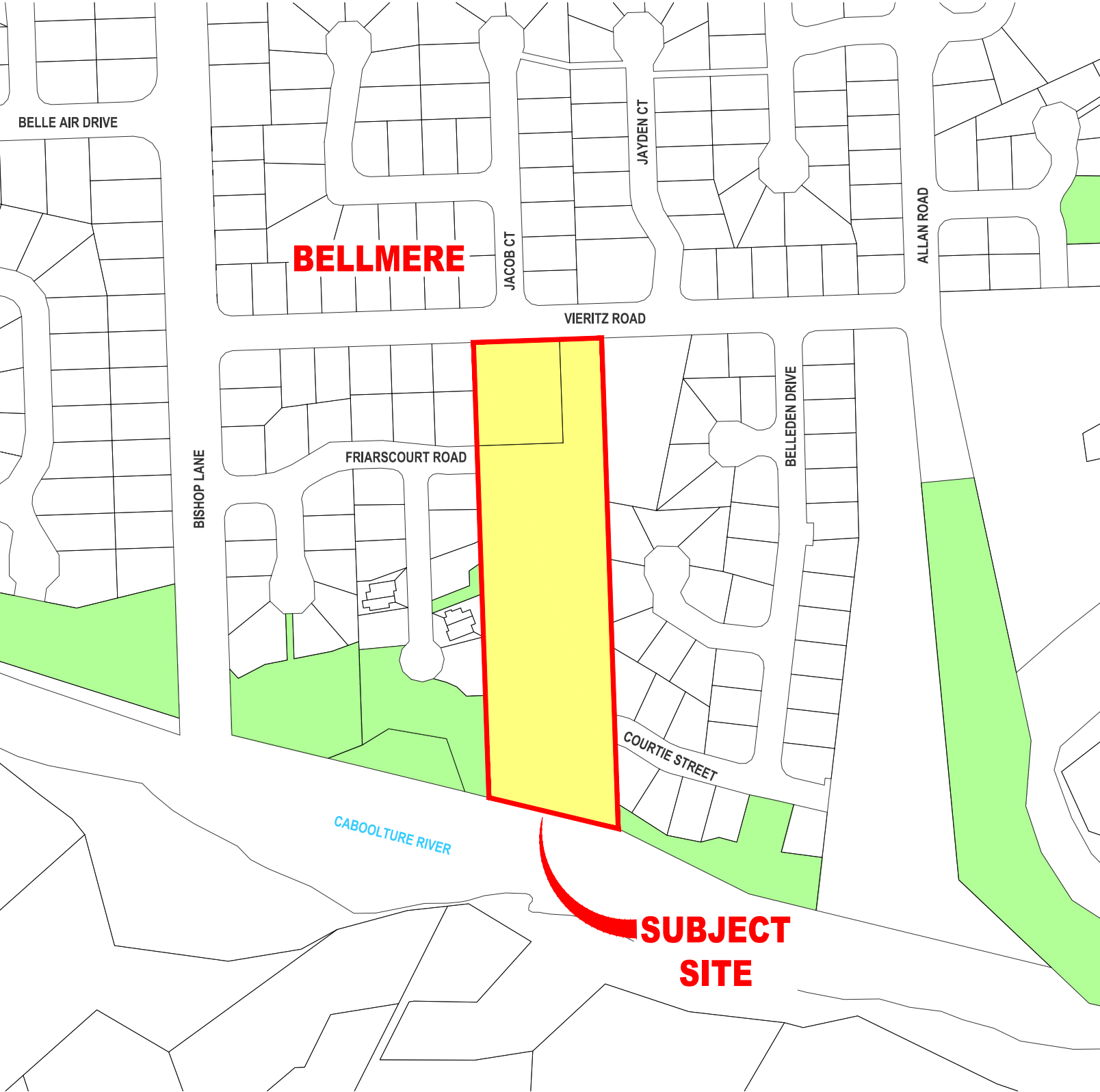


ENGINEERING DESIGN

OPERATIONAL WORKS

MORETON BAY REGIONAL COUNCIL



SCHEDULE OF DRAWINGS

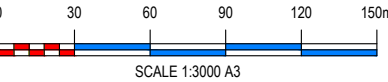
DWG No.	DESCRIPTION
1937-001	LOCALITY PLAN & DRAWING INDEX
1937-002	GENERAL NOTES
1937-003	EXISTING FEATURES AND SITE PREPARATION PLAN
1937-004	DEVELOPMENT LAYOUT PLAN
1937-005	EARTHWORKS DETAIL PLAN - SHEET 1 OF 2
1937-006	EARTHWORKS DETAIL PLAN - SHEET 2 OF 2
1937-007	EARTHWORKS DETAIL TYPICAL SECTIONS
1937-008	CONCEPTUAL EROSION & SEDIMENT CONTROL PLAN
1937-009	CONCEPTUAL EROSION & SEDIMENT CONTROL DETAILS
1937-010	CONCEPTUAL EROSION & SEDIMENT CONTROL NOTES
1937-011	CONTROL LINE SETOUT PLAN
1937-012	ROADWORKS & STORMWATER DRAINAGE DETAIL PLAN - SHEET 1 OF 2
1937-013	ROADWORKS & STORMWATER DRAINAGE DETAIL PLAN - SHEET 2 OF 2
1937-014	ROADWORKS TYPICAL SECTIONS
1937-015	COURTIE STREET LONGITUDINAL SECTION
1937-016	COURTIE STREET CROSS SECTIONS
1937-017	FRIARSCOURT ROAD LONGITUDINAL SECTION & CROSS SECTIONS
1937-018	VIERITZ ROAD WIDENING LONGITUDINAL SECTION & CROSS SECTIONS
1937-019	FOOTPATH 1, 2 & 3 LONGITUDINAL SECTIONS
1937-020	INTERSECTION DETAIL PLAN
1937-021	DRIVEWAY, FOOTPATH NOTES AND DETAILS
1937-022	STORMWATER CATCHMENT PLAN
1937-023	STORMWATER DRAINAGE LONGITUDINAL SECTIONS - SHEET 1 OF 3
1937-024	STORMWATER DRAINAGE LONGITUDINAL SECTIONS - SHEET 2 OF 3
1937-025	STORMWATER DRAINAGE LONGITUDINAL SECTIONS - SHEET 3 OF 3
1937-026	STORMWATER DRAINAGE CALCULATIONS TABLE - SHEET 1 OF 2
1937-027	STORMWATER DRAINAGE CALCULATIONS TABLE - SHEET 2 OF 2
1937-028	STORMWATER STRUCTURE 2-1 SETOUT & DETAILS
1937-029	STORMWATER STRUCTURE 1-1 SETOUT & DETAILS
1937-030	STORMWATER STRUCTURE 1-EX2 SETOUT & DETAILS
1937-031	RETAINING WALL PLAN & LEVELS - SHEET 1 OF 3
1937-032	RETAINING WALL PLAN & LEVELS - SHEET 2 OF 3
1937-033	RETAINING WALL PLAN & LEVELS - SHEET 3 OF 3
1937-034	RETAINING WALL & SEWER BRIDGING DETAILS
1937-035	BIO-RETENTION BASIN LAYOUT PLAN - SHEET 1 OF 2
1937-036	BIO-RETENTION BASIN LAYOUT PLAN - SHEET 2 OF 2
1937-037	BIO-RETENTION BASIN SECTIONS AND DETAILS - SHEET 1 OF 2
1937-038	BIO-RETENTION BASIN SECTIONS AND DETAILS - SHEET 2 OF 2
1937-039	SEWER RETICULATION PLAN - SHEET 1 OF 2
1937-040	SEWER RETICULATION PLAN - SHEET 2 OF 2
1937-041	SEWER RETICULATION LONGITUDINAL SECTIONS - SHEET 1 OF 2
1937-042	SEWER RETICULATION LONGITUDINAL SECTIONS - SHEET 2 OF 2
1937-043	WATER RETICULATION PLAN
1937-044	SAFETY IN DESIGN

REFERENCE DRAWINGS

INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA (IPWEA)	
STD DWG RS-049	DRIVEWAYS - RESIDENTIAL DRIVEWAYS PLAN 1 OF 2
STD DWG RS-050	DRIVEWAYS - RESIDENTIAL DRIVEWAYS PLAN 2 OF 2
STD DWG RS-080	KERB AND CHANNEL - PROFILES AND DIMENSIONS
STD DWG RS-100 & 101	PUBLIC UTILITIES - TYPICAL SERVICE CORRIDORS, ALIGNMENTS AND SECTIONS
STD DWG RS-130	ROAD FURNITURE STREET NAME SIGN AND LOCATION (FINGER BOARD)
STD DWG RS-140 & 142	SUBSOIL DRAINS AND LOCATIONS ACCESS POINTS
STD DWG GS-010, 011 & 012	LANDSCAPING STREET TREE PLANTING
SEQ WATER SUPPLY AND SEWERAGE DESIGN AND CONSTRUCTION CODE	
STD DWG SEQ-WAT-1108-1	PROPERTY SERVICES POTABLE SERVICE CONNECTION CONDUIT DETAILS
STD DWG SEQ-WAT-1108-2	PROPERTY SERVICES POTABLE SERVICE CONNECTION TYPICAL MAIN TO METER
STD DWG SEQ-WAT-1108-3	PROPERTY SERVICES POTABLE SERVICE CONNECTION 20mm DOMESTIC SERVICE METER BOX DETAILS
STD DWG SEQ-WAT-1150-2	LIVE WATER CONNECTION
STD DWG SEQ-WAT-1201-1	STANDARD EMBEDMENT - TYPICAL FLEXIBLE AND RIGID PIPES
STD DWG SEQ-WAT-1200-2	EMBEDMENT AND TRENCHFILL - TYPICAL ARRANGEMENT

PROPERTY DESCRIPTION

Lot 1 RP218952 & Lot 25 RP218952
Area Total 2.042Ha
Local Government - Moreton Bay Regional Council
Locality - BELLMERE



APPROVAL AND SUPPORTING DOCUMENTS

TYPE	AUTHORITY OR COMPANY	APPROVAL, REPORT OR DRAWING REFERENCE
Reconfiguration of Lot Approval	Moreton Bay Regional Council	DA/36572/2018V3RM

PLAN DETAILS:		PLAN AMENDMENTS:			
Designed:	M.K	Rev	Date	Comment	Altered
Drawn:	W.F				Checked
Checked:	M.O				
Datum:	AHD				
Date:	10-09-18				
Director: BRETT THOMSON (RPEQ 6068) (FOR & ON BEHALF OF CONTOUR CIE PTY LTD)					

PROPOSED RESIDENTIAL SUBDIVISION
AT 16 - 22 VIERITZ ROAD, BELLMERE
FOR GALLERY HOMES

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PLAN TITLE:		
LOCALITY PLAN & DRAWING INDEX		
FOR APPROVAL - NOT FOR CONSTRUCTION		
PLAN No: 1937 - 001	REVISION: -	SHEET: 1 OF 44
FILE LOCATION: J:\CIV\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-001.DWG		



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GENERAL NOTES

1. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ANY ARCHITECTURAL, STRUCTURAL, LANDSCAPING AND ANY OTHER ENGINEERING DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED
2. VERIFY ANY SET OUT DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE SITE WORKS, CONSTRUCTION AND FABRICATION COMMENCES. REFER ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING.
3. EXISTING SERVICES SHOWN THROUGHOUT THESE DRAWINGS ARE DERIVED FROM FIELD SURVEY, DIAL BEFORE YOU DIG AND GROUND INSPECTION. THE RELATIVE POSITION OF EACH UNDERGROUND SERVICE IS THEREFORE ADVISORY ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACTUAL LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BEAR THE COST OF ANY RECTIFICATION OF SERVICES DAMAGED DURING OR AS A RESULT OF CONSTRUCTION.
4. WHERE UTILITY SERVICES ARE SHOWN ON THE PLANS, THEY ARE SHOWN FOR THE INFORMATION OF THE CONTRACTOR ONLY. THE PRINCIPAL SHALL NOT BE LIABLE FOR ANY OMISSION OF SERVICES FROM THE PLANS OR ACCURACY OF ANY SERVICES SHOWN ON THE PLANS.
5. CONTRACTOR TO LIASE WITH THE RELEVANT SERVICE AUTHORITIES TO ASCERTAIN LOCATION, LINE & LEVEL OF ALL PUBLIC & PRIVATE SERVICES PRESENT ON-SITE. ANY ALTERATION WORKS TO SERVICE S WILL BE CARRIED OUT BY THAT SERVICE AUTHORITY
6. SURFACE LEVELS OVER THE SITE HAVE BEEN INTERPOLATED THROUGH COMPUTER MODELLING OF FIELD SURVEY DATA. THESE CALCULATED LEVELS MAY VARY FROM THE ACTUAL GROUND LEVEL. ALL CONSTRUCTION LEVELS SHALL BE SET BY THE CONTRACTOR WITH REFERENCE TO SURVEYED BENCH MARKS PROVIDED BY THE PRINCIPAL'S APPOINTED SURVEYOR.
7. ALL WORKS SHALL BE IN ACCORDANCE WITH THE CURRENT LOCAL AUTHORITY STANDARD DRAWINGS, SPECIFICATIONS AND CONDITIONS OF APPROVAL.
8. NOTIFY ALL RELEVANT AUTHORITIES PRIOR TO COMMENCEMENT OF WORK WITHIN EXISTING ROAD RESERVES.
9. ALL DIMENSION ARE IN METRES UNLESS NOTED OTHERWISE

VEGETATION CLEARING

1. NO CLEARING SHALL BE CARRIED OUT BEYOND THE EXTENT OF EARTHWORKS OR WHERE NECESSARY FOR CONSTRUCTION WITHOUT WRITTEN APPROVAL OF THE SUPERINTENDENT.
2. SUITABLE MATERIAL IS TO BE MULCHED FOR REUSE ON SITE.
3. PRIOR TO SITE WORKS COMMENCING, A FAUNA SPOTTER, QUALIFIED BY QNPWS SHALL INSPECT THE SITE TO ENSURE IDENTIFICATION OF ANY WILDLIFE (FAUNA) OR HABITAT FEATURES PRIOR TO CLEARING.
4. PRIOR TO ANY TREE REMOVAL WORKS, A CERTIFIED FAUNA SPOTTER/CATCHER MUST UNDERTAKE PRE-CLEARING INSPECTIONS INCLUDING FAUNA RELOCATION AND REMOVAL OR BLOCKING OF ALL VACANT HOLLOW. CLEARING WORKS MUST AVOID NESTING TIMES OF ANIMALS AND BIRDS. A QUALIFIED WILDLIFE OFFICER MUST PROTECT AND RECOVER FAUNA (NOT PREVIOUSLY REMOVED) DURING CLEARING OPERATIONS, CO-ORDINATE STAGING AND SEQUENCE OF CLEARING WITH FAUNA PROTECTION, THE TRANSLOCATION OF ANIMALS AND RECOVERY PROCEDURES.

ROADWORKS NOTES

1. ALL ROADWORKS TO BE IN ACCORDANCE WITH THE REQUIREMENTS AND STANDARD DRAWINGS OF THE LOCAL AUTHORITY.
2. SUBGRADE EVALUATION IS TO BE UNDERTAKEN IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN ARRB SR41 - A STRUCTURAL DESIGN GUIDE FOR FLEXIBLE RESIDENTIAL STREET PAVEMENTS.
3. SUBGRADE TEST RESULTS ARE TO BE FORWARDED TO THE SUPERINTENDENT FOR DETERMINATION OF BOX DEPTHS PRIOR TO EXCAVATION. TESTS SHALL INCLUDE SOAKED CBR AND/OR OTHER TESTS AS REQUESTED BY THE SUPERINTENDENT. THE CONTRACTOR SHALL ALLOW ADEQUATE TIME FOR COUNCIL APPROVAL OF PAVEMENT DESIGN.
4. ALL KERBING TO SHALL CONFORM TO THE LOCAL AUTHORITIES RELEVANT STANDARD DRAWINGS
5. LEVELS FOR KERB AND CHANNELING/EDGE OF PAVEMENT CONSTRUCTION ARE AT EQUAL INTERVALS AT LIP OF CHANNEL UNLESS NOTED OTHERWISE.
6. SUBSOIL DRAINS ARE TO BE CONSTRUCTED UNDER ALL KERBS AND ALL KERB AND CHANNEL AS SHOWN ON TYPICAL SECTIONS AND AS PER IPWEAQ STD DRAWING RS-140. PROVIDE ALL ALLOTMENTS DRAINING TO THE ROAD WITH 2 KERB ADAPTORS. KERB ADAPTORS SHOWN ARE INDICATIVE ONLY AND ARE TO BE INSTALLED IN ACCORDANCE WITH IPWEAQ STD DRAWING RS-081.
8. CONCRETE FOOTPATHS ARE TO BE INSTALLED BY THE CIVIL CONTRACTOR UNLESS OTHERWISE NOTED. REFER TO IPWEAQ STD DRAWING RS-065 FOR CONSTRUCTION DETAILS.
9. PAVEMENT MARKINGS AND SIGNAGE SHALL BE PROVIDED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
10. PROVIDE TELSTRA AND ENERGEN CONDUITS UNDER ROADWAYS AND DRIVEWAYS, AS DIRECTED ON SITE BY SUPERINTENDENT.

SEWER RETICULATION NOTES

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT SOUTH EAST QUEENSLAND SEWERAGE CODE OR LOCAL AUTHORITY SPECIFICATIONS AND STANDARDS. UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
3. THE CONSTRUCTION OF THE SEWERAGE WORK SHOWN ON THIS DRAWING SHALL BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. SEWERAGE WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT INTO THE SERVICE AUTHORITY SEWERAGE SYSTEM.
4. ALL WORK ASSOCIATED WITH LIVE SEWERS OR MAINTENANCE HOLES SHALL BE CARRIED OUT BY THE SERVICE AUTHORITY AT THE DEVELOPER'S COST.
5. OFFSET FROM THE FRONT PROPERTY BOUNDARY CAN RANGE FROM 0.5m TO 3.0m. SEWERS DEVIATING FROM THESE LIMITATIONS SHALL BE CONTAINED WITHIN A 3.0m WIDE EASEMENT.

6. SEWERS TO HAVE A MINIMUM GRADE (CALCULATED ON ACTUAL LINE LENGTHS BETWEEN CHAMBER), IN ACCORDANCE WITH THE SEQ WATER SUPPLY AND SEWERAGE DESIGN AND CONSTRUCTION CODE
7. ALL PIPES AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE "ACCEPTED PRODUCTS AND MATERIALS" LIST.
8. WHERE PIPES ARE LAID IN FILL, THE FILLING SHALL BE CARRIED OUT IN LAYERS NOT EXCEEDING 300mm (LOOSE) IN DEPTH AND SHALL BE COMPACTED UNTIL THE COMPACTION IS NOT LESS THAN 95% OF THE MATERIALS MAXIMUM COMPACTION WHEN TESTED IN ACCORDANCE WITH A.S. 1289 (MODIFIED COMPACTION). TESTING SHALL BE CARRIED OUT AFTER EACH ALTERNATE LAYER. IN ALL SUCH CASES APPROVAL OF CONSTRUCTED SEWERS WILL NOT BE ISSUED BY THE SERVICE AUTHORITY UNLESS CERTIFICATES ARE PRODUCED CERTIFYING THAT THE REQUIRED COMPACTION HAS BEEN ACHIEVED.
9. WHERE SEWERS HAVE A GRADE OF 1 IN 20 OR STEEPER,BULKHEADS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SEQ SEWER CODE.
10. SEWER ALIGNMENTS TO BE NOMINALLY:
1.0m FROM ALLOTMENT SIDE BOUNDARIES
1.5m FROM FRONT AND REAR BOUNDARIES INSIDE THE PROPERTY BOUNDARY
1.75m FROM FRONT BOUNDARY IN THE ROAD RESERVE
11. MINIMUM COVERS SHALL BE PROVIDED FOR ALL CONSTRUCTION ACTIVITIES AS FOLLOWS:
600mm = PRIVATE PROPERTY AND LAND NOT SUBJECT TO VEHICULAR LOADING
750mm = PRIVATE PROPERTY SUBJECT TO VEHICULAR LOADING
900mm = FOOTPATHS, INDUSTRIAL PROPERTY, ROAD PAVEMENTS
1200mm = UNSEALED ROADS, ARTERIAL ROADS, RAIL AND TRAM PAVEMENTS
12. EASEMENTS SHALL BE PROVIDED ALONG THE FULL ALIGNMENT OF ANY GRAVITY SEWERS LOCATED ON PRIVATE PROPERTY. EASEMENTS SHALL BE CENTRED OVER THE PIPE. THE EASEMENT FOR GRAVITY SEWERS ARE AS FOLLOWS:
a. UP TO 3M DEEP AND UP TO AND INCLUDING 300MM DIAMETER SHALL BE 3M WIDE.
b. GREATER THAN 300MM UP TO AND INCLUDING 600MM DIAMETER AND/OR MAINS TO A DEPTH OF 5M, REQUIRE A 6M WIDE EASEMENT.
c. DEEPER THAN 5M OR LARGER THAN 600MM DIAMETER, THE EASEMENT TO BE 10M WIDE
13. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF EXISTING SERVICES WITH RELEVANT AUTHORITIES BEFORE COMMENCING WORKS.
14. SEWERS SHALL BE DISUSED /ABANDONED IN ACCORDANCE WITH PROCEDURES SET OUT IN THE SEQ SEWER CODE.
15. BENCH MARK AND LEVELS TO AHD.
16. DETECTABLE MARKING TAPE SHALL BE LAID ABOVE ALL BURIED NON-METALLIC PIPES ALONG THE TOP OF THE EMBEDMENT ZONE OR AT 1M BELOW THE SURFACE (WHICHEVER IS THE CLOSER TO GROUND SURFACE) FOR:
• NON-METALLIC PIPELINES, AS SPECIFIED;
• ALL CURVED PIPELINES;
• PROPERTY CONNECTION SEWERS, AS SPECIFIED;
• ALL SEWERS WITHOUT AN UPSTREAM ACCESS POINT; AND
• AT OTHER LOCATIONS AS SPECIFIED.
REFER TO STANDARD DRAWING SEQ-SEW-1200-2 FOR DETAILS.
17. ALL EXISTING AND PROPOSED UNDERGROUND AND SURFACE OBSTRUCTIONS ALONG THE ROUTE OF THE PROPOSED INFRASTRUCTURE ARE TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BEAR THE COST FOR ALL REINSTATEMENT WORKS RESULTING FROM DAMAGE TO EXISTING INFRASTRUCTURE.
18. RETICULATIONS SEWERS ARE BEDDED IN ACCORDANCE WITH THE SEQ WATER SUPPLY AND SEWERAGE DESIGN AND CONSTRUCTION CODE. REFER TO SEQ-SEW-1200 SERIES FOR REQUIREMENTS.
19. VERTICAL AND HORIZONTAL SEPERATIONS TO BE IN ACCORDANCE WITH THE SEQ WATER SUPPLY AND SEWERAGE DESIGN AND CONSTRUCTION CODE
20. ACCESS CHAMBERS ARE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH SEQ WATER SUPPLY AND SEWERAGE DESIGN AND CONSTRUCTION CODE. REFER TO SEQ-SEW-1300 SERIES FOR DETAILS.
21. PRECAST ACCESS CHAMBERS MAY BE USED WHERE SITE CONDITIONS AND CONSTRUCTION PRACTICES WILL ACHIEVE THE REQUIRED STANDARDS OF STRUCTURAL ADEQUACY
22. ACCESS CHAMBERS ARE VACUUM TESTED TO ENSURE WATER TIGHTNESS.
23. ACCESS CHAMBERS COVERS PROVIDE A CLEAR INTERNAL OPENING OF 600mm DIAMETER.
24. BOLT DOWN COVERS ARE USED IN AREAS SUBJECT TO FLOODING.
25. EACH ALLOTMENT SHALL BE SERVED BY A DN110 PE (OR DN100 PVC) PROPERTY CONNECTION. FOR ALLOTMENTS OTHER THAN SINGLE RESIDENTIAL, A DN160 PE (OR DN150 PVC) PROPERTY CONNECTION SHALL BE PROVIDED.
26. EXISTING ALLOTMENTS REQUIRING A PROPERTY CONNECTION FROM EXISTING SEWERS SHALL BE PROVIDED BY THE SERVICE AUTHORITY AT THE DEVELOPERS COST.
27. PROPERTY CONNECTIONS SHALL BE LOCATED WITHIN THE PROPERTY AS SHOWN IN THE DRAWINGS.
28. PROPERTY CONNECTION BRANCHES SHALL EXTEND INTO THE PROPERTY A MINIMUM OF 300mm AND A MAXIMUM OF 750mm. UNITYWATER REQUIRES MINIMUM EXTENSION OF 500mm INTO PROPERTY.
29. PROPERTY CONNECTIONS, BRANCHES AND JUNCTIONS ARE TO BE CONSTRUCTED, MARKED AND SEALED IN ACCORDANCE WITH THE SEQ WATER SUPPLY AND SEWERAGE DESIGN AND CONSTRUCTION CODE STANDARD DRAWINGS SEQ-SEW-1104 AND SEQ-SEW-1105, AND ARE CONSTRUCTED TO A MAXIMUM DEPTH OF 1.5m BELOW THE FINISHED GROUND LEVEL.
30. ALL SEWERS AND MAINTENANCE STRUCTURES SHALL BE INSPECTED BY CCTV AFTER ALL BACKFILLING OPERATIONS HAVE BEEN SATISFACTORY COMPLETED AND ALL JUNCTIONS ARE INSTALLED. THIS INSPECTION IS REQUIRED TO ENSURE THAT THE PIPE IS WITHOUT ANY CONSTRUCTION DEFECTS, THE PIPE HAS NO INTERNAL FLOW OBSTRUCTIONS AND ALL APPROVED JUNCTIONS ARE IN RIGHT LOCATION. FURTHER THE INSPECTION WILL VERIFY THE INFORMATION PROVIDED WITH THE 'AS CONSTRUCTED' DRAWINGS.

EARTHWORKS NOTES

1. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UNDERGROUND SERVICES WITH THE RELEVANT AUTHORITY AND MARK THE LOCATIONS PRIOR TO COMMENCING EARTHWORKS.
2. ALL EARTHWORKS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY .
3. TOPSOIL TO BE REMOVED AND STOCKPILED PRIOR TO EARTHWORKS.
4. ALL VEGETATION TO BE CLEARED AND GRUBBED PRIOR TO PLACEMENT OF ANY FILL MATERIAL TO THE SATISFACTION OF THE SUPERINTENDENT .
5. ALL EXCAVATION AND FILLING SHALL BE CONSTRUCTED TO THE REQUIREMENTS OF AS3798 AND IN ACCORDANCE WITH THE LOCAL AUTHORITIES CURRENT SPECIFICATION AND STANDARD DRAWINGS.
6. ALL PRE-EARTHWORKS EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FULLY OPERATIONAL BEFORE COMMENCING UP-SLOPE EARTHWORKS.
7. EXISTING SURFACE IS TO BE CLEAR OF VEGETATION MATTER PRIOR TO COMMENCEMENT OF FILLING OPERATIONS.
8. FILL IS TO BE OF GOOD QUALITY AND FREE OF UNSUITABLE MATERIAL.
9. NOT WITHSTANDING THE LIMITS OF CUTTING AND FILLING SHOWN ON THE DRAWINGS, THE ACTUAL LIMITS SHALL BE DETERMINED ON SITE BY THE SUPERINTENDENT DURING CONSTRUCTION. SIMILARLY, THE FINISHED SURFACE LEVELS MAY BE ADJUSTED BY WRITTEN DIRECTION OF THE SUPERINTENDENT DURING CONSTRUCTION AFTER AMENDED DRAWINGS HAVE BEEN APPROVED BY COUNCIL.
10. CONTROL TESTING OF EARTHWORKS TO BE GENERALLY IN ACCORDANCE WITH AS1289.5 & AS3798-1996, WITH LEVEL 1 GEOTECHNICAL CERTIFICATION.
11. FILL DENSITY TESTING SHALL CONFORM TO THE FOLLOWING:
a. 1 TEST PER 500m³ - GENERALLY
b. 1 TEST PER 100m³ - WATER COURSES
c. 1 TEST PER 2 LAYERS PER 40m - TRENCH BACKFILL
12. FILL TO BE PLACED IN A MAXIMUM 200mm LIFTS, UNLESS APPROVED OTHERWISE BY A SUITABLY QUALIFIED CONSULTANT, AND COMPACTED TO SPECIFICATION.
13. PLACEMENT OF FILL SHALL CONFORM TO THE FOLLOWING MINIMUM DRY DENSITY RATIOS (M.D.D.R.) COMPACTION STANDARDS:
a. RESIDENTIAL ALLOTMENTS = 95% STD
b. ROAD VERGES/EMBANKMENTS = 95% STD
c. PAVEMENT SUBGRADE = 100% STD
d. FOR NON COHESIVE MATERIALS M.D.D.R = 80%
14. ALL AREAS SUBJECT TO EARTHWORKS ARE TO BE FREE DRAINAGE WITH A MINIMUM SLOPE OF 1:100.
15. ALL TEMPORARY STOCKPILES (IF APPLICABLE) TO HAVE 1:6 MAXIMUM SIDE BATTERS (GRASS SEEDED).
16. WHERE TOPSOIL STOCKPILES ARE LOCATED ADJACENT TO FILL AREAS, CARE MUST BE TAKEN TO ENSURE STRUCTURAL FILL DOES NOT BECOME CONTAMINATED BY BLENDING WITH TOPSOIL.
17. VERGE AND BATTERS TO HAVE A MINIMUM 75mm OF TOPSOIL AND FULL WIDTH TURF IF ORDERED.
18. ALL WORK TO BE STRICTLY IN ACCORDANCE WITH STANDARD EARTHWORKS SPECIFICATION PROVIDED BY CONTOUR CONSULTING ENGINEERS.
19. EARTHWORKS BATTERS ARE TO CONFORM TO THE FOLLOWING STANDARDS:
a. 1:4 OR FLATTER TO BE GRASS SEEDD (UNLESS NOTED OTHERWISE)
b. STEEPER THAN 1:4 TO BE A COMBINATION OF TURF STRIPS OR GRASS SEEDING (UNLESS NOTED OTHERWISE)

STORMWATER DRAINAGE NOTES

1. ALL STORMWATER DRAINAGE TO BE IN ACCORDANCE WITH THE REQUIREMENTS AND STANDARD DRAWINGS OF THE LOCAL AUTHORITY.
2. ALL STORMWATER PIPES UNDER ROADWAYS AND FOOTPATHS SHALL BE CLASS '2" R.C.P. R.R.J. UNLESS OTHERWISE NOTED.
3. THE STORMWATER CLASSES HAVE BEEN DESIGNED FOR SERVICE LOADS ONLY, AND THE CONTRACTOR SHALL ASSESS ANTICIPATED CONSTRUCTION LOADS AND UPGRADE PIPE CLASSES, IF NECESSARY, IN ACCORDANCE WITH AS3725-1989 AT THE CONTRACTORS COST. PROPOSED STORMWATER LABELS ARE THE INDICATOR OF THE STORMWATER CATCHMENT NAME UNLESS OTHERWISE SHOWN.
5. REFER TO LONGITUDINAL SECTIONS FOR SETOUT AND PIPEWORK.
6. REFER TO CALCULATIONS TABLES FOR HYDRAULIC DESIGN

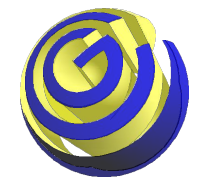
WATER RETICULATION NOTES

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT SEQ WATER SUPPLY CODE SPECIFICATIONS AND STANDARDS
2. UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
3. ALL EXISTING AND PROPOSED UNDERGROUND AND SURFACE OBSTRUCTIONS ALONG THE ROUTE OF THE PROPOSED INFRASTRUCTURE ARE TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BEAR THE COST FOR ALL REINSTATEMENT WORKS RESULTING FROM DAMAGE TO EXISTING INFRASTRUCTURE.
4. ADOPT LIP OF KERB OR SHOULDER OF ROAD AS PERMANENT LEVEL.
5. COVER ON MAINS FROM PERMANENT LEVEL TO BE AS SHOWN IN SEQ-WAT-1200-2
6. RETICULATION MAINS ARE LOCATED ON A 1.5m ALIGNMENT WITHIN THE ROAD RESERVE OR WITHIN OTHER PUBLIC RESERVES (PARKS, WALKWAYS, ETC.) TO PROVIDE FOR UNHINDERED ACCESS AT ALL TIMES.
7. VALVES SHALL BE LOCATED DIRECTLY OFF TEES.
8. FIRE HYDRANTS ARE TO BE PROVIDED AT INTERVALS NOT EXCEEDING 80 METRES, AND LOCATED OPPOSITE COMMON PROPERTY BOUNDARIES, AT HIGH POINTS, IN SAGS, AND AT ENDS OF MAINS
9. CONDUITS TO BE INSTALLED IN ACCORDANCE WITH THE STANDARD DRAWINGS.
10. WATER SERVICE CONDUITS SHALL BE EXTENDED 300mm BEYOND THE FOOTPATH EDGE ON THE PROPERTY SIDE.



11. HYDRANTS AND WATER SERVICE CONDUIT FITTINGS SHALL BE WITHIN 250mm OF THEIR DESIGN LOCATIONS.
12. WATER SERVICE CONNECTIONS ARE TO BE PROVIDED TO THE PROPERTY BOUNDARY OF EACH RESIDENTIAL LOT IN ACCORDANCE WITH THE SEQ WATER SUPPLY CODE STANDARD DRAWING. THE SERVICE IS MADE LIVE TO THE PROPERTY BOUNDARY, AND RELOCATION OF EXISTING WATER SERVICE CONNECTIONS TO BE CONTAINED WHOLLY WITHIN THE BENEFITED ALLOTMENT.
13. A WATER METER IS TO BE INSTALLED AT THE SERVICE POINT OF EACH LOT IN ACCORDANCE WITH THE STANDARD DRAWING FOR THE SEQ-SP .
14. SERVICE TAPPINGS ARE CONSTRUCTED USING DUCTILE IRON PRE-TAPPED FITTINGS INSTALLED IN ACCORDANCE WITH THE CURRENT LOCAL AUTHORITY STANDARD DRAWING. FOR PIPE DIAMETERS WHERE PRE-TAPPED FITTINGS ARE NOT AVAILABLE, CONVENTIONAL TAPPINGS BANDS ARE SUBSTITUTED.
15. KERB AND CHANNEL HAS MARKER PLATES FOR WATER SERVICE CONDUIT CROSSINGS AS SHOWN ON LOCAL AUTHORITY STANDARD DRAWINGS.
16. MARKER POSTS ARE TO BE INSTALLED IN ACCORDACNE WITH SEQ-WAT-1300-2 AND LOCAL AUTHORITY DESIGN AND DEVELOPMENT MANUAL
17. CONCRETE THRUST BLOCKS ARE PLACED AT ALL BENDS, (HORIZONTAL AND VERTICAL), TEES, ANGLE BRANCHES, CROSSES, DEAD ENDS, REDUCERS, OR OTHER PLACE WHERE THERE IS UNBALANCED HYDRAULIC LOAD.
18. THRUST BLOCKS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH SEQ CODE STANDARD DRAWINGS SEQ-WAT-1205-1, 1206-1 AND 1207-1.
19. ALL CONCRETE PLACED AGAINST SOLID UNDISTURBED GROUND. THE INTEGRITY OF THE THRUST BLOCKS IS ENSURED WHEN UNDERGROUND POWER IS LAID ON THE SAME SIDE OF THE ROAD AS THE WATERMAIN.
20. THE THRUST BLOCK DOESN'T PROTRUDE BEYOND THE ALLOCATION FOR THAT MAIN IN THE ROAD RESERVE.
21. FOR VERTICAL BENDS WITH AN UPWARD THRUST, ADDITIONAL CONCRETE IS PLACED SO THAT THE MASS OF CONCRETE IS GREATER THAN THE THRUST ON THE FILLING.
22. SUFFICIENT STEEL REINFORCEMENT IS INCLUDED TO BOND THE BLOCK BELOW THE PIPE CENTRELINE TO THE UPPER PART OF THE BLOCK. THESE THRUST BLOCKS ARE DESIGNED TO MANUFACTURER'S SPECIFICATIONS.
23. WATERMAINS ARE PROVIDED WITH A COVER AS FOLLOWS:
• 100-200mm DIAMETER
a. 600mm COVER UNDER FOOTPATHS & ACCESS WAYS
b. 750mm COVER UNDER URBAN ROADS
c. 1200mm COVER UNDER STATE CONTROLLED ROADS
• 225-375mm DIAMETER
a. 750mm COVER UNDER FOOTPATHS & ACCESS WAYS
b. 900mm COVER UNDER URBAN ROADS
c. 1200mm COVER UNDER STATE CONTROLLED ROADS
23. MAINS SHALL NOT BE LAID UNDER STORMWATER, SEWERAGE PIPES OR ELECTRICITY CONDUITS.
24. JOINT DEFLECTIONS ARE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. BENDS ARE PROVIDED AT EVERY CHANGE OF DIRECTION OF PROPERTY BOUNDARIES.
25. VERTICAL AND HORIZONTAL SEPERATIONS TO BE IN ACCORDANCE WITH THE SEQ WATER SUPPLY CODE SPECIFICATIONS AND STANDARDS
26. ALL WATERMAINS TO BE uPVC CLASS PN16 U.N.O.
27. ALL MATERIALS USED IN THE WORKS SHALL COMPLY WITH THE SEQ-SP'S ACCEPTED PRODUCTS AND MATERIALS LIST OF BE APPROPRIATELY SHOWN, LISTED AND DEFINED IN THE ENGINEERING SUBMISSION SO THAT THE ALTERNATIVE PRODUCT OR MATERIAL CAN BE ASSESSED AND IF APPROPRIATE, APPROVED BY THE SEQ-SP.
28. ALL CONCRETE FOOTPATHS TO BE CLEAR OF WATER MAINS.
29. TEST/CHLORINATION POINTS TO BE INSTALLED IN ACCORDANCE WITH STANDARD DRAWING NO SEQ-WAT-1410-1.
30. THE CONSTRUCTION OF THE WATER RETICULATION WORK SHOWN ON THIS DRAWING MUST BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. WORKS NO COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT TO THE RETICULATION SYSTEM.
31. RRPMS (RETRO-REFLECTIVE PAVMENT MARKERS) ARE REQUIRED AS PER SEW-WAT-1300.
32. DETECTABLE MARKING TAPE SHALL BE LAID ABOVE ALL BURIED WATER MAINS IN ACCORDANCE WITH UNITYWATER REQUIREMENTS.

