

By:  **Orion
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Engineers**

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 **CONSULT AUSTRALIA**
Member Firm

G1. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL'S WORKS SPECIFICATION CIVIL (CURRENT EDITION) AND/OR AS DIRECTED BY THEIR REPRESENTATIVE

G2. SURVEY MARKS: -
a. SURVEY MARKS SHOWN MUST ▲ BE RETAINED AT ALL TIMES. WHERE RETENTION IS NOT POSSIBLE THE SUPERINTENDENT MUST BE NOTIFIED AND CONSENT RECEIVED PRIOR TO THEIR REMOVAL.

G3. THE CONTRACTOR SHALL LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION AND MAKE ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO RELOCATE OR ADJUST IF NECESSARY AT DEVELOPER'S EXPENSE.

G4. THE CONTRACTOR SHALL NOT ENTER UPON NOR DO ANY WORK WITHIN ADJACENT LANDS WITHOUT THE WRITTEN PERMISSION OF THE OWNERS. TO BE PROVIDED PRIOR TO THE APPROVAL OF THE PLANS.

G5. THE CONTRACTOR SHALL MAINTAIN SERVICES AND ALL WEATHER ACCESS AT ALL TIMES TO ADJOINING PROPERTIES.

G6. COUNCIL'S TREE PRESERVATION ORDER MUST BE OBSERVED AND NO TREE SHALL BE FELLED, LOPPED OR REMOVED WITHOUT THE PRIOR APPROVAL OF COUNCIL'S ENGINEER.

G7. TREES TO BE RETAINED ON SITE SHALL BE PROTECTED BY SUITABLE STURDY APPROVED PROTECTIVE FENCING PRIOR TO COMMENCEMENT OF SITE WORKS. NO TREES TO BE REMOVED WITHOUT COUNCIL'S WRITTEN APPROVAL.

G8. THE CONTRACTOR SHALL CLEAR THE SITE BY REMOVING ALL RUBBISH, FENCES, EXISTING INFRASTRUCTURE AND DEBRIS ETC.

G9. FILLING IS TO BE FROM A NOMINATED SOURCE, OF SOUND CLEAN MATERIAL, FREE FROM LARGE ROCK STUMPS, CONTAMINATED MATERIAL, INDUSTRIAL AND BUILDING WASTE, ORGANIC MATTER AND OTHER DEBRIS. PLACING OF FILLING ON THE PREPARED AREAS SHALL NOT COMMENCE UNTIL THE AUTHORITY TO DO SO HAS BEEN OBTAINED FROM THE COUNCIL.

G10. SITE FILL AREAS: - THE CONTRACTOR SHALL TAKE LEVELS OF EXISTING SURFACE AFTER STRIPPING TOPSOIL AND PRIOR TO COMMENCING FILL OPERATIONS.

G11. ALL SITE FILLING TO BE COMPACTED TO 95% STANDARD COMPACTION AND SHALL BE CONTROLLED BY A REGISTERED SOIL LABORATORY IN ACCORDANCE WITH COUNCIL'S 'WORKS SPECIFICATION'.

G12. ALL SITE REGRAVING AREAS SHALL BE GRADED AT A MINIMUM 1% TO THE ENGINEERS REQUIREMENTS.

G13. SURPLUS EXCAVATED MATERIAL SHALL BE PLACED WHERE DIRECTED BY THE SUPERINTENDENT.

G14. ALL DRAINAGE LINES THROUGH LOTS SHALL BE CONTAINED WITHIN THEIR EASEMENTS AND CONFORM WITH COUNCIL'S STANDARDS.

G15. DRAINAGE LINES UNDER ROADS SHALL BE BACKFILLED WITH NON-COHESIVE SAND AND HAVE 3m OF SUBSOIL DRAIN WRAPPED IN APPROVED FILTER SOCK, DISCHARGING INTO DOWN STREAM PITS.

G16. VEHICULAR CROSSINGS SHALL BE CONSTRUCTED IN KERB AND GUTTER WHERE SHOWN. DRIVEWAYS & LAYBACKS ARE TO HAVE A MINIMUM 1 METRE CLEARANCE FROM POWER & LIGHT POLES & STORMWATER DRAINS AND 6 METRES CLEARANCE FROM KERB RETURN TANGENT POINTS AND TO COUNCIL STANDARD DRAWING A(B/S) 102S.

G17. PRAM CROSSINGS SHALL BE CONSTRUCTED IN KERB AND GUTTER IN ACCORDANCE WITH COUNCIL'S STANDARD DRAWING A(B/S) 104M.

G18. ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS.

G19. DIMENSIONS OF ANY DETAIL SHALL NOT BE SCALED - DIMENSIONS, IF IN DOUBT, SHALL BE VERIFIED BY THE SUPERINTENDENT.

