PROPOSED DEVELOPMENT

1-20 RAILWAY ROAD, MEADOWBANK

CIVIL WORKS PLANS

EXISTING SERVICES AND FEATURES

1. THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION, REMOVAL AND DISPOSAL IF REQUIRED OF ALL EXISTING SERVICES IN AREAS AFFECTED BY WORKS WITHIN THE CONTRACT AREA, AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT.
2. THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED.
3. PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL GAIN WRITTEN APPROVAL OF HIS PROGRAMME FOR THE RELOCATION/CONSTRUCTION OF TEMPORARY SERVICES.
4. EXISTING BUILDINGS, EXTERNAL STRUCTURES, AND TREES SHOWN ON THESE DRAWINGS ARE FEATURES EXISTING PRIOR TO ANY DEMOLITION WORKS.
5. CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS IS COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT.
6. INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE TO THE PRINCIPAL. CONTRACTOR TO GAIN APPROVAL OF SUPERINTENDENT FOR TIME OF INTERRUPTION.

SITEWORKS NOTES

1. ORIGIN OF LEVELS :- AUSTRALIAN HEIGHT DATUM (A.H.D.)
2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TOCOMMENCEMENT OF WORK.
3. ALL WORK IS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS, THE SPECIFICATIONS AND THE DIRECTIONS OF THE PRINCIPAL'S REPRESENTATIVE.
4. EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE PRINCIPAL'S REPRESENTATIVE. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
5. WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
6. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
7. CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER COMMUNICATIONS OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
8. ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH AN APPROVED NON-NATURAL GRANULAR MATERIAL AND COMPACTED TO 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS.1289.5.1.1.
9. ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
10. ON COMPLETION OF PIPE INSTALLATION ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AND GRASSED AREAS AND ROAD PAVEMENTS.
11. PROVIDE 10mm ABLEFLEX JOINTS BETWEEN CONCRETE PAVEMENTS AND ALL BUILDINGS , WALLS, FOOTINGS, COLUMNS, KERBS, DISH DRAINS, GRATED DRAINS, BOLLARD FOOTINGS ETC
12. CONTRACTOR TO OBTAIN ALL AUTHORITY APPROVALS.
13. ALL BATTERS TO BE GRASSED LINED WITH MINIMUM 100 TOPSOIL AND APPROVED COUCH LAID AS TURF.
14. MAKE SMOOTH TRANSITION TO EXISTING SERVICES AND MAKE GOOD.
15. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY DIVERSION DRAINS AND MOUNDS TO ENSURE THAT AT ALL TIMES EXPOSED SURFACES ARE FREE DRAINING AND WHERE NECESSARY EXCAVATE SUMPS AND PROVIDE PUMPING EQUIPMENT TO DRAIN EXPOSED AREAS.
16. THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND ELECTRICAL DRAWINGS AND SPECIFICATIONS.
17. TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MIN 50mm IN BITUMINOUS PAVING.
18. ON COMPLETION OF WORKS ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL INCLUDING, BUT NOT LIMITED TO, KERBS, FOOTPATHS, CONCRETE AREAS, GRASS AND LANDSCAPED AREAS.

SUBGRADE PREPARATION

1. REMOVE ALL TOPSOIL, VEGETABLE MATTER AND RUBBLE.
2. PROOF ROLL NATURAL SURFACE.
3. REMOVE ANY SOFT AREAS.
4. PLACE APPROVED NON ORGANIC FILL WITH A MAXIMUM PARTICLE SIZE OF 75mm AND COMPACT IN 200mm MAX. THICK LAYERS. U.N.O.
5. COMPACTION IS TO BE CARRIED OUT BY ROLLING AT OPTIMUM MOISTURE CONTENT TO OBTAIN A DENSITY EQUIVALENT TO 98% OF MAXIMUM DRY DENSITY WHEN TESTED BY THE STANDARD COMPACTION TEST. No. E1.1 FROM A.S. 1289.
6. COMPACTION SHALL BE CARRIED OUT WITH A VIBRATING ROLLER WITH AT LEAST 10 TONNE STATIC WEIGHT OR OTHER APPROPRIATE EQUIPMENT.
7. TESTING OF THE SUBGRADE SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A. REGISTERED LABORATORY.

COMPACTION NOTES

1. STRIP TOPSOIL TO EXPOSE NATURALLY OCCURRING MATERIAL AND STOCKPILE ON SITE FOR SELECTIVE RE-USE OR DISPOSE OFF-SITE AS DIRECTED BY THE SUPERINTENDENT.
2. WHERE FILLING IS REQUIRED TO ACHIEVE DESIGN SUBGRADE PROOF ROLL EXPOSED NATURAL SURFACE WITH A MINIMUM OF TEN PASSES OF A VIBRATING ROLLER (MINIMUM STATIC WEIGHT OF 10 TONNES) IN THE PRESENCE OF THE SUPERINTENDENT. REFER TO SPECIFICATION FOR DETAILS.
3. ALL SOFT, WET OR UNSUITABLE MATERIAL TO BE REMOVED AS DIRECTED BY THE SUPERINTENDENT AND REPLACED WITH APPROVED MATERIAL SATISFYING THE REQUIREMENTS LISTED BELOW.
4. ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SUPERINTENDENT AND SHALL COMPLY WITH THE FOLLOWING :
   a. FREE FROM ORGANIC, PERISHABLE AND CONTAMINATED MATTER
   b. MAXIMUM PARTICLE SIZE 75MM
   c. PLASTICITY INDEX BETWEEN 2% AND 15%
5. ALL FILL MATERIAL SHALL BE PLACED IN MAXIMUM 200MM THICK LAYERS AND COMPACTED AT OPTIMUM MOISTURE CONTENT (+ OR - 2%) TO ACHIEVE A DRY DENSITY DETERMINED IN ACCORDANCE WITH AS 1289 E3.1 OF NOT LESS THAN THE FOLLOWING STANDARD MINIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 E1.1 :

