



**LEGEND - EARTHWORKS**

- PROPOSED EARTHWORKS BATTER TOE
  - PROPOSED EARTHWORKS BATTER TOP
  - PROPOSED SWALE DRAIN
  - PROPOSED RETAINING WALL (TYPE TBC)
  - FINISHED LEVELS
  - EXISTING LEVELS
  - DESIGN/FINISHED SURFACE CONTOURS
- NOTE: FOR CONTOURS, BOUNDARIES & EXISTING FEATURES LEGEND REFER TO DRG No. C01

**EARTHWORKS NOTES**

1. ALL WORKS TO BE GENERALLY IN ACCORDANCE WITH COUNCIL APPROVED DEVELOPMENT APPLICATION DOCUMENTS AND ASSOCIATED APPROVAL CONDITIONS
2. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH ALL RELEVANT APPROVED MANAGEMENT PLANS
3. CONTRACTOR IS TO ALLOW FOR PROVISION OF ALL REQUIRED EROSION AND SEDIMENT CONTROL DEVICES IN ACCORDANCE WITH IECA AND LOCAL COUNCIL POLICIES AND GUIDELINES AND IS TO BE AWARE OF THE REQUIREMENTS AND PENALTIES STIPULATED WITHIN ENVIRONMENTAL PROTECTION & BIODIVERSITY ACT 1999.
4. GRASS AND TOPSOIL SHALL BE STRIPPED TO A MINIMUM DEPTH OF 100mm OVER THE EXTENT OF THE WORKS UNLESS DIRECTED OTHERWISE AND STOCKPILED FOR FUTURE USE AS NON-STRUCTURAL FILL IF REQUIRED, OR REMOVED FROM SITE, WHERE SITE TOPSOIL IS TO BE RESPADE ON SITE, CONTRACTOR TO ALLOW TO SCREEN THE TOPSOIL OF ALL UNSUITABLE AND OVERSIZED MATERIAL, ALL UNSUITABLE MATERIAL GENERATED FROM SCREENING TO BE REMOVED FROM SITE AT CONTRACTOR'S EXPENSE
5. ALL EARTHWORKS TO BE ALLOW FOR REQUIREMENTS OF LOCAL AUTHORITY EARTHWORKS SPECIFICATIONS, IN LIEU OF LOCAL AUTHORITY SPECIFICATIONS EARTHWORKS COMPACTION TO BE MONITORED BY FIELD DENSITY TESTS CARRIED OUT IN ACCORDANCE WITH REQUIREMENTS OF AS3798 AND AS1289. ALL EARTHWORKS UNDER BUILDING PADS TO BE CARRIED OUT IN ACCORDANCE WITH AS3798 APPENDIX B, GEOTECHNICAL TESTING AUTHORITY, LEVEL 1' SOIL ENGINEERING SUPERVISION, THE NOMINATED GEOTECHNICAL TESTING AUTHORITY SHALL PROVIDE CERTIFICATION THAT ALL GENERAL EARTHWORKS OPERATIONS HAVE BEEN CARRIED OUT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS AND THE CONTROLLED FILL IS SUITABLE FOR ULTIMATE PURPOSE AND LOADING
6. IF DURING EARTHWORKS OPERATIONS UNSUITABLE MATERIAL IS ENCOUNTERED, AS DEFINED IN SECTION 4 OF AS3798, THEN REMOVE THIS MATERIAL PRIOR TO ANY FILLING OPERATION
