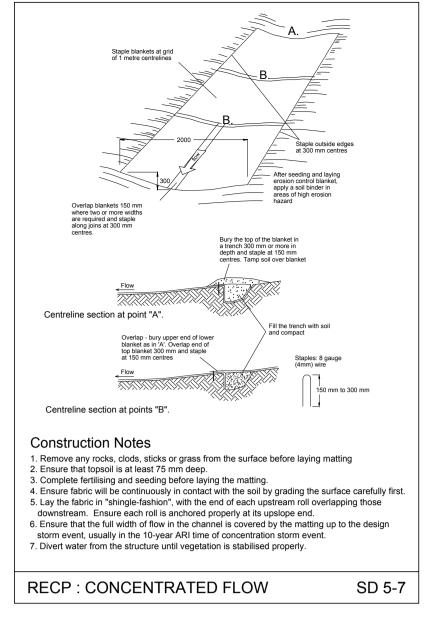


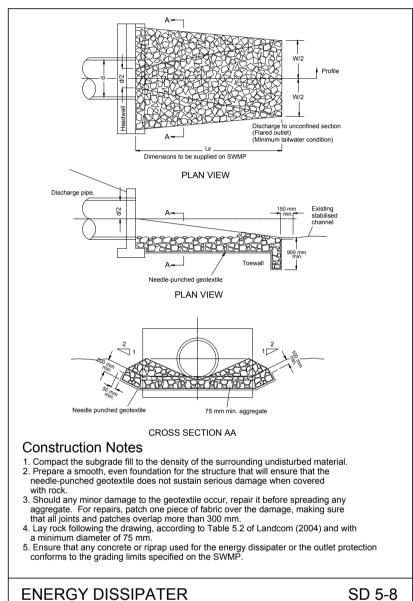


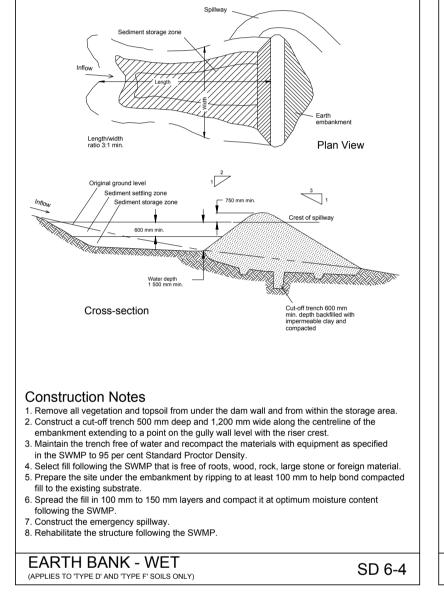




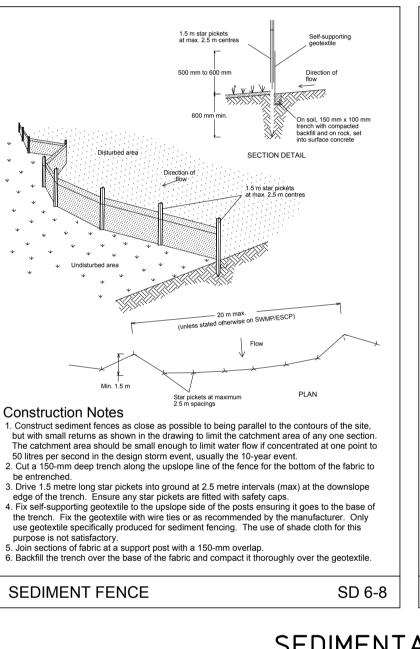


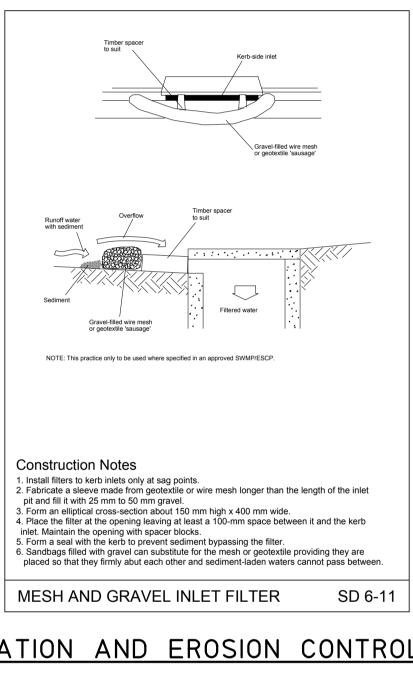


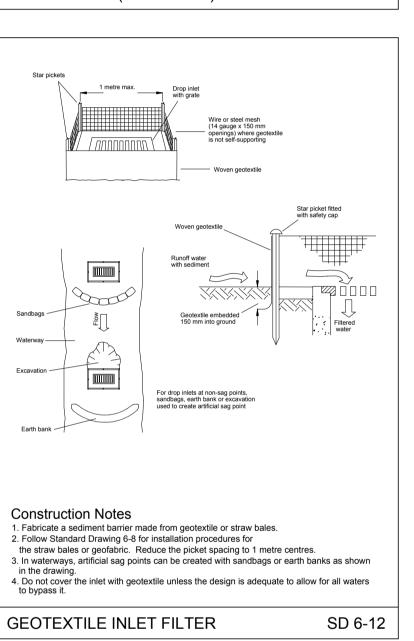


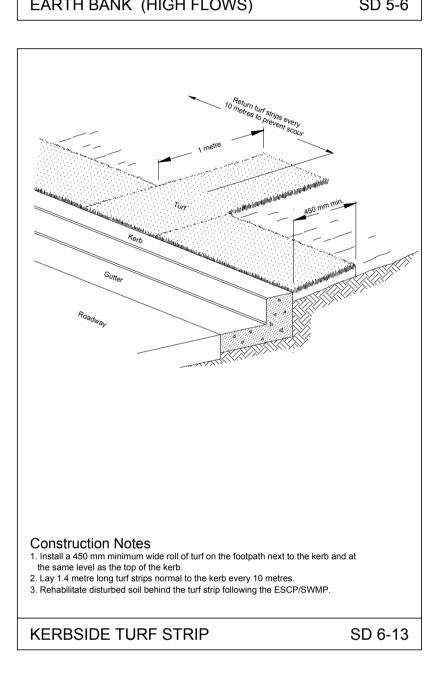


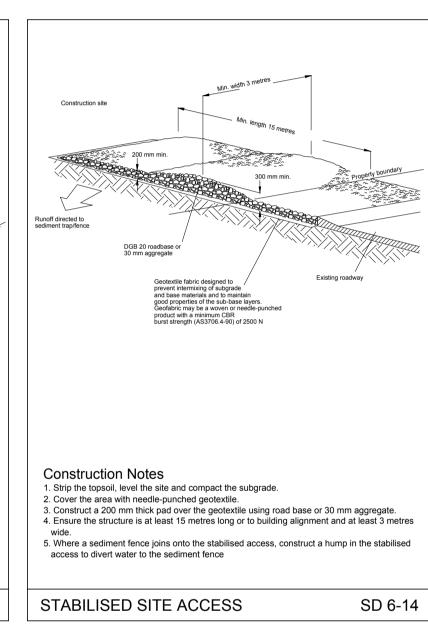
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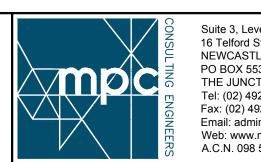