G20. ALL CONSTRUCTION AND RESTORATION WORK ON COUNCIL'S ROAD AND FOOTPATH AREA ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE APPROVED DRAWINGS AND COUNCIL'S STANDARD SPECIFICATIONS.

G21. ALL LIGHT POLES, STREET NAME POLES AND BUS SHELTERS IN THIS SUBDIVISION WILL BE BLACK POWDER COATED TO THE SATISFACTION OF BLACKTOWN CITY COUNCIL AND COMPLY TO COUNCIL'S SPECIFICATION.

G22. CONDUITS TO BE PLACED WHERE REQUIRED BY RELEVANT AUTHORITIES.

G23. PITS ARE TO HAVE STEP IRONS IF DEEPER THAN 1.2m, REFER TO COUNCIL'S STANDARD DWG A(B/S) 111S.

G24. STRUCTURAL CERTIFICATION REQUIRED FOR CONSTRUCTION OF MAJOR AND NON-STANDARD STRUCTURES (PITS & RETAINING WALLS).

G25. 100 YEAR FLOW PATHS TO BE FORMED AT TIME OF CONSTRUCTION.

1. STORMWATER DESIGN CRITERIA:
1:100 MAJOR SYSTEM
1:10 MINOR SYSTEM
2. PIPES TO BE INSTALLED TO TYPE HS1 SUPPORT IN ACCORDANCE WITH AS 3725 (1989) IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE (UNO), WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
3. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 AND AS/NZS 3500 3.2 & COUNCIL'S SPECIFICATIONS.
4. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
5. GRATES AND COVERS SHALL CONFORM TO AS 3996.
6. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
7. DRAINAGE LINES UNDER ROADS SHALL BE BACKFILLED WITH NON-COHESIVE SAND AND HAVE 3.0m OF SUBSOIL DRAIN WRAPPED IN APPROVED FILTER SOCK, DISCHARGING INTO DOWN STREAM PITS.
8. ALL STORMWATER PIPES WITHIN ROADS TO BE REINFORCED CONCRETE PIPE (RCP) CLASS 2.
9. ALL INTERALLOTMENT DRAINAGE LINES SHALL BE LAID AT A MINIMUM GRADE OF 1% UNLESS OTHERWISE INDICATED.
10. DRAINAGE LINES ON PLANS ARE DIAGRAMMATIC ONLY AND PIPE CENTRELINES SHALL ENTER AND EXIT PITS AT THE CENTRE OF THE RESPECTIVE PIT WALLS (UNO).
11. PRECAST KERB INLET LINTELS SHALL BE USED ON GULLY PITS. GULLY PITS SHALL BE IN ACCORDANCE WITH A(BS)106M.
12. PROVIDE STUB Ø100 uPVC SN4 PIPES AT INTER-ALLOTMENT DRAINAGE PITS FOR FUTURE CONNECTION. REFER TO DRAINAGE LONGSECTIONS.

1. EARTHWORKS ARE TO BE CARRIED OUT TO THE SATISFACTION OF THE COUNCIL. UNSUITABLE MATERIAL IS TO BE REMOVED FROM ROADS AND LOTS PRIOR TO FILLING. THE CONTRACTOR IS TO ARRANGE AND MAKE AVAILABLE COMPACTION TESTING RESULTS FOR ALL AREAS THAT CONTAIN FILL IN EXCESS OF 250mm.
2. FOR COMPACTION OF EARTHWORKS SHALL CONTINUE UNTIL A DRY DENSITY RATIO OF 95% FOR SITE FILLING 100% FOR ROAD PAVEMENT SUBGRADE HAS BEEN ACHIEVED IN ACCORDANCE WITH TEST METHOD AS1289.5.1.1 OR AS.1289.5.1.1. THE CONTROL TESTING OF EARTHWORKS SHALL BE IN ACCORDANCE WITH THE GUIDELINES IN AS3798 'GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS'. WHERE IT IS PROPOSED TO USE TEST METHOD AS1289.5.8.1 TO DETERMINE THE FIELD DENSITY, A SAND REPLACEMENT METHOD SHALL BE USED TO CONFIRM THE RESULTS.
3. THE SUITABLE QUALIFIED GEOTECHNICAL ENGINEER, SHALL HAVE A LEVEL 2 RESPONSIBILITY FOR ALL FILL AS DEFINED IN APPENDIX B AS3798 'GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS'; AND AT THE END OF THE WORKS SHALL CONFIRM THE EARTHWORKS COMPLY WITH THE REQUIREMENTS OF THE SPECIFICATION AND DRAWINGS BY WRITTEN NOTIFICATION.
4. IN AREAS TO BE FILLED WHERE THE SLOPE OF THE NATURAL SURFACE EXCEEDS 1V(4)H, BENCHES ARE TO BE CUT TO PREVENT SLIPPING OF THE PLACED FILL MATERIAL AS REQUIRED BY THE COUNCIL.
5. ALL BATTERS ARE TO BE SCARIFIED TO A DEPTH OF 50mm TO ASSIST WITH ADHESION OF TOP SOIL TO BATTER FACE.
6. PROVIDE MINIMUM 100mm AND MAXIMUM 250mm TOPSOIL DEPTH ON FOOTPATHS, FILLED AREAS AND ALL OTHER AREAS DISTURBED DURING CONSTRUCTION. TOPSOILED AREAS TO BE STABILISED WITH APPROVED VEGETATION A MAXIMUM OF 14 DAYS AFTER TOPSOILING AND ARE TO BE WATERED TO ENSURE GERMINATION.
7. THE CONTRACTOR SHALL CONTROL SEDIMENTATION, EROSION AND POLLUTION DURING CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT EDITION OF 'MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION' PRODUCED BY LANDCOM.
8. FOOTWAY AREA TO BE FULLY TURFED WITH COUCH GRASS, AND SHALL BE MAINTAINED AND REPLACED AS REQUIRED DURING THE CONSTRUCTION MAINTENANCE PERIOD, IN ACCORDANCE WITH CONDITION.

