Reduction Ratio 1: 1250

Lengths are in metres.

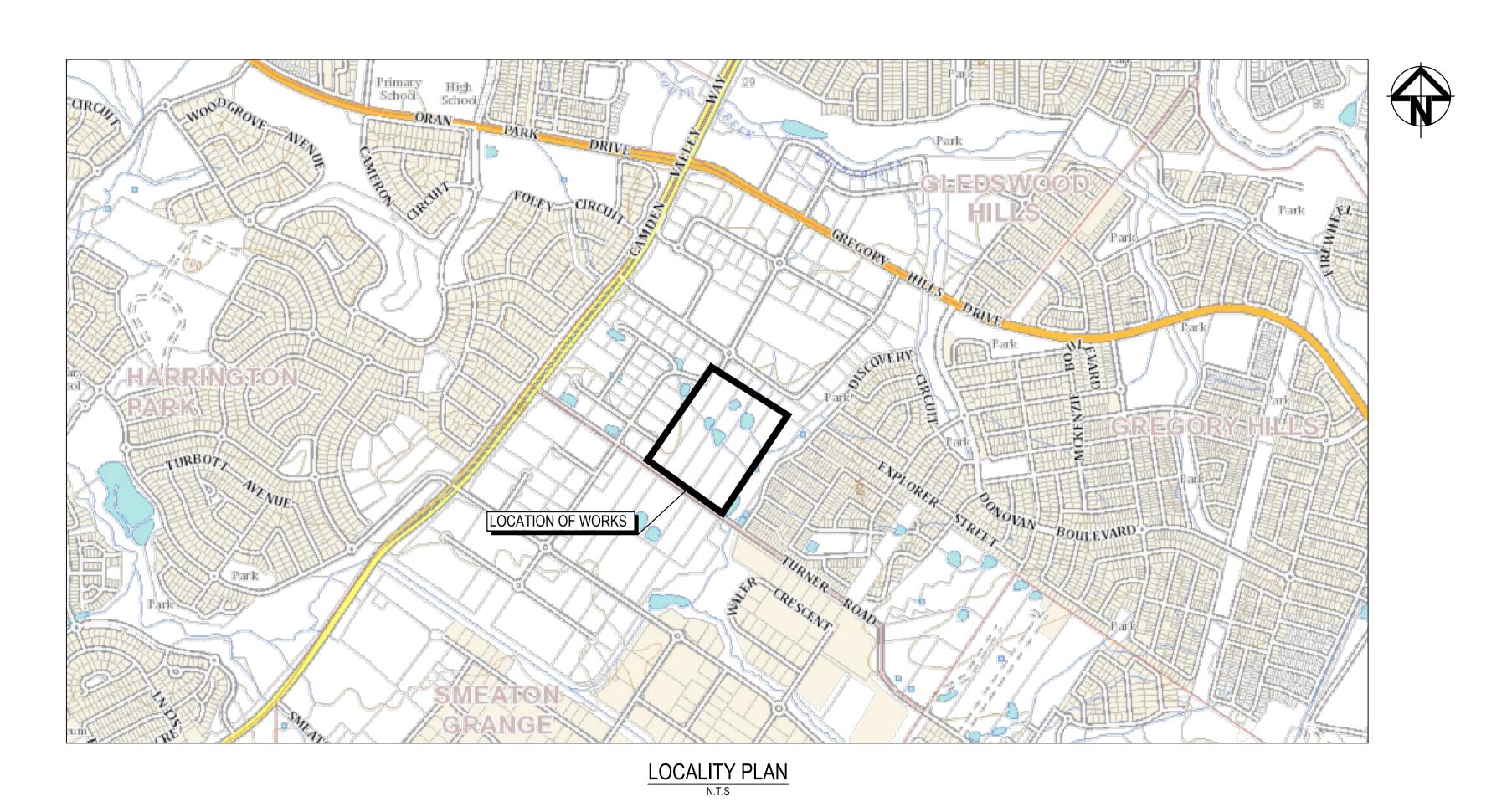
ISSUE FOR REVIEW: 24-01-2023

Date of Survey: DRAFT ONLY

Surveyor's Reference: 51292 003DP_A

43-61 TURNER ROAD, GREGORY HILLS TURNER ROAD INDUSTRIAL ESTATE

CIVIL WORKS PACKAGE DA ISSUE



L ISSUED FOR DA	23-01-23	Bar Scales	Client Scales Drawn JH Project Civil Engineers and Project Managers
K ISSUED FOR DA	13-01-23		N.T.S A3-61 TURNER ROAD Level 7, 153 Walker
J ISSUED FOR DA	07-22-22		ITURNER ROAD INDUSTRIAL PTV LTDI
G ISSUED FOR DA	30-08-22		Grid GDA2020 Checked ALa TURNER ROAD Tel: 02 9439 177
F ISSUED FOR DA APPROVAL	29-06-22		Height ALD Approved INDUSTRIAL ESTATE Fax: 02 9923 105 www.atl.net.au
E ISSUED FOR DA APPROVAL	22-04-22		THIS DRAWING CANNOT BE COPIED OR Datum AHD Approved INDUSTRIAL LSTATE www.atl.net.au info@atl.net.au info@atl.net.au
D ISSUED FOR DA APPROVAL	20-04-22		REPRODUCED IN ANY FORM OR USED
C ISSUED FOR DA APPROVAL	12-04-22		FOR ANY OTHER PURPOSE OTHER COVER SHEET ISSUED FOR DA
B ISSUED FOR APPROVAL	04-11-21		THAN THAT ORIGINALLY INTENDED Project Drawing No.
Issue Description	Date		WITHOUT WRITTEN PERMISSION OF AT&I 21-889-C000

DRAWING LIST

DRAWING No. DRAWING TITLE

21-889-C000	COVER SHEET
21-889-C001	DRAWING LIST AND NOTES
21-889-C002	GENERAL NOTES
21-889-C003	GENERAL ARRANGEMENT PLAN
21-889-C004	TYPICAL ROAD CROSS SECTIONS SHEET 1
21-889-C005	TYPICAL ROAD CROSS SECTIONS SHEET 2
21-889-C006	TYPICAL ROAD VERGE SECTIONS
21-889-C007	TYPICAL SITE SECTIONS SHEET 1
21-889-C008	TYPICAL SITE SECTIONS SHEET 2
BULK EARTHWORKS	
21-889-C101	BULK EARTHWORKS PLAN
21-889-C102	BULK EARTHWORKS SECTIONS SHEET 1
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ROADWORKS	
21-889-C201	ROADWORKS AND DRAINAGE PLAN SHEET 1
21-889-C202	ROADWORKS AND DRAINAGE PLAN SHEET 2
21-889-C203	ROADWORKS AND DRAINAGE PLAN SHEET 3
21-889-C204	ROADWORKS AND DRAINAGE PLAN SHEET 4
21-889-C205	ROADWORKS AND DRAINAGE PLAN SHEET 5
21-889-C206	ROADWORKS AND DRAINAGE PLAN SHEET 6
21-889-C207	ROADWORKS AND DRAINAGE PLAN SHEET 7
21-889-C208	ROADWORKS AND DRAINAGE PLAN SHEET 8
ROAD LONGITUDINAL SECTIONS	
21-889-C301	ROAD 01 (MC01) & ROAD 02 (MC02) LONGITUDINAL SECTIONS
21-889-C302	ROAD 02 (MC02) & ROAD 03 (MC03) LONGITUDINAL SECTIONS
RETAINING WALL	
21-889-C401	RETAINING WALL GENERAL ARRANGEMENT PLAN
21-889-C402	RETAINING WALL PROFILE SHEET 1
21-889-C403	RETAINING WALL PROFILE SHEET 2
21-889-C404	RETAINING WALL PROFILE SHEET 3
21-889-C405	RETAINING WALL DETAILS SHEET 1
21-889-C406	RETAINING WALL DETAILS SHEET 2
21-889-C407	RETAINING WALL DETAILS SHEET 3
21-889-C408	RETAINING WALL DETAILS SHEET 4
STORMWATER DRAINAGE	THE PRINCE DE TAILES OFFEET 4
	STORMWATER DRAINAGE CATCHMENT PLAN (PRE-DEVELOPED)
21-889-C501	STORMWATER DRAINAGE CATCHMENT PLAN (PRE-DEVELOPED)
21-889-C502	
21-889-C521	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 1
21-889-C522	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 2
21-889-C523	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 3
21-889-C524	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 4
21-889-C525	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 5

21-889-C526	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 5
21-889-C531	STORMWATER DRAINAGE DETAILS SHEET 1
21-889-C532	STORMWATER DRAINAGE DETAILS SHEET 2
21-889-C533	STORMWATER DRAINAGE DETAILS SHEET 3
21-889-C535	STORMWATER DRAINAGE PITS ARRANGEMENT PLAN
21-889-C536	STORMWATER DRAINAGE PITS ARRANGEMENT SECTIONS
VEHICLE TURN PATHS	
21-889-C601	TURN PATHS PLAN SHEET 1
21-889-C602	TURN PATHS PLAN SHEET 2
21-889-C603	TURN PATHS PLAN SHEET 3
21-889-C604	TURN PATHS PLAN SHEET 4
21-889-C605	TURN PATHS PLAN SHEET 5
21-889-C606	TURN PATHS PLAN SHEET 6
21-889-C607	TURN PATHS PLAN SHEET 7
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SERVICES AND UTILITIES	
21-889-C701	SERVICES AND UTILITIES COORDINATION PLAN SHEET 1
21-889-C702	SERVICES AND UTILITIES COORDINATION PLAN SHEET 2
EROSION AND SEDIMENT CONTROL	
21-889-C801	SEDIMENT AND EROSION CONTROL PLAN SHEET 1
21-889-C802	SEDIMENT AND EROSION CONTROL PLAN SHEET 2
21-889-C803	SEDIMENT AND EROSION DETAILS
SIGNAGE & LINEMARKING	
21-889-C901	SIGNAGE & LINEMARKING PLAN SHEET 1
21-889-C902	SIGNAGE & LINEMARKING PLAN SHEET 2

EROSION AND SEDIMENT CONTROL

NOTES

SEDIMENT CONTROL

- 9. STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.
- 0. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
- 11. WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE
- 12. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

OTHER MATTERS

- 13. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
- 14. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
- (A) PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE
- (B) ENSURING THAT NOTHING IS NAILED TO THEM
- (C) PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS.
- (I) ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER
 TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE
 DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE
 AND THE TRUNK, WHICH EVER IS THE GREATER
- (II) A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS PLACED UNDER ALL FILL LAYERS OF MORE THAN 300 MILLIMETRES DEPTH
- (III) CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.

STAGING

- SUITABLE EROSION AND SEDIMENT CONTROLS SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT ALL STAGES OF WORKS, THROUGHOUT THE FULL TERM OF THE CONTRACT, WHERE SHOWN ON AT&L DRAWINGS OR WHERE DIRECTED BY THE SUPERINTENDENT OR CAMDEN COUNCIL'S ENGINEERS. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING, DOCUMENTING, INSTALLING AND MAINTAINING THE SEDIMENT AND EROSION CONTROLS REQUIRED TO SUIT THE SELECTED CONSTRUCTION STAGING. THIS IS TO BE DOCUMENTED IN THE FORM OF A SOIL AND WATER MANAGEMENT PLAN TO BE DEVELOPED BY THE CONTRACTOR AND THEIR EROSION ND SEDIMENT CONSULTANT AND PROVIDED BY THE SUPERINTENDENT PRIOR TO CONSTRUCTION COMMENCEMENT.
- SUCH CONTROLS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROTECTION OF THE ENVIRONMENT OPERATIONS ACT, CAMDEN COUNCIL'S SPECIFICATIONS AND THE OFFICE OF ENVIRONMENT AND HERITAGE'S 'MANAGING URBAN STORMWATER: SOILS AND CONSTRUCTION. LANDCOM, (4TH EDITION) MARCH 2004 (REPRINTED 2006) (THE "BLUE BOOK"). VOLUME 1 AND VOLUME 2.

EROSION AND SEDIMENT CONTROL

NOTES

GENERAL INSTRUCTIONS

- 1. THE CONTRACTOR IS RESPONSIBLE FOR ENGAGING A SUITABLY QUALIFIED EROSION AND SEDIMENT CONSULTANT FOR THE DURATION OF THE CONTRACT WITH THE EXPERTISE IN DESIGNING AND DOCUMENTING THE CONTROLS TO ALLOW THE INSTALLATION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROLS. SUITABLE EROSION AND SEDIMENT CONTROLS SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR REQUIRED TO SUIT THE CONSTRUCTION STAGING
- 2. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH
 a. NSW DEPARTMENT OF HOUSING MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH 2004.
 b. LOCAL AUTHORITY REQUIREMENTS
 c. EPA REQUIREMENTS
- 3. MAINTAIN THE EROSION CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
- 4. WHEN STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SEDIMENT FENCES ARE ERECTED AROUND PITS.
- 5.CONTRACTOR IS TO ENSURE ALL EROSION & SEDIMENT CONTROL DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.

LAND DISTURBANCE

6. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN / INSTALLED AS DIRECTED BY THE CONTRACTORS EROSION AND SEDIMENT CONTROL CONSULTANT.

EROSION CONTROL

- 7. DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL
- FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS
 POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF
 CONSTRUCTION ACTIVITIES.

SURVEY NOTES

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY LTS PTY LTD, BEING REGISTERED SURVEYORS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. AT & L DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.

PRIOR TO THE COMMENCEMENT OF THE WORKS, THE CONTRACTOR SHALL UNDERTAKE A DETAILED BOUNDARY SURVEY AND COMPARE AGAINST THE DESIGN FOR DISCREPANCIES.

SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION

SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA, DESIGN DATA AND ACTUAL FIELD DATA, CONTACT AT & L IMMEDIATELY.

THE FOLLOWING NOTES HAVE BEEN TAKEN DIRECTLY FROM THE ORIGINAL SURVEY DOCUMENTS.

- THE BOUNDARIES HAVE NOT BEEN MARKED ON GROUND
- ALL AREAS AND DIMENSIONS HAVE BEEN COMPILED FROM PLANS MADE AVAILABLE BY NSW LAND REGISTRY SERVICES AND ARE SUBJECT TO FINAL SURVEY
- ORIGIN OF LEVELS ON A.H.D. IS TAKEN FROM PM46774 R.L. 96.672 (A.H.D.) IN TURNER ROAD
- 4. ORIGIN OF COORDINATES IS TAKEN FROM SSM168919 R.L. 96.672 IN
- RODEO ROAD . CONTOUR INTERVAL 0.5 m
- 5. CONTOURS ARE INDICATIVE ONLY. ONLY SPOT LEVELS SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION
- 7. ONLY SPOT LEVELS SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION
- 8. KERB LEVELS ARE TO THE TOP OF KERB UNLESS SHOWN OTHERWISE 9. FLOOR LEVELS SHOWN ARE THRESHOLD LEVELS. NO INVESTIGATION OF

INTERNAL FLOOR LEVELS HAS BEEN UNDERTAKEN

- 10. NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE.
 SERVICES HAVE BEEN PLOTTED FROM RELEVANT AUTHORITIES
 INFORMATION AND HAVE NOT BEEN SURVEYED. ALL RELEVANT AUTHORITIES
 SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION ON OR NEAR THE SITE
- 12. SHOWS APPROXIMATE POSITION OF ROAD LINEMARKING AND IS INDICATIVE

11. 8/.4/7 DENOTES TREE SPREAD OF 8m, TRUNK DIAMETER OF 0.4m & APPROX

- ONLY
- 13. BEARINGS SHOWN ARE MGA (MAP GRID OF AUSTRALIA) ADD APPROX. 1°00' FOR TRUE NORTH

L	ISSUED FOR DA	23-01-23	Bar Scales
K	ISSUED FOR DA	13-01-23	
J	ISSUED FOR DA	07-11-22	
G	ISSUED FOR DA	30-08-22	
F	ISSUED FOR DA APPROVAL	29-06-22	
Е	ISSUED FOR DA APPROVAL	22-04-22	
D	ISSUED FOR DA APPROVAL	20-04-22	
С	ISSUED FOR DA APPROVAL	12-04-22	
В	ISSUED FOR APPROVAL	04-11-21	
Issue	Description	Date	

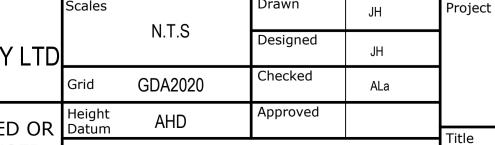
TURNER ROAD INDUSTRIAL PTY LTD

Grid

Height

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Client



GDA2020

43-61 TURNER ROAD
GREGORY HILLS
TURNER ROAD
INDUSTRIAL ESTATE

DRAWING LIST AND NOTES Civil Engineers and Project Managers

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www.atl.net.au
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NOT FOR CONSTRUCTION
Project - Drawing No.
21-889-C001

Issue

SITEWORKS NOTES

- ORIGIN OF LEVELS:- REFER SURVEY NOTES.
- 2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO AT & L.
- 3. MAKE SMOOTH CONNECTION WITH EXISTING WORKS.
- ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
- 5. ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL, REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
- 6. PROVIDE 10mm WIDE EXPANSION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVEMENTS.
- 7. ASPHALTIC CONCRETE SHALL CONFORM TO R.M.S SPECIFICATION R116 8. ALL BASECOURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED
- MATERIAL TO COMPLY WITH R.M.S FORM 3051 (UNBOUND), R.M.S FORM 3052 (BOUND) COMPACTED TO MINIMUM 98% MODIFIED DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m OF BASECOURSE MATERIAL PLACED.
- 9. ALL SUB-BASE COURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH R.M.S FORM 3051, 3051.1 AND COMPACTED TO MINIMUM 95% MODIFIED DENSITY IN ACCORDANCE WITH A.S 1289 5.2. FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m³ OF SUB-BASE COURSE MATERIAL PLACED.
- 10. AS AN ALTERNATIVE TO THE USE OF IGNEOUS ROCK AS A SUB-BASE MATERIAL IN (9) A CERTIFIED RECYCLED CONCRETE MATERIAL COMPLYING WITH R.M.S FORM 3051 AND 3051.1 WILL BE CONSIDERED SUBJECT TO MATERIAL SAMPLES AND APPROPRIATE CERTIFICATIONS BEING PROVIDED TO THE SATISFACTION OF AT & L.
- 11. SHOULD THE CONTRACTOR WISH TO USE A RECYCLED PRODUCT THE CONTRACTOR IS TO SEEK ACCEPTANCE OF THE PRODUCT FROM AT&L. THE PRICE DIFFERENCE BETWEEN AN IGNEOUS PRODUCT AND A RECYCLED PRODUCT SHALL BE CLEARLY INDICATED.
- 12. WHERE NOTED ON THE DRAWINGS THAT WORKS ARE TO BE CARRIED BY OTHERS, (eg. ADJUSTMENT OF SERVICES), THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF THESE WORKS
- 13. ALL WORKS CARRIED OUT ADJACENT TO AND WITHIN TRANSGRID'S EASEMENT TO COMPLY WITH TRANSGRID'S GUIDELINES AND REQUIREMENTS
- 14. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH CAMDEN COUNCIL'S ENGINEERING CONSTRUCTION SPECIFICATION FOR CIVIL
- WORKS AND TO THE REQUIREMENTS OF THE CERTIFYING AUTHORITY 15. INSPECTIONS BY CERTIFYING AUTHORITY ARE REQUIRED AT THE FOLLOWING STAGES AND THE WORKS APPROVED PRIOR TO
- CONTINUANCE OF ANY FUTURE WORK: (A) FOLLOWING INSTALLATION OF EROSION AND SEDIMENT CONTROL STRUCTURES/MEASURES. (B) PRIOR TO BACKFILLING PIPELINES, SUBSOIL DRAINS AND DAMS.
- (C) PRIOR TO CASTING OF PITS AND OTHER CONCRETE STRUCTURES, INCLUDING KERB AND GUTTER BUT FOLLOWING PLACEMENT OF FOOTINGS, FORMWORK, AND REINFORCEMENT. (D) PRIOR TO PLACEMENT OF SUB BASE AND ALL SUBSEQUENT PAVEMENT LAYERS, A PROOF ROLLER TEST OF EACH PAVEMENT LAYER
- IS REQUIRED. (E) FORMWORKS PRIOR TO POURING CONCRETE IN PARKING AREA FOR FOOTPATH CROSSING AND OTHER ASSOCIATED WORK. (F) PRIOR TO BACKFILLING PUBLIC UTILITY CROSSINGS IN ROAD
- RESERVES. (G) FINAL INSPECTIONS AFTER ALL WORKS ARE COMPLETED AND 'WORKS AS EXECUTED' PLANS HAVE BEEN SUBMITTED TO COUNCIL.
- 16. NO TREES ARE TO BE REMOVED UNLESS APPROVAL IS GRANTED BY COUNCIL'S LANDSCAPE COMPLIANCE OFFICER OR AS AUTHORISED BY DEVELOPMENT CONSENT.
- 17. MAKE SMOOTH JUNCTIONS WITH EXISTING WORKS.
- 18. NO WORK IS TO BE CARRIED OUT ON COUNCIL PROPERTY OR ADJOINING PROPERTIES WITHOUT THE WRITTEN PERMISSION FROM THE OWNER/S. 19. VEHICULAR ACCESS AND ALL UTILITIES/SERVICES ARE TO BE
- MAINTAINED AT ALL TIMES TO ADJOINING PROPERTIES AFFECTED BY CONSTRUCTION.
- 20. ALL RUBBISH, BUILDINGS, SHEDS AND FENCES TO BE REMOVED TO SATISFACTION OF COUNCIL'S ENGINEER. 21. COUNCIL ENGINEERS HAVE DISCRETION TO VARY, AS CONSIDERED
- NECESSARY, THE ENGINEERING REQUIREMENTS IN RESPECT OF A PARTICULAR SUBDIVISION OR DEVELOPMENT HAVING REGARD TO THE SITE CONTEXT.

DEWATERING

ISSUED FOR DA

ISSUED FOR DA

ISSUED FOR DA

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IF REQUIRED ANY DEWATERING WORKS TO BE AS PER THE DEWATERING PROCEDURE AS CONTAINED WITHIN THE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP) WHICH IS TO BE PREPARED BY CONTRACTOR. AS ADVISED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE SUPERINTENDENT.

RETAINING WALL NOTES (TBC) LOADING:

- THE FOLLOWING DESIGN LOADS SHALL BE CONSIDERED. DEAD LOAD (min 5 kPa): ANY BUILDINGS, STRUCTURE, UTILITIES OR OTHER DEAD LOADS / SURCHARGES WITHIN THE "ZONE OF
- INFLUENCE" OF THE RETAINING WALL LIVE LOAD: min 20 kPa UNIFORMLY DISTRIBUTED LOAD. ALL WALLS FINISHES TO MATCH EXISTING BLOCK WALLS CONSTRUCTED AS PART OF STOCKLAND SITE TO THE WEST.

Description

EXISTING UNDERGROUND SERVICES

- THE LOCATIONS OF UNDERGROUND SERVICES SHOWN IN THIS SET OF DRAWINGS HAVE BEEN PLOTTED FROM SURVEY INFORMATION AND SERVICE AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITIONS OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE.
- 2. AT & L CAN NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.
- CONTRACTORS SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE INCLUDING HAND EXCAVATION WHERE NECESSARY.
- CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.
- CONTRACTORS ARE TO UNDERTAKE A SERVICES SEARCH, PRIOR TO COMMENCEMENT OF WORKS ON SITE. SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.
- PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR IS TO CONFIRM THE ALIGNMENT AND LEVELS OF ALL EXISTING SERVICES AT ALL LOCATIONS WHERE THE PROPOSED SERVICES ARE TO CROSS. CONNECT TO, OR ARE LOCATED IN CLOSE PROXIMITY TO THE EXISTING SERVICES.

CONCRETE NOTES

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- CONCRETE QUALITY ALL REQUIREMENTS OF THE CURRENT ACSE CONCRETE SPECIFICATION DOCUMENT 1 SHALL APPLY TO THE FORMWORK. REINFORCEMENT AND CONCRETE UNLESS NOTED OTHERWISE.

ELEMENT	AS 3600 F'c MPa	SPECIFIED	NOMINAL
	AT 28 DAYS	SLUMP	AGG. SIZE
VEHICULAR BASE KERBS, PATHS, AND PITS	32 25	60 80	20 20

- CEMENT TYPE SHALL BE (ACSE SPECIFICATION) TYPE SL - PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 1379.

- NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING BY AT & L.
- CLEAR CONCRETE COVER TO ALL REINFORCEMENT FOR DURABILITY SHALL BE 40mm TOP AND 70mm FOR EXTERNAL EDGES UNLESS NOTED OTHERWISE.
- ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS, PLASTIC CHAIRS OR CONCRETE CHAIRS AT NOT GREATER THAN 1m CENTRES BOTH WAYS. BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS.
- THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK, THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED AND CURED IN ACCORDANCE WITH R.M.S SPECIFICATION
- REINFORCEMENT SYMBOLS:
 - N DENOTES GRADE 450 N BARS TO AS 1302 GRADE N
 - R DENOTES 230 R HOT ROLLED PLAIN BARS TO AS 1302 SL DENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS 1304

NUMBER OF BARS IN GROUP _ _ BAR GRADE AND TYPE

17 N 20 250 NOMINAL BAR SIZE IN mm — SPACING IN mm

THE FIGURE FOLLOWING THE FABRIC SYMBOL SL IS THE REFERANCE NUMBER FOR FABRIC TO AS 1304.

8. FABRIC SHALL BE LAPPED IN ACCORDANCE WITH THE FOLLOWING DETAIL:

— LAP TWO WIRES

DECOMMISSIONING / DEMOLITION

- DEMOLITION OF EXISTING DWELLING TO BE CONDUCTED IN ACCORDANCE WITH THE PROVISIONS OF AS2601-2001 - DEMOLITION OF STRUCTURES BY CONTRACTORS EXPERIENCED IN THIS CLASS OF WORK AND HOLDING REQUIRED CURRENT PERMITS AND LICENSES AS REQUIRED.
- EXISTING INTERNALS FENCING, CATTLE YARDS, UTILITIES AND OTHER REDUNDANT STRUCTURES TO BE DEMOLISHED AND REMOVED TO AN APPROVED WASTE MANAGEMENT FACILITY.
- DAM DECOMMISSIONING TO BE COMPLETED AS PER THE DAM DECOMMISSIONING PROCEDURE AS CONTAINED WITHIN THE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP) WHICH IS TO BE PREPARED BY THE CONTRACTOR, AS ADVISED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE SUPERINTENDENT.
- ALL EXISTING SERVICES (INCLUDING SEPTIC TANKS) SHALL BE REMOVED FROM SITE.

CONTINUED ABOVE

DECOMMISSIONING / DEMOLITION

CONTINUED FROM BELOW

- 5. ALL UNDERGROUND CABLES AND PIPES SHALL BE GRUBBED OUT AND CAPPED AT THE BOUNDARY OF THE SITE.
- ALL EXISTING SERVICES TO BE CONSIDERED AS LIVE UNTIL THE CONTRACTOR HAS TESTED AND CONFIRMED TO THE SUPERINTENDENT THAT THE SERVICES ARE DEAD / REDUNDANT

KERBING NOTES

- 1. ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25 MPa U.N.O IN REINFORCED CONCRETE NOTES.
- ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON MIN. 100mm GRANULAR BASECOURSE COMPACTED TO MINIMUM 95% MODIFIED DRY DENSITY (AS 1289 5.2.1).
- EXPANSION JOINTS (E.J) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE, EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS. ON TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
- WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
- BROOM FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL
- IN THE REPLACEMENT OF KERB AND GUTTER :-IF REQUIRED EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm U.N.O FROM THE LIP OF GUTTER. UPON COMPLETION OF THE NEW KERB AND GUTTER NEW BASECOURSE AND SURFACE TO BE LAID 900mm WIDE U.N.O.

OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.

STORMWATER DRAINAGE NOTES

- STORMWATER DESIGN CRITERIA: (A) AVERAGE RECURRENCE INTERVAL 1:100 YEARS MAJOR STORM (OVERLAND FLOW) 1:10 YEARS MINOR STORM (PIPED NETWORK) (B) RAINFALL INTENSITIES:
- TIME OF CONCENTRATION:5 MINUTES 1:100 YEARS= 219 mm/hr 1:10 YEARS= 141.6 mm/hr (C) RUNOFF COEFFICIENTS:

ROOF AREAS:

- EXTERNAL PAVEMENTS: C 100 =1.0 PIPES 300 DIA. AND LARGER TO BE REINFORCED CONCRETE CLASS '3' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS. U.N.O.
- PIPES UP TO 300 DIA SHALL BE SEWER GRADE uPVC WITH SOLVENT
- EQUIVALENT STRENGTH VCP OR FRC PIPES MAY BE USED. SUBJECT TO
- THE APPROVAL OF CAMDEN COUNCIL ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE uPVC PRESSURE PIPE GRADE 6. ENSURE ALL VERTICALS AND

DOWNPIPES ARE uPVC PRESSURE PIPE, GRADE 6 FOR A MIN OF 3.0m IN

- PIPES TO BE INSTALLED TO TYPE HS2 SUPPORT IN ACCORDANCE WITH AS 3725 IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1.
- (OR A DENSITY INDEX OF NOT LESS THAN 75) ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 (1998) AND AS/NZS 3500 3.2 (1998).
- ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.
- WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED.
- CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
- GRATES AND COVERS SHALL CONFORM TO AS 3996 AND CAMDEN COUNCIL CONSTRUCTION SPECIFICATIONS.
- 12. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS. ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
- ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS
- ALL STORMWATER PITS ARE TO BE CAST IN-SITU IN ACCORDANCE WITH THE STORMWATER DETAILS AND SPECIFICATIONS, UNLESS APPROVED BY THE SUPERINTENDENT / CAMDEN COUNCIL. IF APPROVED AND IN ADDITION TO THE SPECIFICATION,
- ALL PRE-CAST PITS ARE TO BE STRUCTURALLY CERTIFIED TO MEET RELEVANT AUSTRALIAN STANDARDS (AS3600, AS3996).
- B. ALL PRECAST PITS TO BE FOUNDED ON CONCRETE BLINDING LAYER WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 100KPA UP TO 3.0M DEPTH TO INVERT AND 150KPA FROM 3.0M TO 6.0M DEPTH TO INVERT (MINIMUM 100MM THICK 25MPA OR DEEPER TO ENSURE MINIMUM SPECIFIED BEARING CAPACITY IS ACHIEVED)
- PRE-CAST STORMWATER PITS ARE TO BE CUSTOM MADE WITH OPENINGS WITHIN +50MM OD OF PIPE, HEIGHTS AND PIPE PENETRATIONS DURING MANUFACTURE. ANY ADDITIONAL PENETRATIONS SHALL BE CORE DRILLED. D. DEMOLITION SAWS ARE NOT TO BE USED IN ANY CIRCUMSTANCES.
- E. SINGLE UNITS PREFERRED BUT IF REQUIRED MINIMUM RISER DEPTH 600MM PIT INSTALLATION AND JOINTING PIPES TO PITS SHALL BE UNDERTAKEN IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

CONTINUED ABOVE

Client

CONTINUED FROM BELOW

- ANY DAMAGE TO THE STRUCTURAL INTEGRITY OF THE PRE-CAST PIT WILL BE REPAIRED AND STRUCTURALLY CERTIFIED TO THE SATISFACTION OF THE SUPERINTENDENT / CAMDEN COUNCIL.
- ALL PRE-CAST PIT PENETRATIONS SHALL BE CUT SO THAT IT IS FLUSH WITH THE INTERNAL WALL
- PIPE JOINTING/SEALING OF PIPE PENETRATION TO BE WITH A NON-SHRINK MORTAR MIX, E.G. LANKO 702 DURABED OR SIMILAR APPROVED.
- 15. ALL LONGITUDINAL PIPELINES IN ROADS MUST BE LOCATED UNDER KERB AND GUTTER AND BE BACKFILLED WITH APPROVED GRANULAR MATERIAL UNLESS OTHERWISE APPROVED BY THE COUNCIL ENGINEER.
- DRAINAGE LINES MUST BE BACKFILLED WITH APPROVED GRANULAR MATERIAL IN TRAFFICABLE AREAS. THREE METRES OF SUBSOIL DRAINAGE WRAPPED IN GEOTEXTILE STOCKING MUST BE PROVIDED TO ALL
- DOWNSTREAM PITS. 17. ALL GULLY PITS TO COUNCIL'S STANDARD AND LINTELS CENTRALLY PLACED AT SAG PITS.
- 18. ALL PITS MUST BE BENCHED AND STREAMLINED. PROVIDE SL72 REINFORCEMENT AND GALVANISED STEP IRONS IN ALL PITS OVER 1.2-METRES DEEP AS MEASURED FROM THE TOP OF GRATE TO THE INVERT OF THE PIT.
- 19. CONCRETE IS TO HAVE MINIMUM COMPRESSIVE STRENGTH OF 32MPA AT 28-DAYS UNLESS OTHERWISE APPROVED BY THE COUNCIL ENGINEER.
- 20. ALL INTERALLOTMENT DRAINAGE MUST HAVE A MINIMUM PIPE DIAMETER OF 150 MM AND A MINIMUM GRADE OF 1% UNLESS OTHERWISE APPROVED BY THE COUNCIL ENGINEER.
- 21. ALL INTERALLOTMENT DRAINAGE LINES MUST BE LAID CENTRALLY WITHIN DRAINAGE EASEMENTS. INSPECTIONPITS MUST BE PROVIDED AT ALL CHANGES OF GRADE AND DIRECTION.
- 22. INTERALLOTMENT DRAINAGE LINES MUST BE INSTALLED AFTER SYDNEY WATER SEWERAGE LINES HAVE BEEN INSTALLED WHERE SEWER IS PROPOSED ADJACENT TO INTERALLOTMENT DRAINAGE LINES.
- 23. 1% AEP OVERLAND FLOW PATHS MUST BE FORMED AND SHOWN ON 'WORKS AS EXECUTED' DRAWINGS. 24. ALL PLANS (BOTH DESIGN AND WAE) ARE TO CLEARLY DELINEATE THE
- EXTENT/LOCATION OF FLOOD LINES INCLUDING THE 5% AEP, 1% AEP AND
- 25. ADEQUATE PROVISION IS TO BE MADE TO PREVENT SCOURING AND SEDIMENTATION FOR ALL DRAINAGE WORKS IN ACCORDANCE WITH COUNCIL'S REQUIREMENTS.
- 26. PIT LINTELS ARE TO BE STENCILLED WITH APPLICABLE DISTINCTION STENCIL AVAILABLE FROM COUNCIL. 27. CATCH DRAINS MUST BE CONSTRUCTED AS REQUIRED BY THE APPROVED
- PLANS OR THE PRINCIPAL CERTIFYING AUTHORITY. 28. SOIL AND WATER MANAGEMENT PLANS ARE TO BE PREPARED FOR ALL DISTURBED SITES AND ADHERED TO AT ALL TIMES DURING THE

EMBANKMENT CONSTRUCTION

CONSTRUCTION AND MAINTENANCE PERIODS.