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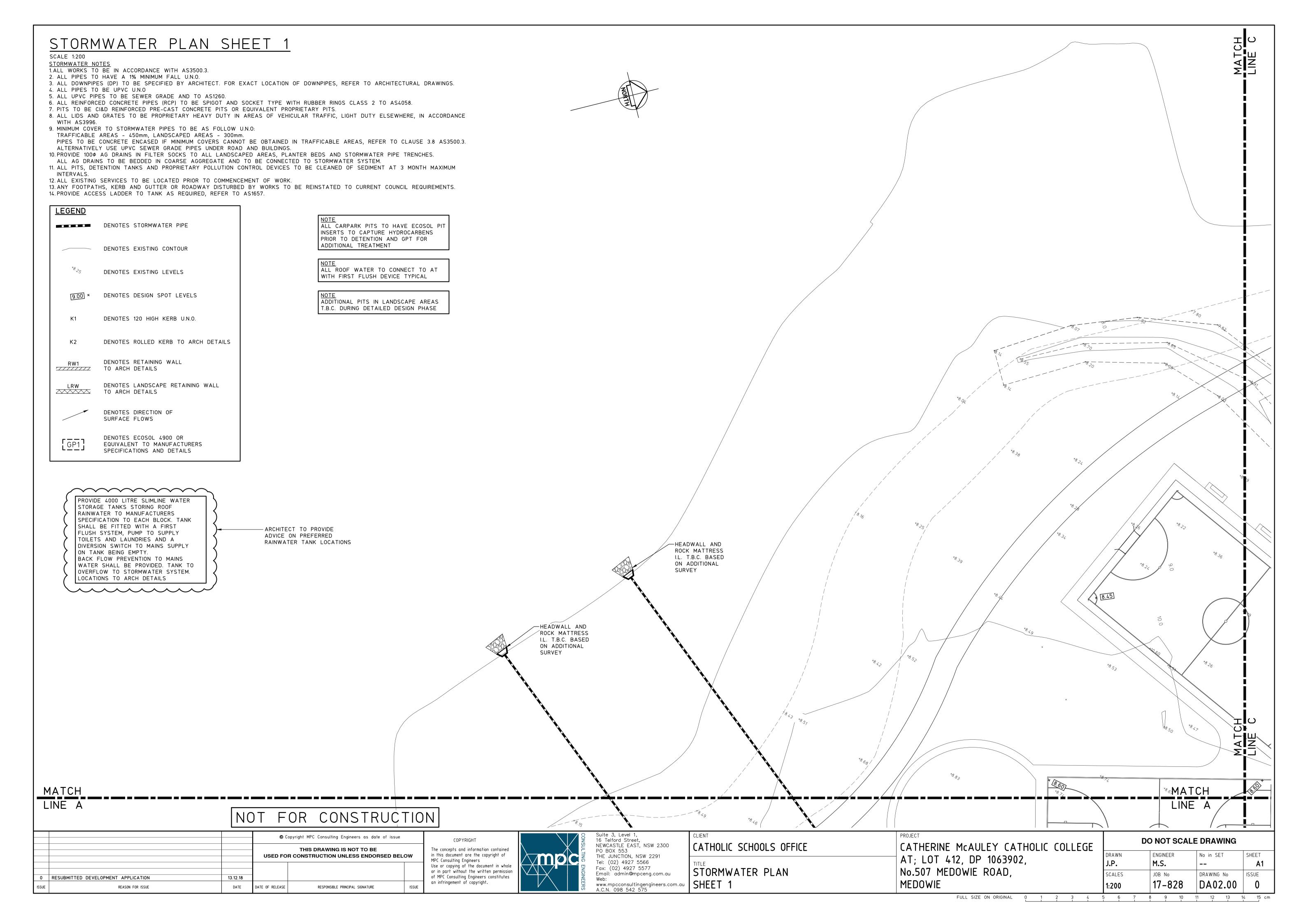
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