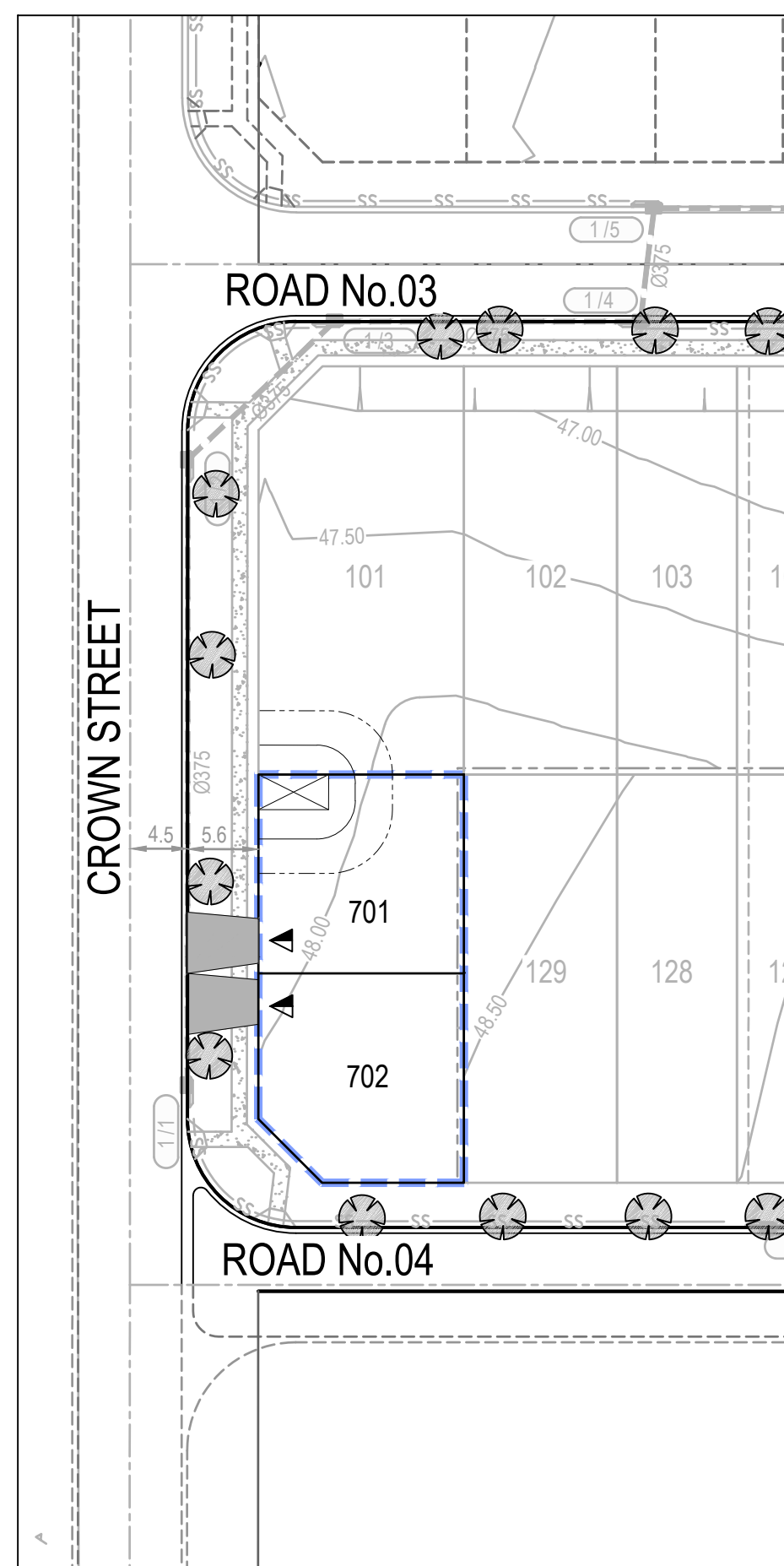
S1. ALL SITE SET OUT AND CONTROL POINTS ARE TO BE CERTIFIED BY A REGISTERED SURVEYOR.