NOTE:


1. IT IS THE RESPONSIBILITY OF THE CIVIL CONTRACTOR TO FULLY REVIEW, UNDERSTAND AND ACCEPT DRAWINGS AND NOTES AS DETAILED PRIOR TO THE COMMENCEMENT OF WORKS ON SITE. SHOULD ANY OF THE INFORMATION BE CONSIDERED AMBIGUOUS OR IN CONFLICT WITH OTHER INFORMATION PROVIDED, THE CONTRACTOR IS TO SEEK CLARIFICATION FROM THE CONSTRUCTION SUPERINTENDENT
2. SHOULD ERRORS OR DISCREPANCIES EXIST BETWEEN ANY ISSUED DRAWINGS, THE AUTOCAD MODEL OR THE 12D MODEL, PREFERENCE SHALL BE GIVEN TO THE ISSUED DRAWINGS FIRST, THE AUTOCAD MODEL SECOND AND THE 12D MODEL LAST. UPON IDENTIFYING DISCREPANCIES BETWEEN DIGITAL MODELS AND CONSTRUCTION DRAWING DETAILS, THE CONTRACTOR IS TO CONTACT THE SUPERVISING ENGINEER IMMEDIATELY, ALERTING THEM TO THE ISSUE.



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PLAN DETAILS:					
Designed:	M.K				
Drawn:	W.F				
Checked:	M.O				
Datum:	AHD				
Date:	10-09-18				
 Director: BRETT THOMSON (RPEQ 6068) (FOR & ON BEHALF OF CONTOUR CE PTY LTD)					

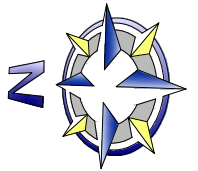
PLAN AMENDMENTS:					
Rev	Date	Comment	Altered	Checked	

PROPOSED RESIDENTIAL SUBDIVISION AT 16 - 22 VIERITZ ROAD, BELLMERE FOR GALLERY HOMES

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PLAN TITLE:	
GENERAL NOTES	
FOR APPROVAL - NOT FOR CONSTRUCTION	
PLAN No: 1937 - 002	REVISION: -
SHEET: 2 OF 44	

FILE LOCATION: J:\CIV\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-002.DWG



LEGEND

EXISTING FEATURES

- OVERALL RP BOUNDARY
- EASEMENT
- CADASTRAL RP BOUNDARY
- E/OH E/OH OVERHEAD ELECTRICAL
- FENCE
- T T TELSTRA (DBYD)
- W W WATER RETICULATION (DBYD)
- S S SEWER RETICULATION (DBYD)
- D D STORMWATER
- CHANGE IN GRADE
- ROAD CENTRELINE
- ROAD KERB
- CONCRETE
- EDGE OF BITUMEN
- TREE
- 12.0 NATURAL CONTOUR
- EASEMENT



ENERGY SERVICE PROVIDERS

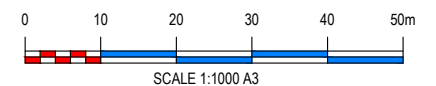


NOTE: SERVICE LOCATIONS ARE APPROXIMATE ONLY FROM PROVIDERS PLANS. LOCATIONS ARE TO BE CONFIRMED PRIOR TO START OF CONSTRUCTION. PHONE DBYD SERVICE LOCATIONS ON 1100 FOR DETAILS.

TELECOMMUNICATIONS SERVICE PROVIDERS



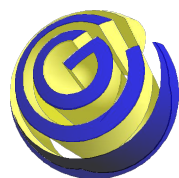
NOTE: SERVICE LOCATIONS ARE APPROXIMATE ONLY FROM PROVIDERS PLANS. LOCATIONS ARE TO BE CONFIRMED PRIOR TO START OF CONSTRUCTION. PHONE DBYD SERVICE LOCATIONS ON 1100 FOR DETAILS.



EXISTING SERVICES SHOWN THROUGHOUT THESE DRAWINGS ARE DERIVED FROM FIELD SURVEY, DIAL BEFORE YOU DIG, AS CONSTRUCTED INFORMATION AND GROUND INSPECTION. THE RELATIVE POSITION OF EACH UNDERGROUND SERVICE IS THEREFORE ADVISORY ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACTUAL LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BEAR THE COST OF ANY RECTIFICATION OF SERVICES DAMAGED DURING OR AS A RESULT OF CONSTRUCTION.

SURVEY BENCH MARKS

NAME	EASTING	NORTHING	RL	CODE
-	492648.59	7003000.34	17.01	NAIL IN CONC



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PLAN DETAILS:

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Date: **10-09-18**

Director: BRETT THOMSON (RPEQ 6068)
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PLAN AMENDMENTS:

Rev	Date	Comment	Altered	Checked

PROPOSED RESIDENTIAL SUBDIVISION AT 16 - 22 VIERITZ ROAD, BELLMERE FOR GALLERY HOMES

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PLAN TITLE:

**EXISTING FEATURES AND SITE PREPARATION
PLAN**

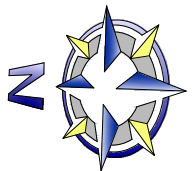
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PLAN No: **1937 - 003**

REVISION: **-**

SHEET: **3 OF 44**

FILE LOCATION: J:\CIVIL\1937-16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-003.DWG



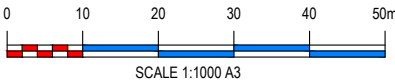
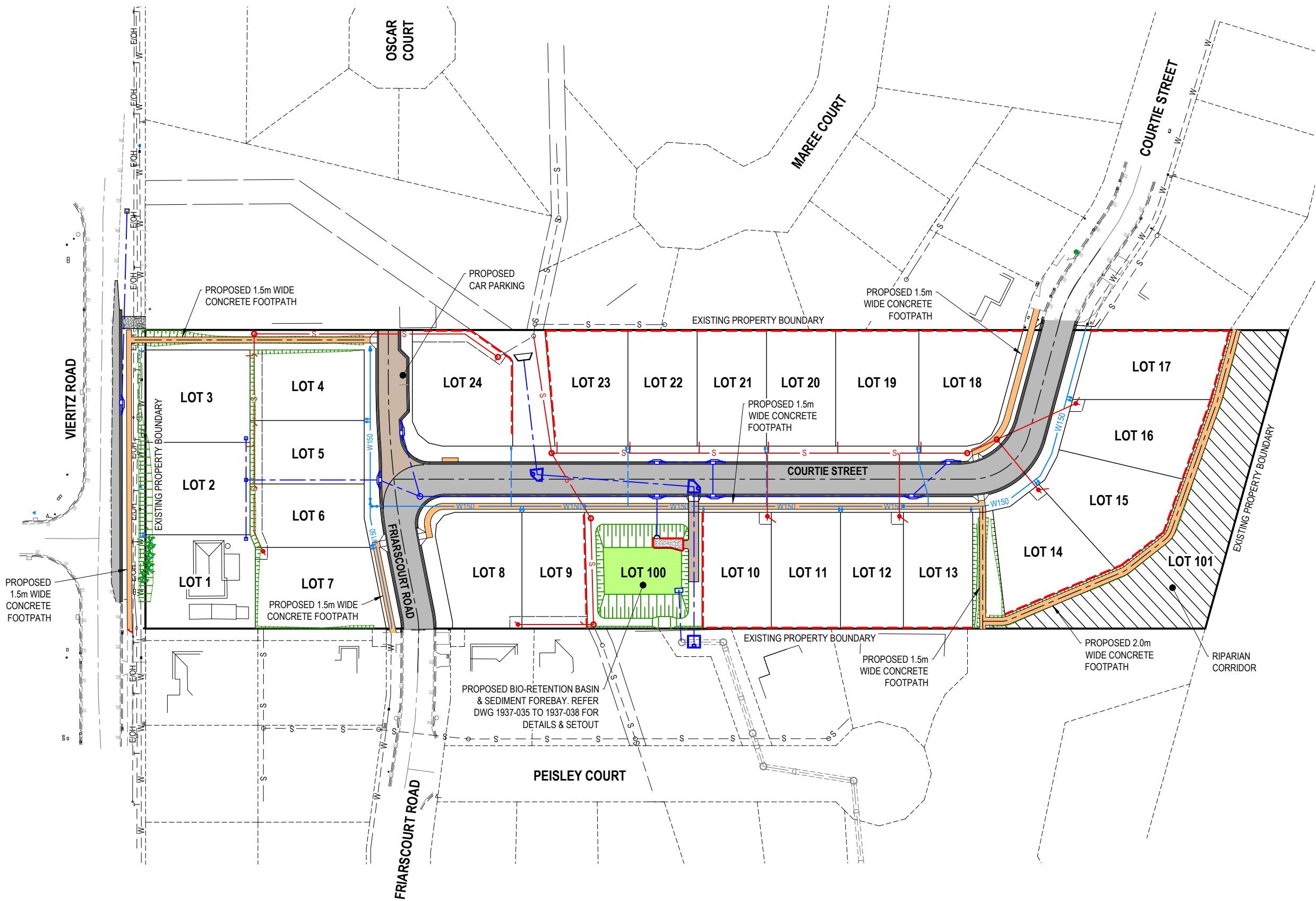
LEGEND

EXISTING FEATURES

- OVERALL RP BOUNDARY
- EASEMENT
- CADASTRAL RP BOUNDARY
- OVERHEAD ELECTRICAL
- FENCE
- TELSTRA (DBYD)
- WATER RETICULATION (DBYD)
- SEWER RETICULATION (DBYD)
- STORMWATER
- ROAD CENTRELINE
- ROAD KERB
- CONCRETE
- EDGE OF BITUMEN

PROPOSED FEATURES

- RP BOUNDARIES
- AC SURFACING
- FOOTPATH
- DRIVEWAY
- BIO-RETENTION BASIN
- ROAD CENTRELINE
- ROAD KERB
- STORMWATER DRAINAGE
- EARTHWORKS BATTER
- SEWERAGE RETICULATION
- 1500 WATER RETICULATION
- WATER SERVICE
- RETAINING WALL
- RIPARIAN CORRIDOR



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Director: **BRETT THOMSON (RPEQ 6068)**
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Rev	Date	Comment	Altered	Checked

**PROPOSED RESIDENTIAL SUBDIVISION
AT 16 - 22 VIERITZ ROAD, BELLMERE
FOR GALLERY HOMES**

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PLAN TITLE:

DEVELOPMENT LAYOUT PLAN

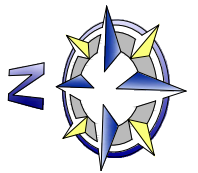
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PLAN No: **1937 - 004**

REVISION: **-**

SHEET: **4 OF 44**

FILE LOCATION: J:\CIV\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-004.DWG

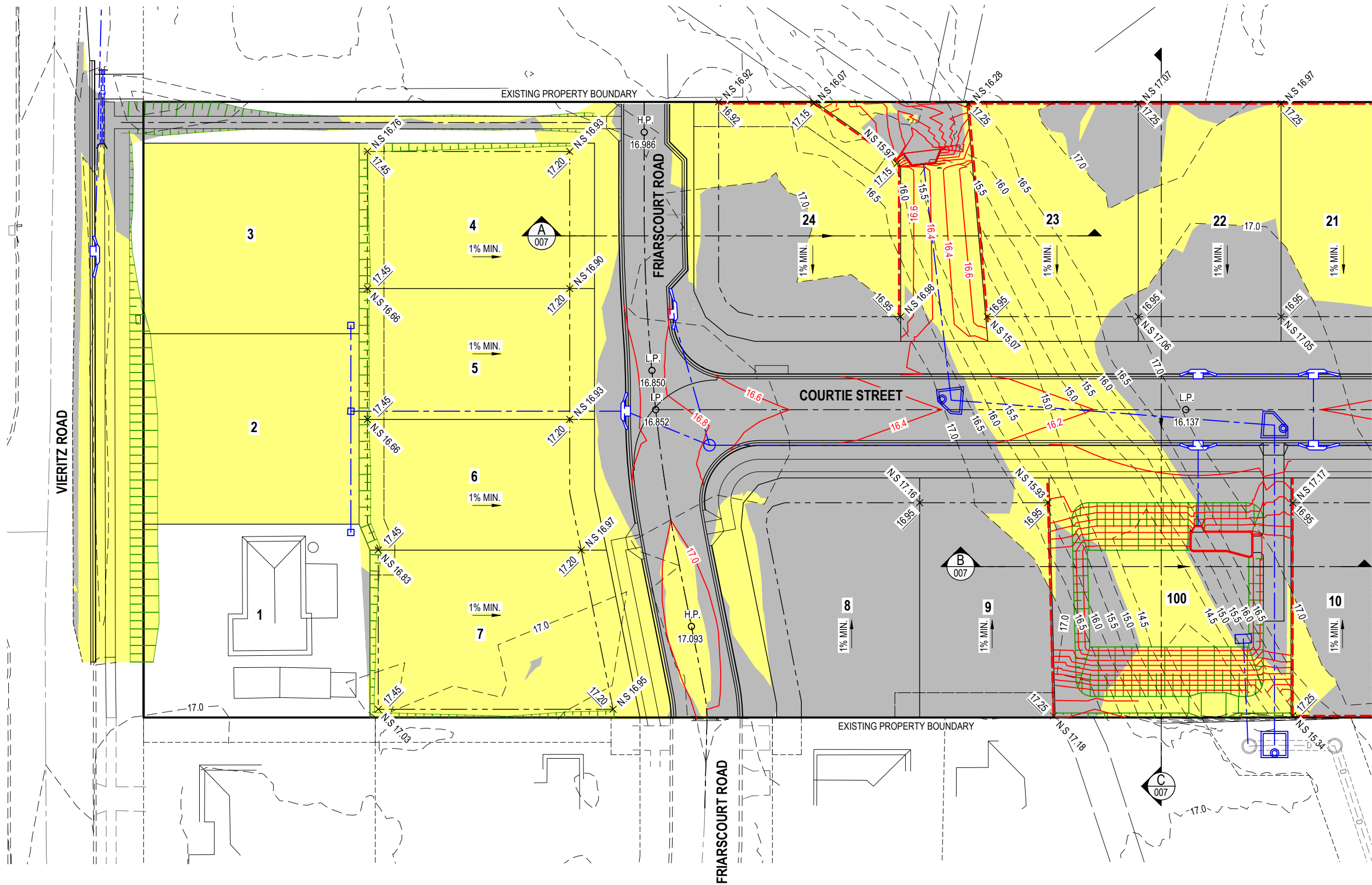


LEGEND

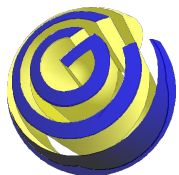
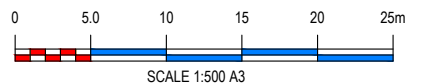
- PROPOSED EARTHWORKS CUT **
- PROPOSED EARTHWORKS FILL **
- EXISTING CONTOUR
- DESIGN CONTOUR
- EARTHWORKS BATTER
- RETAINING WALL
- FINISHED SURFACE LEVEL
- NATURAL SURFACE LEVEL

** AREAS IDENTIFIED WITH CUT/FILL SHADING REPRESENT THE EXISTING NATURAL SURFACE COMPARED WITH THE FINISHED SURFACE

JOINS DWG 1937-006



NOTE:
REFER DWG 1937-002 FOR
EARTHWORKS STANDARD NOTES



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PLAN TITLE:

EARTHWORKS DETAIL PLAN - SHEET 1 OF 2

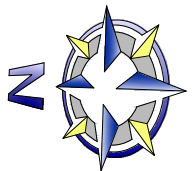
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PLAN No: **1937 - 005**

REVISION: **-**

SHEET: **5 OF 44**

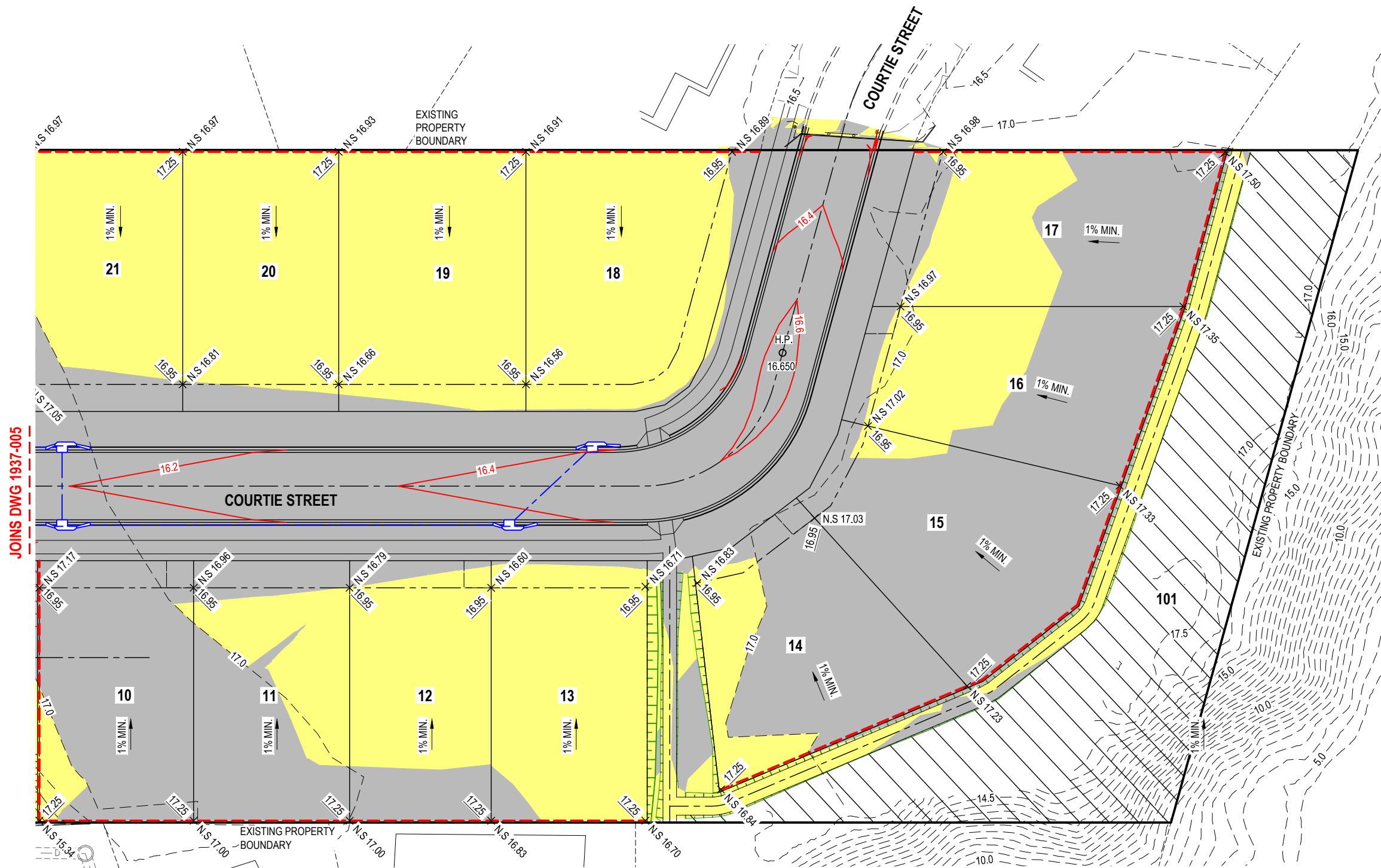
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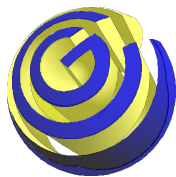
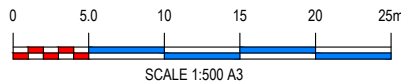
LEGEND

- PROPOSED EARTHWORKS CUT **
- PROPOSED EARTHWORKS FILL **
- EXISTING CONTOUR
- DESIGN CONTOUR
- EARTHWORKS BATTER
- RETAINING WALL
- RIPARIAN CORRIDOR
- FINISHED SURFACE LEVEL
- NATURAL SURFACE LEVEL

** AREAS IDENTIFIED WITH CUT/FILL SHADING REPRESENT THE EXISTING NATURAL SURFACE COMPARED WITH THE FINISHED SURFACE



NOTE:
REFER DWG 1937-002 FOR
EARTHWORKS STANDARD NOTES



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PLAN TITLE:

EARTHWORKS DETAIL PLAN - SHEET 2 OF 2

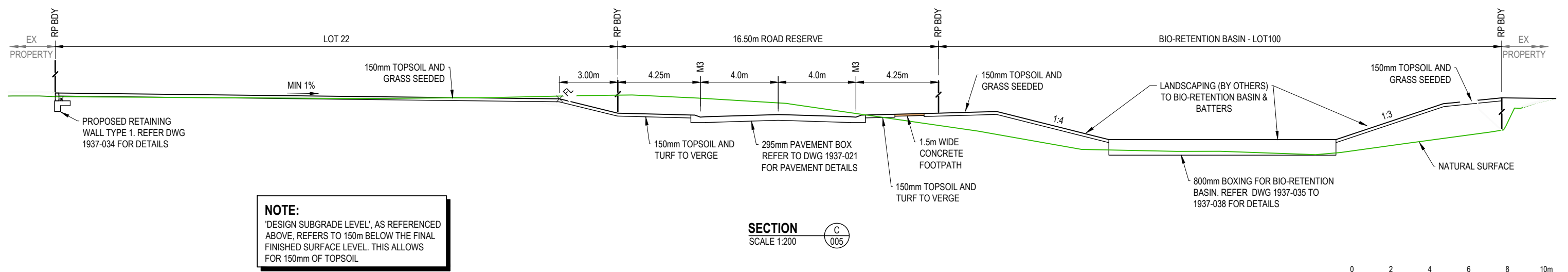
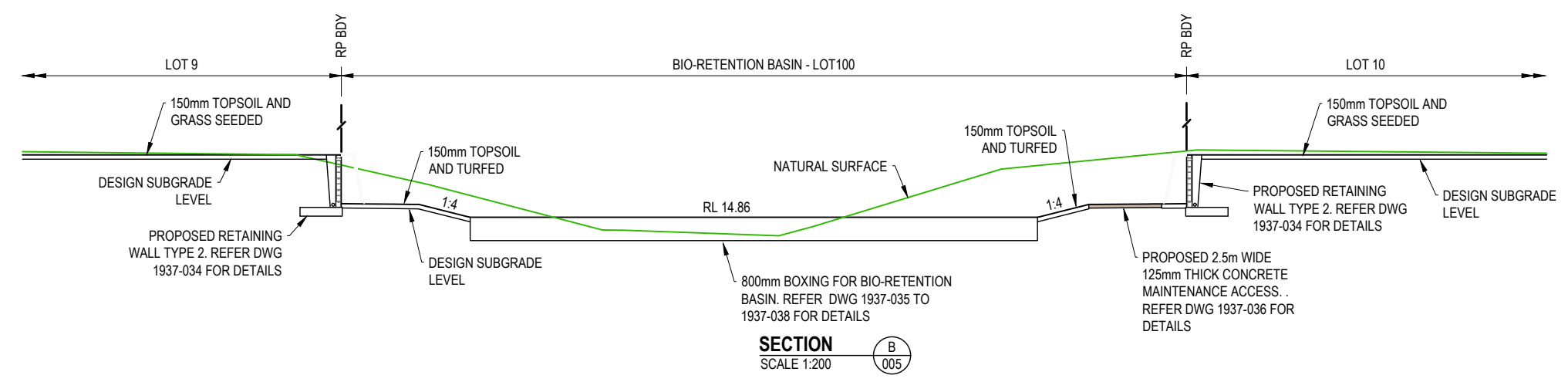
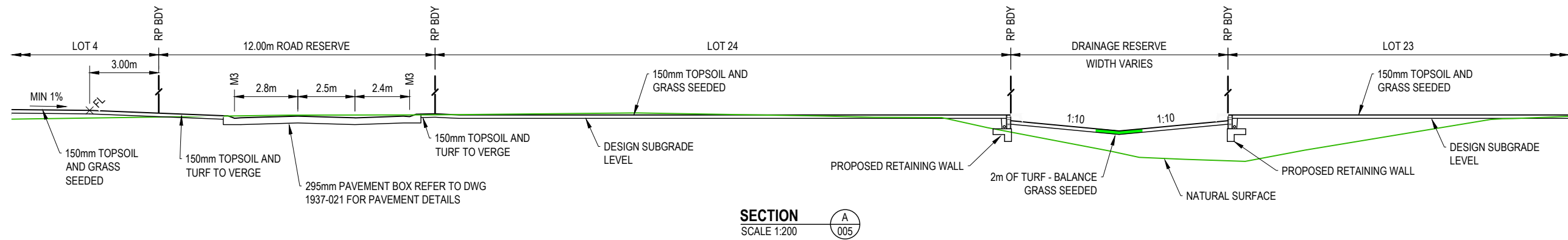
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PLAN No: **1937 - 006**

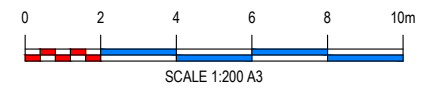
REVISION: **-**

SHEET: **6 OF 44**

FILE LOCATION: J:\CIVIL\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\DWG\WORKS\1937-006-007.DWG



NOTE:
'DESIGN SUBGRADE LEVEL', AS REFERENCED ABOVE, REFERS TO 150m BELOW THE FINAL FINISHED SURFACE LEVEL. THIS ALLOWS FOR 150mm OF TOPSOIL





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Checked:	M.O						
Datum:	AHD						
Date:	10-09-18						
Director: BRETT THOMSON (RPEQ 6068) (FOR & ON BEHALF OF CONTOUR CE PTY LTD)							

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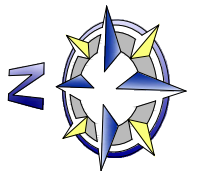
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PLAN TITLE:
EARTHWORKS DETAIL TYPICAL SECTIONS

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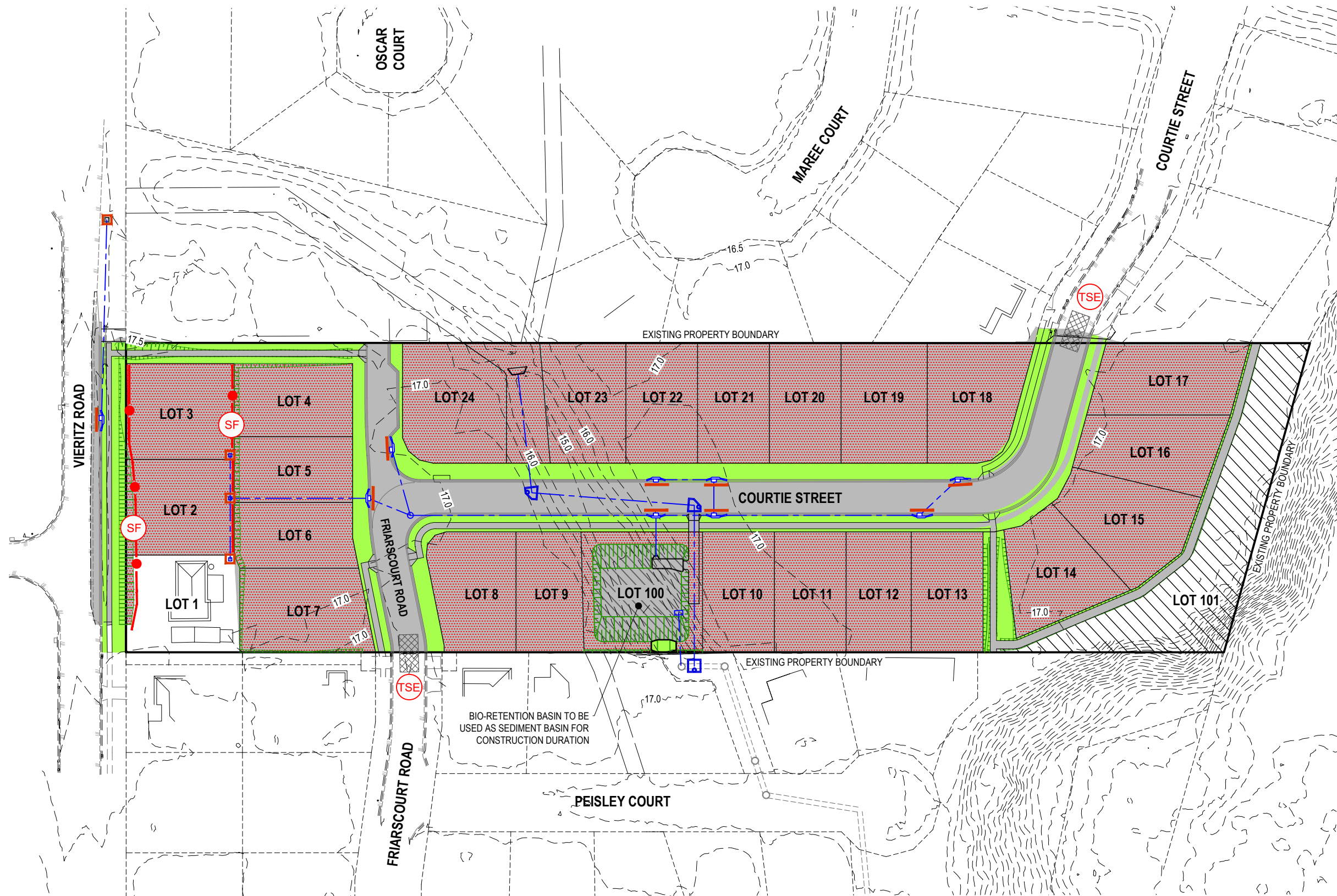
PLAN No: **1937 - 007** REVISION: **-** SHEET: **7 OF 44**

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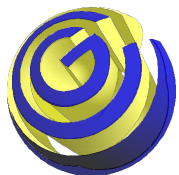
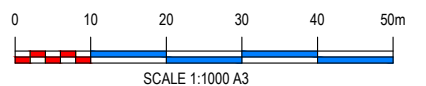
LEGEND

- PROPOSED DISTURBED AREA
- PROPOSED SEDIMENT FENCE (SF)
- PROPOSED TEMPORARY STABILISED ENTRY / EXIT (TSE)
- GULLY PIT SEDIMENT BARRIER
- ALLOTMENT PIT PROTECTION
- GRASS SEEDING
- TURFED VERGE
- NATURAL CONTOUR (-12.0)
- RE-VEGETATION



PRELIMINARY CONCEPTUAL ENVIRONMENTAL SEDIMENT CONTROL ONLY SUBJECT TO CONSTRUCTION METHODOLOGY & PROCEDURES

NOTE:
REFER DWG 1937-009 TO 010 FOR EROSION & SEDIMENT STANDARD DETAILS & NOTES



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PLAN TITLE:

CONCEPTUAL EROSION & SEDIMENT CONTROL PLAN

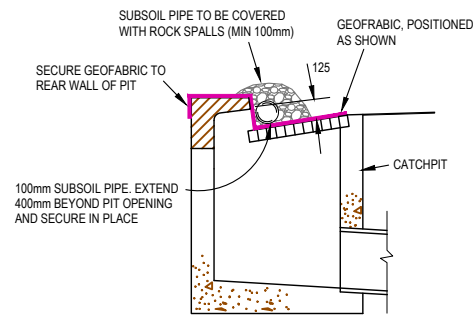
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PLAN No: **1937 - 008**

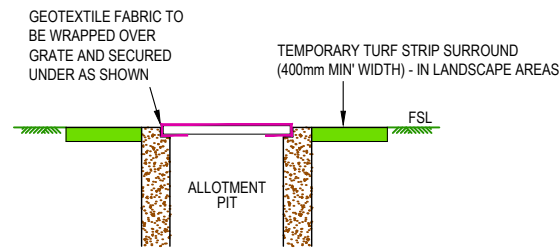
REVISION: **-**

SHEET: **8 OF 44**

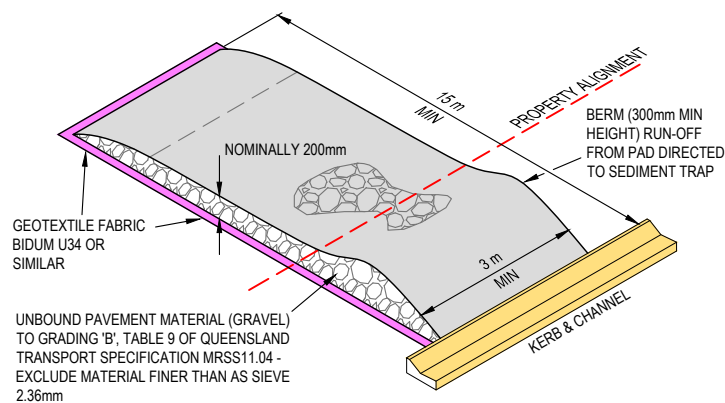
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GULLY PIT SEDIMENT BARRIER
N.T.S.

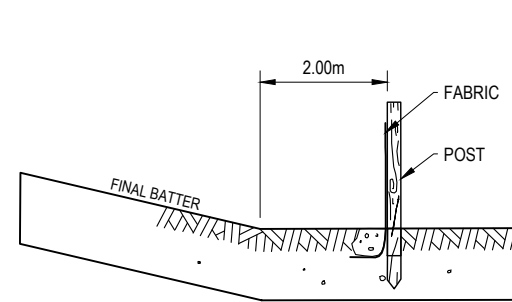


ALLOTMENT PIT PROTECTION
SCALE 1:20

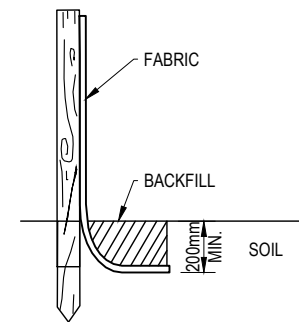


TEMPORARY CONSTRUCTION ENTRY / EXIT
N.T.S.

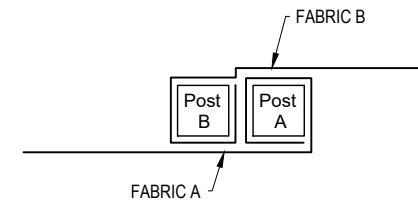
PRELIMINARY CONCEPTUAL ENVIRONMENTAL SEDIMENT CONTROL ONLY SUBJECT TO CONSTRUCTION METHODOLOGY & PROCEDURES



(a) LOCATION OF FENCE RELATIVE TO BASE OF SLOPE



(b) ANCHORING BASE OF FABRIC

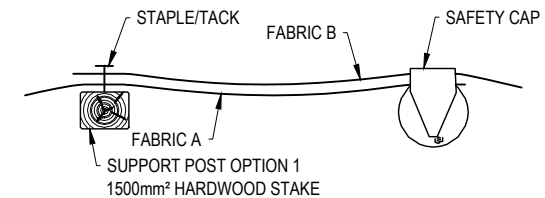


FABRIC TO FOLD AROUND EACH STAKE ON FULL TURN. STAKE B TO BE DRIVEN TIGHTLY AGAINST STAKE A. THE TOPS OF BOTH TO BE SECURED WITH WIRE

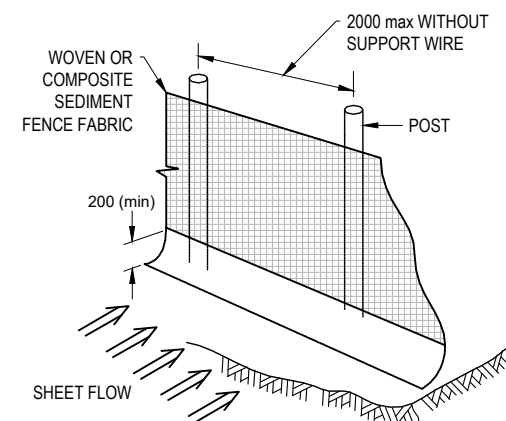
(c) JOINING FABRIC - METHOD 1

NOTES:

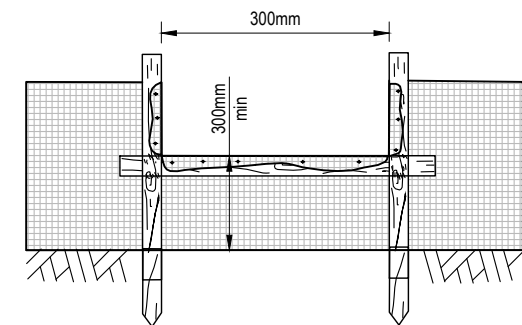
1. SEDIMENT FENCE TO BE INSTALLED ALONG A LINE OF CONSTANT GROUND ELEVATION WHERE EVER PRACTICAL. SUPPORT POST TO BE SPACED A MAXIMUM 2m UNLESS THE FENCE IS SUPPORTED BY A TOP WIRE OR WIRE MESH BACKING, IN WHICH CASE 3m MAXIMUM SPACING.
2. FENCE 'RETURNS' SHALL BE INSTALLED AT MAXIMUM 20m SPACING IF FENCE IS INSTALLED ALONG CONTOUR, OTHERWISE 5 TO 10 MAXIMUM SPACING.
3. MINIMUM 4 STAPLES OR TIE WIRES PER STAKE.
4. WHERE APPROPRIATE, COIR LOGS/FIBRE ROLLS CAN BE SUBSTITUTED FOR SILT FENCE.