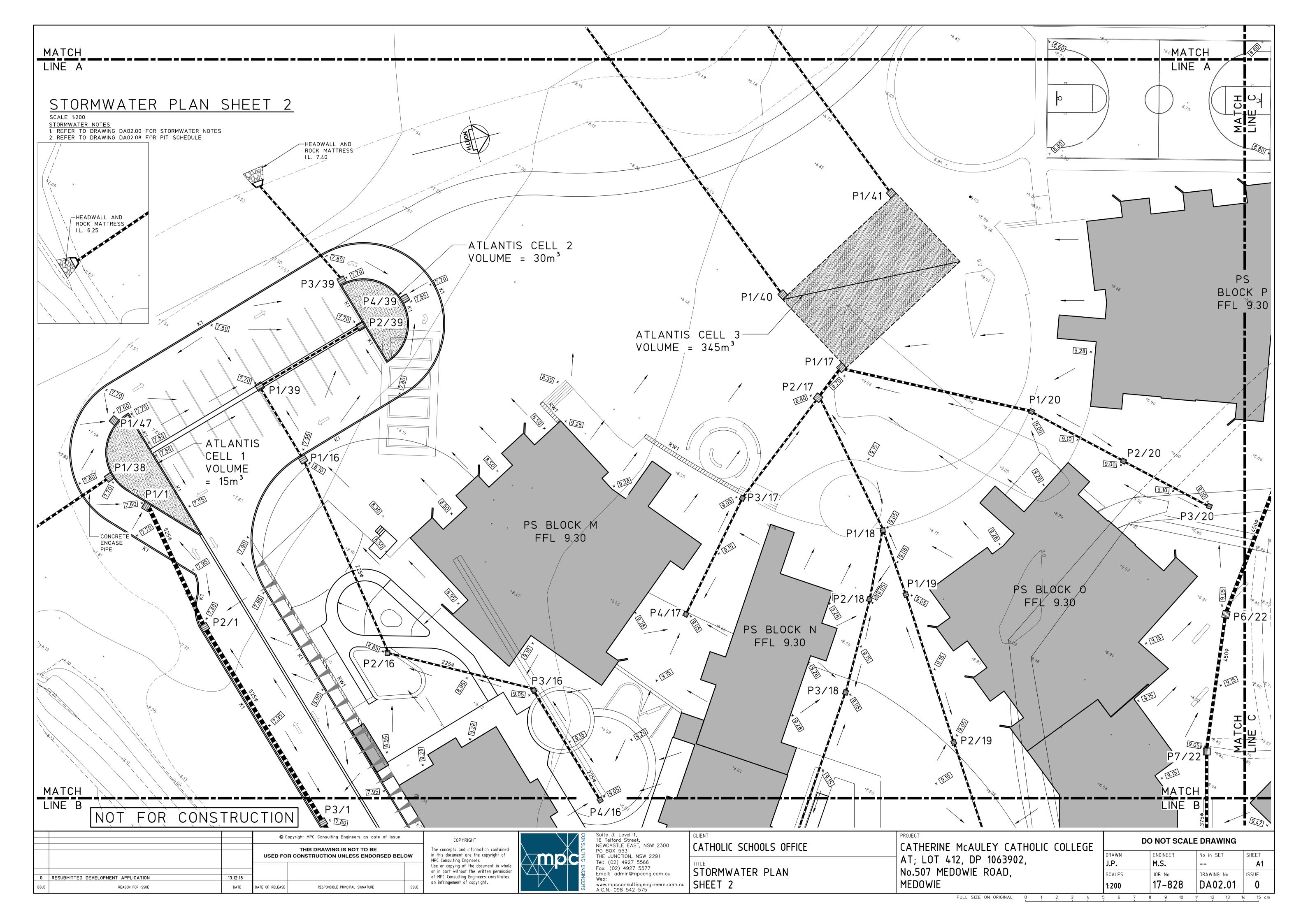
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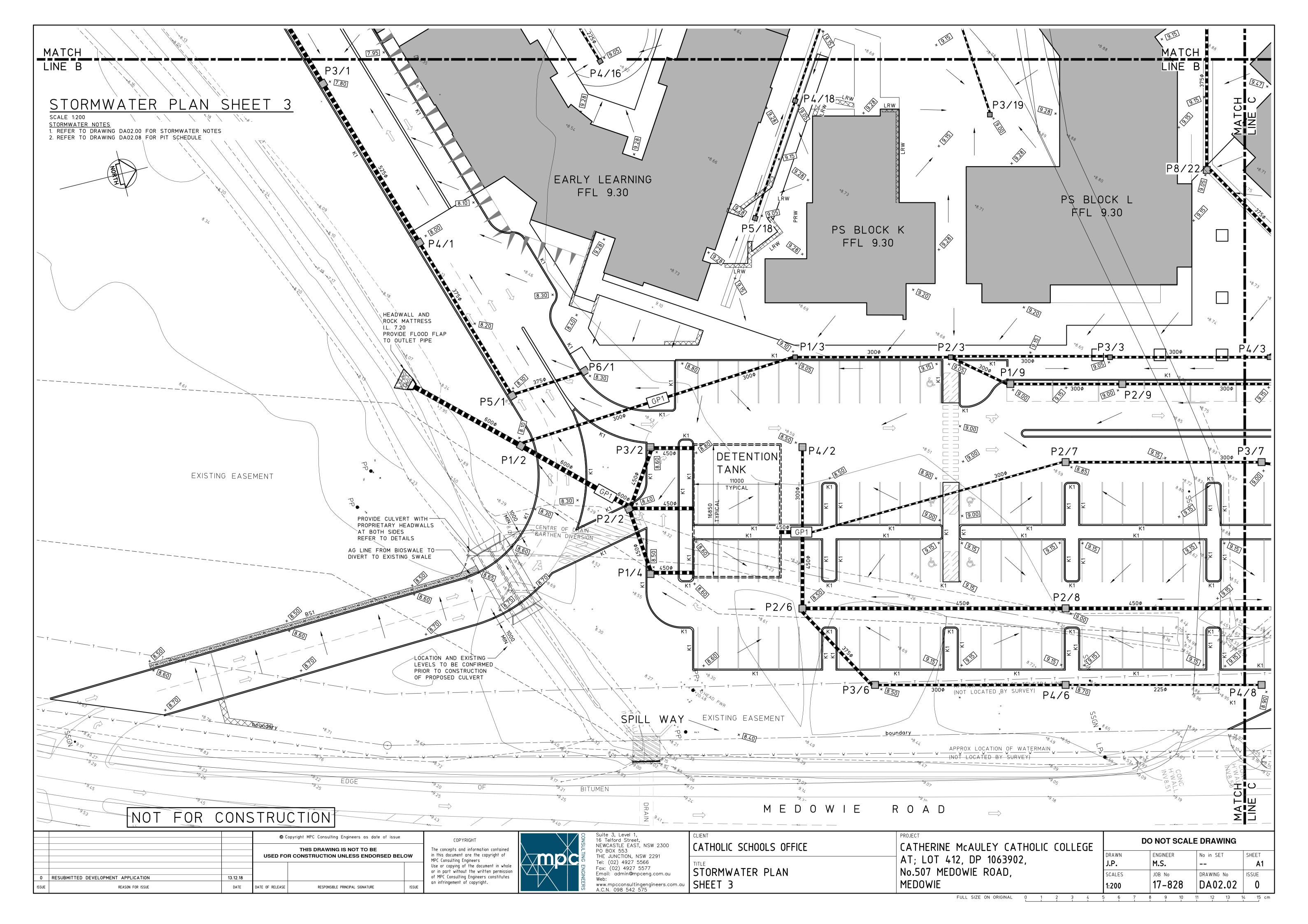