SEQUENCE

- STRIP VEGETATION AND TOPSOIL FROM EMBANKMENT AREA AND STOCKPILE TOPSOIL FOR LATER USE. CUT BACK AREA TO FIRM GROUND.
- CONSTRUCT EMBANKMENT TO GRADE NOMINATED ON DRAWING.
- IN THE CASE WHERE THE EMBANKMENT AREAS SHOW ANY FAILURE. THE CONTRACTOR IS TO ENGAGE A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER TO DETERMINE THE CAUSE AND METHOD OF
- INTO THE CUT-OFF TRENCH OF LAYERS NOT EXCEEDING 150mm LOOSE THICKNESS TO A DRY DENSITY EQUIVALENT TO 98% OF THAT DETERMINED BY STANDARD COMPACTION (AS 1289.5.1.1) AND AT A MOISTURE CONTENT OF -2% TO +2% OF OPTIMUM MOISTURE CONTENT.

COMPACT CLAY STABILISED WITH GYPSUM (3% BY DRY MASS, MINIMUM) AS

APPROVED BY A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER

- GYPSUM STABILISED NATURAL SOILS EXPOSED IN EMBANKMENT AREA WITH MINIMUM 3% GYPSUM BY DRY MASS AND COMPACT AS FOR #4. ALL TO THE APPROVAL OF A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER.
- CONSTRUCT BODY OF EMBANKMENT WITH CLAYEY MATERIAL WON FROM SITE, COMPACT THE CLAYEY MATERIAL APPROVED BY A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER IN LAYERS NOT EXCEEDING 150mm THICKNESS TO A DRY DENSITY EQUIVALENT TO 98% OF THAT DETERMINED BY STANDARD COMPACTION (AS 1289.5.1.1) AND AT A MOISTURE CONTENT OF -2% TO +2% OF OPTIMUM MOISTURE CONTENT. MOST IMPORTANTLY, IF SHRINKAGE CRACKS OCCUR, AS DIRECTED BY A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER.
- OVERFILL THE EMBANKMENT AND TRIM OFF, SO THAT THE ENTIRE BODY OF THE EMBANKMENT IS COMPACTED.
- TRIM THE EMBANKMENTS BATTERS TO THE OVERFILLED MATERIAL, STABILISE THE UPSTREAM CLAY BATTERS WITH WELL MIXED GYPSUM (3% BY DRY MASS. MINIMUM) AND COMPACT TO MIN. 98% STD -2% TO +2% OMC.
- PLACE ROCK RIP-RAP AS SHOWN.
- 10. RECOVER TOPSOIL FROM STOCKPILE AND SPREAD OVER EMBANKMENT AND CUT BATTERS (A THIN COVER OF TOPSOIL ONLY HAS BEEN NOMINATED). ONLY LIGHTLY TRACK-ROLL THE TOPSOIL AND THEN LANDSCAPE IN ACCORDANCE WITH THE LANDSCAPE AREA DRAWINGS.
- WATER AND FERTILISE LANDSCAPE AS REQUIRED BY CLIMACTIC CONDITIONS TO ENSURE THE LANDSCAPE IS SUCCESSFUL.
- 12. AT THE COMPLETION OF WORK WRITTEN CONFIRMATION AND CERTIFICATION IS TO BE PROVIDED FROM A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER THAT THE EMBANKMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THESE DRAWINGS.

ROADWORKS NOTES

- SUBGRADES AND SUB BASES ARE TO BE COMPACTED IN ACCORDANCE
- WITH COUNCIL'S CONSTRUCTION SPECIFICATION. SUBSOIL DRAINS TO BE PROVIDED ON BOTH SIDES OF ROADS (EXCEPT
- WHERE THERE IS STORMWATER DRAINAGE). 150 X 50 H.D. GALVANISED STEEL KERB OUTLETS TO BE PLACED IN ALL KERB
- CONNECTION OF 90 MM DIAMETER STORMWATER PIPE. LIPLESS PERAMBULATOR CROSSINGS ARE TO BE PROVIDED IN ALL KERB RETURNS AND WHERE REQUIRED BY COUNCIL.
- SERVICE CONDUITS TO BE PLACED AS DIRECTED BY ALL PUBLIC UTILITY AUTHORITIES INCLUDING INTEGRAL ENERGY, TELSTRA AND SYDNEY WATER

TYPES ON LOW SIDE OF LOTS. PROVIDE SUITABLE ADAPTOR TO ALLOW

- PROPOSED UTILITIES AND SERVICES CROSSING EXISTING ROADS SHALL BE PROVIDED FOR USING A TRENCHLESS TECHNIQUE SO AS NOT TO DAMAGE THE EXISTING SURFACE. ALL SERVICE CONDUITS UNDER ROADS MUST BE LAID TO A MINIMUM DEPTH OF 750 MM. CONCRETE FOOTPATH CONSTRUCTION IS TO BE BONDED WITH COUNCIL
- PENDING COMPLETION OF UTILITY/SERVICES AND SURROUNDING **DWFLLINGS**
- ALL TEMPORARY ROADS MUST BE TEMPORARILY SEALED WITH A SINGLE COAT FLUSH SEAL.
- ALL PERMANENT ROADS MUST BE SEALED WITH A SINGLE COAT FLUSH SEAL AND 50 MM OF AC TO BE APPLIED IN TWO 25 MM THICK LAYERS. THE FINAL AC LAYER IS TO BE AC 10 AND IS TO BE BONDED WITH COUNCIL AND PLACED

FOLLOWING APPROVAL FROM COUNCIL.

- 10. SIGNPOSTING AND LINE MARKING SHALL CONFORM TO AS1742.2 'TRAFFIC CONTROL DEVICES FOR GENERAL USE'. RAISED RETRO-REFLECTIVE PAVEMENT MARKERS TO CONFORM TO AS1906 'RETRO-REFLECTIVE MATERIALS AND DEVICES FOR ROAD TRAFFIC CONTROL PURPOSES'. ALL APRONS AND KERB FACE ON CENTRAL ISLANDS OF ROUNDABOUTS AND ALL OTHER ISLANDS TO BE DELINEATED BY REFLECTIVE WHITE MARKING. INSTALLATION SHALL OCCUR IN ACCORDANCE WITH THE PLAN APPROVED BY THE LOCAL TRAFFIC COMMITTEE.
- 11. ALL LOT AND HOUSE NUMBERS MUST BE STENCILLED ON KERB FACE. 12. STREET SIGNS TO COUNCIL STANDARD MUST BE INSTALLED BY THE CONTRACTOR.

EARTHWORKS NOTES

- TESTING RESULTS FOR ALL AREAS THAT CONTAIN FILL IN EXCESS OF 200 MM.
- COMPACTION OF EARTHWORKS SHALL CONTINUE UNTIL A DRY DENSITY RATIO OF 95% FOR SITE FILLING AND 100% FOR ROAD PAVEMENT SUBGRADES HAS BEEN ACHIEVED IN ACCORDANCE WITH TEST METHOD AS1289.5.3.1 OR AS.1289.5.1.1. THE CONTROL TESTING OF EARTHWORKS SHALL BE IN ACCORDANCE WITH THE GUIDELINES IN AS3798 'GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS'. WHERE IT IS PROPOSED TO USE TEST METHOD AS1289.5.8.1 TO DETERMINE THE FIELD DENSITY, A SAND
- REPLACEMENT METHOD SHALL BE USED TO CONFIRM THE RESULTS. THE SUITABLE QUALIFIED GEOTECHNICAL ENGINEER, SHALL HAVE A LEVEL 1 RESPONSIBILITY FOR ALL FILLING AS DEFINED IN APPENDIX B AS3798 'GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS', AND AT THE END OF THE WORKS SHALL CONFIRM THE EARTHWORKS COMPLY WITH THE REQUIREMENTS OF THE SPECIFICATION AND DRAWINGS BY WRITTEN NOTIFICATION
- IN AREAS TO BE FILLED WHERE THE SLOPE OF THE NATURAL SURFACE EXCEEDS 1(V):4(H), BENCHES ARE TO BE CUT TO PREVENT SLIPPING OF THE PLACED FILL MATERIAL AS REQUIRED BY THE COUNCIL.
- PROVIDE MINIMUM 150 MM AND MAXIMUM 300 MM TOPSOIL WITH ON FOOTPATHS, FILLED AREAS AND ALL OTHER AREAS DISTURBED DURING CONSTRUCTION. TOPSOILED AREAS TO BE STABILISED WITH APPROVED VEGETATION A MAXIMUM
- THE CONTRACTOR SHALL CONTROL SEDIMENTATION, EROSION AND POLLUTION DURING CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT EDITION OF 'MANAGING URBAN STORMWATER: SOILS AND CONSTRUCTION' PRODUCED BY LANDCOM.
- A MINIMUM 1 METRE WIDE, CONTINUOUS STRIP OF COUCH GRASS SHALL BE PLACED BEHIND THE BACK OF ALL KERBS AND OTHER CONCRETE STRUCTURES IMMEDIATELY AFTER THE COMPLETION OF THE FOOTPATH GRADING OR OTHER ELEMENTS AS APPLICABLE, AND SHALL BE MAINTAINED AND REPLACED AS REQUIRED DURING THE CONSTRUCTION MAINTENANCE PERIOD.

- EARTHWORKS ARE TO BE CARRIED OUT TO THE SATISFACTION OF THE COUNCIL. UNSUITABLE MATERIALS ARE TO BE REMOVED FROM ROADS AND LOTS PRIOR TO FILLING. THE CONTRACTOR IS TO ARRANGE AND MAKE AVAILABLE COMPACTION
- ALL BATTERS ARE TO BE SCARIFIED TO A DEPTH OF 50 MM TO ASSIST WITH ADHESION OF TOP SOIL TO BATTER FACE.
- OF 14 DAYS AFTER TOPSOILING AND ARE TO BE WATERED TO ENSURE GERMINATION.

DETAIL ON DWG C533 PROPOSED RETAINING WALL EXISTING RETAINING WALL ____ EXISTING RETAINING WALL TO BE REMOVED

LEGEND

EXISTING BOUNDARY

PROPOSED BOUNDARY

PROPOSED EASEMENT

— e — e — EXISTING ELECTRICITY

— — w — — w — EXISTING POTABLE WATER

— — s — — s — EXISTING SEWER

— — t — — t — EXISTING TELECOM

——/——/—— PROPOSED FENCE

— g — g — EXISTING GAS

K&G

----<----

___ <___ <___

(J-2)

—— - - — EXISTING BOUNDARY TO BE REMOVED

—— 58.00 —— PROPOSED MAJOR CONTOUR (0.5m)

—— PROPOSED MINOR CONTOUR (0.25m)

PROPOSED BATTER

PROPOSED SWALE

LIMIT OF WORKS

PROPOSED SUB SOIL

PROPOSED PIT LABEL

INLET PIT WITH LINTEL

WITH HEADWALL

PROPOSED CAPPED

STORMWATER PIPE

EXISTING RE1 ZONE

INLET PIT

PROPOSED STORMWATER

PROPOSED STORMWATER KERB

PROPOSED STORMWATER PIPE

PROPOSED STORMWATER LINE

SUBJECT TO OWNERS CONSENT

ON-SITE DETENTION BASIN REFER

PROPOSED WORK OVER SITE BOUNDARY

EXISTING DAM TO BE DECOMMISSIONED

PROPOSED KERB RAMP

PROPOSED KERB AND GUTTER

PROPOSED RETAINING WALL

TO CAMDEN COUNCIL STD DWG SD02

TO CAMDEN COUNCIL STD DWG SD03

1(V):4(H) U.N.O



Designed

Checked

Approved

CONTRACTOR SHALL CALL; DIAL BEFORE YOU PRIOR TO COMMENCEMENT OF WORK TO OBTAIN ALL CURRENT SERVICE AUTHORITY PLANS

JΗ

ALa

Civil Engineers and Project Managers

43-61 TURNER ROAD **GREGORY HILLS** TURNER ROAD **INDUSTRIAL ESTATE**

GENERAL NOTES

ISSUED FOR DA

Fax: 02 9923 1055 www.atl.net.au info@atl.net.au

Level 7, 153 Walker Street

North Sydney NSW 2060

ABN 96 130 882 405

Tel: 02 9439 1777

21-889-C002 F:\21-889 43-61 Turner Rd, Gregory Hills\6.0 Drgs\Civil\Final\21-889-C002.dwg

100mm on Original

Date

13-01-23

30-08-22 29-06-22 22-04-22 20-04-22 12-04-22

07-11-22 04-11-21

23-01-23 Bar Scales

WITHOUT WRITTEN PERMISSION

THIS DRAWING CANNOT BE COPIED OR Datum REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED

OF AT&L

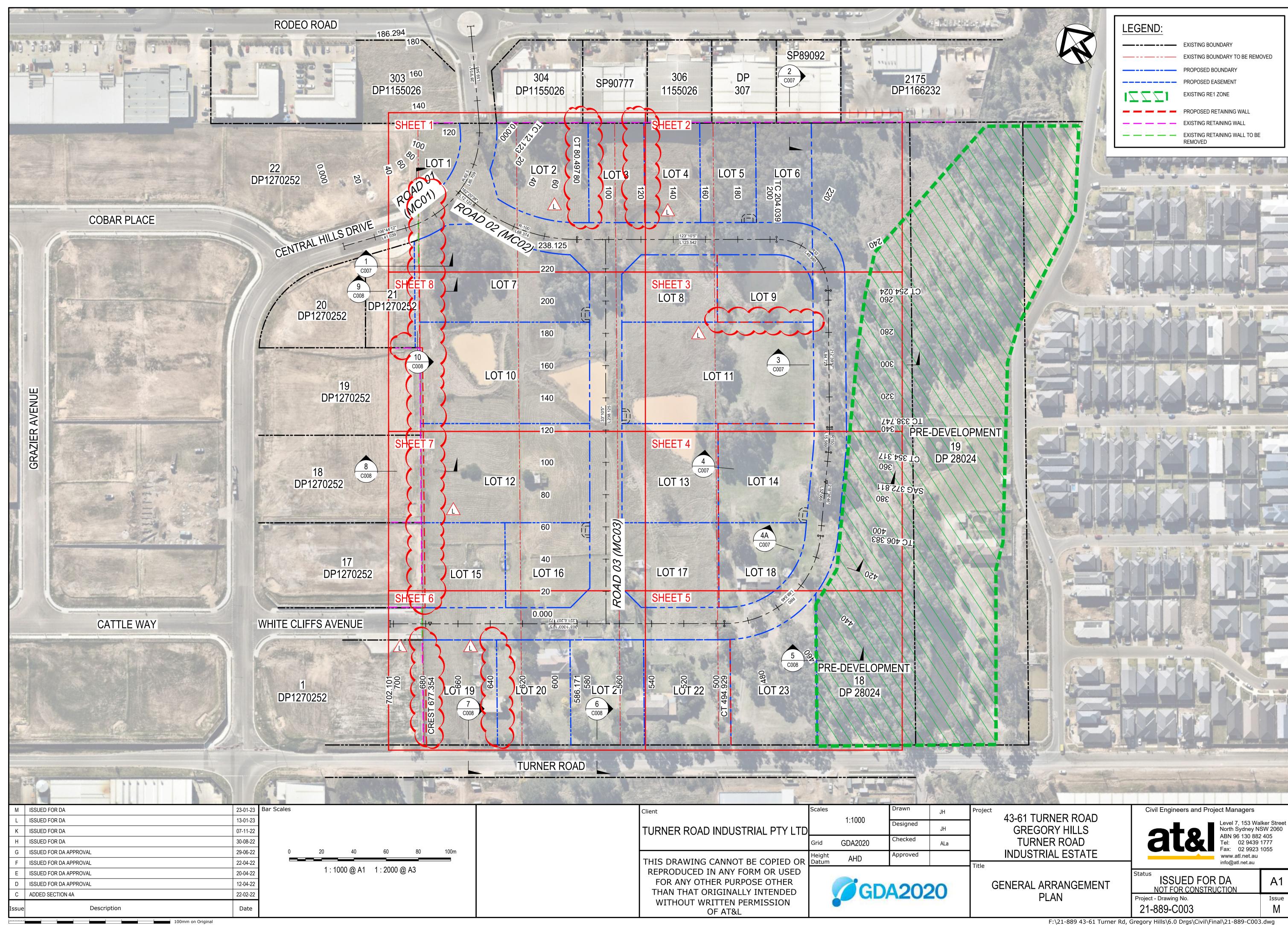
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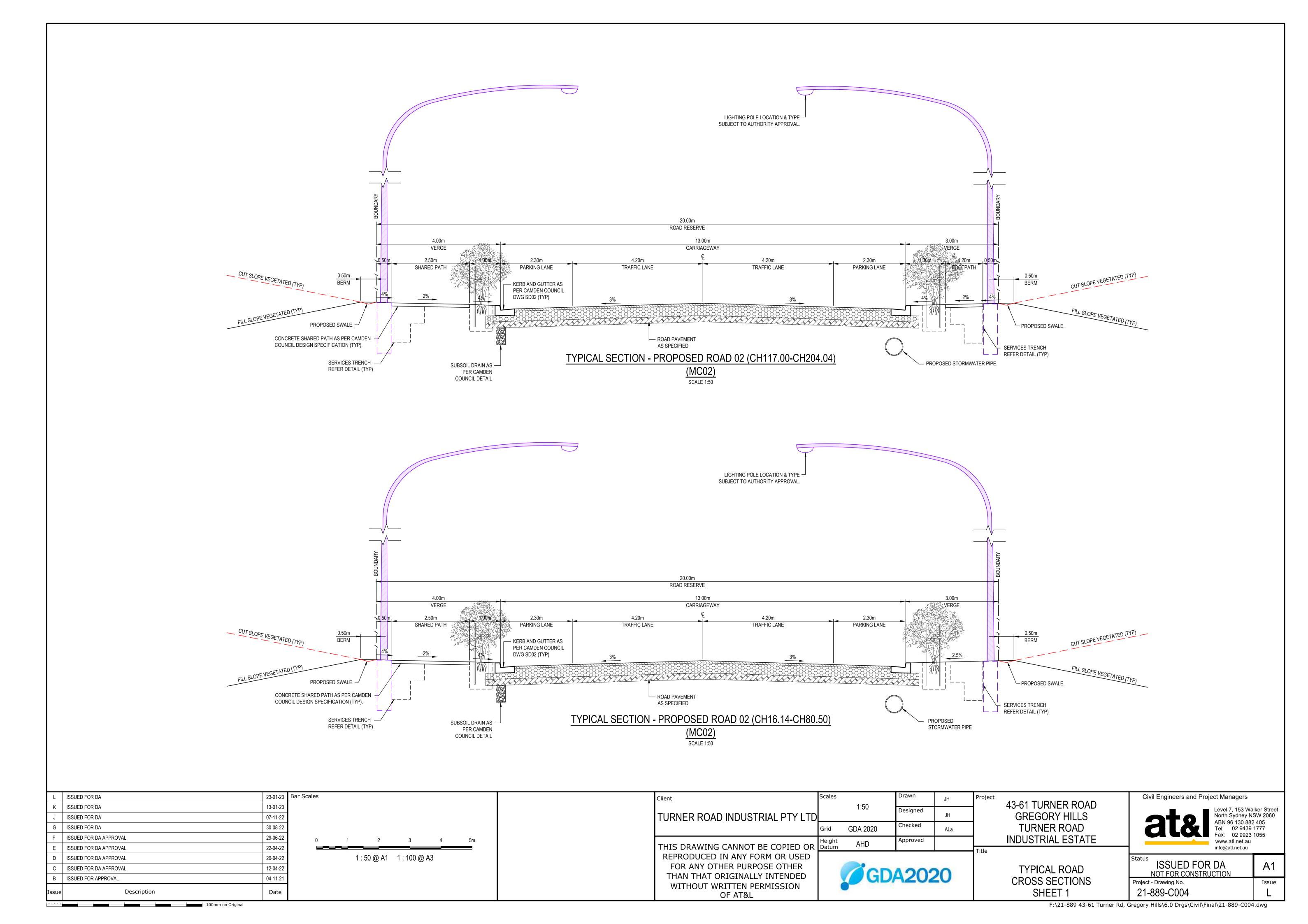
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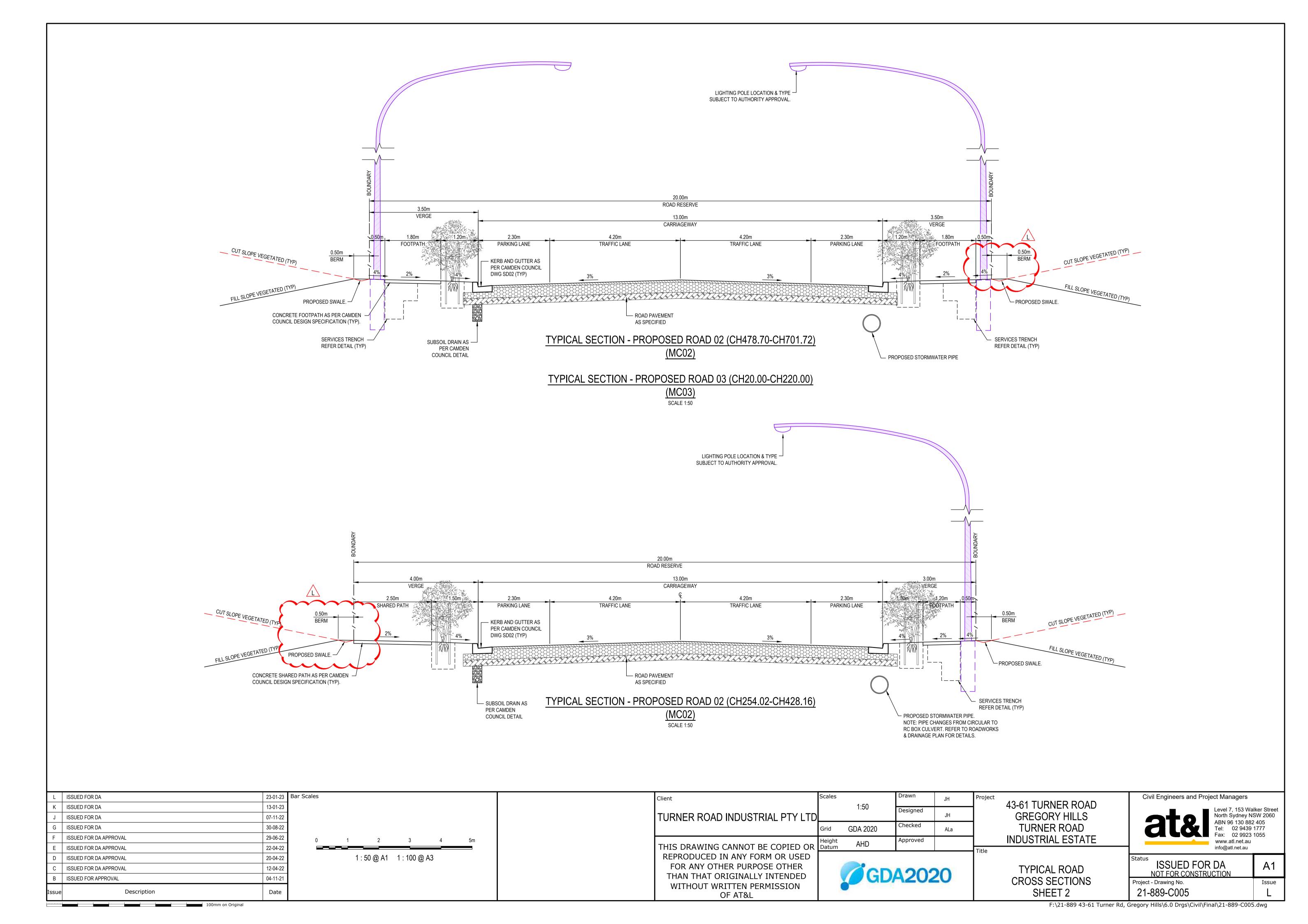
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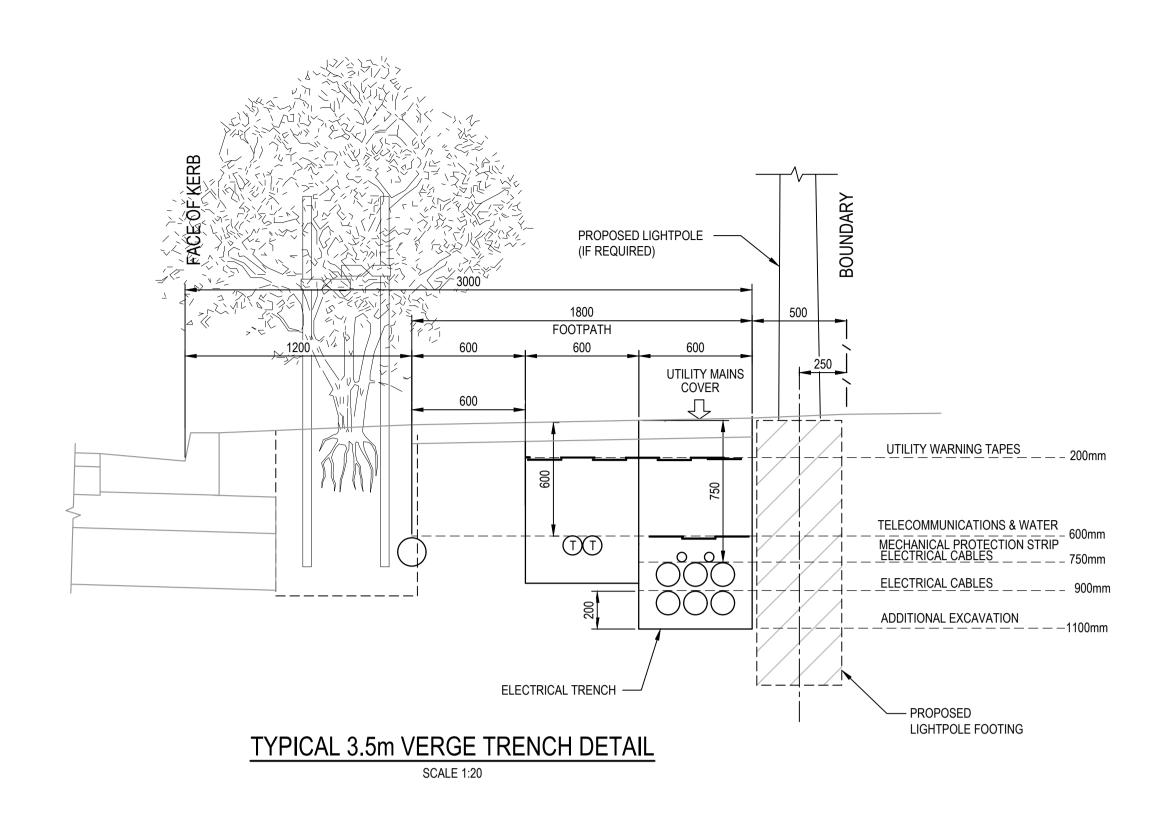
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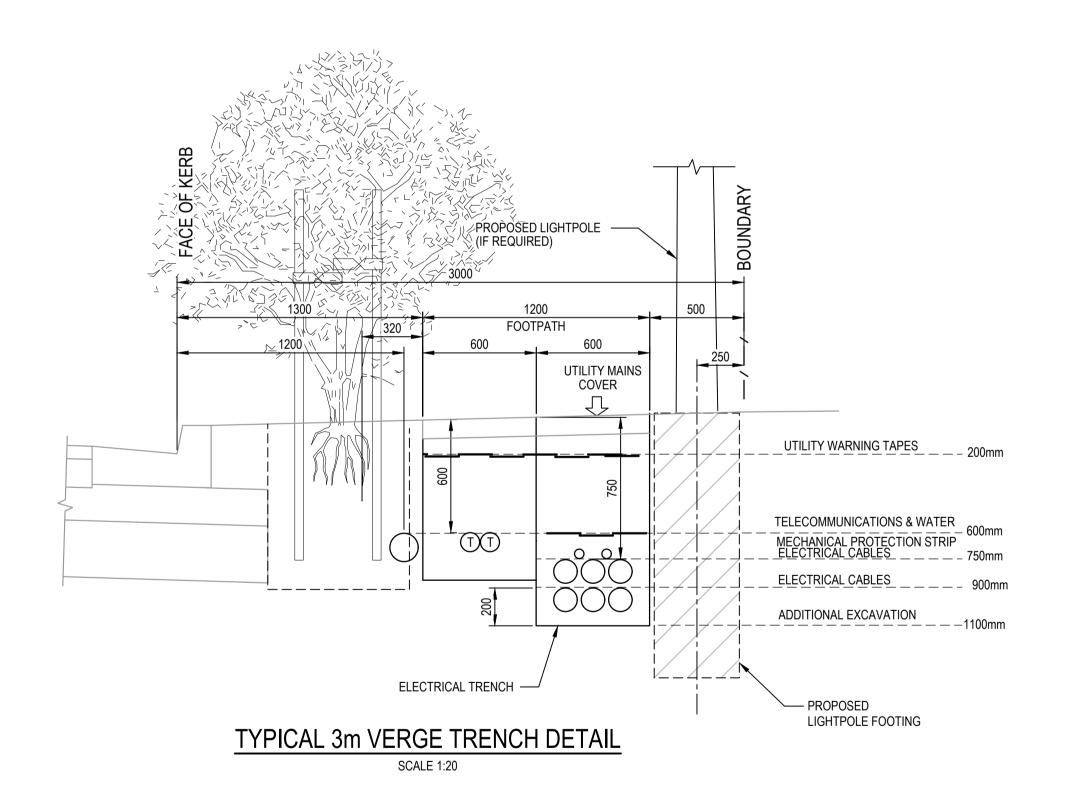
NOT FOR CONSTRUCTION Project - Drawing No. Issue