S2. THE INFORMATION DETAILED ON THE CERTIFIED CONSTRUCTION CERTIFICATE PLANS TAKES PRECEDENCE OVER ALL ELECTRONIC INFORMATION PROVIDED. THE ORDER OF PRIORITY FOR USE OF ALL INFORMATION PROVIDED IS AS FOLLOWS:

- a. CERTIFIED CONSTRUCTION CERTIFICATE DRAWINGS
- b. 2D DRAFTING BASE (ELECTRONIC FILE)
- c. 3D DTM (ELECTRONIC FILE)

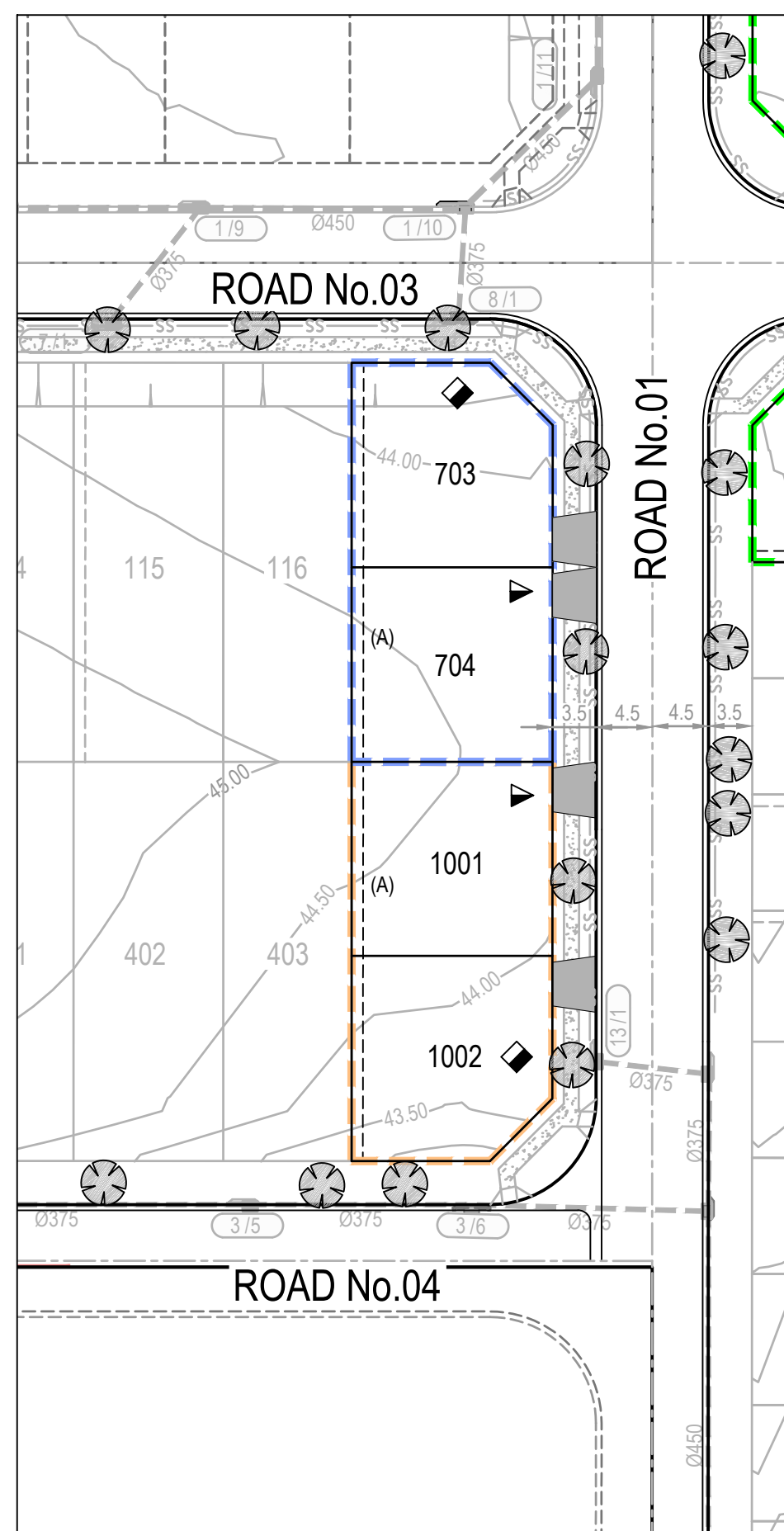
S3. ANY DISCREPANCY BETWEEN ANY OF THE INFORMATION CONTAINED WITHIN THESE FILES IS TO BE BROUGHT TO THE ATTENTION OF THE SUPERINTENDENT PRIOR TO CONSTRUCTION WHO WILL SEEK CLARIFICATION AND ISSUE INSTRUCTIONS ON THE APPROPRIATE COURSE OF ACTION.