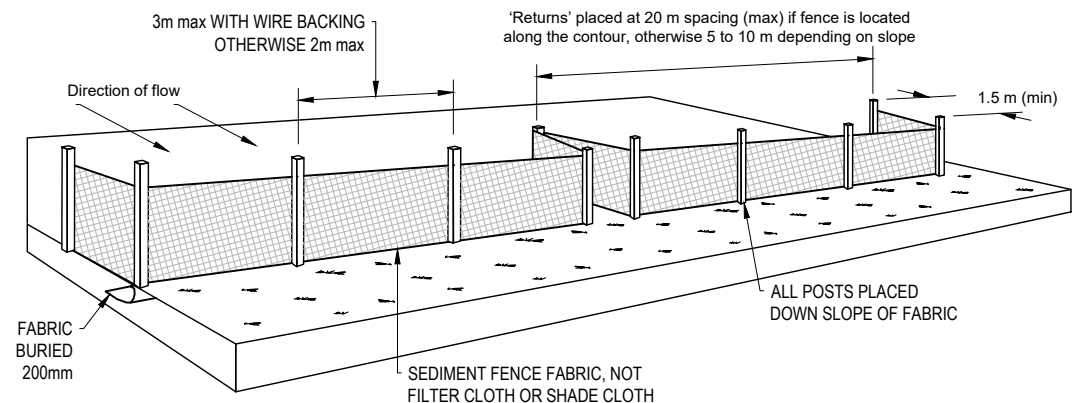
(g) JOINING FABRIC - METHOD 2



(d) INSTALLATION WITHOUT BACKING SUPPORT

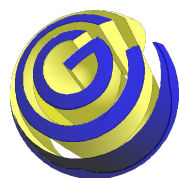


(e) SPILL THROUGH WEIR



(i) INSTALLATION OF SEDIMENT FENCE

SEDIMENT FENCE - SF-01



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PLAN DETAILS:

Designed: **M.K**
Drawn: **W.F**
Checked: **M.O**
Datum: **AHD**
Date: **10-09-18**

Director: **BRETT THOMSON (RPEQ 6068)**
(FOR & ON BEHALF OF CONTOUR CE PTY LTD)

PLAN AMENDMENTS:

Rev	Date	Comment	Altered	Checked

PROPOSED RESIDENTIAL SUBDIVISION AT 16 - 22 VIERITZ ROAD, BELLMERE FOR GALLERY HOMES

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PLAN TITLE:

CONCEPTUAL EROSION & SEDIMENT CONTROL DETAILS

FOR APPROVAL - NOT FOR CONSTRUCTION

PLAN No: **1937 - 009**

REVISION: **-**

SHEET: **9** OF **44**

FILE LOCATION: J:\CIV\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-009-010.DWG

SEDIMENT & EROSION CONTROL TECHNICAL NOTES

GENERAL REQUIREMENTS

1. THE INFORMATION PROVIDED ON THESE DRAWINGS IS PROVIDED FOR GUIDANCE ONLY.
2. THE CONTRACTOR IS PROVIDE A PROJECT SPECIFIC EROSION AND SEDIMENT CONTROL PROGRAMME (ESCP) SUITED TO THE PROPOSED WORK OPERATIONAL PHASING, WORKS PROGRAMME , AND THE INTENT OF THE DRAWINGS PRIOR TO WORKS COMMENCING ON THE SITE.
3. THE ESCP IS TO BE PROVIDED BY A SUITABLY QUALIFIED AND EXPERIENCED INDIVIDUAL/CONSULTANT. A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) IS ACCEPTED AS BEING SUITABLY QUALIFIED AND EXPERIENCED
4. THE ESCP IS TO BE PROVIDED IN ACCORDANCE WITH THE INTERNATIONAL EROSION CONTROL ASSOCIATION - AUSTRALASIA (IECA) - 'BEST PRACTICE EROSION & SEDIMENT CONTROL' GUIDELINES.
5. THE CONTRACTOR IS TO INSTALL AND ESTABLISH THE CONTROLS PRIOR TO CLEARING AND/OR EARTHWORKS COMMENCING ON THE SITE.
6. THE CONTRACTOR IS TO MAINTAIN THE EFFECTIVENESS AND EFFICIENCY OF THE ESC MEASURES IN ACCORDANCE WITH THE ESCP THROUGHOUT THE WORKS PROGRAMME.
7. IF SITE CONDITIONS CHANGE SIGNIFICANTLY FROM THOSE CONSIDERED WITHIN THE ESC PROGRAMME THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL ESC MEASURES , AND THE CONTRACTOR SHALL REQUEST THE ESC PROGRAMME BE MODIFIED TO REFLECT THE CONDITIONS ON SITE.
8. IF IT IS DEEMED THAT THE ESC TECHNIQUES SPECIFIED WITH THE ESC PROGRAMME ARE NOT ACHIEVING THE DESIRED OUTCOMES OR OBJECTIVES, THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL ESC MEASURES, AND THE CONTRACTOR SHALL REQUEST THE ESC PROGRAMME BE MODIFIED TO ACHIEVE THE REQUIRED OUTCOMES.
9. WHERE THERE IS A HIGH PROBABILITY FOR SERIOUS OR MATERIAL ENVIRONMENTAL HARM AS A RESULT OF SEDIMENT LEAVING THE SITE, THE CONTRACTOR MUST TAKE ALL REASONABLE AND PRACTICABLE MEASURES TO MINIMISE OR PREVENT SUCH ENVIRONMENTAL HARM FROM OCCURRING. ONLY THOSE WORKS NECESSARY TO MINIMISE OR PREVENT ENVIRONMENTAL HARM SHALL BE CONDUCTED ON-SITE PRIOR TO APPROVAL OF THE AMENDED ESC PROGRAMME.
10. IN CIRCUMSTANCES WHERE IT IS CONSIDERED NECESSARY TO PREPARE AN AMENDED ESC PROGRAMME, AND DELIVERY OF THE AMENDED ESC PROGRAMME IS NOT IMMINENT, THEN ALL NEW OR MODIFIED ESC WORKS MUST BE IN ACCORDANCE TO IECA BEST PRACTICE EROSION AND SEDIMENT CONTROL. UPON APPROVAL OF THE AMENDED ESC PROGRAMME ALL WORKS MUST BE IN ACCORDANCE WITH THE AMENDED PLAN.

LAND CLEARING

11. LAND CLEARING ACTIVITIES MUST BE DELAYED AS LONG AS PRACTICABLE AND MUST BE UNDERTAKEN IN CONJUNCTION WITH DEVELOPMENT OF EACH STAGE OF WORKS.
12. ALL REASONABLE AND PRACTICABLE EFFORTS MUST BE TAKEN TO DELAY THE REMOVAL OF, OR DISTURBANCE TO, EXISTING GROUND COVER (ORGANIC OR INORGANIC) PRIOR TO LAND-DISTURBANCE ACTIVITIES.
13. BULK TREE CLEARING MUST OCCUR IN A MANNER THAT MINIMISES DISTURBANCE TO EXISTING GROUND COVER (ORGANIC OR INORGANIC).
14. BULK TREE CLEARING AND GRUBBING OF THE SITE MUST BE IMMEDIATELY FOLLOWED BY SPECIFIED TEMPORARY STABILISATION MEASURES (E.G. TEMPORARY GRASSING, OR MULCHING) PRIOR TO COMMENCEMENT OF EACH STAGE OF CONSTRUCTION WORKS.
15. DISTURBANCE TO NATURAL WATERCOURSES (INCLUDING BED AND BANKS) AND THEIR ASSOCIATED RIPARIAN ZONES MUST BE LIMITED TO THE MINIMUM PRACTICABLE.
16. 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.
17. LAND CLEARING MUST BE LIMITED TO 5M FROM THE EDGE OF PROPOSED CONSTRUCTED WORKS, 2M OF ESSENTIAL CONSTRUCTION TRAFFIC ROUTES, AND A TOTAL OF 10M WIDTH FOR CONSTRUCTION ACCESS, UNLESS OTHERWISE APPROVED BY SUPERVISOR.
18. PRIOR TO LAND CLEARING, AREAS OF PROTECTED VEGETATION, AND SIGNIFICANT AREAS OF RETAINED VEGETATION MUST BE CLEARLY IDENTIFIED (E.G. WITH HIGH-VISIBILITY TAPE, OR LIGHT FENCING) FOR THE PURPOSES OF MINIMISING THE RISK OF UNNECESSARY LAND CLEARING.
19. ALL LAND CLEARING MUST BE IN ACCORDANCE WITH THE FEDERAL, STATE AND LOCAL GOVERNMENT VEGETATION PROTECTION/PRESERVATION REQUIREMENTS AND/OR POLICIES.
20. LAND CLEARING IS LIMITED TO THE MINIMUM PRACTICABLE DURING THOSE PERIODS WHEN SOIL EROSION DUE TO WIND, RAIN OR SURFACE WATER IS POSSIBLE.

SITE ACCESS

21. SITE ACCESS MUST BE RESTRICTED TO THE ONE LOCATION.
22. SITE EXIT POINT MUST BE APPROPRIATELY MANAGED TO MINIMISE THE RISK OF SEDIMENT BEING TRACKED ONTO SEALED, PUBLIC ROADWAYS.
23. STORMWATER RUNOFF FROM ACCESS ROADS AND STABILISED ENTRY/EXIT POINTS MUST DRAIN TO AN APPROPRIATE SEDIMENT CONTROL DEVICE.

SOIL AND STOCKPILE MANAGEMENT

24. STOCKPILES OF ERODIBLE MATERIAL THAT HAVE THE POTENTIAL TO CAUSE ENVIRONMENTAL HARM IF DISPLACED, MUST BE:

(i) APPROPRIATELY PROTECTED FROM WIND, RAIN, CONCENTRATED SURFACE FLOW AND EXCESSIVE UP-SLOPE STORMWATER SURFACE FLOWS.

(ii) LOCATED AT LEAST 2M FROM ANY HAZARDOUS AREA, RETAINED VEGETATION, OR CONCENTRATED DRAINAGE LINE.

(iii) LOCATED UP-SLOPE OF AN APPROPRIATE SEDIMENT CONTROL SYSTEM.

(iv) PROVIDED WITH AN APPROPRIATE PROTECTIVE COVER (SYNTHETIC, MULCH OR VEGETATIVE) IF THE MATERIALS ARE LIKELY TO BE STOCKPILED FOR MORE THAN 28 DAYS.
25. A SUITABLE FLOW DIVERSION SYSTEM MUST BE ESTABLISHED IMMEDIATELY UP-SLOPE OF A STOCKPILE OF ERODIBLE MATERIAL THAT HAS THE POTENTIAL TO CAUSE ENVIRONMENTAL HARM IF DISPLACED, IF THE UP-SLOPE CATCHMENT AREA DRAINING TO THE STOCKPILE EXCEEDS 1500M2.

SITE MANAGEMENT

26. THE CONSTRUCTION SCHEDULE MUST AIM TO MINIMISE THE DURATION THAT ANY AND ALL AREAS OF SOIL ARE EXPOSED TO THE EROSIVE EFFECTS OF WIND, RAIN AND SURFACE WATER.
27. LAND-DISTURBING ACTIVITIES MUST BE UNDERTAKEN IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN (ESCP) AND ASSOCIATED DEVELOPMENT CONDITIONS.
28. LAND-DISTURBING ACTIVITIES MUST BE UNDERTAKEN IN SUCH A MANNER THAT ALLOWS ALL REASONABLE AND PRACTICABLE MEASURES TO BE UNDERTAKEN TO:

(i) ALLOW STORMWATER TO PASS THROUGH THE SITE IN A CONTROLLED MANNER AND AT NON-EROSIVE FLOW VELOCITIES UP TO THE SPECIFIED DESIGN STORM DISCHARGE;

(ii) MINIMISE SOIL EROSION RESULTING FROM RAIN, WATER FLOW AND/OR WIND;

(iii) MINIMISE ADVERSE EFFECTS OF SEDIMENT RUNOFF, INCLUDING SAFETY ISSUES;

(iv) PREVENT, OR AT LEAST MINIMISE, ENVIRONMENTAL HARM RESULTING FROM WORK-RELATED SOIL EROSION AND SEDIMENT RUNOFF;

(v) ENSURE THAT THE VALUE AND USE OF LAND/PROPERTIES ADJACENT TO THE DEVELOPMENT (INCLUDING ROADS) ARE NOT DIMINISHED AS A RESULT OF THE ADOPTED ESC MEASURES.
29. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST CONFORM TO THE STANDARDS AND SPECIFICATIONS CONTAINED IN:

(i) THE APPROVED ESCP AND SUPPORTING DOCUMENTATION; OR

(ii) THE LATEST VERSION OF IECA BEST PRACTICE EROSION AND SEDIMENT CONTROL. IF THE STANDARDS AND SPECIFICATIONS ARE NOT CONTAINED IN THE APPROVED ESCP.
30. ADDITIONAL AND/OR ALTERNATIVE ESC MEASURES MUST BE IMPLEMENTED IN THE EVENT THAT SITE INSPECTIONS, THE SITE'S MONITORING AND MAINTENANCE PROGRAM, OR THE REGULATORY AUTHORITY, IDENTIFIES THAT UNACCEPTABLE OFF-SITE SEDIMENTATION IS OCCURRING AS A RESULT OF THE WORK ACTIVITIES.
31. LAND-DISTURBING ACTIVITIES MUST NOT CAUSE UNNECESSARY SOIL DISTURBANCE IF AN ALTERNATIVE CONSTRUCTION PROCESS IS AVAILABLE THAT ACHIEVES THE SAME OR EQUIVALENT OUTCOMES AT AN EQUIVALENT COST.
32. NO MORE THAN 150M OF A STORMWATER, SEWER LINE OR OTHER SERVICE TRENCH MUST TO BE OPEN AT ANY ONE TIME.
33. SITE SPOIL MUST BE LAWFULLY DISPOSED OF IN A MANNER THAT DOES NOT RESULT IN ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
34. ALL FILL MATERIAL PLACED ON SITE MUST COMPRISE ONLY NATURAL EARTH AND ROCK, AND IS TO BE FREE OF CONTAMINANTS, BE FREE DRAINING, AND BE COMPACTED IN LAYERS NOT EXCEEDING 300MM AND COMPLY WITH THE SITE SPECIFIC EARTHWORKS NOTES AS PART OF THESE ENGINEERING DRAWINGS.

DRAINAGE CONTROL

35. WHEREVER REASONABLE AND PRACTICABLE, STORMWATER RUNOFF ENTERING THE SITE FROM EXTERNAL AREAS, AND NON-SEDIMENT LADEN (CLEAN) STORMWATER RUNOFF ENTERING A WORK AREA OR AREA OF SOIL DISTURBANCE, MUST 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.
36. DURING THE CONSTRUCTION PERIOD, ALL REASONABLE AND PRACTICABLE MEASURES MUST BE IMPLEMENTED TO CONTROL FLOW VELOCITIES IN SUCH A MANNER THAN PREVENTS SOIL EROSION ALONG DRAINAGE PATHS AND AT THE ENTRANCE AND EXIT OF ALL DRAINS AND DRAINAGE PIPES DURING ALL STORMS UP TO THE RELEVANT DESIGN STORM DISCHARGE.
37. WHEREVER REASONABLE AND PRACTICABLE, "CLEAN" SURFACE WATERS MUST BE DIVERTED AWAY FROM SEDIMENT CONTROL DEVICES AND ANY UNTREATED, SEDIMENT-LADEN WATERS.

EROSION CONTROL

38. THE APPLICATION OF LIQUID-BASED DUST SUPPRESSION MEASURES MUST ENSURE THAT SEDIMENT-LADEN RUNOFF RESULTING FROM SUCH MEASURES DOES NOT CREATE A TRAFFIC OR ENVIRONMENTAL HAZARD.
39. ALL TEMPORARY EARTH BANKS, FLOW DIVERSION SYSTEMS, AND EMBANKMENTS ASSOCIATED WITH CONSTRUCTED SEDIMENT BASINS MUST BE STABILISED IN AN APPROPRIATE MANNER.
40. SYNTHETIC REINFORCED EROSION CONTROL MATS AND BLANKETS MUST NOT BE PLACED WITHIN, OR ADJACENT TO, RIPARIAN ZONES AND WATERCOURSES IF SUCH MATERIALS ARE LIKELY TO CAUSE ENVIRONMENTAL HARM TO WILDLIFE OR WILDLIFE HABITATS.
41. A MINIMUM 60% GROUND COVER MUST BE ACHIEVED ON ALL NON-COMPLETED EARTHWORKS EXPOSED TO ACCELERATED SOIL EROSION IF FURTHER CONSTRUCTION ACTIVITIES OR SOIL DISTURBANCES ARE LIKELY TO BE SUSPENDED FOR MORE THAN 30 DAYS.

SEDIMENT CONTROL

42. OPTIMUM BENEFIT MUST BE MADE OF EVERY OPPORTUNITY TO TRAP SEDIMENT WITHIN THE WORK SITE, AND AS CLOSE AS PRACTICABLE TO ITS SOURCE.
43. SEDIMENT TRAPS MUST BE INSTALLED AND OPERATED TO BOTH COLLECT AND RETAIN SEDIMENT.
44. THE POTENTIAL SAFETY RISK OF A PROPOSED SEDIMENT TRAP TO SITE WORKERS AND THE PUBLIC MUST BE GIVEN APPROPRIATE CONSIDERATION, ESPECIALLY THOSE DEVICES LOCATED WITHIN PUBLICLY ACCESSIBLE AREAS.
45. ALL REASONABLE AND PRACTICABLE MEASURES MUST BE TAKEN TO PREVENT, OR AT LEAST MINIMISE, THE RELEASE OF SEDIMENT FROM THE SITE.
46. SUITABLE ALL-WEATHER MAINTENANCE ACCESS MUST BE PROVIDED TO ALL SEDIMENT CONTROL DEVICES.
47. SEDIMENT CONTROL DEVICES MUST 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.
48. MATERIALS, WHETHER LIQUID OR SOLID, REMOVED FROM SEDIMENT CONTROL DEVICES DURING MAINTENANCE OR DECOMMISSIONING, MUST BE DISPOSED OF IN A MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
49. CONSTRUCTED SEDIMENT BASINS MUST BE MAINTAINED AND FULLY OPERATIONAL THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL EACH BASIN'S CATCHMENT AREA ACHIEVES 60% GROUND COVER ON ALL SOIL SURFACES.

SITE REHABILITATION

50. NO COMPLETED EARTHWORK SURFACE MUST REMAIN DENUDED FOR LONGER THAN 60 DAYS.

SEDIMENT BASIN REHABILITATION

51. REQUIRED DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES DURING THE DECOMMISSIONING AND REHABILITATION OF A SEDIMENT BASIN MUST COMPLY WITH THE SAME STANDARDS SPECIFIED FOR THE NORMAL CONSTRUCTION WORKS.
52. IF AN ALTERNATIVE, PERMANENT, OUTLET STRUCTURE IS TO BE CONSTRUCTED PRIOR TO STABILISATION OF THE UP-SLOPE CATCHMENT AREA, THEN THIS OUTLET STRUCTURE MUST NOT BE MADE OPERATIONAL IF IT WILL ADVERSELY AFFECT THE REQUIRED OPERATION OF THE SEDIMENT BASIN.
53. A SEDIMENT BASIN MUST NOT BE DECOMMISSIONED UNTIL ALL UP-SLOPE SITE STABILISATION MEASURES HAVE BEEN IMPLEMENTED AND ARE APPROPRIATELY WORKING TO CONTROL SOIL EROSION AND SEDIMENT RUNOFF IN ACCORDANCE WITH THE SPECIFIED ESC STANDARD.

SITE MONITORING

54. THE CONTRACTOR IS TO PROVIDE PROOF OF MONTHLY AUDIT INSPECTIONS OF ESC CONTROLS PERFORMED BY A CPESC
55. THE AUDIT REPORTS ARE TO BE FILED WITH THE SUPERINTENDENT PRIOR TO THE 9th DAY OF EACH CALENDAR MONTH.
56. THE CONTRACTOR IS TO MAINTAIN ESC CONTROLS AS RECOMMENDED BY THE CPESC AUDIT AND AS REQUIRED AT ALL OTHER TIMES.
57. ALL WATER QUALITY DATA, INCLUDING DATES OF RAINFALL, DATES OF TESTING, TESTING RESULTS AND DATES OF WATER RELEASE, MUST 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 TO ALL RELEVANT REGULATORY AUTHORITIES.
58. AT NOMINATED INSTREAM WATER MONITORING SITES, A MINIMUM OF 3 WATER SAMPLES MUST BE TAKEN AND ANALYSED, AND THE AVERAGE RESULT USED TO DETERMINE QUALITY.
59. SEDIMENT BASIN WATER QUALITY SAMPLES MUST BE TAKEN AT A DEPTH NO GREATER THAN 200mm ABOVE THE LEVEL OF SETTLED SEDIMENT.
60. ALL ENVIRONMENTALLY RELEVANT INCIDENTS MUST BE RECORDED IN A FIELD LOG THAT MUST REMAIN ACCESSIBLE TO ALL RELEVANT REGULATORY AUTHORITIES.

SITE MAINTENANCE

61. ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING DRAINAGE CONTROL MEASURES, MUST BE MAINTAINED IN PROPER WORKING ORDER AT ALL TIMES DURING THEIR OPERATIONAL LIVES.
62. ALL DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSPECTED:

(i) AT LEAST DAILY (WHEN WORK IS OCCURRING ON-SITE);

(ii) AT LEAST WEEKLY (WHEN WORK IS NOT OCCURRING ON-SITE);

(iii) WITHIN 24 HOURS OF EXPECTED RAINFALL; AND

(iv) WITHIN 18 HOURS OF A RAINFALL EVENT OF SUFFICIENT INTENSITY AND DURATION TO CAUSE RUNOFF ON-SITE).
63. WASHING/FLUSHING OF SEALED ROADWAYS MUST 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, ALL REASONABLE AND PRACTICABLE SEDIMENT CONTROL MEASURES MUST 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 MUST BE DISPOSED OF IN A LAWFUL MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
64. SEDIMENT REMOVED FROM SEDIMENT TRAPS AND PLACES OF SEDIMENT DEPOSITION MUST BE DISPOSED OF IN A LAWFUL MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.

PRELIMINARY CONCEPTUAL
ENVIRONMENTAL SEDIMENT CONTROL
ONLY SUBJECT TO CONSTRUCTION
METHODOLOGY & PROCEDURES




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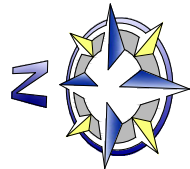
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AT 16 - 22 VIERITZ ROAD, BELLMERE
FOR GALLERY HOMES

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PLAN TITLE:
CONCEPTUAL EROSION & SEDIMENT CONTROL
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PLAN No: 1937 - 010
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SHEET: 10 OF 44

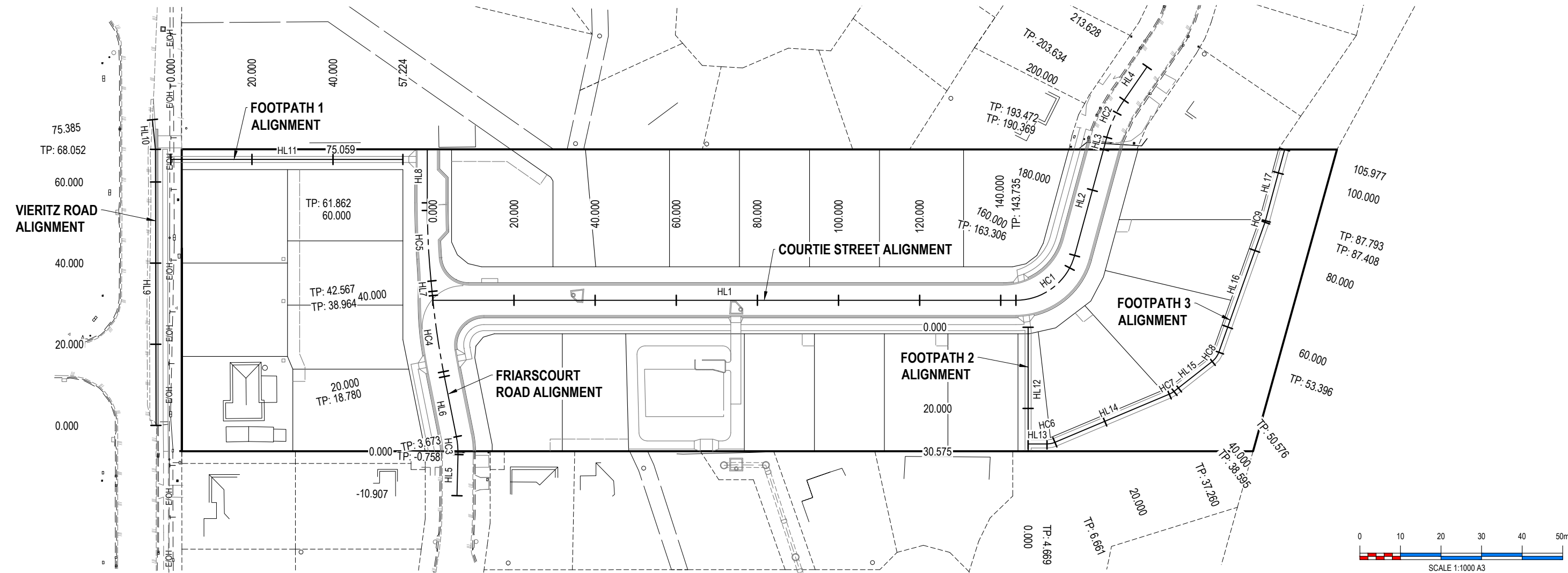
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CONTROL LINE - ALIGN - COURTIE STREET										
TAG		CHAINAGE	EASTING	NORTHING	LENGTH	RADIUS	BEARING	RAD/SPIRAL	A. LENGTH	D. ANGLE
HL1	IP IP	0.000 143.735	492688.327 492693.236	7002936.103 7002792.452	143.735	-	178° 02' 34"	-	-	-
HC1	TP IP TP	143.735 155.194 163.306	492693.2360 492693.627 492704.780	7002792.452 7002780.999 7002778.366	19.571	15.000	140° 39' 52"	15.000	19.571	114°35'32"
HL2	IP IP	163.306 190.369	492704.780 492731.118	7002778.366 7002772.146	27.062	-	103° 17' 09"	-	-	-
HL3	IP IP	190.369 193.472	492731.118 492734.138	7002772.146 7002771.433	3.103	-	103° 17' 08"	-	-	-
HC2	TP IP TP	193.472 198.602 203.634	492734.1383 492739.131 492743.448	7002771.433 7002770.254 7002767.483	10.162	30.000	112° 59' 22"	30.000	10.162	57°17'45"
HL4	IP IP	203.634 213.628	492743.448 492751.859	7002767.483 7002762.085	9.994	-	122° 41' 36"	-	-	-

LIP OF KERB CONTROL LINE - ALIGN - VIERITZ ROAD										
TAG		CHAINAGE	EASTING	NORTHING	LENGTH	RADIUS	BEARING	RAD/SPIRAL	A. LENGTH	D. ANGLE
HL9	IP IP	0.000 68.052	492655.165 492723.174	7003003.276 7003005.721	68.052	-	087° 56' 30"	-	-	-
HL10	IP IP	68.052 75.385	492723.174 492730.439	7003005.721 7003006.712	7.333	-	082° 13' 52"	-	-	-

CONTROL LINE - ALIGN - FRIARSCOURT ROAD										
TAG		CHAINAGE	EASTING	NORTHING	LENGTH	RADIUS	BEARING	RAD/SPIRAL	A. LENGTH	D. ANGLE
HL5	IP IP	-10.907 -0.758	492640.389 492650.537	7002928.519 7002928.621	10.149	-	089° 25' 43"	-	-	-
HC3	TP IP TP	-0.758 1.466 3.673	492650.5373 492652.762 492654.928	7002928.621 7002928.643 7002929.153	4.432	20.000	083° 04' 51"	20.000	4.432	85°56'37"
HL6	IP IP	3.673 18.780	492654.928 492669.632	7002929.153 7002932.620	15.107	-	076° 43' 58"	-	-	-
HC4	TP IP TP	18.780 28.881 38.964	492669.6315 492679.462 492689.477	7002932.620 7002934.938 7002936.254	20.184	200.000	079° 37' 26"	200.000	20.184	8°35'40"
HL7	IP IP	38.964 42.567	492689.477 492693.049	7002936.254 7002936.723	3.603	-	082° 30' 54"	-	-	-
HC5	TP IP TP	42.567 52.222 61.862	492693.0492 492702.622 492712.271	7002936.723 7002937.981 7002938.311	19.295	200.000	085° 16' 44"	200.000	19.295	8°35'40"
HL8	IP IP	61.862 75.059	492712.271 492725.461	7002938.311 7002938.762	13.197	-	088° 02' 34"	-	-	-






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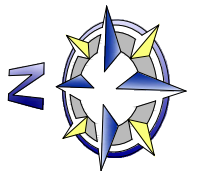
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(FOR & ON BEHALF OF CONTOUR CE PTY LTD)						

**PROPOSED RESIDENTIAL SUBDIVISION
AT 16 - 22 VIERITZ ROAD, BELLMERE
FOR GALLERY HOMES**

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CONTROL LINE SETOUT PLAN		
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LEGEND

EXISTING FEATURES

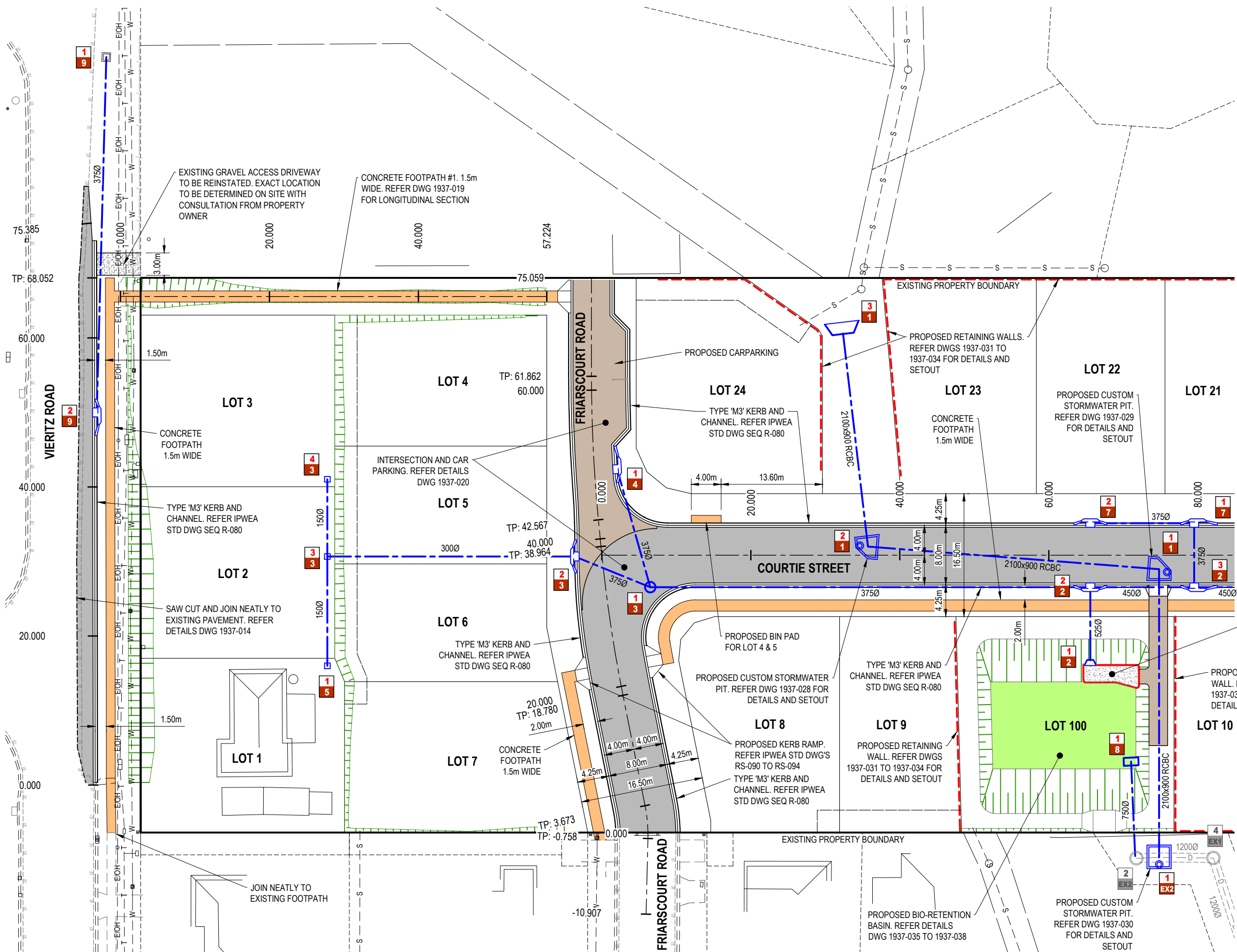
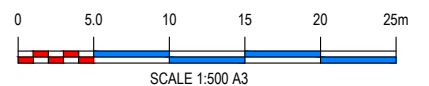
- OVERALL RP BOUNDARY
- EASEMENT
- CADASTRAL RP BOUNDARY
- E/OH
- FENCE
- TELSTRA (DBYD)
- WATER RETICULATION (DBYD)
- SEWER RETICULATION (DBYD)
- STORMWATER
- ROAD KERB
- CONCRETE
- EDGE OF BITUMEN

PROPOSED FEATURES

- RP BOUNDARIES
- AC SURFACING
- FOOTPATH
- DRIVEWAY
- ROAD KERB
- STORMWATER DRAINAGE
- EARTHWORKS BATTER
- STORMWATER STRUCTURE NUMBER
- RETAINING WALL

NOTE:

- REFER DWG 1937-002 FOR ROADWORKS AND STORMWATER DRAINAGE STANDARD NOTES
- REFER LONGITUDINAL SECTIONS FOR SETOUT DATA
- REFER DWG 1937-013 FOR STORMWATER STRUCTURE SETOUT TABLE





CONTOUR

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Website: www.ContourCE.com.au



PLAN DETAILS:					PLAN AMENDMENTS:				
Designed:	M.K	Drawn:	W.F		Rev	Date	Comment	Altered	Checked
Checked:	M.O								
Datum:	AHD								
Date:	10-09-18								
Director: BRETT THOMSON (RPEQ 6068) (FOR & ON BEHALF OF CONTOUR CE PTY LTD)									

PROPOSED RESIDENTIAL SUBDIVISION AT 16 - 22 VIERITZ ROAD, BELLMERE FOR GALLERY HOMES

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PLAN TITLE:

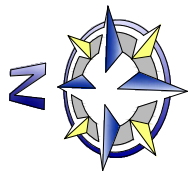
ROADWORKS & STORMWATER DRAINAGE DETAIL PLAN - SHEET 1 OF 2

FOR APPROVAL - NOT FOR CONSTRUCTION

PLAN No: 1937 - 012

REVISION: -

SHEET: 12 OF 44

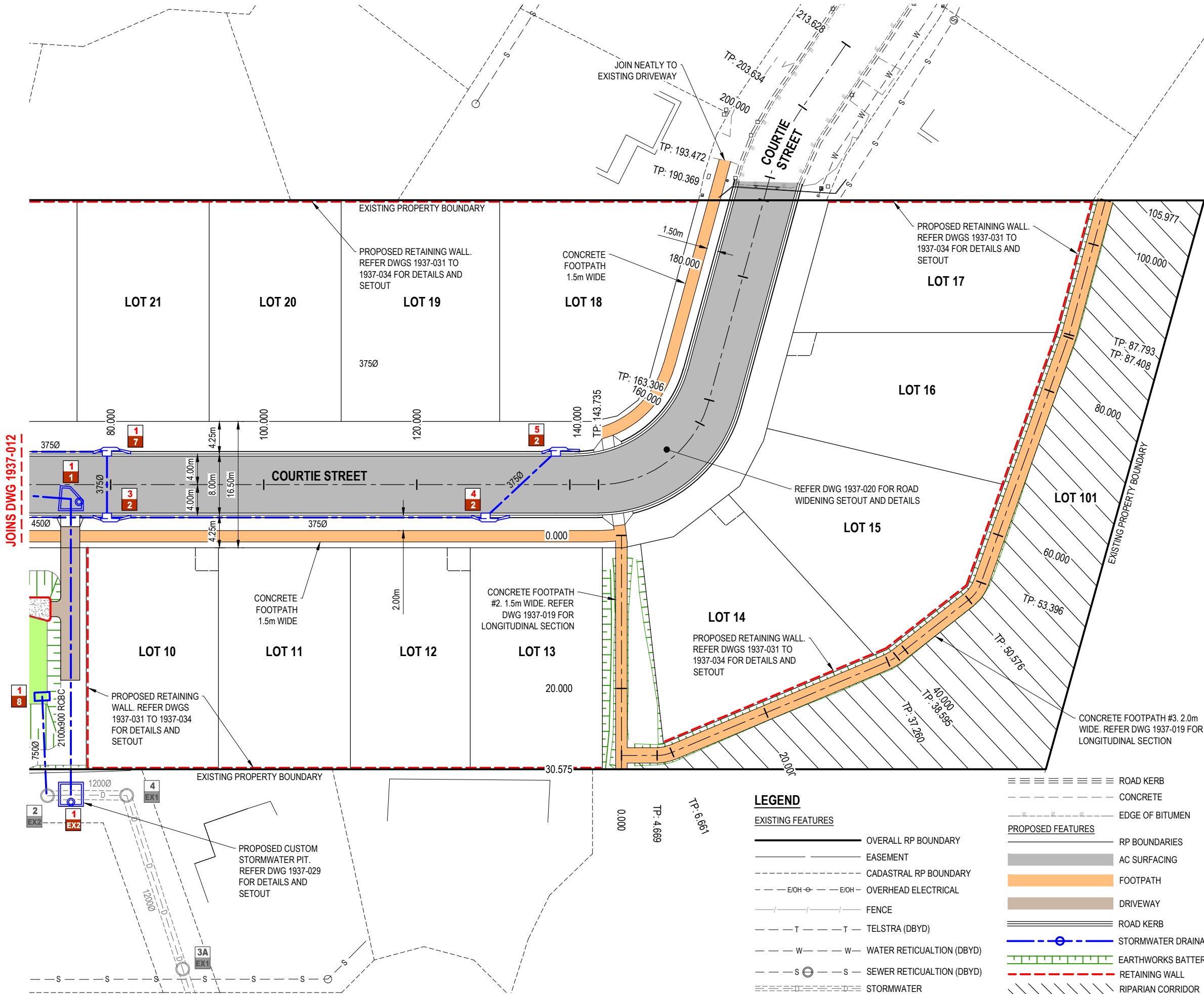
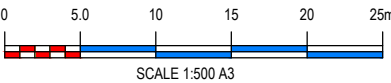