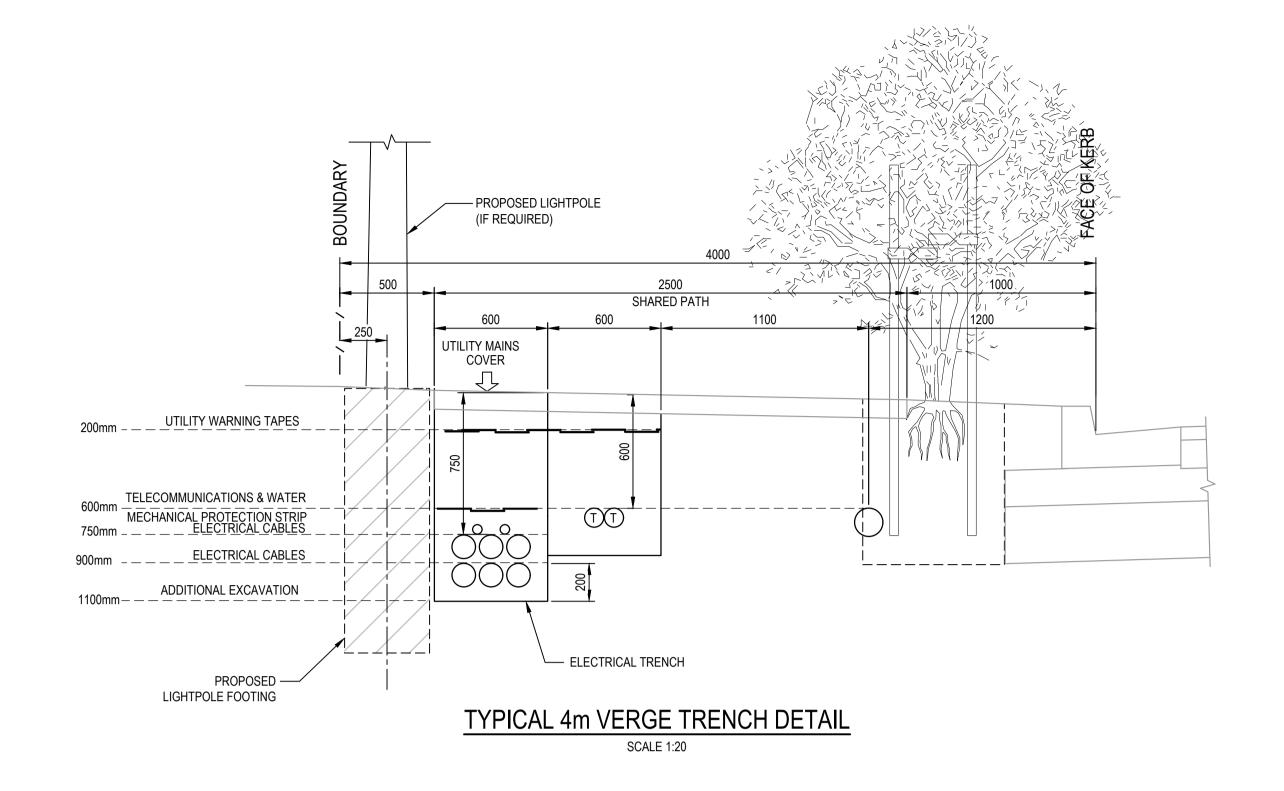


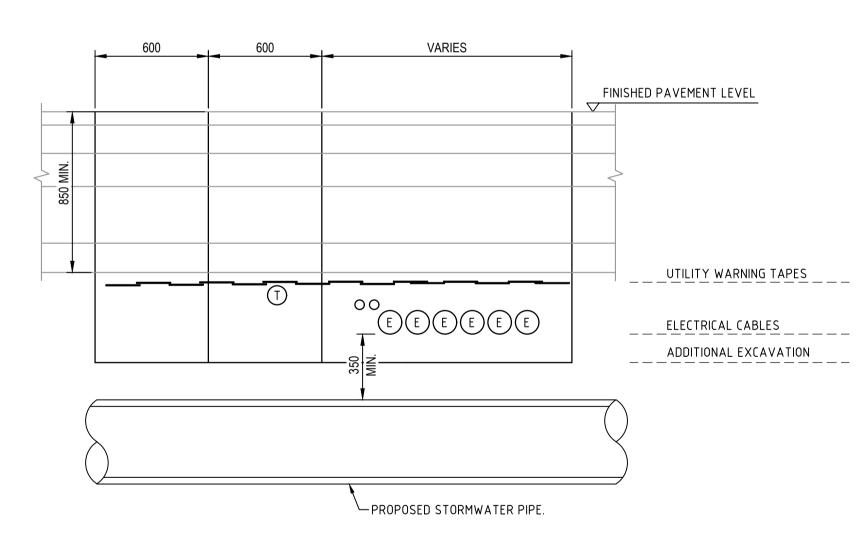






100mm on Original



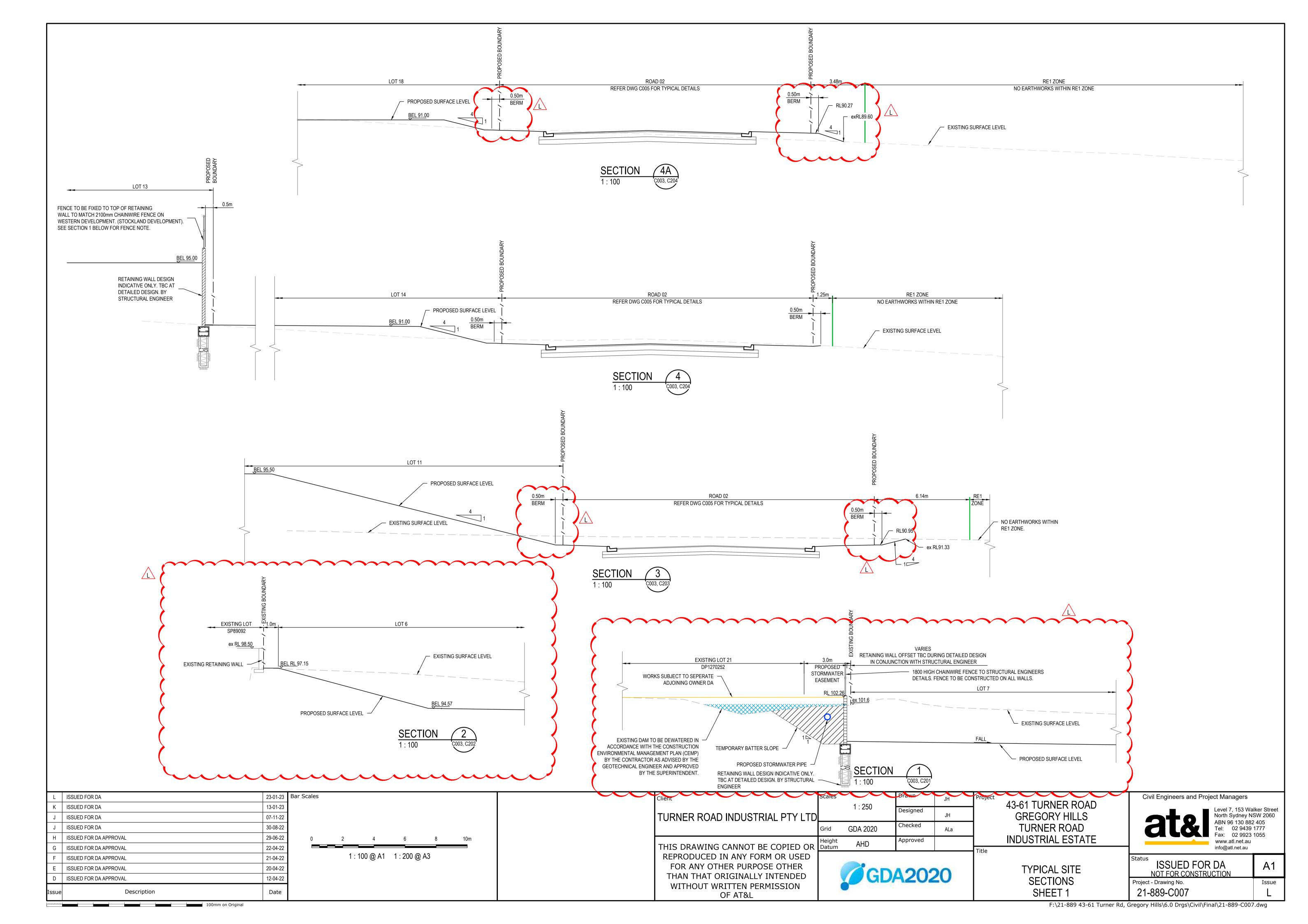


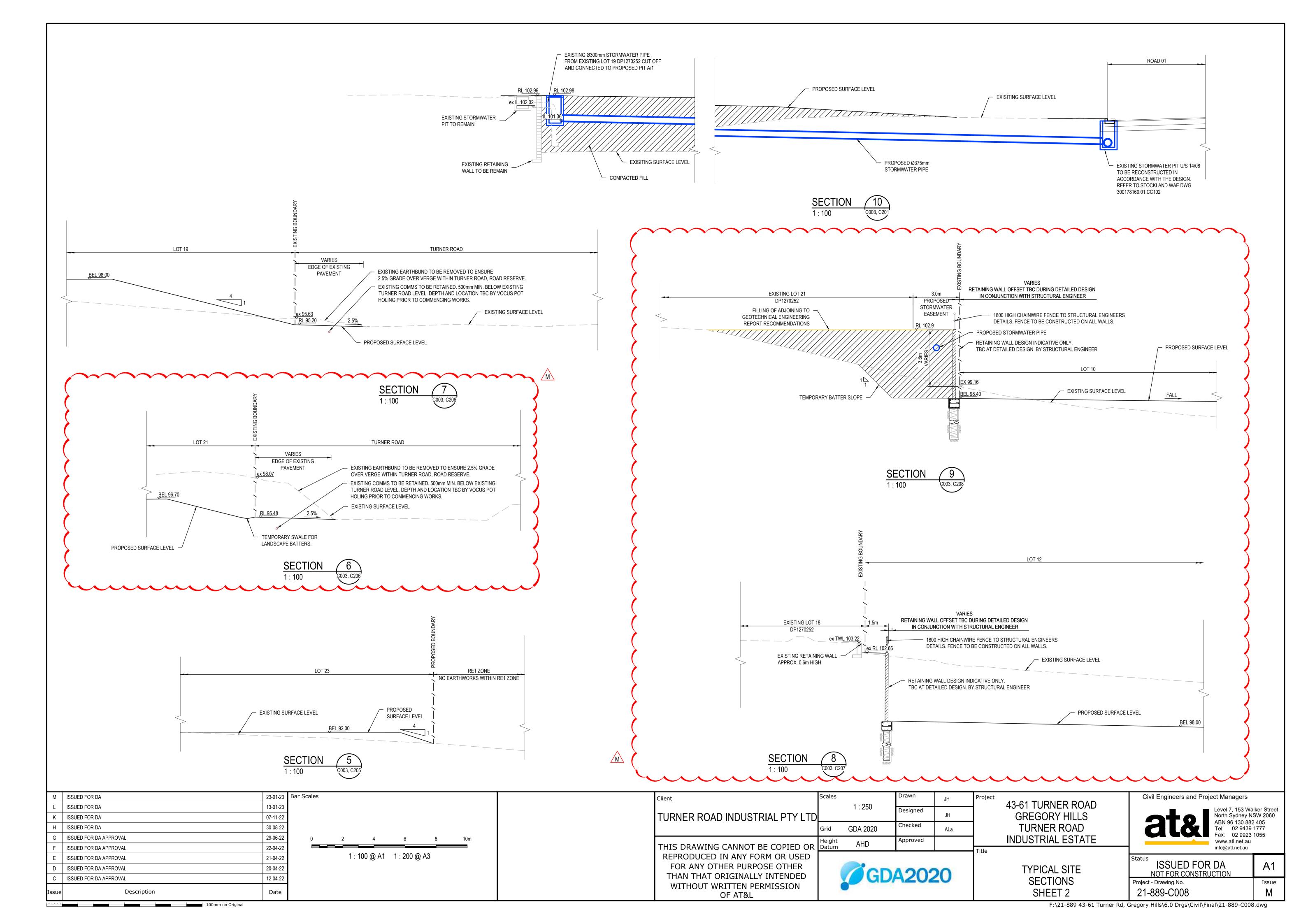
TYPICAL SERVICES TRENCH DETAIL (ROAD CROSSING) SCALE 1:20

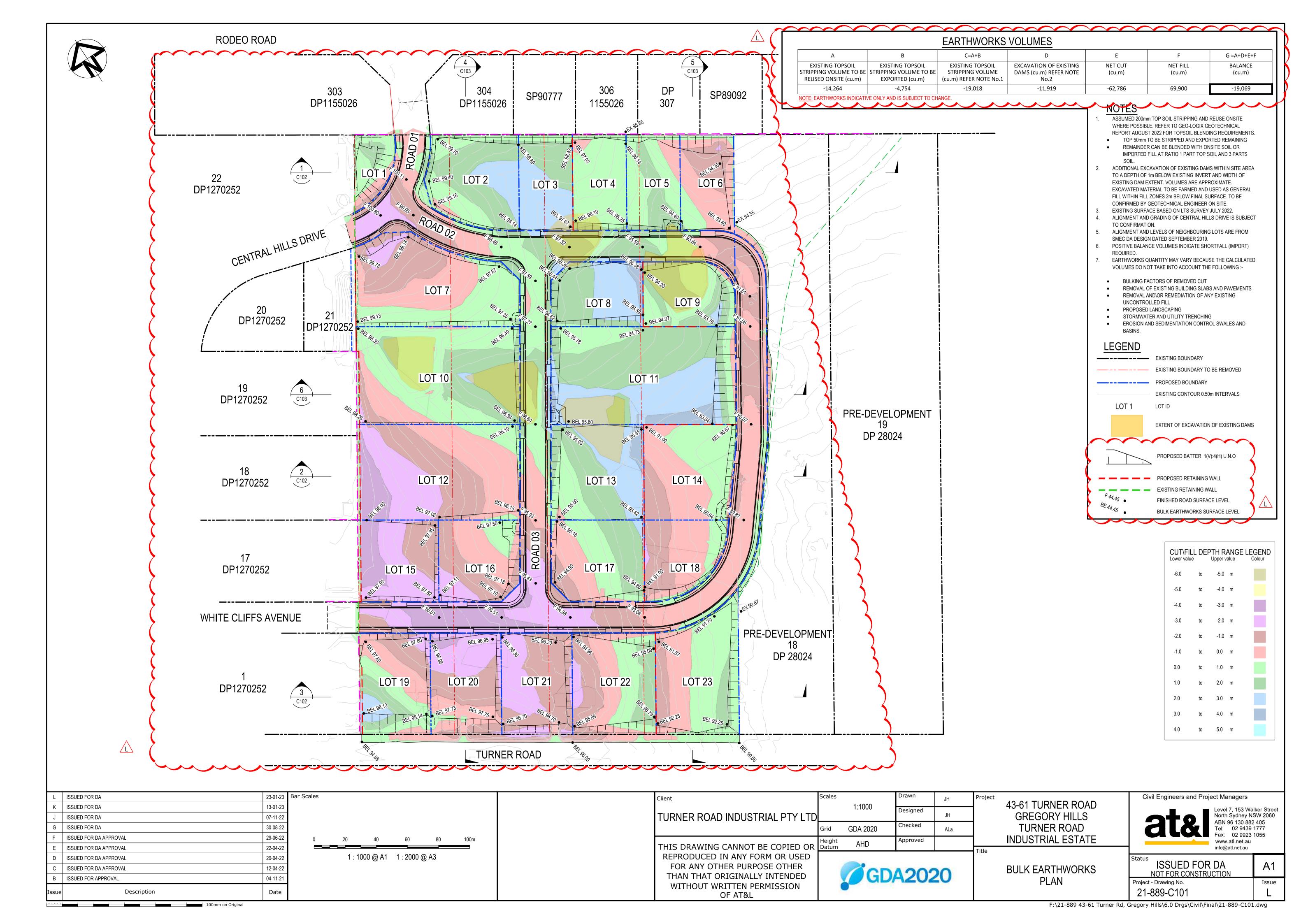
NOTE: WHERE SPARE ROAD CROSSINGS ARE INSTALLED, EXTEND DUCTS

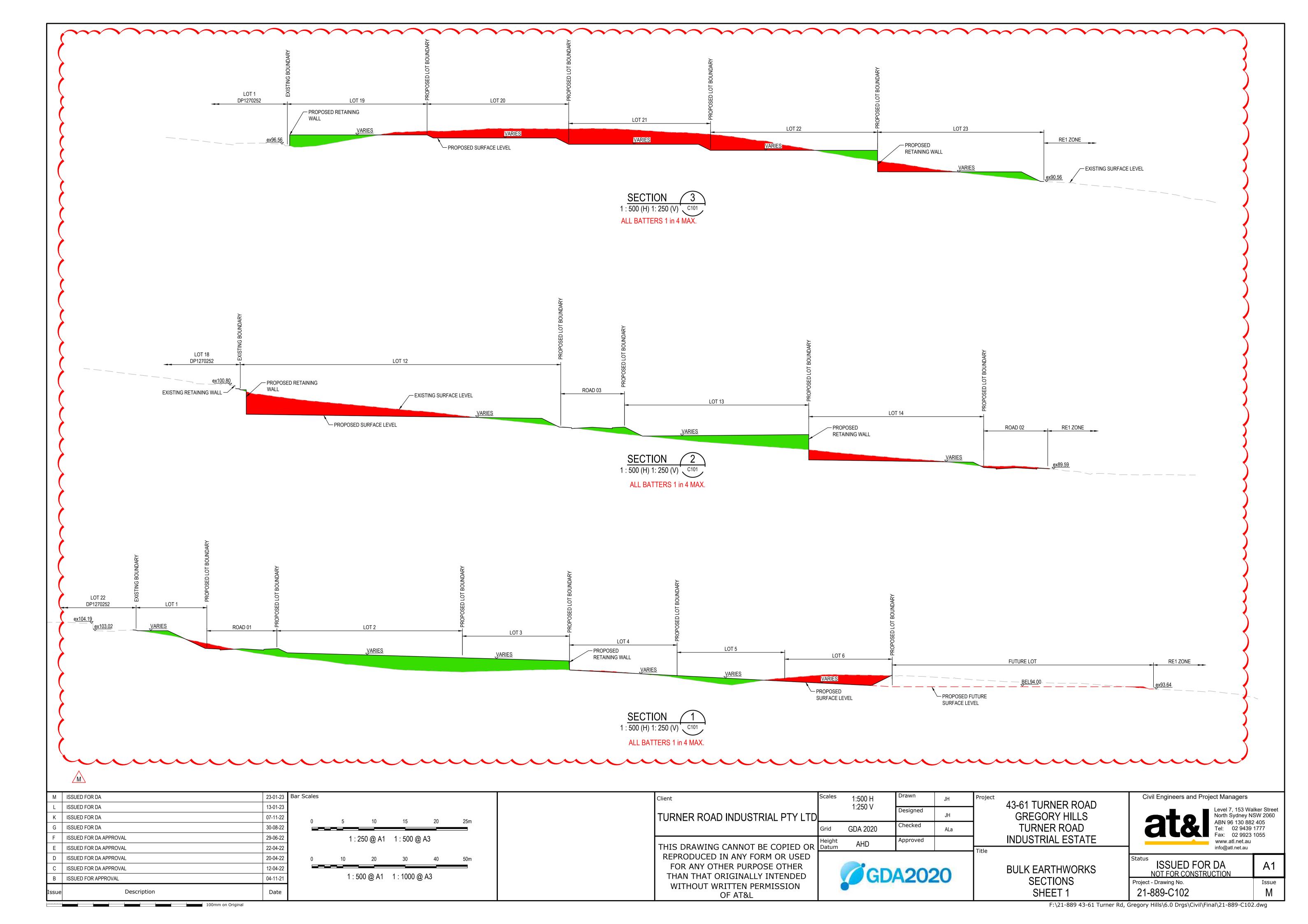
1m PAST FACE OF KERB

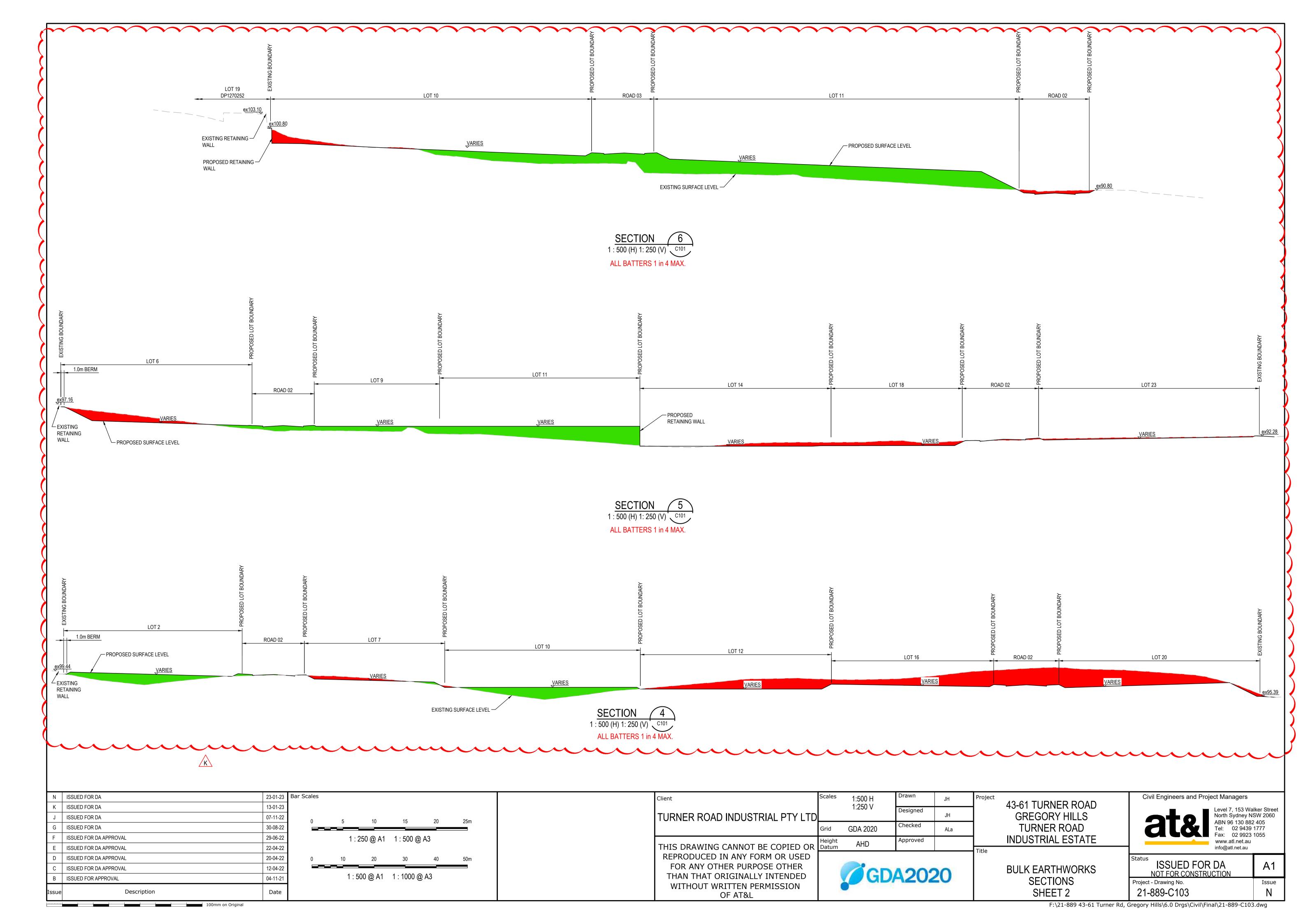
L ISSUED FOR DA	23-01-23	Bar Scales	Client	Scales		Drawn	JH	Project	Civil Engineers and Project Managers	'S
K ISSUED FOR DA	13-01-23				1:20	Designed		43-61 TURNER ROAD	Level 7, 153 V North Sydney	Walker Street
J ISSUED FOR DA	07-11-22		TURNER ROAD INDUSTRIAL PTY LT	D			JH	GREGORY HILLS	North Sydney ABN 96 130 8	,
G ISSUED FOR DA	30-08-22			Grid GD/	A 2020	Checked	ALa	TURNER ROAD	Tel: 02 943	139 1777
F ISSUED FOR DA APPROVAL	29-06-22	0 500 1000 1500 2000mm		Height	ALID	Approved		INDUSTRIAL ESTATE	Fax: 02 992 www.atl.net.a	923 1055 .au
E ISSUED FOR DA APPROVAL	22-04-22		THIS DRAWING CANNOT BE COPIED O	Datum	AHD			Title	info@atl.net.au	
D ISSUED FOR DA APPROVAL	20-04-22	1 : 20 @ A1 1 : 40 @ A3	REPRODUCED IN ANY FORM OR USED		er ca				Status ICOLIED FOR DA	
C ISSUED FOR DA APPROVAL	12-04-22		FOR ANY OTHER PURPOSE OTHER		CD	100	00	TYPICAL ROAD	ISSUED FOR DA	A1
B ISSUED FOR APPROVAL	04-11-21		THAN THAT ORIGINALLY INTENDED		GD	A2U	20	VERGE SECTIONS	NOT FOR CONSTRUCTION Project - Drawing No.	Issue
Issue Description	Date		WITHOUT WRITTEN PERMISSION OF AT&L			van Asselli		VERGE GEOTION	21-889-C006	L

