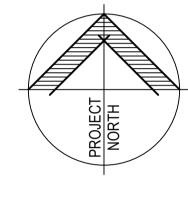
ANGLICAN CARE CAREY BAY RESIDENTIAL AGED CARE FACILITY (RACF)

36 LAYCOCK STREET, CAREY BAY NSW





LOCALITY PLAN



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PROJECT

ANGLICAN CARE CAREY BAY RACF 36 LAYCOCK STREET

CAREY BAY, NSW, 2283

CLIENT

ANGLICAN CARE

DRAWING LIST

CI-0000 COVER SHEET & DRAWING LIST

CI-0005 SITE PLAN

CI-0010 SOIL & WATER MANAGEMENT PLAN
CI-0011 SOIL & WATER MANAGEMENT DETAILS

CI-0012 SOIL & WATER MANAGEMENT NOTES

CI-0020 STORMWATER DRAINAGE PLAN SHEET 1

CI-0021 STORMWATER DRAINAGE PLAN SHEET 2

CI-0030 CIVIL DETAILS SHEET 1
CI-0030 CIVIL DETAILS SHEET 2

CI-0040 BULK EARTHWORKS PLAN

CI-0050 SITE ACCESS PLAN SHEET 1

CI-0051 SITE ACCESS PLAN SHEET 2

CI-0060 DRIVEWAY LONGSECTIONS

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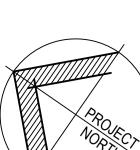
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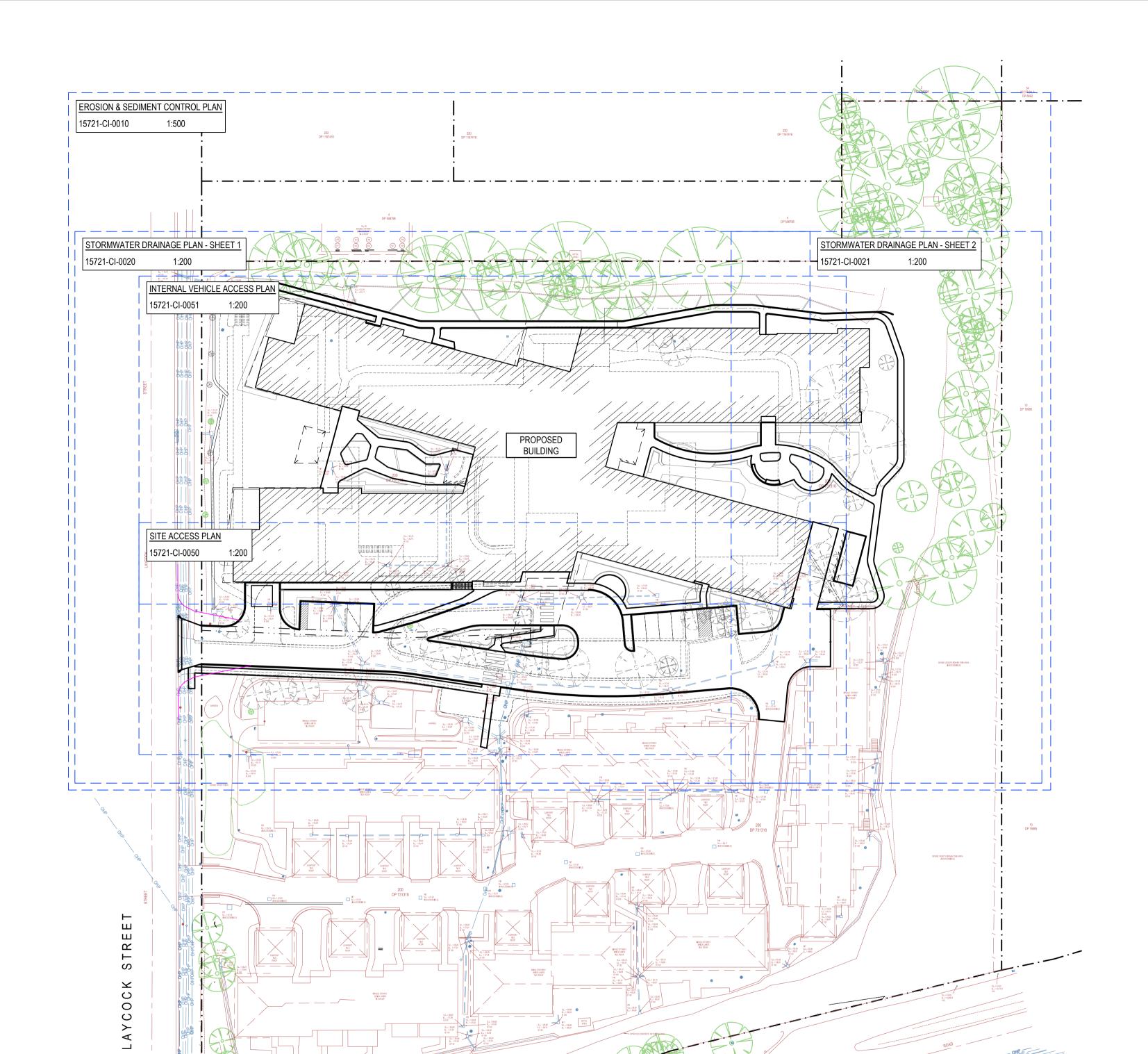
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COVER SHEET & DRAWING LIST

DRAWING STATUS			SHEET SIZE
FOR APPROVAL			A1
DRAWN	DESIGNED	APPROVED	SCALE
I.Judd	B.Prior	S.Sharma	N.T.S
PROJECT No.		DRAWING No.	REVISION
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PROJECT

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CAREY BAY, NSW, 2283

NOTES

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LEGEND

SHEET EXTENT

EXISTING STORMWATER DRAINAGE PIPE AND PIT

EXISTING OVERHEAD POWER LINES

EXISTING FENCE

— · — · — BOUNDARY LINE

- · · - EASEMENT LINE

EXISTING TREE TO REMAIN

EXISTING TREE TO BE REMOVED

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 TITLE
 TITLE

SITE PLAN

DRAWING STATUS SHEET SIZE FOR APPROVAL A1 APPROVED I.Judd S.Sharma 1:500 PROJECT No. REVISION DRAWING No. 15721 CI-0005

SITE PLAN
1:500

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CAREY BAY, NSW, 2283

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NOTES

THE ARRANGEMENT OF EROSION AND SEDIMENT CONTROL MEASURES SHOWN ARE INDICATIVE ONLY AND RELATE TO A PARTICULAR STAGE OF THE CONSTRUCTION WORKS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DESIGN, CONSTRUCT AND MAINTAIN ANY ADDITIONAL MEASURES THAT MAY BE REQUIRED FOR THE CONTRACTOR'S CONSTRUCTION METHODOLOGIES, IN ORDER TO MEET ALL CONDITIONS AND REQUIREMENTS IMPOSED BY ANY STATUTORY AUTHORITY.

THE POSITION OF ALL EXISTING SERVICES SHOWN SHOULD BE REGARDED AS APPROXIMATE ONLY AND NOT NECESSARILY COMPREHENSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT SERVICE LOCATIONS AND INFORM ALL AUTHORITIES PRIOR TO ANY EXCAVATION.

TREATMENT OF ALL EXPOSED / DISTURBED AREAS TO ARCHITECT'S DETAILS.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH

LEGEND

SEDIMENT CONTROL FENCE, REFER TO DRAWING 15559-CI-0011 FOR DETAILS

STABILISED SITE ACCESS, REFER TO DRAWING 15559-CI-0011 FOR DETAILS

GEOTEXTILE DROP INLET PIT FILTER, REFER TO DRAWING 15559-CI-0011 FOR DETAILS TEMPORARY STOCKPILE, REFER TO DRAWING

15559-CI-0011 FOR DETAILS ROCK CHECK DAM, REFER TO DRAWING

RC 15559-CI-0011 FOR DETAILS

CLEAN WATER DIVERSION SWALE, REFER TO DRAWING 15559-CI-0011 FOR DETAILS **EXISTING CONTOUR**

EXISTING STORMWATER DRAINAGE PIPE AND

EXISTING OVERHEAD POWER LINES **EXISTING FENCE**

BOUNDARY LINE

EASEMENT LINE EXISTING TREE TO REMAIN

EXISTING TREE TO BE REMOVED

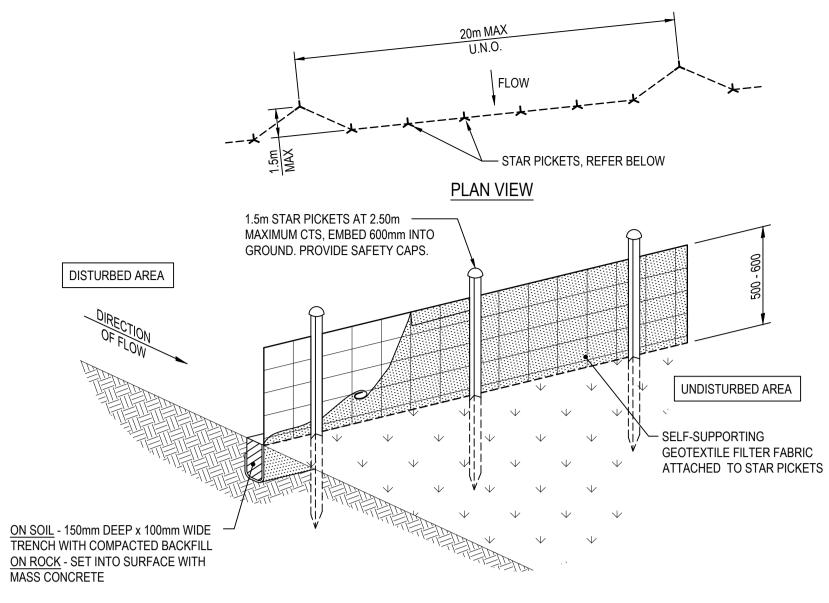
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SOIL & WATER MANAGEMENT PLAN

DRAWING STATUS SHEET SIZE FOR APPROVAL A1 APPROVED DRAWN DESIGNED 1:250 I.Judd S.Sharma PROJECT No. DRAWING No. REVISION 15721

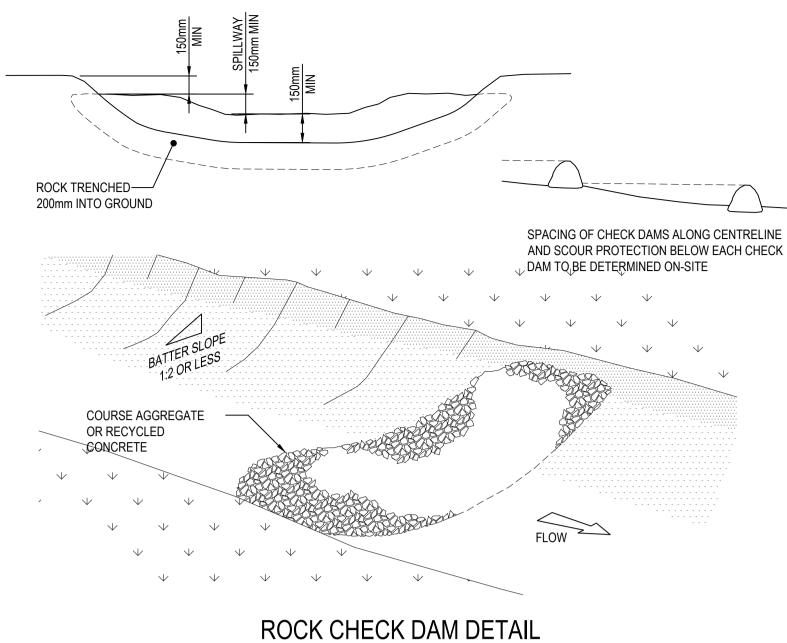
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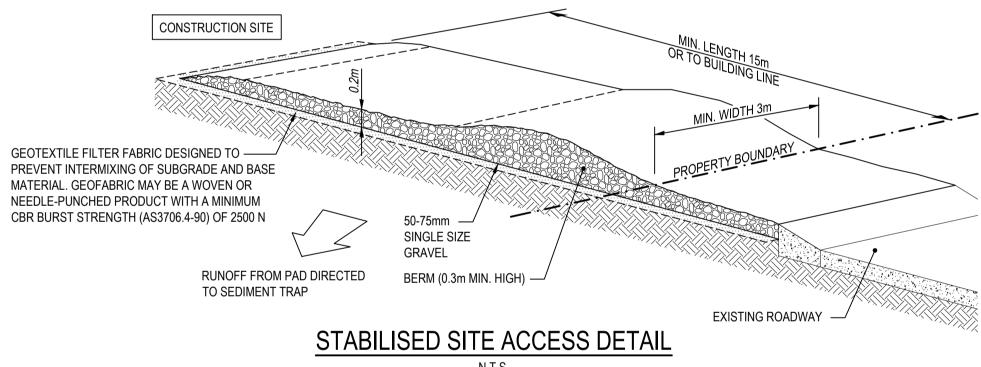