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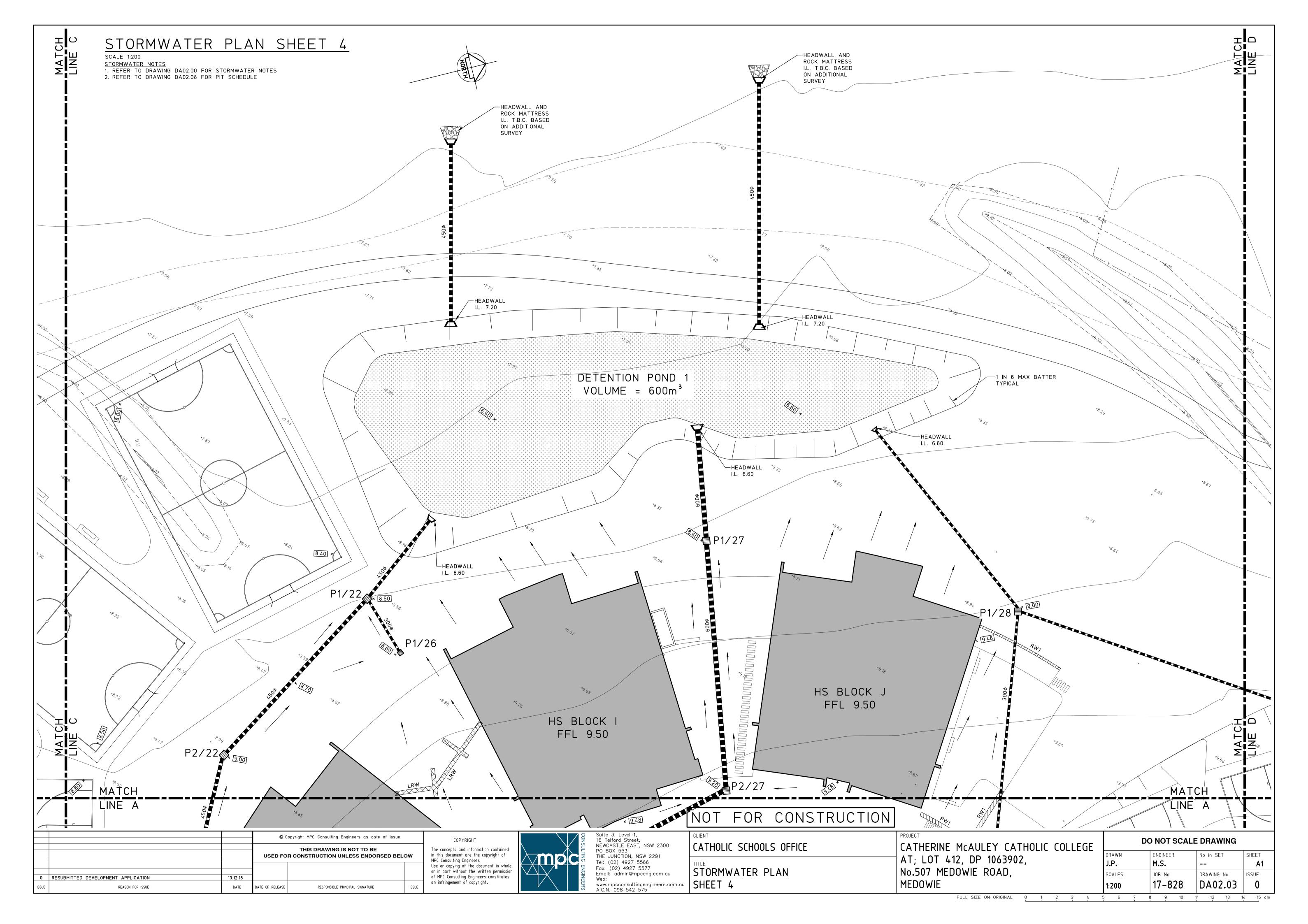
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