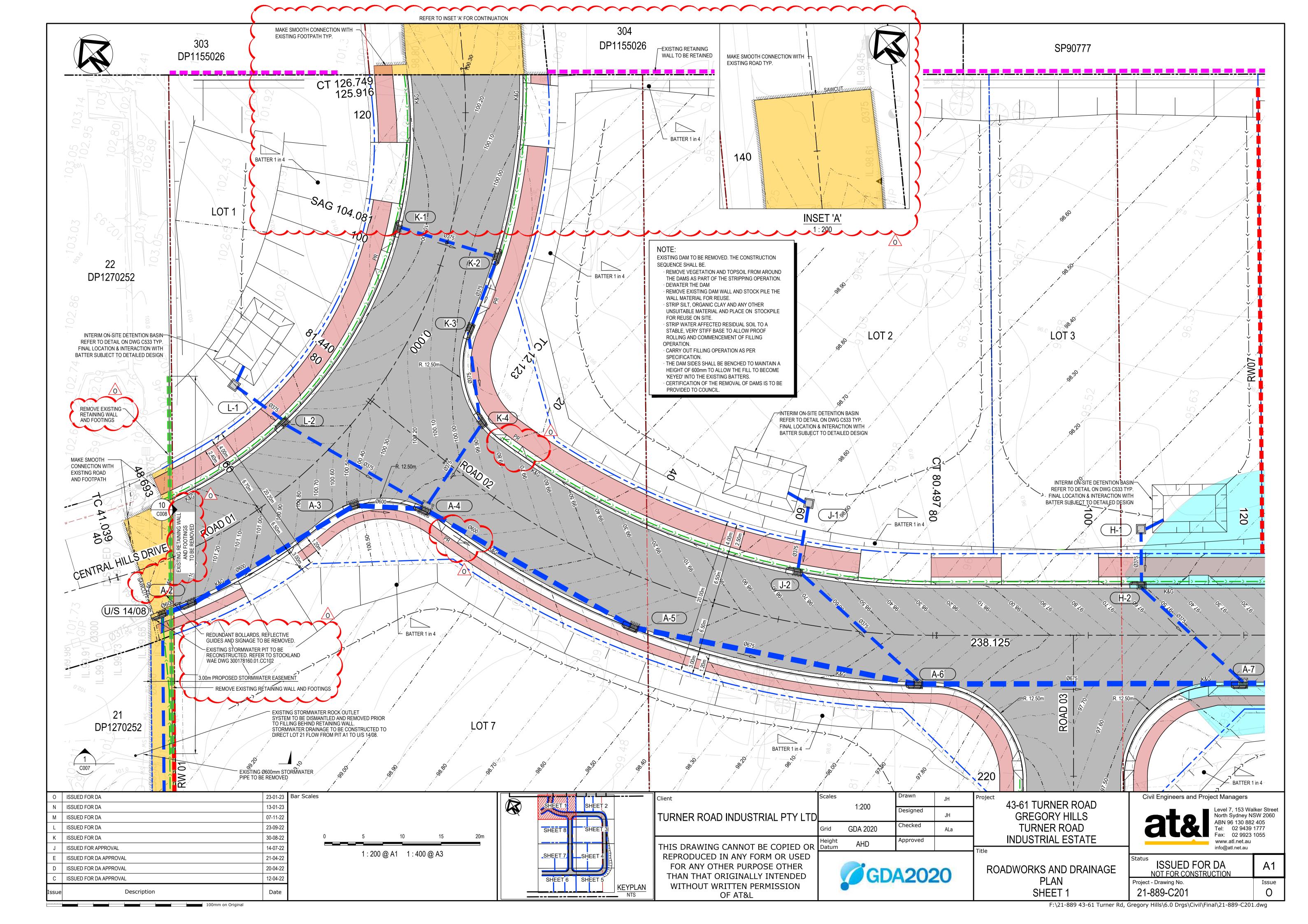


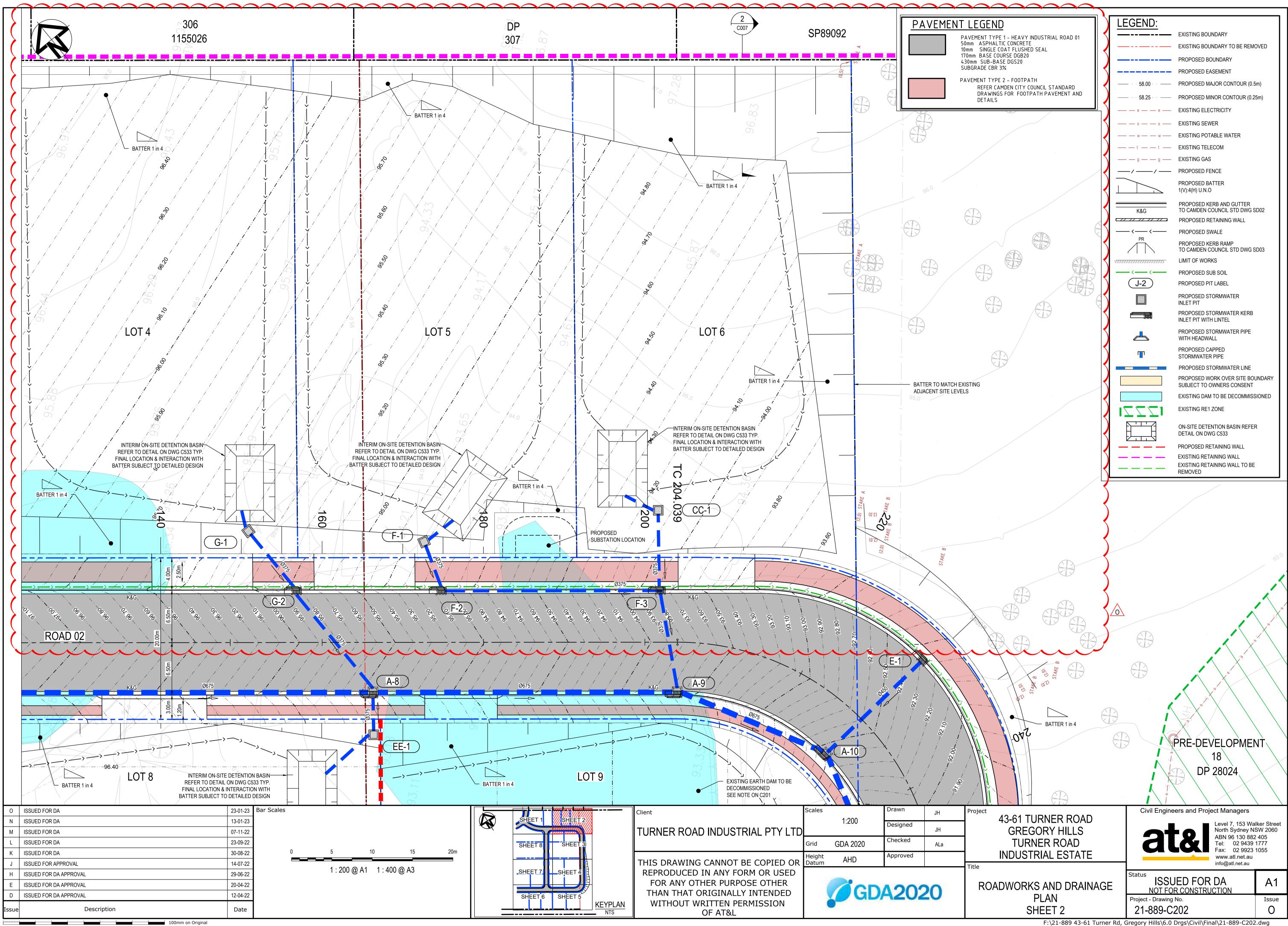


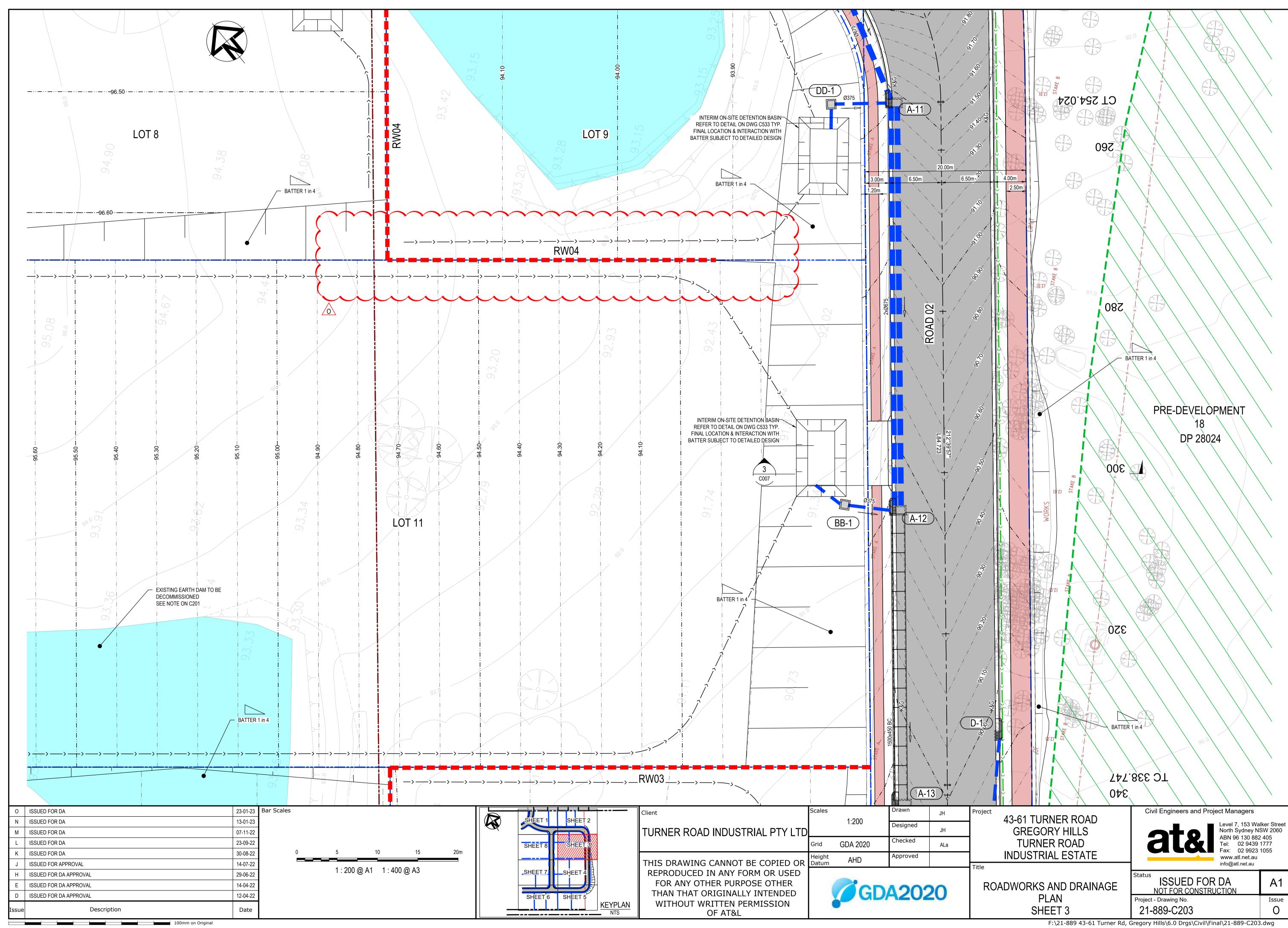


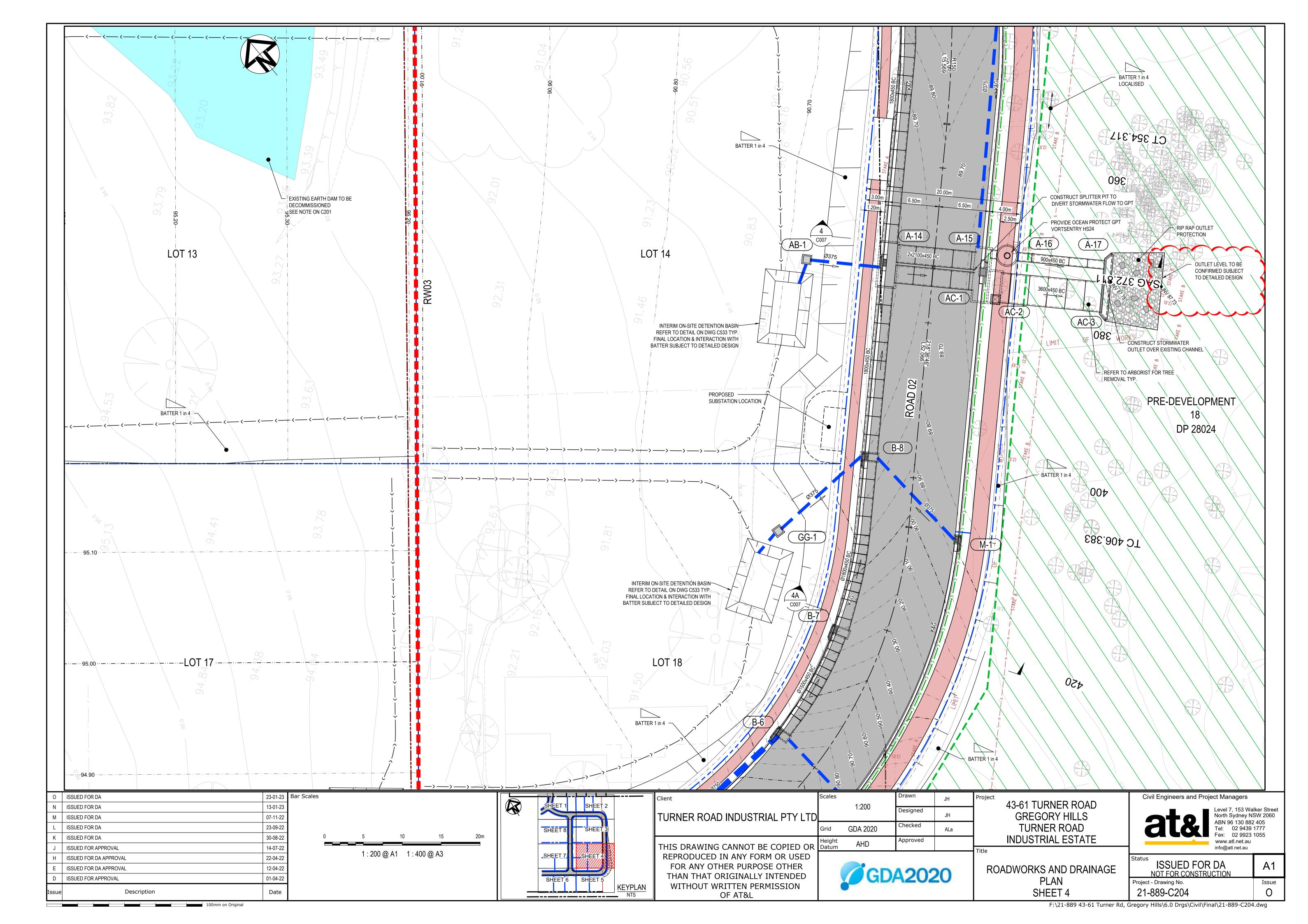


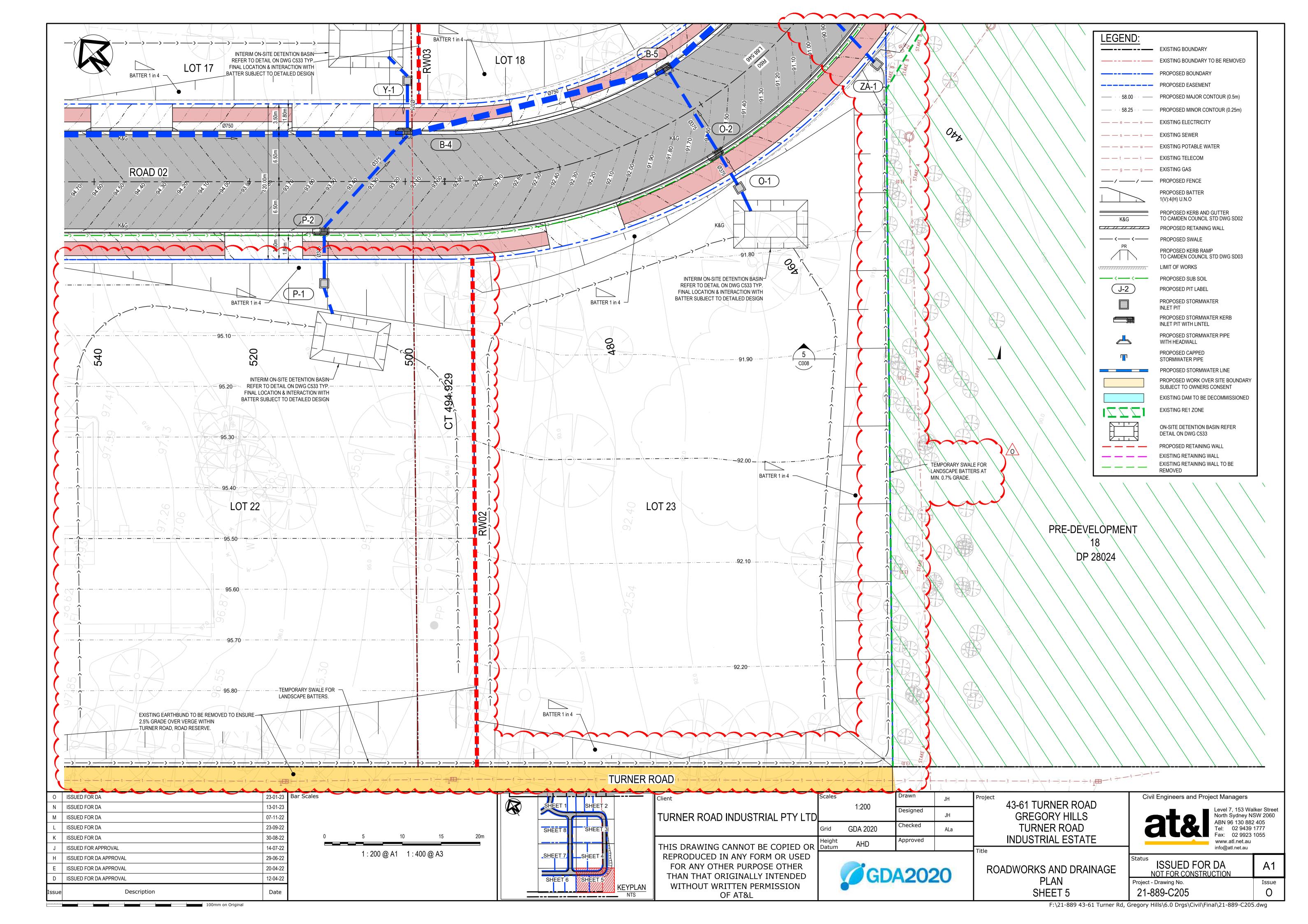


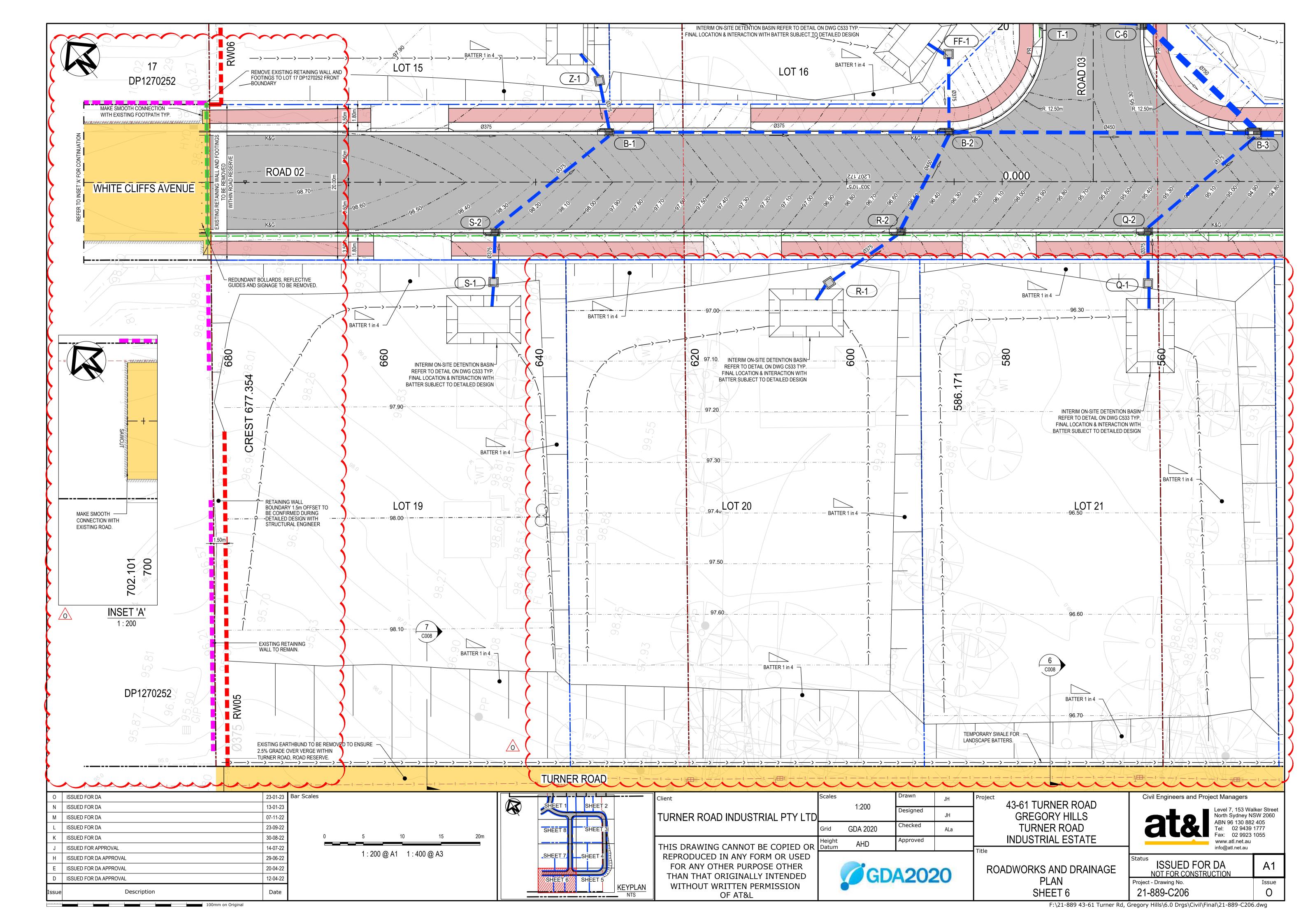


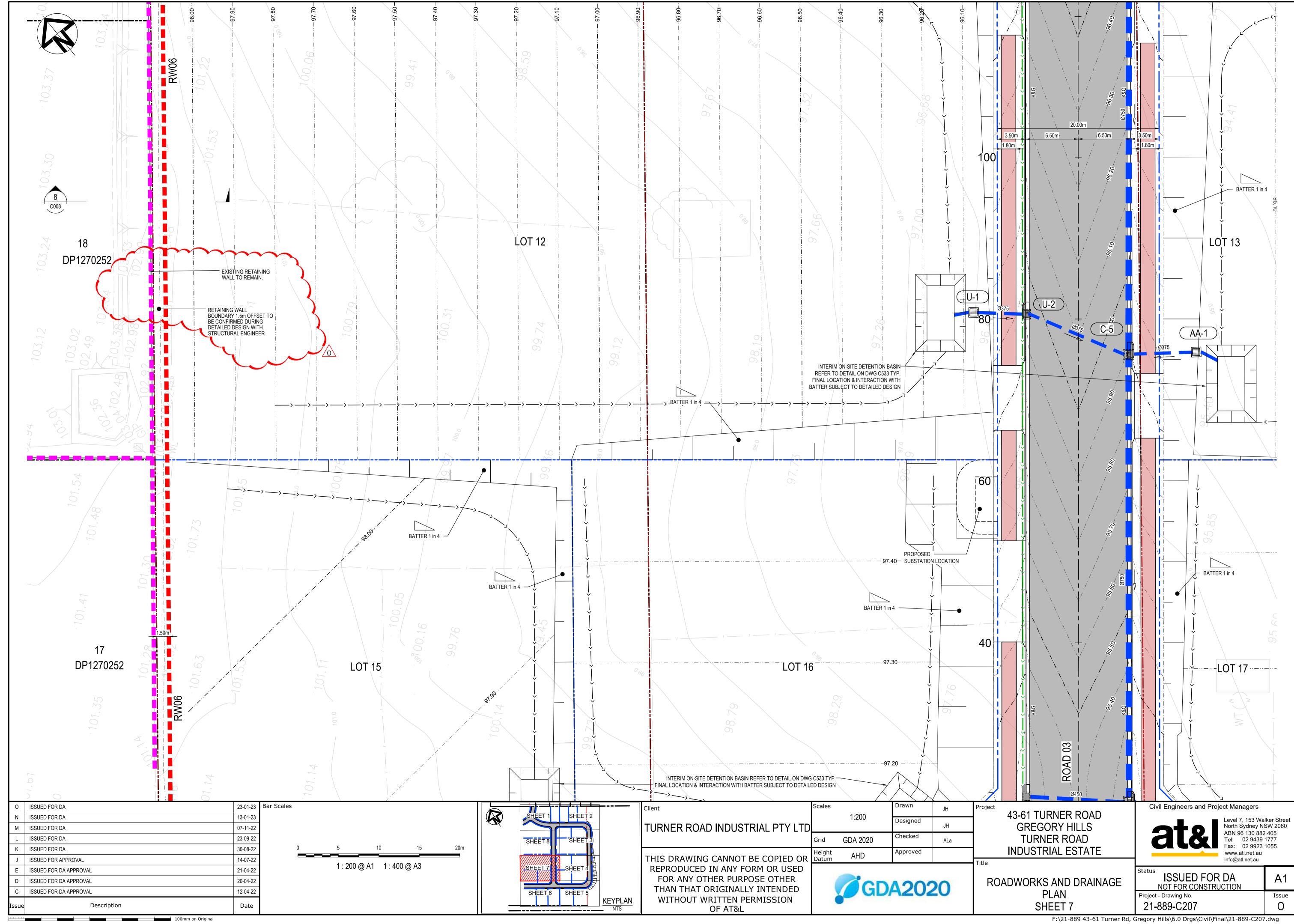


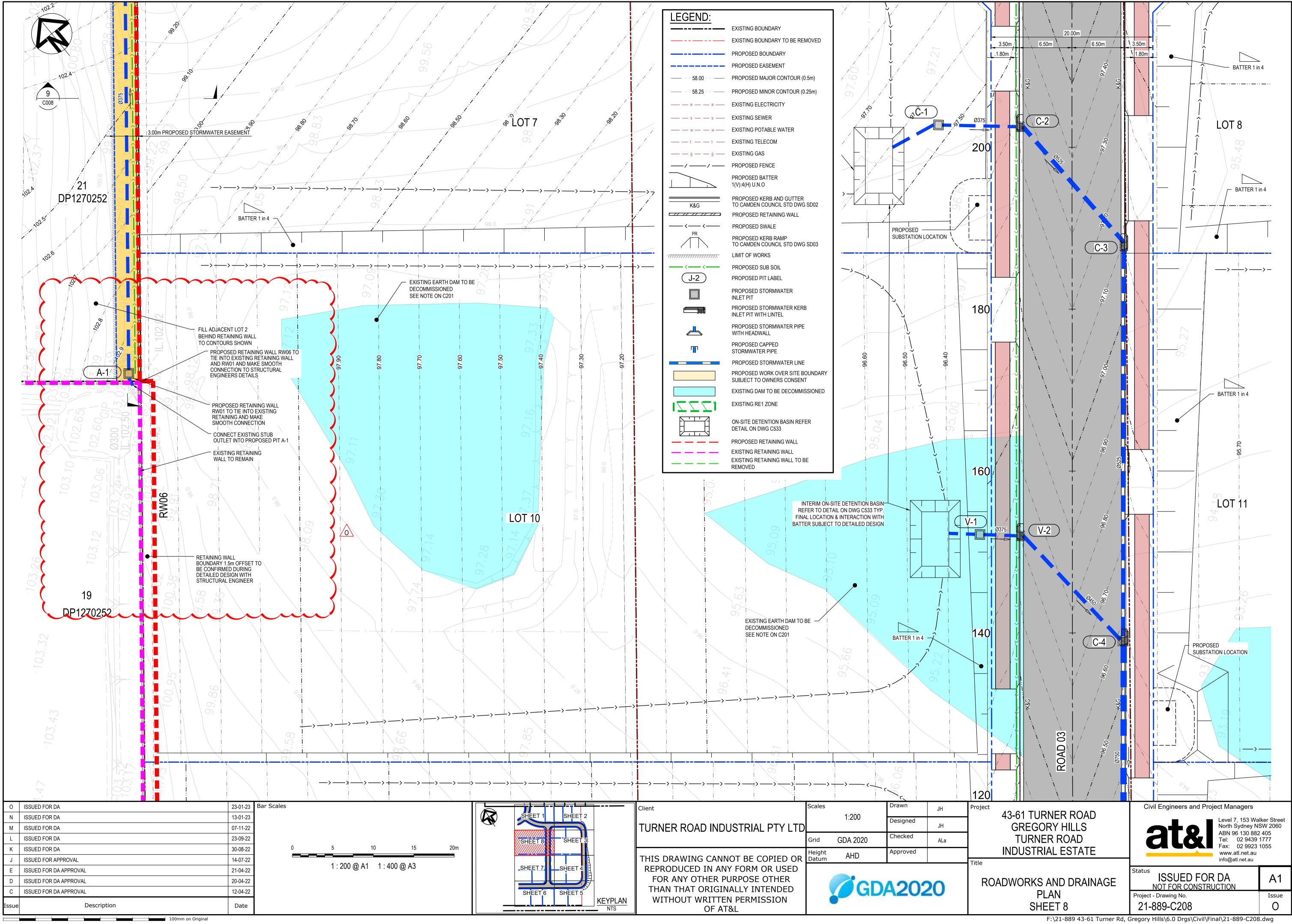


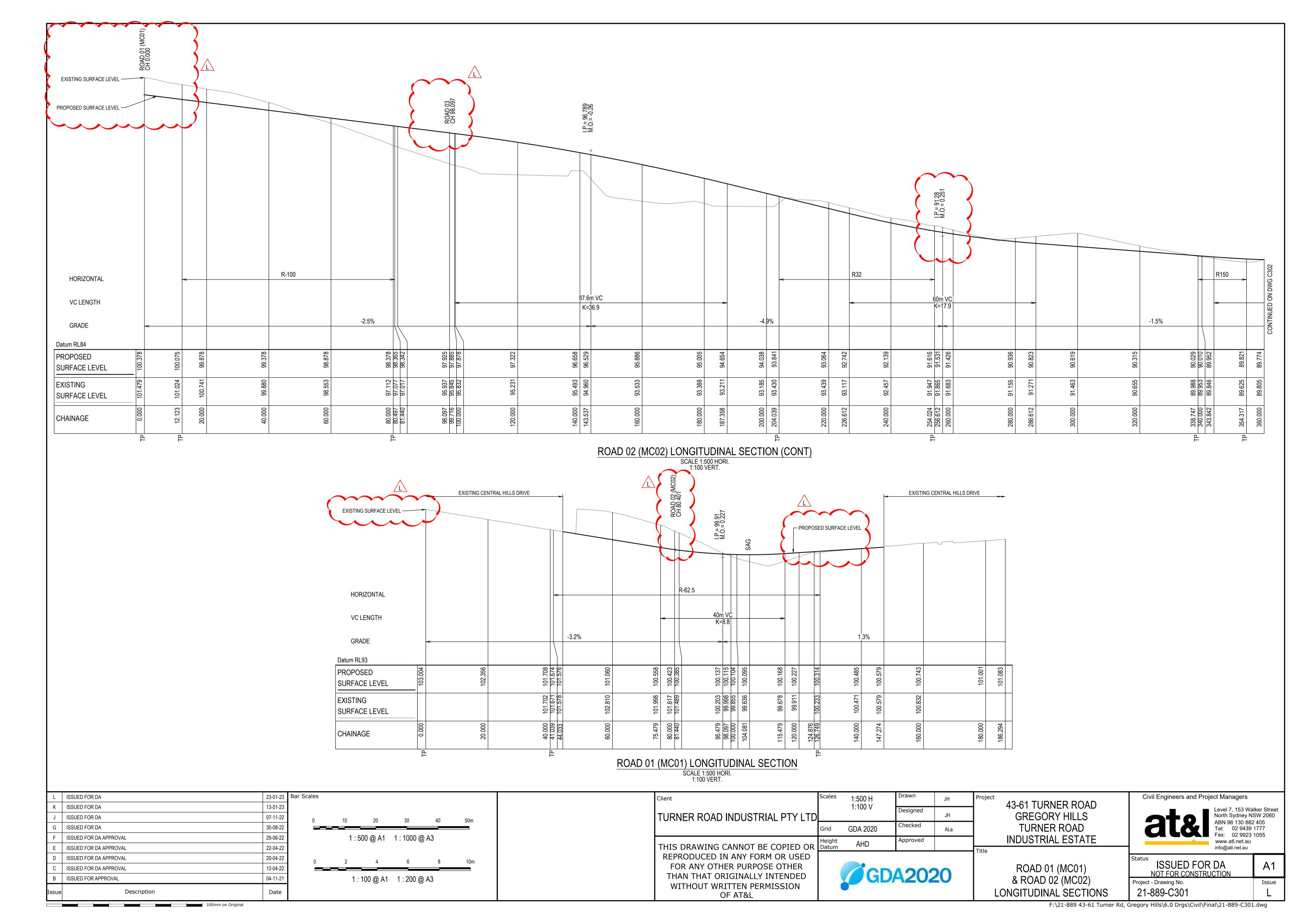


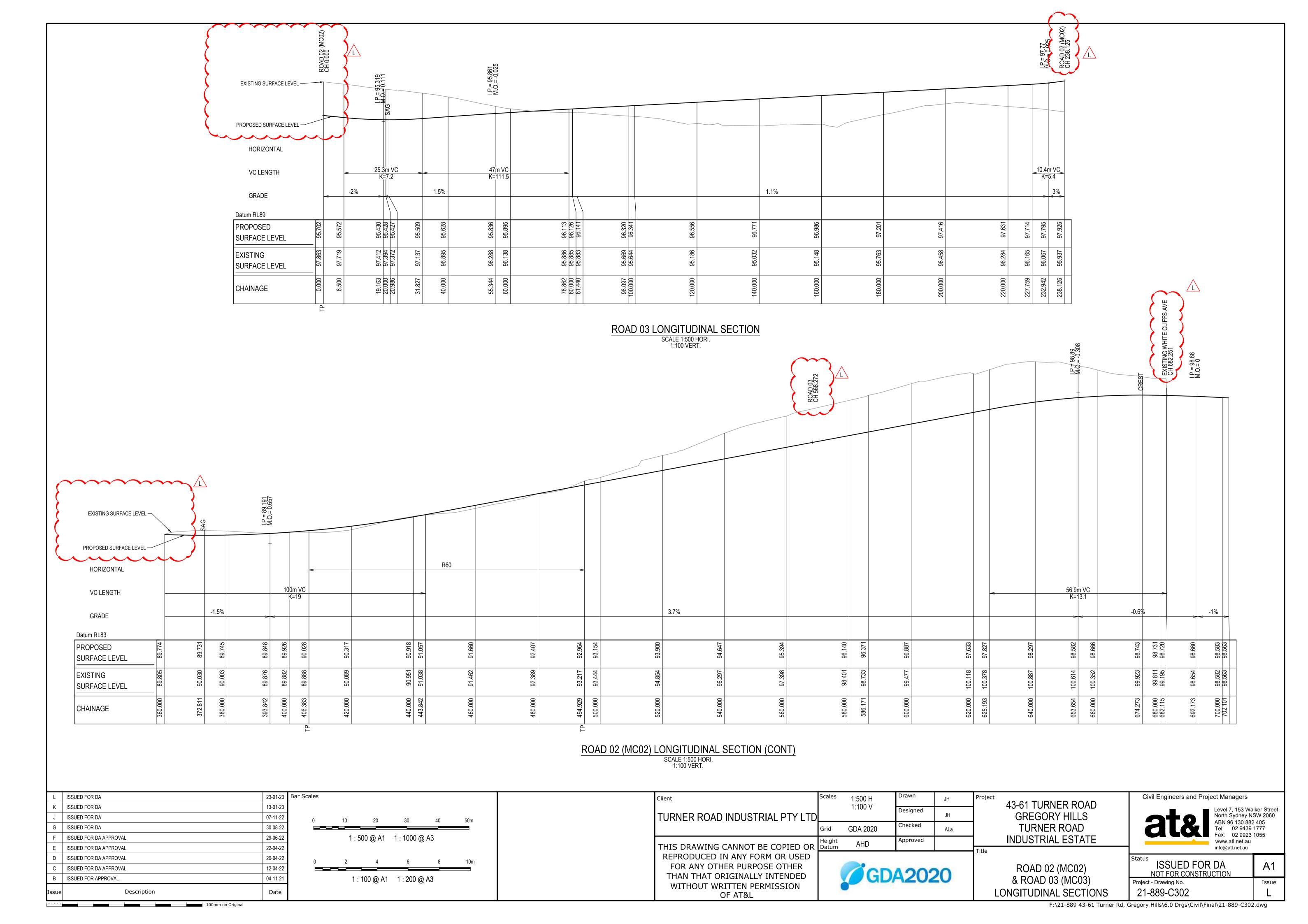


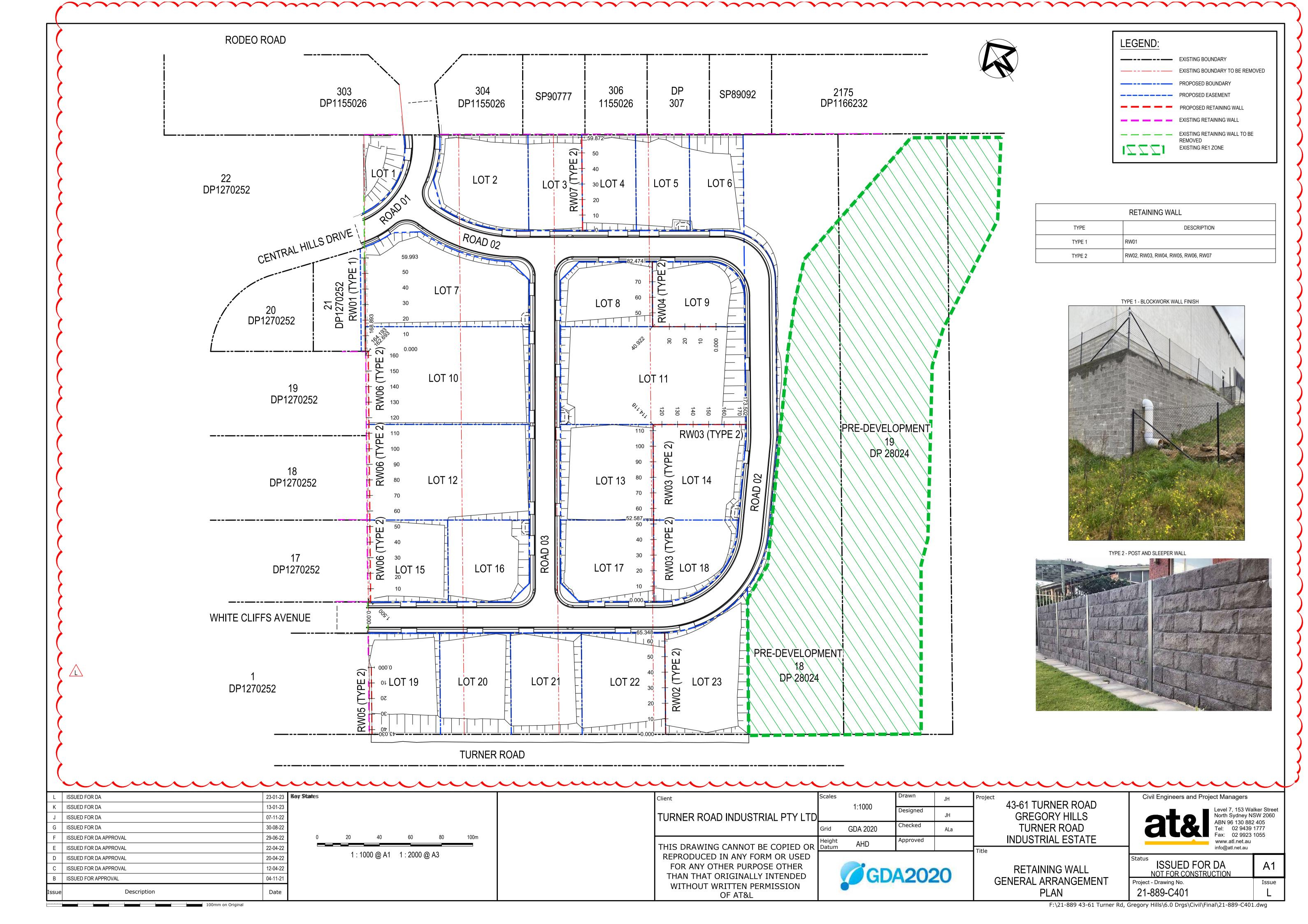


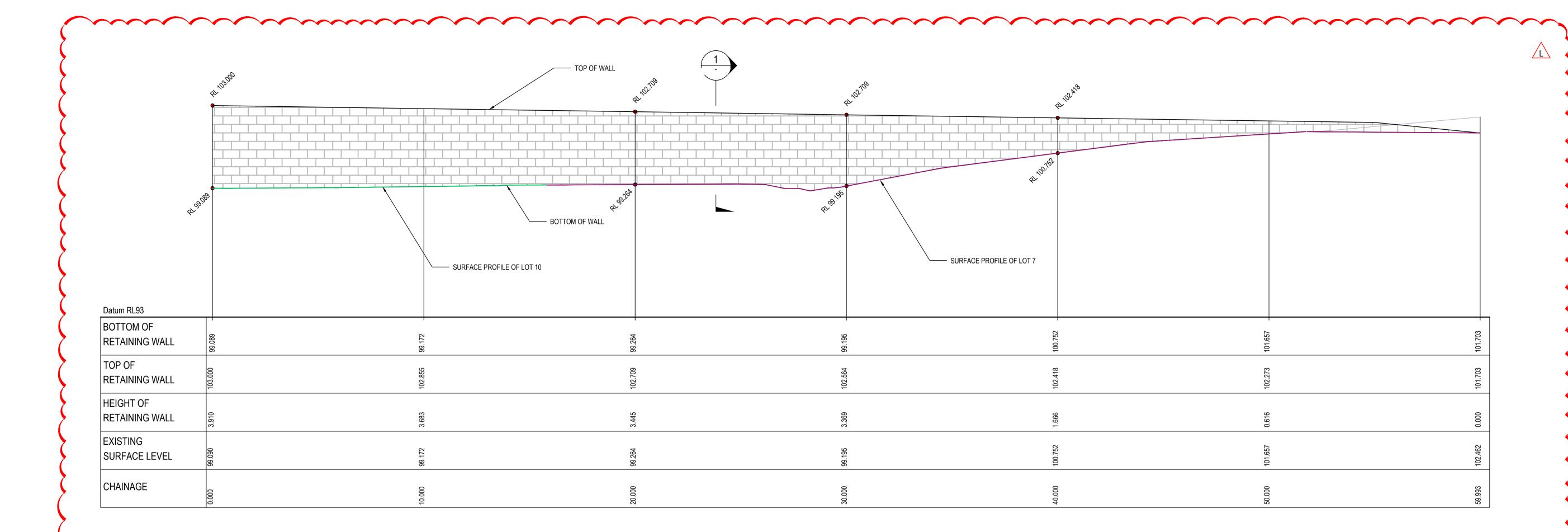












RETAINING WALL RW01 PROFILE - TYPE 1

SCALE 1:100 HORI. 1:100 VERT.

Issue	Description	Date
В	ISSUED FOR APPROVAL	04-11-21
С	ISSUED FOR DA APPROVAL	12-04-22
D	ISSUED FOR DA APPROVAL	20-04-22
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F	ISSUED FOR DA APPROVAL	29-06-22
G	ISSUED FOR DA	30-08-22
J	ISSUED FOR DA	07-11-22
K	ISSUED FOR DA	13-01-23
L	ISSUED FOR DA	23-01-23

Scales					
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	1:	100 @ A1	1 : 200 @) A3	

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43-61 TURNER ROAD GREGORY HILLS TURNER ROAD INDUSTRIAL ESTATE

RETAINING WALL

PROFILE

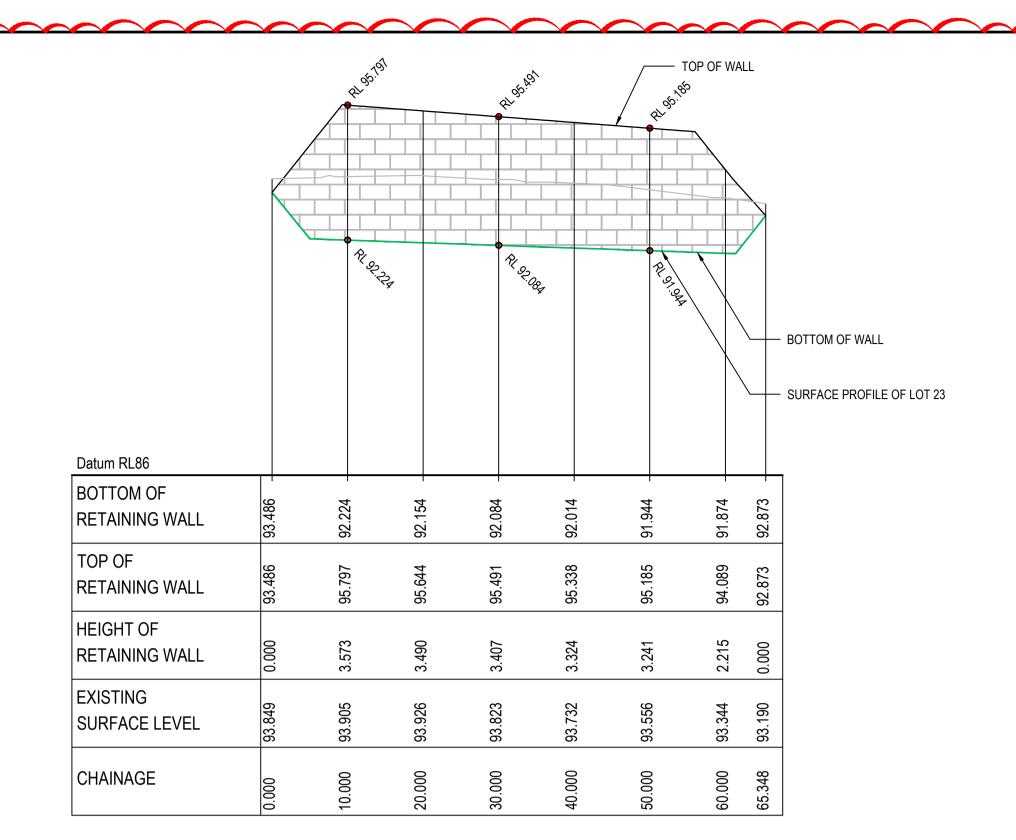
SHEET 1

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Fax: 02 9923 1055
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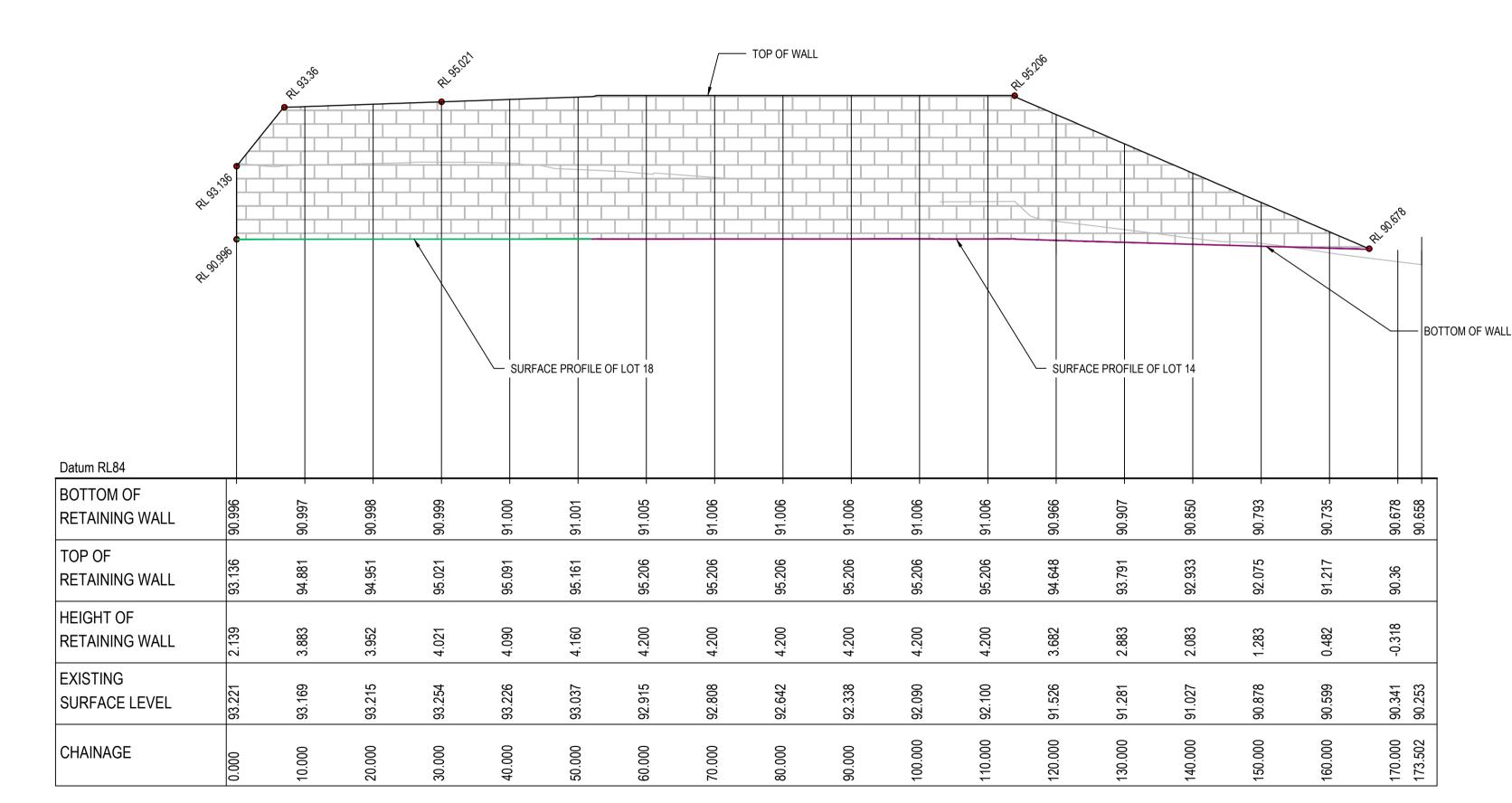
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Project - Drawing No.
21-889-C402

Fax: 02 9923 www.atl.net.au info@atl.net.au	1055
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Civil Engineers and Project Managers



RETAINING WALL RW02 BOT PROFILE - TYPE 2 SCALE 1:500 HORI. 1:100 VERT.



— TOP OF WALL - BOTTOM OF WALL SURFACE PROFILE OF LOT 9 Datum RL86 BOTTOM OF 95.140 95.604 RETAINING WALL TOP OF 96.577 96.51 RETAINING WALL HEIGHT OF RETAINING WALL EXISTING SURFACE LEVEL 93. 93. CHAINAGE

RETAINING WALL RW04 BOT PROFILE - TYPE 2 SCALE 1:500 HORI. 1:100 VERT.

RETAINING WALL RW03 BOT PROFILE - TYPE 2 SCALE 1:500 HORI. 1:100 VERT.

10m 1:100 @ A1 1:200 @ A3 ISSUED FOR APPROVAL 23-01-23 13-01-23 ISSUED FOR DA 1:500 @ A1 1:1000 @ A3 07-11-22 ISSUED FOR APPROVAL Date Description

NOTE: RETAINING WALL TYPES ARE INDICATIVE ONLY AND SUBJECT TO DETAIL DESIGN

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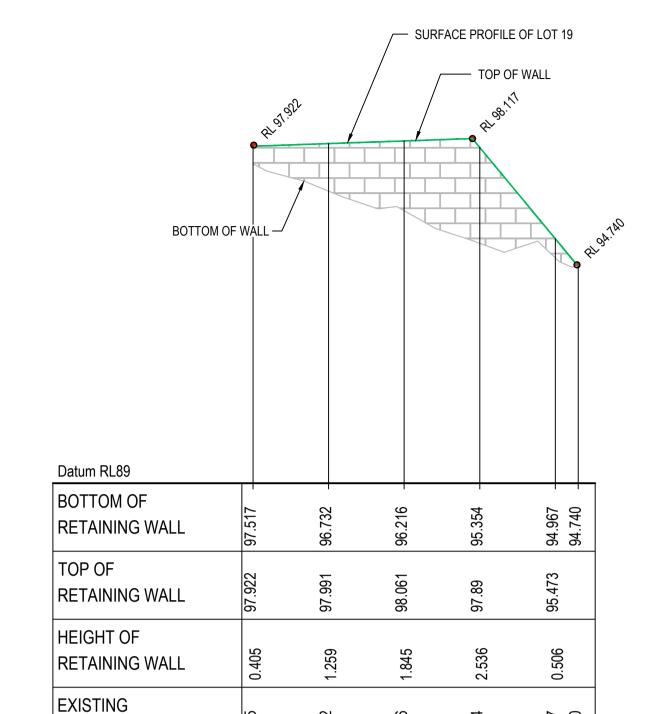
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RETAINING WALL PROFILE SHEET 2

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SURFACE LEVEL

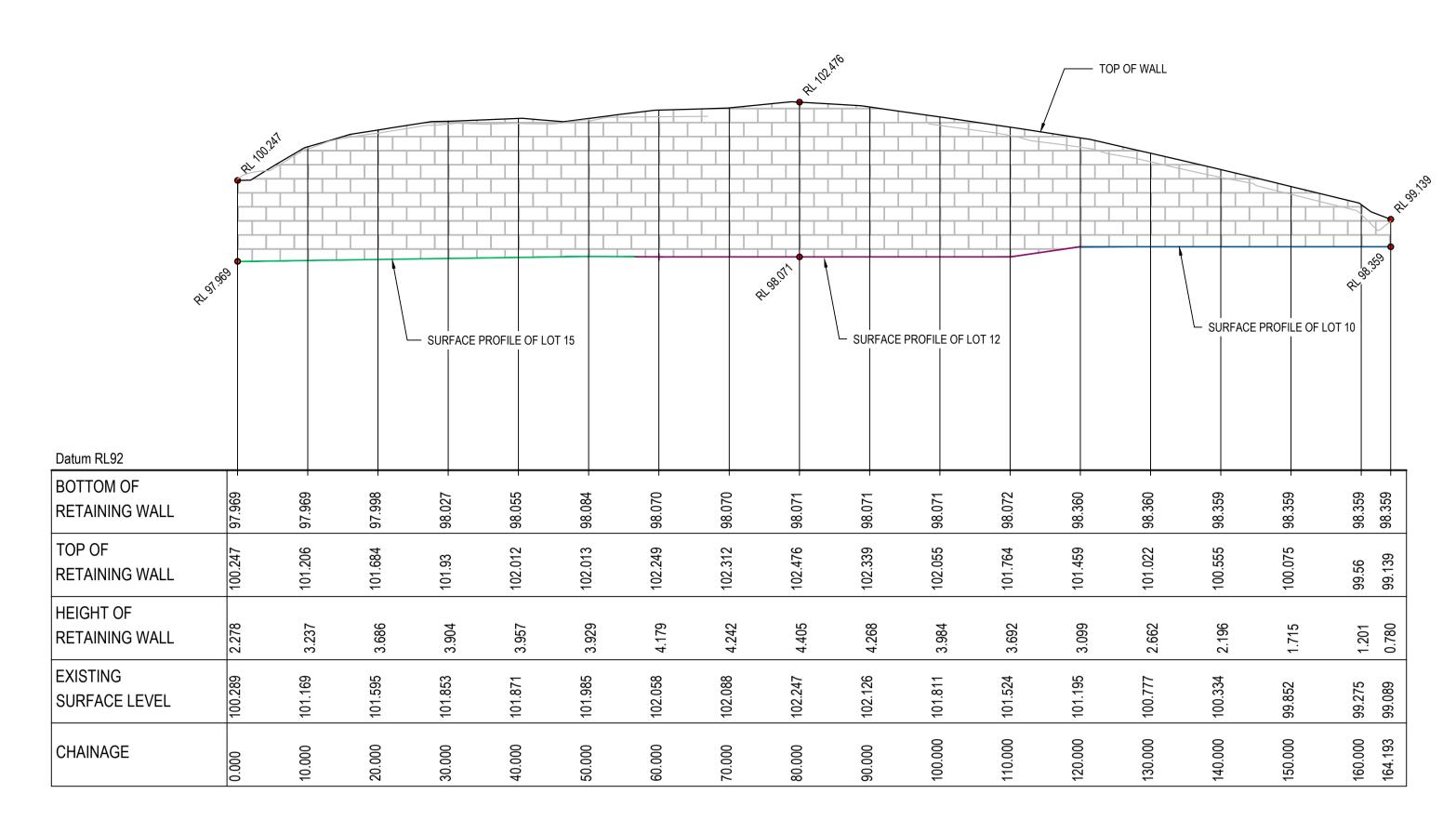
CHAINAGE