SEDIMENT CONTROL FENCE DETAIL

IN ACCORDANCE WITH LANDCOM 'BLUE BOOK' SD6-8 SEDIMENT FENCE

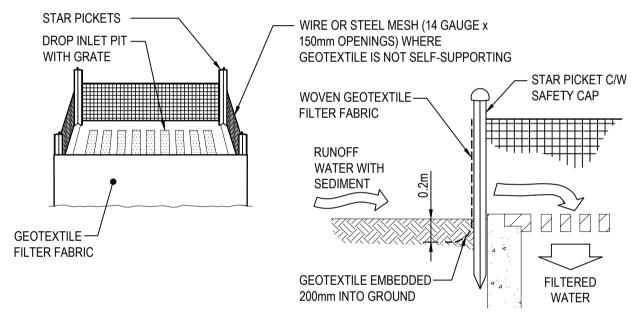


N.T.S. IN ACCORDANCE WITH LANDCOM 'BLUE BOOK' SD5-4 ROCK CHECK DAM



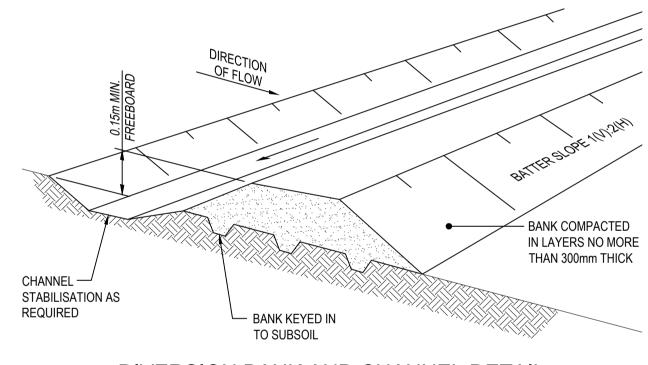
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IN ACCORDANCE WITH LANDCOM 'BLUE BOOK' SD6-14 STABILISED SITE ACCESS

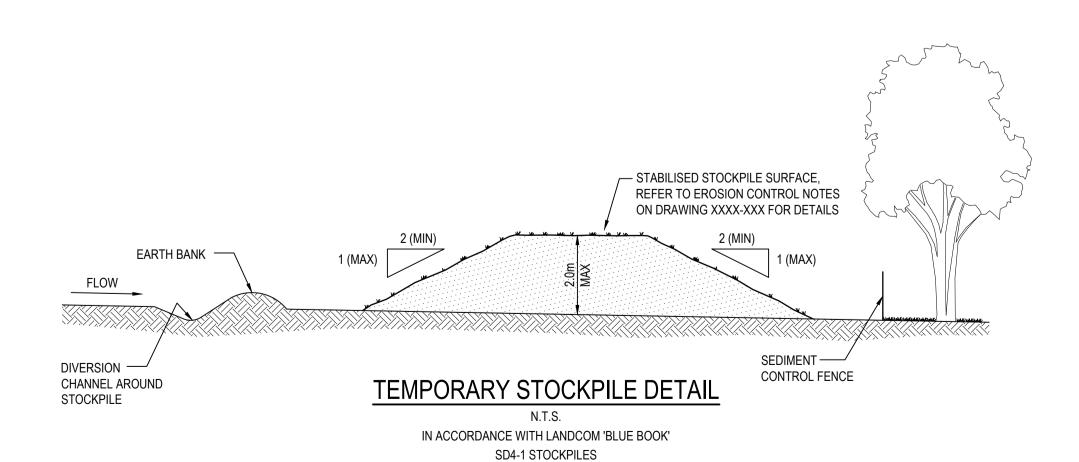


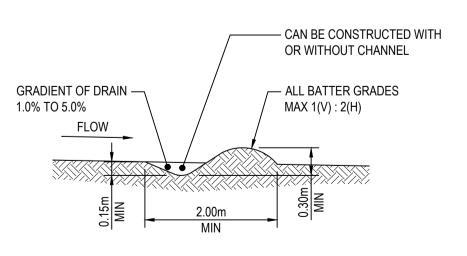
GEOTEXTILE DROP INLET PIT FILTER DETAIL

IN ACCORDANCE WITH LANDCOM 'BLUE BOOK' SD6-12 GEOTEXTILE INLET FILTER



DIVERSION BANK AND CHANNEL DETAIL





NOTE: ONLY TO BE USED AS TEMPORARY BANK WHERE MAXIMUM UPSLOPE LENGTH IS 80 METRES

CLEAN WATER DIVERSION DRAIN DETAIL

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REV	DATE	DRAWING STATUS	DRN	-
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ANGLICAN CARE CAREY BAY RACF

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36 LAYCOCK STREET

ANGLICAN CARE

15721-CI-0000.

CAREY BAY, NSW, 2283

PROJECT

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SOIL & WATER MANAGEMENT DETAILS

DRAWING STATUS	SHEET SIZE		
FOR APPROVAL			A1
DRAWN	DESIGNED	APPROVED	SCALE
I.Judd	B.Prior	S.Sharma	N.T.S
PROJECT No.		DRAWING No.	REVISION
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SOIL & WATER MANAGEMENT NOTES - SHEET 1

EXISTING AND PROPOSE DRAINAGE WORKS

EXISTING

THE SITE, 36 LAYCOCK STREET, CAREY BAY, SLOPES FROM SOUTH-WEST TO NORTH-EAST WITH AN AVERAGE PRE-DEVELOPED SLOPE OF AROUND 4.0%. THE CURRENT DEVELOPED SITE CONSISTS OF A CAR PARK, BUILDING AND VACANT LAND.

PROPOSED CLEARING AND DISTURBANCE WORKS

- THE PROPOSED CLEARING AND DISTURBANCE WORKS INCLUDE:
- DEMOLITION AND SITE CLEARING TO SUIT THE FULL EXTENT OF EARTHWORKS PROPOSED FOR THE DEVELOPMENT
- CLEARING AND GRUBBING TO SUIT THE EXTENT OF THE PROPOSED WORKS.
- EXCAVATION AND FILLING TO ACHIEVE THE FINAL DESIGN SUBGRADE LEVELS AND PROPOSED OVERLAND

PROPOSED DRAINAGE

AS PART OF THIS DEVELOPMENT, THE FOLLOWING PERMANENT AND TEMPORARY DRAINAGE WORKS ARE PROPOSED:

TEMPORARY WORKS

- PLACEMENT OF PERIMETER SEDIMENT FENCING AND INCREMENTAL SEDIMENT TRAPS
- UNLINED DRAINAGE DIVERSION SWALES INCLUDING COIR LOGS
- ESTABLISHMENT OF STOCKPILE LOCATIONS

PERMANENT WORKS

- PIT AND PIPE NETWORK TO CAPTURE INTERIOR STORM WATER, WITH DISCHARGE TO EXISTING STORMWATER INFRASTRUCTURE ALONG LAYCOCK STREET AS PER CIVIL STORMWATER DRAINAGE PLANS
- ON SITE DETENTION STRUCTURE AS PER CIVIL STORMWATER DRAINAGE PLANS

PRINCIPAL CONTRACTORS RESPONSIBILITIES

OVERLAND FLOW PATHWAY AS PER ARCHITECT PLANS

- THE PRINCIPAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL REQUIRED SEDIMENT AND EROSION CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PHASE OF THIS PROJECT. THE CONSTRUCTION PHASE IS CONSIDERED TO EXTEND THROUGH UNTIL THE FINAL LANDSCAPING HAS ESTABLISHED TO PROVIDE A MINIMUM 70% GROUND COVER OVER AREAS LANDSCAPED AND COMPLETION OF ALL HARDSTAND/GRAVEL SURFACES TO THE DESIGN INTENT. THIS INCLUDES ANY AREAS DISTURBED THROUGH THE CONSTRUCTION WORKS, SUCH AS STOCKPILE LOCATIONS AND LOCALISED ACCESS TRACKS.
- UPON COMPLETION TO THE ABOVE ACCEPTED VEGETATION COVER, THE CONTRACTOR SHALL THEN BE RESPONSIBLE FOR REMOVING ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. AS WELL AS DESILTING ANY SEDIMENT TRAPS OR BASINS AND DISPOSING OF THE ACCUMULATED SEDIMENTS. THE PROPOSED METHOD OF TRANSPORTATION AND DISPOSAL OF ANY MATERIAL NOT ABLE TO BE REUSED WITHIN THE SITE SHALL BE APPROVED AS PART OF THE PROJECT WASTE MANAGEMENT PLAN.
- THE CONTRACTOR IS REQUIRED TO NOTIFY THE SUPERINTENDENT OF ANY DISCHARGE OFFSITE OF SEDIMENT LADEN WATERS AND ALSO TO NOTIFY THE SUPERINTENDENT OF ANY PLANNED DISCHARGE OF TREATED STORMWATER FROM ANY CONSTRUCTED SEDIMENT BASINS OR OTHER WATER HOLDING

STAGING PLAN

THE SITE CLEARING, ESTABLISHMENT AND GENERAL CONSTRUCTION IS ASSUMED TO BE COMPLETED IN ONE STAGE, THE WORKS WILL INCLUDE:

- CONSTRUCTION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING STABILISED SITE ACCESS, ESTABLISHMENT OF NO-GO ZONES (WHERE FEASIBLE), PERIMETER SEDIMENT FENCE AROUND PROPOSED SOIL STOCKPILE LOCATIONS.
- CONSTRUCTION OF DIVERSION DRAINAGE INCLUDING PLACEMENT OF COIR LOGS OR OTHER SIMILAR
- SEDIMENT RETENTION METHODS ALONG THE LENGTH OF DRAINAGE. CONSTRUCTION OF SEDIMENT SUMP TO INCREASE SEDIMENT RETENTION.
- CLEARING AND GRUBBING WORKS, WITH ANY TOPSOIL INTENDED TO BE REUSED TO BE STOCKPILED IN
- MAXIMUM 2 METRE HIGH WINDROWS SEPARATE TO GENERAL SOIL STOCKPILES. SITE GRADING TO SUIT REQUIRED DESIGN LEVELS AND CONSTRUCTION OF ASSOCIATED
- INFRASTRUCTURE.
- CONSTRUCTION OF THE FINAL PAVEMENT, SLABS AND OTHER SURFACE TREATMENTS
- BASED ON THE ABOVE WORKS, THE RUSLE CHECK WAS UNDERTAKEN, TO CHECK FOR INCLUSION OF A SEDIMENT BASIN WITHIN THE SITE, ALONG WITH ESTIMATION OF THE EROSION HAZARD ASSESSMENT. THE RESULTS ARE SHOWN BELOW:

REVISED UNIVERSAL SOIL LOSS EQUATION (RUSLE)

- A = R K L S P C
- R = 164.74 (1.1177)S/ X S0.6444 WHERE S = 10.7 mm/hr
- R = 2.500
- K = 0.05 (ASSUMED) LS = 0.89 (BASED ON 4.00% SLOPE FOR 110m)
- P = 1.3C = 1
- A = 184 T/Ha/yr
- 141 m³/Ha/yr SITE = 0.93 Ha
- SOIL LOSS = $141 \text{m}^3/\text{YR} < 150 \text{m}3/\text{YR}$
- SEDIMENT BASIN NOT REQUIRED
- EROSION HAZARD = LOW (IN ACCORDANCE WITH "THE BLUE BOOK" FIGURE 4.6)

THE FOLLOWING SECTION OUTLINES THE INTENDED EROSION CONTROL FACTORS THAT SHOULD BE CONSIDERED SUFFICIENT FOR THIS SITE, GIVEN THE CLASSIFICATION OF LOW EROSION HAZARD AS PER SECTION 4.4.1 OF THE "BLUE BOOK".