LOCATION	STANDARD DRY DENSITY
UNDER BUILDING SLABS	98%
AREAS OF SERVICE TRENCHES	98%
EXTERNAL PAVED AREAS, ROADS AND CARPARKS	98%
LANDSCAPED AREAS	90%

6. THE CONTRACTOR SHALL PROGRAM THE EARTHWORKS OPERATION SO THAT THE WORKING AREAS ARE ADEQUATELY DRAINED DURING THE PERIOD OF CONSTRUCTION. THE SURFACE SHALL BE GRADED AND SEALED OFF TO REMOVE DEPRESSIONS, ROLLER MARKS AND SIMILAR WHICH WOULD ALLOW WATER TO POND AND PENETRATE THE UNDERLYING MATERIAL. ANY DAMAGE RESULTING FROM THE CONTRACTOR NOT OBSERVING THESE REQUIREMENTS SHALL BE RECTIFIED BY THE CONTRACTOR AT THEIR COST.
7. TESTING OF THE SUBGRADE SHALL BE CARRIED OUT BY AN APPROVED NATA REGISTERED LABORATORY AT THE CONTRACTORS EXPENSE.

EROSION AND SEDIMENT CONTROL NOTES

GENERAL INSTRUCTIONS

E1. THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, AND ANY OTHER PLANS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED AND RELATING TO DEVELOPMENT AT THE SUBJECT SITE.

E2. THE SITE SUPERINTENDENT WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS INSTRUCTED IN THIS SPECIFICATION.

E3. ALL BUILDERS AND SUB-CONTRACTORS WILL BE INFORMED OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS.

CONSTRUCTION SEQUENCE

E4. THE SOIL EROSION POTENTIAL ON THIS SITE SHALL BE MINIMISED. HENCE WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE :

a. INSTALL SEDIMENT FENCES, TEMPORARY CONSTRUCTION EXIT AND SANDBAG KERB INLET SEDIMENT TRAP.
b. UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

EROSION CONTROL

E5. DURING WINDY CONDITIONS, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.

E6. FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.

FENCING

E7. STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.

E8. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.

E9. WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.

E10. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

OTHER MATTERS

E11. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.

E12. RECEPTORS FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER ARE TO BE EMPTIED AS NECESSARY. DISPOSAL OF WASTE SHALL BE IN A MANNER APPROVED BY THE SITE SUPERINTENDENT.

SITE INSPECTION & MAINTENANCE

E13. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AFTER RAINFALL EVENTS TO ENSURE THAT THEY OPERATE EFFECTIVELY. REPAIR AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED.

CONCRETE NOTES

GENERAL

1. ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH AS 3600 CURRENT EDITIONS WITH AMENDMENTS, AND THE ACSE CONCRETE SPECIFICATION EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
2. VERIFY ALL SETTING OUT DIMENSIONS WITH THE ARCHITECT AND/OR THE SURVEYOR.
3. DO NOT OBTAIN DIMENSIONS BY SCALING THE DRAWINGS.
4. IN CASE OF DOUBT - ASK.

DESIGN LOADS

1. N/A

CONCRETE

1. PLACE CONCRETE OF THE FOLLOWING CHARACTERISTIC COMPRESSIVE STRENGTH F'C AS DEFINED IN AS.3600 OR M.R. FORM 609. ADD WATER REDUCING ADMIXTURE EQUAL TO WRDA.

LOCATION	AS.3600 F'c MPa AT 28 DAYS	SPECIFIED SLUMP	NOMINAL AGG. SIZE
ALL KERB PITS ETC.	25	80	20
VEHICULAR PAVEMENTS	32	80	20

2. ALL CONCRETE SHALL BE SUBJECT TO PROJECT CONTROL SAMPLE AND TESTING TO AS.3600.
3. CONSOLIDATE BY VIBRATION.

REINFORCEMENT

1. FIX REINFORCEMENT AS SHOWN ON DRAWINGS. THE TYPE AND GRADE IS INDICATED BY A SYMBOL AS SHOWN BELOW. ON THE DRAWING N IS FOLLOWED BY A NUMERAL WHICH INDICATES THE SIZE IN MILLIMETRES. A MARK NUMERAL (IF USED) FOLLOWS THIS NUMERAL.
   N. HOT ROLLED DEFORMED BAR, GRADE 410Y
   S. HOT ROLLED DEFORMED BAR, GRADE 230S
   R. PLAIN ROUND BAR, GRADE 230R
   SL. HARD DRAWN WIRE FABRIC.
2. PROVIDE BAR SUPPORTS OR SPACERS TO GIVE THE FOLLOWING CONCRETE COVER TO ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

FOOTINGS
- 75 BOTTOM, 65 TOP AND SIDES SLABS
- 2O TOP AND BOTTOM, 30 WHEN EXPOSED TO WEATHER.

BEAMS
- 50 BOTTOM AND SIDES (TO STIRRIPS) TOP COVER AS DETAILED COLUMNS
- 40 TO TIES AND SPIRALS 50 WHEN EXPOSED TO WEATHER

WALLS
- 25 GENERALLY 30 WHEN CAST IN FORMS BUT LATER EXPOSED TO WEATHER OR GROUND.
- 65 WHEN CAST DIRECTLY IN CONTACT WITH GROUND.

CURING

1. CURE ALL CONCRETE IN ACCORDANCE TO THE METHOD PROVIDED IN THE SPECIFICATION.

CONCRETE PAVEMENT JOINT NOTES

PJ1. CONCRETE MIX PARAMETERS ;
- MAXIMUM AGGREGATE SIZE 20mm
- FLEXURAL STRENGTH AT 28 DAYS = 3.5MPa
- FLEXURAL STRENGTH AT 90 DAYS = 3.85 MPa
- MAXIMUM WATER / CEMENT RATIO = 0.55
- MAXIMUM SHRINKAGE LIMIT = 650 MICRON STRAINS (AS 1012 Pt 13)
- MINIMUM CEMENT CONTENT = 300kg/m3
- CEMENT TO BE TYPE "A" (NORMAL CEMENT) TO AS.1315
- SLUMP = 50mm

PJ2. JOINT TO BE SAWN AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY THAT IT WILL NOT BE DAMAGED BY SAWING. IF AN UNPLANNED CRACK OCCURS THE CONTRACTOR SHALL REPLACE WHOLE SLABS EITHER SIDE OF THE UNPLANNED CRACK, UNLESS DIRECTED OTHERWISE.