RETAINING WALL RW05 BOT PROFILE - TYPE 2 SCALE 1:500 HORI. 1:100 VERT.

Date

Description

40. 43.



RETAINING WALL RW06 BOT PROFILE - TYPE 2

SCALE 1:500 HORI. 1:100 VERT.

— TOP OF WALL - BOTTOM OF WALL SURFACE PROFILE OF LOT 4 Datum RL89 BOTTOM OF **RETAINING WALL** RETAINING WALL HEIGHT OF RETAINING WALL EXISTING SURFACE LEVEL CHAINAGE

> RETAINING WALL RW07 BOT PROFILE - TYPE 2 SCALE 1:500 HORI. 1:100 VERT.

1:100 H 1:100 V Civil Engineers and Project Managers 43-61 TURNER ROAD Level 7, 153 Walker Street North Sydney NSW 2060 Designed **GREGORY HILLS** TURNER ROAD INDUSTRIAL PTY LTD **TURNER ROAD** Checked GDA 2020 Fax: 02 9923 1055 INDUSTRIAL ESTATE 1 : 100 @ A1 1 : 200 @ A3 THIS DRAWING CANNOT BE COPIED OR Datum www.atl.net.au info@atl.net.au REPRODUCED IN ANY FORM OR USED ISSUED FOR APPROVAL 23-01-23 ISSUED FOR DA FOR ANY OTHER PURPOSE OTHER **RETAINING WALL** 13-01-23 ISSUED FOR DA 1:500 @ A1 1:1000 @ A3 NOT FOR CONSTRUCTION THAN THAT ORIGINALLY INTENDED 07-11-23 ISSUED FOR APPROVAL **PROFILE**

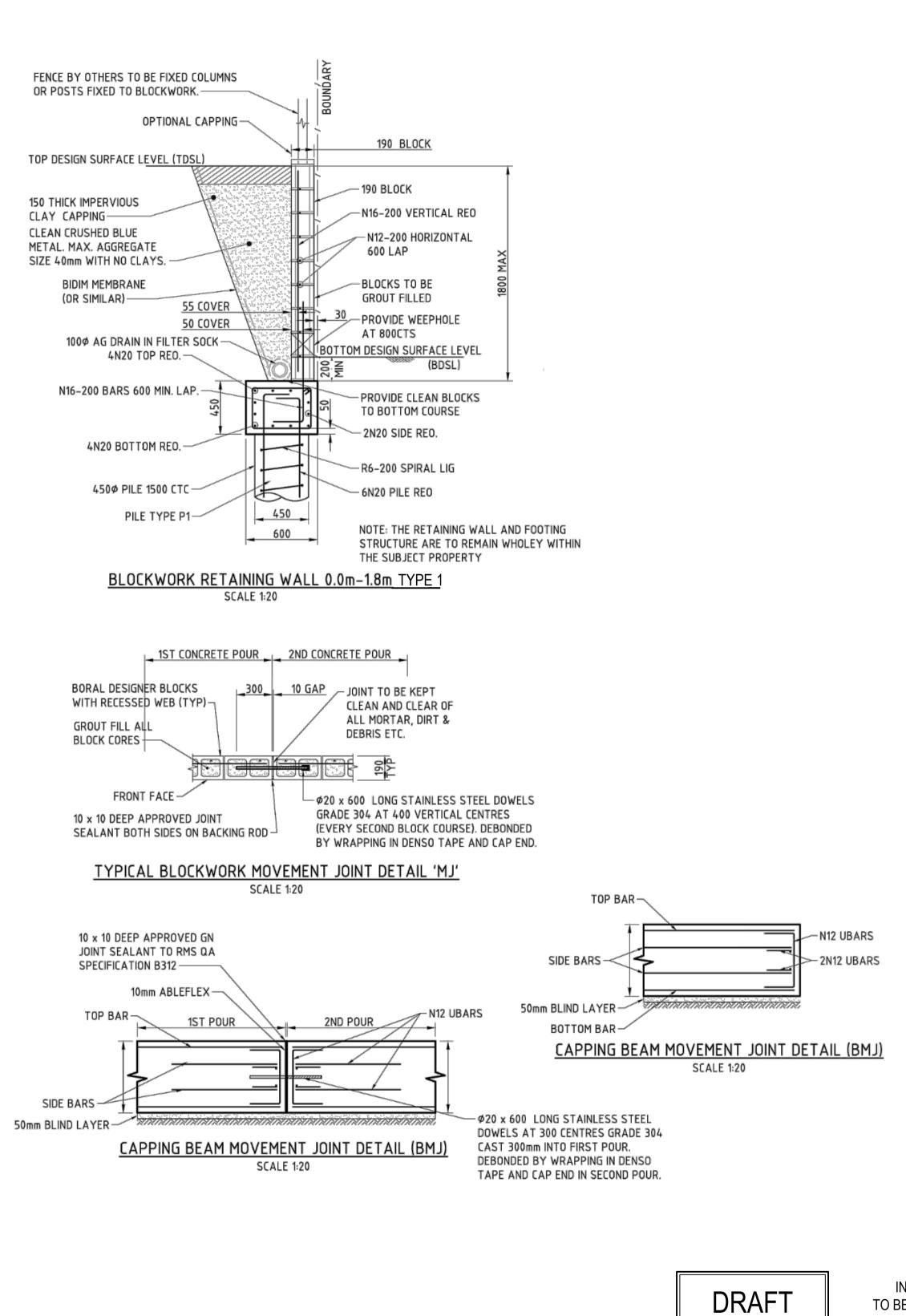
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23-01-23

17-01-23

Date

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Description

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FENCE BY OTHERS TO BE FIXED COLUMNS OR POSTS FIXED TO BLOCKWORK.-OPTIONAL CAPPING-150 THICK IMPERVIOUS 190 BLOCK CLAY CAPPING— CLEAN CRUSHED BLUE METAL. MAX. AGGREGATE SIZE 40mm WITH NO CLAYS. 55 COVER BIDIM MEMBRANE (OR SIMILAR) --190 BLOCK N16-200 VERTICAL REO--N12-200 HORIZONTAL 600 LAP 55 COVER −290 BLOCK N20 AT 200 BARS 800 MIN. LAP. 100¢ AG DRAIN IN FILTER SOCK-5N20 TOP REO --PROVIDE CLEAN BLOCKS TO BOTTOM COURSE -N12-250 CLOSED TIES N12-250 CLOSED TIES 2N24 SIDE REO-5N20 BOTTOM REO--R10-300 SPIRAL LIG -10N24 PILE REO 750¢ PILE 3000 CTC-PILE TYPE P2-NOTE: THE RETAINING WALL AND FOOTING STRUCTURE ARE TO REMAIN WHOLEY WITHIN THE SUBJECT PROPERTY TYPE B BLOCKWORK RETAINING WALL 1.8m- 2.8m TYPE 1

SCALE 1:20

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RETAINING WALL DETAILS SHEET 1

43-61 TURNER ROAD

GREGORY HILLS

TURNER ROAD

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Civil Engineers and Project Managers

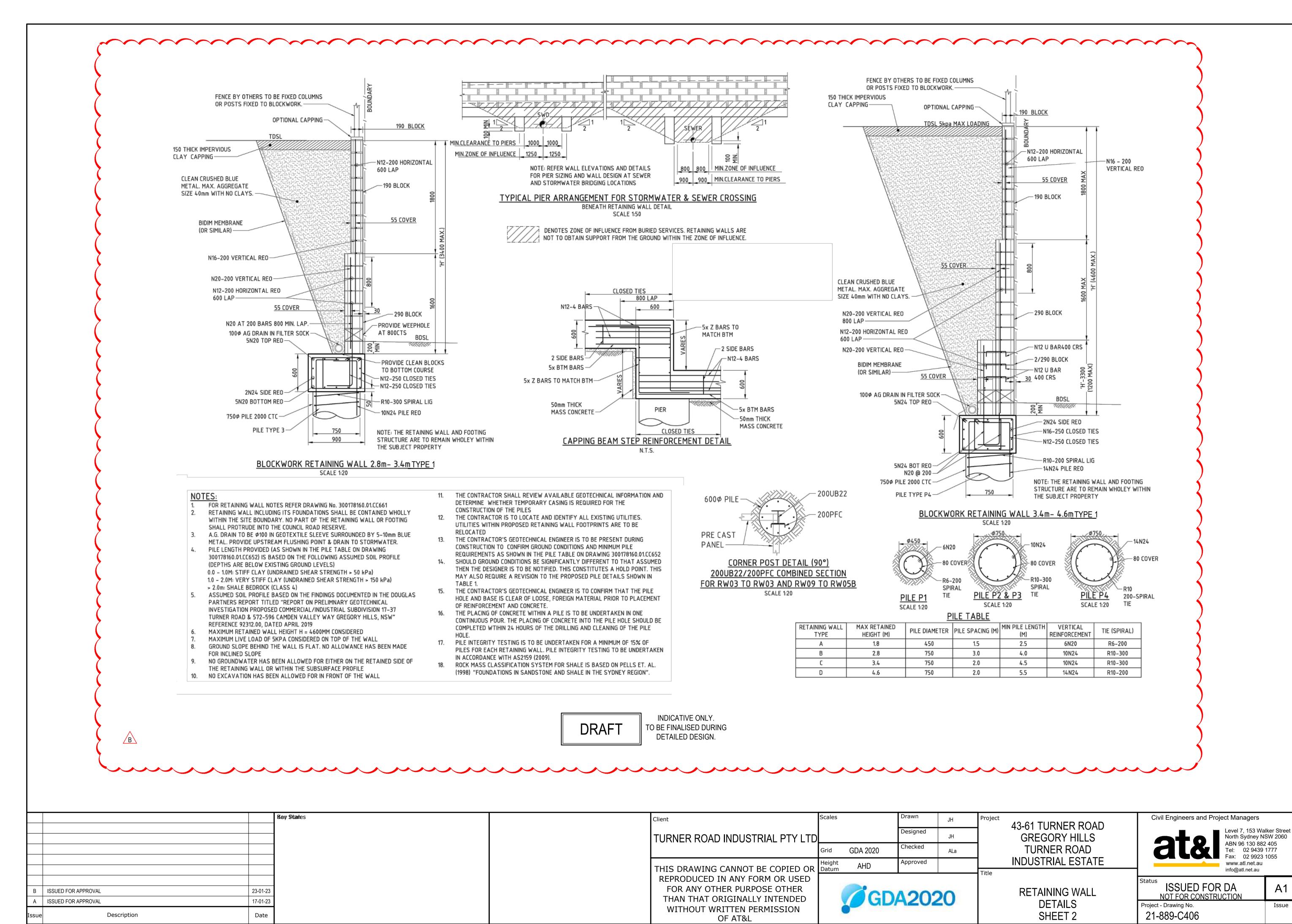
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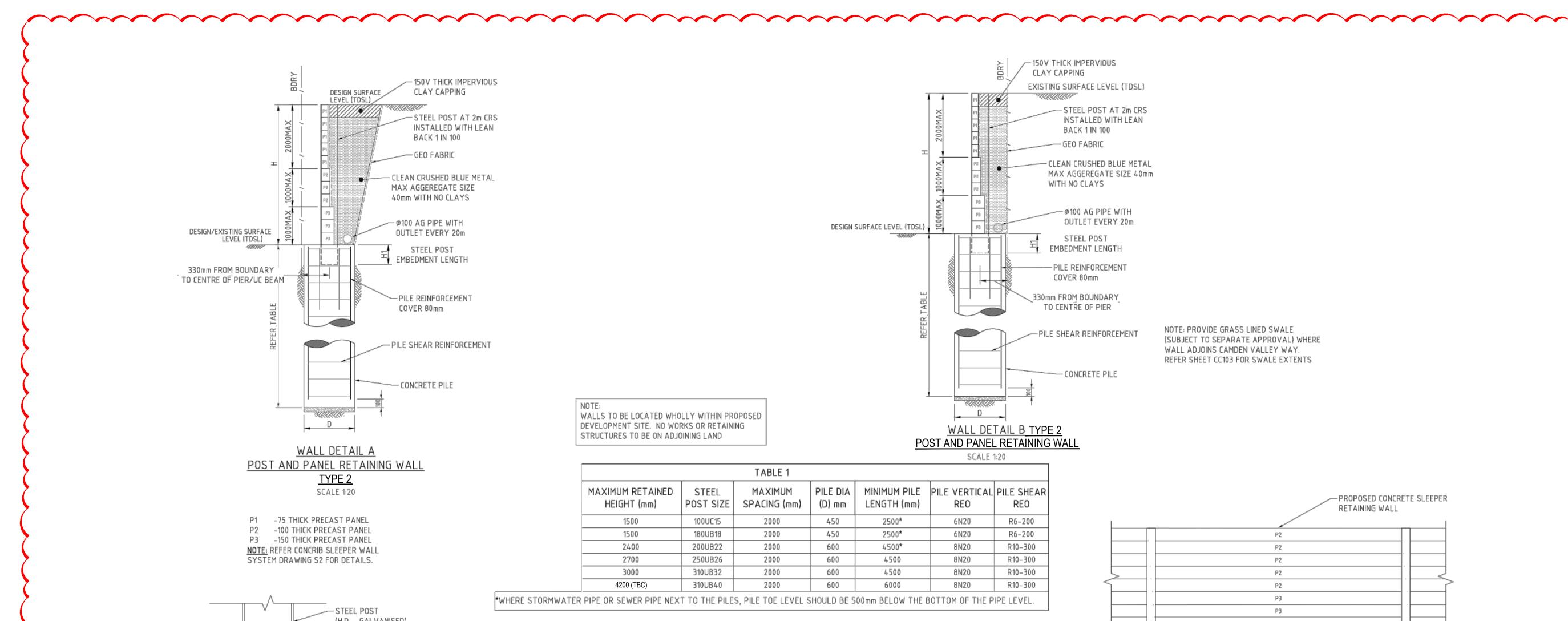
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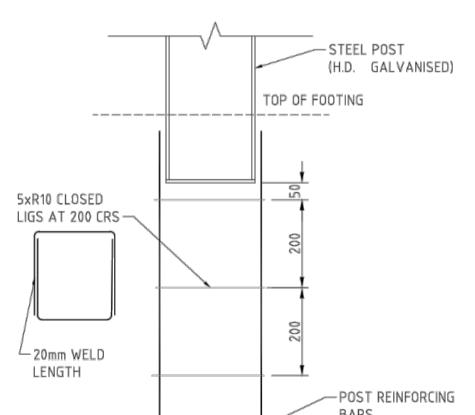
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NOTE: REFER CONCRIB SLEEPER WALL SYSTEM DRAWING S2 FOR DETAILS.