EROSION CONTROL MEASURES

THE CONTRACTOR IS REQUIRED TO IMPLEMENT THE NECESSARY EROSION CONTROL MEASURES REQUIRED TO MAXIMISE THE RETENTION OF SOILS AT SOURCE. AS A GUIDE, THE FOLLOWING MEASURES SHOULD BE CONSIDERED:

TEMPORARY GROUND COVER OR STABILISATION

- WHERE AREAS OF WORKS ARE TO BE ON-HOLD FOR PERIODS EXCEEDING 14 DAYS, THE CONTRACTOR MAY APPLY A TEMPORARY GROUND COVER TO REDUCE THE SEDIMENT MOVEMENT AND REDUCE DUST GENERATION.
- TEMPORARY GROUND COVERS MAY INCLUDE MULCH, GRAVEL, SEEDING, POLYMER, SURFACE WETTING OR OTHER MEANS TO BIND THE SURFACE.
- ALTERNATIVE MANAGEMENT MAY INCLUDE SURFACE ROUGHENING OR LIGHT SCARIFYING.

NO GO ZONES OR VEGETATIVE FILTER STRIPS

- WHERE AREAS OF THE SITE ARE CURRENTLY VEGETATED/STABILISED AND NOT INTENDED TO BE DISTURBED, THE CONTRACTOR SHALL NOMINATE VIA INSTALLATION OF FLAGGING, A NO-GO ZONE FOR THIS AREA. THIS IS INTENDED TO KEEP ALL VEHICLES, STOCKPILES OR MATERIALS OFF THESE AREAS TO PROTECT THE SOIL STRUCTURE AND EXISTING VEGETATION.
- EXISTING VEGETATION SHOULD ALSO BE RETAINED WHERE POSSIBLE DOWNSTREAM OF DISTURBED AREAS TO ENHANCE THE SEDIMENT REMOVAL AT SOURCE.

DUST CONTROL

TEMPORARY PROTECTION FROM WIND AND WATER EROSION WILL BE UNDERTAKEN ON LANDS WHERE WORKS ARE UNLIKELY TO PROCEED FOR PERIODS OF AT LEAST TWO MONTHS AND FINAL SHAPING HAS NOT BEEN COMPLETED (EG. TOPSOIL STOCKPILES). THIS MAY BE ACHIEVED WITH A VEGETATIVE COVER. A RECOMMENDED LISTING OF PLANT SPECIES FOR TEMPORARY COVER IS AS FOLLOWS:-SEPTEMBER - MARCH SOWING - JAPANESE MILLET @ 50 KG/HA

APRIL - AUGUST SOWING OATS/RYECORN @ 50 KG/HA TETILA RYE @ 5 KG/HA

FOOT AND VEHICULAR TRAFFIC SHOULD BE KEPT AWAY FROM ANY REHABILITATED AREAS WHERE

 DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS ARE TO BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER FOR DUST CONTROL.

SEDIMENT CONTROL MEASURES

STABILISED SITE ACCESS

- A STABILISED SITE ACCESS SHALL BE PLACED AS PART OF THE INITIAL EROSION AND SEDIMENT CONTROL ESTABLISHMENT. THE LOCATION SHALL ALLOW ACCESS FOR ALL VEHICLES EXITING THE SITE.
- WHERE EVIDENCE OF SEDIMENT TRANSPORTATION ONTO PUBLIC ROADS IS EVIDENT, THE STABILISED SITE ACCESS POINT MAY REQUIRE INCLUSION OF A SHAKER GRATE OR WASH BATH TO AID IN THE REMOVAL OF SEDIMENTS BEFORE EXITING THE SITE.

ROCK CHECK DAMS/COIR LOGS

- ROCK CHECK DAMS/COIR LOGS SHOULD BE ADOPTED BY THE CONTRACTOR TO MANAGE THE VELOCITY OF WATERS AND SETTLEMENT OF SEDIMENTS AS FOLLOWS:
- ALONG EXCAVATED CHANNELS TO STRIP OUT SEDIMENTS AT REGULAR INTERVALS
- AT END OF COLLECTION POINTS PRIOR TO DISCHARGE OFFSITE, TO ALLOW
- FOR A TEMPORARY COLLECTION AND SLOW RELEASE THROUGH INFILTRATION. WHERE ROCK CHECK DAMS ARE LOCATED, THE ACCUMULATION OF SEDIMENT
- SHOULD BE MONITORED AND CLEANED OUT AFTER EACH RAINFALL EVENT.
- WHERE SCOURING IS IDENTIFIED WITHIN EXCAVATED CHANNELS, ROCK CHECK DAMS SHOULD BE CONSIDERED FOR INCLUSION TO MANAGE THE SCOURING.
- TO ASSIST IN REMOVAL OF SEDIMENTS AND ALLOW FOR EASE OF CLEANING, FILTER WRAPPING
- WITH AN APPROPRIATE GEOTEXTILE SHOULD BE CONSIDERED.

SEDIMENT FENCING

- SEDIMENT FENCING IS INTENDED TO TRAP LARGER SEDIMENTS AT THEIR SOURCE, PREVENTING SEDIMENT TRANSPORTATION INTO PITS, CHANNELS OR OFFSITE. SEDIMENT FENCING SHOULD BE EMPLOYED IN THE LOCATIONS SHOWN ON THE PLAN, PLACED PARALLEL TO THE CONTOURS. WHERE PLACED ALONG SLOPES, RETURNS SHALL BE INCLUDED AT REGULAR INTERVALS TO PREVENT CONCENTRATING FLOW ALONG THE FENCE LINE.
- SEDIMENT FENCES SHALL BE MONITORED REGULARLY TO REMOVE BUILD-UP OF SEDIMENTS THAT MAY CAUSE THE FENCE TO FAIL.
- SEDIMENT FENCES, OR STRAW BALES SHOULD ALSO BE PLACED TO FORM A PERIMETER AROUND STORM WATER PITS TO PREVENT SEDIMENT BLOCKAGE WITHIN PIPES. NOTE, WHERE STRAW BALES ARE USED, THESE SHOULD BE INTENDED FOR SHORT DURATION (LESS THAN 2 MONTHS) AND CLOSELY MONITORED FOR DETERIORATION/LOSS OF STRAW WHICH MAY CAUSE THE BALES TO LOSE THEIR STRUCTURE AND WASH AWAY.

REMEDIATION METHODOLOGY

- THE EARTHWORKS ARE ANTICIPATED TO BE COMPLETED WITHIN A SIX MONTH TIME PERIOD. THROUGHOUT THE WORKS, THE PROGRESSIVE STABILISATION OF LANDSCAPING ZONES IS
- ALL COMPLETED FINAL EARTHWORKS LEVELS WILL BE REMEDIATION WITHIN 20 DAYS OF FINAL EARTHWORKS LEVELS BEING ACHIEVED. REMEDIATION IS CONSIDERED TO OCCUR WHEN A MINIMUM 70% GROUND COVER IS ACHIEVED.

MAINTENANCE AND RECORD KEEPING

- THE SITE MANAGER (PRINCIPAL CONTRACTOR) WILL ENSURE THAT ALL SEDIMENT AND EROSION CONTROL WORKS ARE LOCATED AS INSTRUCTED IN THIS SPECIFICATION OR IN ANY SUBSEQUENT SITE INSTRUCTION AND APPROVED CONSTRUCTION DRAWINGS.
- ALL BUILDERS AND SUB-CONTRACTORS SHALL BE INFORMED OF THEIR RESPONSIBILITIES BY THE SITE MANAGER (PRINCIPAL CONTRACTOR) IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS.
- RECEPTORS FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER ARE TO BE EMPTIED AS NECESSARY. DISPOSAL OF WASTE SHALL BE IN A MANNER APPROVED BY THE SITE SUPERINTENDENT AND GENERALLY OFF SITE.
- ALL CHEMICALS SHALL BE STORED IN APPROVED, FIT FOR PURPOSE BUNDING, STORAGE BUNDING SHALL HAVE A CAPACITY OF 120% OF THE STORED CHEMICAL.
- AT LEAST WEEKLY, THE CONTRACTOR SHALL INSPECT THE SITE AND ENSURE THAT:-
 - DRAINS OPERATE EFFECTIVELY AND INITIATE REPAIR OR MAINTENANCE AS REQUIRED. - SPILLED SOIL (OR OTHER MATERIAL) IS REMOVED FROM HAZARD AREAS. INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS WHERE THERE IS POTENTIAL TO BE TRANSPORTED OFFSITE.
 - REHABILITATED LANDS HAVE EFFECTIVELY REDUCED THE EROSION HAZARD AND INITIATE UPGRADING OR REPAIRS AS APPROPRIATE.
- THE CONTRACTOR SHALL PROVIDE A DETAILED 'LOG BOOK' RECORDING INFORMATION & DATA WITH RESPECT TO THE SEDIMENT & EROSION CONTROL PLAN AND TO ENSURE SEDIMENT CONTROL DEVICES ARE FUNCTIONING PROPERLY. THIS IS TO BE KEPT ON SITE AT ALL TIMES AND UPDATED DAILY. INFORMATION RECORDED MUST INCLUDE:-

 RAINFALL EVENTS - RAINFALL IN MILLIMETERS - RESULTS OF ANY INSPECTIONS



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SOIL & WATER MANAGEMENT NOTES - SHEET 1

DRAWING STATUS SHEET SIZE FOR APPROVAL A1 APPROVED DRAWN DESIGNED SCALE B.Prior S.Sharma N.T.S I.Judd PROJECT No. DRAWING No REVISION

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SOIL & WATER MANAGEMENT NOTES - SHEET 2

GENERAL

- 1. ESCP refers to Erosion and Sediment Control Plan and SWMP refers to Soil and Water Management Plan.
- ESC refers to erosion and sediment control.
- 3. Sediment ,includes ,but is not limited to, clay, silt, sand, gravel ,soil, mud, cement, and ceramic waste.
- 4. Any reference to the Blue Book refers to Managing Urban Stormwater -Soils and Construction. Landcom, 2004.
- Any reference to the IECA White Books (2008) refers to IECA 2008. Best Practice Erosion and Sediment Control. Books 1-6.International Erosion Control Association (Australasia). Picton NSW.
- Any material deposited in any conservation area from works associated with the developments hall be removed immediately by measures involving minimal ground and/or vegetation disturbance and no machinery ,or following directions by Council I and/or within a timeframe advised by Council.