7. ALL BATTERS TO BE KEYS/STEPS INTO EXISTING MATERIAL AS DIRECTED BY GEOTECHNICAL ENGINEER CONTRACTOR TO ALLOW FOR ALL KEYING/STEPS AS REQUIRED
8. THE CONTRACTOR IS TO ENSURE THAT THE SITE IS SELF-DRAINING THROUGHOUT THE EARTHWORKS OPERATIONS, DAMAGE RESULTING FROM EXPOSURE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE
9. ADEQUATE SAFETY FENCING TO BE APPLIED TO BATTERS OR RETAINING WALLS IN FILL AS PER RELEVANT AUSTRALIAN STANDARDS AND TO ARCHITECT'S DETAILS
10. DUST CONTROL MEASURES ARE TO INCLUDE SPRAYING WATER ON UNPAVED ROADS, ACCESS TRACKS AND STOCKPILES AT A SUFFICIENT LEVEL TO SUPPRESS DUST GENERATION, ADDITIONALLY CONTRACTORS ARE TO COVER OR ENCLOSE STOCKPILES WHERE REASONABLY PRACTICAL TO RESTRICT DUST MOVEMENT
11. ALL UNPAVED, DISTURBED AREAS AT COMPLETION OF EARTHWORKS ARE TO BE LANDSCAPED/STABILISED IN ACCORDANCE WITH LANDSCAPING PLANS OR OTHERWISE COVERED WITH TOPSOIL AND GRASS SEEDS
12. ACID SULPHATE SOILS FOUND ON SITE ARE TO BE TREATED IN ACCORDANCE WITH REQUIREMENTS IDENTIFIED IN RELEVANT ACID SULPHATE MANAGEMENT PLANS AND RELEVANT AUTHORITY GUIDELINES
13. LEVELS AND GRADIENTS AT JUNCTIONS WITH EXISTING WORKS MAY BE VARIED WITH SUPERINTENDENT'S APPROVAL AS REQUIRED TO ACHIEVE SATISFACTORY CONNECTIONS
14. EXISTING TREES TO BE RETAINED SHALL BE NO CLOSER THAN 450mm FROM THE TRAVEL PATH
15. FIRE ANT MOVEMENT CONTROLS: THE QUEENSLAND GOVERNMENT HAS IMPLEMENTED IMPROVEMENT CONTROLS IN AREAS OF QUEENSLAND (BIOSECURITY ZONES) WHERE THIS PEST SPECIES HAS BEEN DETECTED, THESE CONTROLS APPLY TO INDIVIDUALS AND COMMERCIAL OPERATORS AND RESTRICT THE MOVEMENT OF MATERIALS THAT COULD CARRY FIRE ANTS WHICH INCLUDE SOIL, TURF, POTTED PLANTS, MULCH, BALED HAY OR STRAW, ANIMAL MANURES, MINING OR QUARRY PRODUCTS, PENALTIES FOR NON-COMPLIANCE WITH MOVEMENT CONTROLS WITH FIRE ANT BIOSECURITY ZONES APPLY UNDER THE BIOSECURITY ACT 2014. CONTRACTORS AND SUB-CONTRACTORS WILL BE LIABLE FOR BREACHES AND ARE TO FOLLOW LEGISLATION AT ALL TIMES