- 150 V THICK IMPERVIOUS CLAY CAPPING EXISTING SURFACE LEVEL (TDSL) - STEEL POST AT 2m CRS INSTALLED WITH LEAN BACK 1 IN 100 -GEO FABRIC - CLEAN CRUSHED BLUE METAL MAX AGGEREGATE SIZE 40mm WITH NO CLAYS - Ø100 AG PIPE WITH **DUTLET EVERY 20m** DESIGN SURFACE LEVEL (TDSL) STEEL POST EMBEDMENT LENGTH - PILE REINFORCEMENT COVER 80mm 330mm FROM BOUNDARY TO CENTRE OF PIER - PILE SHEAR REINFORCEMENT --- CONCRETE PILE WALL DETAIL B TYPE 2

NOTE: PROVIDE GRASS LINED SWALE (SUBJECT TO SEPARATE APPROVAL) WHERE WALL ADJOINS CAMDEN VALLEY WAY. REFER SHEET CC103 FOR SWALE EXTENTS

POST AND PANEL RETAINING WALL

SCALE 1:20

	TABLE 1										
	MAXIMUM RETAINED HEIGHT (mm)	MAXIMUM SPACING (mm)	PILE DIA (D) mm	MINIMUM PILE LENGTH (mm)	PILE VERTICAL REO	PILE SHEAR REO					
	1500	100UC15	2000	450	2500*	6N20	R6-200				
	1500	180UB18	2000	450	2500*	6N20	R6-200				
	2400	200UB22	2000	600	4500*	8N20	R10-300				
	2700	250UB26	2000	600	4500	8N20	R10-300				
	3000	310UB32	2000	600	4500	8N20	R10-300				
	4200 (TBC)	310UB40	2000	600	6000	8N20	R10-300				
TED	D DIDE OD CEWED DIDE NEVT TO THE DILEC DILE TOE LEVEL CHOLLED BE EARTH BELOW THE BOTTOM OF THE DIDE LEVEL										

*WHERE STORMWATER PIPE OR SEWER PIPE NEXT TO THE PILES, PILE TOE LEVEL SHOULD BE 500mm BELOW THE BOTTOM OF THE PIPE LEVEL.

Client

WALLS TO BE LOCATED WHOLLY WITHIN PROPOSED DEVELOPMENT SITE. NO WORKS OR RETAINING

STRUCTURES TO BE ON ADJOINING LAND

RETAINING WALL P2 P2 P2 P2 P2 P3 P3 P3 P2 PANEL = 100mm P3 PANEL = 125mm ─600 DIA PILE EXACT POSITION AND DEPTH OF SERVICE VERTICAL REO 8N20 TO BE DETERMINED PRIOR TO THE SHEAR TIE R10-300 COMMENCEMENT OF CONSTRUCTION 3000 (MAX) L = 3200mm FOR 1800mm HIGH WALL

L = 4000mm FOR 2300mm HIGH WALL

TYPICAL SLEEPER WALL BRIDGING DETAIL

PROVIDE ADDITIONAL POSTS AND POSITION AS REQUIRED TO ACHIEVE CLEARANCES.

-PROPOSED CONCRETE SLEEPER

INDICATIVE ONLY. TO BE FINALISED DURING DETAILED DESIGN.

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RETAINING WALL **DETAILS**

43-61 TURNER ROAD

GREGORY HILLS

TURNER ROAD

INDUSTRIAL ESTATE

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21-889-C407

GENERAL NOTES

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS. AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE SUPERINTENDENT BEFORE PROCEEDING
- 2. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT AUSTRALIAN STANDARDS, BUILDING CODE OF AUSTRALIA AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES.
- 3. FINAL LEVEL SURVEYING, SETOUT ARRANGEMENTS, DIMENSIONAL CHECKING AND FABRICATION OF ANY STEELWORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE WORK COMMENCES. DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS.
- 4. BEFORE UNDERTAKING ANY WORK, ESTABLISH THE LOCATIONS OF ALL EXISTING SERVICES AFFECTED BY THE WORKS. IF NECESSARY CARRY OUT DIAL-BEFORE-YOU-DIG. ADVISE THE SUPERINTENDENT IF THERE ARE ANY UNKNOWN SERVICES WHICH CAN POTENTIALLY BE AFFECTED BY THE
- 5. IT IS THE CONTRACTORS RESPONSIBILITY TO BUILD THE STRUCTURE IN ACCORDANCE WITH THE STRUCTURAL DOCUMENTATION. ANY MODIFICATIONS OR ADDITIONS SHOULD BE SUBMITTED TO THE SUPERINTENDENT FOR REVIEW AND APPROVAL PRIOR TO COMMENCING THE WORKS.
- 6. ANY CONFLICTS IN THE DOCUMENTATION SHOULD BE REFERRED TO THE SUPERINTENDENT FOR RESOLUTION PRIOR TO CONSTRUCTION.
- 7. STRUCTURAL ELEMENTS SHALL BE CONSTRUCTED WITHIN DIMENSIONAL TOLERANCES SET OUT IN THE RELEVANT AUSTRALIAN STANDARDS.
- 8. DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING AND BATTERS SHALL BE PROVIDED BY THE CONTRACTOR TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES. DESIGN CERTIFICATION TO BE PROVIDED BY A SUITABLY QUALIFIED ENGINEER FOR ADEQUACY OF STRUCTURE AND TEMPORARY WORKS FOR PROPOSED CONSTRUCTION METHODS AND LOADS INCLUDING DROPPING, CRANE LIFTS ETC. TEMPORARY MEMBERS TO BE SHOWN ON SHOP DRAWINGS.
- 9. THE CONTRACTOR SHALL PROVIDE TEST CERTIFICATES FROM A NATA APPROVED TESTING LABORATORY CERTIFYING THAT THE MATERIALS USED COMPLY WITH THE RELEVANT SPECIFICATIONS.
- ALL LEVELS ARE IN METRES RELATIVE TO AUSTRALIAN HEIGHT DATUM AHD UNO.
- 11. ALL DIMENSIONS ARE IN MILLIMETRES UNO.

CONCRETE NOTES

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- CONCRETE USED IN THE WORKS SHALL BE EITHER REINFORCED CONCRETE OR MASS CONCRETE (MC) AS NOTED ON THE DRAWINGS AND SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

COMPONENT	RETAINING WALL FOOTINGS	MASS CONCRETE	PRECAS CONCRETE
EXPOSURE CLASSIFICATION	B2	B2	B2
f'c AT 28 DAYS (Mpa)	40	20	50
SLUMP (mm)	80	80	80
MAX SIZE AGG (mm)	20	20	20
CEMENT TYPE	GP	GP	GP
CEMENT CONTENT	400 kg/m³	280 kg/m³	400 kg/m³
WATER / BINDER RATIO	0.45	0.50	0.40

- FLYASH TO 80 kg/m³ MAY BE SUBSTITUTED FOR GP CEMENT.
- 4. THE AREA ON WHICH FOOTINGS ARE TO BE SITUATED SHALL BE STRIPPED OF ALL ORGANIC MATTER WHICH SHALL BE REMOVED FROM THE SITE. THIS INCLUDES TREE STUMPS AND LARGE ROOTS.
- 5. TESTING AND ASSESSMENT FOR COMPLIANCE OF CONCRETE SHALL BE CARRIED OUT BY THE CONTRACTOR IN ACCORDANCE WITH AS 3600.
- MAINTAIN COVER TO REINFORCEMENT AT CHAMFERS, DRIP GROOVES, REGLETS, ETC.
- 7. CONSTRUCTION JOINTS SHALL BE PROPERLY FORMED AND USED ONLY WHERE SHOWN ON THE DRAWINGS OR WHERE SPECIFICALLY APPROVED BY SUPERINTENDENT. THEY SHALL BE VERTICAL IN FOOTINGS AND BE SCABBLED AND CLEANED AND SHALL HAVE A NEAT CEMENT-WATER SLURRY BRUSHED ON BEFORE POUR CONTINUES.
- 8. ALL EXPOSED CONCRETE ARISES SHALL HAVE A 25 mm x 25 mm CHAMFER UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRUCTURAL SUFFICIENCY OF ALL FORMWORK, FORMWORK SHALL COMPLY WITH AS3610.
- FREE DROPPING OF CONCRETE FROM A HEIGHT GREATER THAN 1200mm SHALL NOT BE PERMITTED.

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- 11. CONCRETE SHALL BE COMPACTED WITH MECHANICAL VIBRATORS.
- 12. THE FINISHED CONCRETE SHALL BE DENSE HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK, THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS AND CRACKS HAVING A CRACK WIDTH EQUAL TO OR GREATER THAN 0.2 mm AT THE END OF THE DEFECTS LIABILITY PERIOD. IF CRACKING EXCEEDS THIS LIMIT, THE CONTRACTOR SHALL MAKE GOOD AT HIS EXPENSE, THE CRACKS TO THE SATISFACTION OF THE SUPERINTENDENT WHICH MIGHT COMPRISE REPLACEMENT OF CONCRETE ELEMENT OR SEALING THE CRACKS OR OTHER WORKS.
- 13. DURING AND IMMEDIATELY FOLLOWING POURING, THE CONCRETE SHALL BE PROTECTED FROM WIND AND SUN TO PREVENT PLASTIC SHRINKAGE CRACKING. AWNINGS AND WIND BREAKS ARE TO BE UTILISED FOR THIS PURPOSE.
- 14. CURING OF ALL CONCRETE IS TO BE ACHIEVED BY KEEPING SURFACES CONTINUOUSLY WET FOR A PERIOD OF 7 DAYS, AND PREVENTION OF LOSS OF MOISTURE FOR A TOTAL OF 14 DAYS FOLLOWED BY A GRADUAL DRYING OUT. POLYTHENE SHEETING OR WET HESSIAN MAY BE USED IF PROTECTED FROM WIND AND TRAFFIC. DO NOT USE APPLIED CURING AGENTS.

REINFORCEMENT NOTES

- REINFORCEMENT IS TO BE MANUFACTURED IN ACCORDANCE WITH AS4671 AND SHALL BE FIXED AS SHOWN ON DRAWINGS.
- 2. PROVIDE ACRS (AUSTRALIAN CERTIFICATION AUTHORITY FOR REINFORCING STEEL LTD) CERTIFICATION OF COMPLIANCE WITH AS/NZS4671 FOR ALL REINFORCEMENT. PROVIDE CERTIFICATION OF COMPLIANCE WITH AS1311 FOR ALL PRESTRESSING TENDONS.
- 3. PROVIDE DOCUMENTATION TO SHOW THAT REINFORCEMENT SUPPLIER AND MILL COMPLIES WITH AS/NZS4671.
- 4. REINFORCEMENT IS DEFINED IN THE FOLLOWING FORMAT:
- 17N20-300 17 - THE NUMBER OF BARS
- N THE BAR MATERIAL 20 - THE NOMINAL BAR SIZE IN mm 300 - THE MAXIMUM BAR SPACING IN mm
- 5. MATERIAL IS INDICATED BY THE FOLLOWING SYMBOLS:
- SL SQUARE FABRIC GRADE 500
- N DEFORMED BAR GRADE 500 (NORMAL DUCTILITY)

 RL RECTANGULAR FABRIC GRADE 500 R – PLAIN ROUND BAR GRADE 250 L - DEFORMED BAR GRADE 500 (LOW DUCTILITY) TM - TRENCH MESH
- W PLAIN WIRE GRADE 450
- 6. THE FOLLOWING NOTATIONS MAY HAVE BEEN USED ON THE DRAWINGS:
- LV LENGTH VARIES CV – COG VARIES
- EW EACH WAY
- EF EACH FACE
- SV SHAPE VARIES
- B1 BOTTOM REINFORCEMENT LAID FIRST B2 - BOTTOM REINFORCEMENT - LAID SECOND
- T1 TOP REINFORCEMENT LAID FIRST
- T2 TOP REINFORCEMENT LAID SECOND
- T&B TOP AND BOTTOM
- REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
- 8. CONCRETE COVERS NOTED ARE MEASURED FROM THE FORMWORK OR GROUND FACE TO THE OUTERMOST REINFORCEMENT COMPONENT, i.e. IN COLUMNS AND BEAMS TO THE OUTSIDE OF TIES OR LIGATURES.
- 9. ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON CONCRETE BLOCKS AT NOT GREATER THAN 1m CENTRES BOTH WAYS. CONCRETE BLOCKS SHALL BE MADE FROM CONCRETE OF THE SAME PROPERTIES TO BE POURED AROUND THE BLOCK, PLASTIC CHAIRS AND PLASTIC TIPPED MILD STEEL CHAIRS SHALL NOT BE USED. BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS.
- 10. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN OR OTHERWISE APPROVED IN WRITING BY THE SUPERINTENDENT. LAPS SHALL BE IN ACCORDANCE WITH AS 3600 AND NOT LESS THAN THE DEVELOPMENT LENGTH FOR EACH BAR.
- 11. LAPPED SPLICE LENGTHS FOR HORIZONTAL BARS WITH MORE THAN 300 mm CONCRETE CAST BELOW THE BAR TO COMPLY WITH THE FOLLOWING UNO:

COVER	f'c	N12	N16	N20	N24	N28	N32
≥ 25	≥ 20	770	1150	-	-	-	-
≥ 30	≥ 25	630	980	1350	1740	-	-
≥ 40	≥ 32	470	770	1100	1440	1810	2220
≥ 50	≥ 40	460	610	890	1200	1530	1890

DO NOT INTERPOLATE VALUES OF SPLICE LENGTHS, EPOXY COATED BARS, BARS IN LIGHTWEIGHT CONCRETE AND SLIP FORMED CONCRETE WILL REQUIRE LONGER SPLICE LENGTHS. REFER TO AS3600.

12. LAPPED SPLICE LENGTHS FOR VERTICAL BARS (AND HORIZONTAL BARS WITH LESS THAN 300mm CONCRETE CAST BELOW THE BAR) TO COMPLY WITH THE FOLLOWING UNO:

COVER	f'c	N12	N16	N20	N24	N28	N32
≥ 25	≥ 20	590	890	-	-	-	-
≥ 30	≥ 25	490	750	1040	1340	-	-
≥ 40	≥ 32	360	600	840	1110	1400	1710
≥ 50	≥ 40	350	470	690	920	1180	1450

- 13. JOGGLES TO BARS SHALL BE 1 BAR DIAMETER OVER A LENGTH OF 12 BAR DIAMETERS.
- 14. WELDING OF REINFORCEMENT BARS IS ONLY PERMITTED WHERE SHOWN ON THE DRAWINGS OR OTHERWISE APPROVED BY THE SUPERINTENDENT. WHERE WELDING OF REINFORCEMENT IS APPROVED, IT SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 1554, PART 3.

DESIGN CRITERIA:

- 1. SURCHARGE LOADING ON BORED PILE RETAINING WALLS = 5kPa, SURCHARGE LOADING ON
- MAGNUMSTONE RETAINING WALL = 10kPa.
- 2. EARTH PRESSURE AND DEAD LOAD IN ACCORDANCE WITH AS4678.
- WIND LOAD ON FENCES. ANNUAL PROBABILITY OF EXCEEDANCE: 1/100 ULS
- TERRAIN CATEGORY 3: 1/25 SLS.

Client

4. DESIGN LIFE : 50 YEARS

MASONRY NOTES

- ALL MASONRY SHALL COMPLY WITH AS3700 AND THE PROJECT SPECIFICATION.
- 2. CONCRETE MASONRY UNITS TO HAVE A MINIMUM CHARACTERISTIC UNCONFINED STRENGTH OF 15MPa IN ACCORDANCE WITH AS2733. BRICKS TO HAVE A CHARACTERISTIC UNCONFINED STRENGTH OF
- 3. MASONRY UNITS TO BE BEDDED IN FRESHLY PREPARED MORTAR UNIFORMLY MIXED IN THE RATIO OF ONE (1) PART CEMENT, ONE (1) PART LIME AND SIX (6) PARTS SAND, CONFORMING TO AS2701 'BRICKIES LOAM' SHALL NOT BE USED.
- 4. GROUT SHALL HAVE A COMPRESSIVE STRENGTH (f'c) OF 20MPa AT 28 DAYS, A SLUMP OF 125mm IN A 150mm SLUMP CONE, A MAXIMUM AGGREGATE SIZE OF 10mm AND BE IN ACCORDANCE WITH AS3700.
- DEFORMED BAR REINFORCEMENT SHALL CONFORM TO AS4671.
- 6. EXTREME CARE MUST BE TAKEN TO CORRECTLY POSITION STARTER BARS IN FOOTINGS IN ACCORDANCE WITH DETAILS.
- 7. REFER TO THE DRAWINGS FOR DETAILS ON VERTICAL CONTROL JOINTS.
- ALL WALL INTERSECTIONS SHALL BE FULLY BONDED OR TIED UNLESS NOTED OTHERWISE.
- 9. PROVIDE CLEAN-OUT OPENINGS AT THE BOTTOM OF ALL CORES FOR INSPECTION AND TYING OF REINFORCEMENT.
- 10. FACE SHELLS AND CROSS WEBS TO BE FULLY BEDDED.
- 11. ALL CORES TO BE CLEANED OUT AFTER EACH DAYS LAYING.
- 12. VERTICAL WALL REINFORCEMENT SHALL BE TIED TO STARTER BARS AND RESTRAINED AT TOP OF WALL IN IT'S REQUIRED LOCATION IN ACCORDANCE WITH THE DETAILS SO AS NOT TO MOVE DURING GROUT FILLING OF THE WALL.
- WET ALL CORES PRIOR TO POURING GROUT.
- 14. FULLY GROUT ALL CORES IN REINFORCED WALLS, UNLESS NOTED OTHERWISE
- 15. GROUT TO BE THOROUGHLY COMPACTED TO ENSURE COMPLETE FILLING OF ALL CORES.
- 16. FILL CORES TO A MAXIMUM OF 3m IN HEIGHT FOR ANY ONE POUR. ALL GROUT POURS TO STOP 25mm BELOW TOP OF BLOCKS.
- 17. WALL SHALL BE PROPPED DURING BACKFILLING OPERATIONS.
- 18. UNLESS NOTED OR SHOWN OTHERWISE ON THE DRAWINGS THERE ARE TO BE NO CHASES OR RECESSES PERMITTED IN THE MASONRY WALLS WITHOUT THE PRIOR APPROVAL OF 'SMEC'.
- 19. USE OF 'H' BLOCKS ARE PREFERRED FOR RETAINING WALL CONSTRUCTION
- 20. ALL BRICKS AND BLOCKS TO HAVE BEEN STORED FOR 6 MONTHS OUTDOORS PRIOR TO USE IN

FOUNDATION NOTES:

- 1. GROUND UNDER RETAINING WALL FOOTING IS TO BE STRIPPED OF TOP SOIL, FILL AND ORGANIC MATERIAL TO EXPOSE A NATURALLY OCCURRING IN-SITU MATERIAL.
- 2. RETAINING WALLS TO BE FOUNDED ON NATURALLY OCCURRING IN-SITU MATERIAL OR FILL AS DETAILED BELOW WITH AN SLS BEARING CAPACITY OF 200 kPa. TO BE CONFIRMED BY AN EXPERIENCED GEOTECHNICAL ENGINEER.
- 3. FOUNDATION MATERIAL TO BE PROOF-ROLLED WITH A 10t NON-VIBRATORY ROLLER AND VERIFIED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE. ANY SOFT/HEAVING GROUND SHALL BE REPLACED WITH FILL AS PER THE REQUIREMENTS BELOW.
- 4. WHERE FILL IS REQUIRED TO ADJUST THE FOUNDATION LEVEL OR REPLACE OVER-EXCAVATION IT IS TO CONFORM TO THE FOLLOWING REQUIREMENTS:

PROPERTY	REQUIREMENT					
MAXIMUM PARTICLE DIMENSION	53 mm					
PERCENTAGE PASSING						
2.36 mm AS SIEVE	< 50 %					
0.075 mm AS SIEVE	≤ 15 %					
PLASTICITY INDEX	≤ 15 %					

- 5. FILL IS TO BE PLACED IN LAYERS OF 150 mm MAXIMUM THICKNESS AFTER COMPACTION AND COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 100% STANDARD MAXIMUM DRY DENSITY (SMDD) (MINIMUM OF 2 TESTES PER LAYER) AND MOISTURE CONDITIONED TO BE WITHIN +/-2% OF OPTIMUM MOISTURE CONTENT FINAL SURFACE SHALL BE PROOF-ROLLED AS PER NOTE 3 ABOVE.
- IF FILL THICKNESS IS LESS THAN 150 mm USE MASS CONCRETE RATHER THAN FILL.
- 7. FILL MATERIAL IS TO EXTEND FOR AT LEAST 1000 mm EITHER SIDE OF THE FOOTING.
- 8. FOR FOOTINGS FOUNDED ON CLAY, IF ANY TREES ARE REMOVED FROM OR PRESENT WITHIN THE VICINITY OF THE FOOTING, ADVICE IS TO BE SOUGHT FROM AN EXPERIENCED GEOTECHNICAL ENGINEER WITH REGARD TO SHRINK/SWELL POTENTIAL OF THE GROUND.



INDICATIVE ONLY. TO BE FINALISED DURING DETAILED DESIGN.

Civil Engineers and Project Managers

TURNER ROAD INDUSTRIAL PTY LTD **ISSUED FOR APPROVAL** 23-01-23 17-01-23 ISSUED FOR APPROVAL WITHOUT WRITTEN PERMISSION Date Description OF AT&L

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Scales

GDA 2023

Designed

Checked

ALa

43-61 TURNER ROAD **GREGORY HILLS** TURNER ROAD INDUSTRIAL ESTATE

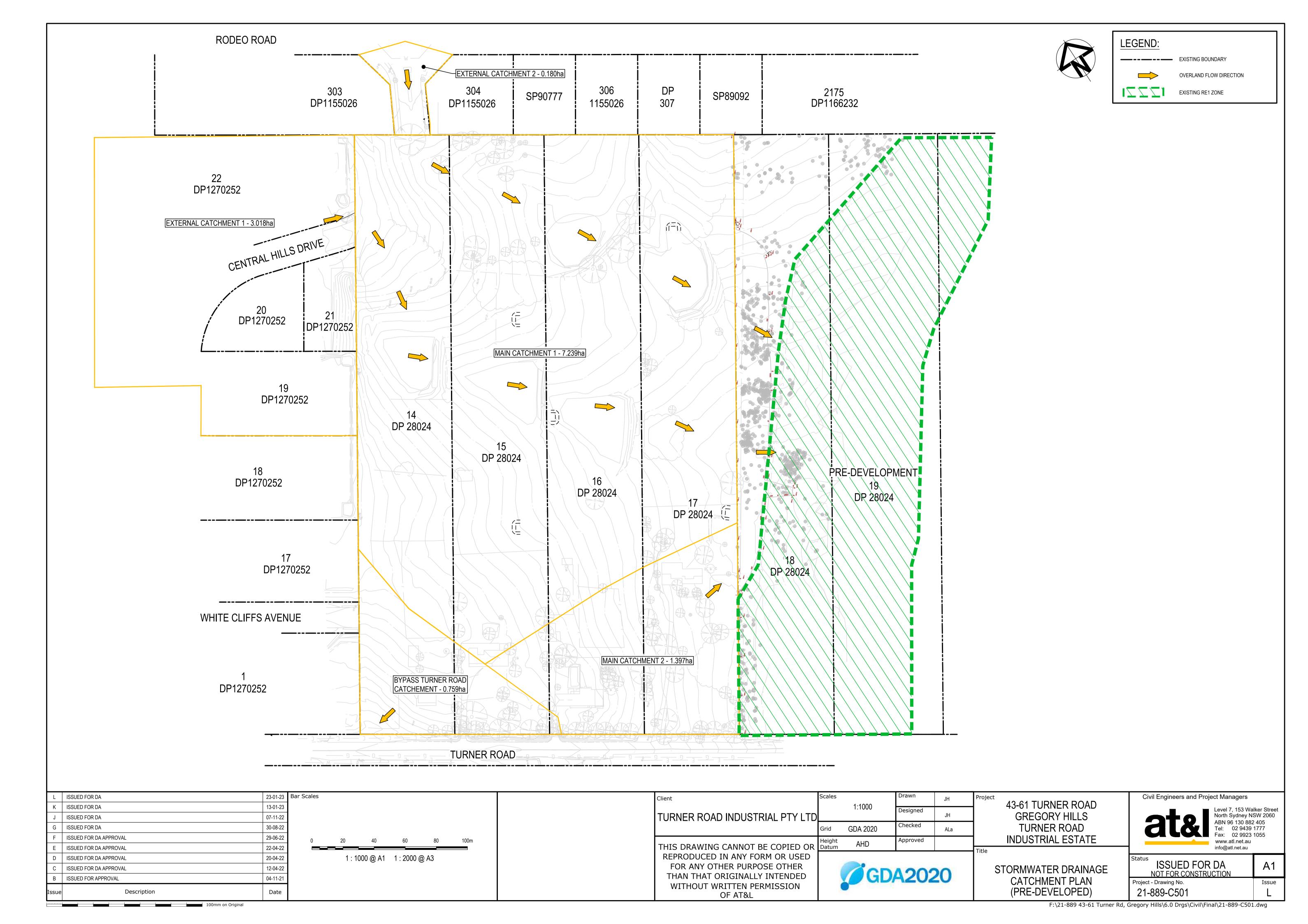
RETAINING WALL **DETAILS** SHEET 4

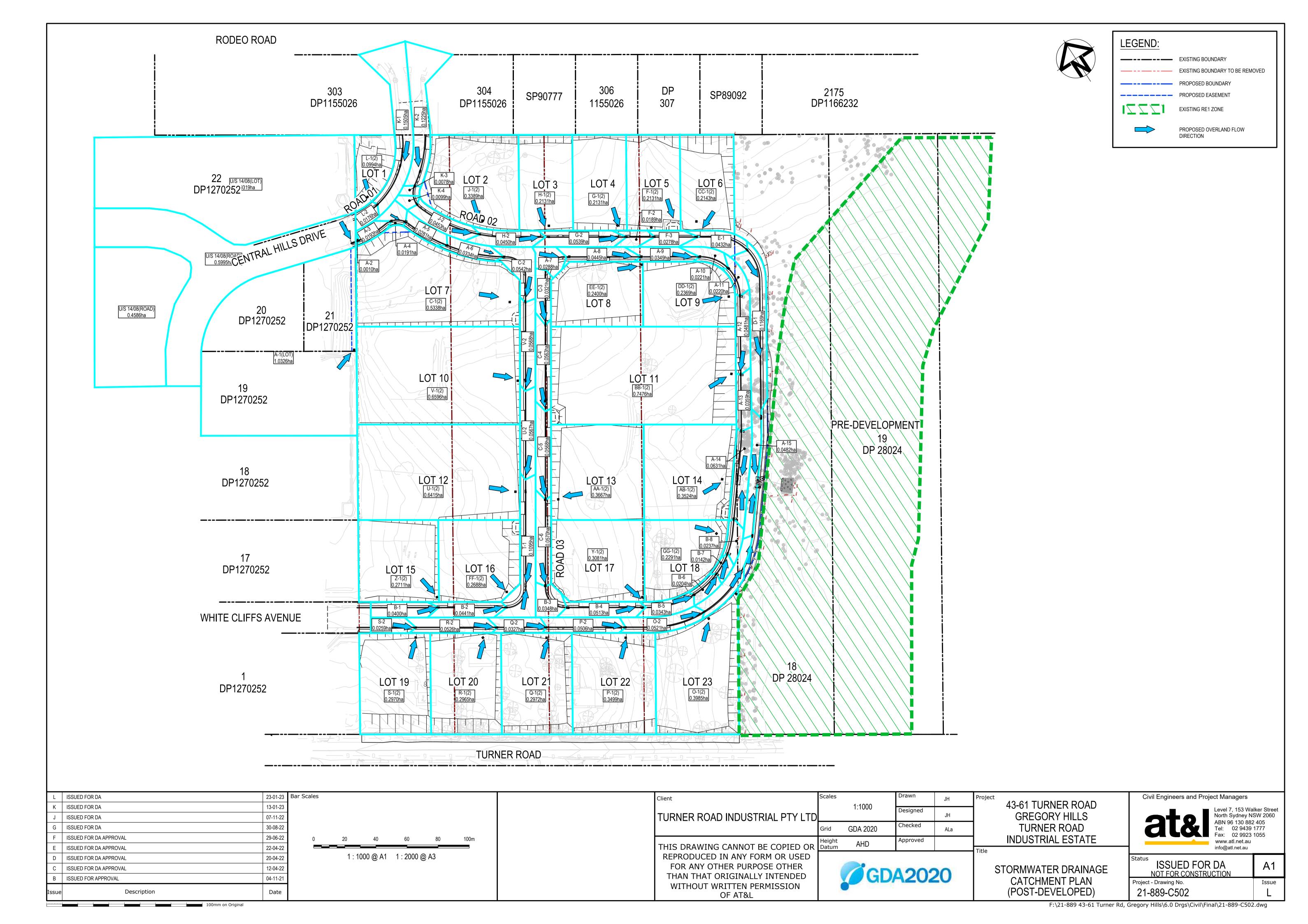
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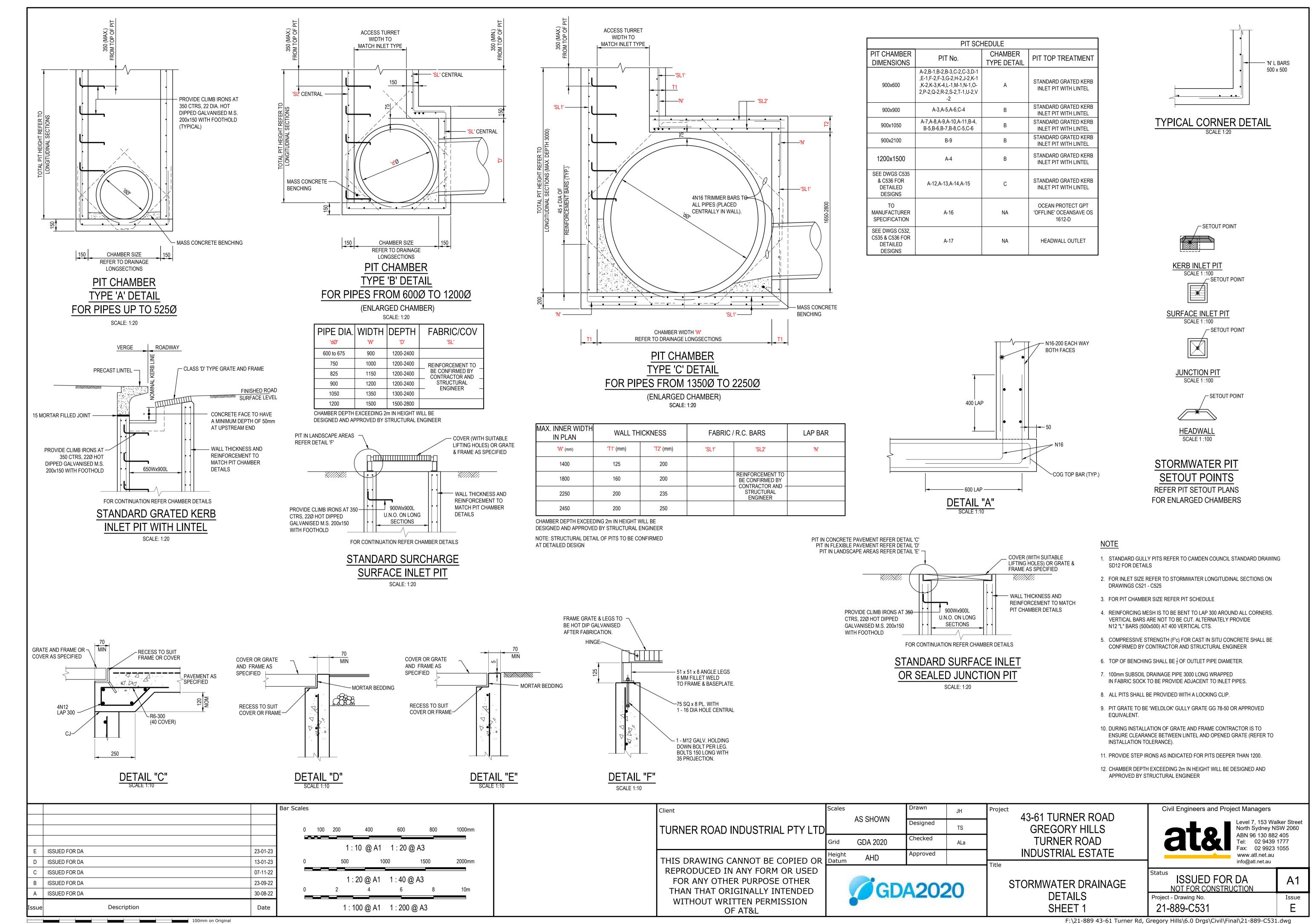
Fax: 02 9923 1055 www.atl.net.au info@atl.net.au ISSUED FOR DA NOT FOR CONSTRUCTION Project - Drawing No. Issue