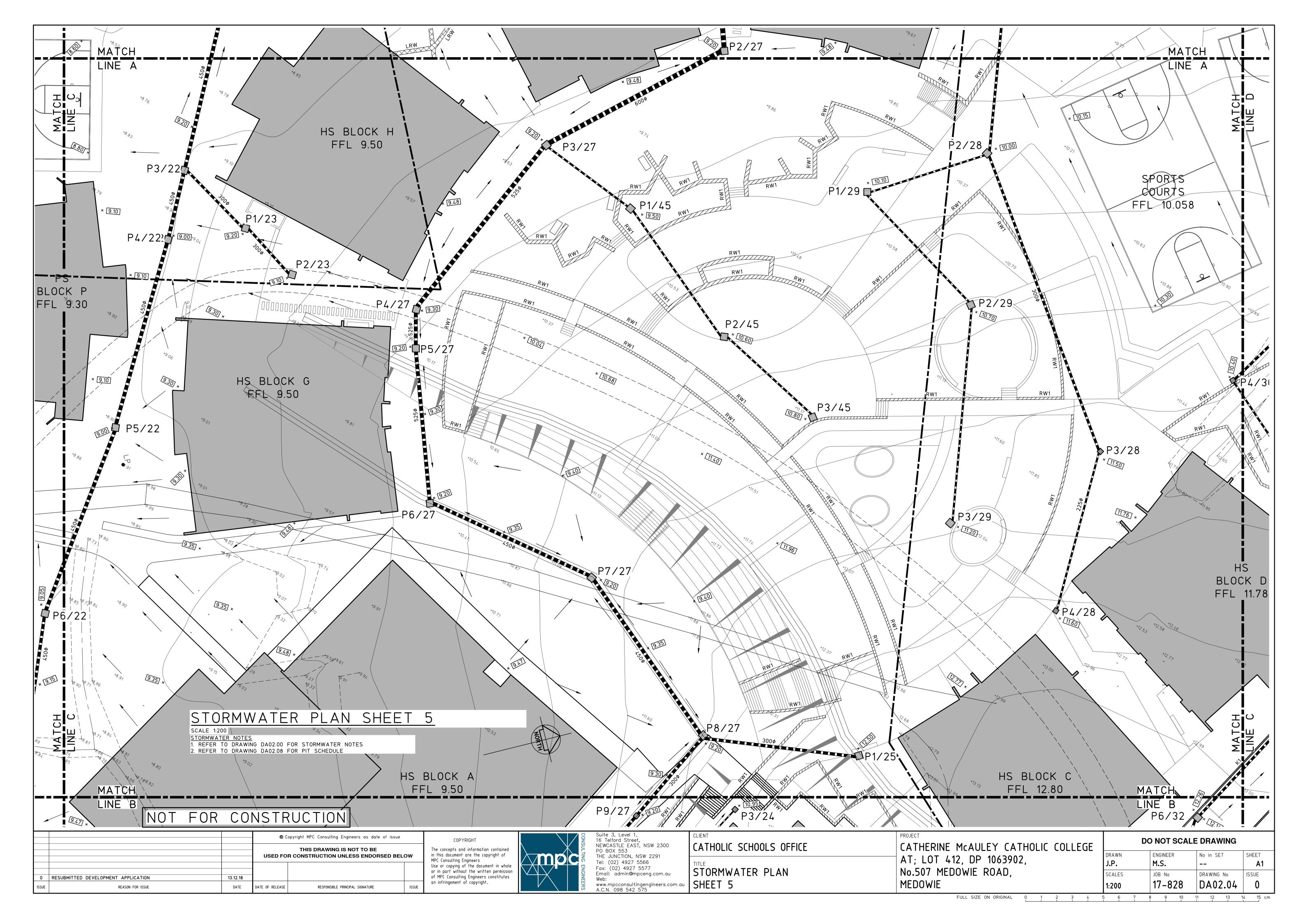
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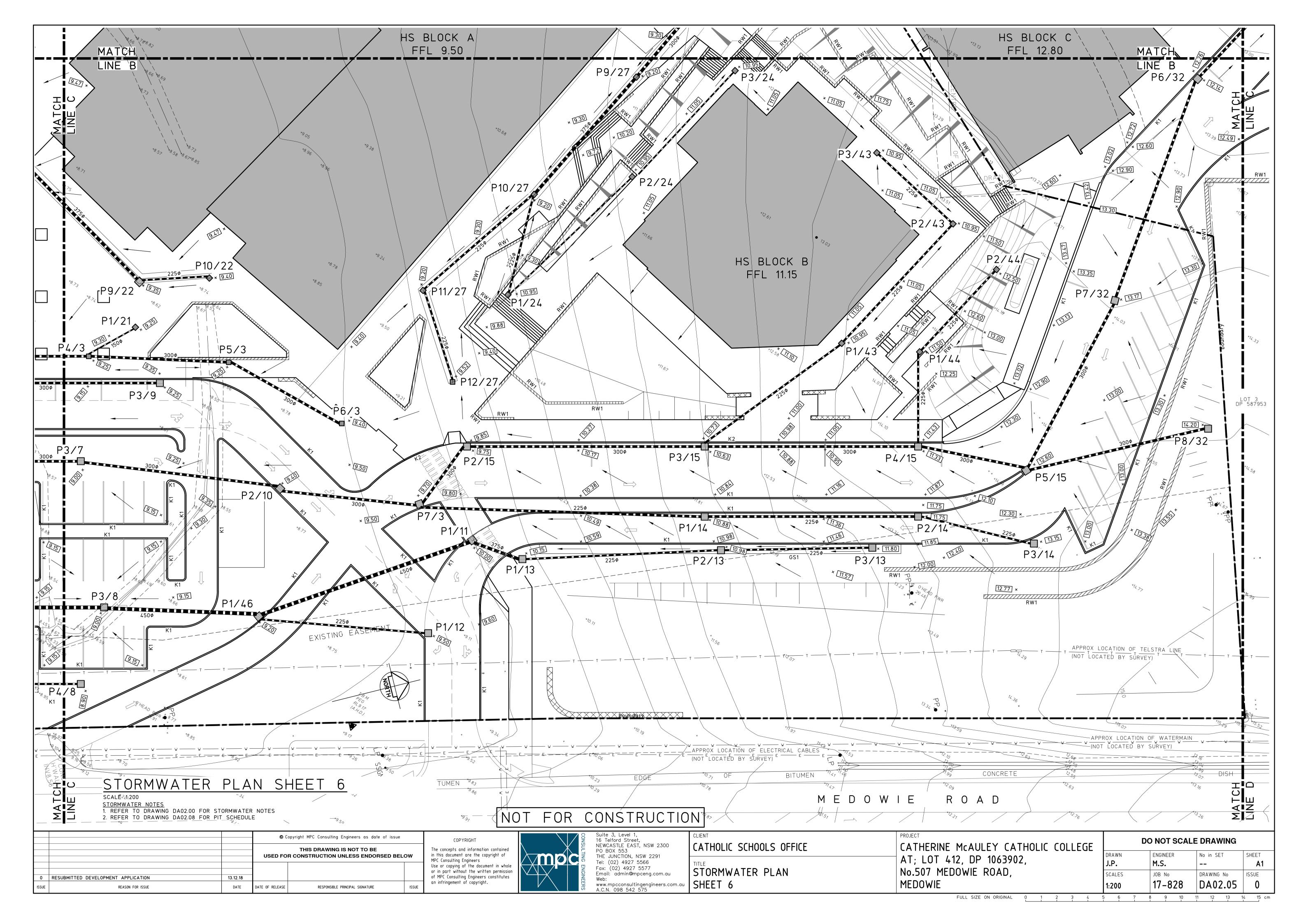