Project No.
5-17-STG7
Plan
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Revision
A



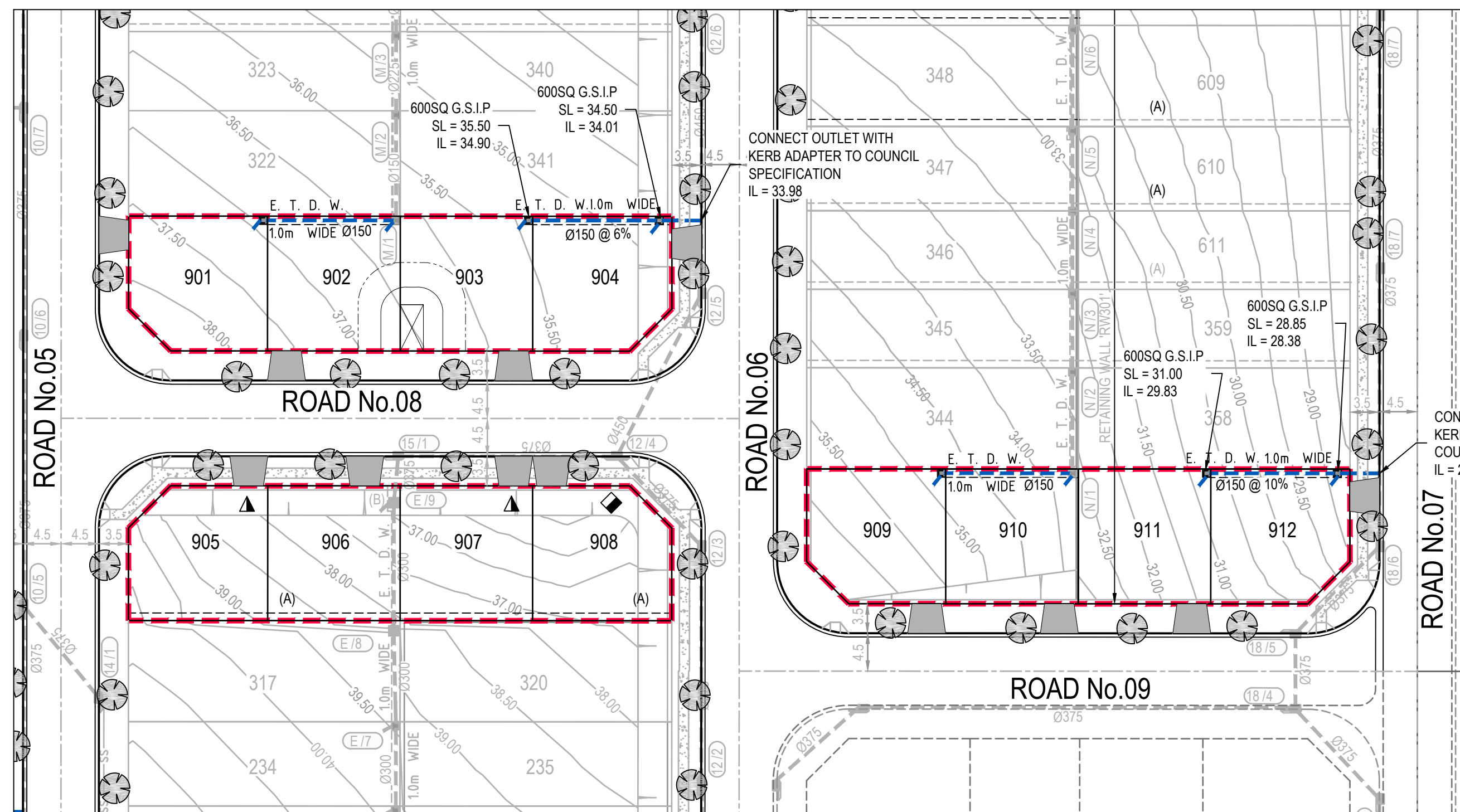
SUBDIVISION PLAN OF LOT 130

SCALE 1:500
NOTE: REFER CC 16-03443 BY ORION CONSULTING ENGINEERS