PJ3.
a. CONSTRUCT JOINTS AS DETAILED
b. CONSTRUCTION JOINTS WHERE REQUIRED BUT NOT SHOWN, SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER AND CONSTRUCTED AT THE CONTRACTORS EXPENSE.
c. ALL LONGITUDINAL CONSTRUCTION JOINTS SHALL BE FORMED AND INCLUDE DOWEL BARS AS SPECIFIED. ALL TRANSVERSE CONSTRUCTION JOINTS SHALL BE FORMED AND INCLUDE DOWEL BARS AS SPECIFIED.
d. BOND BREAKER TO BE TWO (2) UNIFORM COATS OF BITUMEN EMULSION ALL OVER THE EXPOSED SURFACE AND ON END.

PJ4. DOWELS AND TIE BARS TO MEET STRENGTH REQUIREMENTS OF STRUCTURAL GRADE STEEL IN ACCORDANCE AS. 1302. DOWELS AND TIE BARS SHALL BE :-
- STRAIGHT
- TO LENGTH SPECIFIED
- CLEAN AND FREE FROM MILL SCALE, RUST AND OIL.
- SAWN TO LENGTH NOT CROPPED.

PJ5. DIMENSIONS OF SEALANT RESERVOIR DEPENDANT ON THE SEALANT TYPE ADOPTED. ENGINEERS APPROVAL TO BE OBTAINED FOR SEALANT AND RESERVOIR DIMENSIONS AND DETAIL PROPOSED BY THE CONTRACTOR. REFER DETAIL "B" FOR TYPICAL ARRANGEMENT AND SEALANT.

PJ6. PRIOR TO THE PLACEMENT OF CONCRETE IN THE ADJACENT SLAB, SELF EXPANDING CORK FILLER SHALL BE ADHERED TO THE ALREADY CAST AND CLEANED CONCRETE FACE USING AN APPROVED WATERPROOF ADHESIVE. ADHESIVE SHALL BE LIBERALLY APPLIED TO THE FULL FACE OF THE CONCRETE SLAB TO BE COVERED BY THE FILLER, AND ON THE FULL FACE OF THE FILLER TO BE ADHERED.

PJ7. REFER TO COMPACTION NOTES FOR PREPARATION OF SUB-BASE AND SUB-GRADE.

PJ8. ALL WORK TO BE BROOM FINISH.

JOINTING NOTES

VEHICULAR PAVEMENT JOINTING

1. ALL VEHICULAR PAVEMENT TO BE JOINTED AS SHOWN ON DRAWINGS.
2. KEYED CONSTRUCTION JOINTS SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 6m CENTRES.
3. SAWN JOINTS SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 6m CENTRES OR 1.5 x THE SPACING OF KEYED JOINTS, WHERE KEY JOINT SPACING IS LESS THAN 4m, WITH DOWELLED EXPANSION JOINTS AT MAXIMUM OF 30m CENTRES.
4. PROVIDE 10mm WIDE FULL DEPTH ISOLATION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVERS.
5. WHERE DOWELLED JOINTS INTERSECT REMOVE DOWELS FROM LAST 1500mm FROM JOINT IN DIRECTION OF POUR.

PEDESTRIAN FOOTPATH JOINTING

1. DOWELED JOINTS ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 6.0m CENTRES.
2. WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND/OR ADJACENT PAVEMENT JOINTS.
3. ALL RAMPED CROSSINGS SHALL BE DOWELED INTO ADJOINING PATH PAVEMENT

ASPHALTIC CONCRETE NOTES

1. GENERAL
   a) MINERAL AGGREGATES TO COMPLY WITH AUSTRALIAN STANDARDS
   b) MINERAL FILLER TO COMPLY WITH AS.2357 MINERAL FILLERS OR ASPHALT.
   c) BITUMEN BINDER SHALL COMPLY WITH AS 2008
2. MIX PROPORTIONS
   a) JOB MIX - 10mm NOMINAL SIZE AGGREGATE. MINIMUM BITUMEN CONTENT BY MASS OF TOTAL MASS - 5.1%
   b) MIX STABILITY - BETWEEN 16kN AND 36kN AS DETERMINED BY AS 2891
   c) AIR VOIDS IN COMPACTED MIX - BETWEEN 4% AND 7% OF THE VOLUME OF THE MIX.
   d) VOIDS FILLED IN BINDER - 65-80% OF AIR VOIDS IN THE TOTAL MINERAL AGGREGATE FILLED BY BINDER IN ACCORDANCE WITH AUSTRALIAN STANDARDS
3. PAVEMENT PREPARATION
   a) THE EXISTING SURFACE TO BE SEALED SHALL BE DRY AND BROOMED BEFORE COMMENCEMENT OF WORK TO ENSURE COMPLETE REMOVAL OF ALL SUPERFICIAL FOREIGN MATTER.
   b) ALL DEPRESSIONS OR UNEVEN AREAS ARE TO BE TACK-COATED AND BROUGHT UP TO GENERAL LEVEL OF PAVEMENT WITH ASPHALTIC CONCRETE BEFORE LAYING OF MAIN COURSE.
4. TACK COAT
   a) THE WHOLE OF THE AREA TO BE SHEETED WITH ASPHALTIC CONCRETE SHALL BE LIGHTLY AND EVENLY COATED WITH RAPID SETTING BITUMEN COMPLYING WITH AUSTRALIAN STANDARDS. APPLICATION RATE FOR RESIDUAL BITUMEN SHALL BE 0.15 TO 0.30 LITRES/SQUARE METRE. APPLICATION SHALL BE BY MEANS OF A MECHANICAL SPRAYER WITH SPRAY BAR.
5. SPREADING
   a) ALL ASPHALTIC CONCRETE SHALL BE SPREAD WITH A SELF PROPELLED PAVING MACHINE.
   b) THE ASPHALTIC CONCRETE SHALL BE LAID AT A MIX TEMPERATURE AS SHOWN BELOW;