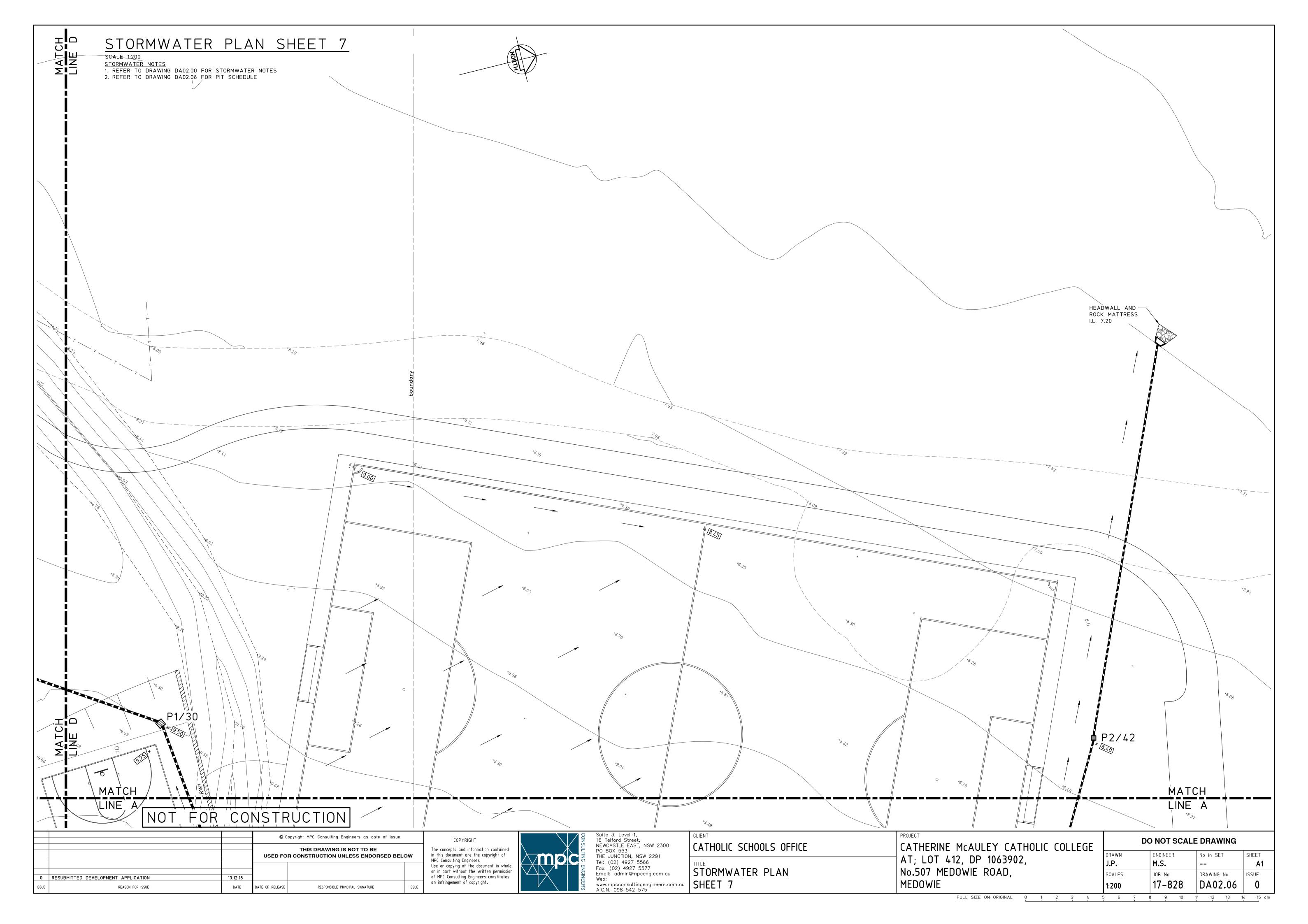


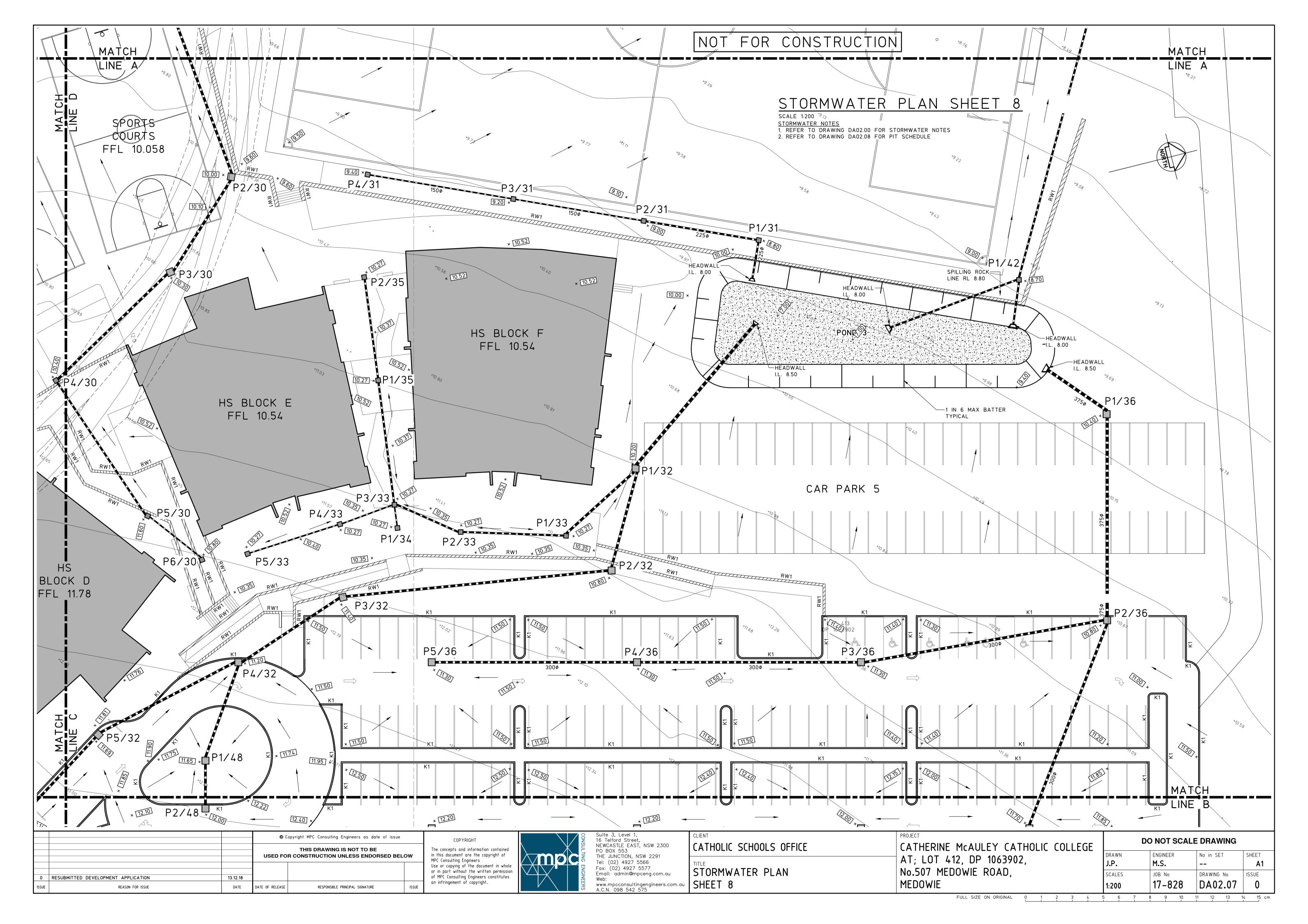


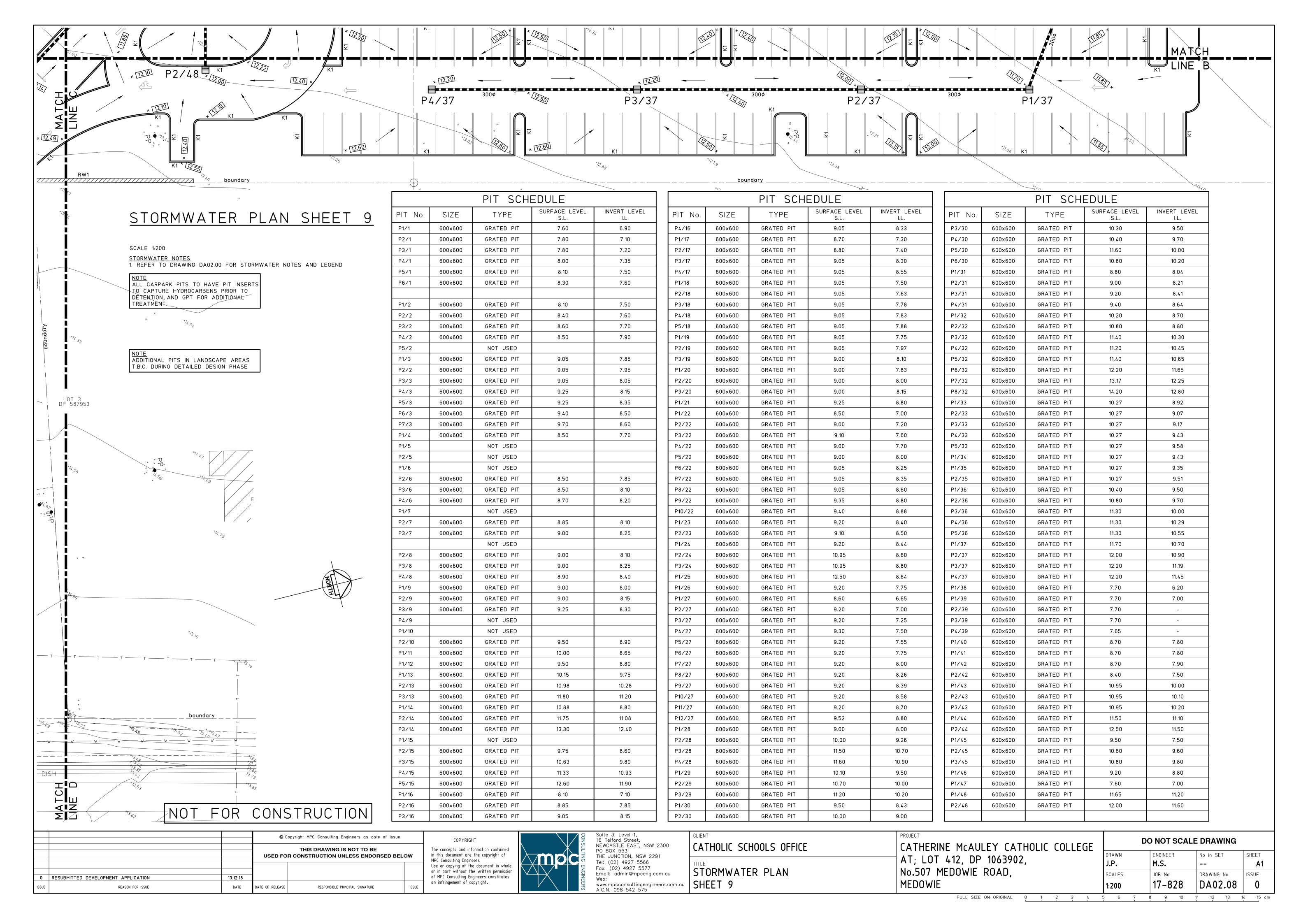


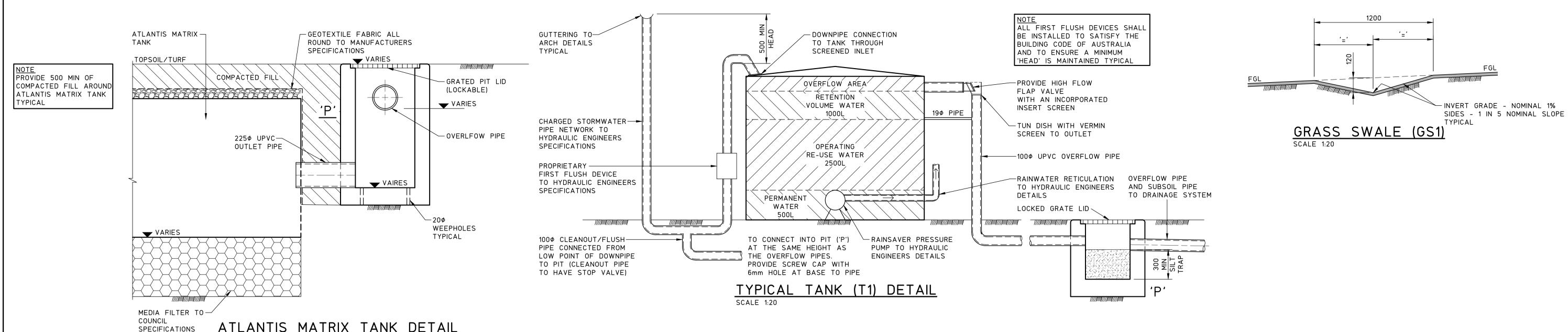


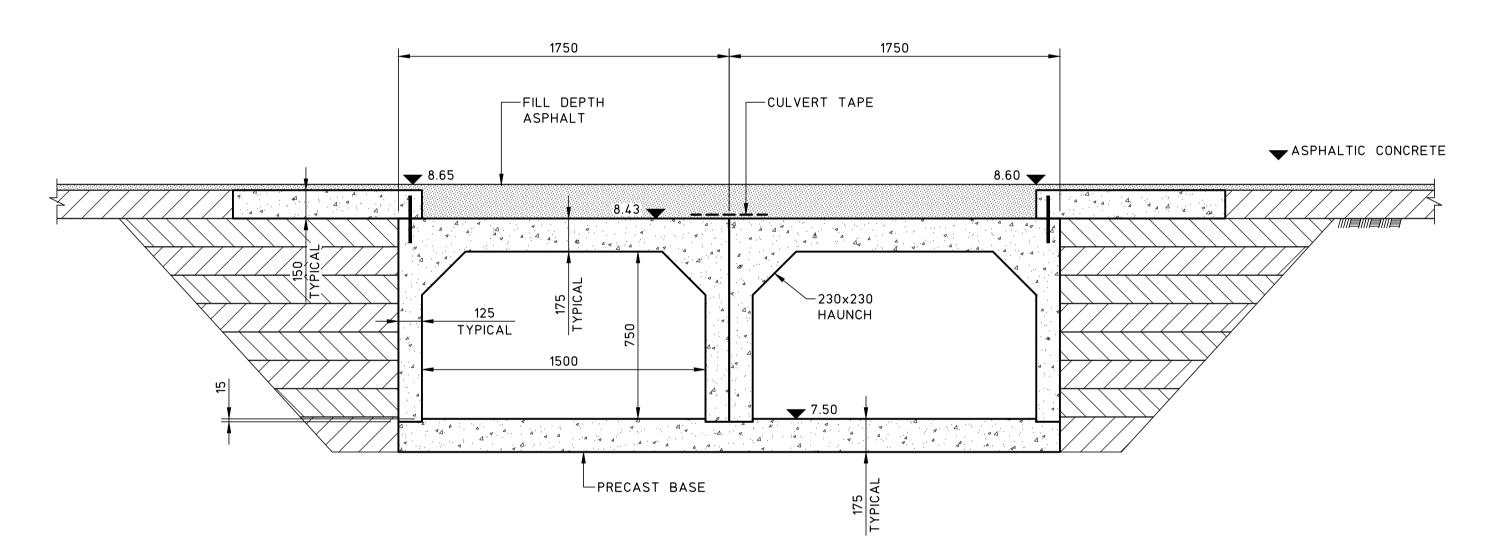








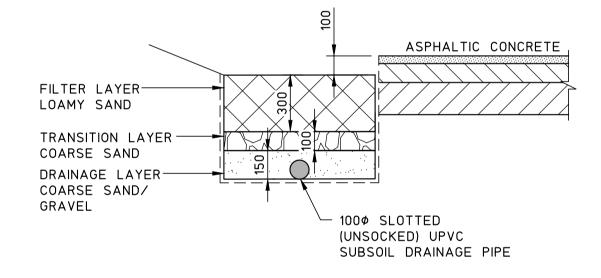




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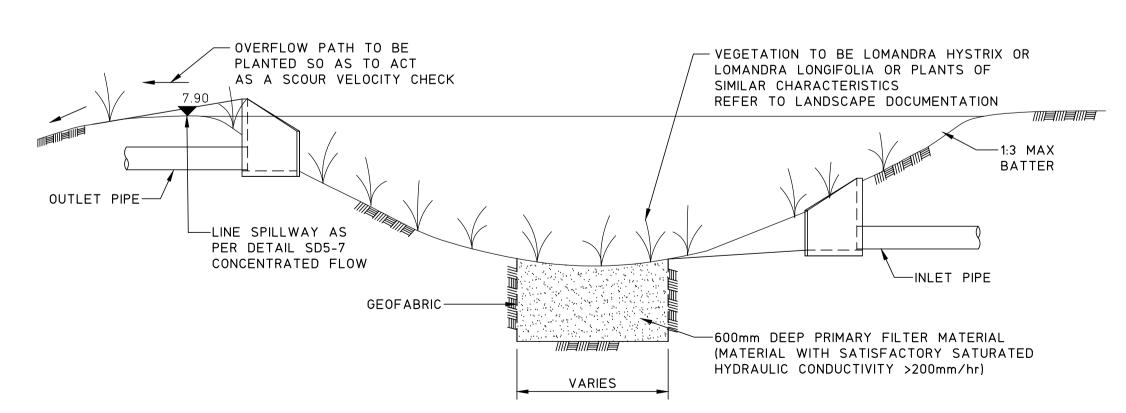
ATLANTIS MATRIX TANK DETAIL

ATLANTIS MATRIX TANK NOTES 1. TRENCHING SHALL BE CLEAR OF STRUCTURAL FOUNDATIONS WITHIN THE RANGE OF 1m (MIN.) IN CLEAN SAND AND 5m (MIN.) IN CLAY. 2. THE TRENCHING SHALL BE PLACED LEVEL ALONG THE CONTOUR OF THE NATURAL OR FINISHED SURFACE. 