STORMWATER STRUCTURE SETOUT

STRUCTURE No.	EASTING	NORTHING
1/EX2	492650.344	7002859.967
1/1	492689.000	7002861.289
2/1	492690.699	7002900.446
3/1	492719.160	7002904.764
1/2	492676.468	7002870.096
2/2	492686.271	7002870.431
3/2	492686.747	7002856.498
4/2	492688.437	7002807.057
5/2	492697.341	7002798.165
2/2	492686.271	7002870.431
1/3	492684.254	7002929.463
2/3	492688.023	7002939.721
3/3	492686.889	7002972.911
4/3	492697.247	7002973.265
1/3	492684.254	7002929.463
1/4	492699.931	7002934.436
3/3	492686.889	7002972.911
1/5	492672.230	7002972.410
3/2	492686.747	7002856.498
1/7	492695.337	7002856.797
2/7	492694.861	7002870.725
1/EX2	492650.344	7002859.967
2/EX2	492650.416	7002863.183
1/8	492663.073	7002864.165
1/9	492752.859	7003004.851
2/9	492705.154	7003004.505
1/EX1	492582.438	7002814.593
2/EX1	492617.141	7002819.034
3/EX1	492619.929	7002841.653
3A/EX1	492628.082	7002844.593
4/EX1	492650.176	7002852.561
4/EX1	492650.176	7002852.561
1/EX2	492650.344	7002859.967

NOTE:
REFER DWG 1937-023 FOR STORMWATER
DRAINAGE SETOUT POINT DETAILS

NOTE:
• REFER DWG 1937-002 FOR
ROADWORKS AND STORMWATER
DRAINAGE STANDARD NOTES
• REFER LONGITUDINAL SECTIONS
FOR SETOUT DATA
• REFER DWG 1937-013 FOR
STORMWATER STRUCTURE
SETOUT TABLE



LEGEND

EXISTING FEATURES

- OVERALL RP BOUNDARY
- EASEMENT
- CADASTRAL RP BOUNDARY
- E/OH
- FENCE
- TELSTRA (DBYD)
- WATER RETICULATION (DBYD)
- SEWER RETICULATION (DBYD)
- STORMWATER

PROPOSED FEATURES

- RP BOUNDARIES
- AC SURFACING
- FOOTPATH
- DRIVEWAY
- ROAD KERB
- STORMWATER DRAINAGE
- EARTHWORKS BATTER
- RETAINING WALL
- RIPARIAN CORRIDOR

PLAN DETAILS:

Designed: M.K.
Drawn: W.F.
Checked: M.O.
Datum: AHD
Date: 10-09-18

Director: BRETT THOMSON (RPEQ 6068)
(FOR & ON BEHALF OF CONTOUR CIE PTY LTD)

PLAN AMENDMENTS:

Rev	Date	Comment	Altered	Checked

PROPOSED RESIDENTIAL SUBDIVISION
AT 16 - 22 VIERITZ ROAD, BELLMERE
FOR GALLERY HOMES

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PLAN TITLE:

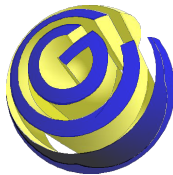
ROADWORKS & STORMWATER DRAINAGE
DETAIL PLAN - SHEET 2 OF 2

FOR APPROVAL - NOT FOR CONSTRUCTION

PLAN No: 1937 - 013

REVISION: -

SHEET: 13 OF 44

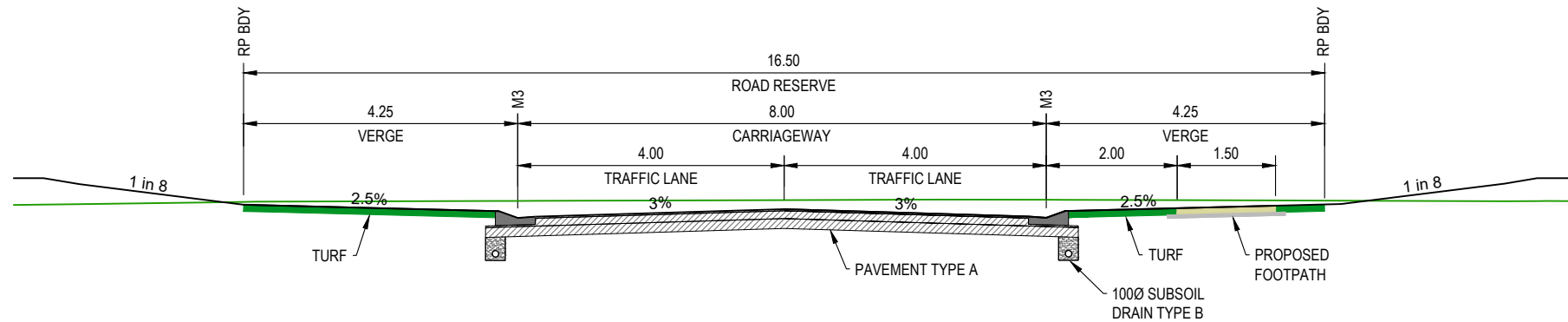


CONTOUR

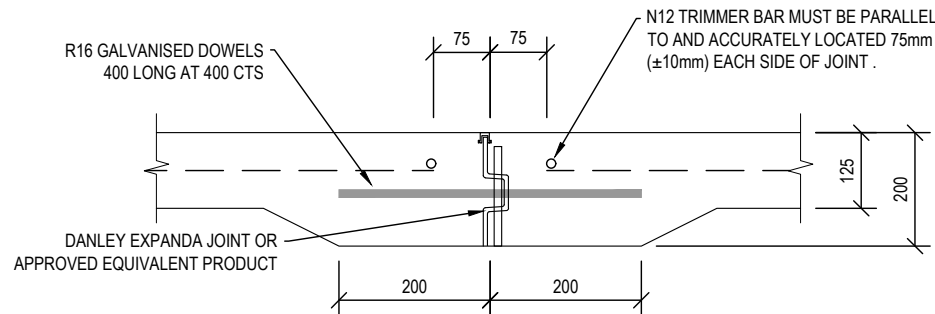
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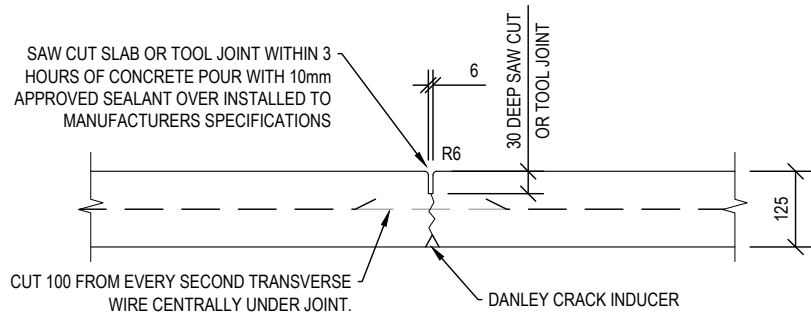


FRIARSCOURT ROAD - COURTIE STREET - TYPICAL SECTION
SCALE 1:100



DJ -DOWEL CONSTRUCTION JOINT
MAX 16.0m SPACINGS
NOT TO SCALE

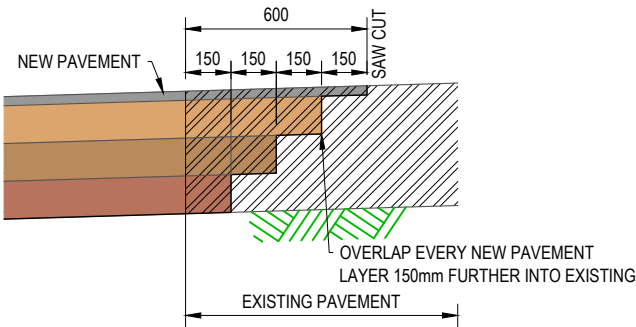
NOTE:
IT IS THE CONTRACTOR'S RESPONSIBILITY
TO MAINTAIN ALL BARS PERPENDICULAR
TO THE JOINT DURING CASTING



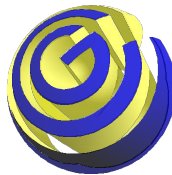
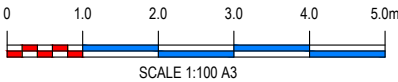
SJ -SAW CUT OR TOOL JOINT
MAX 4.0m SPACINGS
NOT TO SCALE

PRELIMINARY PAVEMENT DESIGN						
TYPE	THICKNESS	MATERIAL	TYPE	DESIGN ESA	ASSUMED SUBGRADE CBR	PAVEMENT USE
A	25mm	AC SURFACING	BCC TYPE 2	2 x 10 ⁵	6	LIVING RESIDENTIAL ACCESS STREET
	120mm	BASE COURSE (CBR 80)	2.1			
	150mm	SUB-BASE COURSE (CBR 45)	2.3			
	200mm	LOWER SUB-BASE (CBR15) (IF REQUIRED)	2.5			
B	125mm	CONCRETE	N32/20			DRIVEWAY
	100mm	SUB-BASE (IF REQUIRED)	2.3			

- PAVEMENT DESIGN NOTES:**
REFER DWG 1937-002 ROADWORKS NOTES FOR CBR TESTING OF SUBGRADE.
- IF SUB-GRADE CBR <3 THE FOLLOWING IS REQUIRED:
 - REPLACEMENT OF 600mm OF SUB-GRADE MATERIAL WITH CBR15 MATERIAL.
 - DESIGN OF PAVEMENT TO BE BASED ON CBR 3 OR DESIGNED IN ACCORDANCE WITH AUSTRROADS.
 - ALL ASPHALT SHALL BE UNDERLAIN WITH PRIMER SEAL IN ACCORDANCE WITH LOCAL AUTHORITY SPECIFICATIONS.



PAVEMENT CUTBACK DETAIL
SCALE 1:25 (A3)



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PLAN DETAILS:

Designed: **M.K**
Drawn: **W.F**
Checked: **M.O**
Datum: **AHD**
Date: **10-09-18**

Director: **BRETT THOMSON (RPEQ 6068)**
(FOR & ON BEHALF OF CONTOUR CE PTY LTD)

PLAN AMENDMENTS:

Rev	Date	Comment	Altered	Checked

**PROPOSED RESIDENTIAL SUBDIVISION
AT 16 - 22 VIERITZ ROAD, BELLMERE
FOR GALLERY HOMES**

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PLAN TITLE:

ROADWORKS TYPICAL SECTIONS

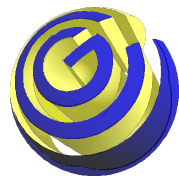
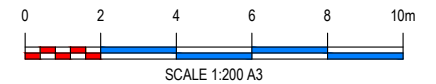
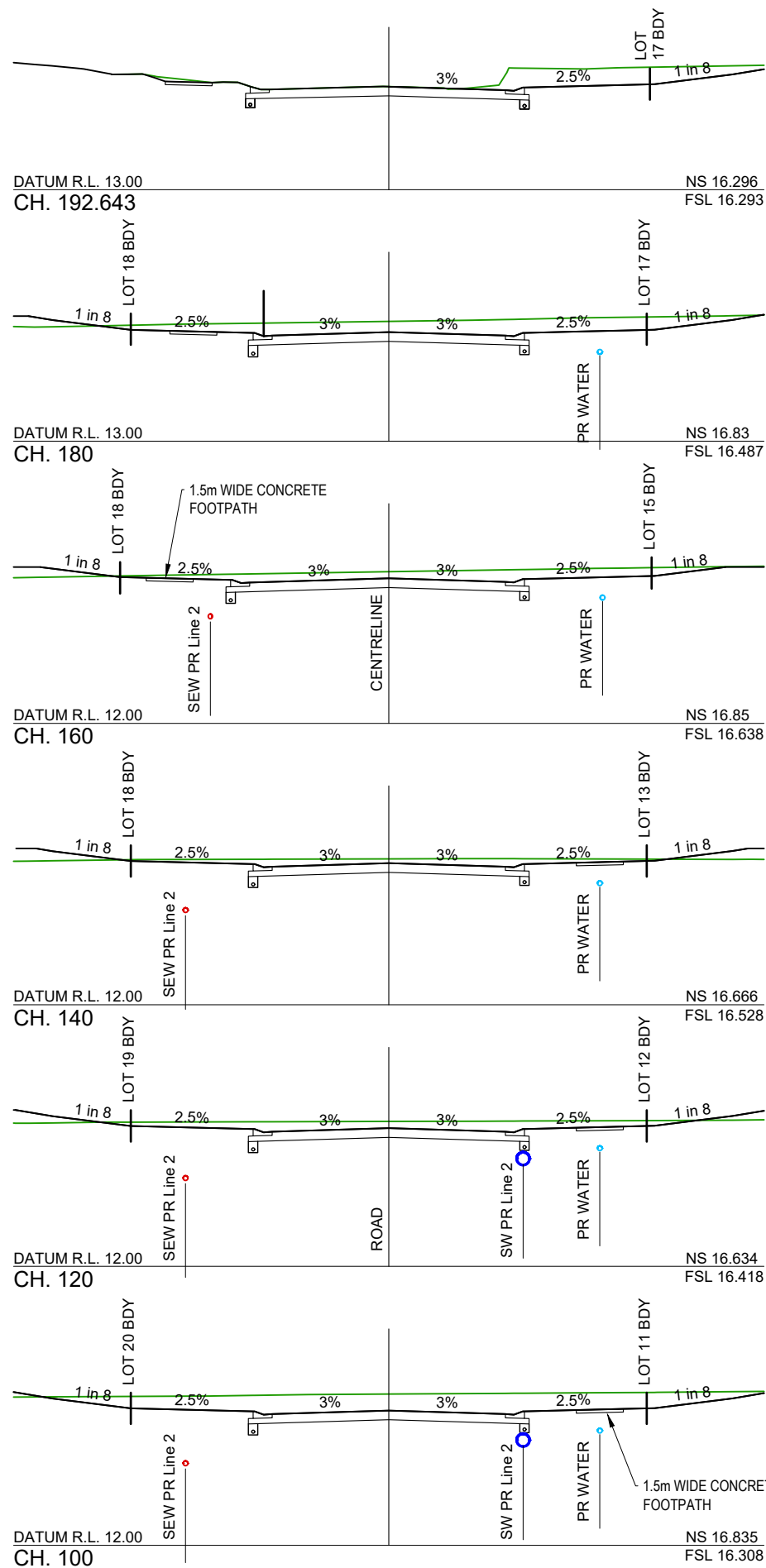
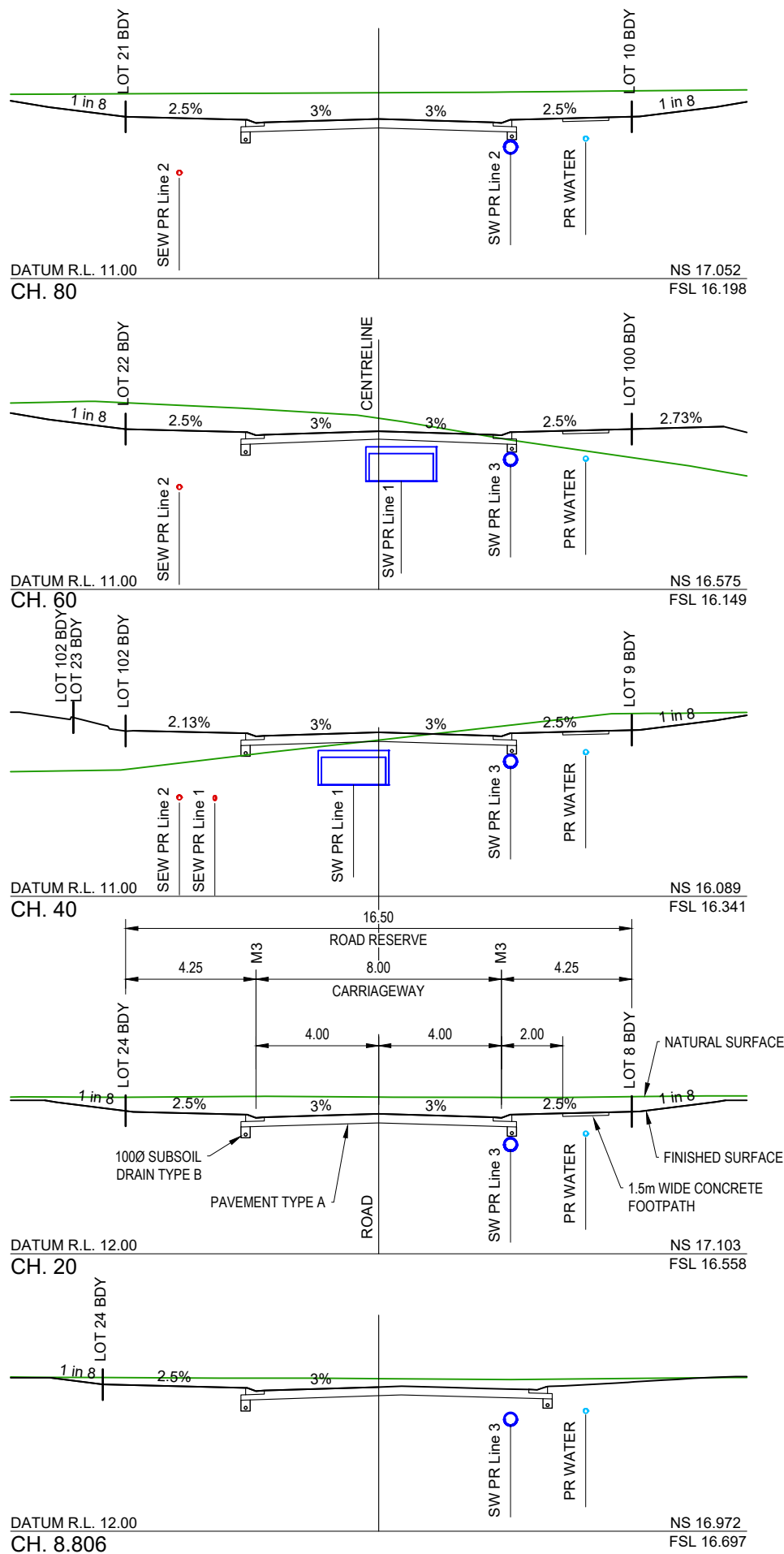
FOR APPROVAL - NOT FOR CONSTRUCTION

PLAN No: **1937 - 014**

REVISION: **-**

SHEET: **14 OF 44**

FILE LOCATION: J:\CIV\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-014.DWG



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PLAN DETAILS:

Designed: **M.K**
 Drawn: **W.F**
 Checked: **M.O**
 Datum: **AHD**
 Date: **10-09-18**

Director: **BRETT THOMSON (RPEQ 6068)**
 (FOR & ON BEHALF OF CONTOUR CE PTY LTD)

PLAN AMENDMENTS:

Rev	Date	Comment	Altered	Checked

**PROPOSED RESIDENTIAL SUBDIVISION
 AT 16 - 22 VIERITZ ROAD, BELLMERE
 FOR GALLERY HOMES**

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PLAN TITLE:

COURTIE STREET CROSS SECTIONS

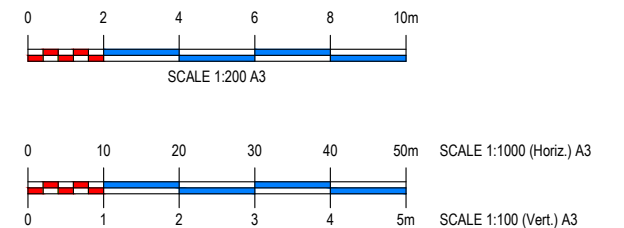
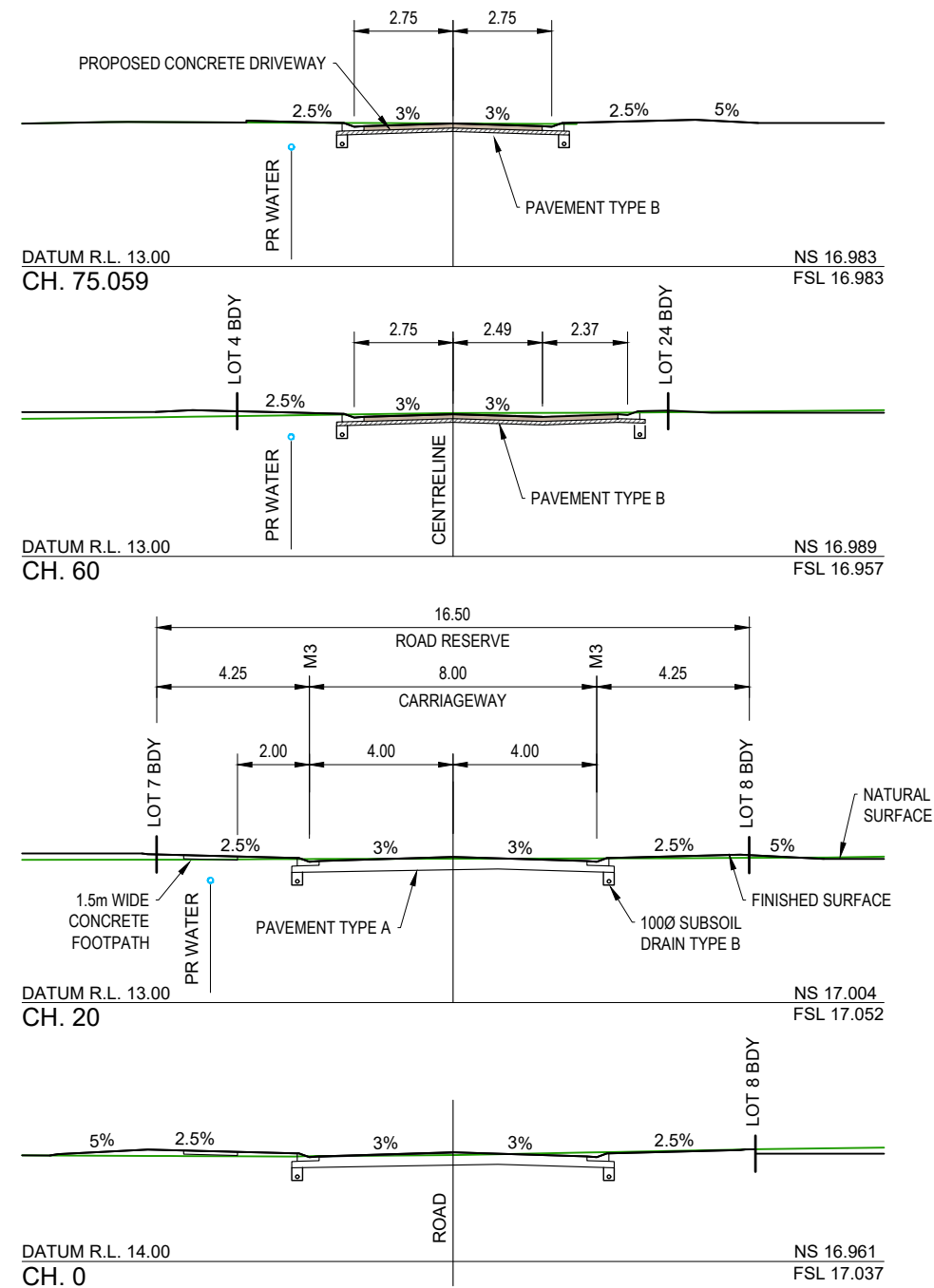
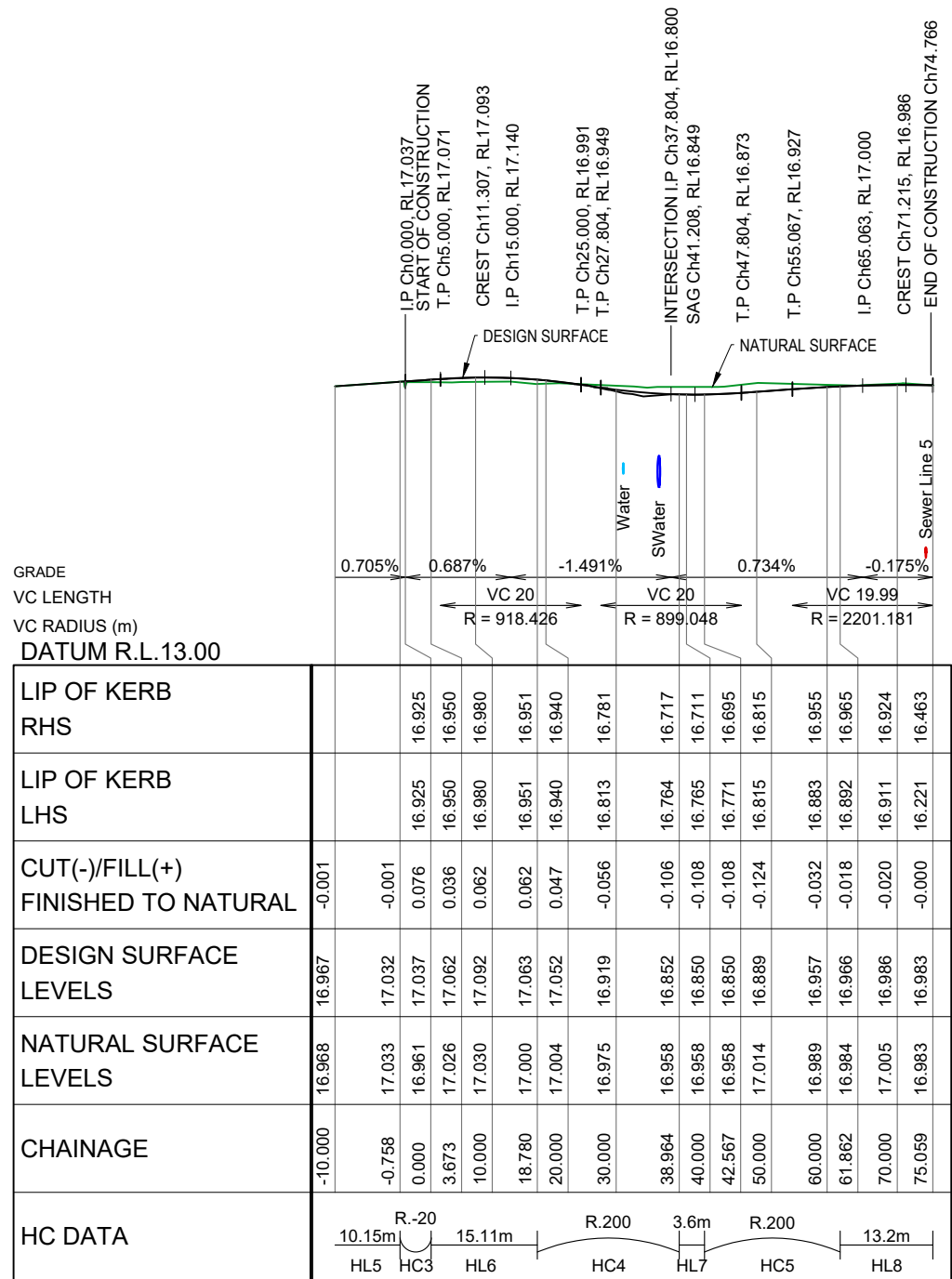
FOR APPROVAL - NOT FOR CONSTRUCTION

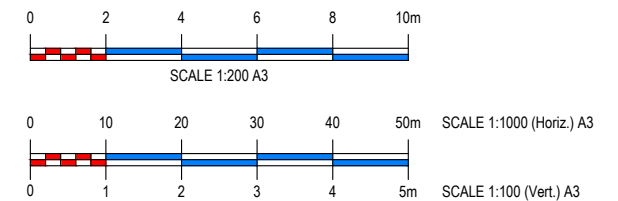
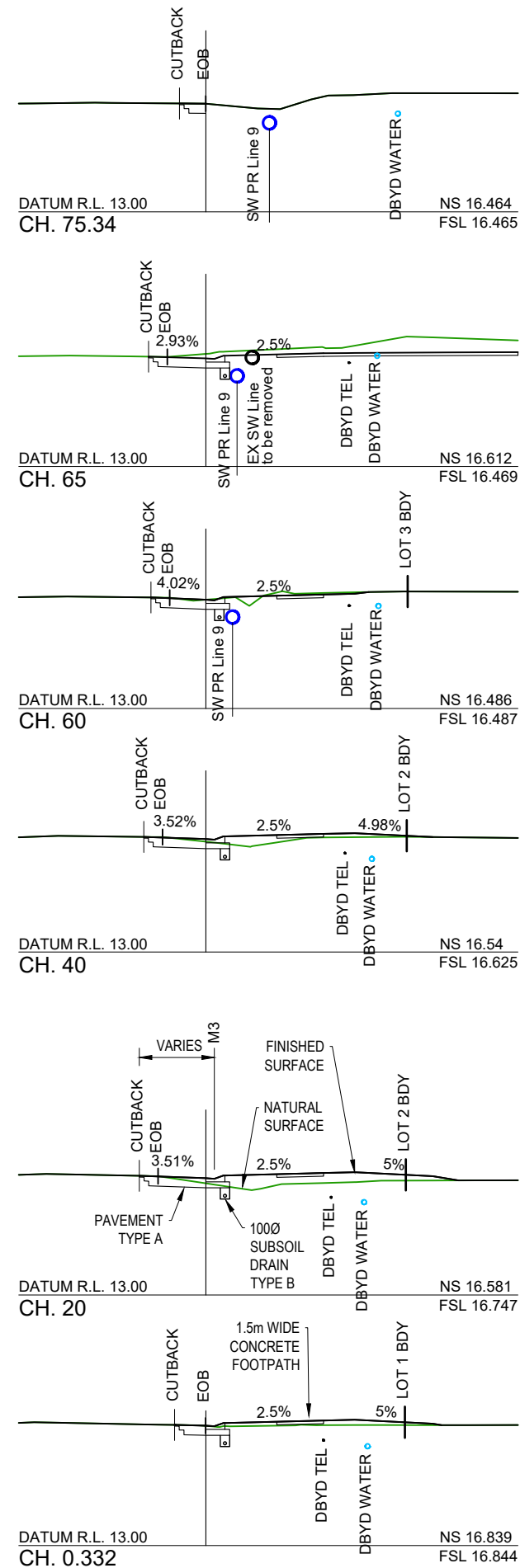
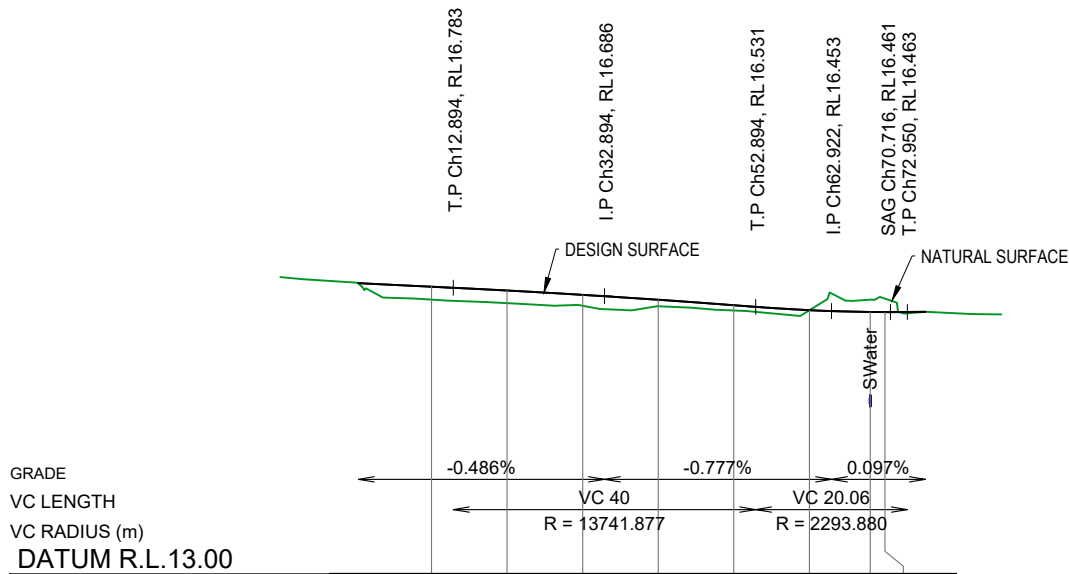
PLAN No: **1937 - 016**

REVISION: **-**

SHEET: **16 OF 44**

FILE LOCATION: J:\CIV\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-015-019.DWG

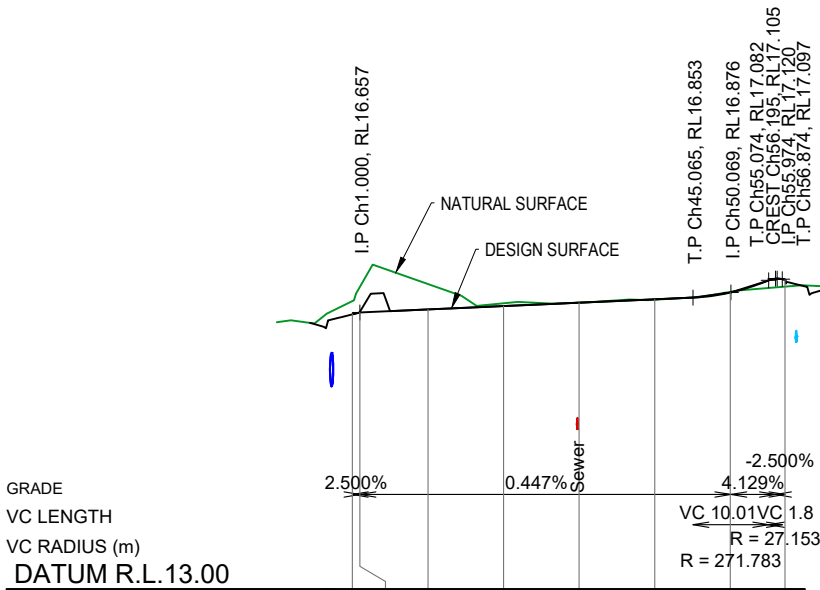




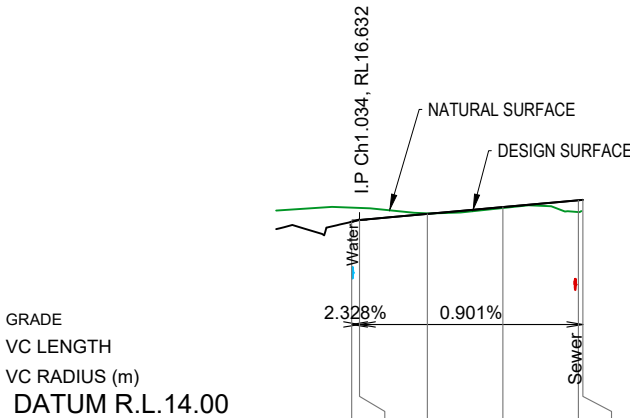
CONTROL LINE - ALIGN - FOOTPATH 1										
TAG		CHAINAGE	EASTING	NORTHING	LENGTH	RADIUS	BEARING	RAD/SPIRAL	A. LENGTH	D. ANGLE
HL11	IP	0.000	492720.816	7003001.864	57.224	-	178° 02' 56"	-	-	-
	IP	57.224	492722.764	7002944.672						

CONTROL LINE - ALIGN - FOOTPATH 2										
TAG		CHAINAGE	EASTING	NORTHING	LENGTH	RADIUS	BEARING	RAD/SPIRAL	A. LENGTH	D. ANGLE
HL12	IP	0.000	492686.702	7002789.226	30.575	-	268° 02' 34"	-	-	-
	IP	30.575	492656.144	7002788.182						