THE ESCP

- 7. The ESCP and its associated ESC measures shall be constantly monitored ,reviewed ,and modified as required to correct deficiencies. Council has the right to direct changes if, in its opinion, the measures that are proposed or have been installed are inadequate to prevent pollution.
- 8. Prior to any activities onsite, the responsible person(s) is to be nominated. The responsible person(s) shall be responsible for the ESC measures. The name, address and 24 hour contact details of the person(s) shall be provided to Council in writing. Council shall be advised within 48 hours of any changes to the responsible person(s), or their contact details, in writing.
- 9. At least 14 days before the natural surface is disturbed in any new stage, the contractor shall submit to the Certifier, a plan showing ESC measures for that Stage. The degree of design detail shall be based on the disturbed area.
- 10. At any time, the ESC measures onsite shall be appropriate for the area of disturbance and its characteristics including soils (in accordance with those required for the site as per DCP).
- 11. The implementation of the ESCP shall be supervised by personnel with appropriate qualifications and/or experience in ESC on construction sites.
- 12. The approved ESCP shall be available on-site for inspection by Council officers while work activities are occurring.
- 13. The approved ESCP shall be up to date and show a timeline of installation, maintenance and removal of ESC measures.
- 14. 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
- 15. 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.
- 16. All works shall be carried out in accordance with the approved ESCP (as amended from time to time) unless
- circumstances arise where:
- a) compliance with the ESCP would increase the potential for environmental harm; orb) circumstances change during construction and those circumstances could not have been foreseen; or
- c) Council determine s that unacceptable off-site sedimentation is occurring as a result of a land-disturbing activity . In either case, the person(s)responsible may be required to take additional ,or alternative protective action, and/or
- undertake reasonable restoration works within d) the timeframe specified by the Council.
- 17. Additional ESC measures shall be implemented ,and a revised ESCP submitted for approval to the certifier (within five business days of any such amendments) in the event that:
- a) there is a high probability that serious or material environmental harm may occur as a result of sediment leaving the
- b) the implemented works fail to achieve Council's water quality objectives specified in these conditions; or
- site conditions significantly change; or
 site inspections indicate that the implemented works are failing to achieve the "objective" of the ESCP.
- a) Site inspections indicate that the implemented works are failing to achieve the objective of the ESCP.
- 18. A copy of any amended ESCP shall be forwarded to an appropriate Council Officer, within five business days of any such amendments. Site establishment including clearing and mulching
- 19. No land clearing shall be undertaken unless preceded by the installation of adequate drainage and sediment control measures ,unless such clearing is required for the purpose of installing such measures ,in which case, only the minimum clearing required to install such measures shall occur.
- 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.
- 21. Trees and vegetation cleared from the site shall be mulched onsite within 7 days of clearing.
- 22. Appropriate measures shall be undertaken to control any dust originating due to the mulching of vegetation onsite.
- 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.
- 24. All reasonable and practicable measures shall be taken to ensure stormwater runoff from access roads and stabilised entry/exit systems, drains to an appropriate sediment control device.
- 25. Site exit points shall be appropriately managed to minimise the risk of sediment being tracked onto sealed, public roadways
- 26. Stormwater runoff from access roads and stabilised entry/exit points shall drain to an appropriate sediment control
- 27. The Applicant shall ensure an adequate supply of ESC, and appropriate pollution clean-up materials are available on-site at all times.
- 28. All temporary earth banks , flow diversion systems, and sediment basin embankments shall be machine-compacted, seeded and mulched within ten (10) days of formation for the purpose of establishing a vegetative cover, or lined
- 29. Sediment deposited off site as a result of on-site activities shall be collected and the area cleaned/rehabilitate ads soon as reasonable and practicable.
- 30. Concrete waste and chemical products ,including petroleum and oil-based products ,shall be prevented from entering any internal or external water body, or any external drainage system, excluding those on-site water bodies specifically designed to contain and/or treat such material. Appropriate measures shall be installed to trap these materials onsite.
- 31. Brick, tile or masonry cutting shall be carried out on a pervious surface grass or open soil) and in such a manner that any resulting sediment-ladder runoff is prevented from discharging into a gutter ,drain or Appropriate measures shall be installed to trap these materials onsite.

- 32. Newly sealed hard-stand areas (e.g. roads, driveways and car parks) shall be swept thoroughly as soon as practicable after sealing/surfacing to minimise the risk of components of the surfacing compound entering stormwater drains.
- 33. Stockpiles of erodible material shall be provided with an appropriate protective cover (synthetic or organic) if the materials are likely to be stockpiled for more than 10 days.
- 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.
- 35. No more than 150m of a stormwater , sewer line or other service trench shall to be open at any one time.
- 36. Site spoil shall be lawfully disposed of in a manner that does not result in ongoing soil erosion or environmental
- 37. Wherever reasonable and practicable ,stormwater runoff entering the site from external areas , and non-sediment laden stormwater runoff entering a work area or area of soil disturbance ,shall be diverted around or through that area in a manner that minimises soil erosion and the contamination of that water for all discharges up to the specified design storm discharge.

SITE MANAGEMENT INCLUDING DUST

- 38. Priority shall be given to the prevention ,or at least the minimisation o, f soil erosion ,rather than the trapping of displaced sediment . Such a clause shall not reduce the responsibility to apply and maintain ,at all times, all necessary ESC measures.
- 39. Measures used to control wind erosion shall be appropriate for the location and prevent soil erosion and emissions from site at all times, including working hours ,out of hours ,weekends ,public holidays ,and during any other shutdown periods.
- 40. The application of liquid or chemical-based dust suppression measures shall ensure that sediment-laden runoff resulting from such measures does not create a traffic or environmental hazard
- 41. All cut and fill earth batters less than 3m in elevation shall be topsoiled, and grass seeded/hydromulched within 10 days of completion of grading in consultation with Council.
- 42. All disturbed areas shall be stabilised in accordance with time lines in the Blue Book.
- 43. All reasonable and practicable measures shall be taken to prevent, or at least minimise, the release of sediment from the site.
- 44. Suitable all-weather maintenance access shall be provided to all sediment control devices.
- 45. Sediment control devices ,other than sediment basins ,shall be de-silted and made fully operational as soon as reasonable and practicable after a sediment-producing event , whether natural or artificial , if the device's sediment retention capacity falls below 75% of its design retention capacity.
- 46. All erosion and sediment control measures ,including drainage control measures ,shall be maintained in proper working order at all times during their operational lives.
- 47. Washing/flushing of sealed roadways shall only occur where sweeping has failed to remove sufficient sediment and there is a compelling need to remove the remaining sediment (e.g. for safety reasons). In such circumstances a, I reasonable and 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 from roadways shall be disposed of in a lawful manner that does not cause ongoing soil erosion or environmental harm.
- 48. Sediment removed from sediment traps and places of sediment deposition shall be disposed of in a lawful manner that does not cause ongoing soil erosion or environmental harm. Sediment Basins installation ,maintenance and removal I including sediment traps
- 49. As-Constructed plans shall be prepared for all constructed Sediment Basins and associated emergency spillways Such plans shall verify the basin's dimensions ,levels and volumes comply with the approved design drawings. These plans may be requested by the Certifier or Council.
- 50. Sediment basins shall be constructed and fully operational prior to any other soil disturbance in their catchments.
- 51. Install an internal gated valve, or similar ,in any outlet pipe once pipes installed ,or install a sacrificial pipe from basin 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 structures to be confirmed prior to construction with Council. This setup will enable discharge of treated water from site without need for pumping.
- 52. A sediment storage level marker post shall be with a cross member set just below the top of the sediment storage zone (as specified on the approved ESCP). At least a 75mm wide post shall be firmly set into the basin floor.
- 53. The Site Manager shall obtain the relevant approvals from the relevant organisations to discharge treated water from any existing basins. Organisations may include, but not be limited to, Hunter Water, and Council.
- 54. Where more than one stage is to be developed at one time, or before the preceding stage is complete ,the sediment basin(s)for these stages shall have sufficient capacity to cater for all area directed to the basin(s).
- capacity to capture sediment laden water from the site.

 56. Sufficien tquantities of chemicals/agen tsto treat captured water shall be placed such that water entering the basin

55. Prior to any forecast weather event likely to result in runoff, any basins/traps shall be dewatered to provide sufficient

- mixes with the chemical/agents and is carried into the basin to speed up clarification.

 57. Any basin shall be dewatered within the X-day rainfall depth used to calculate the capacity of the basin, after a
- 58. Sufficient quantities of chemicals/agents to treat turbid water shall be securely stored on-site to provide for at least three complete treatments of all basins requiring chemically treatment onsite.
- Prior to the controlled discharge (e.g. de-watering activities) from site including excavation sand/or sediment basins,
- the following water quality objectives shall be achieved:

 a) Total Suspended Solids (TSS) to a maximum 50 milligrams/L;
- b) water pH between 6.5 and 8.5, unless otherwise required by the Council;
- c) Turbidity (measured in NTUs) to a maximum of 60 NTU); andd) EC levels no greater than background levels.

rainfall event.

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- 60. The Development At approval may require testing of additional water quality elements prior to discharge .E.g. including but not limited to metals, organic substances, chemicals or bacteriological indicators.
- 61. A sample of the released treated water shall be kept onsite in a clear container with the sample date recorded on it

- 62. Water quality samples shall be taken at a depth no less than 200mm below the water surface of the basin.
- 63. No Aluminum based products may be used treat captured water onsite without the prior written permission from an appropriate Council Officer. The applicant shall have a demonstrated ability to use such products correctly and without environmental harm prior to any approval.
- 64. The chemical/agent used in Type D and Type F basins to treat captured water captured in the basin shall be applied in concentration sufficient to achieve Council's water quality objectives within the X-day rainfall depth used to calculate the capacity of the basin, after a rainfall event.
- 65. All Manufacturers Instruction shall be followed for any chemicals/agents used onsite, except where approved by the 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 a following rainfall event, a report is presented to an appropriate Council officer within 5 days
- 67. identifying the circumstance sand proposed amendments ,if any, to the basin's operating procedures.
- Settled sediment shall be removed as soon as reasonable and practicable from any sediment basin if:it is anticipated that the next storm event is likely to cause sediment to settle above the basin's sediment storage
- zone; or
 b) the elevation of settled sediment is above the top of the basin's sediment storage zone; or
- c) the elevation of settled sediment is above the basins sediment marker line.
- 68. Scour protection measures placed on sediment basin emergency spillways shall appropriately protect the spillway chute and its side batters from scour, and shall extend a minimum of 3m beyond the downstream toe of the basin's embankment.
- 69. Suitable all-weather maintenance access shall be provided to all sediment control devices.
- 70. Materials ,whether liquid or solid, removed from any ESC measure or excavation during maintenance or decommissioning s,hall be disposed of in a manner that does not cause ongoing soil erosion, water pollution or environmental harm.
- 71. All sediment basins shall remain fully operational lat all times until the basin's design catchments achieves 70% ground cover or surface stabilisation acceptable to Council.
- 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 appropriately working to control soil erosion and sediment runoff
- 74. Immediately prior to the construction n of the permanent t stormwater treatment device ,appropriate flow bypass conditions shall be established to prevent sediment-laden water entering the device.

REVEGETATION/STABILISATION

- 75. Temporary stabilisation may be attained using vegetation ,non rewettable soil polymers, or pneumatically applied erosion controls.
- 76. All cut and fill earth batters less than 3m in elevation shall be topsoiled, and grass seeded/hydromulche wdithin 10 days of completion of grading in consultation with Council.
- 77. At the completion of formation in any section, all disturbed areas shall be stabilised in accordance with time lines in the Blue Book.
- 78. The LMCC Seed mix shall be used unless stated on the ESCP/SWMP.
- 79. The pH level of topsoil shall be appropriate to enable establishment and growth of specified vegetation prior to initiating the establishment of vegetation.
- 80. Non rewettable binder shall be used in all hydromulch/hydroseed/polymer mixes on slopes or works adjacent to a water course.
- 81. Soil ameliorant's shall be added to the soil in accordance with an approved Landscape Plan, Vegetation Management Plan, and/or soil analysis.
- 82. Surface soil density, compaction and surface roughness shall be adjusted prior to seeding/planting in accordance with an approved Landscape Plan, Vegetation Management Plan, and/or soil analysis.
- 83. Procedure s for initiating a site shutdown, whether programmer 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.