ROAD SURFACE TEMPERATURE IN SHADE (°C)	MIX TEMPERATURES (°C)
5 - 10	NOT PERMITTED
10 - 15	150
15 - 25	145
OVER 25	140

   c) ASPHALTIC CONCRETE SHALL NOT BE LAID WHEN THE ROAD SURFACE IS WET OR WHEN COLD WINDS CHILL THE MIX ADVERSELY AFFECT SPREADING AND COMPACTION.
   d) THE MINIMUM COMPACTED THICKNESS IS 30mm OVER EXISTING SEALED PAVEMENTS AND 50mm OVER NEW PAVEMENTS
6. JOINTS
   a) THE NUMBER OF JOINTS BOTH LONGITUDINAL AND TRANSVERSE SHALL BE KEPT TO A MINIMUM.
   b) THE DENSITY AND SURFACE FINISH AT JOINTS SHALL BE SIMILAR TO THOSE OF THE REMAINDER OF THE LAYER.
7. COMPACTION
   a) ALL COMPACTION SHALL BE UNDERTAKEN USING SELF PROPELLED ROLLERS.
   b) INITIAL ROLLING SHALL BE COMPLETE BEFORE THE MIX TEMPERATURE FALLS BELOW 105°C
   c) SECONDARY ROLLING SHALL BE COMPLETED BEFORE THE MIX TEMPERATURE FALLS BELOW 60°C
   d) MINIMUM CHARACTERISTICS VALUE OF RELATIVE COMPACTION OF A LOT WHEN TESTED IN ACCORDANCE WITH AS2150
8. FINISHED PAVEMENT PROPERTIES
   a) FINISHED SURFACES SHALL BE SMOOTH, DENSE AND TRUE TO SHAPE AND SHALL NOT VARY MORE THAN 10mm FROM THE SPECIFIED PLAN LEVEL AT ANY POINT AND SHALL NOT DEVIATE FROM THE BOTTOM OF A 3m STRAIGHT EDGE LAID IN ANY DIRECTION BY MORE THAN 5mm.

ROADWORKS NOTES

1. ALL BASECOURSE AND SUB-BASECOURSE MATERIALS SHALL CONFORM WITH AUSTRALIAN STANDARDS.
2. ALL BASECOURSE AND SUB-BASE MATERIALS SHALL BE COMPACTED TO ACHIEVE A MINIMUM OF 100% STANDARD MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT OF +OR- 2% IN ACCORDANCE WITH AS1289 E1.1.
3. ALL WEARING SURFACES SHALL BE ASPHALTIC CONCRETE LAID TO THE THICKNESS SPECIFIED AND IN ACCORDANCE WITH THE SPECIFICATION.
4. CONCRETE FOR KERB SHALL HAVE A CONCRETE STRENGTH OF 20MPA AT 28 DAYS, MINIMUM SLUMP OF 60MM AND MAXIMUM AGGREGATE SIZE OF 40MM.

BITUMEN SEALANT NOTES

PAVEMENT PREPARATION

(A) THE SURFACE TO BE SEALED SHALL BE DRY AND BROOMED BEFORE COMMENCEMENT OF WORK TO ENSURE COMPLETE REMOVAL OF ALL SUPERFICIAL, FOREIGN AND LOOSE MATTER.

(B) IF APPROVED BY THE SUPERINTENDENT, ALL DEPRESSIONS OR UNEVEN AREAS ARE TO BE TACK-COATED AND BROUGHT TO GENERAL LEVEL OF PAVEMENT WITH ASPHALTIC CONCRETE BEFORE SEALING COMMENCES.

MATERIALS

(A) BINDER SHALL BE CLASS 170 TO AS 2008 OR APPROVED PROPRIETARY MATERIAL FOR PRIMING AND PRIME-SEALING.

(B) AGGREGATE SHAPE, DURABILITY AND WET TO DRY STRENGTH SHALL COMPLY TO AS 2758 FOR CLASS "N" AGGREGATES. A 20kg SAMPLE TO BE APPROVED BY THE SUPERINTENDENT PRIOR TO USE.

(C) AGGREGATES SHALL BE DELIVERED UNIFORMLY PRECOATED, EXCESSIVE PRECOATING WILL RESULT IN AGGREGATES BEING REJECTED.

(D) FOR TWO COAT FLUSH SEALS, THE SIZE OF THE AGGREGATE FOR THE SECOND COAT, WHILE NORMALLY HALF THAT OF THE FIRST COAT, SHALL BE DIMENSIONALLY COMPATIBLE WITH THAT OF THE FIRST COAT.

DESIGN

(A) DESIGN OF SPRAYED BITUMINOUS SEALS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE AUSTROADS (NAASRA) PUBLICATION, "PRINICPLES AND PRACTICE OF BITUMINOUS SURFACING, VOLUME 1 - SPRAYED WORK"

(B) WHERE NOT INDICATED ON THE DRAWINGS, PRIMES AND PRIMER-SEALS SHALL BE DESIGNED TO REMAIN INTACT UNTIL FINAL SEALING TAKES PLACE, HAVING REGARD FOR THE TRAFFIC AND CLIMATIC CONDITIONS PERTAINING.

(C) UNLESS OTHERWISE SPECIFIED, BINDER APPLICATION RATES SHALL BE SELECTED TO FILL 85% OF THE THEORETICAL VOIDS OF THE MAT.

PRIMER-SEALING

(A) A SINGLE COAT PRIMER-SEAL USING A SUITABLE CUT-BACK OR PROPRIETARY BINDER SHALL BE APPLIED TO BASECOURSE MATERIAL FOR PROTECTION OF PAVEMENT DURING CONSTRUCTION.

BITUMEN FLUSH SEALING

(A) BITUMEN FLUSH SEALS SHALL BE EITHER SINGLE OR DOUBLE COAT AS SHOWN ON THE DRAWINGS. E.G. (2) INDICATES A DOUBLE COAT FLUSH SEAL USING TWO APPLICATIONS OF BITUMEN AND AGGREGATE, THE FIRST AGGREGATE LAYER BEING OF 20mm NOMINAL SIZE, THE SECOND 10mm.