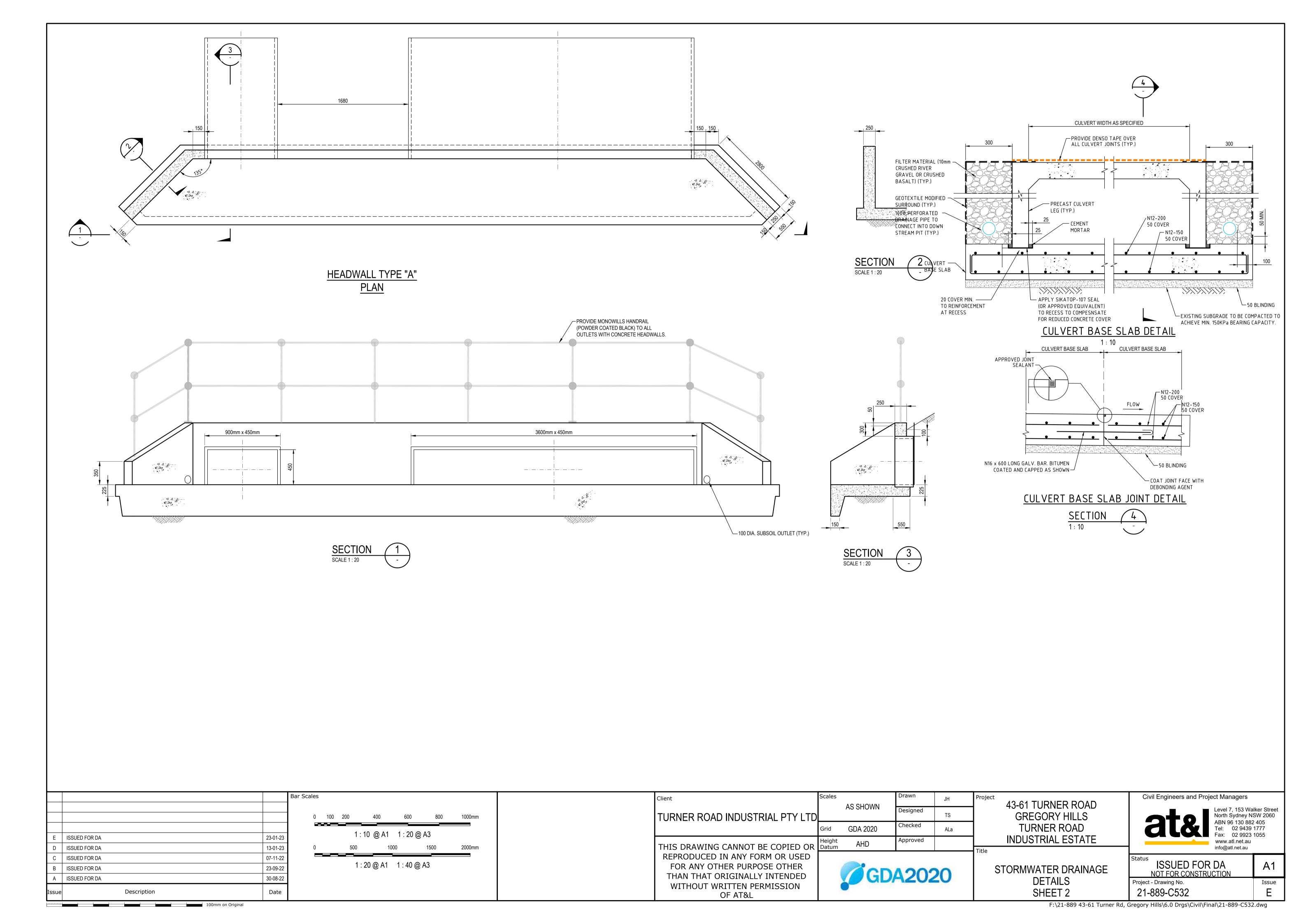
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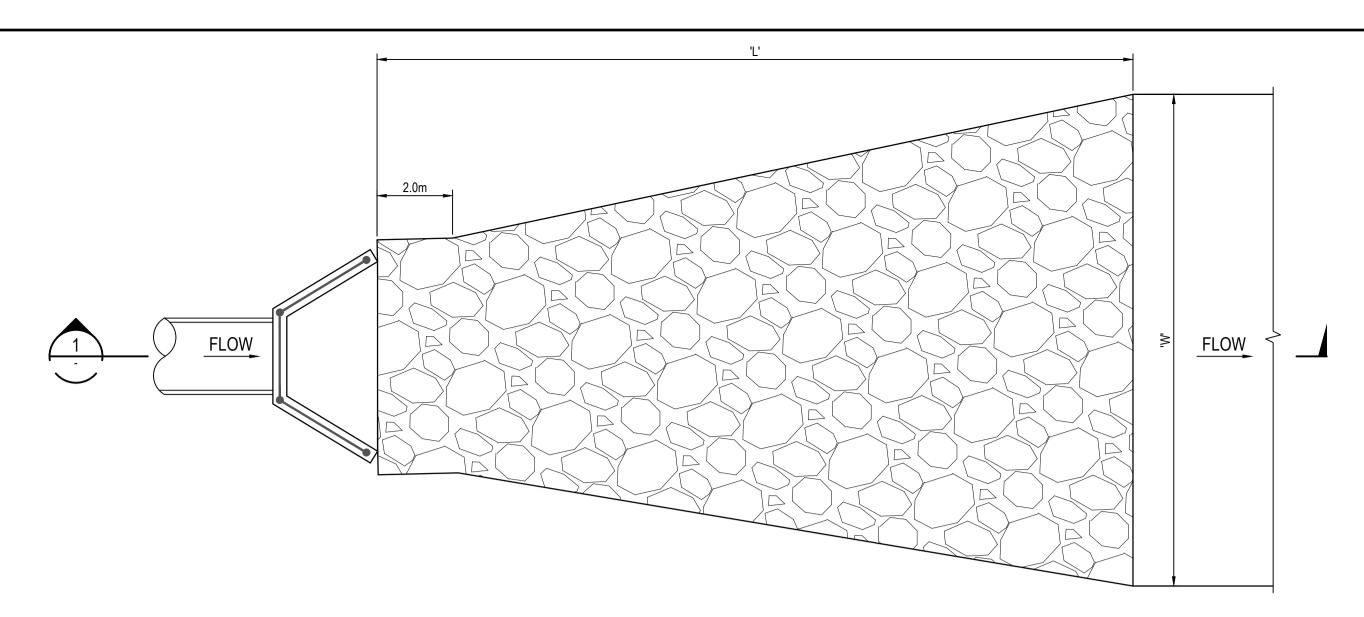
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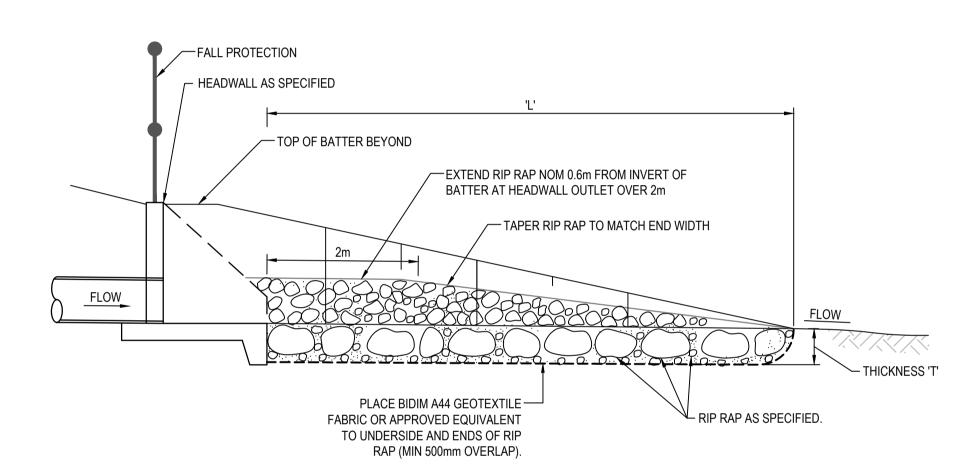








RIP RAP OUTLET PROTECTION TYPE 1 DETAIL 1:100



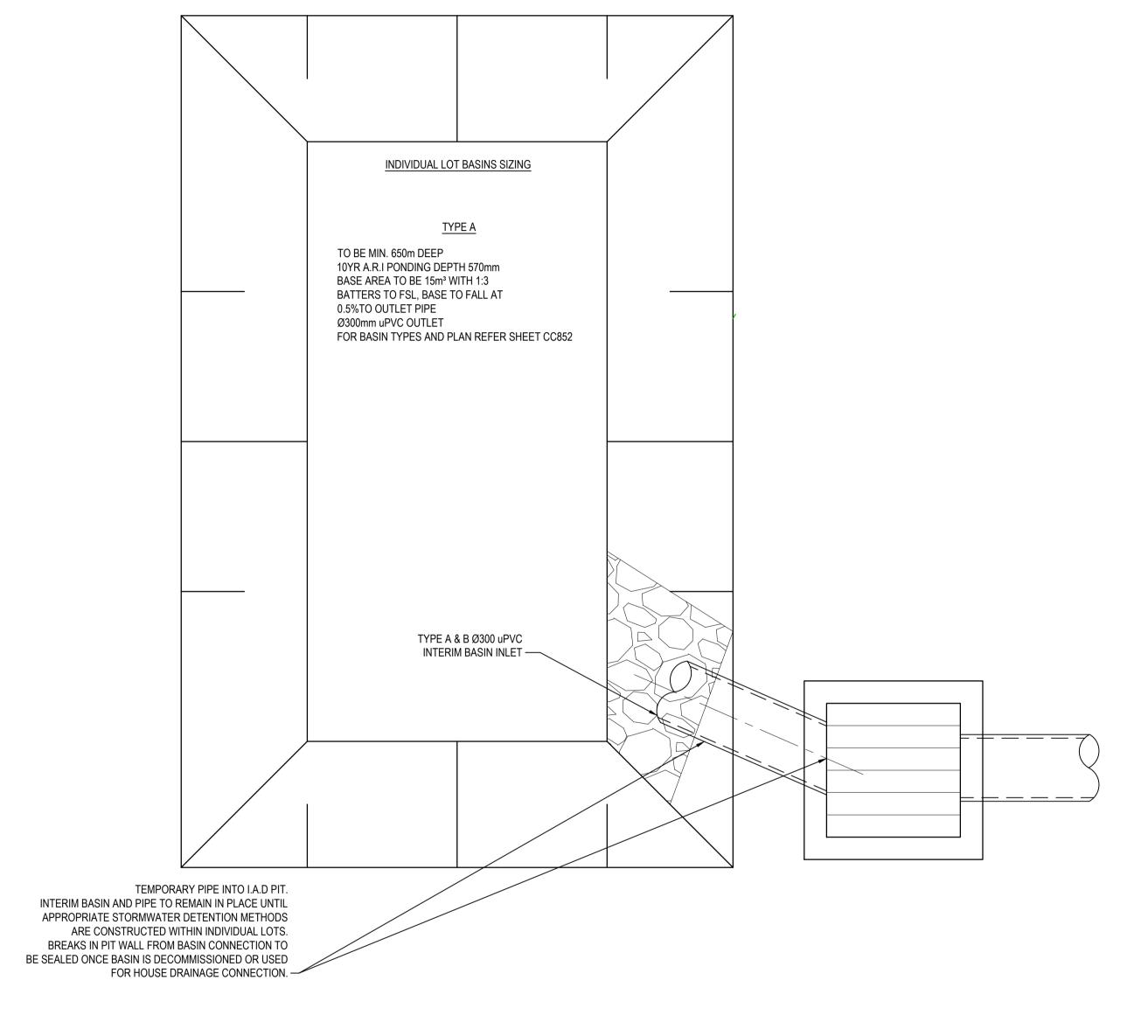
SCOUR PROTECTION SCHEDULE

OUTLET HEADWALL No.	PIPE Ø (mm)	LENGTH OF PROTECTION (m)	WIDTH OF PROTECTION (m)	NOMINAL ROCK SIZE (mm)	THICKNESS OF PROTECTION (mm)
	'D'	'L'	'W'	'D ₅₀ '	'T'
D/9	1350	16.200	4.050	600	900
AL/10	2100	16.800	6.300	400	600
F/17	1200	9.600	3.600	400	600
H/2	3x2100	16.800	18.900	300	450
CA/2	1500	15.000	4.500	500	750
BD/2	450	3.600	13.500	400	600

- MINIMUM NOMINAL ROCK SIZE 'D₅₀' IS 300mm.
 THICKNESS 'T' IS 1.5 x NOMINAL ROCK SIZE
 ROCK IS NOT TO BE SITE WON SHALE OR OTHER WEATHERABLE ROCK

ROCK GRADATION TABLE

	(NOMINAL	ROCK DISTRIBUTION BY %				
	200mm	300mm	400mm	500mm	600mm	
	400	600	750	850	900	15-25%
ROCK SIZE	300	400	525	600	750	20%
(mm)	200	300	400	500	600	50%
	75	100	150	150	200	15-25%



INTERIM DETENTION BASIN AND PIT ARRANAGEMENT DETAIL

NTS

Е	ISSUED FOR DA	23-01-23
D	ISSUED FOR DA	13-01-23
С	ISSUED FOR DA	07-11-22
В	ISSUED FOR DA	23-09-22
Α	ISSUED FOR DA	30-08-22
Issue	Description	Date

Bar Scales					
0	1	2	3	4	5m
_	1 : 50 (② A1 1:	100 @ A3		_
0	2	4	6	8	10m
_	1 : 100	@ A1 1	200 @ A3		_

Client	Scales	AC CHOWN	Drawn	JH
TURNER ROAD INDUSTRIAL PTY LTD	AS SHOWN	Designed	TS	
	Grid	GDA 2020	Checked	ALa
THIS DRAWING CANNOT BE COPIED OR	Height Datum	AHD	Approved	
REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED	GDA2020			

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43-61 TURNER ROAD **GREGORY HILLS** TURNER ROAD INDUSTRIAL ESTATE

STORMWATER DRAINAGE

DETAILS

SHEET 3

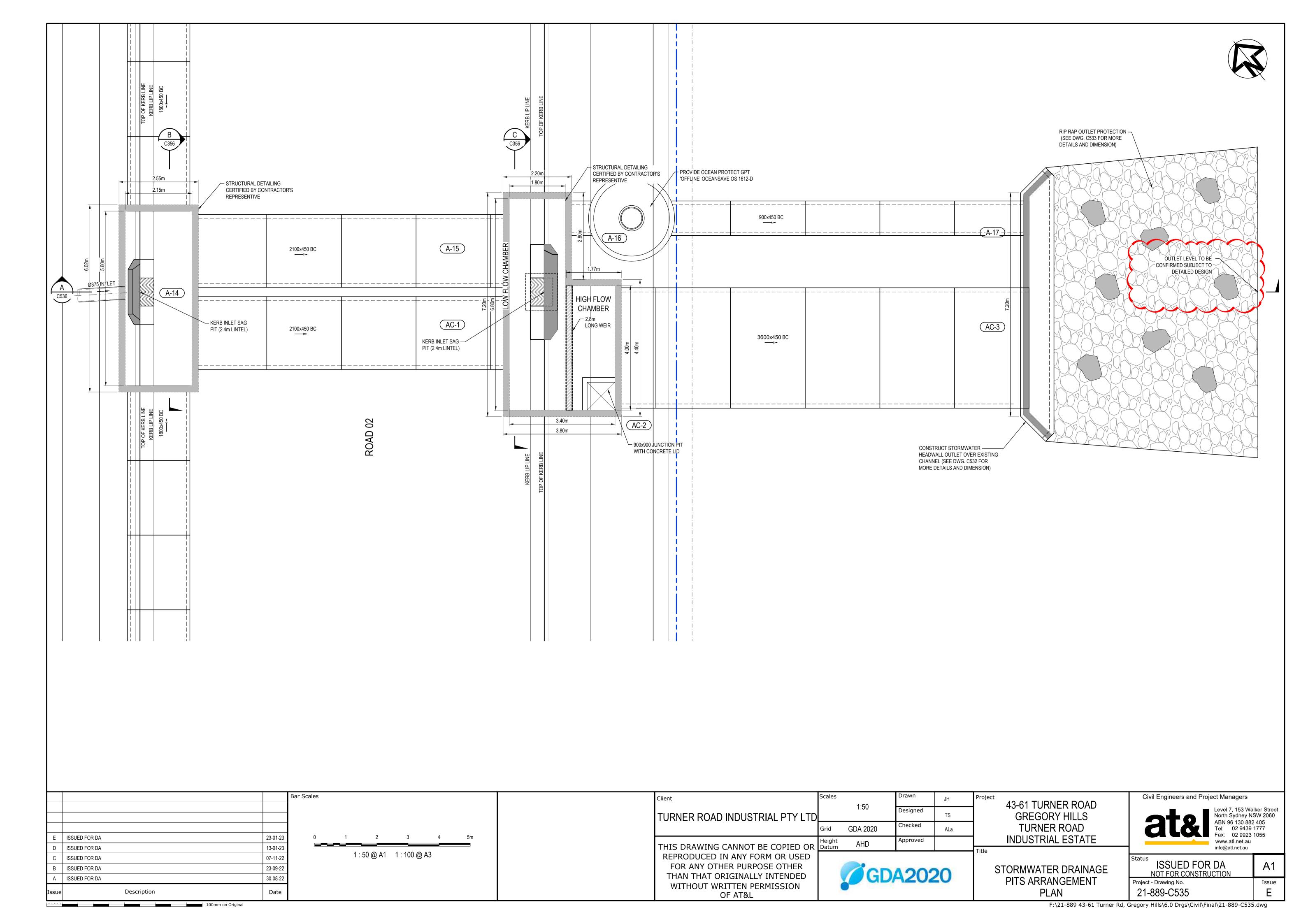
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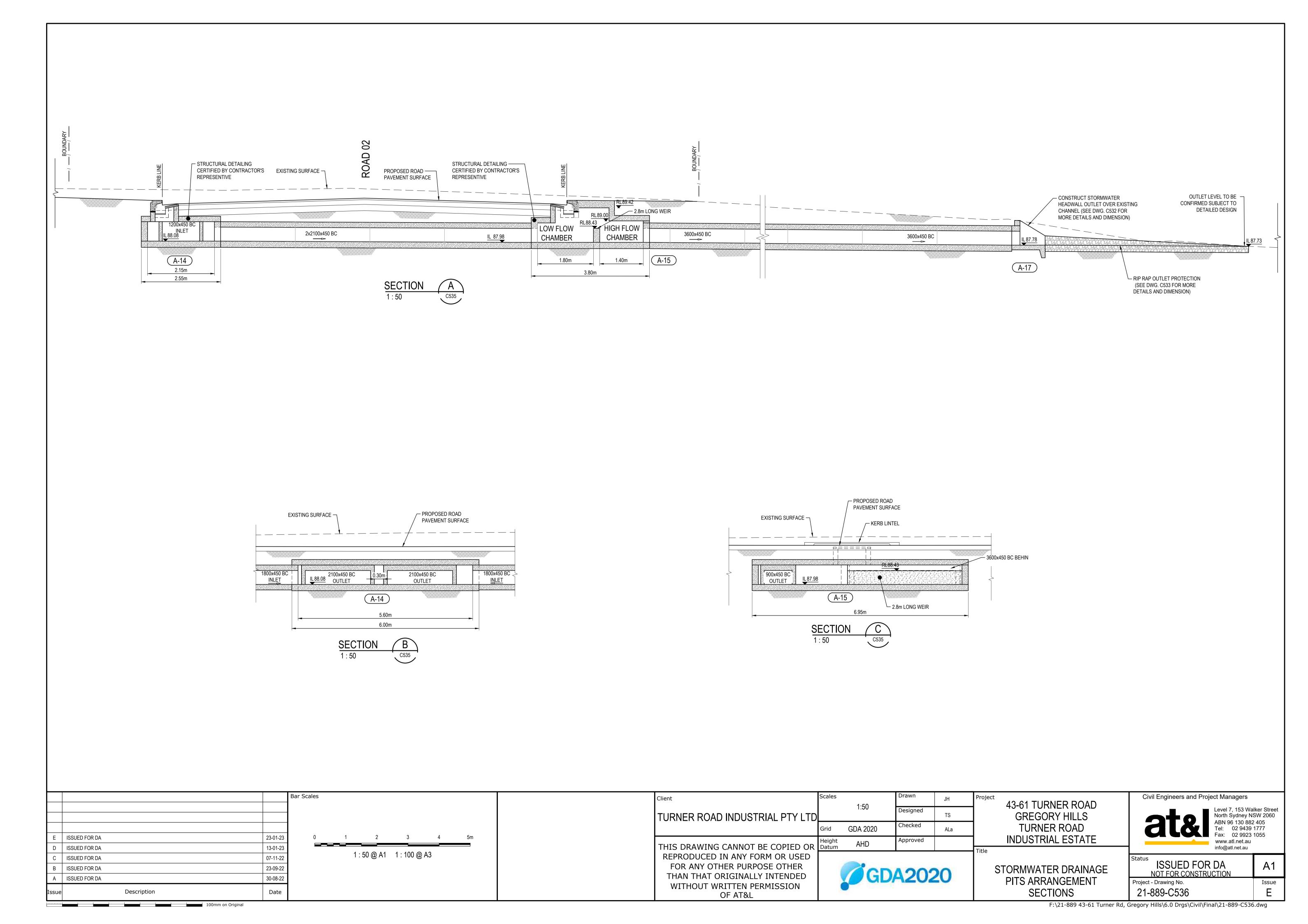
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 www.atl.net.au info@atl.net.au

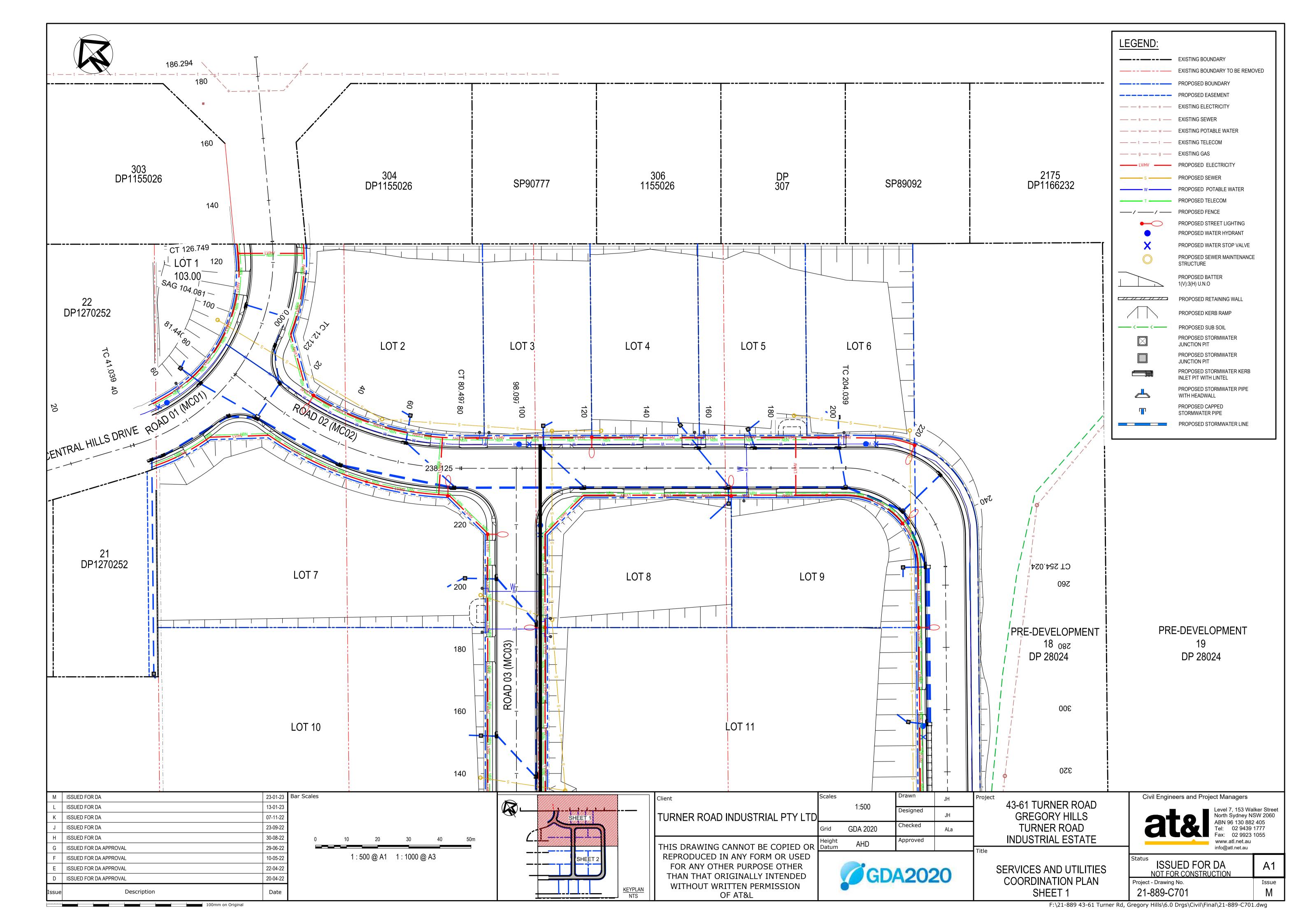
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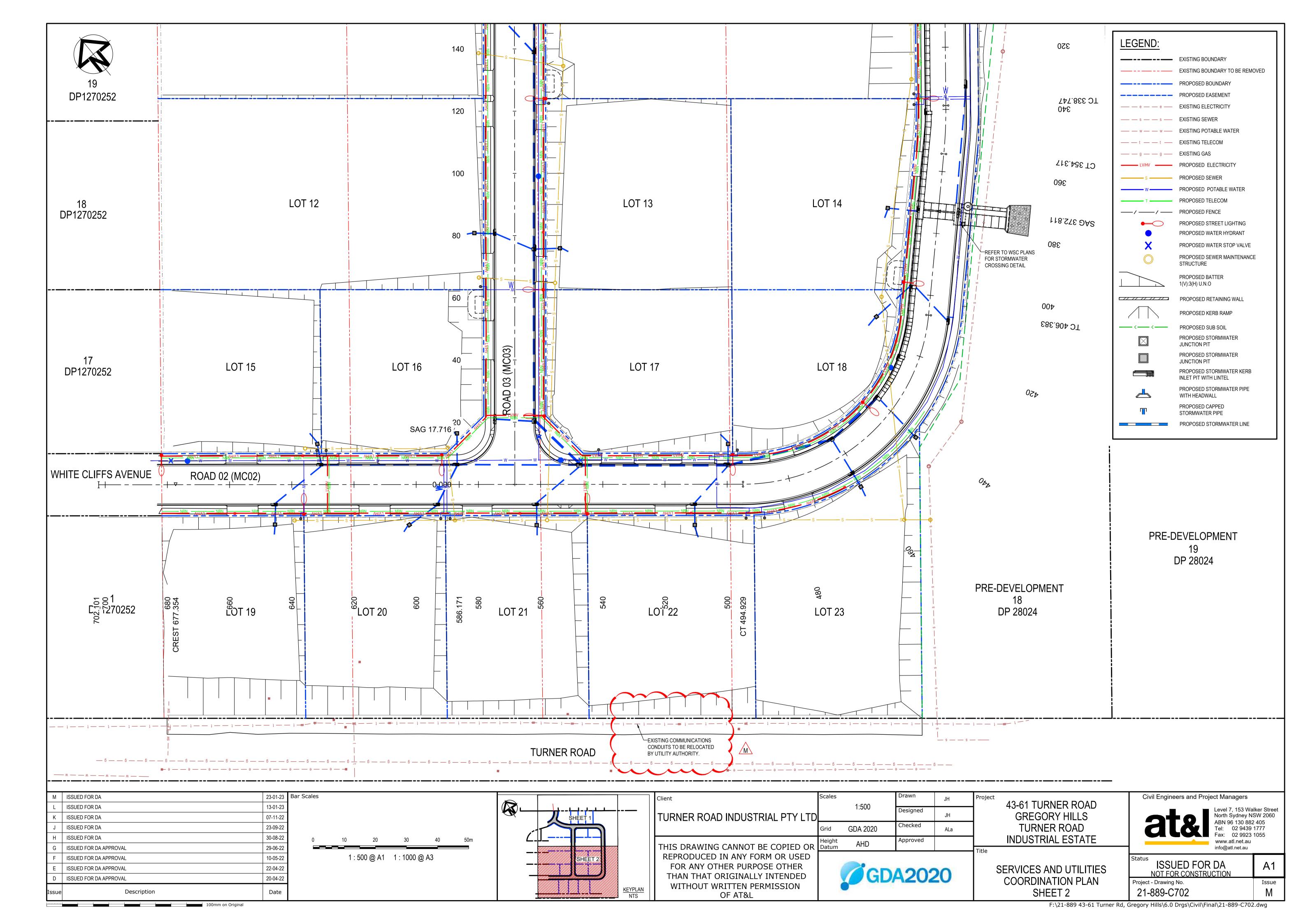
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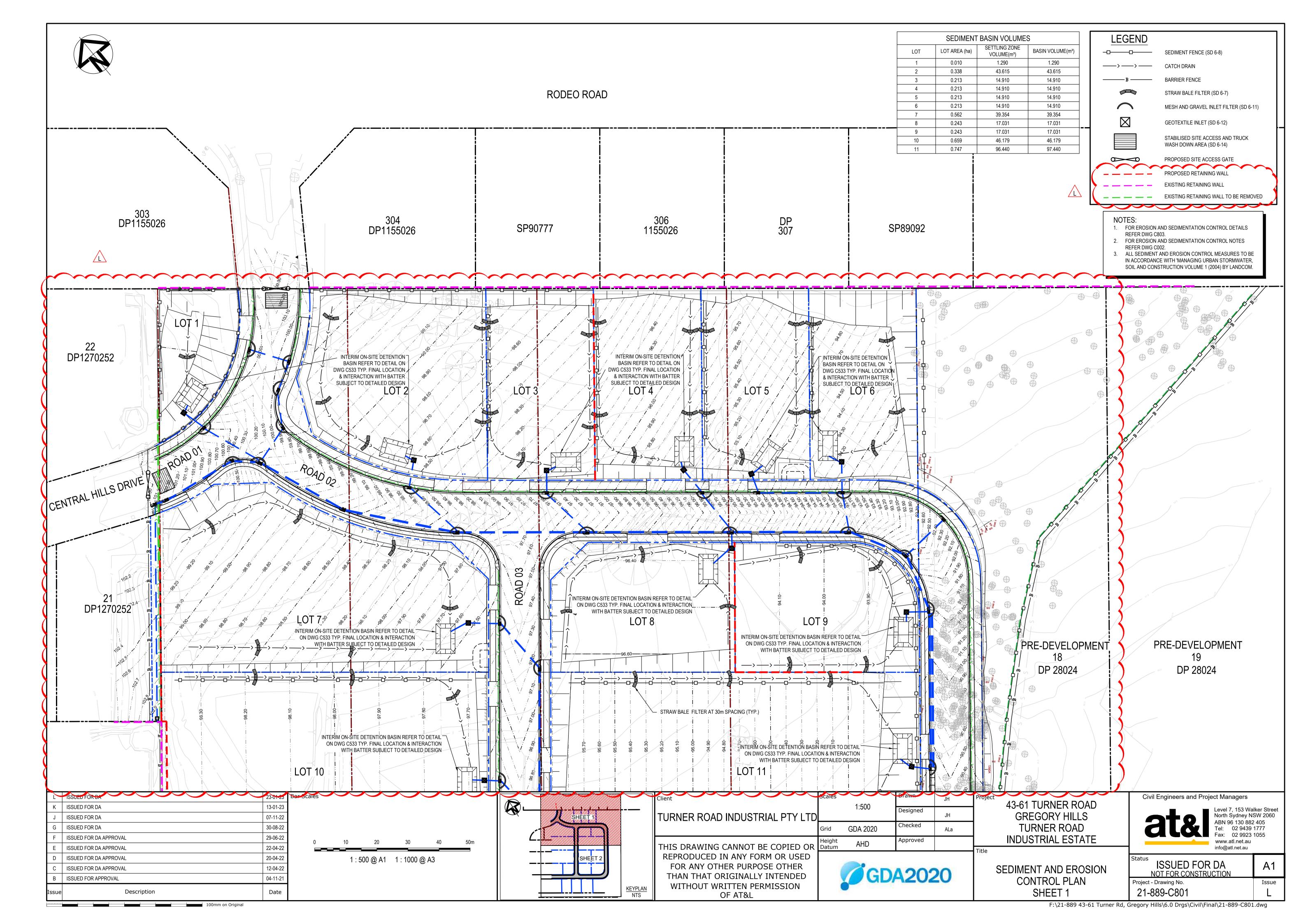
Civil Engineers and Project Managers