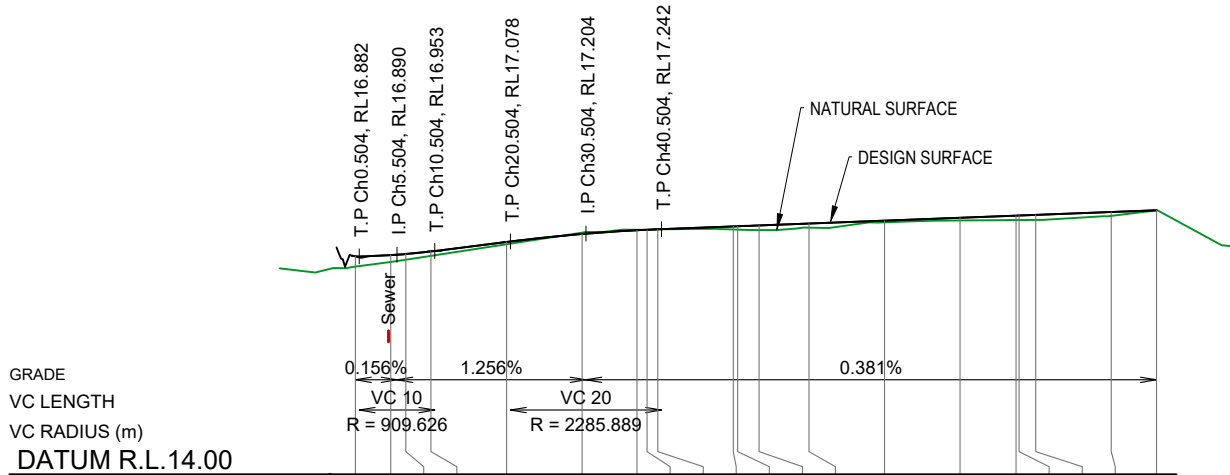
CONTROL LINE - ALIGN - FOOTPATH 3										
TAG		CHAINAGE	EASTING	NORTHING	LENGTH	RADIUS	BEARING	RAD/SPIRAL	A. LENGTH	D. ANGLE
HL13	IP IP	0.000 4.669	492657.957 492658.117	7002788.244 7002783.577	4.669	-	178° 02' 34"	-	-	-
HC6	TP IP TP	4.669 5.678 6.661	492658.1166 492658.151 492658.574	7002783.577 7002782.569 7002781.652	1.991	5.000	166° 37' 57"	5.000	1.991	343°46'29"
HL14	IP IP	6.661 37.260	492658.574 492671.398	7002781.652 7002753.870	30.599	-	155° 13' 20"	-	-	-
HC7	TP IP TP	37.260 37.932 38.595	492671.3980 492671.680 492672.112	7002753.870 7002753.260 7002752.746	1.336	5.000	147° 34' 11"	5.000	1.336	343°46'29"
HL15	IP IP	38.595 50.576	492672.112 492679.827	7002752.746 7002743.580	11.981	-	139° 55' 01"	-	-	-
HC8	TP IP TP	50.576 52.025 53.396	492679.8266 492680.759 492682.140	7002743.580 7002742.471 7002742.033	2.820	5.000	123° 45' 38"	5.000	2.820	343°46'29"
HL16	IP IP	53.396 87.408	492682.140 492714.559	7002742.033 7002731.747	34.011	-	107° 36' 14"	-	-	-
HC9	TP IP TP	87.408 87.600 87.793	492714.5586 492714.742 492714.930	7002731.747 7002731.689 7002731.645	0.385	5.000	105° 23' 51"	5.000	0.385	343°46'29"
HL17	IP IP	87.793 105.977	492714.930 492732.634	7002731.645 7002727.495	18.184	-	103° 11' 28"	-	-	-



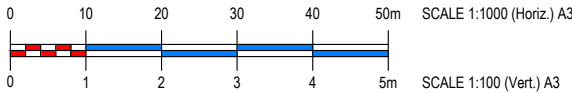
CUT(-)/FILL(+) FINISHED TO NATURAL	-0.176	-0.340	-0.337	-0.037	-0.001	0.005	-0.010	0.089
DESIGN SURFACE LEVELS	16.632	16.657	16.697	16.741	16.786	16.831	16.920	17.088
NATURAL SURFACE LEVELS	16.808	16.997	17.033	16.778	16.787	16.826	16.930	16.999
CHAINAGE	0.000	1.000	10.000	20.000	30.000	40.000	50.000	57.224
HC DATA	57.22m HL11							



CUT(-)/FILL(+) FINISHED TO NATURAL	-0.188	-0.160	-0.008	0.012	0.156
DESIGN SURFACE LEVELS	16.608	16.632	16.712	16.802	16.892
NATURAL SURFACE LEVELS	16.796	16.792	16.720	16.791	16.737
CHAINAGE	0.000	1.034	10.000	20.000	30.000
HC DATA	30.58m HL12				



CUT(-)/FILL(+) FINISHED TO NATURAL	0.134	0.090	0.076	0.058	0.030	-0.018	-0.006	0.001	0.000	0.041	0.045	0.061	0.054	0.023	0.035	0.058	0.059	0.067	0.050	0.000
DESIGN SURFACE LEVELS	16.881	16.898	16.913	16.947	17.072	17.178	17.227	17.234	17.240	17.278	17.280	17.291	17.316	17.354	17.392	17.421	17.422	17.430	17.468	17.491
NATURAL SURFACE LEVELS	16.747	16.808	16.837	16.888	17.042	17.196	17.234	17.233	17.240	17.237	17.235	17.230	17.262	17.332	17.357	17.363	17.363	17.364	17.418	17.491
CHAINAGE	0.000	4.669	6.661	10.000	20.000	30.000	37.260	38.595	40.000	50.000	50.576	53.396	60.000	70.000	80.000	87.408	87.793	90.000	100.000	105.977
HC DATA	4.67m R-5 HL13 HC6 30.6m HL14 R-5 HC7 HL15 R-5 HC8 34.01m HL16 R-5 HC9 18.18m HL17																			



PLAN DETAILS:

Designed: **M.K**
Drawn: **W.F**
Checked: **M.O**
Datum: **AHD**
Date: **10-09-18**

Director: **BRETT THOMSON (RPEQ 6068)**
(FOR & ON BEHALF OF CONTOUR CE PTY LTD)

PLAN AMENDMENTS:

Rev	Date	Comment	Altered	Checked

**PROPOSED RESIDENTIAL SUBDIVISION
AT 16 - 22 VIERITZ ROAD, BELLMERE
FOR GALLERY HOMES**

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PLAN TITLE:

**FOOTPATH 1, 2 & 3 LONGITUDINAL
SECTIONS**

FOR APPROVAL - NOT FOR CONSTRUCTION

PLAN No: **1937 - 019**

REVISION: **-**

SHEET: **19 OF 44**

FILE LOCATION: J:\CIVIL\1937-16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-015-019.DWG

RESIDENTIAL DRIVEWAYS NOTES

1. CROSSING TO BE CONSTRUCTED SQUARE TO THE STREET ALIGNMENT, WHOLLY CONTAINED WITHIN THE SITE FRONTAGE FROM INVERT OF CHANNEL TO PROPERTY BOUNDARY UNLESS SHOWN OTHERWISE.
2. KERB ADAPTORS AND ASSOCIATED ROOFWATER DRAINAGE TO BE LOCATED CLEAR OF VEHICULAR CROSSINGS.
3. DRIVEWAYS MUST ACHIEVE A HIGH POINT OF 250mm ABOVE INVERT OF KERB TO ENSURE STORMWATER IS CONTAINED WITHIN THE ROAD RESERVE AS PER REQUIREMENT OF Q.U.D.M. (QUEENSLAND URBAN
4. PLAIN CONCRETE SURFACES TO BE HEAVY BROOM FINISHED.
5. ALL FINISHED SURFACES OF DRIVEWAYS ARE TO COMPLY WITH THE REQUIREMENTS OF AS/NZS 3661.1 SLIP RESISTANCE OF PEDESTRIAN SURFACES. EXPOSED AGGREGATE FINISH SUBJECT TO RELEVANT COUNCIL APPROVAL DUE TO ENVIRONMENTAL REASONS.
6. EXPANSION JOINTS TO BE 10mm THICK FULL DEPTH CLOSED CELL CROSS LINKED POLYETHYLENE FOAM (85 - 150 KG/M), OR 8.5mm THICK BITUMEN IMPREGNATED COMPRESSED GRANULATED CORKBOARD, INSTALLATION TO MANUFACTURERS' INSTRUCTIONS. SEAL SURFACE OF JOINT WITH A SUITABLE POLYURETHANE SEALANT.
7. CONCRETE SURFACE TOLERANCE TO BE, +5mm/-0mm OVER 3 METRE SECTIONS.
8. CONCRETE TO BE MINIMUM GRADE N32 IN ACCORDANCE WITH AS 1379 AND AS 3600.
9. CONCRETE CONSTRUCTION TO COMPLY WITH THE REQUIREMENTS OF AS 3600, CONCRETE CODE.
10. SLAB TO BE 125mmTHICK N32 CONCRETE REINFORCED WITH SL72 MIN. MESH (50 TOP COVER). MAXIMUM AGGREGATE SIZE TO BE 20mm. SURFACE TO BE BROOM FINISHED AND TRAFFICED NO EARLIER THAN 10 DAYS AFTER PLACEMENT. SURFACE TO BE CONTINUALLY CURED FOR 10 DAYS.
11. REINFORCEMENT FABRIC TO AS 1304, 50 TOP AND EDGE COVER, LAP FABRIC 250.
12. CONTROL JOINTS ARE TO BE SEALED WITH A LOW MODULUS SELF PRIMING SEALANT TO THE MANUFACTURERS SPECIFICATION. REFER RS-065.
13. FORMWORK AND REINFORCEMENT SHALL BE IN PLACE AND INSPECTED AND APPROVED BY THE RELEVANT COUNCIL PRIOR TO PLACEMENT OF CONCRETE.
14. A GEOFABRIC LAYER (BIDIM A49 OR EQUIVALENT) SHALL BE INSTALLED UNDER THE SUB BASE WHERE THE SUBGRADE CDR IS <5 AND FOR SILTY/CLAYEY SOILS.
15. DRAWINGS TO BE READ IN CONJUNCTION WITH RS-049.
16. CONCRETE COLOUR & SURFACE FINISHING AS SPECIFIED BY DEVELOPER.

FOOTPATH NOTES

1. CONCRETE N32 IN ACCORDANCE WITH AS 1379 AND AS 3600. 125mm THICK SLAB WITH SL72 MESH, 50mm TOP & SIDE COVER.
2. CONTRACTION/EXPANSION JOINTS, 2m MAX SPACING.
3. CONCRETE COLOUR & SURFACE FINISHING AS SPECIFIED BY DEVELOPER.

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT CURRENT AUSTRALIAN STANDARD CODES (AS3600-2001 & AS2870-1996), BUILDING BY-LAWS AND THE ORDINANCES OF THE RELEVANT LOCAL AUTHORITY.
2. CONCRETE SPECIFICATION

APPLICATION	CONC STR (MPA)	MAX SLUMP (MM)	MAX AGG. SIZE (MM)	MIN. COVER (MM)
FOOTINGS	N25	100 (+20, -10)	20	50
DRIVEWAY SLAB	N32	80 (+20, -10)	20	30
FLOOR SLAB (TANK)	N32	80 (+20, -10)	20	40
SUSPENDED SLAB (TANK)	N32	80 (+20, -10)	20	40
BORED PIERS	N25	100 (+20, -10)	20	50
BLOCK CORE FILL	N20	230 (+20, -20)	10	55
3. ALL CONCRETE TESTING IS TO BE CARRIED OUT BY A NATA REGISTERED LABORATORY, IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF AS1012. THE FOLLOWING MINIMUM TESTING SCHEDULE IS TO BE ADOPTED IN ADDITION TO THE REQUIREMENTS OF THE MANUFACTURER'S QUALITY ASSURANCE PROGRAM.

- A MINIMUM OF ONE TEST (3 CYLINDERS) TO BE TAKEN FROM EACH ELEMENT CAST ON ANY GIVEN DAY (EG. COLUMNS, FOOTINGS, ETC)

- A MINIMUM OF ONE TEST (3 CYLINDERS) TO BE TAKEN FROM EACH CONCRETE STRENGTH GRADE CAST ON ANY GIVEN DAY.

- A MINIMUM OF ONE TEST (3 CYLINDERS) TO BE TAKEN FROM EACH 50M² OR PART THEREOF CAST ON ANY GIVEN DAY FOR EACH STRENGTH GRADE.

- ALL SAMPLES ARE TO BE TAKEN FROM THE AGITATOR, ON SITE, TESTED BY A NATA REGISTERED LABORATORY AND RESULTS PROVIDED TO THE ENGINEER FOR REVIEW
4. NO PENETRATIONS, RECESSES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE APPROVAL OF THE ENGINEER.
5. UNLESS NOTED OTHERWISE ALL FORMED EDGES AND CORNERS OF CONCRETE MEMBERS SHALL HAVE 20mm CHAMFERS. PROVIDE DRIP GROOVES TO THE PERIMETER OF THE SOFFITS OF ALL CONCRETE MEMBERS.

PREPARATION:

1. SUBGRADE TO BE PROOF ROLLED WITH ANY UNSUITABLE MATERIAL REMOVED AND REPLACED IN ACCORDANCE WITH EARTHWORKS NOTES.
2. ANY FILLING UNDER SLAB TO BE PLACED IN ACCORDANCE WITH EARTHWORKS NOTES.
3. PLACE AND COMPACT A 50mm LAYER OF BEDDING SAND UNDER SLAB AREAS WITH 0.2mm VAPOR BARRIER OVER, TAP AND SEAL ALL JOINTS.
3. AT PENETRATIONS IN SLABS, UNLESS OTHERWISE DETAILED REINFORCEMENT MUST NOT BE CUT BUT SHALL BE GATHERED EQUALLY TO EACH SIDE OF THE PENETRATIONS AND EXTRA REINFORCEMENT PROVIDED BETWEEN THE PENETRATIONS AS DIRECTED BY THE ENGINEER.
4. DURING DRY WEATHER MOISTEN TIMBER FORMWORK TO ASSIST CURING OF SURFACES.

PLACING:

1. ENSURE NO WATER IS ADDED TO THE CONCRETE AFTER INITIAL BATCHING.
2. NO CONCRETE TO BE POURED WHEN SITE TEMPERATURE EXCEEDS 35° C OR FALLS BELOW 5° C.
3. CONSTRUCTIONS JOINTS OR POUR BREAKS WHERE NOT SHOWN ON THE APPROVED PLANS OR DETAILS SHALL BE LOCATED AND FORMED TO THE APPROVAL OF THE ENGINEER

CURING:

1. CURING BY CONTINUOUS WETTING AND/OR COVERING FOR A PERIOD OF NOT LESS THAN 7 DAYS OR BY APPLICATION OF AN APPROPRIATE SPRAYED MEMBRANE CURING COMPOUND.
2. RETAIN FORM WORK AS LONG AS POSSIBLE ON VERTICAL SURFACES

INCREASED CRACK CONTROL METHODS:

1. USE OF LOW SHRINK CONCRETE WITH A DESIGN SHRINKAGE STRAIN LESS THAN 650X10-6
2. CONCRETE SHOULD NOT BE PLACED WHEN MAXIMUM DAILY TEMPERATURES ARE EXPECTED TO RISE OVER 30°C OR WHEN SITE WIND SPEEDS ARE EXPECTED TO EXCEED 15 KNOTS.
- TILING:

WHERE FLOOR SLABS ARE TO BE TILED, THE FOLLOWING RECOMMENDATIONS ARE MADE, IN ORDER TO MINIMIZE THE EFFECTS OF SHRINKAGE:-

- PROVISION OF SL92 SLAB MESH (OR EQUIVALENT).

- PLACEMENT OF TILES SHOULD BE DELAYED FOR AS LONG AS POSSIBLE (PREFERABLY FOR AT LEAST 3 MONTHS)

- USE OF ELASTIC TILE ADHESIVES AND PROVISION OF FLEXIBLE JOINTS BETWEEN TILES AT REGULAR CENTERS AND OVER SLAB JOINTS.

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT CURRENT AUSTRALIAN STANDARD CODES (AS3600-2001 & AS2870-1996), BUILDING BY-LAWS AND THE ORDINANCES OF THE RELEVANT LOCAL AUTHORITY.
2. REINFORCEMENT IS PRESENTED DIAGRAMMATICALLY. IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.
3. PROVIDE THE ENGINEER WITH 48 HOURS NOTICE OF REINFORCEMENT BEING READY FOR INSPECTION.
4. NO CONCRETE IS TO BE POURED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
5. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS SHOWN. WHERE NOT SPECIFIED, LAPS SHALL BE IN ACCORDANCE WITH AS3600 AND NOT LESS THAN: N12 - 400, N16 - 500, N20 - 650, N24 -800, N28 - 1100, N32 - 1400, N36 - 1700.
6. WELDING OF REINFORCEMENT WILL NOT BE PERMITTED.
7. REINFORCEMENT MUST NOT BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.
8. SPACEMENT OF SUFFICIENT "STOOLS" UNDER MAIN BOTTOM AND TOP REINFORCEMENT TO ALLOW ADEQUATE SUPPORT IN CORRECT POSITION DURING CONCRETING (BUT NOT GENERALLY GREATER THAN 900MM SPACINGS).
9. SUPPLY AND LAY STEEL FABRIC IN FLAT SHEETS AT SPLICES. PROVIDE 225 MINIMUM OVERLAP OF TRANSVERSE WIRES TO ALL EDGES OF SLAB FABRIC LAPS. (IE TWO WIRES OF EACH SHEET OVERLAPPING PLUS 25MM)
10. PROVIDE 'L' BARS TO ALL BEAM CORNERS AND INTERSECTIONS. 500 MINIMUM LAPS.
11. REINFORCEMENT SYMBOLS:

N GRADE 500 MPA DEFORMED BAR

SL GRADE 500 MPA DEFORMED SLAB MESH

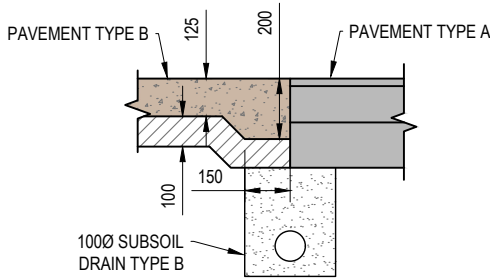
Y GRADE 410 MPA DEFORMED BAR

S GRADE 250 MPA DEFORMED BAR - POOL CONSTRUCTION

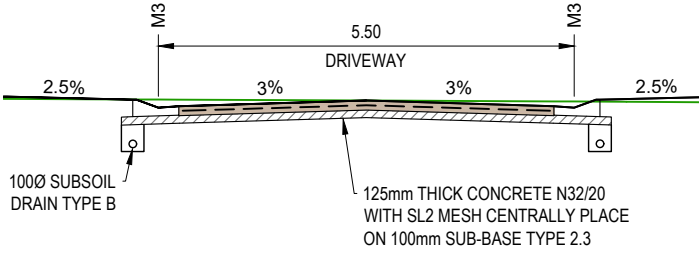
R GRADE 250 MPA PLAIN BAR

NOTE:

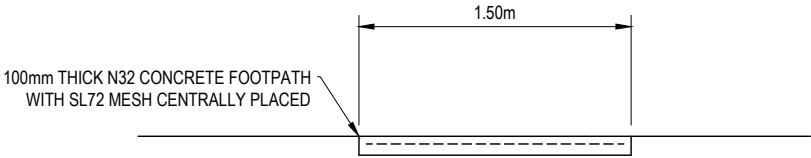
IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ALL BARS PERPENDICULAR TO THE JOINT DURING CASTING



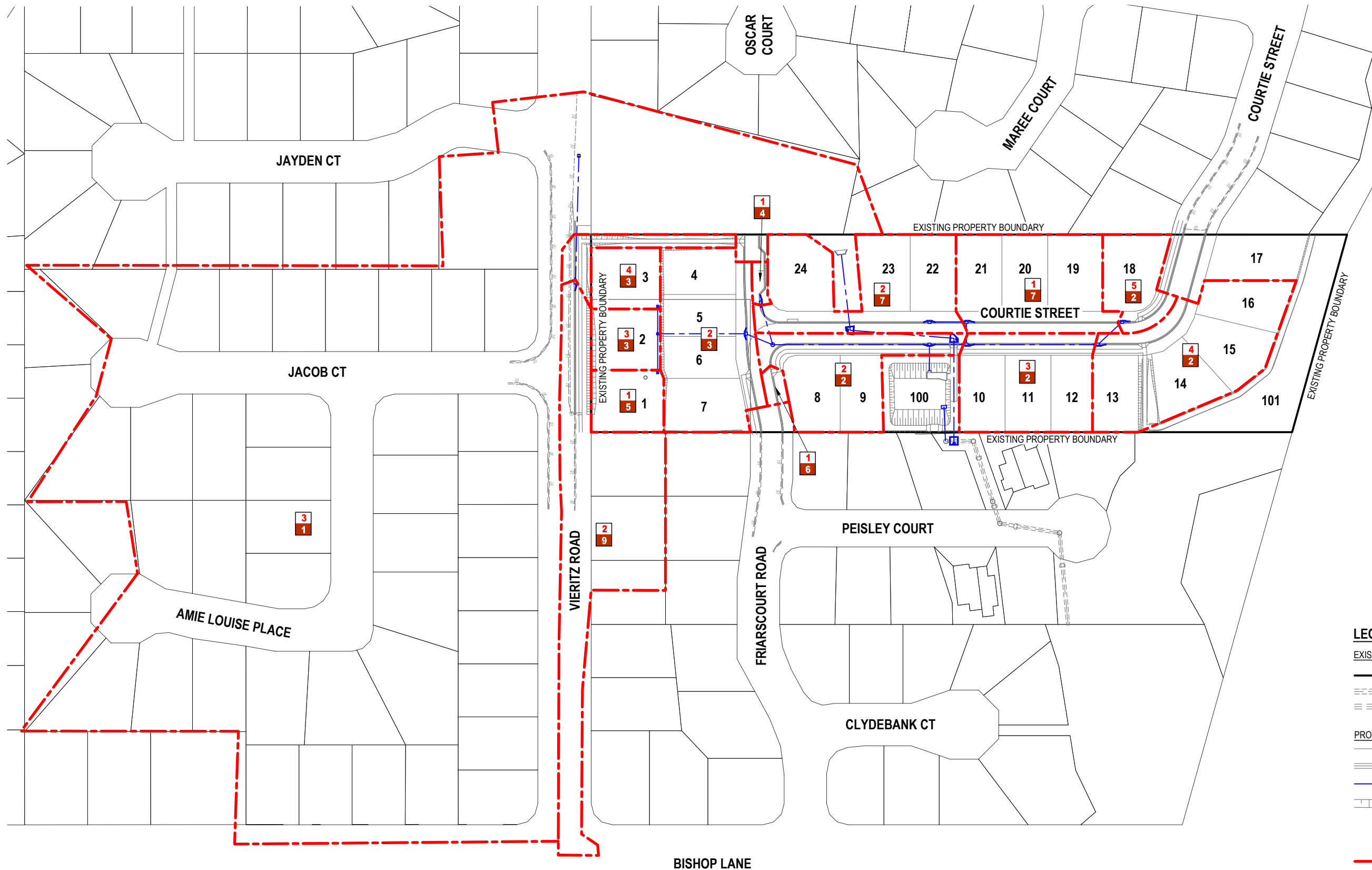
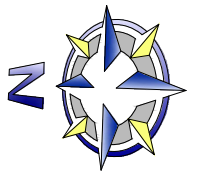
JOINT THICKENING DETAIL
SCALE 1:25 (A3)



TYPICAL DRIVEWAY CONSTRUCTION DETAILS
SCALE 1:100 (A3)



TYPICAL FOOTPATH CONSTRUCTION DETAILS
SCALE 1:50 (A3)



CATCHMENT TABLE

CATCHMENT NUMBER	CATCHMENT AREA (ha)
3-1	4.4034
2-9	0.3951
1-5	0.0637
3-3	0.0600
4-3	0.0600
2-3	0.2430
1-6	0.0111
1-4	0.0097
2-2	0.1725
2-7	0.2405
3-2	0.1863
1-7	0.2089
5-2	0.0805
4-2	0.2765

LEGEND

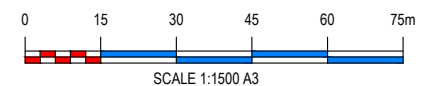
EXISTING FEATURES

- OVERALL RP BOUNDARY
- STORMWATER
- ROAD KERB

PROPOSED FEATURES

- RP BOUNDARIES
- ROAD KERB
- STORMWATER DRAINAGE
- EARTHWORKS BATTER
- STORMWATER STRUCTURE NUMBER
- CATCHMENT BOUNDARY

NOTE:
REFER DWG 1937-002 FOR
STORMWATER DRAINAGE
STANDARD NOTES





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PLAN DETAILS:					PLAN AMENDMENTS:				
Designed:	M.K	Rev	Date	Comment	Altered	Checked			
Drawn:	W.F								
Checked:	M.O								
Datum:	AHD								
Date:	10-09-18								
Director: BRETT THOMSON (RPEQ 6068) (FOR & ON BEHALF OF CONTOUR CE PTY LTD)									

PROPOSED RESIDENTIAL SUBDIVISION AT 16 - 22 VIERITZ ROAD, BELLMERE FOR GALLERY HOMES

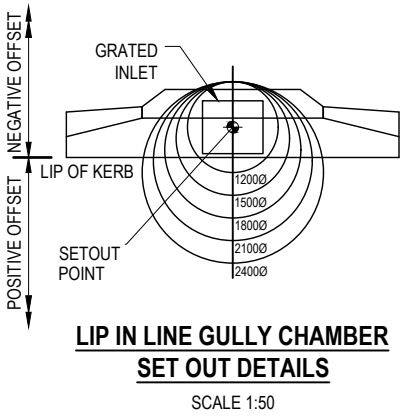
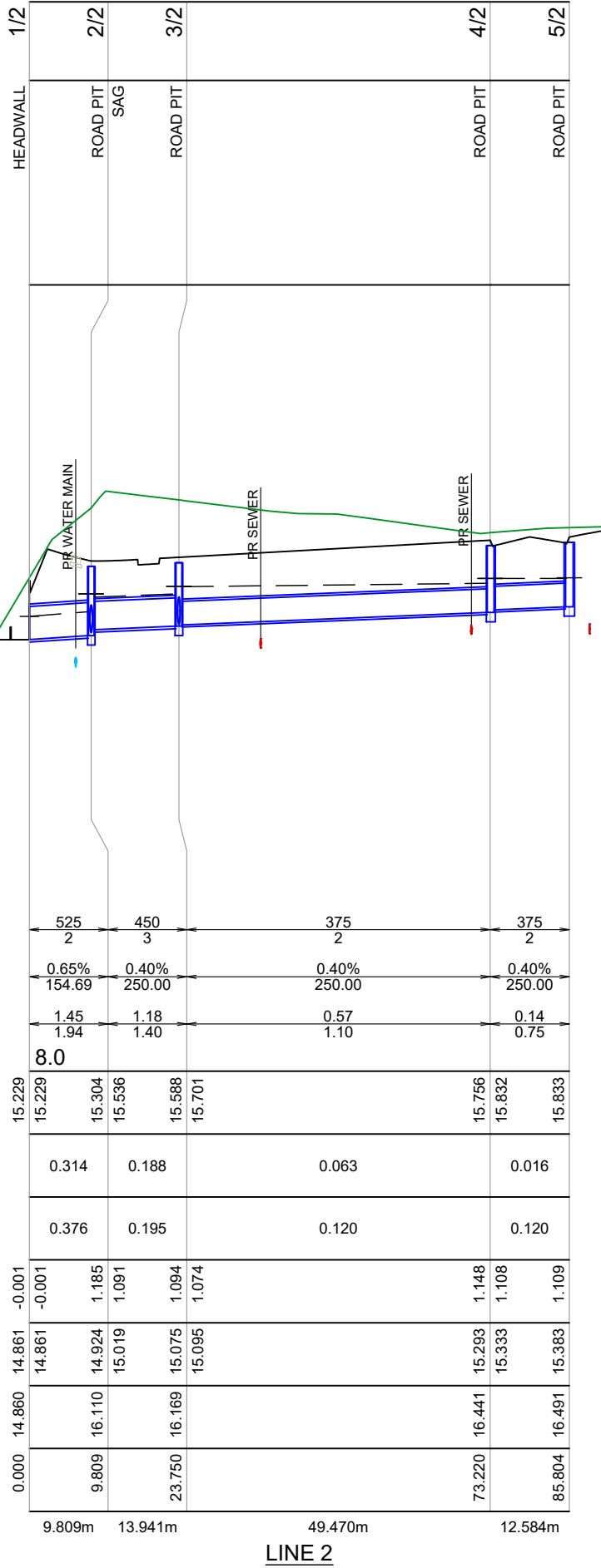
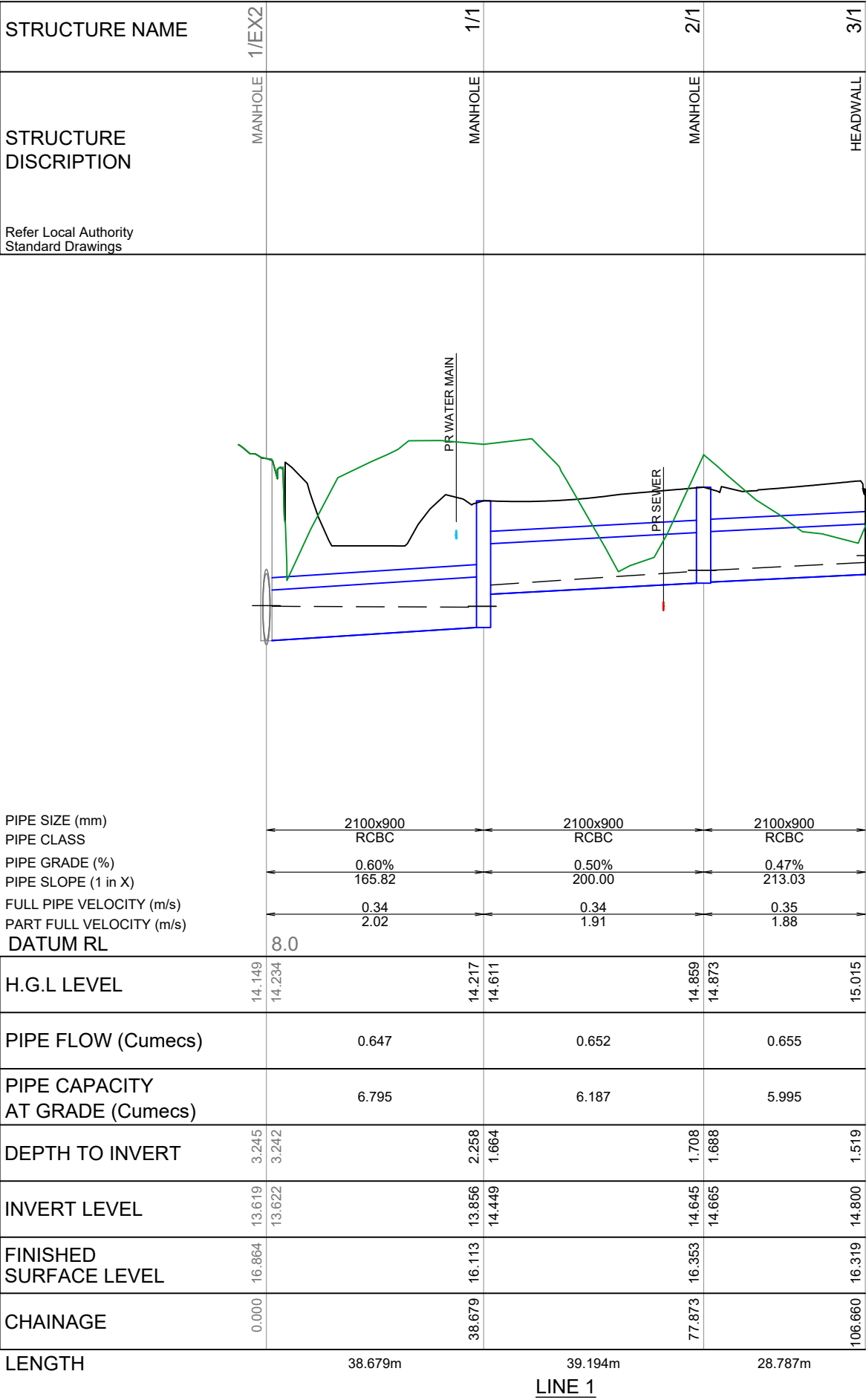
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PLAN TITLE:
STORMWATER CATCHMENT PLAN

FOR APPROVAL - NOT FOR CONSTRUCTION

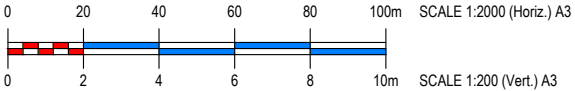
PLAN No: **1937 - 022** REVISION: SHEET: **22 OF 44**

FILE LOCATION: J:\CIVIL\1937-16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-022.DWG

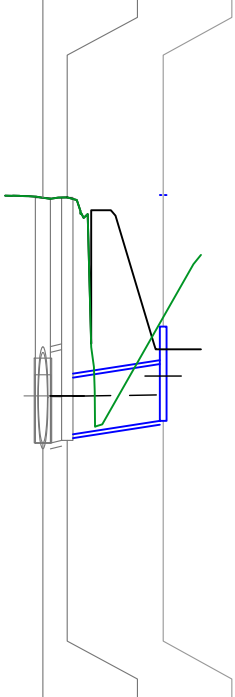


CHAMBER SIZE	OFFSET TO ϕ OF CHAMBER
12000	-400
15000	-250
18000	-100
21000	+50
24000	+200

- NOTES:
- ONLY INTERNAL DIMENSIONS OF THE CHAMBERS ARE SHOWN ON THE SET OUT DETAIL.
 - FOR ON GRADE LIP IN LINE GULLIES REFER TO CCC STANDARD DRAWING D-0063 FOR LOCATION OF GRATED INLET. LOCATE CHAMBER RELATIVE TO INLET.