SITE MONITORING AND MAINTENANCE

- 84. The Applicant shall ensure that appropriate procedure sand suitably qualified personnel are engaged to plan and conduct site inspection sand water quality monitoring throughout the construction and maintenance phase.
- 85. All ESC measures shall be inspected and any maintenance undertaken immediately:
- a) at least daily (when work is occurring on-site); and
- at least weekly (when work is not occurring on-site); and
- within 24hrs of expected rainfall; and within 18hrs of a rainfall event that causes runoff on the site.
- 86. Written records shall be kept onsite of ESC monitoring and maintenance activities conducted during the construction and maintenance periods, and be available to Council officers on request.
- 87. All environmental irrelevant incidents shall be recorded in a field log that shall remain accessible to all relevant regulatory authorities
- 88. All water quality data, including dates of rainfall, dates of testing, testing results and dates of water release ,shall be kept in an on-site register. The register is to be maintained up to date for the duration of the approved works and be available on-site for inspection by all relevant regulatory authorities on request.
- 89. At nominated instream water monitoring sites, a minimum of 3 water samples shall be taken and analysed ,and the average result used to determine quality

INSTREAM WORKS

90. All instream works (including in or adjacent to watercourses natural or manmade ,flowing or not) shall be carried out in accordance with the IECA White Books



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SOIL & WATER MANAGEMENT NOTES - SHEET 2

PROVAL

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R.CHRYSTAL-FOY
DOCUMENT No.

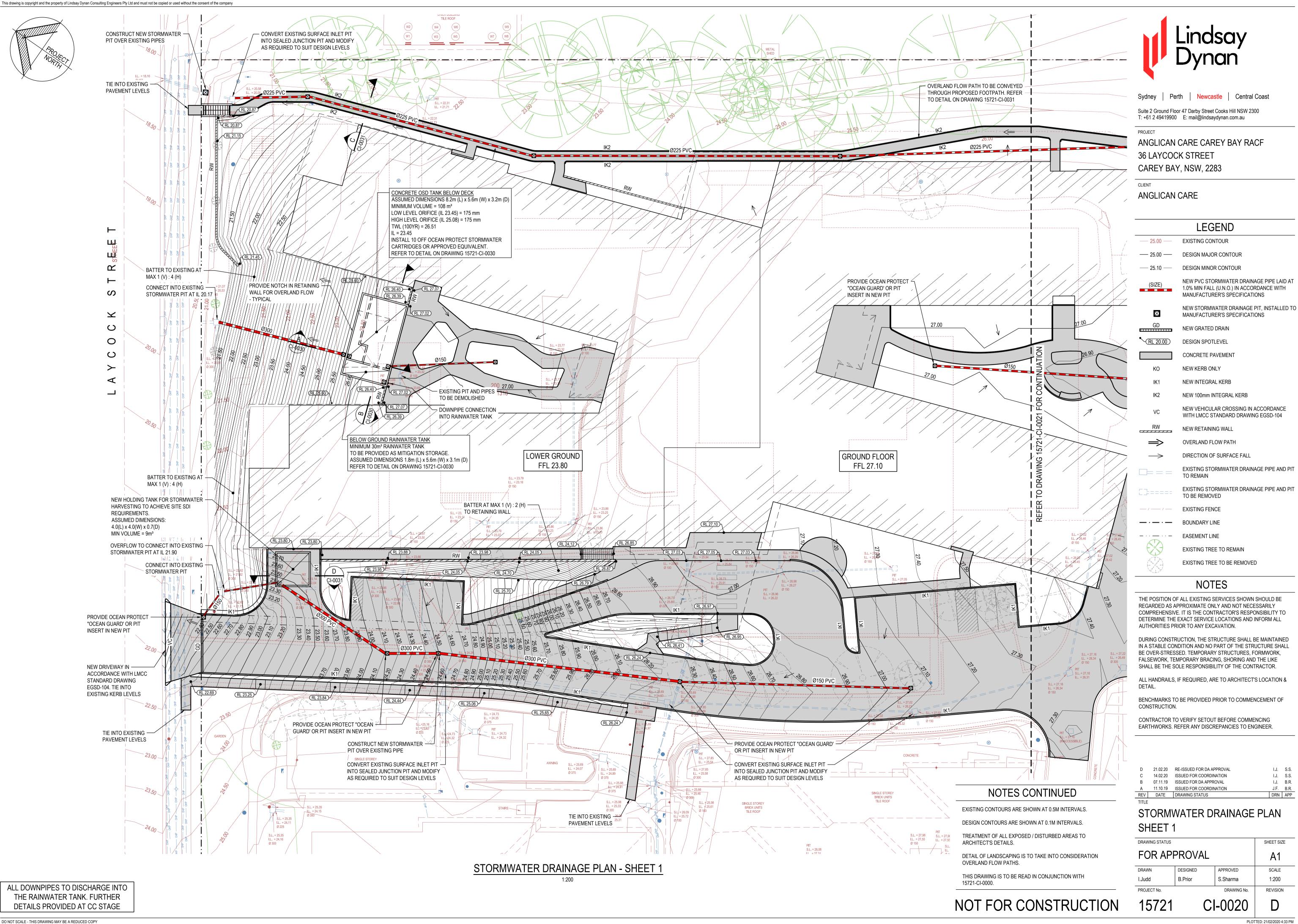
SHEET SIZE
A1

APPROVED
S.Sharma
SCALE
N.T.S

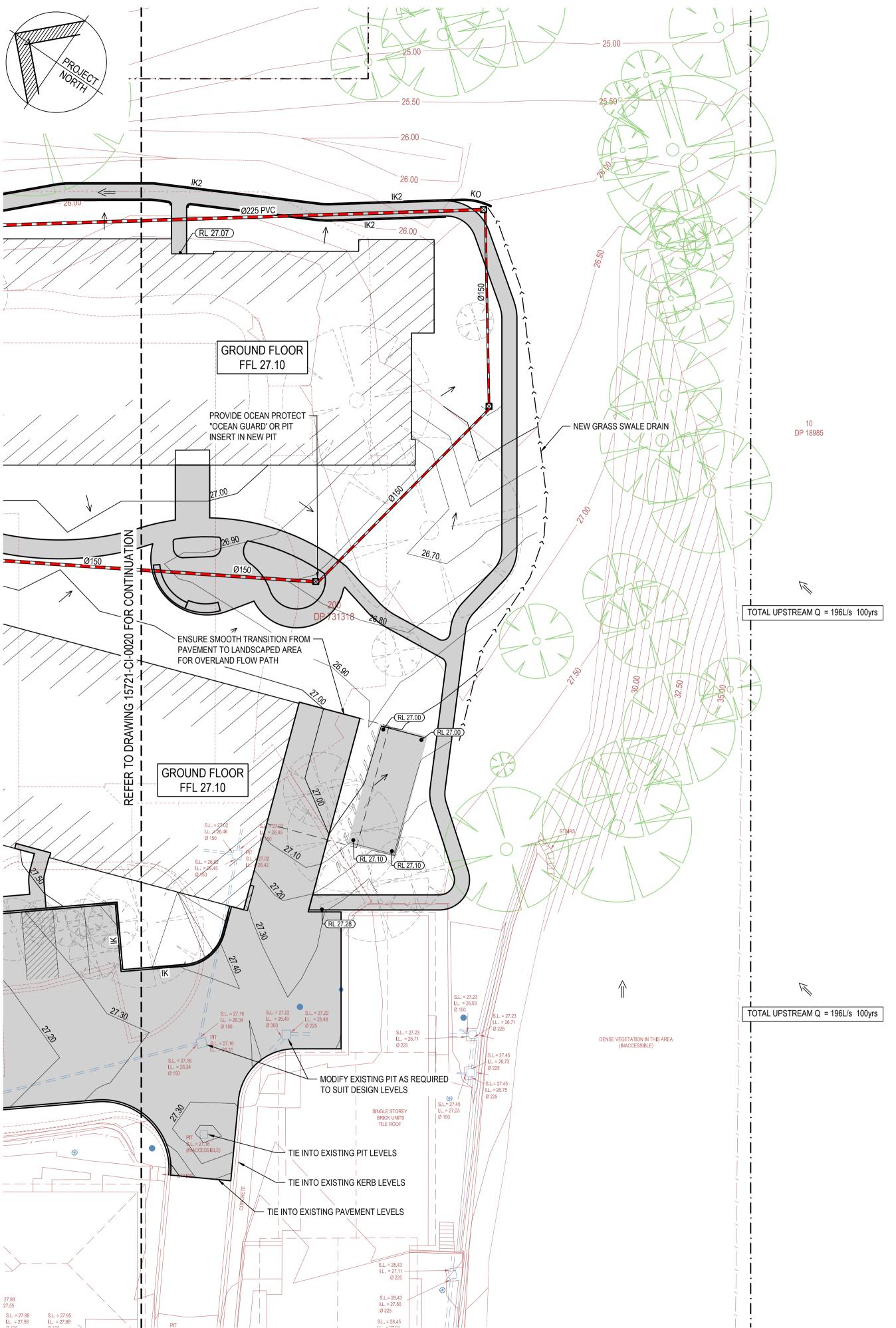
REVISION

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STORMWATER DRAINAGE PLAN - SHEET 2

ALL DOWNPIPES TO DISCHARGE INTO THE RAINWATER TANK. FURTHER

DETAILS PROVIDED AT CC STAGE

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CONCEPT SUMMARY

THE PROPOSED DEVELOPMENT, LOCATED AT 38 LAYCOCK STREET, CAREY BAY INVOLVES: DEMOLITION OF THE EXISTING AGED CARE FACILITY

CONSTRUCTION OF A NEW RESIDENTIAL AGED CARE FACILITY

CONSTRUCTION OF NEW HARDSTAND PAVEMENTS WITH ASSOCIATED PARKING SPACES

CONSTRUCTION OF LANDSCAPED AREAS

 CONSTRUCTION OF A CONCRETE ON-SITE DETENTION (OSD) AND RAINWATER HARVESTING TANK

STORMWATER PHILOSOPHY

ALL NEW ROOF AREA WILL BE DIRECTED TO A 30m3 RAINWATER HARVESTING TANK LOCATED UNDER THE NORTHERN COURTYARD DECK. THIS TANK HAS BEEN SIZED ACCORDING TO THE MITIGATION CALCULATIONS BELOW WITH COLLECTED WATER INTENDED TO BE USED IN LANDSCAPE IRRIGATION ONLY. CONSTRUCTED INTEGRAL TO THE RAINWATER HARVESTING TANK IS A 108m3 OSD TANK. IT IS INTENDED THAT RUNOFF FROM THE NORTHERN COURTYARD, AS WELL AS OVERFLOW FROM THE RAINWATER HARVESTING TANK, WILL FILL THE OSD TANK DURING STORM EVENTS. ORIFICE CONTROLS INCORPORATED INTO THE OSD TANK WILL LIMIT POST DEVELOPED FLOWS TO THAT OF THE PRE-DEVELOPED GREENFIELD SCENARIO FOR ALL STORM EVENTS FROM THE 20% AEP UP TO AND INCLUDING THE 1% AEP STORM. DISCHARGE FROM THE OSD TANK WILL CONNECT INTO THE EXISTING STORMWATER PIT LOCATED ALONG THE NORTHERN BOUNDARY.

RUNOFF FROM THE NEW DRIVEWAY PAVEMENT WILL ENTER THE NEW PIT AND PIPE NETWORK AND BE DIRECTED TO A 9m³ HOLDING TANK. THE TANK WILL BE LOCATED ADJACENT TO THE ENTRY INTO THE LOWER GROUND FLOOR AND IS TO BE USED FOR STORMWATER HARVESTING RE-USE, ADDRESSING THE SITE DISCHARGE INDEX (SDI) REQUIREMENTS FOR THE DRIVEWAY PAVEMENT.

SITE AREA = 5858m² (NEW DISTURBED AREA ONLY) AND ASSUMED TO BE GREENFIELD PROPOSED SITE:

ROOF AREA (TO OSD) $= 4000 m^2$ HARDSTAND (TO OSD) $= 443m^2$

HARDSTAND AREA (OSD BYPASS)

AN ILSAX DRAINS MODEL WAS USED TO CALCULATE THE REQUIRED DETENTION VOLUMES. A SUMMARY IS PROVIDED OF THE PRE AND POST DEVELOPMENT FLOWS BELOW:

= 1415m²

AEP (%)	PRE-DEVELOPMENT FLOW (L/S)	POST-DEVELOPMENT FLOW (L/S)	OSD VOLUME (m³)
5	117	117	57
10	165	164	67
20	229	206	80
100	361	330	108

MITIGATION CALCULATIONS

ROOF AREA $= 4000 m^2$ MITIGATION DEPTH = 7mm = 4000 m² x 7mm MITIGATION STORAGE REQUIREMENTS $= 28m^3$

STORAGE PROVIDED $= 30 \text{m}^3$

STORAGE VOLUME CHECK:

ASSUMING AN IRRIGATION ESTABLISHMENT RATE OF 3.5L/m² PER DAY OVER 2580m²:

 $3.5L/m^2 \times 2580m^2 = 9030L$

DRAW DOWN TIME = 30000L / 9030L = 3.3 DAYS

DRAW DOWN TIME ASSUMING AN IRRIGATION MAINTENANCE RATE OF 1.7L/m² PER DAY OVER $2580m^2 = 6.4 DAYS$.