(B) BINDER SHALL BE CLASS 170 TO AS 2008.

(C) COVER AGGREGATE SHALL BE SPREAD IMMEDIATELY AFTER SPRAYING OF BINDER. IN NO CASE SHALL SPREADING BE DELAYED MORE THAN 8 MINUTES.

(D) ALL SPRAY RECORDS AND AGGREGATE SUPPLY TONNAGE AND LOOSE MATTER. IF APPROVED BY THE SUPERINTENDENT, ALL DEPRESSIONS RECEIPTS SHALL BE RETAINED AND PASSED ONTO THE SUPERINTENDENT AS PART OF THE QUALITY ASSURANCE PROCEDURES.

(E) AGGREGATES SHALL BE DELIVERED UNIFORMLY PRECOATED, EXCESSIVE PRECOATING WILL RENDER AGGREGATES UNSUITABLE AND WILL BE REJECTED. APPLICATION RATES SHALL BE IN THE RANGE OF 3-10 L/M² OF AGGREGATE AND THE PRECOATING AGENT SHALL BE COMPATIBLE WITH THE SEALING AGGREGATE TO BE USED.

(F) SEALING TO BE CARRIED OUT IN THE PRESENCE OF THE CONSULTANT ENGINEER.

(G)

APPLICATION RATES:	BINDER L/m²	COVER SIZE mm	AGGREGATE RATE m²/m²
FIRST SEAL	1	14	80
SECOND SEAL	0.5	7	160
SINGLE SEAL OR RESEAL	0.8	10	120

(H) RECORDS; ALL SPRAY RECORDS AND AGGREGATE SUPPLY TONNAGE RECEIPTS SHALL BE RETAINED AND PASSED ON TO THE CONSULTING ENGINEER AS PART OF THE QUALITY ASSURANCE PROCEDURES.

(I) GENERALLY FLUSH SEALING SHALL BE CARRIED OUT COMPLETE AND IN ACCORDANCE WITH THE RELEVANT R.T.A. STANDARD.

LINEMARKING NOTES

1. THE WORK SHALL INCLUDE ALL LINE MARKING TO ROADS, HARDSTANDS, PATHS, CARPARKS AND THE TRAFFICABLE AREAS.
2. THE PAVEMENT MARKING AND PAINT SHALL BE IN ACCORDANCE WITH AS 1742.2 AND THE RELEVANT LOCAL AND STATE AUTHORITY GUIDELINES.
3. PAINT SHALL BE TYPE 3, CLASS A AND THE COLOUR SHALL BE WHITE AND NOT SUBJECT TO DISCOLOURATION BY BITUMEN FROM THE ROAD SURFACE. EACH LINE SHALL BE 80mm WIDE, UNO IN LEGEND. ALL PAINT SHALL BE APPLIED BY MECHANICAL SPRAYER.
4. LINE MARKING SHALL BE SPOTTED OUT AND APPROVED PRIOR TO SPRAYING.
5. PAINT SHALL BE APPLIED AT A WET THICKNESS OF BETWEEN 0.35mm TO 0.40mm.
6. ALL EXISTING PAVEMENT MARKING WHICH IS LOCATED ON EXISTING PAVEMENT TO BE RETAINED SHALL BE REMOVED BY GRINDING WHERE THE EXISTING MARKINGS ARE MADE REDUNDANT BY THE PROPOSED WORKS.

SCHEDULE OF DRAWINGS

SHEET No	DESCRIPTION
COVER	GENERAL NOTES
CIV01	GENERAL ARRANGEMENT PLAN
CIV02	SERVICE AND UTILITY PLAN - PLAN01 (SHEET 1 OF 2)
CIV03	SERVICE AND UTILITY PLAN - PLAN01 (SHEET 2 OF 2)
CIV04	PUBLIC DOMAIN PLAN - PLAN01 (SHEET 1 OF 2)
CIV05	PUBLIC DOMAIN PLAN - PLAN01 (SHEET 2 OF 2)
CIV06	HRV SWEPT PATH ANALYSIS
CIV07	PUBLIC DOMAIN ALIGNMENT CHAINAGE AND SPOT ELEVATION
CIV08	CUT AND FILL DETAILS
CIV09	UNDERDALE AND FARADAY LANE ROAD CENTRELINE LONG SECTION
CIV10	FARADAY LANE LIP OF GUTTER (LEFT) - LONGITUDINAL SECTION
CIV11	UNDERDALE LANE AND FARADAY LANE BOUNDARY LONG SECTION
CIV12	CROSS SECTIONS(SHEET 1 OF 5)
CIV13	CROSS SECTIONS(SHEET 2 OF 5)
CIV14	CROSS SECTIONS(SHEET 3 OF 5)
CIV15	CROSS SECTIONS(SHEET 4 OF 5)
CIV16	CROSS SECTIONS(SHEET 5 OF 5)
CIV17	COUNCIL STANDARD DRAWINGS - KERB RAMP AND PAVEMENT TYPE GRANITE
CIV18	COUNCIL STANDARD DRAWINGS - TREE PIT DETAIL AND TYPICAL PAVEMENT STRUCTURE LOCAL ROAD
CIV19	COUNCIL STANDARD DRAWINGS - HEAVY DUTY LAYBACK AND DRIVEWAY
CIV20	COUNCIL STANDARD DRAWINGS - RAISED PEDESTRIAN CROSSINGS TYPICAL SECTION

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A	ISSUED FOR COORDINATION	24-11-2021