FOR ROAD & DRAINAGE DESIGN



SUBDIVISION PLAN OF LOT 117 & 404

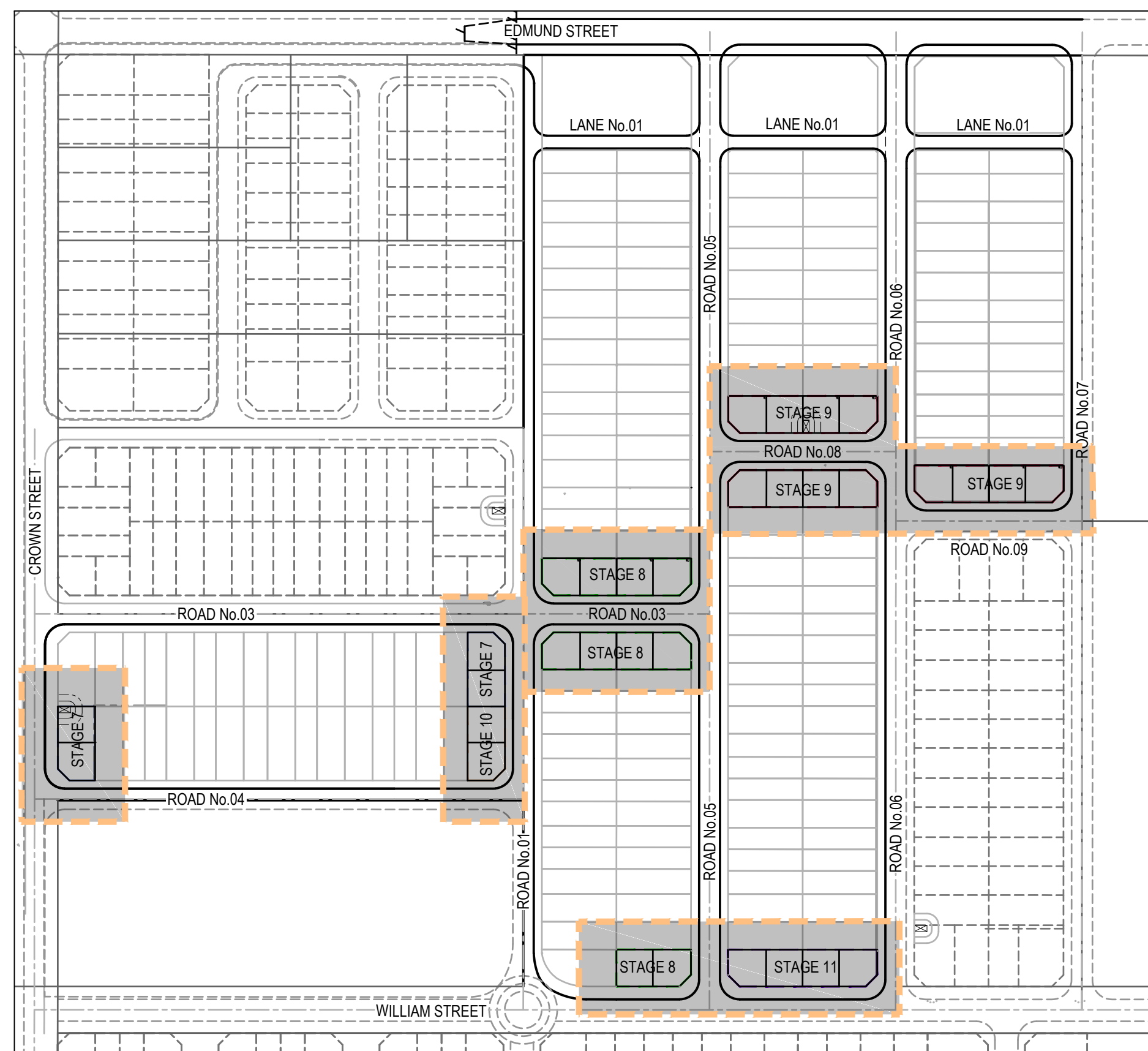
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NOTE: REFER CC 16-03443 BY ORION CONSULTING ENGINEERS
FOR ROAD & DRAINAGE DESIGN