IT IS CONSIDERED THAT THE NOMINATED 30m3 MITIGATION STORAGE VOLUME IS SUITABLE FOR THE INTENDED IRRIGATION PURPOSES AS THE TANK VOLUME WOULD BE CONTINUALLY

INFILTRATION TANK

REQUIRED AREA = $1858m^2 - (0.1 \times 5859m^2)$

 $= 1272m^2$ VOLUME = 7mm x 1272m²

VOLUME PROVIDED BY ACO STORMBRIIX (OR APPROVED EQUIVALENT).

WATER QUALITY

A MUSIC MODEL WAS DEVELOPED TO DETERMINE THE EFFICACY OF THE PROPOSED WATER QUALITY TREATMENT TRAIN. THE TREATMENT TRAIN COMPRISES:

• 2 x OCEAN PROTECT 'OCEANGUARD' (OR APPROVED EQUIVALENT) IN TOTAL. 1 UNIT TO BE INSERTED INTO EACH INDIVIDUAL STORMWATER DRAINAGE PIT LOCATED ALONG

ROOF AND NORTHERN COURTYARD

• 10 x OCEAN PROTECT 'STORMFILTER' (OR APPROVED EQUIVALENT) HOUSED WITHIN THE OSD TANK

• 30m³ RAINWATER TANK (CAPTURING ALL ROOF WATER ONLY) SOUTHERN COURTYARD AND FOOTPATHS

• 2 x OCEAN PROTECT 'OCEANGUARD' (OR APPROVED EQUIVALENT) IN TOTAL. 1 UNIT TO BE INSERTED INTO EACH INDIVIDUAL STORMWATER DRAINAGE PIT LOCATED ALONG THE SOUTHERN COURTYARD

A SUMMARY OF THE WATER QUALITY REDUCTION TARGETS PRODUCED CAN BE FOUND BELOW:

	SOURCES	RESIDUAL LOAD	% REDUCTION	% TARGET
FLOW (ML/yr)	4.62	4.50	2.50	
TOTAL SUSPENDED SOLIDS (kg/yr)	455.00	78.50	81.80	80
TOTAL PHOSPHORUS (kg/yr)	1.11	0.51	54.30	45
TOTAL NITROGEN (kg/yr)	10.30	5.59	47.20	45
GROSS POLLUTANTS (kg/yr)	127.00	1.10	99.10	90

SITE DISCHARGE INDEX

THE MAJORITY OF THE SITE HARDSTAND AREAS PASS THROUGH AN ACCEPTABLE STORMWATER SOURCE CONTROL (AS OUTLINED ABOVE). THERE ARE LOCALISED HARDSTAND AREAS ALONG THE NORTHERN BOUNDARY THAT BYPASS SUCH CONTROLS. THESE AREAS REPRESENT APPROXIMATELY 52m² WHICH EQUATES TO APPROXIMATELY 0.9% OF THE SITE AREA. IN ACCORDANCE WITH THE SITE DISCHARGE INDEX (SDI) REQUIREMENTS, 10% OF THE SITE AREA IS ALLOWED TO DISCHARGE OFF IMPERVIOUS AREAS AND BE UNTREATED PRIOR TO DISCHARGE.

SDI = 0.9% < 10%

THE PROPOSED DEVELOPMENT COMPLIES WITH SDI REQUIREMENTS.

NOTES

THE POSITION OF ALL EXISTING SERVICES SHOWN SHOULD BE REGARDED AS APPROXIMATE ONLY AND NOT NECESSARILY COMPREHENSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT SERVICE LOCATIONS AND INFORM ALL AUTHORITIES PRIOR TO ANY EXCAVATION.

DURING CONSTRUCTION, THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART OF THE STRUCTURE SHALL BE OVER-STRESSED. TEMPORARY STRUCTURES, FORMWORK, FALSEWORK, TEMPORARY BRACING, SHORING AND THE LIKE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

ALL HANDRAILS, IF REQUIRED, ARE TO ARCHITECT'S LOCATION &

BENCHMARKS TO BE PROVIDED PRIOR TO COMMENCEMENT OF CONSTRUCTION.

CONTRACTOR TO VERIFY SETOUT BEFORE COMMENCING

EARTHWORKS. REFER ANY DISCREPANCIES TO ENGINEER.

EXISTING CONTOURS ARE SHOWN AT 0.5m INTERVALS.

DESIGN CONTOURS ARE SHOWN AT 0.1m INTERVALS.

ARCHITECT'S DETAILS. DETAIL OF LANDSCAPING IS TO TAKE INTO CONSIDERATION

TREATMENT OF ALL EXPOSED / DISTURBED AREAS TO

OVERLAND FLOW PATHS.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH 15721-CI-0000.

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ANGLICAN CARE CAREY BAY RACF 36 LAYCOCK STREET

CAREY BAY, NSW, 2283

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LEGEND	
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— 25.00 — EXISTING CONTOUR — 25.00 — DESIGN MAJOR CONTOUR

— 25.10 — DESIGN MINOR CONTOUR

NEW PVC STORMWATER DRAINAGE PIPE LAID AT 1.0% MIN FALL (U.N.O.) IN ACCORDANCE

WITH MANUFACTURER'S SPECIFICATIONS NEW STORMWATER DRAINAGE PIT, INSTALLED

TO MANUFACTURER'S SPECIFICATIONS **NEW GRATED DRAIN**

DESIGN SPOTLEVEL

CONCRETE PAVEMENT

NEW KERB ONLY KO NEW INTEGRAL KERB

NEW 100mm INTEGRAL KERB

NEW RETAINING WALL

OVERLAND FLOW PATH DIRECTION OF SURFACE FALL

NEW GRASS SWALE ->-->-

EXISTING STORMWATER DRAINAGE PIPE AND PIT TO REMAIN

EXISTING STORMWATER DRAINAGE PIPE AND

EXISTING FENCE BOUNDARY LINE

EASEMENT LINE EXISTING TREE TO REMAIN

EXISTING TREE TO BE REMOVED

E 09.04.20 RE-ISSUED FOR DA APPROVAL 21.02.20 RE-ISSUED FOR DA APPROVAL I.J. S.S. C 14.02.20 ISSUED FOR COORDINATION I.J. B.R. B 07.11.19 ISSUED FOR DA APPROVAL I.J. B.R. A 11.10.19 ISSUED FOR COORDINATION REV DATE DRAWING STATUS

STORMWATER DRAINAGE PLAN SHEET 2

DRAWING STATUS SHEET SIZE FOR APPROVAL Α1 APPROVED DRAWN DESIGNED SCALE B.Prior 1:200 I.Judd S.Sharma PROJECT No. DRAWING No. REVISION 15721

NOT FOR CONSTRUCTION

PLOTTED: 14/04/2020 1:49 PM

RL 23.45 🔻

REMOVABLE TRUSS FORTE RH3030 H.D.

GALVANISED MAXIMESH SCREEN OR

APPROVED EQUIVALENT - TYPICAL

- REFER TO TYPICAL ORIFICE PLATE

DETAIL

REFER TO TYPICAL ORIFICE

5600

PLATE DETAIL

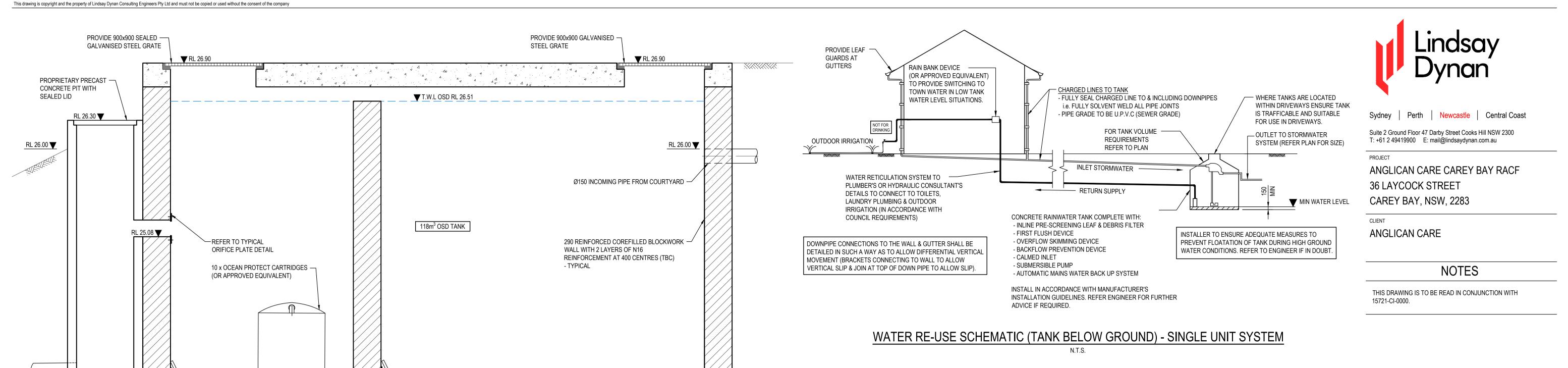
- Ø300 OUTLET PIPE TO CONNECT

STORMWATER DRAINAGE PLAN

TO EXISTING PIT, REFER TO

15721-CI-0024 FOR DETAILS

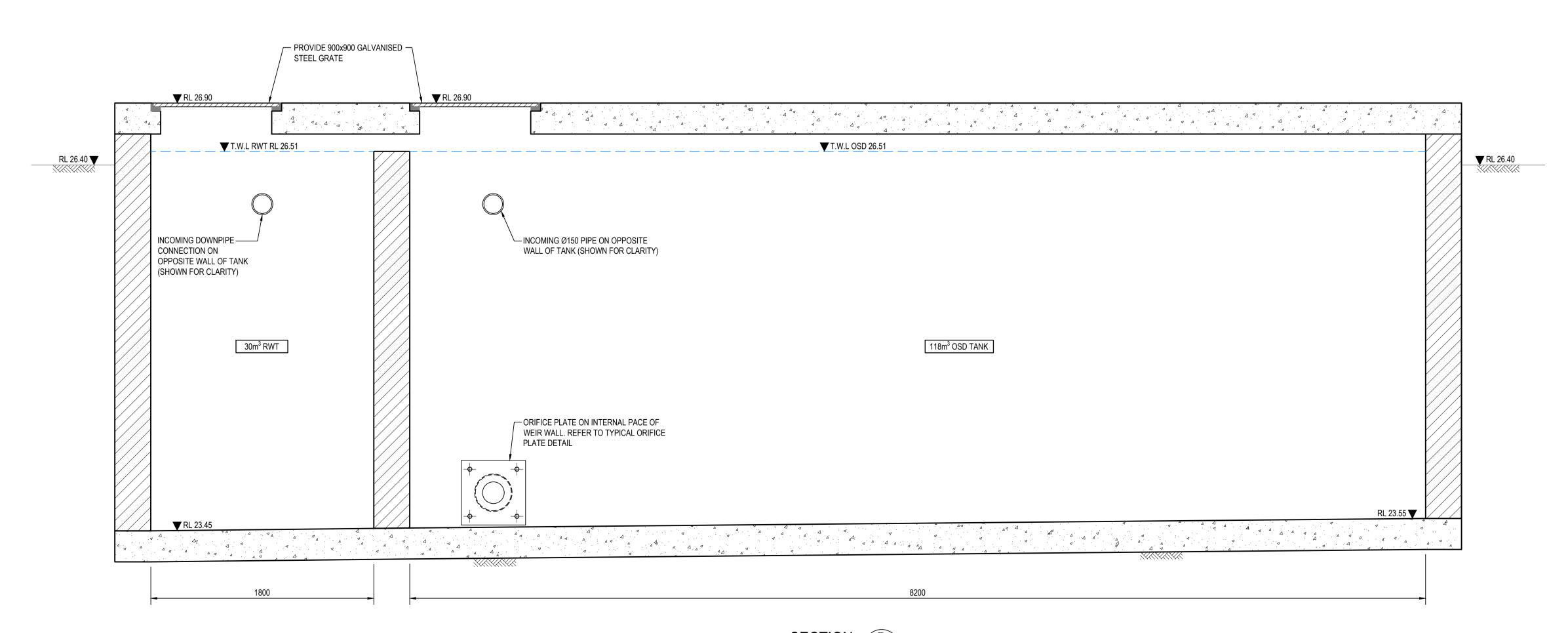
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RL 23.48

 $175.00 \text{ mm} \pm 0.5 \text{mm}$ FIX TO PIT WITH 4/M10 -STAINLESS STEEL CHEMICAL ANCHORS 3mm THICK STAINLESS STEEL PLATE

> ORIFICE PLATE DETAIL SCALE N.T.S.