**LEVELS NOTES**

1. EARTHWORKS LEVELS SHOWN ARE FINISHED SURFACE LEVELS (FSL) INCLUSIVE OF TOPSOIL LAYER / PAVEMENT DEPTHS IF RELEVANT.
2. ALL RETAINING WALL HEIGHT LABELS ARE CALCULATED TO FINISHED SURFACE LEVELS INCLUDING TOPSOIL (AND TO NEAREST 200mm HEIGHT), FINAL RETAINING WALL DESIGNS AND DETAILED STEPPING IS SUBJECT TO STRUCTURAL DESIGN BY OTHERS.
3. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DETAILS

**RETAINING NOTES**

1. ALL RETAINING WALL/TERRACING TO SATISFY COUNCIL CODES & STANDARDS. REFER TO COUNCIL'S FILLING AND EXCAVATION CODE FOR FURTHER DETAILS. RETAINING WALL FINISHES THAT PRESENT TO ADJOINING LAND ARE TO BE OF HIGH QUALITY APPEARANCE AND COMPATIBLE WITH SURROUNDING DEVELOPMENT.
2. ANY PROPOSED RETAINING WALL WORKS (INCLUDING REAR OF RETAINING WALL DRAINAGE INFRASTRUCTURE) MUST BE WHOLLY WITHIN THE PROPERTY BOUNDARY OF THE SUBJECT SITE.
3. ALL RETAINING WALLS SHOWN ON MELIORA DRAWINGS ARE INDICATIVE ONLY WITH FINAL RETAINING WALL STRUCTURAL DESIGN & CONSTRUCTION CERTIFICATION BY MANUFACTURER / INSTALLER OR BY RPEQ STRUCTURAL ENGINEER
4. CONTRACTOR TO CONFIRM RETAINING WALL BACKSLOPE ANGLE (IF STEEPER THAN 1m4) WITH GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION
5. CONTRACTOR TO ENSURE FREE DRAINING (NO FINES) BACKFILL MATERIAL IS IMPLEMENTED BEHIND ALL RETAINING WALLS U.N.O BY RPEQ STRUCTURAL ENGINEER. SOCKED SUBSOIL DRAINAGE (SLOTTED PIPE) TO BE PLACED BEHIND BASE OF RETAINING WALL AND IS TO DISCHARGE TO SUITABLE POINT OF DISCHARGE, OR ALLOW FOR WEEP HOLES AT BASE OF WALL
6. ENSURE NO VEHICLE LOADING WITHIN A HORIZONTAL DISTANCE FROM TOP OF WALL EQUAL TO THE HEIGHT OF THE WALL DURING OR AFTER CONSTRUCTION, U.N.O BY RPEQ ENGINEERED DESIGN WHICH ALLOWS FOR LOADING

**UNKNOWN GEOTECH PARAMETERS**

- ALLOW ADEQUATE PROVISIONAL AMOUNTS FOR OR CONTINGENCIES FOR THE FOLLOWING UNKNOWN EARTHWORKS/GEOTECH PARAMETERS:
- SWELLING / COMPACTION FACTORS - UNKNOWN
  - SUBGRADE CBR - UNKNOWN
  - SUBGRADE SUITABLE FOR FILLING/PAVEMENT - UNKNOWN
  - CUT FROM SITE CAN BE USED FOR FILLING (STRUCTURAL OR OTHERWISE) - UNKNOWN
  - ONSITE SOILS ARE DISPERSIVE/HIGHLY REACTIVE - UNKNOWN

**PRELIMINARY VOLUMES**

(UNSTRIPPED EXISTING SURFACE TO FINISHED SURFACE)

CUT	418m <sup>3</sup>
FILL	235m <sup>3</sup>
BALANCE (CUT)	182m <sup>3</sup>

NOTE: THE ABOVE VOLUMES ARE INDICATIVE ONLY AND SUBJECT TO DETAILED DESIGN

**REFERENCE PRECEDENCE**

REFER TO REQUIREMENTS OF THE FOLLOWING MANDATORY REFERENCE DOCUMENTS (IN ORDER OF PRECEDENCE). REQUEST IF NOT RECEIVED DURING TENDER, CONTRACTOR WILL BE LIABLE FOR NON-COMPLIANT CONSTRUCTION, RAISE DISCREPANCIES WITH SUPERINTENDENT PRIOR TO CONSTRUCTION.

1. AUTHORITY APPROVED PLANS/DOCUMENTS
2. AUTHORITY APPROVAL CONDITIONS
3. RECOMMENDATIONS WITHIN SPECIALIST REPORTS INCLUDING GEOTECHNICAL REPORTS
4. AUTHORITY STANDARDS, GUIDELINES AND POLICY
5. DESIGN STANDARD & GUIDELINES (AS 3798, AS 1289)
6. PROJECT DRAWINGS, NOTES AND DETAILS (INCLUDING ALL MELIORA CIVIL DRAWINGS)
7. ENGINEERING SPECIFICATIONS (IF PUBLISHED)