3. THE TRENCHING SHALL BE PLACED WITHIN THE PROPERTY TO ACHIEVE MAX. AREA, SLOPING AWAY FROM THE TRENCH, FOR DISPOSAL OF WATER. 4. IT IS THE OWNERS RESPONSIBILITY TO REGULARLY CLEAN THE PIT AND MAINTAIN THE SYSTEM. 5. PROVIDE 150¢ INSPECTION POINTS IN ACCORDANCE



WITH MANUFACTURERS SPECIFICATION

BIOSWALE BS1 DETAILS



TYPICAL DETENTION POND DETAIL SCALE 1:50

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			THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNLESS ENDORSED B		BELOW	
0	RESUBMITTED DEVELOPMENT APPLICATION	13.12.18				
ISSUE	REASON FOR ISSUE	DATE	DATE OF RELEASE	RESPONSIBLE PRINCIPAL SIGNATURE	ISSUE	

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CATHOLIC SCHOOLS OFFICE STORMWATER DETAILS

CATHERINE McAULEY CATHOLIC COLLEGE AT; LOT 412, DP 1063902, No.507 MEDOWIE ROAD, MEDOWIE

DO NOT SCALE DRAWING ENGINEER No in SET DRAWN J.P. M.S. **A1** SCALES JOB No DRAWING No ISSUE 17-828 DA02.50 1:50, 20

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FULL SIZE ON ORIGINAL