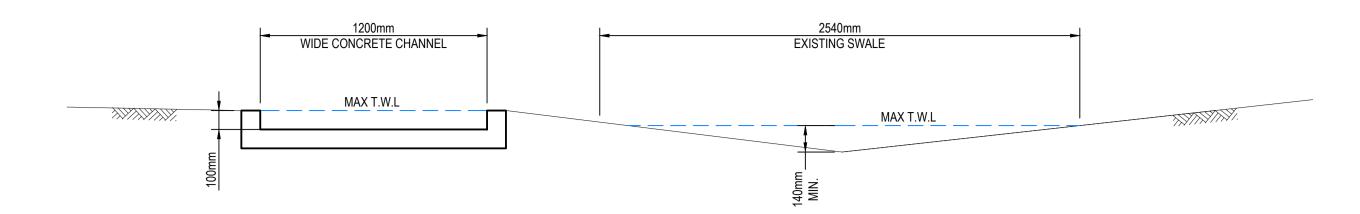
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CIVIL DETAILS

DRAWING STATUS			SHEET SIZE
FOR AP	R APPROVAL		
DRAWN	DESIGNED	APPROVED	SCALE
I.Judd	B.Prior	S.Sharma	AS SHOWN
PROJECT No.		DRAWING No.	REVISION
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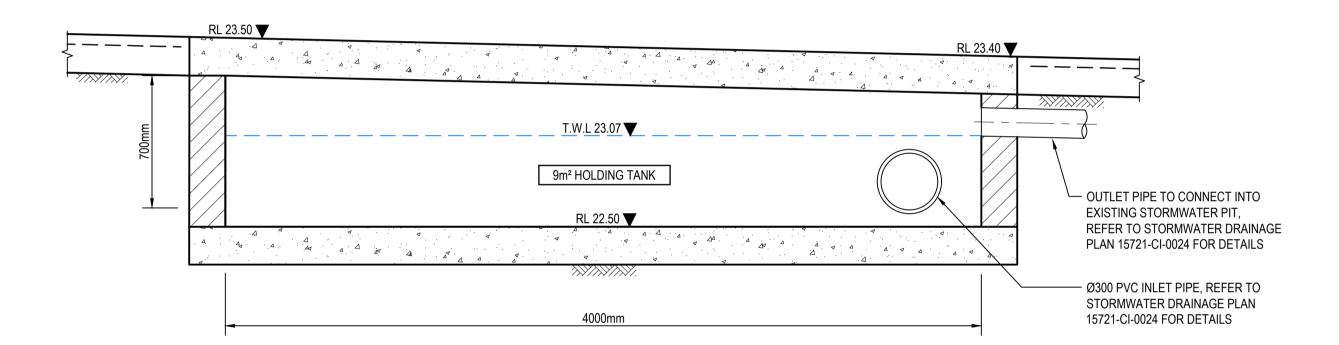


TOTAL UPSTREAM OVERLAND FLOW Q (100 YEARS) = 436 L/s

MAXIMUM FLOW THROUGH CHANNEL = 364 L/s (ASSUMING CHANNEL SLOP = 3.5%, MANNING ROUGHNESS = 0.012)

DEPTH x VELOCITY OF CHANNEL OVERFLOW FROM UPSTREAM CATCHMENT THROUGH CHANNEL INTO EXISTING SWALE

 $= 0.3 \text{ m}^2/\text{s}$ = 436-364 L/s = 72 L/sMAXIMUM CAPACITY OF EXISTING SWALE = 560 L/s







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NOTE

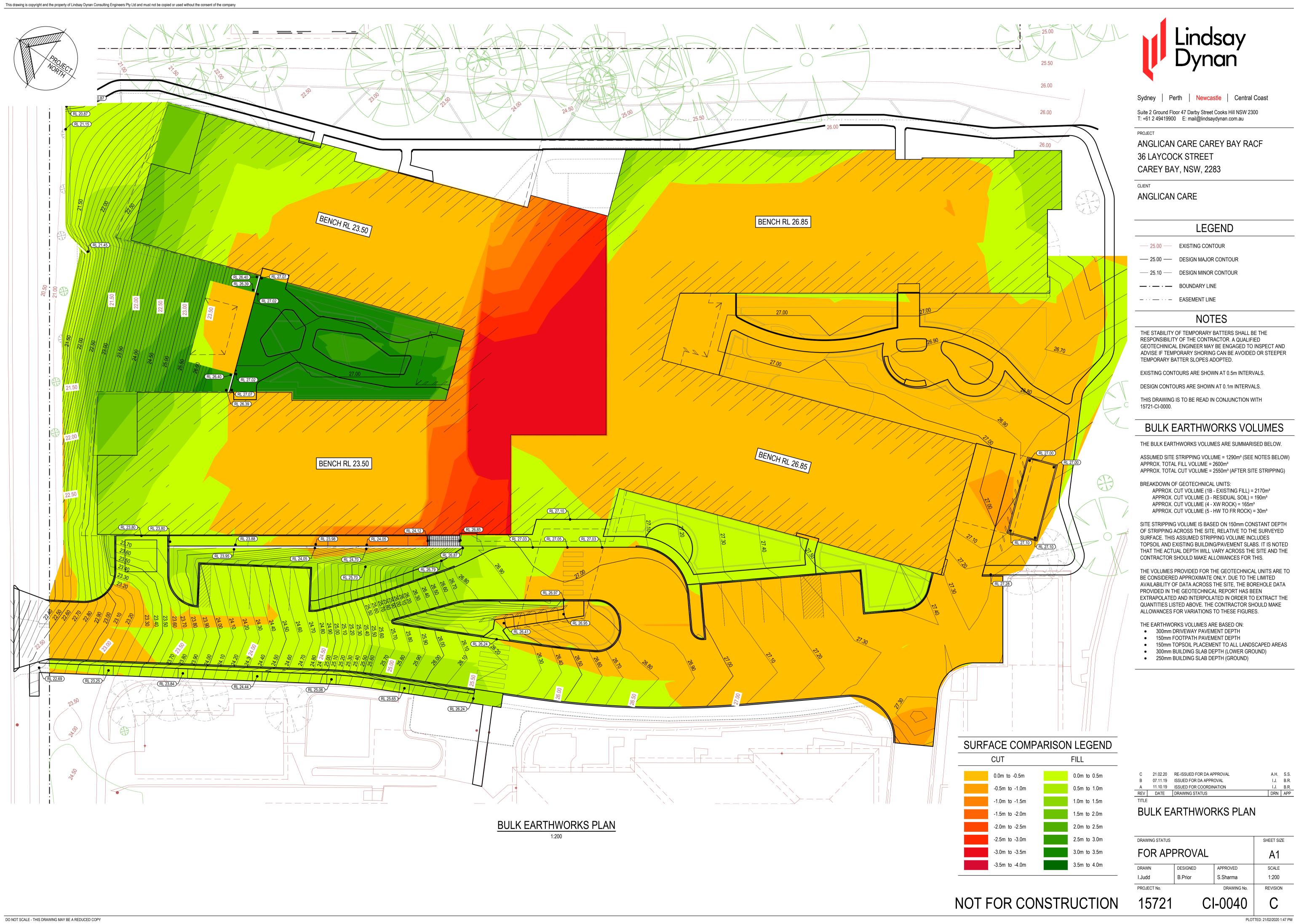
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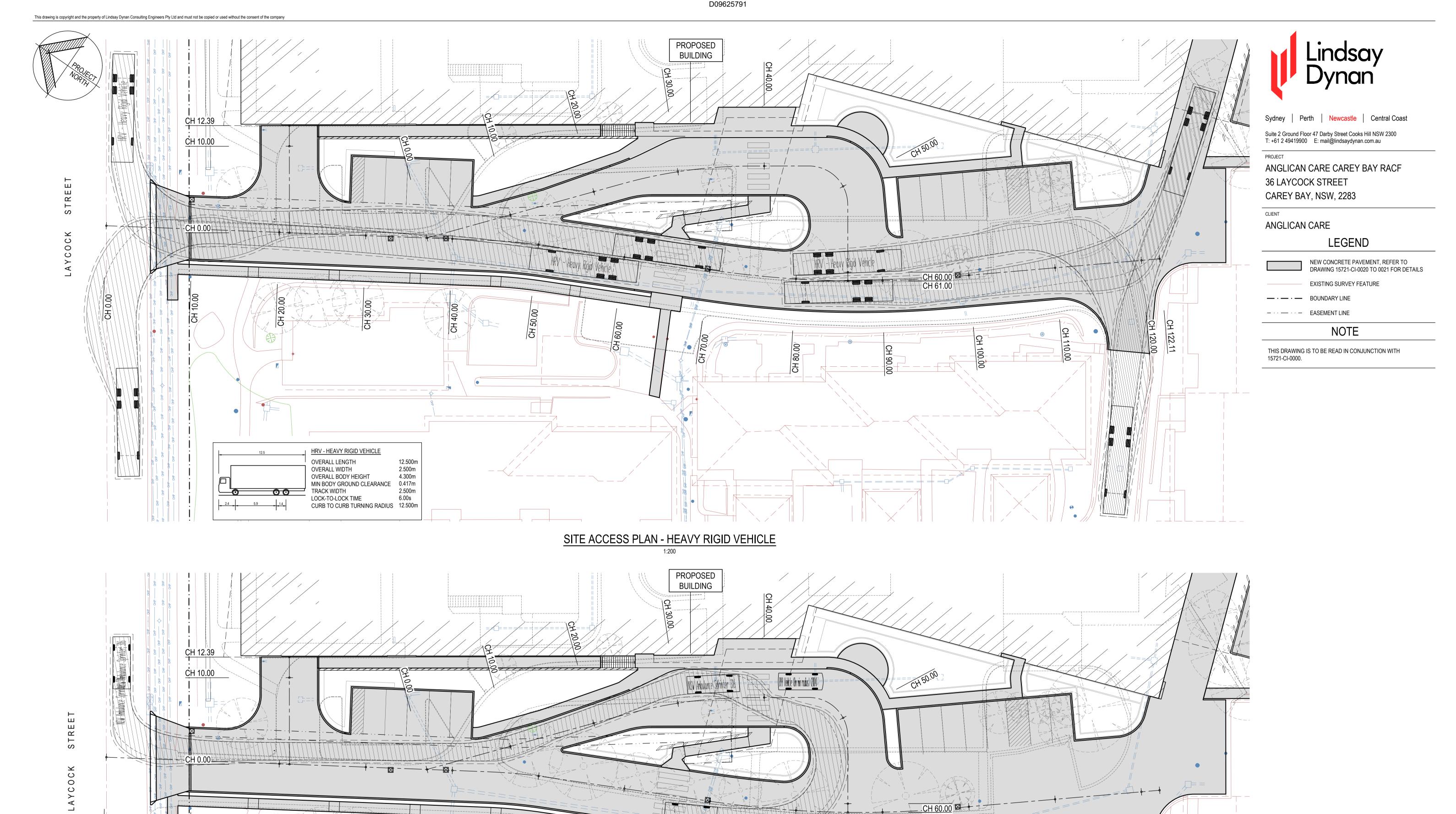
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REV DATE DRAWING STATUS
TITLE I.J. S.S.
DRN APP