SUBDIVISION PLAN OF LOT 318, 319, 321, 342, 343 & 357

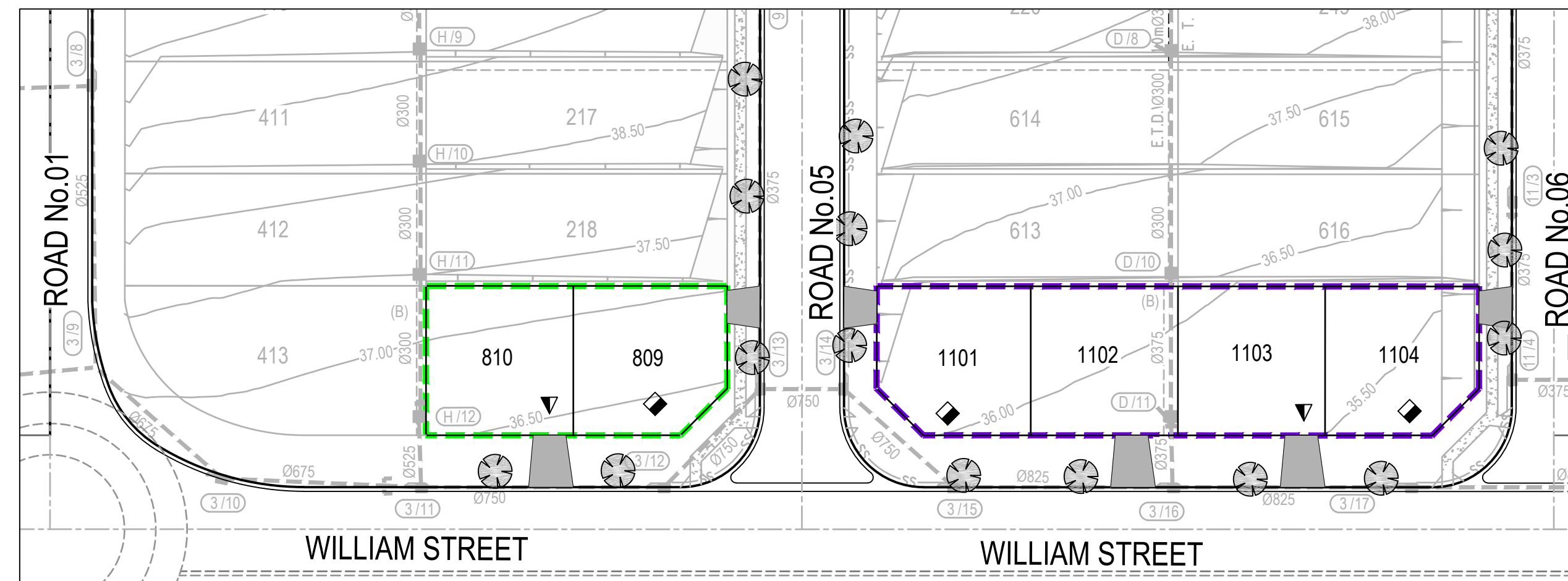
SCALE 1:500
NOTE: REFER CC 16-4355 BY ORION CONSULTING ENGINEERS FOR
ROAD & DRAINAGE DESIGN

LEGEND	
STAGE 7	---
STAGE 8	---
STAGE 9	---
STAGE 10	---
STAGE 11	---
DENOTES ROOF WATER CONNECTION IN KERB	▲
PROVIDE STUB FOR ROOF WATER CONNECTION TO REAR OF INTEL	◆
FUTURE STREET TREES AS PER DA-15-2251	⊗
PROPOSED DRIVEWAY LOCATION COMPLETED WITH BUILDING APPLICATION	▬