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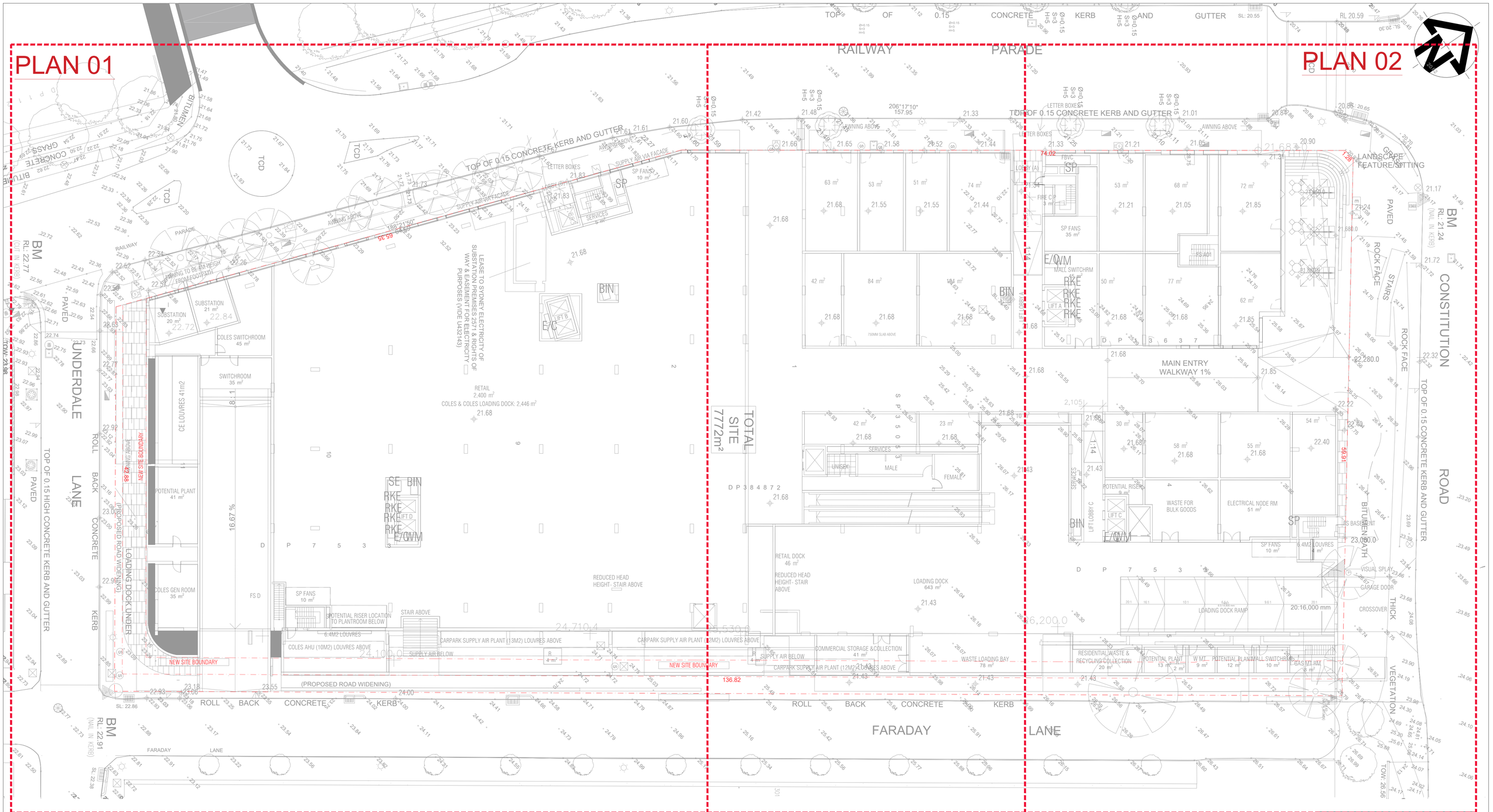

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GENERAL ARRANGEMENT PLAN

SCALE 1:200 @ A1

ISSUE FOR DA APPROVAL

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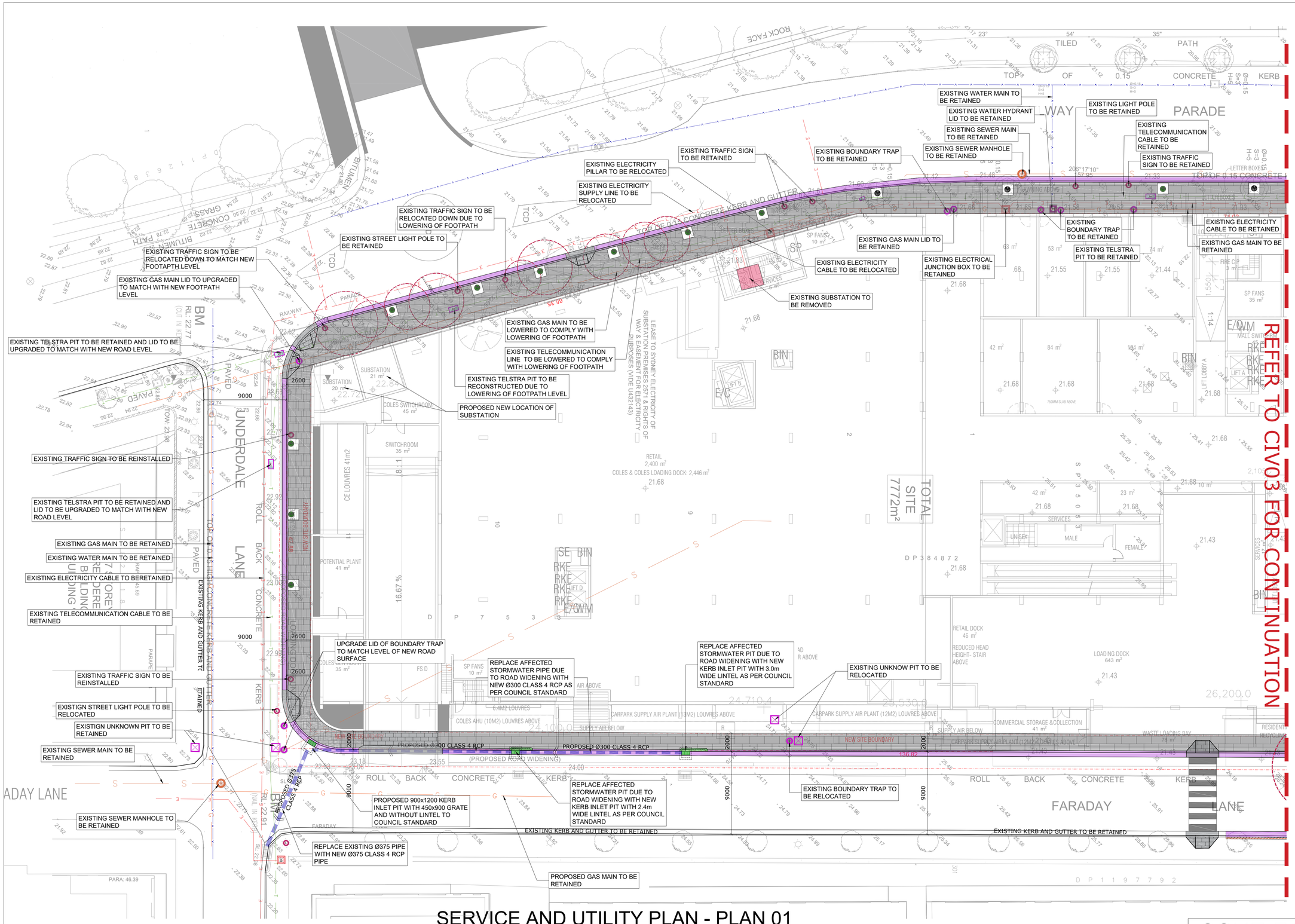
PROJECT

PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE

GENERAL ARRANGEMENT PLAN

SCALES	DESIGNED	DRAFTED
AS SHOWN	DM	DM
DRAWING NO.	APPROVED	REVISION
A20022- CIV01	JM	F



LEGENDS

	GAS MAIN AS PER DBYD
	TELECOM CABLE AS PER DBYD
	SEWER MAIN
W	WATER MAIN AS PER DBYD
	ELECTRICITY MAIN (DBYD)
T	TELE COMMUNICATION PIT
G	GAS MAIN INSPECTION LID
H	WATER HYDRANT LID
L	STREET LIGHT POLE
E	POWER POLE
T	TRAFFIC SIGN
	SEWER MANHOLE
EB	ELECTRICAL JUNCUTION BOX
EP	ELECRICAL PILLAR
	UNKNOWN PIT
	TRAFFIC LIGHT POLE
	PEDESTRIAN LIGHT POLE

LEGENDS ON TREES

	PROPOSED NEW TREE WITH TREE PIT AND TREE GRATE SURROUNDED BY GRANITE BANDING
	TREE TO BE REMOVED
	EXISTING TREE TO BE RETAINED

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SERVICE AND UTILITY PLAN - PLAN 01

SCALE 1:200 @ A1

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PROJECT

PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE

SERVICE AND UTILITY PLAN - PLAN01 (SHEET 1 OF 2)

SCALES	DESIGNED	DRAFTED
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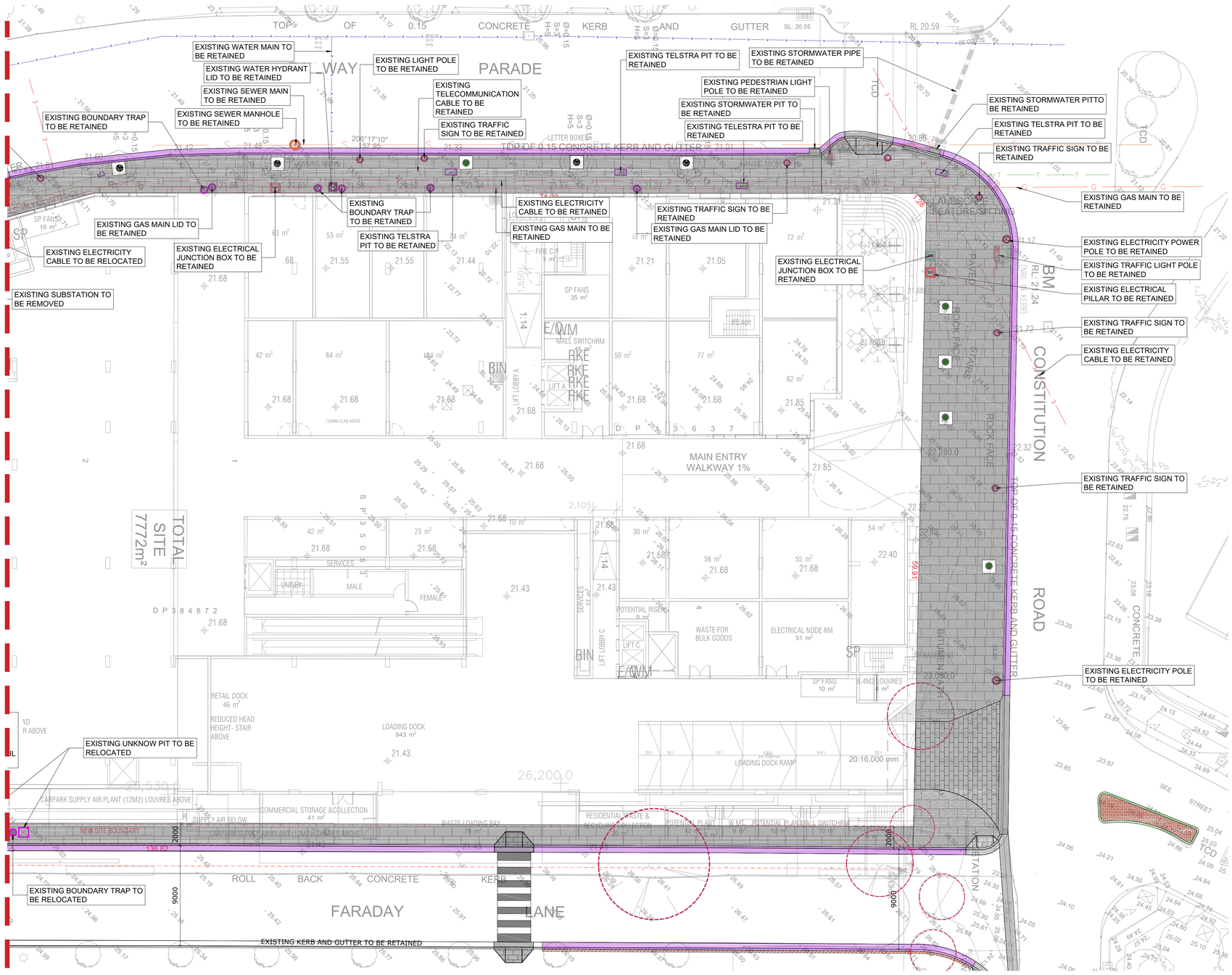
DRAWING NO.	APPROVED	REVISION
A20022- CIV02	JM	F