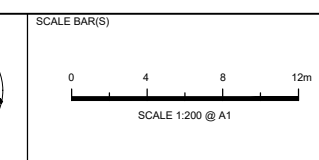
**SECTIONS WORKS**  
FOR EARTHWORKS SECTIONS REFER DWG No SK02

**FOR APPROVAL**

**NOTE**  
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RPEQ No. 21258  
DATE: 27.05.26




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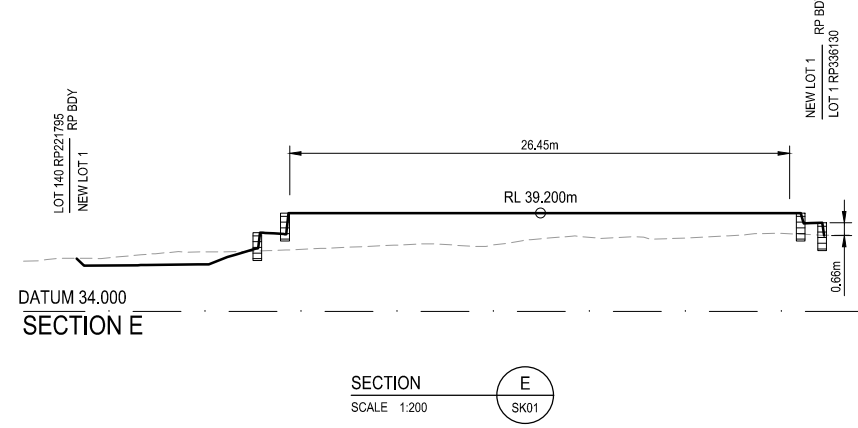
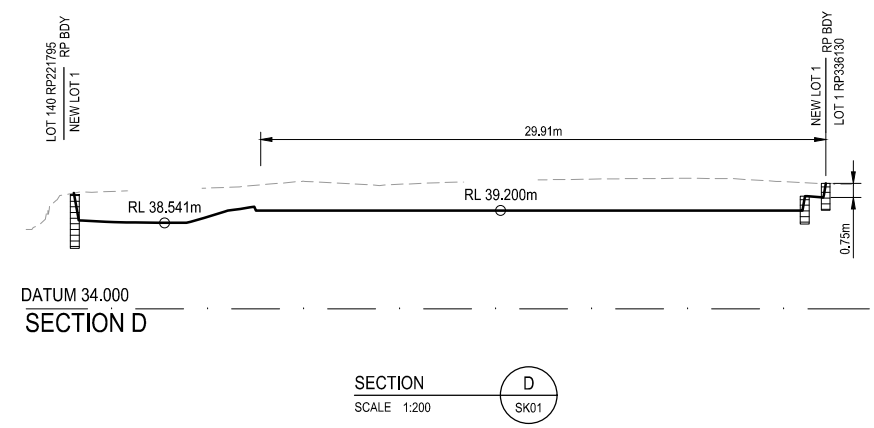
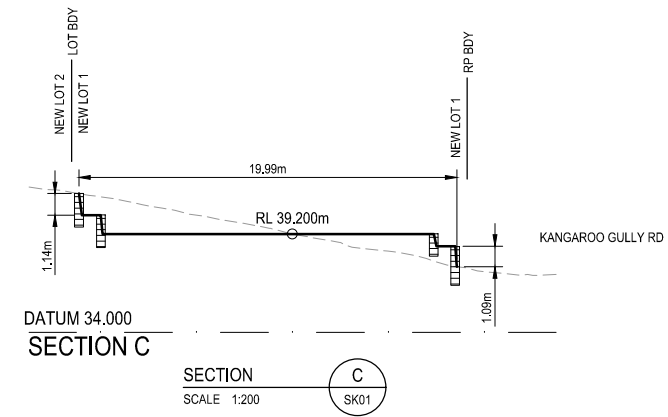
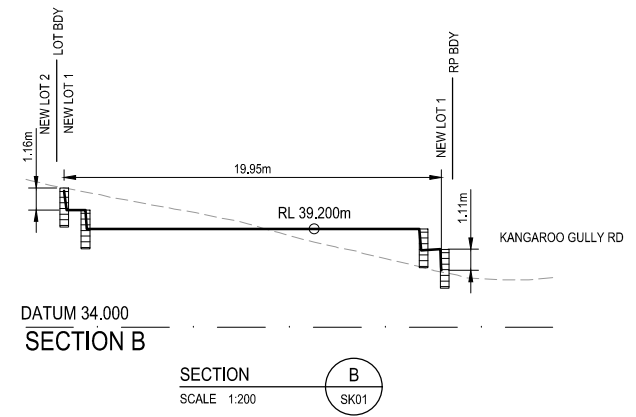
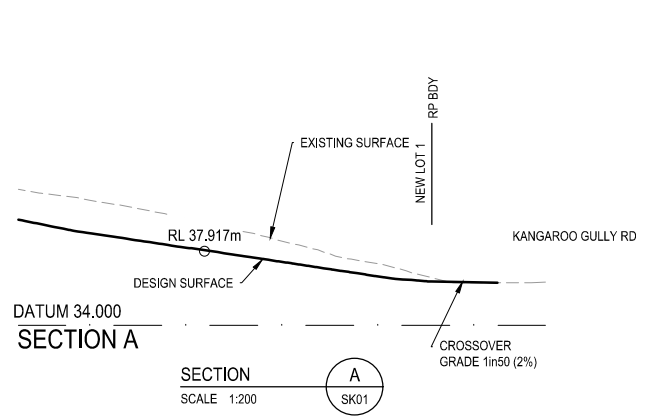
CLIENT/DEVELOPER:  
**WEI FANG**  
CLIENT/DEVELOPER LOGO:

PROJECT:  
**144 KANGAROO GULLY ROAD  
BELLBOWRIE**

DRAWING TITLE:  
**PRELIMINARY EARTHWORKS LAYOUT  
PLAN & NOTES**

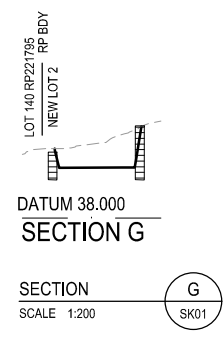
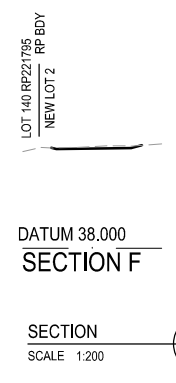
MELIORA JOB No.	<b>25104</b>
DWG No	<b>SK01</b>
REVISION	<b>03</b>

**LEGEND - SECTIONS**  
 DESIGN (FINISHED) SURFACE   
 EXISTING (UNSTRIPPED) SURFACE   
 RETAINING STRUCTURES (INDICATIVE - TYPE TBC) 



SECTION **D**  
SCALE 1:200  
SK01

SECTION **E**  
SCALE 1:200  
SK01



SECTION **F**  
SCALE 1:200  
SK01

SECTION **G**  
SCALE 1:200  
SK01

**LAYOUT & NOTES REFERENCE**  
 FOR EARTHWORKS LAYOUT PLAN REFER DWG No SK01.

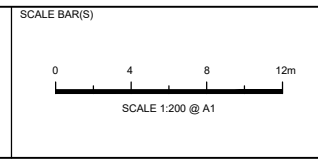
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 RPEQ No. 21258  
 DATE: 27.05.26

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 CLIENT/DEVELOPER LOGO:

PROJECT:  
**144 KANGAROO GULLY ROAD  
 BELLBOWRIE**

DRAWING TITLE:  
**PRELIMINARY EARTHWORKS SECTIONS**

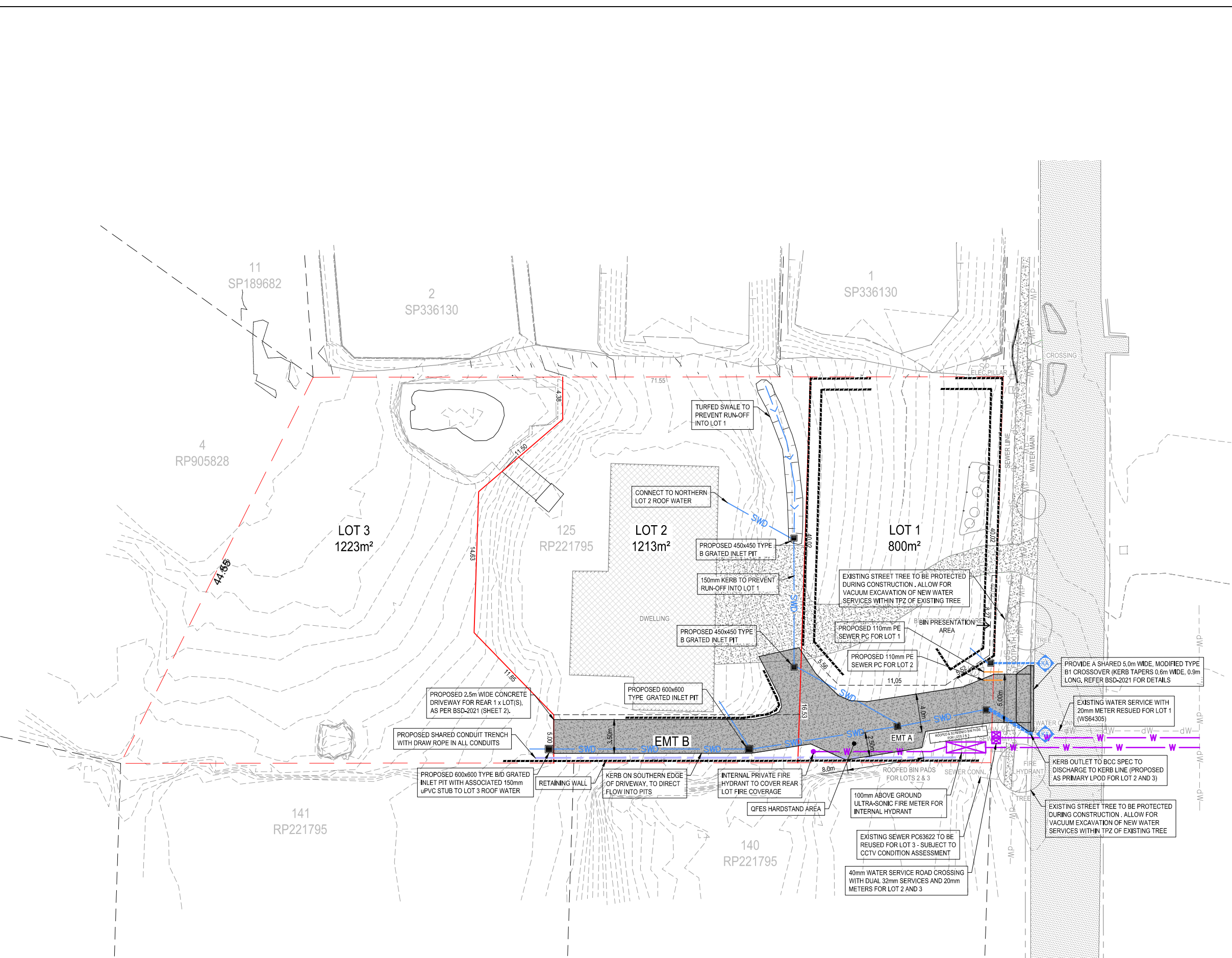
MELIORA JOB No.	<b>25104</b>
ARCHITECT:	X
BUILDER:	
SK02	03
DWG No	REVISION

LEGEND	
PROPOSED RETAINING WALL (TYPE TBC)	████████████████████
PROPOSED KERB LINE	===== FOK LOK
PROPOSED DRAINAGE (PIPE)	— SWD —
PROPOSED DRAINAGE (RHS)	— S — S —
PROPOSED SEWER MAIN/CONNECTIONS	— W — W —
PROPOSED WATER MAIN/SERVICE AND METERS	— W — W —
PROPOSED COMBINED SERVICES TRENCH	— W — W —
PROPOSED FIELD INLET PIT	■
PROPOSED KERB ADAPTOR	KA
PROPOSED CONCRETE ROAD/CROSSOVER	▒
PROPOSED TURF OR LANDSCAPING AREA	■
PROPOSED DEMOLITION EXTENT	▒
EXISTING EXTERNAL ROAD PAVEMENT	▒
EXISTING BUILDINGS	▒