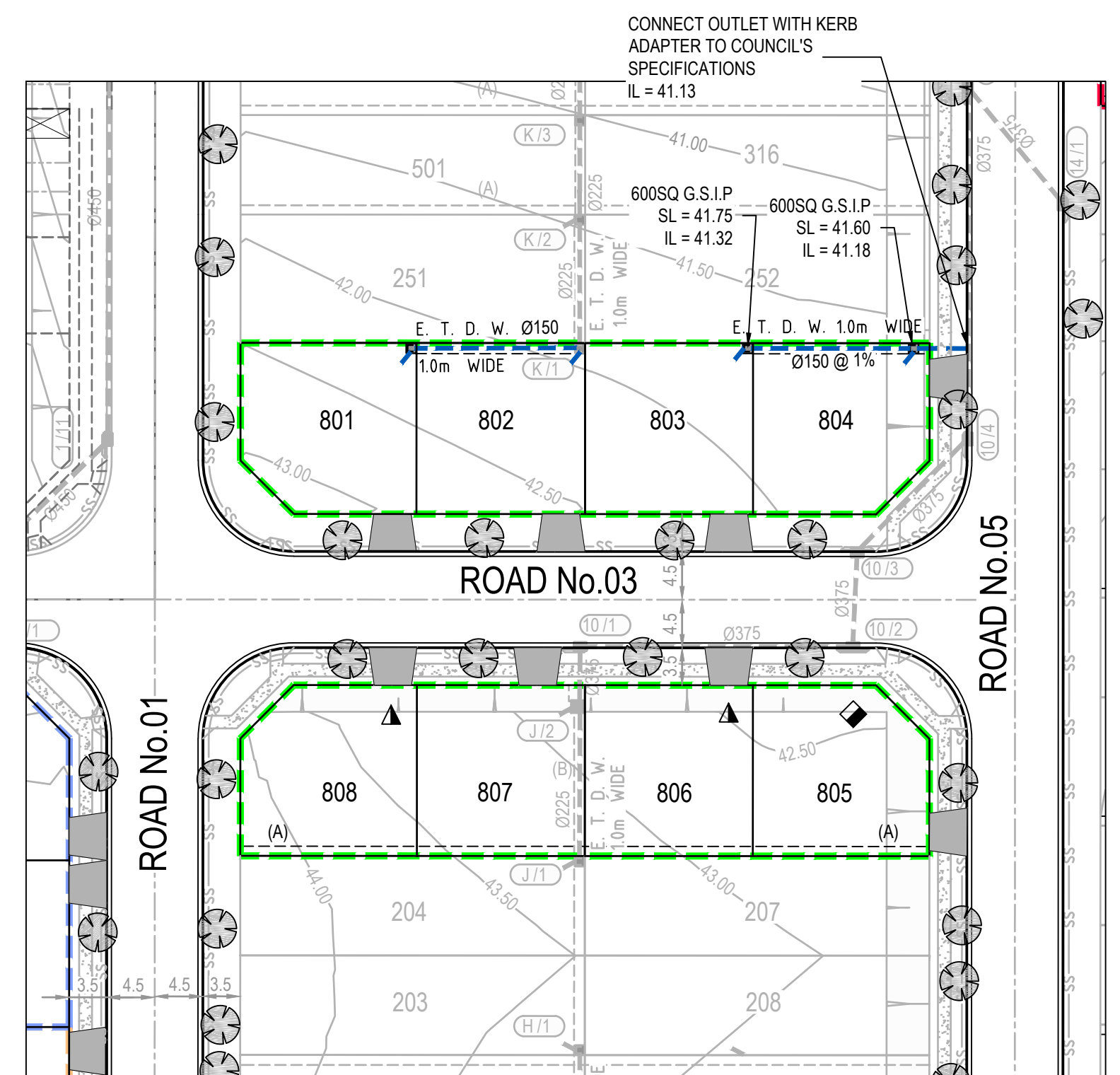
LOCALITY PLAN

SCALE 1:2000



SUBDIVISION PLAN OF LOT 219, 612 & 617

SCALE 1:500
NOTE: REFER CC 16-3871 BY ORION CONSULTING ENGINEERS FOR
ROAD & DRAINAGE DESIGN



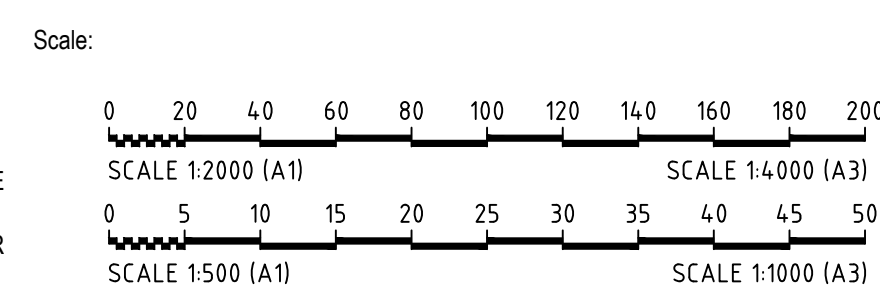
SUBDIVISION PLAN OF LOT 205, 206, 250 & 253

SCALE 1:500
NOTE: REFER CC 16-3871 BY ORION CONSULTING ENGINEERS FOR
ROAD & DRAINAGE DESIGN

ISSUED FOR **DEVELOPMENT APPLICATION**
NOT FOR CONSTRUCTION

Revision	Drawn	Design	Appd.	Date	Revision Description
01	EM	PB	PB	21/02/2017	ISSUED FOR DEVELOPMENT APPLICATION
02	EM	PB	PB	21/02/2017	

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For: **GMR** Goldmate Residential

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Project: EDMUND, WILLIAM & CROWN ST, RIVERSTONE
ROAD & DRAINAGE DESIGN

Title: STAGE 7, 8, 9, 10 & 11
ENGINEERING PLAN

Project No: 15-17-STG7
Plan: 001
Revision: A