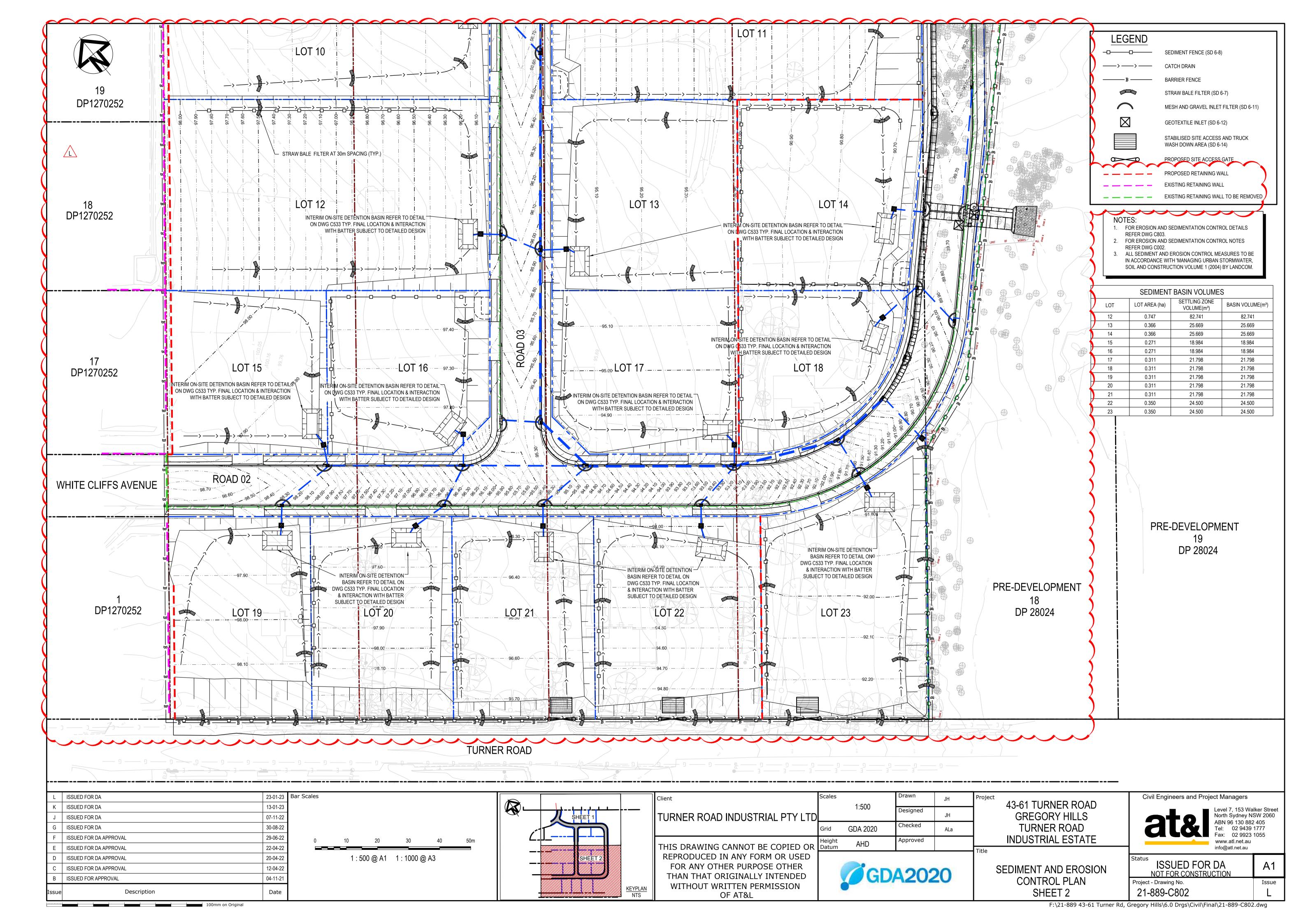


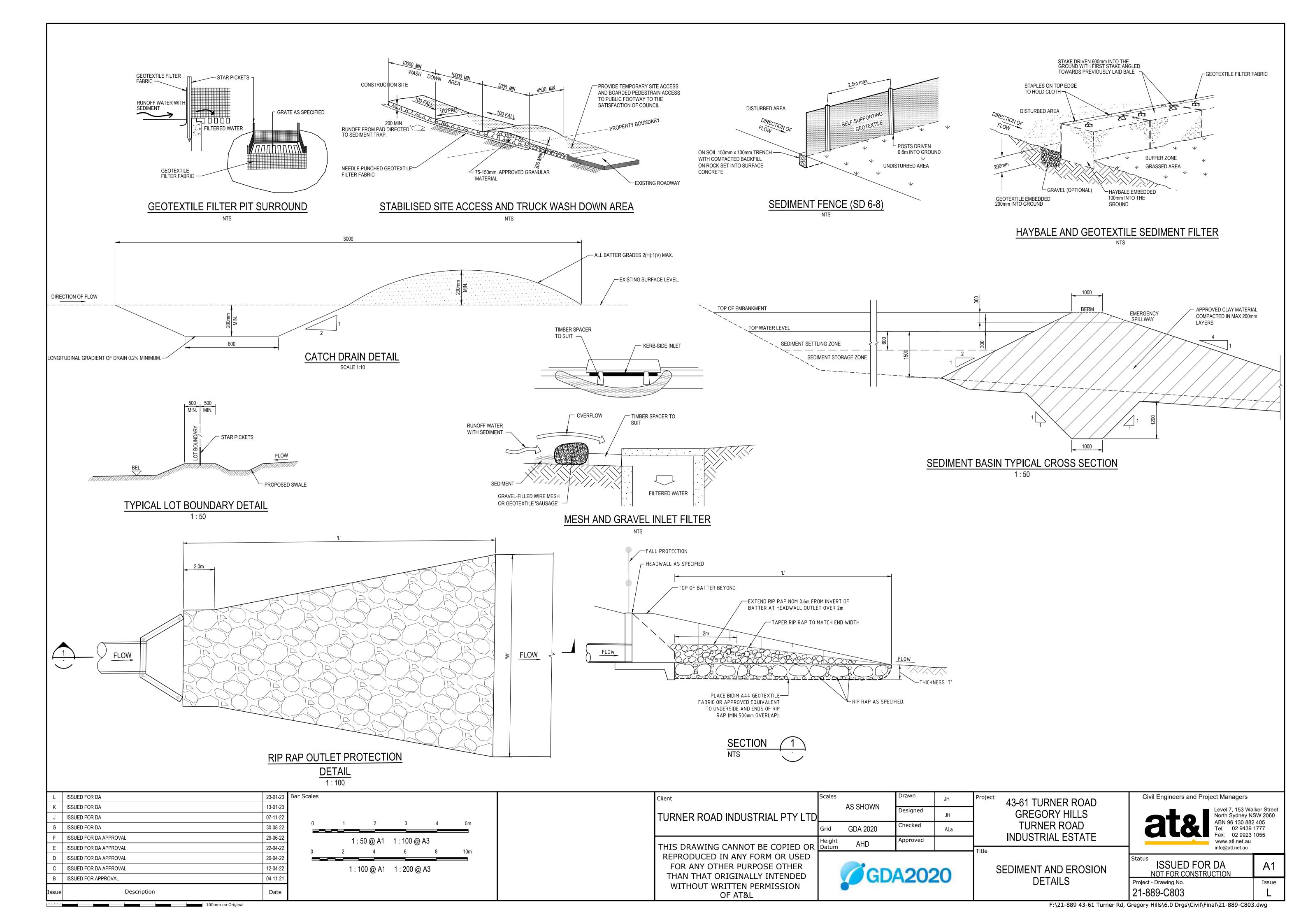


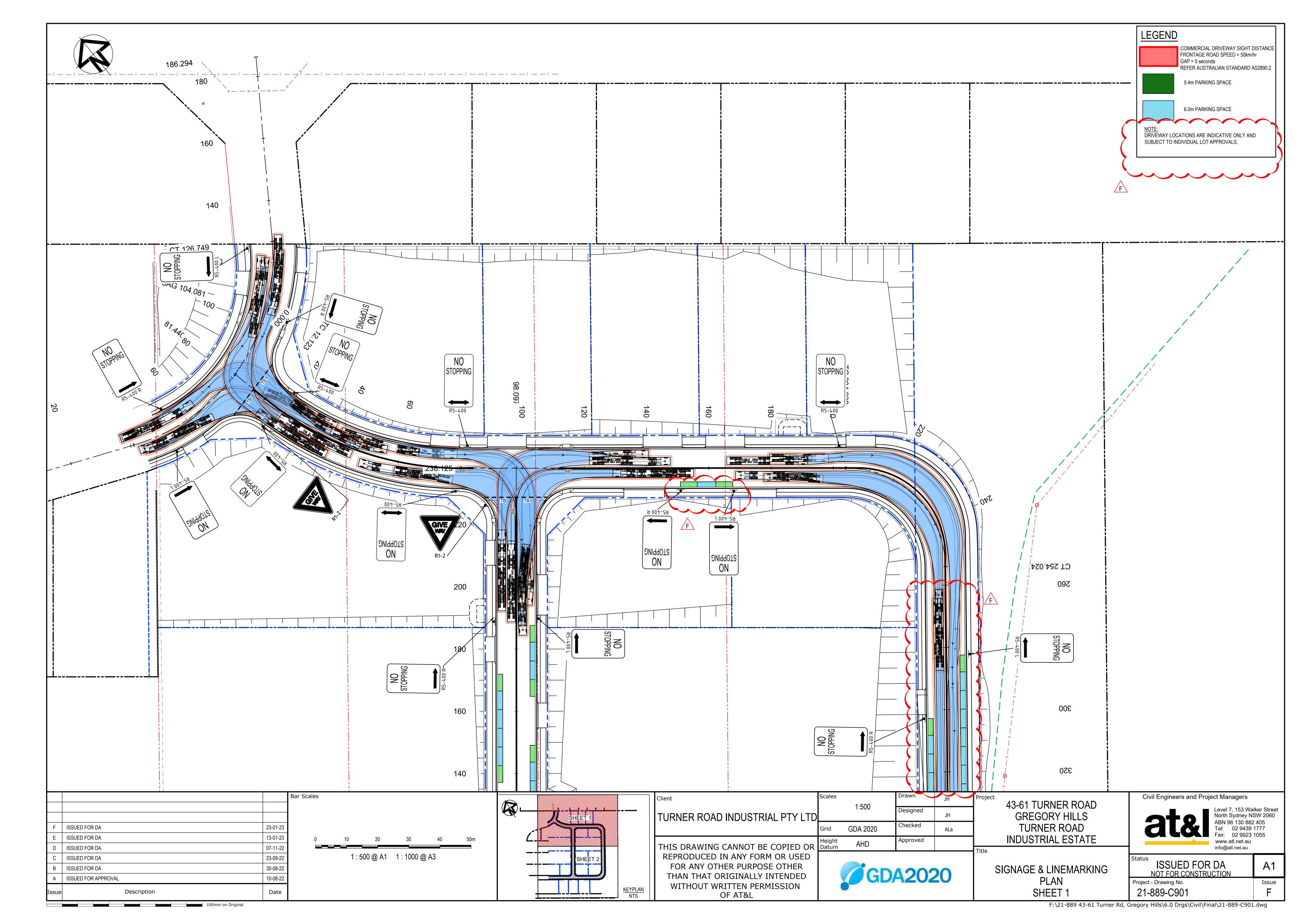


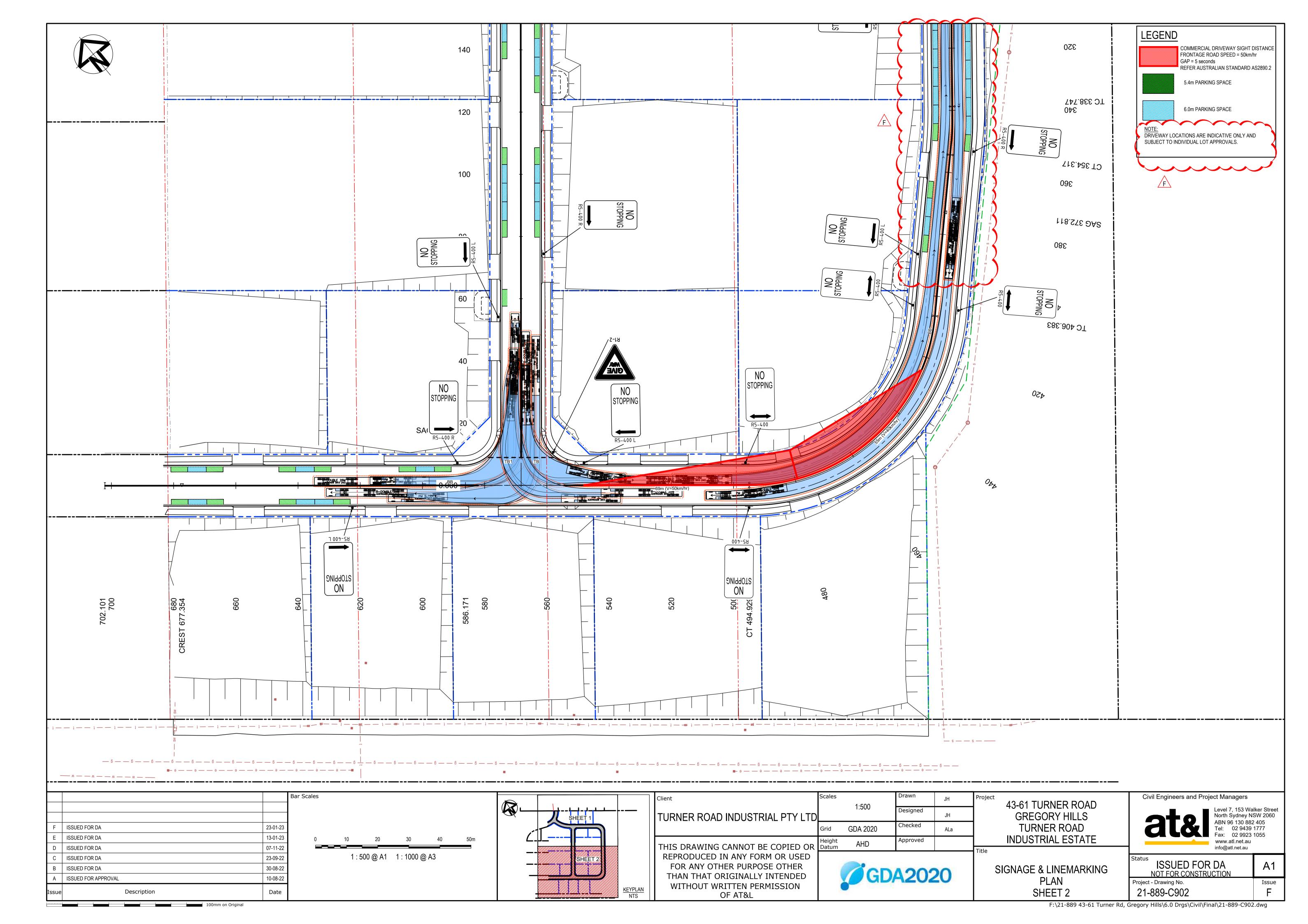


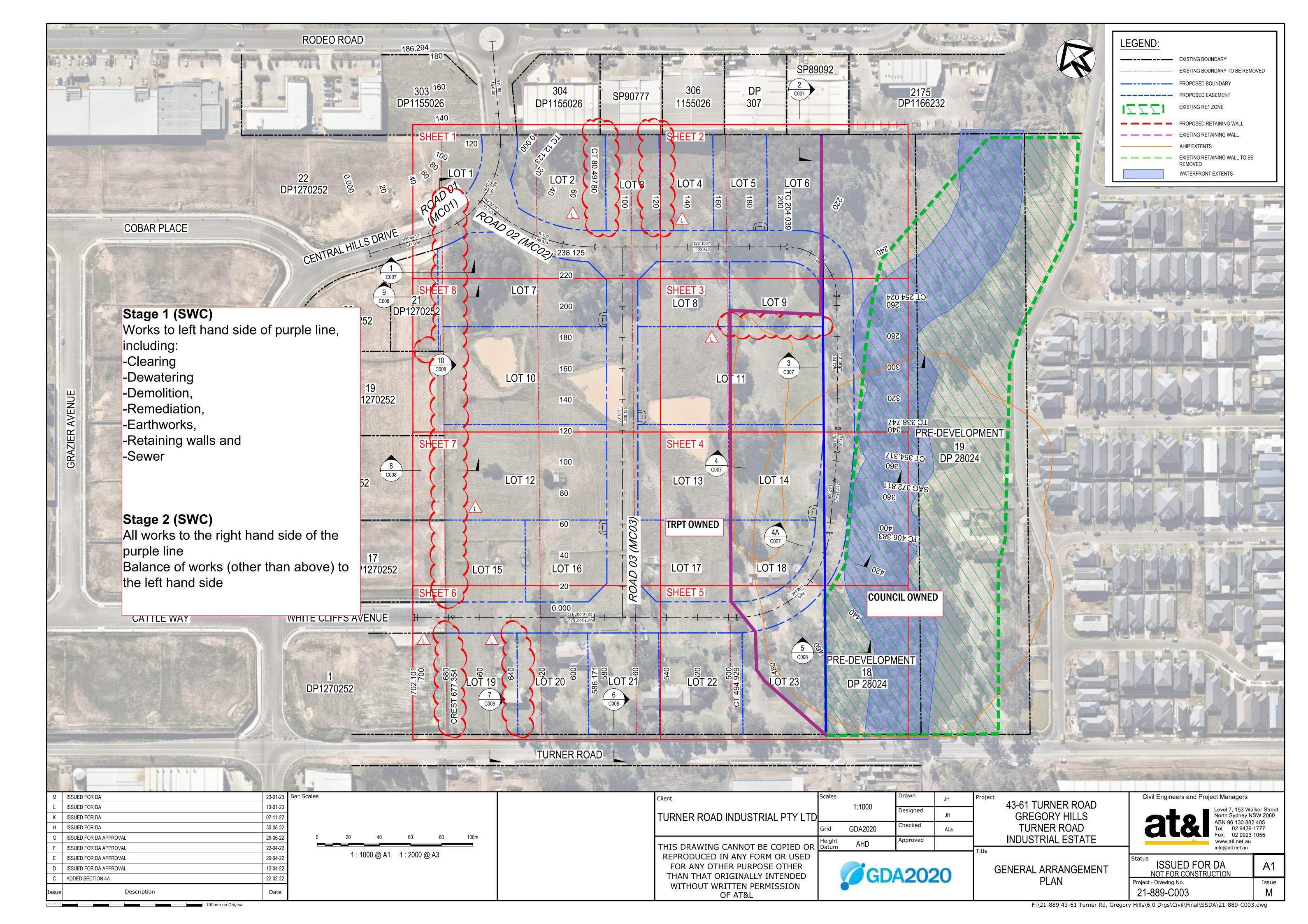








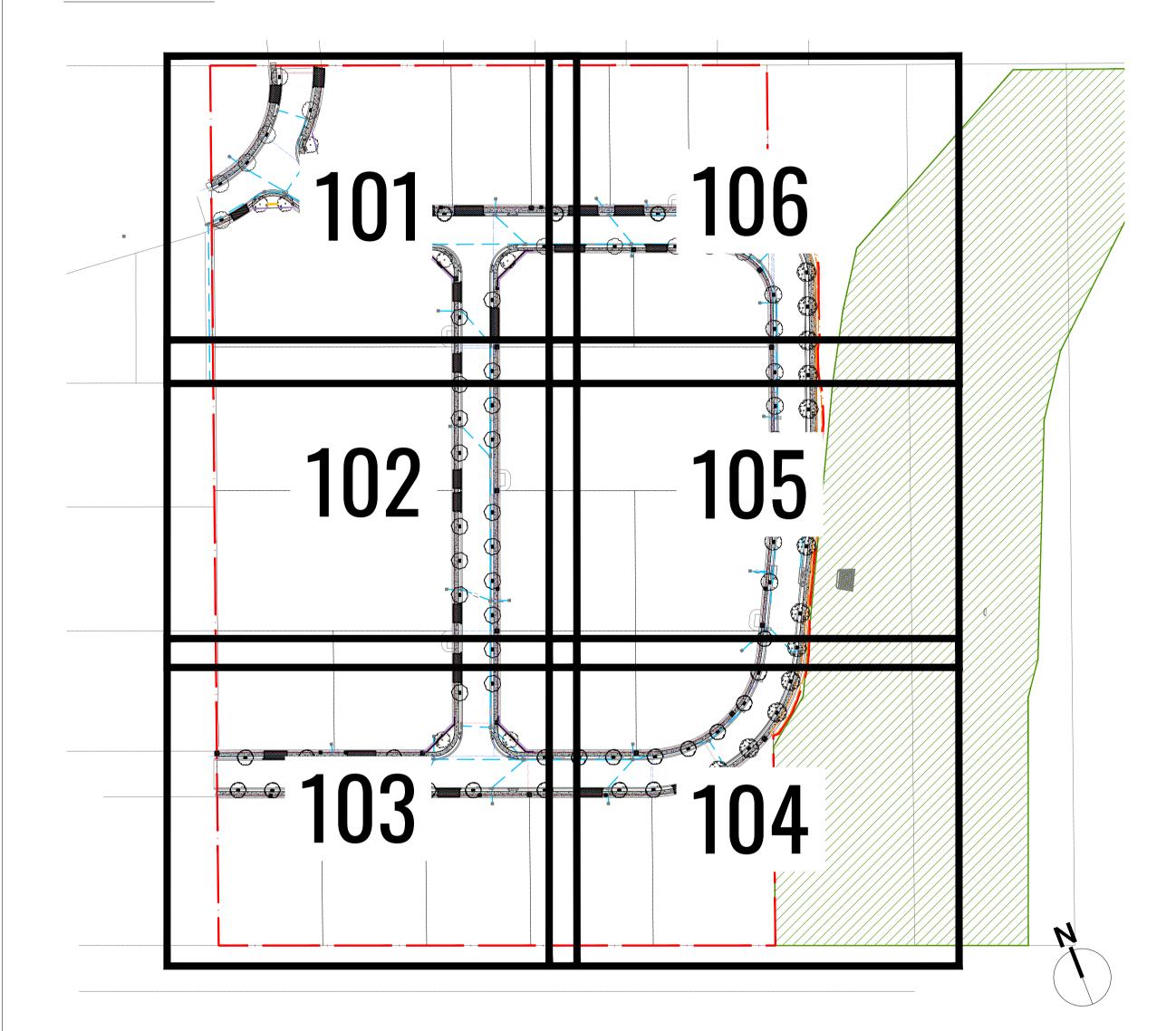




TURNER ROAD INDUSTRIAL ESTATE, GREGORY HILLS

STREETSCAPE LANDSCAPE CC PACKAGE

MASTER PLAN



LEGEND

SHEET LAYOU

— EXTENT OF WORKS

NOTE:

ENSURE ALL TREE PITS HAVE POSITIVE DRAINAGE TO THE STORMWATER SYSTEM. CONTRACTOR TO INSTALL AGG. LINE DRAINAGE AS INDICATED ON DETAIL 01B ON DRAWING LCC-601

PLANTING SCHEDULE

Symbol	Botanical Name	Common Name	Height	Width	Pot Size	Spacing	Quantity
		Johnnon Rumo	(M)	(M)			
	STREET TREES						
T1	Angophora hispida	Dwarf Apple	7	5	75LT	AS SHOWN	16
T2	Corymbia maculata	Spotted Gum	30	15	75LT	AS SHOWN	18
Т3	Cupaniopsis anacardioides	Tuckeroo	15	15	75LT	AS SHOWN	22
T4	Eucalyptus amplifolia	Cabbage Gum	20	8	75LT	AS SHOWN	9
T5	Eucalyptus moluccana	Grey Box	30	10	75LT	AS SHOWN	10
T6	Melaleuca decora	Feather Honeymyrtle	6	5	75LT	AS SHOWN	8
T7	Tristaniopsis laurina	Water Gum	10	5	75LT	AS SHOWN	8
T8	Waterhousea floribunda	Weeping Lilly Pilly	10	5	75LT	AS SHOWN	6

Symbol	Botanical Name	Common Name	Height	Width	Pot Size	Spacing	Quantity
	SHRUBS						
ACM smi	Acmena smithii 'Hedgemaster'	Dwarf Lilly Pilly	1m*	1m	200mm	600mm ctrs	150
WES fru	Westringia fruticosa 'Aussie Box'	Coastal Rosemary	0.80m	0.95m	200mm	500mm ctrs	59
	GROUNDCOVERS						
BRA mul	Brachyscome multifida 'Break O Day'	Native Daisy	0.25m	0.5m	140mm	3/m2	256
DIA rev	Dianella revoluta 'Little Rev'	Blue-Flax Lily	0.4m	0.4m	140mm	4/m2	246
MYO par	Myoporum parvifolium 'Yareena'	Creeping Boobialla	0.1m	1m	140mm	3/m2	221
PAT gla	Patersonia glabrata	Native Iris	0.8m	0.4m	140mm	4/m2	232

EMBANKMENT PLANTING SCHEDULE						
Code	Botanical Name	Common Name	Mature	Pot Size	Quantity	
			Height			
	GROUNDCOVERS 5 per m2					
BRU aus	Brunoniella australis	Blue Trumpet	0.3m	Tubestock	140	
DIA lon	Dianella longifolia	Pale Flax-Lily	1.5m	Tubestock	140	
DIC mic	Dichelachne micrantha	Short Hair Plume Grass	0.5m	Tubestock	140	
DIC ren	Dichondra repens	Kidney Weed	0.3m	Tubestock	140	
ECH ova	Echinopogon ovatus	Rough-Bearded Grass	0.6m	Tubestock	140	
IMP cyl	Imperata cylindrica	Cogon Grass	0.6-3m	Tubestock	140	
PLE par	Plectranthus parviflorus	Spur Flower	0.4m	Tubestock	140	
POA lab	Poa labillardieri	Tussock Grass	0.5-1m	Tubestock	140	
PRA pur	Pratia purpurascens	Trailing Pratia	1.5m	Tubestock	140	
RYT rac	Rytidosperma racemosum	Wallaby Grass	0.6m	Tubestock	140	
LOM Ion	Lomandra longifolia	Mat Rush	0.4-1m	Tubestock	140	
WAH gra	Wahlenbergia gracilis	Australian Bluebell	0.8m	Tubestock	140	

DRAWING LIST

DRAWING NO.	REV	DRAWING TITLE	SCALE
220513_LCC-000	3	COVER SHEET	1:1500 @ A1
220513_LCC-001	3	STREETSCAPE MASTERPLAN	1:700 @ A1
220513_LCC-101	3	STREETSCAPE PLAN - SHEET 1	1:250 @ A1
220513_LCC-102	3	STREETSCAPE PLAN - SHEET 2	1:250 @ A1
220513_LCC-103	3	STREETSCAPE PLAN - SHEET 3	1:250 @ A1
220513_LCC-104	3	STREETSCAPE PLAN - SHEET 4	1:250 @ A1
220513_LCC-105	3	STREETSCAPE PLAN - SHEET 5	1:250 @ A1
220513_LCC-106	3	STREETSCAPE PLAN - SHEET 6	1:250 @ A1
220513_LCC-601	3	LANDSCAPE DETAILS	AS SHOWN