NOTE: FOR CONTOURS, BOUNDARIES & EXISTING FEATURES LEGEND REFER TO DRG No. SK00

- PRELIMINARY ROADWORKS AND DRAINAGE NOTES**
- ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH CURRENT COUNCIL STANDARD SPECIFICATIONS AND DRAWINGS, UNLESS NOTED OTHERWISE
  - CONTRACTOR TO CONDUCT A DIAL BEFORE YOU DIG SEARCH PRIOR TO COMMENCEMENT OF WORKS AND CONFIRM THE LOCATION OF ALL EXISTING SERVICES PRIOR TO ANY EXCAVATION SHOULD ANY OF THE PROPOSED SERVICES CLASH WITH THE IDENTIFIED EXISTING SERVICES, CONSULT ENGINEER FOR ADVICE
  - CONTRACTOR TO ENSURE ALL EXISTING SERVICES ARE PROTECTED DURING THE COURSE OF CONSTRUCTION IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS, ANY DAMAGE TO EXISTING SERVICES IS TO BE REINSTATED AT THE CONTRACTORS EXPENSE.
  - ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH COUNCILS EROSION AND SEDIMENT CONTROL GUIDELINES
  - ALL TRENCH EXCAVATION AND CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF THE QUEENSLAND WORKPLACE HEALTH AND SAFETY ACT 2011
  - CONTRACTOR TO REINSTATE DAMAGE TO ANY EXISTING INFRASTRUCTURE (KERB AND CHANNEL, ASPHALT, FOOTPATH, VERGE ETC) TO COUNCIL SATISFACTION
  - CONTRACTOR TO ENSURE ADJOINING PROPERTIES AND ROADS ARE PROTECTED FROM PONDING OR NUISANCE FROM STORMWATER RUNOFF AS A RESULT OF THE PROPOSED WORKS
  - CONTRACTOR TO REMOVE ANY REDUNDANT DRAINAGE OUTLETS FROM THE KERB AND CHANNEL INCLUDING ANY ASSOCIATED PIPEWORK ACROSS THE FOOTWAY AND REINSTATE THE KERB AND CHANNEL AND THE FOOTWAY AREA IN ACCORDANCE WITH COUNCIL'S INFRASTRUCTURE GUIDELINES

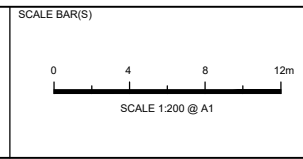
- PRELIMINARY GENERAL CIVIL WORKS NOTES**
- ALL PROPOSED WORK IS TO BE DESIGNED & CONSTRUCTED IN ACCORDANCE WITH REQUIREMENTS OF ALL RELEVANT DEVELOPMENT APPROVAL CONDITIONS
  - RETAIN AND PROTECT TREES ON SITE OR WITHIN STREET AS PER N.A.L.L. (OR ANY OTHER RELEVANT VEGETATION MANAGEMENT PLAN) REQUIREMENTS U.N.O.
  - MINIMISE ON SITE EROSION AND RELEASE OF SEDIMENT AND SEDIMENT LADEN STORMWATER FROM THE SITE AT ALL TIMES IN ACCORDANCE WITH BEST PRACTICE ESC METHODS.
  - SERVICES AUTHORITIES (INCLUDING ELECTRICITY, COMMUNICATIONS, GAS, NBN) CONNECTION APPLICATIONS TO BE FACILITATED BY OTHERS WITH CONDUIT/ CONNECTION DESIGNS TO BE COORDINATED WITH CIVIL INFRASTRUCTURE AS REQUIRED
  - ENSURE SEWER AND WATER WORKS APPROVAL IS GRANTED BY THE RELEVANT WATER AUTHORITY PRIOR TO COMMENCING CONSTRUCTION OF CIVIL WORKS
  - NEW WORK MUST NOT DAMAGE OR COMPROMISE THE WORKING ABILITY OF EXISTING INFRASTRUCTURE. PROTECT EXISTING INFRASTRUCTURE AT ALL TIMES DURING CONSTRUCTION



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CLIENT/DEVELOPER LOGO:

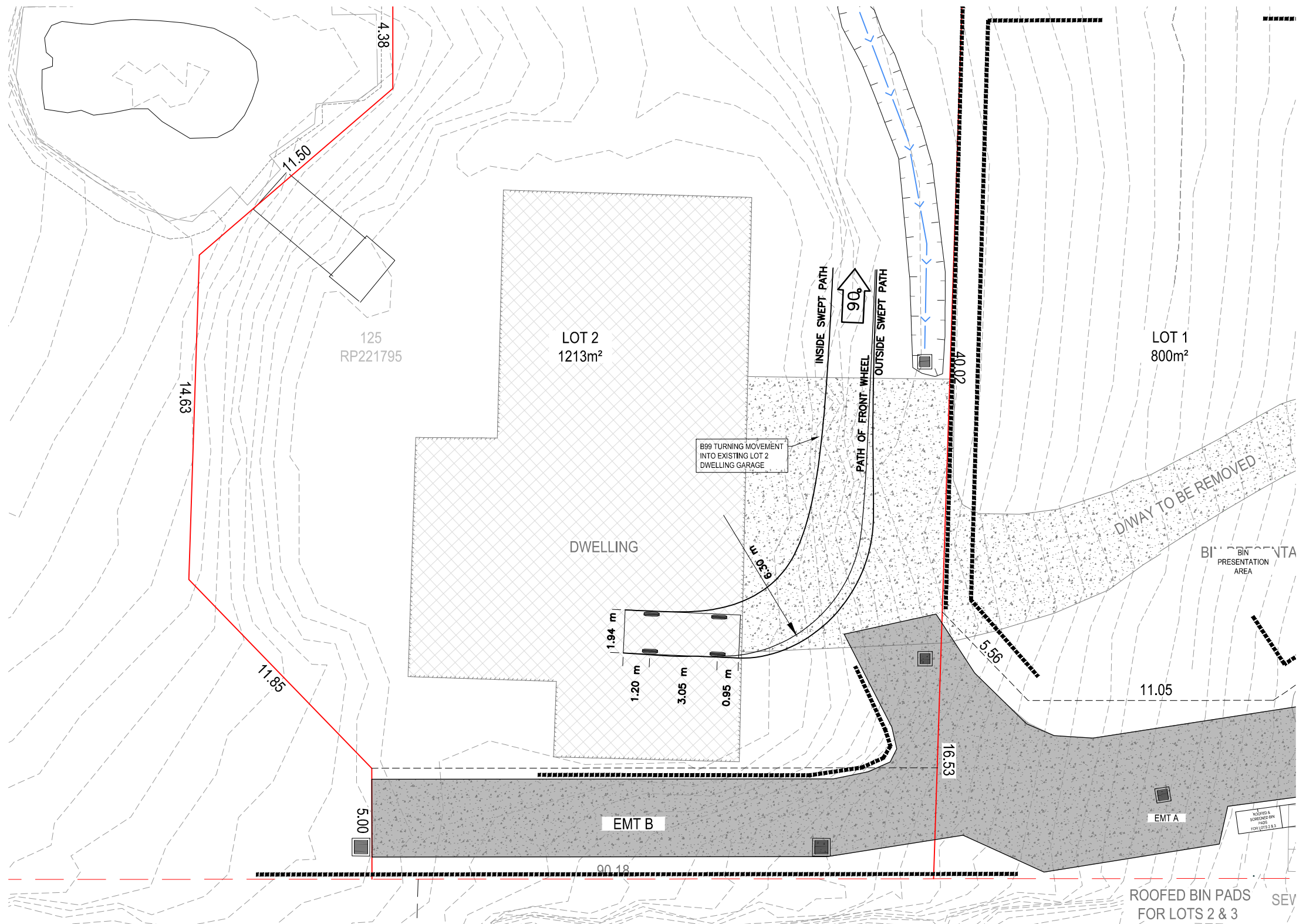
PROJECT:  
**144 KANGAROO GULLY ROAD  
BELLBOWRIE**

DRAWING TITLE:  
**PRELIMINARY CIVIL SERVICES  
LAYOUT PLAN**

MELIORA JOB No. **25104**  
SK05  
DWG No

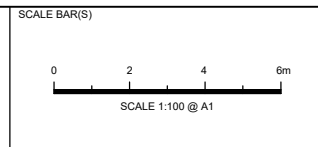
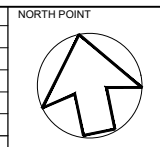
**03**  
REVISION





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RPEQ SIGNATURE



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**WEI FANG**

CLIENT/DEVELOPER LOGO:

PROJECT:  
**144 KANGAROO GULLY ROAD  
 BELLBOWRIE**

ARCHITECT:  
 X

BUILDER:

DRAWING TITLE:  
**PRELIMINARY LOT 2 GARAGE  
 ACCESS TURNING PATH**

MELIORA JOB No. **25104**

SK08 DWG No

03 REVISION