STRUCTURE NAME	1/EX2	2/EX2	1/8
STRUCTURE DISCRIPTION	MANHOLE	MANHOLE	FIELD INLET PIT CUSTOM
Refer Local Authority Standard Drawings			

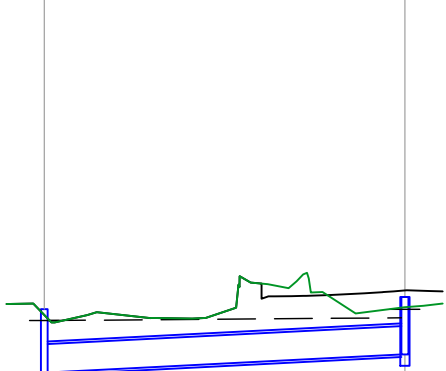


PIPE SIZE (mm)	1200	750
PIPE CLASS	2	2
PIPE GRADE (%)	1.14%	1.40%
PIPE SLOPE (1 in X)	88.02	71.32
FULL PIPE VELOCITY (m/s)	0.28	0.71
PART FULL VELOCITY (m/s)	2.29	2.59
DATUM RL	7.0	

H.G.L LEVEL	14.149	14.234	14.232	14.240	14.256
PIPE FLOW (Cumecs)		0.314		0.314	
PIPE CAPACITY AT GRADE (Cumecs)		4.504		1.429	
DEPTH TO INVERT	3.245	3.245	3.213	3.133	0.946
INVERT LEVEL	13.619	13.619	13.656	13.736	13.914
FINISHED SURFACE LEVEL	16.864		16.869		14.860
CHAINAGE	0.000		3.216		15.911

LENGTH	3.216m	12.695m
	LINE 8	

1/9	2/9
FIELD INLET PIT 900 x 900	ROAD PIT

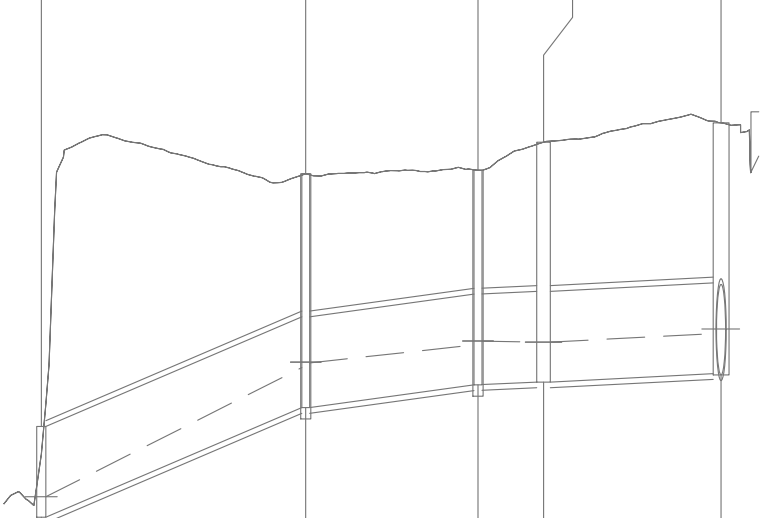


375	0.50%	0.57
3	200.00	1.37
8.0		

16.240	16.240	16.277
0.063		
0.161		
0.759	0.759	0.846
15.554		15.792
16.313		16.638
0.000		47.706

47.706m	LINE 9
---------	--------

1/EX1	2/EX1	3/EX1	3A/EX1	4/EX1
HEADWALL	MANHOLE	MANHOLE	MANHOLE	MANHOLE 2100mm DIA

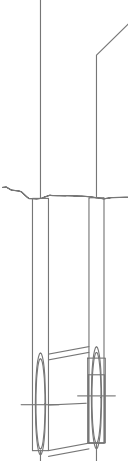


1200	1200	1200	1200
2	2	2	2
4.14%	1.32%	0.39%	0.47%
24.13	75.97	257.30	210.99
0.84	0.84	0.84	0.84
5.01	3.33	2.14	2.63
6.0			

11.909	11.909	13.618	13.680	13.918	13.968	13.955	13.955	14.067
0.951		0.953		0.954		0.956		
8.635		4.848		2.634		3.491		
0.823	0.823	3.091	3.091	2.839	2.836	3.172	3.172	3.317
11.640		13.090	13.090	13.390	13.393	13.427	13.427	13.538
		16.181		16.229		16.599		16.855
34.986				57.776		66.443		89.929

34.986m	22.790m	8.667m	23.487m
LINE EX1			

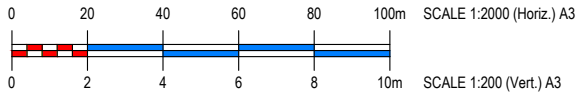
4/EX1	1/EX2
MANHOLE 2100mm DIA	MANHOLE




1200	1.34%	0.85
2	74.49	3.82
7.0		

14.067	14.123	14.149
0.956		
5.875		
3.317	3.335	3.245
13.538	13.520	13.619
		16.864
0.000		7.409

7.409m	LINE EX2
--------	----------




PLAN DETAILS:				PLAN AMENDMENTS:			
Designed:	M.K	Rev	Date	Comment	Altered	Checked	
Drawn:	W.F						
Checked:	M.O						
Datum:	AHD						
Date:	10-09-18						
							
Director: BRETT THOMSON (RPEQ 6068) (FOR & ON BEHALF OF CONTOUR CE PTY LTD)							

**PROPOSED RESIDENTIAL SUBDIVISION
AT 16 - 22 VIERITZ ROAD, BELLMERE
FOR GALLERY HOMES**

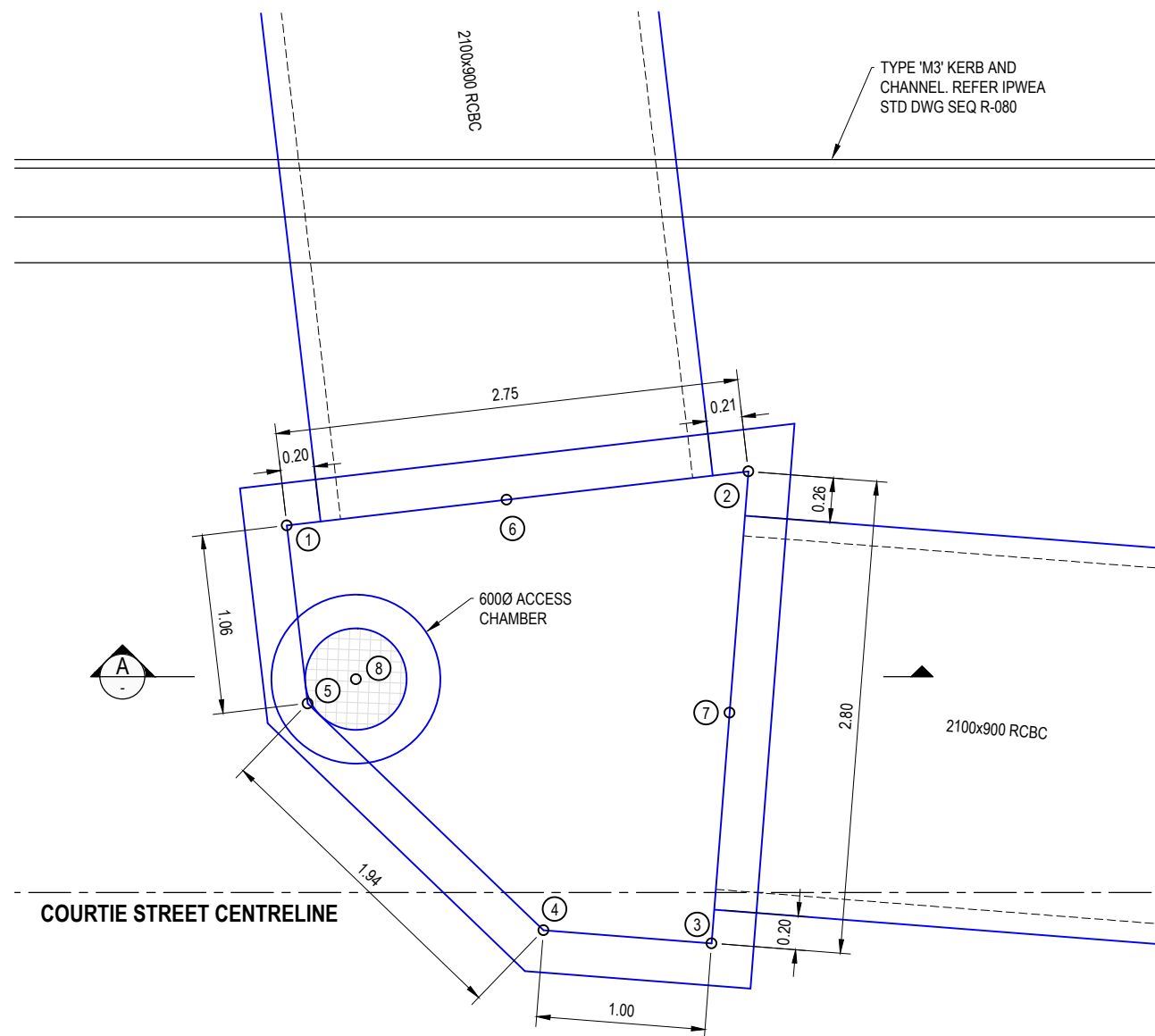
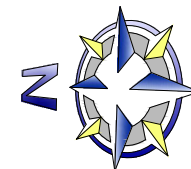
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PLAN TITLE:			
STORMWATER DRAINAGE LONGITUDINAL SECTIONS - SHEET 2 OF 3			
FOR APPROVAL - NOT FOR CONSTRUCTION			
PLAN No:	1937 - 024	REVISION:	
FILE LOCATION: J:\CIV\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-023-025.DWG			
SHEET: 24		OF 44	

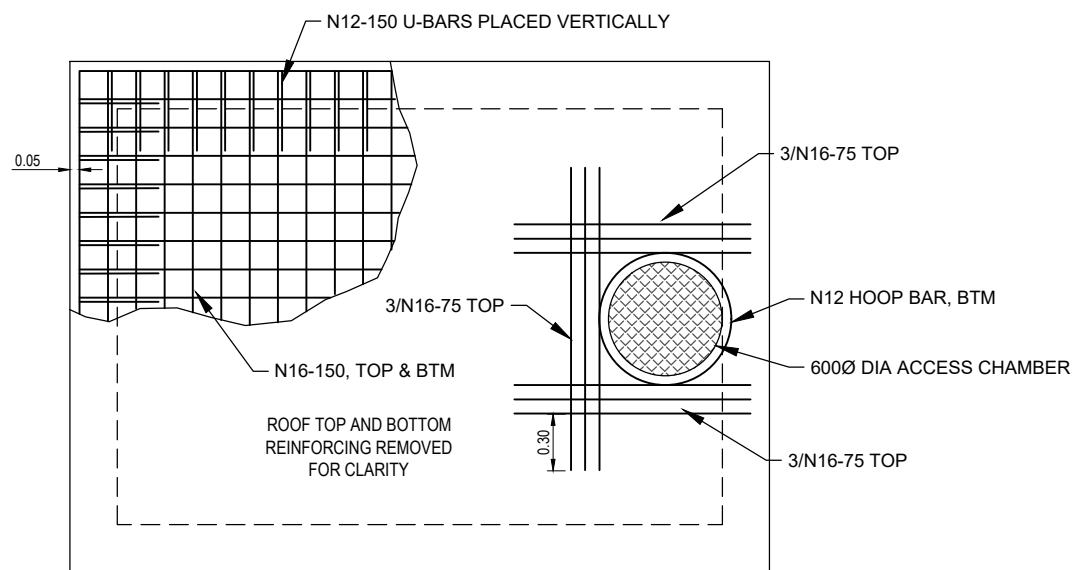
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PLAN DETAILS:		PLAN AMENDMENTS:				
Designed:	M.K	Rev	Date	Comment	Altered	Checked
Drawn:	W.F					
Checked:	M.O					
Datum:	AHD					
Date:	10-09-18					
 Director: BRETT THOMASON (RPEO 0068) (FOR & ON BEHALF OF CONTOUR CIE PTY LTD)						

PLAN TITLE:		
STORMWATER DRAINAGE CALCULATIONS		
TABLE - SHEET 2 OF 2		
FOR APPROVAL - NOT FOR CONSTRUCTION		
PLAN No: 1937 - 027	REVISION: -	SHEET: 27 OF 44

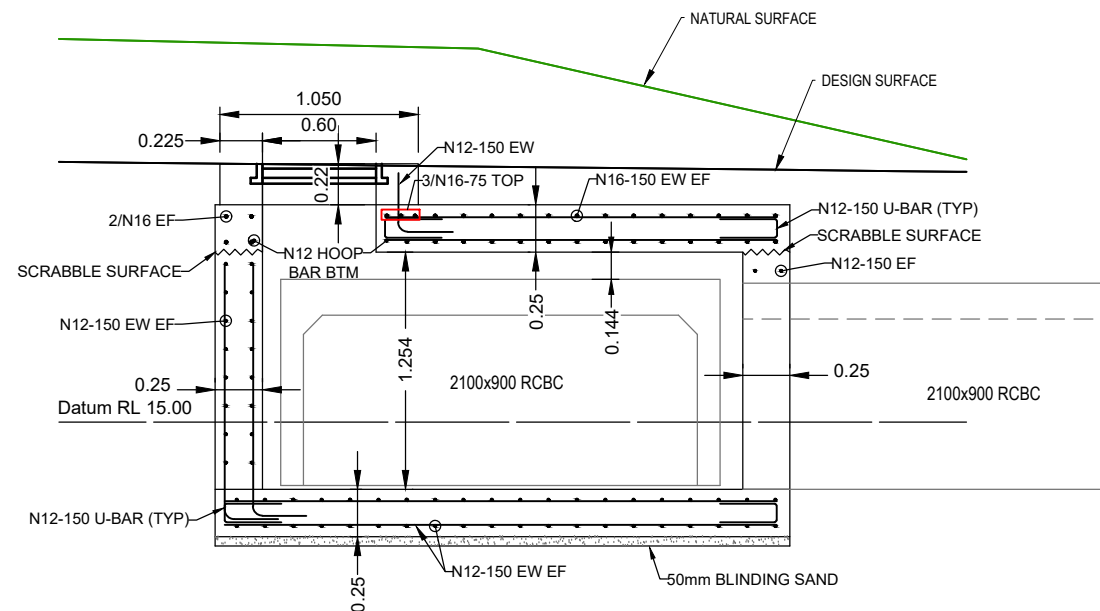


STORMWATER STRUCTURE 2/1
SCALE 1:40 (A3)



TYPICAL ROOF AND CHAMBER ACCESS SURROUND REINFORCING
SCALE 1:20 (A3)

STORMWATER STRUCTURE SETOUT		
PT No.	NORTHING	EASTING
1	7002901.9783	492691.6679
2	7002899.2575	492692.0808
3	7002899.3789	492689.2811
4	7002900.3780	492689.3244
5	7002901.8191	492690.6188
6	7002900.6832	492691.8644
7	7002899.3195	492690.6498
8	7002901.5378	492690.7723



SECTION
SCALE 1:40

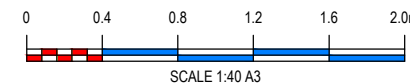
STRUCTURE NOTES

- ALL CONCRETE TO BE IN ACCORDANCE WITH MRTS70.
- ALL CONCRETE TO BE EXPOSURE CLASSIFICATION C1, 50MPa, UNLESS NOTED OTHERWISE.
- DESIGN LOADS HAVE BEEN ASSESSED IN ACCORDANCE WITH TMR MRTS25 AND AS5100 FOR CHAMBERS, PIPES AND CULVERTS LOADINGS FOR SM1600.
- SOIL CONDITIONS TO BE CONFIRMED BY GEOTECHNICAL TESTING.
- REINFORCEMENT TO BE IN ACCORDANCE WITH AS4671, TMR SPECIFICATION MRTS71 AND STANDARD DRAWINGS SD1143 & SD1144.
- REINFORCING COVER TO BE 50mm IN ACCORDANCE WITH TABLE 4.10.3.3 OF AS3600 "REQUIRED COVER WHERE REPETITIVE PROCEDURES AND INTENSE COMPACTION OR SELF COMPACTING CONCRETE ARE USED IN RIGID FORMWORK".
- REINFORCEMENT IS PRESENTED DIAGRAMMATICALLY. IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.
- REINFORCEMENT SYMBOLS:
8.1 N - GRADE 500 MPa DEFORMED BAR
- FORMWORK AND REINFORCEMENT SHALL BE IN PLACE AND INSPECTED AND APPROVED BY CERTIFYING ENGINEER PRIOR TO PLACEMENT OF CONCRETE.

- A GEOFABRIC LAYER (BIDIM A49 OR EQUIVALENT) SHALL BE INSTALLED UNDER THE SUB BASE WHERE THE SUBGRADE CBR IS <5 AND FOR SILTY/CLAYEY SOILS.
- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF TRANSPORT AND MAIN ROADS, RELEVANT CURRENT AUSTRALIAN STANDARD CODES (AS3600-2001 & AS2870-1996), BUILDING BY-LAWS AND THE ORDINANCES OF THE RELEVANT LOCAL AUTHORITY.
- ALL CONCRETE TESTING IS TO BE CARRIED OUT BY A NATA REGISTERED LABORATORY, IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF AS1012.
- ALL MANHOLE LIDS AND FRAMES TO BE CLASS D AND COMPLY WITH TMR MRTS03 CLAUSE 6.4 AND 24.2.

PREPARATION:

- SUBGRADE TO BE PROOF ROLLED WITH ANY UNSUITABLE MATERIAL REMOVED AND REPLACED IN ACCORDANCE WITH EARTHWORKS NOTES.
- PLACE AND COMPACT A 150mm LAYER OF 75mm ROAD BASE UNDER SLAB AREAS WITH 0.2mm VAPOR BARRIER OVER, TAP AND SEAL ALL JOINTS.
- DURING DRY WEATHER MOISTEN TIMBER FORMWORK TO ASSIST CURING OF SURFACES.
- MINIMUM SUBGRADE BEARING CAPACITY 100 KPa.



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PLAN DETAILS:

Designed: **M.K**
Drawn: **W.F**
Checked: **M.O**
Datum: **AHD**
Date: **10-09-18**

Director: **BRETT THOMSON (RPEQ 6068)**
(FOR & ON BEHALF OF CONTOUR CE PTY LTD)

PLAN AMENDMENTS:

Rev	Date	Comment	Altered	Checked

PROPOSED RESIDENTIAL SUBDIVISION AT 16 - 22 VIERITZ ROAD, BELLMERE FOR GALLERY HOMES

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PLAN TITLE:

STORMWATER STRUCTURE 2-1 SETOUT & DETAILS

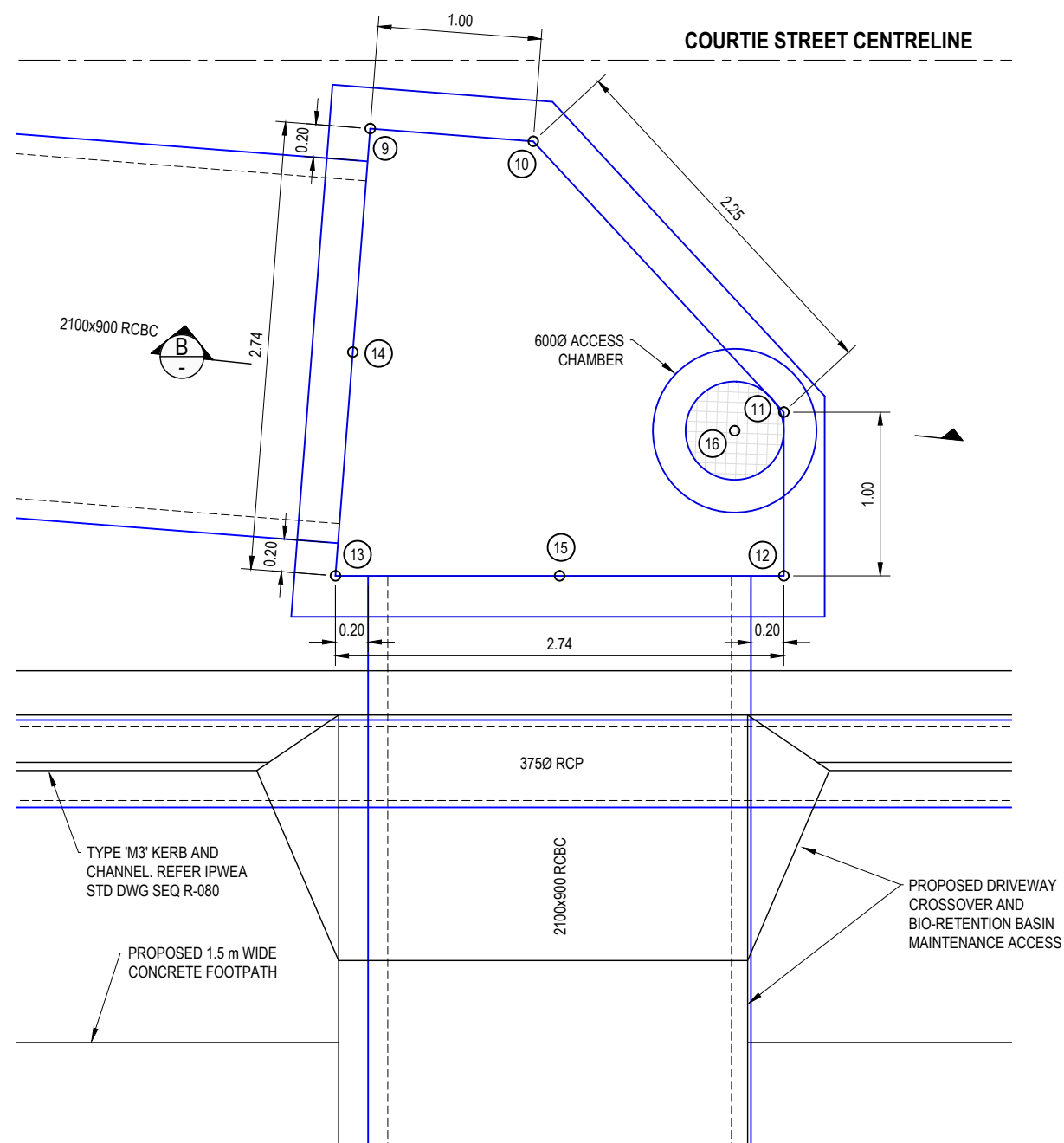
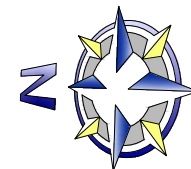
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PLAN No: **1937 - 028**

REVISION: **-**

SHEET: **28 OF 44**

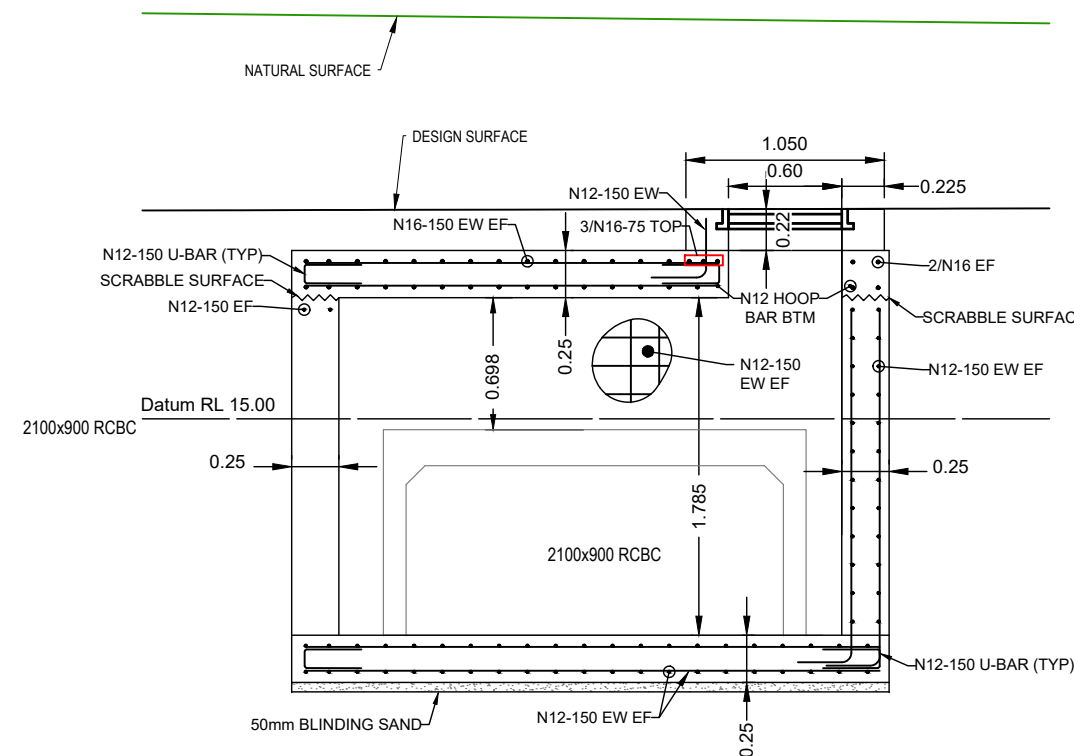
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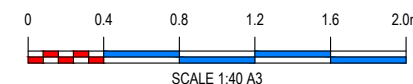
STORMWATER STRUCTURE 1/1
SCALE 1:40 (A3)

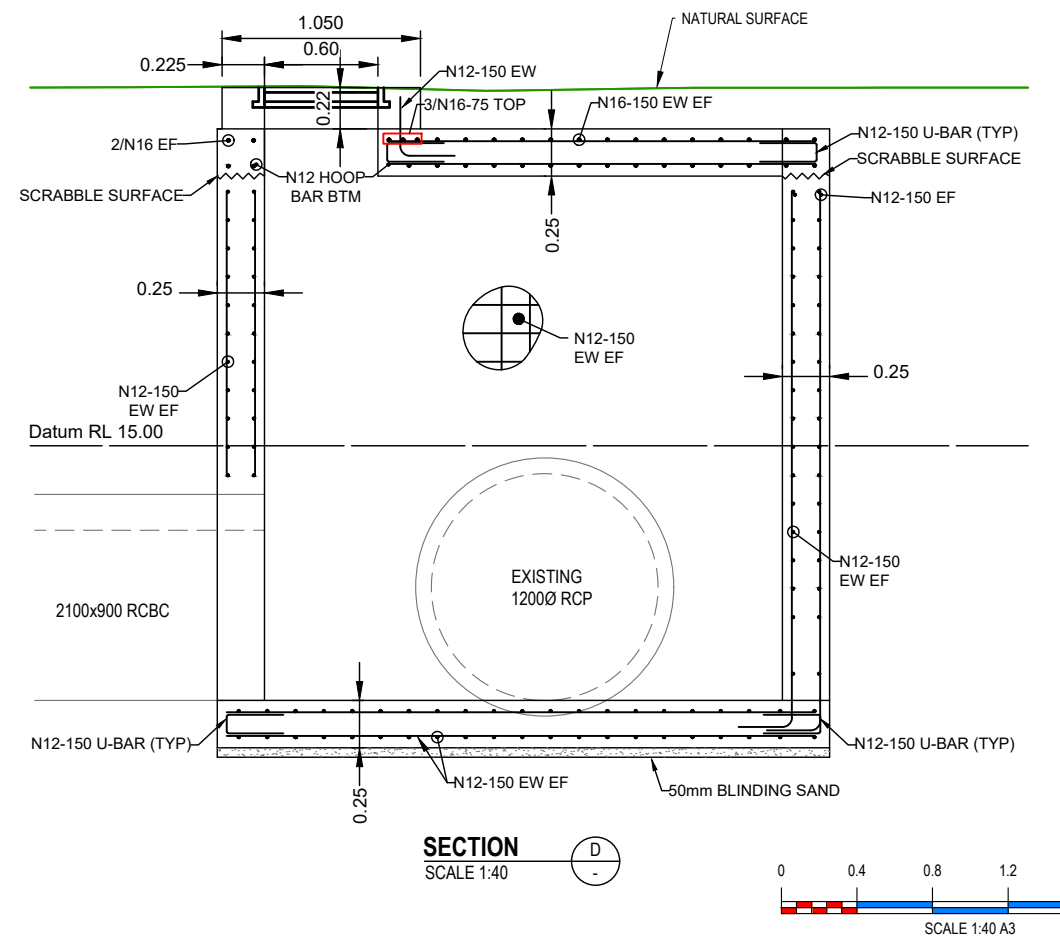
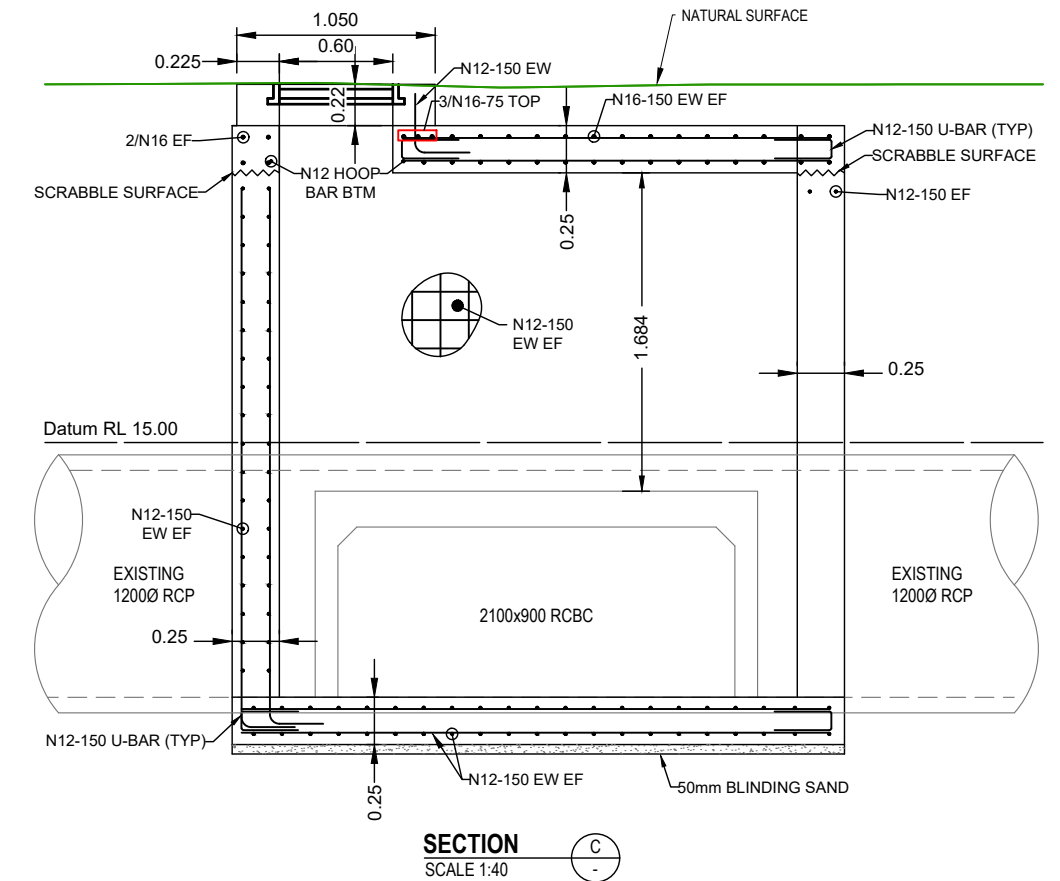
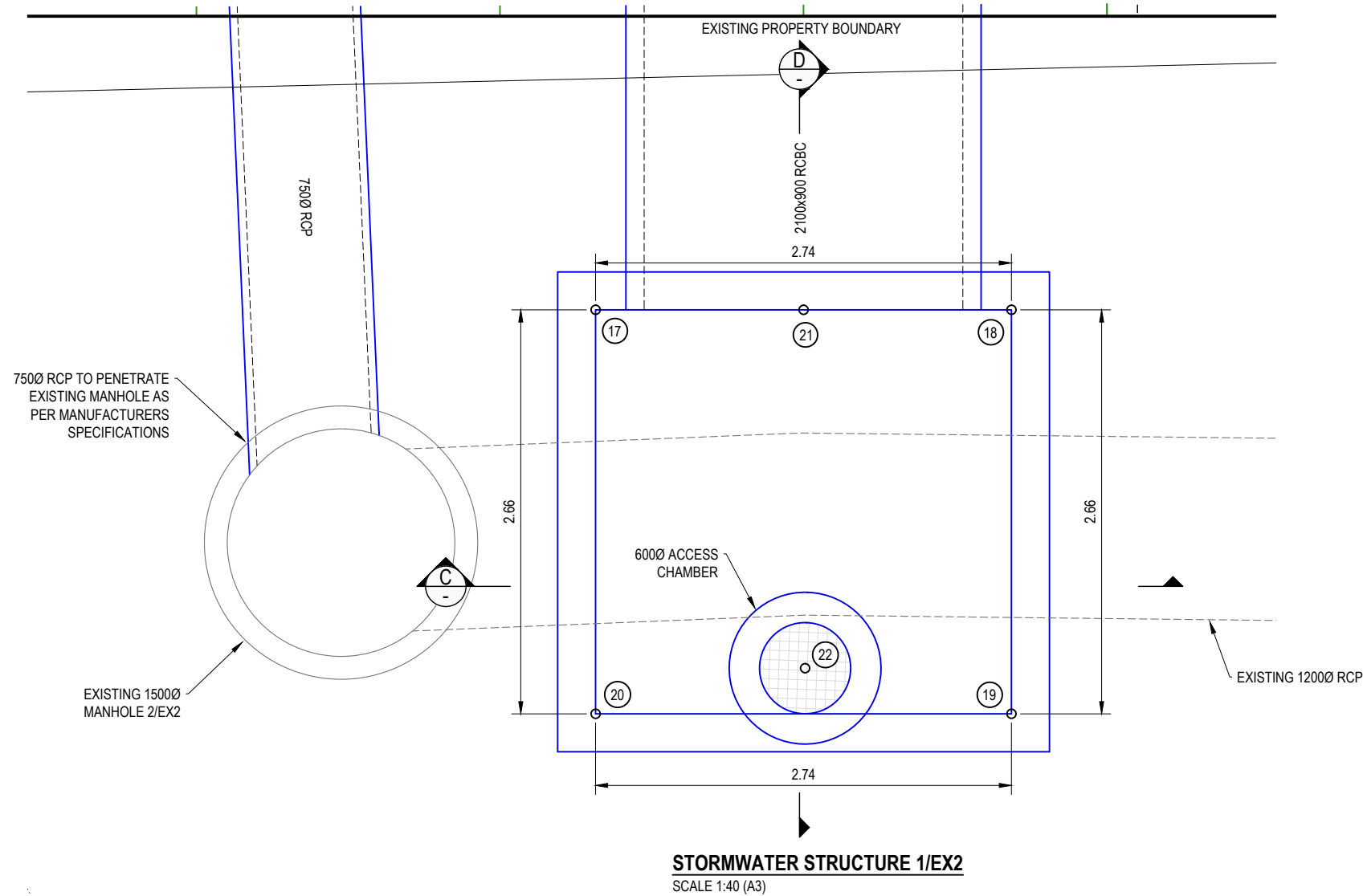
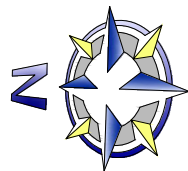
STORMWATER STRUCTURE SETOUT		
PT No.	NORTHING	EASTING
9	7002862.4957	492690.4240
10	7002861.4966	492690.3806
11	7002859.9102	492688.7795
12	7002859.8760	492687.7801
13	7002862.6144	492687.6865
14	7002862.5551	492689.0552
15	7002861.2452	492687.7333
16	7002860.2062	492688.6555

NOTE:
REFER DWG 1937-028 FOR
STORMWATER STRUCTURE NOTES



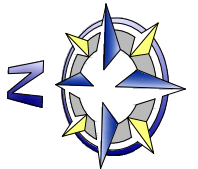
SECTION
SCALE 1:40





NOTE:
REFER DWG 1937-028 FOR
STORMWATER STRUCTURE NOTES

STORMWATER STRUCTURE SETOUT		
PT No.	NORTHING	EASTING
17	7002861.3849	492651.7075
18	7002858.6465	492651.8011
19	7002858.5556	492649.1413
20	7002861.2940	492649.0477
21	7002860.0157	492651.7543
22	7002859.9248	492649.3945



LEGEND

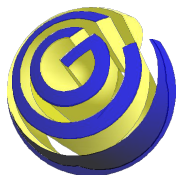
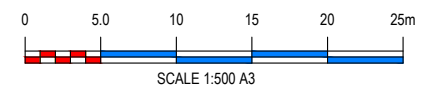
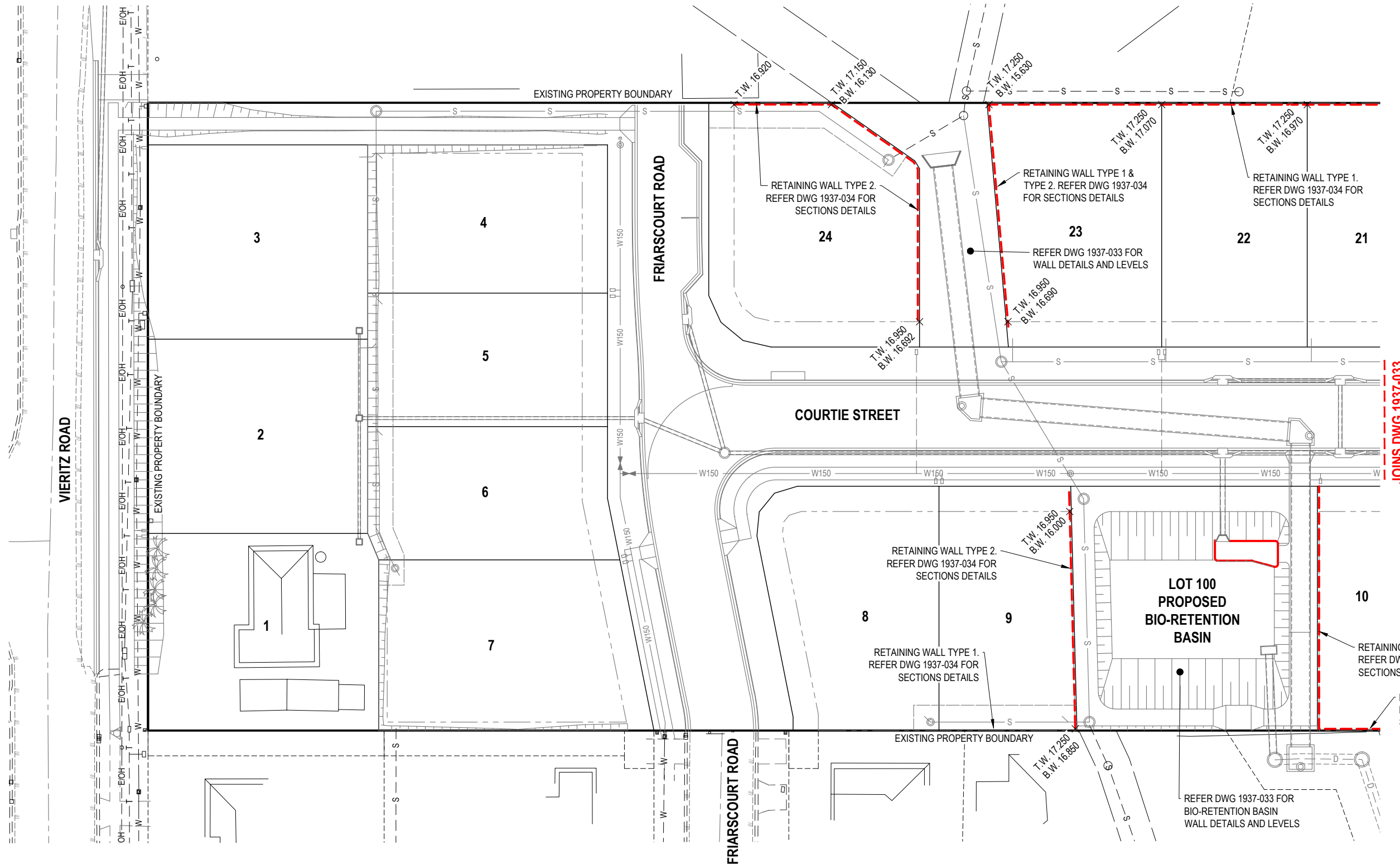
EXISTING FEATURES

- OVERALL RP BOUNDARY
- EASEMENT
- CADASTRAL RP BOUNDARY
- OVERHEAD ELECTRICAL
- FENCE
- TELSTRA (DBYD)
- WATER RETICULATION (DBYD)
- SEWER RETICULATION (DBYD)
- STORMWATER
- CHANGE IN GRADE
- ROAD CENTRELINE
- ROAD KERB

PROPOSED FEATURES

- RP BOUNDARIES
- ROAD KERB
- STORMWATER DRAINAGE
- EARTHWORKS BATTER
- SEWERAGE RETICULATION
- 1500 WATER RETICULATION
- WATER SERVICE
- RETAINING WALL

- + B.W. 15.320
BOTTOM OF WALL LEVEL
- + T.W. 15.320
TOP OF WALL LEVEL



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Website: www.ContourCE.com.au



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PLAN DETAILS:

Designed: **M.K**
Drawn: **W.F**
Checked: **M.O**
Datum: **AHD**
Date: **10-09-18**

Director: **BRETT THOMSON (RPEQ 6068)**
(FOR & ON BEHALF OF CONTOUR CE PTY LTD)

PLAN AMENDMENTS:

Rev	Date	Comment	Altered	Checked

PROPOSED RESIDENTIAL SUBDIVISION AT 16 - 22 VIERITZ ROAD, BELLMERE FOR GALLERY HOMES

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PLAN TITLE:

RETAINING WALL PLAN & LEVELS - SHEET 1 OF 3

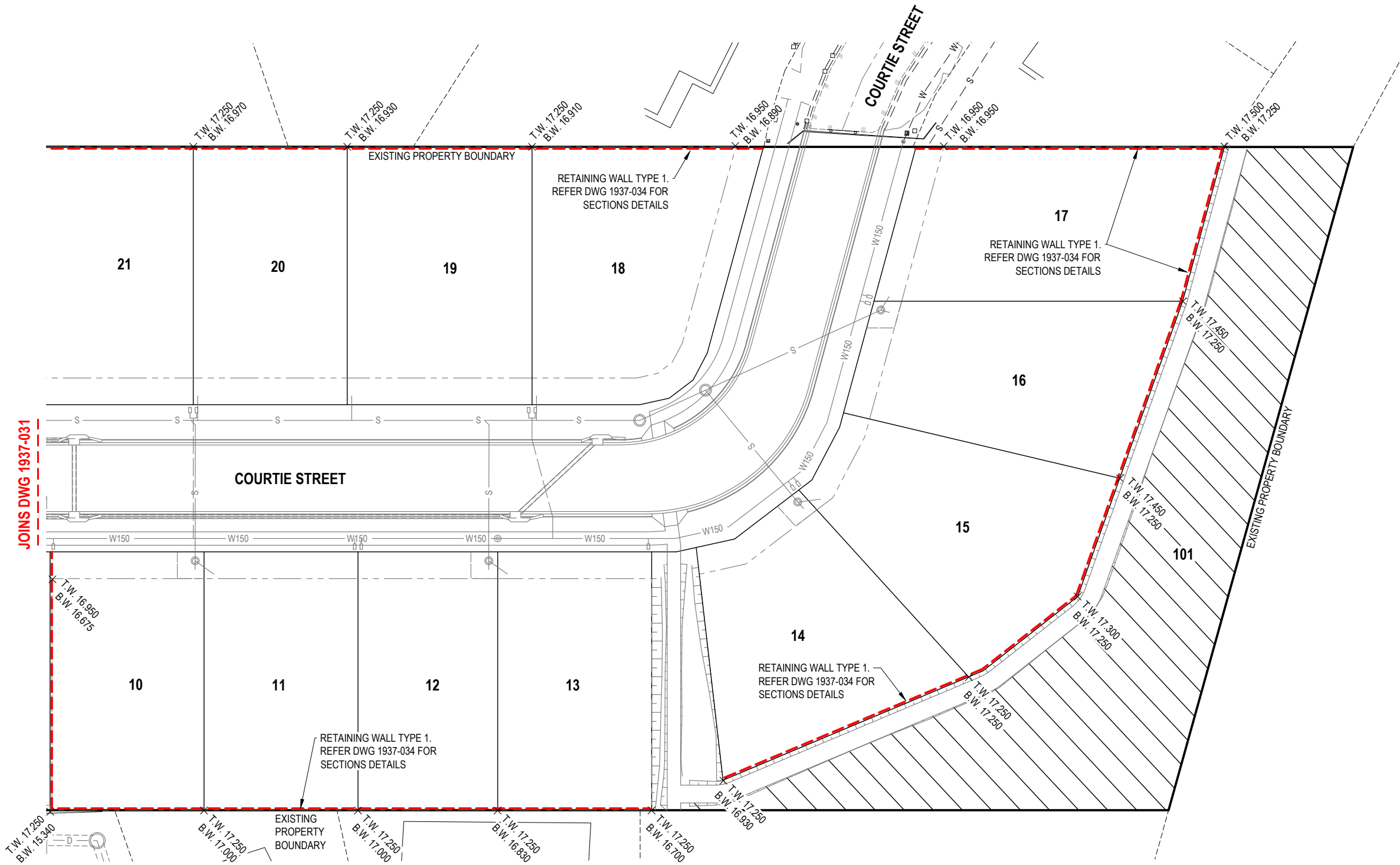
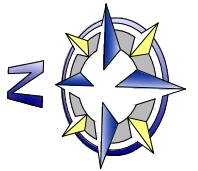
FOR APPROVAL - NOT FOR CONSTRUCTION

PLAN No: **1937 - 031**

REVISION: **-**

SHEET: **31 OF 44**

FILE LOCATION: J:\CIVIL\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-031-034.DWG



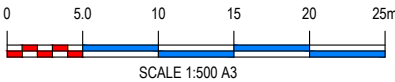
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EXISTING FEATURES

- OVERALL RP BOUNDARY
- EASEMENT
- CADASTRAL RP BOUNDARY
- OVERHEAD ELECTRICAL
- FENCE
- TELSTRA (DBYD)
- WATER RETICULATION (DBYD)
- SEWER RETICULATION (DBYD)
- STORMWATER
- CHANGE IN GRADE
- ROAD CENTRELINE
- ROAD KERB

PROPOSED FEATURES

- RP BOUNDARIES
- ROAD KERB
- STORMWATER DRAINAGE
- EARTHWORKS BATTER
- SEWERAGE RETICULATION
- 1500 WATER RETICULATION
- WATER SERVICE
- RETAINING WALL
- BOTTOM OF WALL LEVEL
- TOP OF WALL LEVEL
- RIPARIAN CORRIDOR



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Designed: **M.K**
Drawn: **W.F**
Checked: **M.O**
Datum: **AHD**
Date: **10-09-18**

Director: **BRETT THOMSON (RPEQ 6068)**
(FOR & ON BEHALF OF CONTOUR CE PTY LTD)

PLAN AMENDMENTS:

Rev	Date	Comment	Altered	Checked

PROPOSED RESIDENTIAL SUBDIVISION AT 16 - 22 VIERITZ ROAD, BELLMERE FOR GALLERY HOMES

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PLAN TITLE:

**RETAINING WALL PLAN & LEVELS - SHEET 2
OF 3**

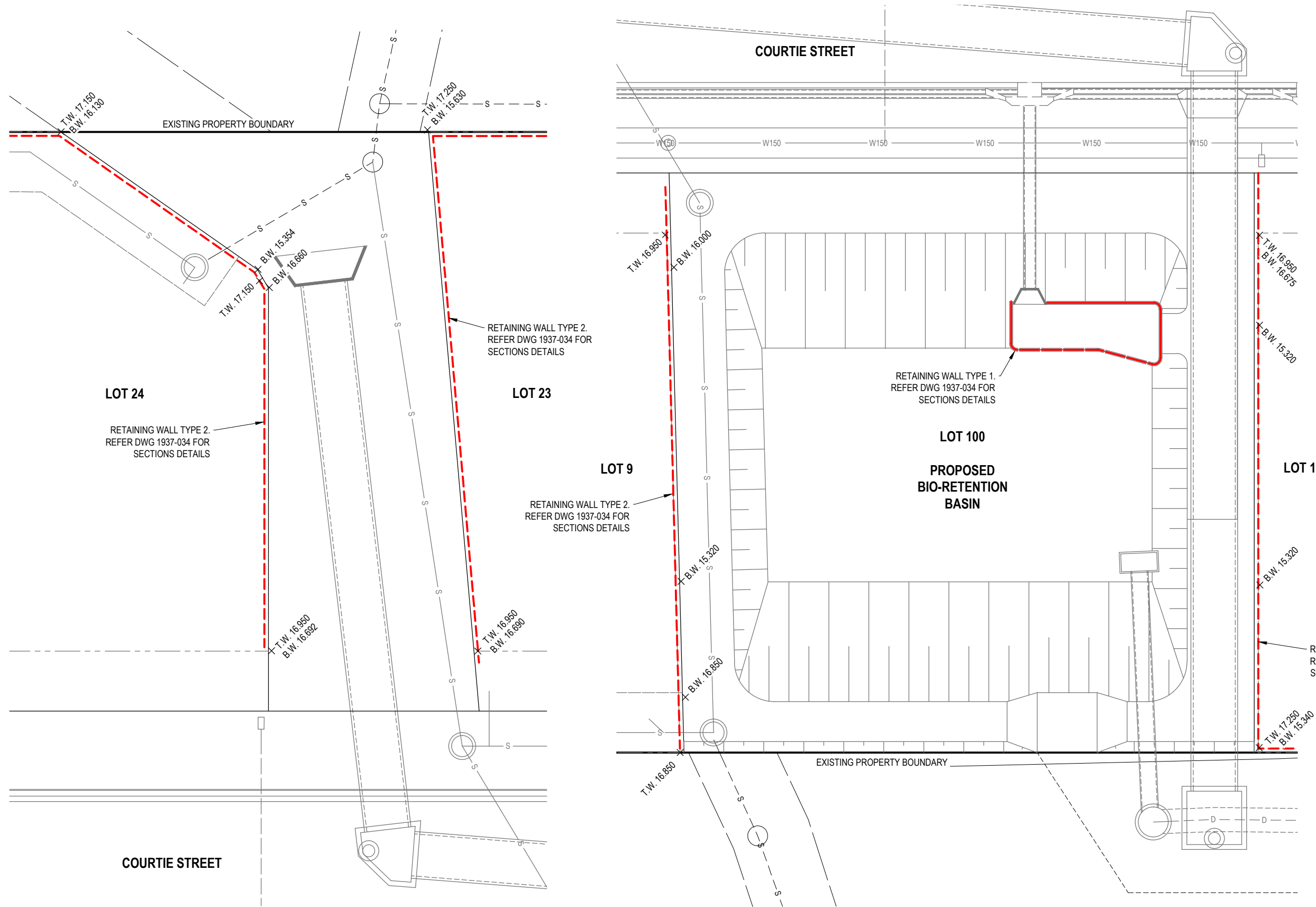
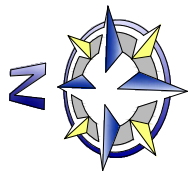
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PLAN No: **1937 - 032**

REVISION: **-**

SHEET: **32 OF 44**

FILE LOCATION: J:\CIVIL\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\DWG\WORKS\1937-031-034.DWG



LEGEND

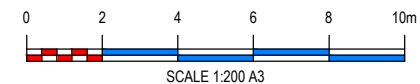
EXISTING FEATURES

- OVERALL RP BOUNDARY
- EASEMENT
- CADASTRAL RP BOUNDARY
- OVERHEAD ELECTRICAL
- FENCE
- TELSTRA (DBYD)
- WATER RETICULATION (DBYD)
- SEWER RETICULATION (DBYD)
- STORMWATER
- CHANGE IN GRADE
- ROAD CENTRELINE
- ROAD KERB

PROPOSED FEATURES

- RP BOUNDARIES
- ROAD KERB
- STORMWATER DRAINAGE
- EARTHWORKS BATTER
- SEWERAGE RETICULATION
- 1500 WATER RETICULATION
- WATER SERVICE
- RETAINING WALL

- BOTTOM OF WALL LEVEL
- TOP OF WALL LEVEL



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Designed: **M.K**
Drawn: **W.F**
Checked: **M.O**
Datum: **AHD**
Date: **10-09-18**

Director: **BRETT THOMSON (RPEQ 6068)**
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PLAN TITLE:

RETAINING WALL PLAN & LEVELS - SHEET 3 OF 3

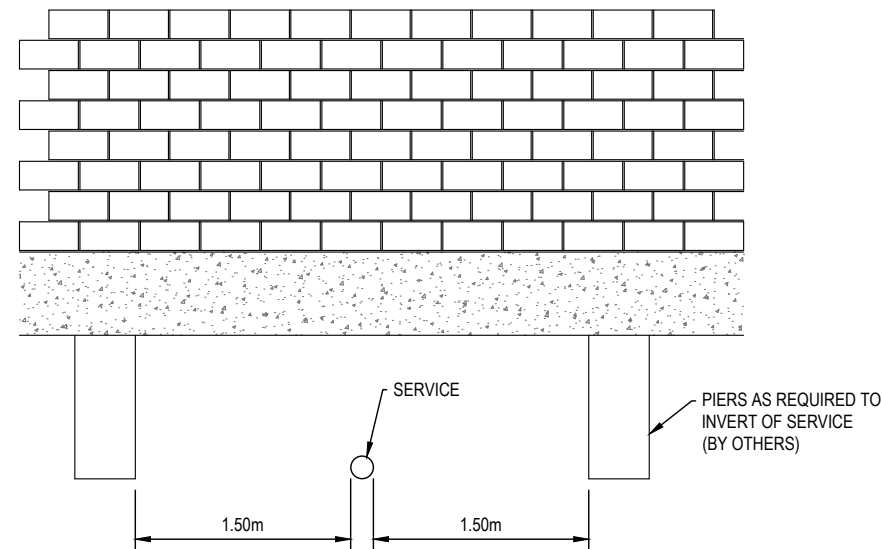
FOR APPROVAL - NOT FOR CONSTRUCTION

PLAN No: **1937 - 033**

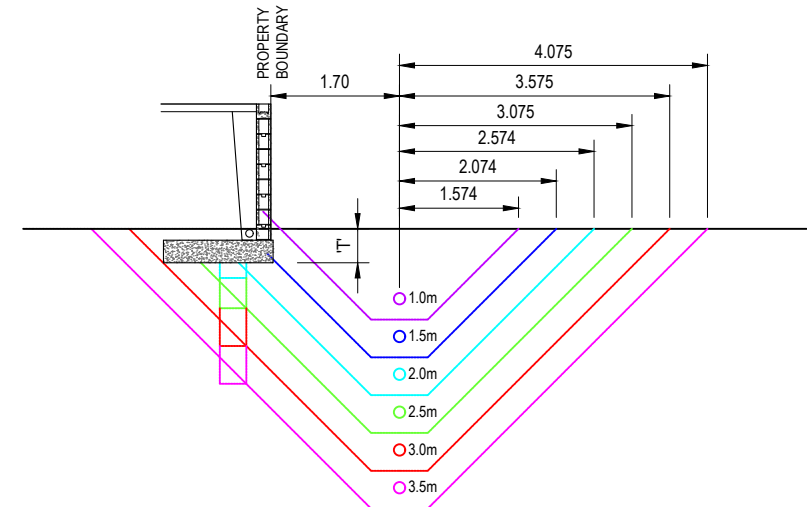
REVISION: **-**

SHEET: **33 OF 44**

FILE LOCATION: J:\CIVIL\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\DWG\WORKS\1937-031-034.DWG



RETAINING WALL PIERS DETAIL - SERVICE CROSSING

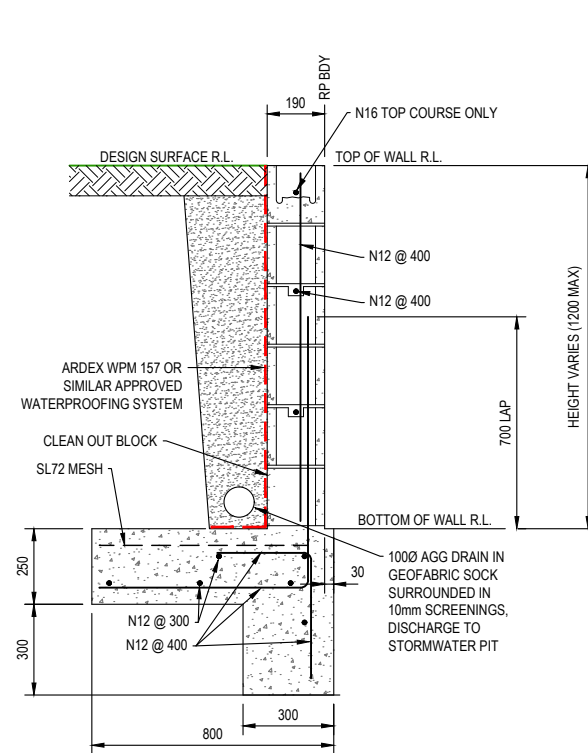


SEWER ZONE OF INFLUENCE 1.70m OFFSET -
BLOCKWORK RETAINING WALL

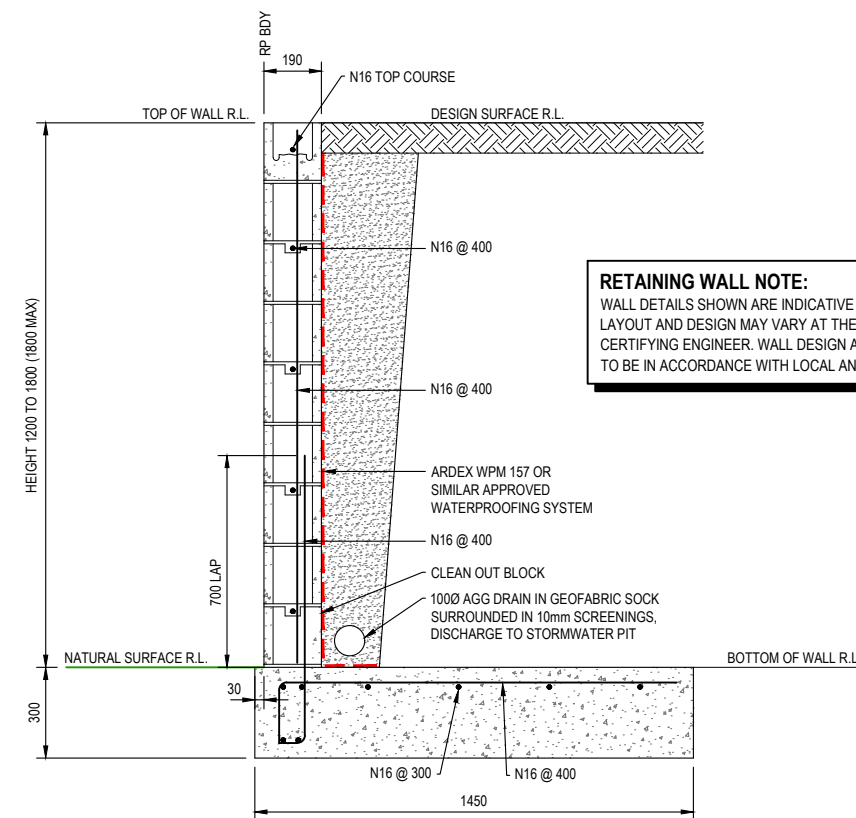
SCALE 1:100

NOTE:

1. ZONE OF INFLUENCE IN ACCORDANCE WITH SEQ CODE
2. SEWER ALIGNMENTS PARALLEL TO BLOCKWORK RETAINING WALLS MAY REQUIRE BORED CONCRETE PIERS. REFER STRUCTURAL CERTIFYING ENGINEERS REQUIREMENTS.
3. STRUCTURAL ENGINEER TO CERTIFY RETAINING WALL ALLOWING FOR OPEN TRENCH FOR SEWER.

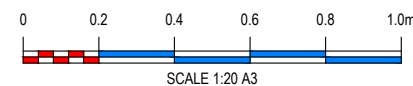


RETAINING WALL TYPE 1
SCALE 1:20

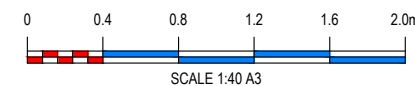


RETAINING WALL TYPE 2
SCALE 1:20

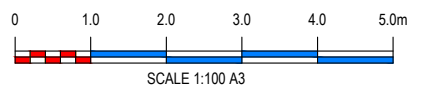
RETAINING WALL NOTE:
WALL DETAILS SHOWN ARE INDICATIVE ONLY. FINAL RETAINING WALL LAYOUT AND DESIGN MAY VARY AT THE DISCRETION OF THE CERTIFYING ENGINEER. WALL DESIGN AND CERTIFICATION BY OTHERS. TO BE IN ACCORDANCE WITH LOCAL AND AUSTRALIAN STANDARDS.



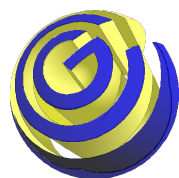
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SCALE 1:40 A3



SCALE 1:100 A3



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PLAN DETAILS:

Designed: **M.K**
Drawn: **W.F**
Checked: **M.O**
Datum: **AHD**
Date: **10-09-18**

Director: **BRETT THOMSON (RPEQ 6068)**
(FOR & ON BEHALF OF CONTOUR CE PTY LTD)

PLAN AMENDMENTS:

Rev	Date	Comment	Altered	Checked

**PROPOSED RESIDENTIAL SUBDIVISION
AT 16 - 22 VIERITZ ROAD, BELLMERE
FOR GALLERY HOMES**

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PLAN TITLE:

**RETAINING WALL & SEWER BRIDGING
DETAILS**

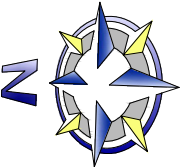
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PLAN No: **1937 - 034**

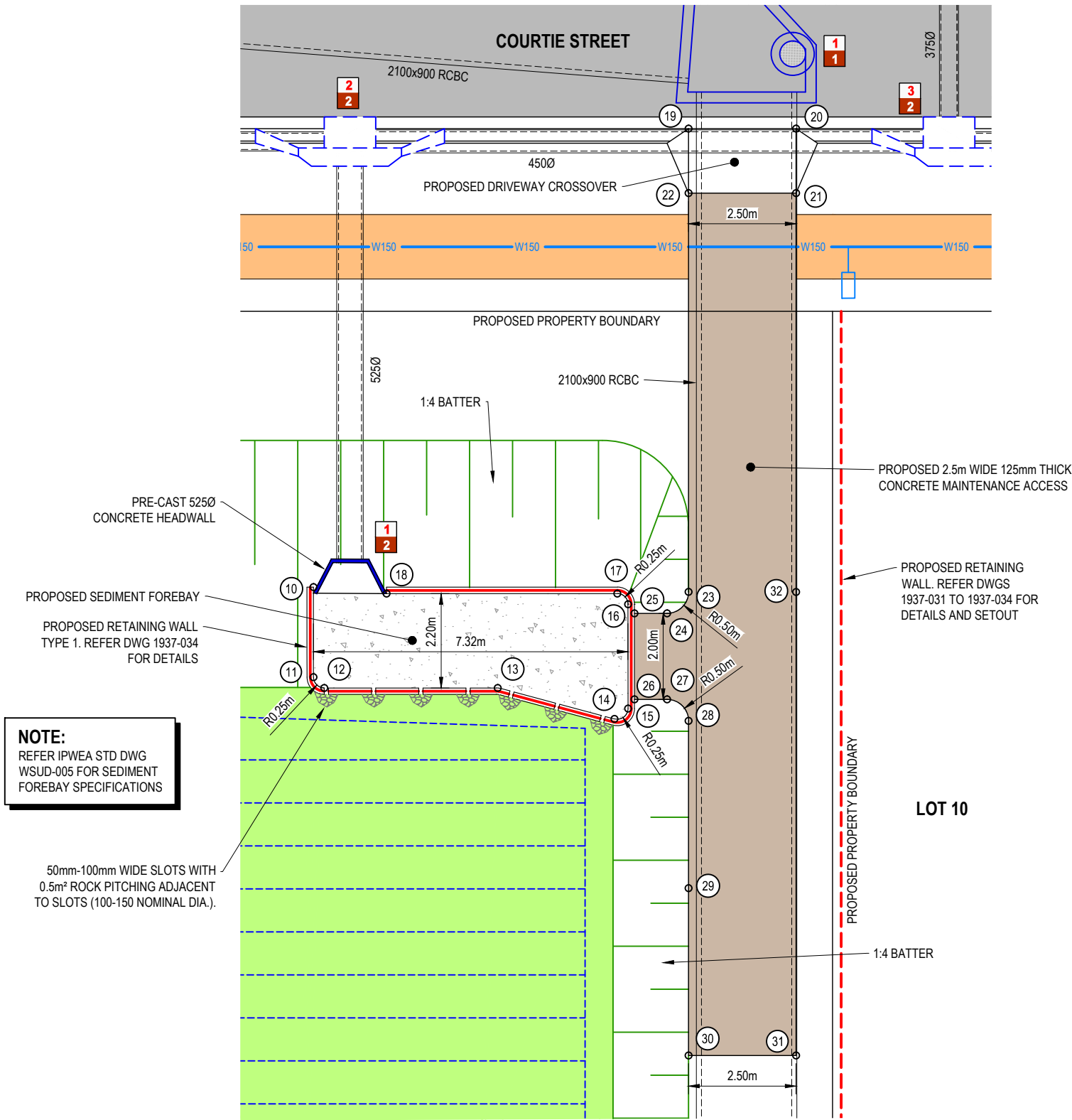
REVISION: **-**

SHEET: **34 OF 44**

FILE LOCATION: J:\CIV\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-031-034.DWG



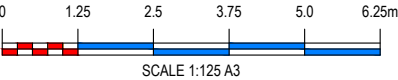
- PROPOSED FEATURES
- RP BOUNDARIES
 - AC SURFACING
 - FOOTPATH
 - DRIVEWAY
 - BIO-RETENTION BASIN
 - ROAD KERB
 - STORMWATER DRAINAGE
 - EARTHWORKS BATTER
 - STORMWATER STRUCTURE NUMBER
 - RETAINING WALL



POINT SETOUT			
PT No.	NORTHING	EASTING	LEVEL
10	7002870.9270	492675.8785	15.446
11	7002870.8559	492673.7846	15.060
12	7002870.5965	492673.5425	15.060
13	7002866.5625	492673.6803	14.935
14	7002863.8214	492673.0539	15.060
15	7002863.5138	492673.3069	14.861
16	7002863.5966	492675.7295	14.860
17	7002863.8551	492675.9708	14.860
18	7002869.2224	492675.7867	14.860
19	7002862.5661	492686.8372	16.030
20	7002860.0676	492686.9226	16.044
21	7002860.0163	492685.4234	16.149

POINT SETOUT			
PT No.	NORTHING	EASTING	LEVEL
22	7002862.5149	492685.3380	16.135
23	7002862.1980	492676.0656	15.444
24	7002862.6806	492675.5488	15.150
25	7002863.4400	492675.5228	15.000
26	7002863.3717	492673.5240	15.000
27	7002862.6123	492673.5499	15.139
28	7002862.0955	492673.0673	15.237
29	7002861.9626	492669.1785	15.300
30	7002861.8297	492665.2896	15.300
31	7002859.3312	492665.3750	15.319
32	7002859.6994	492676.1488	15.480

NOTE:
REFER DWG 1937-002 FOR
ROADWORKS AND STORMWATER
DRAINAGE STANDARD NOTES



PLAN DETAILS:

Designed: **M.K**
Drawn: **W.F**
Checked: **M.O**
Datum: **AHD**
Date: **10-09-18**

Director: **BRETT THOMSON (RPEQ 6068)**
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**PROPOSED RESIDENTIAL SUBDIVISION
AT 16 - 22 VIERITZ ROAD, BELLMERE
FOR GALLERY HOMES**

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PLAN TITLE:

**BIO-RETENTION BASIN LAYOUT PLAN - SHEET
2 OF 2**

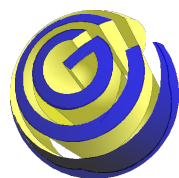
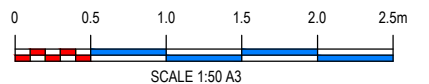
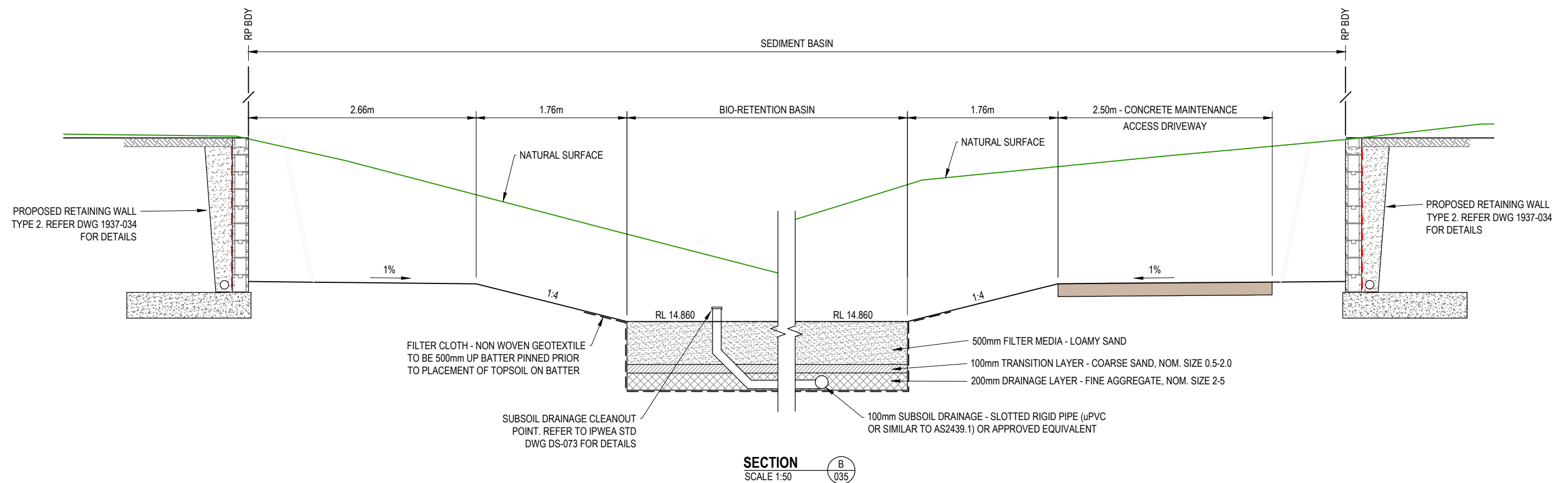
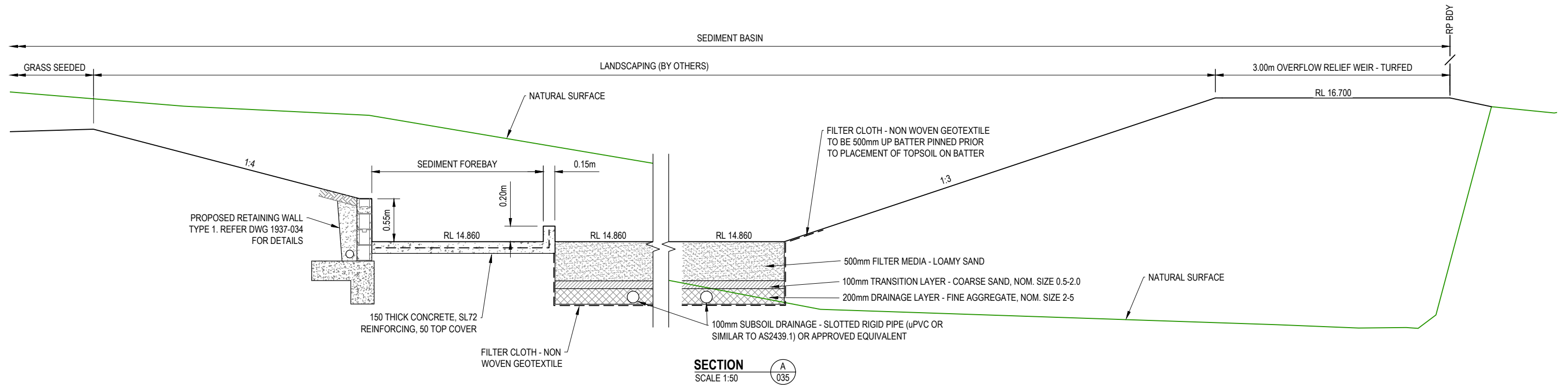
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PLAN No: **1937 - 036**

REVISION: **-**

SHEET: **36 OF 44**

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PLAN DETAILS:

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Drawn: **W.F**
Checked: **M.O**
Datum: **AHD**
Date: **10-09-18**

Director: **BRETT THOMSON (RPEQ 6068)**
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PLAN AMENDMENTS:

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PLAN TITLE:

**BIO-RETENTION BASIN SECTIONS AND
DETAILS - SHEET 1 OF 2**

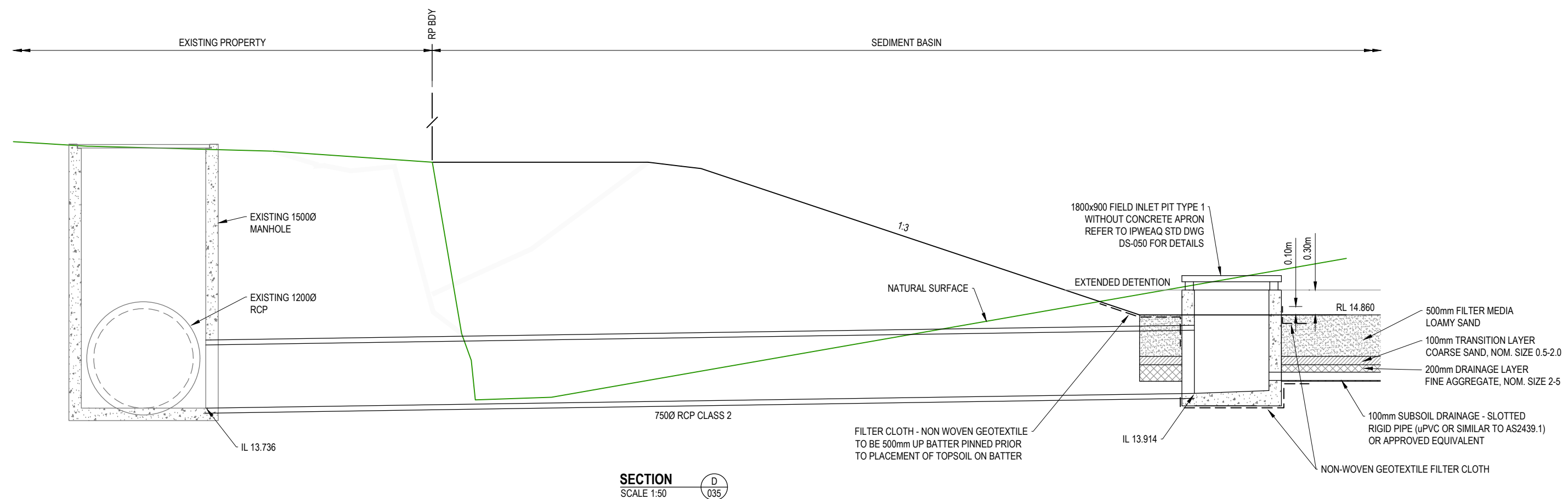
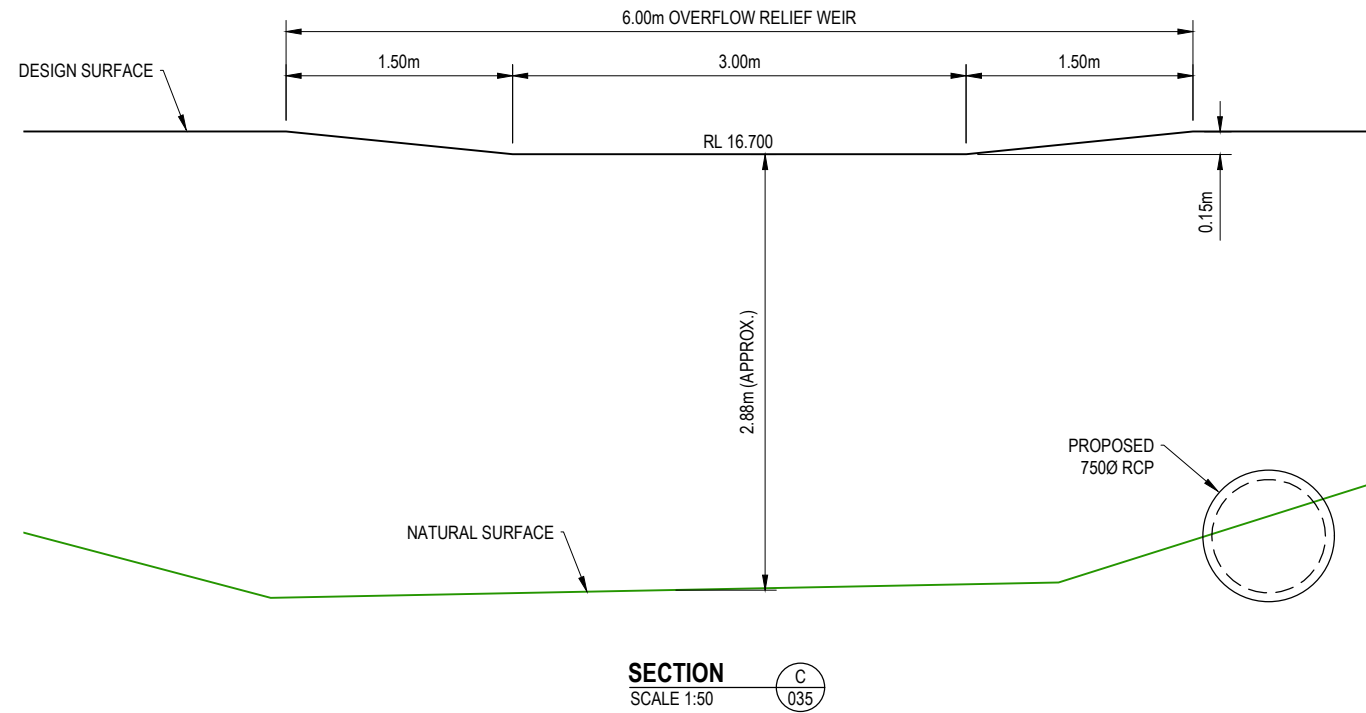
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PLAN No: **1937 - 037**

REVISION: **-**

SHEET: **37 OF 44**

FILE LOCATION: J:\CIV\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-035-038.DWG





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Designed:	M.K	Rev	Date	Comment	Altered	Checked	
Drawn:	W.F						
Checked:	M.O						
Datum:	AHD						
Date:	10-09-18						
Director: BRETT THOMSON (RPEQ 6068) (FOR & ON BEHALF OF CONTOUR CE PTY LTD)							

PROPOSED RESIDENTIAL SUBDIVISION AT 16 - 22 VIERITZ ROAD, BELLMERE FOR GALLERY HOMES

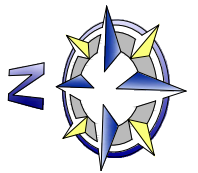
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PLAN TITLE:
**BIO-RETENTION BASIN SECTIONS AND
DETAILS - SHEET 2 OF 2**

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PLAN No: **1937 - 038** REVISION: **-** SHEET: **38 OF 44**

FILE LOCATION: J:\CIVIL\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\DWG\WORKS\1937-038-038.DWG



LEGEND

EXISTING FEATURES

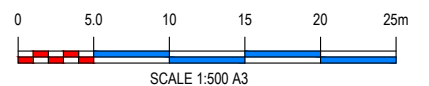
- OVERALL RP BOUNDARY
- EASEMENT
- CADASTRAL RP BOUNDARY
- E/OH - E/OH OVERHEAD ELECTRICAL
- FENCE
- T - T TELSTRA (DBYD)
- W - W WATER RETICULATION (DBYD)
- S - S SEWER RETICULATION (DBYD)
- STORMWATER
- ROAD KERB
- CONCRETE
- EDGE OF BITUMEN

PROPOSED FEATURES

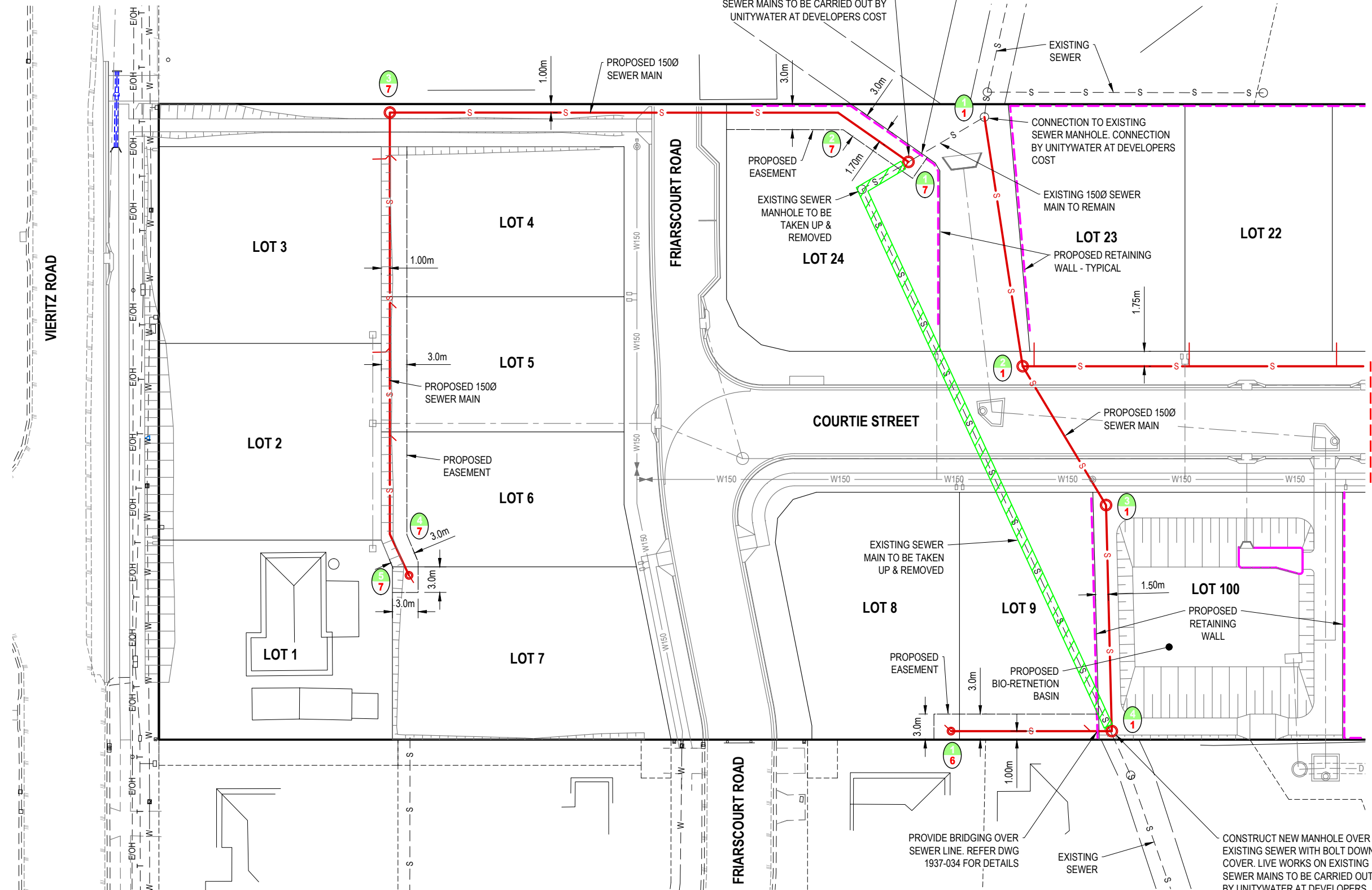
- RP BOUNDARIES
- ROAD KERB
- STORMWATER DRAINAGE
- EARTHWORKS BATTER
- SEWERAGE RETICULATION
- 1500 WATER RETICULATION
- WATER SERVICE
- SEWER STRUCTURE NUMBER
- RETAINING WALL

NOTE:

- REFER DWG 1937-002 FOR SEWER RETICULATION STANDARD NOTES
- REFER DWG 1937-040 FOR SEWER LIVE WORKS TABLE



EXISTING SERVICES SHOWN THROUGHOUT THESE DRAWINGS ARE DERIVED FROM FIELD SURVEY, DIAL BEFORE YOU DIG, AS CONSTRUCTED INFORMATION AND GROUND INSPECTION. THE RELATIVE POSITION OF EACH UNDERGROUND SERVICE IS THEREFORE ADVISORY ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACTUAL LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BEAR THE COST OF ANY RECTIFICATION OF SERVICES DAMAGED DURING OR AS A RESULT OF CONSTRUCTION.