CIVIL DETAILS

DRAWING STATUS SHEET SIZE FOR APPROVAL **A**1 APPROVED SCALE DESIGNED DRAWN 1:20 I.Judd S.Sharma PROJECT No. DRAWING No. REVISION 15721

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SITE ACCESS PLAN - AMBULANCE SPRINTER

B 21.02.20 RE-ISSUED FOR DA APPROVAL A 07.11.19 ISSUED FOR DA APPROVAL
REV DATE DRAWING STATUS

SITE ACCESS PLANS

NOT FOR CONSTRUCTION

DRAWING STATUS	SHEET SIZE		
FOR APPROVAL			A1
DRAWN	DESIGNED	APPROVED	SCALE
I.Judd	B.Prior	S.Sharma	1:200
PROJECT No.	!	DRAWING No.	REVISION
15721	CI-0050		В

NSW AMBULANCE SPRINTER 316

MIN BODY GROUND CLEARANCE

LOCK-TO-LOCK TIME 4.00s WALL TO WALL TURNING RADIUS 7.650m

OVERALL LENGTH OVERALL WIDTH OVERALL BODY HEIGHT

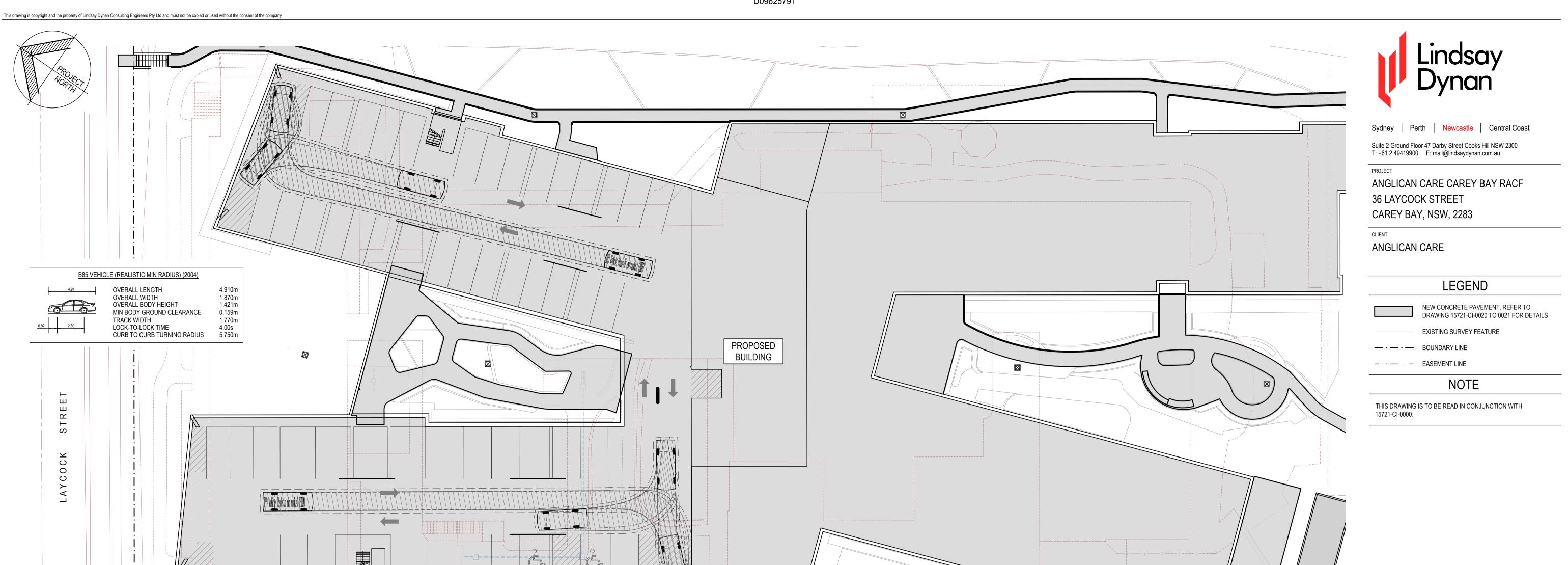
MAX TRACK WIDTH

6.025m 2.020m

3.501m

0.001m

1.977m



INTERNAL VEHICLE ACCESS PLAN

A 21.02.20 ISSUED FOR DA APPROVAL
REV DATE DRAWING STATUS
TITLE

INTERNAL VEHICLE ACCESS PLAN

DRAWING STATUS	SHEET SIZE		
FOR API	PROVAL		A1
DRAWN	DESIGNED	APPROVED	SCALE
I.Judd	B.Prior	S.Sharma	1:200
PROJECT No.		DRAWING No.	REVISION
15721	Cl	-0051	Α

B99 Vehicle (Realistic min radius) (2004)

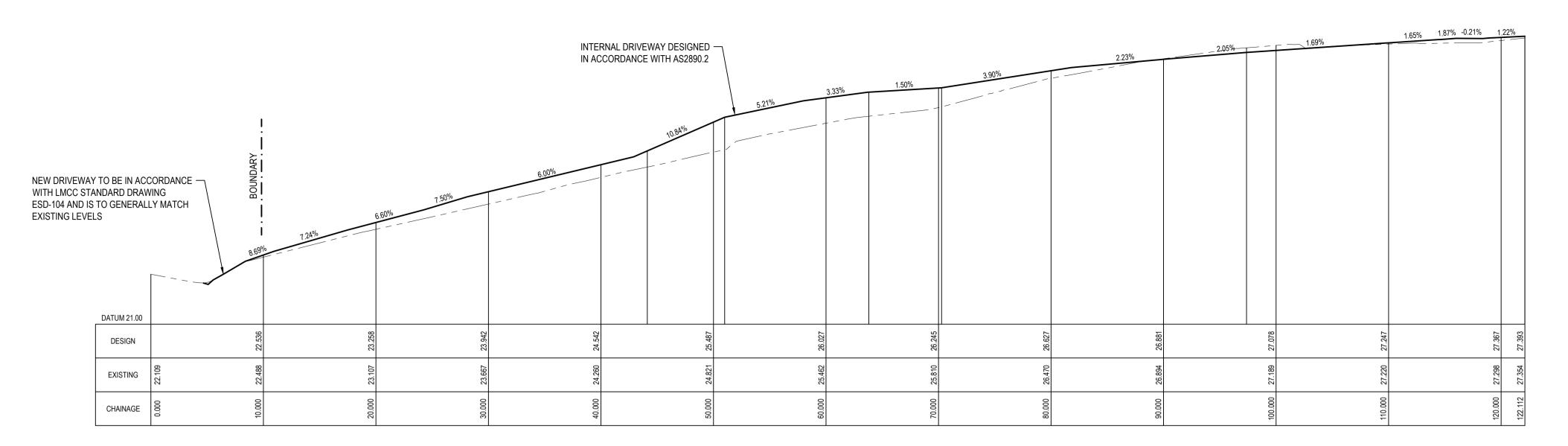
OVERALL WIDTH

TRACK WIDTH

OVERALL BODY HEIGHT MIN BODY GROUND CLEARANCE

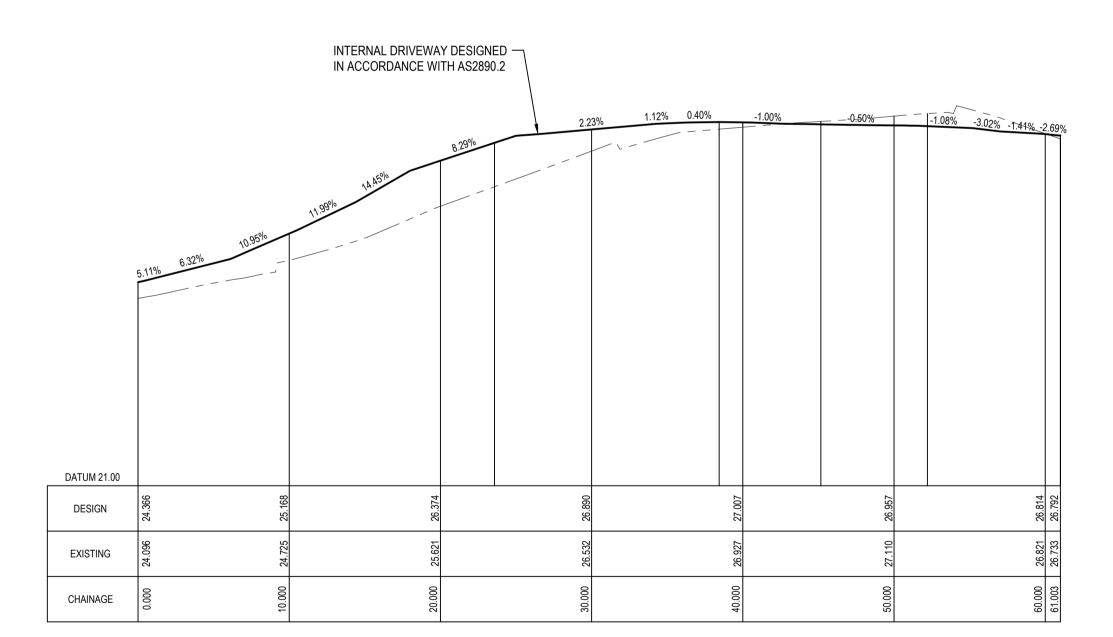
LOCK-TO-LOCK TIME CURB TO CURB TURNING RADIUS

5.200m 1.940m 1.878m 0.272m 1.840m 4.00s 6.250m

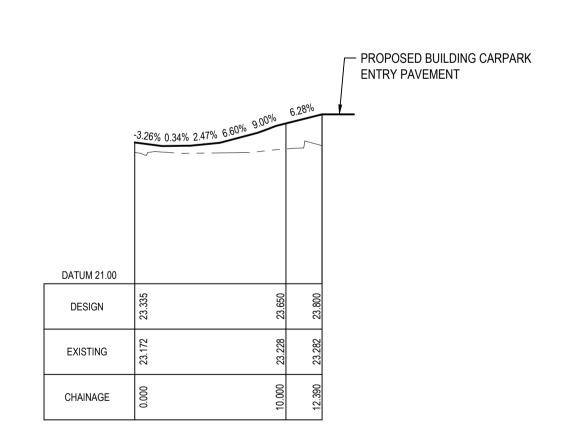


PROPOSED DRIVEWAY LONGSECTION

VERTICAL SCALE 1:50 HORIZONTAL SCALE 1:200



PROPOSED DRIVEWAY DROP OFF AREA LONGSECTION HORIZONTAL SCALE 1:200



PROPOSED DRIVEWAY TO BUILDING CARPARK

LONGSECTION

HORIZONTAL SCALE 1:200

Α	21.02.20	ISSUED FOR DA APPROVAL	I.J.	S
REV	DATE	DRAWING STATUS	DRN	Al
TITLE				

Sydney | Perth | Newcastle | Central Coast

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ANGLICAN CARE CAREY BAY RACF

NOTES

CONJUNCTION WITH 15721-CI-0050 FOR CHAINAGE LOCATIONS.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH

REFER TO DRAWING THIS DRAWING IS TO BE READ IN

36 LAYCOCK STREET

ANGLICAN CARE

15721-CI-0000.

CAREY BAY, NSW, 2283

PROJECT

CLIENT

DRIVEWAY LONGSECTIONS

DRAWING STATUS			SHEET SIZE
FOR APP	A1		
DRAWN	DESIGNED	APPROVED	SCALE
I.Judd	B.Prior	S.Sharma	AS SHOWN
PROJECT No.		DRAWING No.	REVISION
15721	CI-0060		Α