PLAN DETAILS:

Designed: **M.K**
Drawn: **W.F**
Checked: **M.O**
Datum: **AHD**
Date: **10-09-18**

Director: **BRETT THOMSON (RPEQ 6068)**
(FOR & ON BEHALF OF CONTOUR CE PTY LTD)

PLAN AMENDMENTS:

Rev	Date	Comment	Altered	Checked

PROPOSED RESIDENTIAL SUBDIVISION AT 16 - 22 VIERITZ ROAD, BELLMERE FOR GALLERY HOMES

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PLAN TITLE:

SEWER RETICULATION PLAN - SHEET 1 OF 2

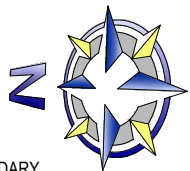
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PLAN No: **1937 - 039**

REVISION: **-**

SHEET: **39 OF 44**

FILE LOCATION: J:\CIVIL\1937-16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-039-040.DWG



LEGEND

EXISTING FEATURES

- OVERALL RP BOUNDARY
- EASEMENT
- CADASTRAL RP BOUNDARY
- E/OH - E/OH OVERHEAD ELECTRICAL
- FENCE
- TELSTRA (DBYD)
- WATER RETICULATION (DBYD)
- SEWER RETICULATION (DBYD)
- STORMWATER
- ROAD KERB
- CONCRETE
- EDGE OF BITUMEN

PROPOSED FEATURES

- RP BOUNDARIES
- ROAD KERB
- STORMWATER DRAINAGE
- EARTHWORKS BATTER
- SEWERAGE RETICULATION
- 1500 WATER RETICULATION
- WATER SERVICE
- SEWER STRUCTURE NUMBER
- RETAINING WALL
- RIPARIAN CORRIDOR

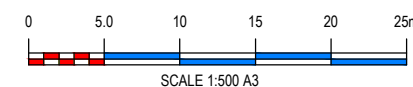
EXISTING SERVICES SHOWN THROUGHOUT THESE DRAWINGS ARE DERIVED FROM FIELD SURVEY, DIAL BEFORE YOU DIG, AS CONSTRUCTED INFORMATION AND GROUND INSPECTION. THE RELATIVE POSITION OF EACH UNDERGROUND SERVICE IS THEREFORE ADVISORY ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACTUAL LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BEAR THE COST OF ANY RECTIFICATION OF SERVICES DAMAGED DURING OR AS A RESULT OF CONSTRUCTION.

LIVE SEWER WORKS TABLE

No.	DESCRIPTION	SEWER DIA.	MH No.	COVER TYPE	LOT No.	F.S.L.	E.S.L.	I.L.	DEPTH TO INVERT
1(A)	UNITYWATER TO BREAK INTO EXISTING MAINTENANCE HOLE 1/1 AND CONSTRUCT 1/150 mm STUB (TEMPORARILY END CAPPED) PRIOR TO START OF CONSTRUCTION.	150	1/1	B		15.485	15.886	13.928	1.557
1(B)	CONTRACTOR TO LAY NEW LINES 1 AND 2. AFTER CLEANSING, TESTING AND INSPECTING, NOTIFY UNITYWATER.	150							
1(C)	UNITYWATER TO REMOVE TEMPORARY END CAP ON STUB & LINE 1 AND MAKE LIVE CONNECTION AFTER SUCCESSFUL "ON MAINTENANCE" INSPECTION.	150							
2(A)	CONTRACTOR TO CONSTRUCT NEW MAINTENANCE HOLE 4/1 OVER EXISTING SEWER AND BENCH AND RENDER UP TO PIPE BUT NOT REMOVE CROWN OF PIPE.	150	4/1	B	100	16.938	17.152	14.484	2.454
2(B)	CONTRACTOR TO LAY LINE 6 AND INSTALL HOUSE CONNECTIONS.	150							

2(C)	UNITYWATER TO REMOVE CROWN OF PIPE, CAP EX LINE 1 AND COMPLETE BENCHING AFTER SUCCESSFUL "ON MAINTENANCE" INSPECTION OF LINE 1, 6 & 7.	150							
3(A)	CONTRACTOR TO CONSTRUCT NEW MAINTENANCE HOLE 1/7 OVER EXISTING SEWER AND BENCH AND RENDER UP TO PIPE BUT NOT REMOVE CROWN OF PIPE.	150	1/7	B	24	17.000	16.085	14.002	2.998
3(B)	CONTRACTOR TO LAY LINE 7 AND INSTALL HOUSE CONNECTIONS.	150							
3(C)	UNITYWATER TO REMOVE CROWN OF PIPE, CAP ABANDONED EX LINE 1 AND COMPLETE BENCHING AFTER SUCCESSFUL "ON MAINTENANCE" INSPECTION OF LINE 1, 6 & 7	150							
3(D)	CONTRACTOR TO REMOVE ABANDONED EX LINE 1 FROM NEW MAINTENANCE HOLE 1/7 TO MAINTENANCE HOLE 4/1.	150							

NOTE:
REFER DWG 1937-002 FOR SEWER RETICULATION STANDARD NOTES



PLAN DETAILS:

Designed: M.K
Drawn: W.F
Checked: M.O
Datum: AHD
Date: 10-09-18

Director: BRETT THOMSON (RPEQ 6068)
(FOR & ON BEHALF OF CONTOUR CE PTY LTD)

PLAN AMENDMENTS:

Rev	Date	Comment	Altered	Checked

PROPOSED RESIDENTIAL SUBDIVISION AT 16 - 22 VIERITZ ROAD, BELLMERE FOR GALLERY HOMES

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PLAN TITLE:

SEWER RETICULATION PLAN - SHEET 2 OF 2

FOR APPROVAL - NOT FOR CONSTRUCTION

PLAN No: 1937 - 040

REVISION: -

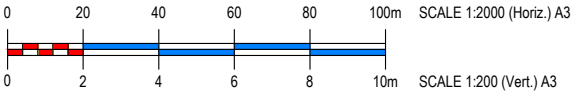
SHEET: 40 OF 44

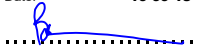
STRUCTURE NAME	1/1	2/1	3/1	4/1
MH TYPE	UNITY WATER TYPE P2	UNITY WATER TYPE P2	UNITY WATER TYPE P2	UNITY WATER TYPE P2
JUNCTION LINE & IL		LINE 2 IL: 14.142		LINE 6 IL: 15.264
DS MH DROP (mm) & TYPE		V	V	V
PIPE SIZE (mm)	150	150	150	
PIPE CLASS	PVC-U	PVC	PVC	
PIPE GRADE (%)	0.56%	0.56%	0.56%	
PIPE SLOPE (1 in X)	180.0	180.0	180.0	
DATUM R.L.	9.00			
LENGTH	29.5m	19.0m	26.5m	
DEPTH TO INVERT	1.557	2.211 2.181	2.018 1.988	2.497
INVERT LEVEL OF SEWER	13.928	14.092 14.122	14.228 14.258	14.405
DESIGN SURFACE LEVEL	15.485	16.304	16.246	16.902
NATURAL SURFACE LEVEL	15.886	15.500	15.413	17.139
SETOUT CO-ORDINATES	E:492725.185 N:7002902.515	E:492696.165 N:7002897.045	E:492680.259 N:7002886.726	E:492653.831 N:7002885.139
RUNNING CHAINAGE	0.000	29.531	48.492	74.967

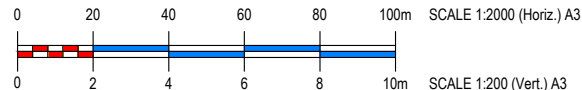
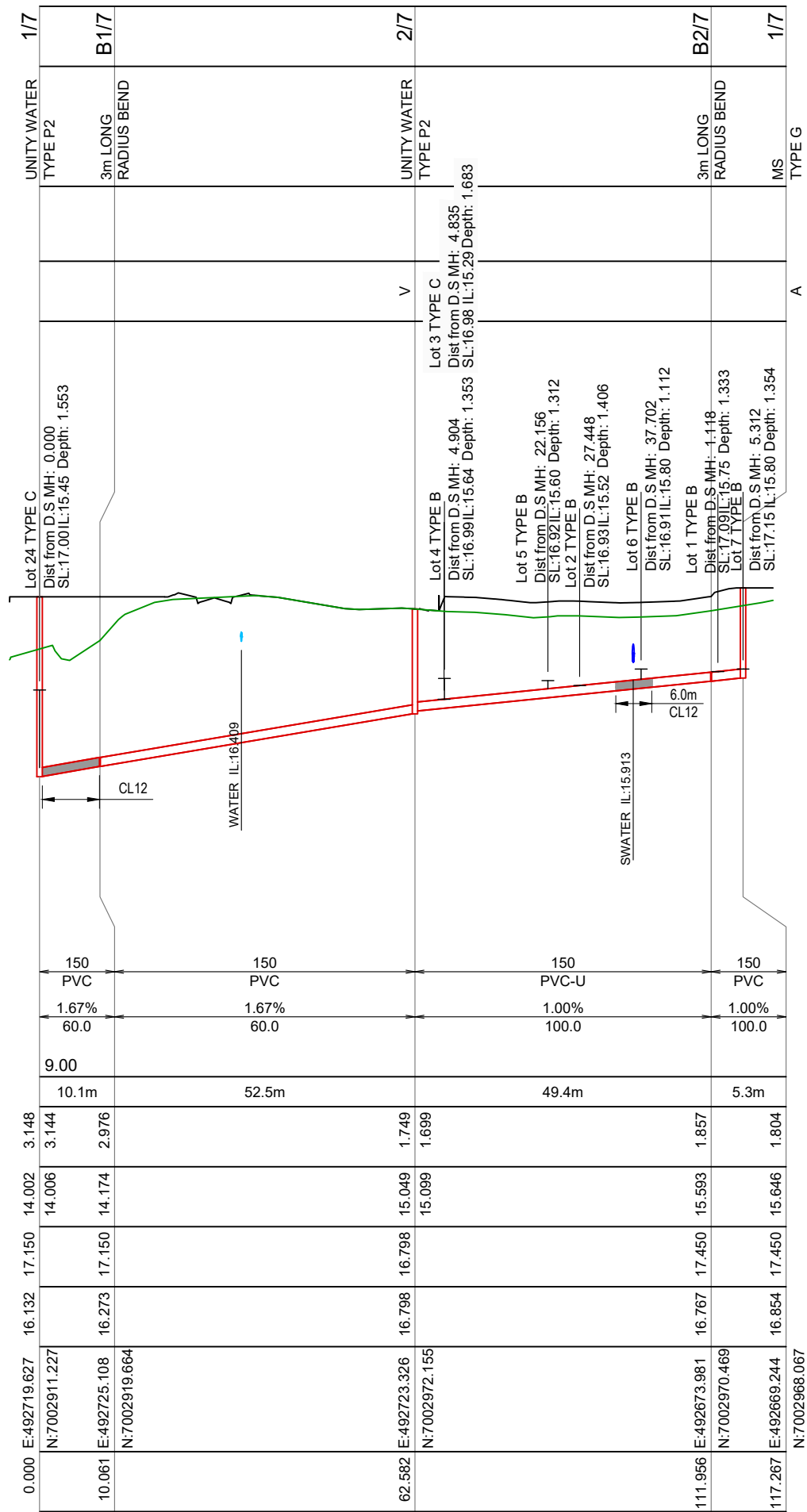
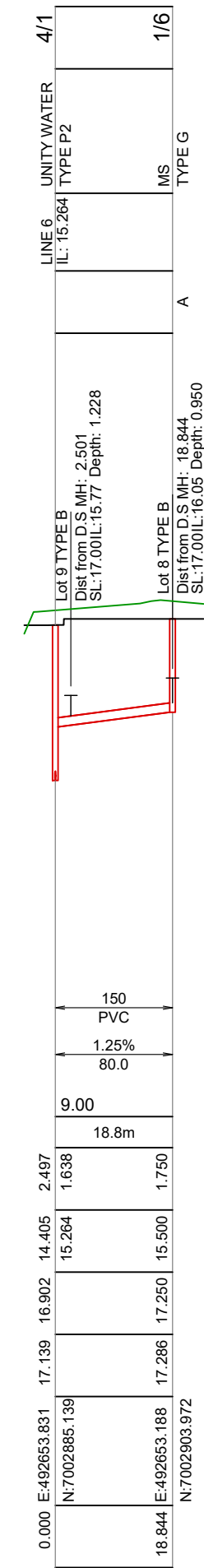
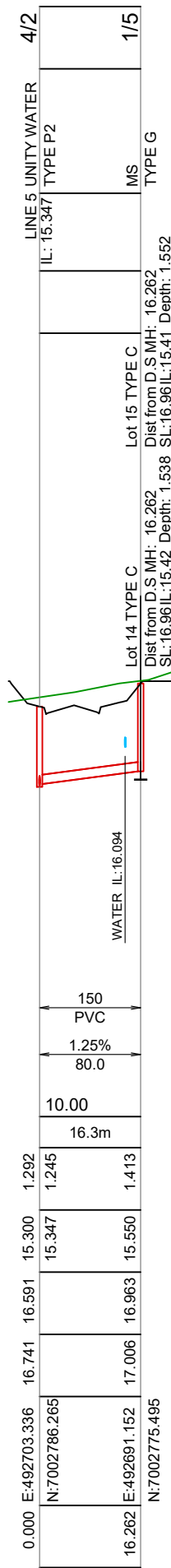
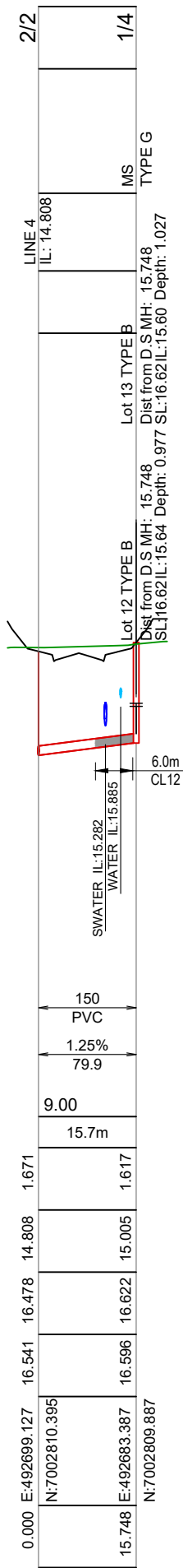
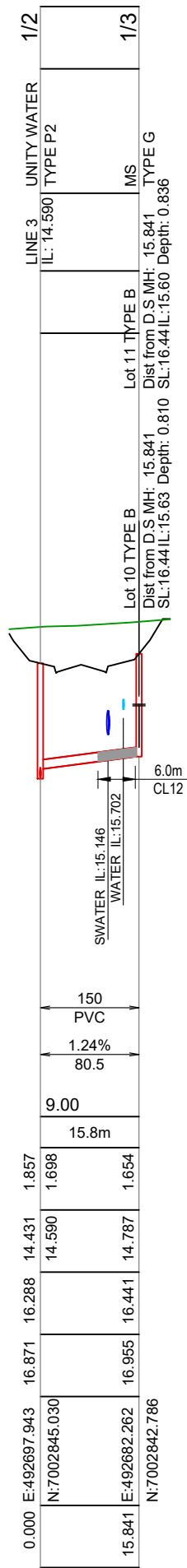
LINE 1

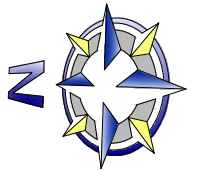
	2/1	1/2	2/2	3/2	4/2	5-2
	UNITY WATER TYPE P2	UNITY WATER TYPE P2	JOINT	UNITY WATER TYPE P2	UNITY WATER TYPE P2	MS TYPE G
	LINE 2 IL: 14.142	LINE 3 IL: 14.590	LINE 4 IL: 14.808		LINE 5 IL: 15.347	
	V	V	-	V	V	
	Lot 23 TYPE B Dist from D.S.MH: 1.176 SL:16.36 IL:15.51 Depth: 0.850	Lot 22 TYPE B Dist from D.S.MH: 19.637 SL:16.18 IL:15.53 Depth: 0.650	Lot 21 TYPE B Dist from D.S.MH: 36.891 SL:16.20 IL:15.55 Depth: 0.650	Lot 20 TYPE B Dist from D.S.MH: 1.828 SL:16.30 IL:15.57 Depth: 0.726	Lot 19 TYPE B Dist from D.S.MH: 19.376 SL:16.39 IL:15.52 Depth: 0.876	Lot 18 TYPE B Dist from D.S.MH: 5.893 SL:16.51 IL:15.52 Depth: 0.996
	150	150	150	150	150	150
	PVC	PVC	PVC	PVC	PVC	PVC
	0.56%	1.00%	1.00%	3.62%	1.25%	
	180.0	100.0	100.0	27.7	80.0	
	9.00					
	52.0m	34.7m	16.9m	8.1m	21.6m	
	2.211 2.162	1.857 1.827	1.671	1.578 1.548	1.292 1.262	1.175
	14.142	14.431 14.461	14.808	14.977 15.007	15.300 15.330	15.600
	16.304	16.288	16.478	16.554	16.591	16.775
	15.500	16.871	16.541	16.665	16.741	16.925
	E:492696.165 N:7002897.045	E:492697.943 N:7002845.030	E:492699.127 N:7002810.395	E:492699.703 N:7002793.516	E:492703.336 N:7002786.265	E:492712.985 N:7002766.924
	0.000	52.045	86.701	103.589	111.700	133.314

LINE 2



PLAN DETAILS:				PLAN AMENDMENTS:		
Designed:	M.K	Rev	Date	Comment	Altered	Checked
Drawn:	W.F					
Checked:	M.O					
Datum:	AHD					
Date:	10-09-18					
						
Director: BRETT THOMSON (RPEQ 6068) (FOR & ON BEHALF OF CONTOUR CE PTY LTD)						





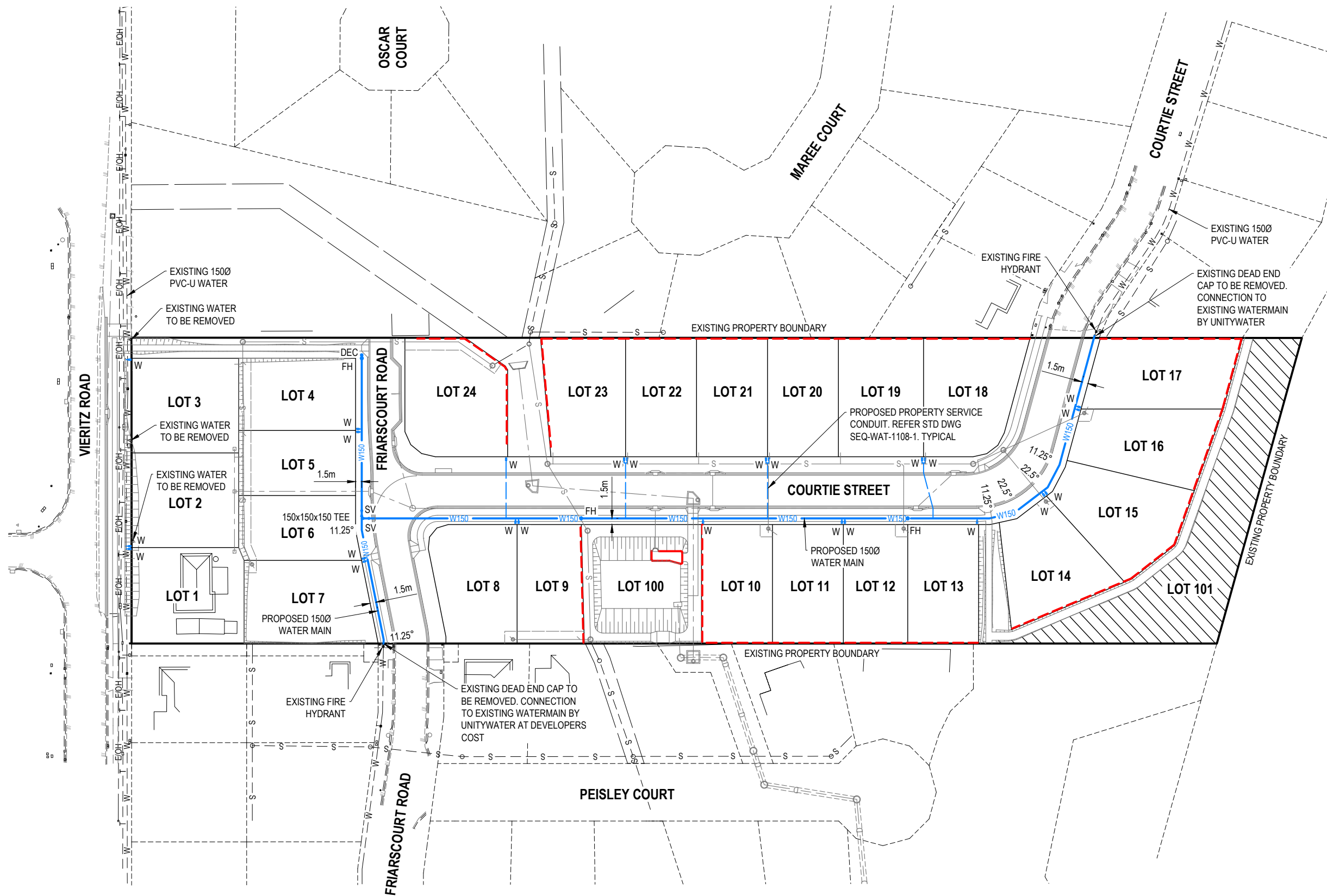
LEGEND

EXISTING FEATURES

- OVERALL RP BOUNDARY
- EASEMENT
- CADASTRAL RP BOUNDARY
- E/OH - E/OH OVERHEAD ELECTRICAL
- FENCE
- T - T TELSTRA (DBYD)
- W - W WATER RETICULATION (DBYD)
- S - S SEWER RETICULATION (DBYD)
- STORMWATER
- ROAD KERB
- CONCRETE
- EDGE OF BITUMEN

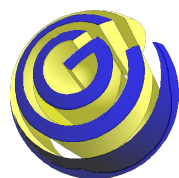
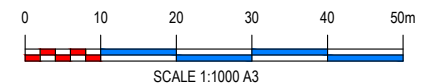
PROPOSED FEATURES

- RP BOUNDARIES
- ROAD KERB
- STORMWATER DRAINAGE
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NOTE:
REFER DWG 1937-002 FOR WATER RETICULATION STANDARD NOTES



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PLAN DETAILS:

Designed: **M.K**
Drawn: **W.F**
Checked: **M.O**
Datum: **AHD**
Date: **10-09-18**

Director: **BRETT THOMSON (RPEQ 6068)**
(FOR & ON BEHALF OF CONTOUR CE PTY LTD)

PLAN AMENDMENTS:

Rev	Date	Comment	Altered	Checked

PROPOSED RESIDENTIAL SUBDIVISION AT 16 - 22 VIERITZ ROAD, BELLMERE FOR GALLERY HOMES

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PLAN TITLE:

WATER RETICULATION PLAN

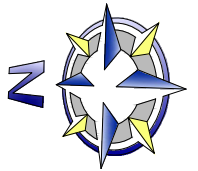
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PLAN No: **1937 - 043**

REVISION: **-**

SHEET: **43 OF 44**

FILE LOCATION: J:\CIVIL\1937 16-22 VIERITZ ROAD, BELLMERE\DESIGN - CIVIL\AUTOCAD\OP WORKS\1937-043.DWG

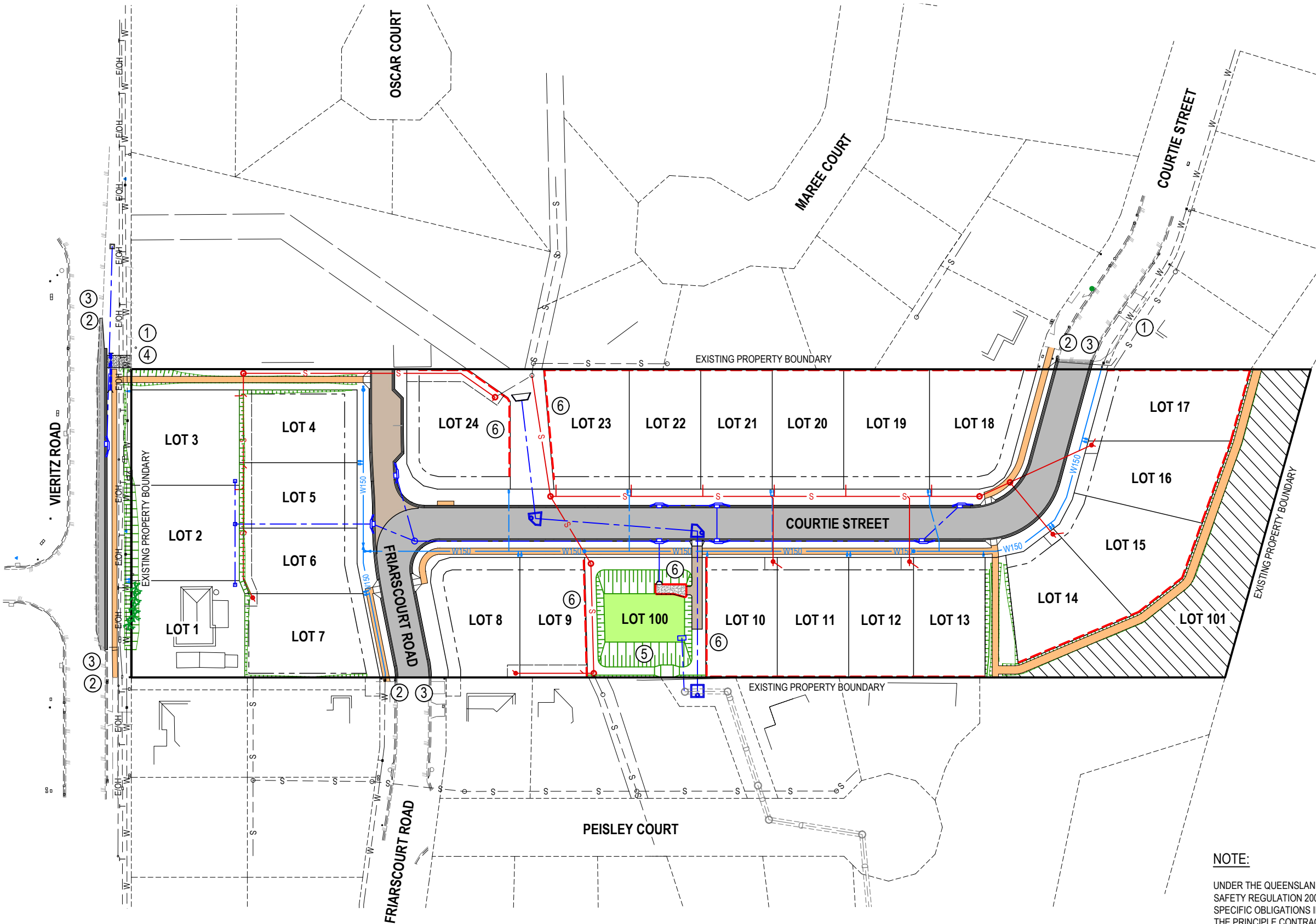
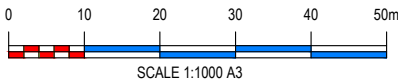


SAFETY IN DESIGN

ITEM	POTENTIAL HAZARD	POSSIBLE PREVENTATIVE ACTION
1	HIGH PRESSURE WATER MAIN HAZARD	WARNING SIGNS AND MARKERS SHALL BE ERECTED ADVISING OF THE PRESENCE OF UNDERGROUND HIGH PRESSURE WATER MAINS. THE LOCATION OF MAINS SHALL BE IDENTIFIED AND MARKED BY THE SUPPLY AUTHORITY PRIOR TO THE COMMENCEMENT OF EXCAVATION WORK, IF REQUIRED.
2	VEHICULAR HAZARD	SITE PERSONNEL SHALL BE ADVISED OF THE POTENTIAL HAZARDS AND APPROPRIATE PROCEDURES FOR WORKING ADJACENT TO OPERATING PUBLIC ROADS OR SITE HAUL ROADS. APPROPRIATE SAFETY CLOTHING SHALL BE WORN AND THE REQUIRED SIGNAGE, BARRIERS AND OTHER SAFETY MEASURES SHALL BE ERECTED.
3	NOISE HAZARD	THE POTENTIAL FOR HEARING DAMAGE DUE TO CONSTRUCTION ACTIVITIES INVOLVING MACHINERY AND POWER TOOLS MAY EXIST ON THIS SITE. WHERE ACTIVITIES LIKELY TO PRODUCE EXCESSIVE NOISE LEVELS ARE UNDERTAKEN, APPROPRIATE WORK PROCEDURES ARE TO BE IMPLEMENTED. APPROPRIATE SIGNAGE, BARRIERS AND OTHER SAFETY MEASURES, AS REQUIRED, SHALL BE ERECTED. ALL REQUIRED PERSONAL SAFETY EQUIPMENT SHALL BE WORN
4	UNDERGROUND / OVERHEAD ELECTRICAL HAZARD	WARNING SIGNS AND MARKERS SHALL BE ERECTED WARNING OF THE PRESENCE OF LIVE UNDERGROUND AND OVERHEAD CABLES. UNDERGROUND CABLE LOCATIONS SHALL BE IDENTIFIED AND MARKED BY THE SUPPLY AUTHORITY PRIOR TO THE COMMENCEMENT OF EXCAVATION. A REPRESENTATIVE OF THE SUPPLY AUTHORITY SHALL REMAIN ON-SITE DURING EXCAVATION WORK, IF REQUIRED. ALL WORK TO BE UNDERTAKEN IN ACCORDANCE WITH THE ELECTRICAL SAFETY ACT 2002 AND ANY OTHER RELEVANT REGULATION OR GUIDELINE.
5	DROWNING HAZARD	THE POTENTIAL FOR INJURY OR DROWNING DUE TO FALLS INTO WATER MAY EXIST ON THIS SITE. WHERE ACTIVITIES ARE TO BE UNDERTAKEN IN SITUATIONS WHERE A FALL HAZARD INTO WATER EXISTS, APPROPRIATE BARRIERS AND OTHER SAFETY MEASURES AS REQUIRED SHALL BE ERECTED. ALL REQUIRED SAFETY EQUIPMENT, SUCH AS LIFE JACKETS, SHALL BE WORN.
6	FALL HAZARD	THE POTENTIAL FOR INJURY DUE TO FALLS FROM HEIGHT MAY EXIST ON THIS SITE. WHERE ACTIVITIES ARE TO BE UNDERTAKEN IN SITUATIONS WHERE A FALL HAZARD EXISTS, APPROPRIATE SIGNAGE, BARRIERS AND OTHER SAFETY MEASURES, AS REQUIRED, SHALL BE ERECTED. ALL REQUIRED PERSONAL SAFETY EQUIPMENT SHALL BE WORN

NOTE:

UNDER THE QUEENSLAND WORKPLACE HEALTH AND SAFETY ACT 1995, THE WORKPLACE HEALTH AND SAFETY REGULATION 2008 AND OTHER LEGISLATION AND GUIDELINES, THE PRINCIPLE CONTRACTOR HAS SPECIFIC OBLIGATIONS IN RELATION TO THE SAFE OPERATION OF THE SITE OF THE WORKS. TO ASSIST THE PRINCIPLE CONTRACTOR IN COMPLYING WITH THESE OBLIGATIONS, THE PROJECT DESIGNERS HAVE IDENTIFIED, BY THE DRAWING NOTES, OR THROUGH ADVICE AT PRE-CONSTRUCTION WORKSHOPS, AREAS WHERE POTENTIAL HAZARDS MAY ARISE. THESE NOTES OR ADVICE SHALL NOT NECESSARILY BE CONSIDERED TO BE COMPLETE AND ARE BASED UPON THE DESIGNERS' UNDERSTANDING OF THE SAFETY RISKS ASSOCIATED WITH THE WORKS. THESE NOTES OR ADVICE SHALL NOT RELIEVE THE PRINCIPLE CONTRACTOR OF HIS OBLIGATIONS UNDER THE RELEVANT LEGISLATION AND GUIDELINES AND THE PRINCIPLE CONTRACTOR SHALL REMAIN RESPONSIBLE FOR THE PREPARATION OF AN APPROPRIATE SAFETY PLAN FOR THE SITE.



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PLAN DETAILS:

Designed: **M.K**
Drawn: **W.F**
Checked: **M.O**
Datum: **AHD**
Date: **10-09-18**

Director: **BRETT THOMSON (RPEQ 6068)**
(FOR & ON BEHALF OF CONTOUR CE PTY LTD)

PLAN AMENDMENTS:

Rev	Date	Comment	Altered	Checked

**PROPOSED RESIDENTIAL SUBDIVISION
AT 16 - 22 VIERITZ ROAD, BELLMERE
FOR GALLERY HOMES**

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PLAN TITLE:

SAFETY IN DESIGN

FOR APPROVAL - NOT FOR CONSTRUCTION

PLAN No: **1937 - 044**

REVISION: **-**

SHEET: **44 OF 44**

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