LEGENDS

	GAS MAIN AS PER DBYD
	TELECOM CABLE AS PER DBYD
	SEWER MAIN
W	WATER MAIN AS PER DBYD
	ELECTRICITY MAIN (DBYD)
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G	GAS MAIN INSPECTION LID
H	WATER HYDRANT LID
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	SEWER MANHOLE
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EP	ELECRICAL PILLAR
	UNKNOWN PIT
	TRAFFIC LIGHT POLE
	PEDESTRIAN LIGHT POLE

LEGENDS ON TREES

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SERVICE AND UTILITY PLAN - PLAN 02

SCALE 1:200 @ A1

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PROJECT
PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE
SERVICE AND UTILITY PLAN - PLAN02 (SHEET 2 OF 2)

SCALES	DESIGNED	DRAFTED
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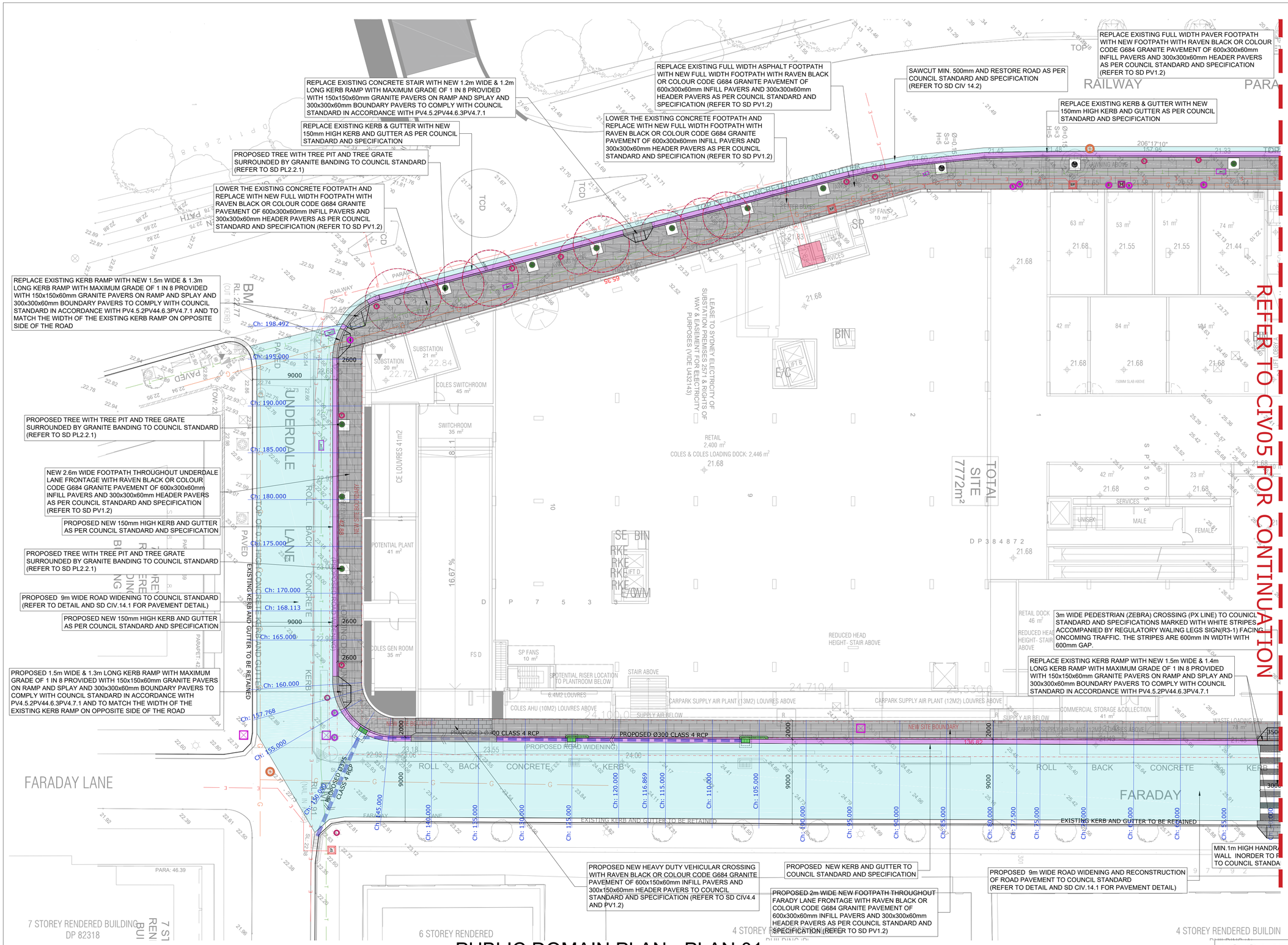
DRAWING NO.	APPROVED	REVISION
A20022- CIV03	JM	F



PUBLIC DOMAIN PLAN - PLAN 01

SCALE 1:200 @ A1

LEGENDS

	GAS MAIN AS PER DBYD
	TELECOM CABLE AS PER DBYD
	SEWER MAIN
W	WATER MAIN AS PER DBYD
	ELECTRICITY MAIN (DBYD)
	TELE COMMUNICATION PIT
G	GAS MAIN INSPECTION LID
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	SEWER MANHOLE
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EP	ELECRICAL PILLAR
	UNKNOWN PIT
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	PEDESTRIAN LIGHT POLE

LEGENDS ON TREES

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PROJECT

PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE

PUBLIC DOMAIN PLAN - PLAN01 (SHEET 1 OF 2)

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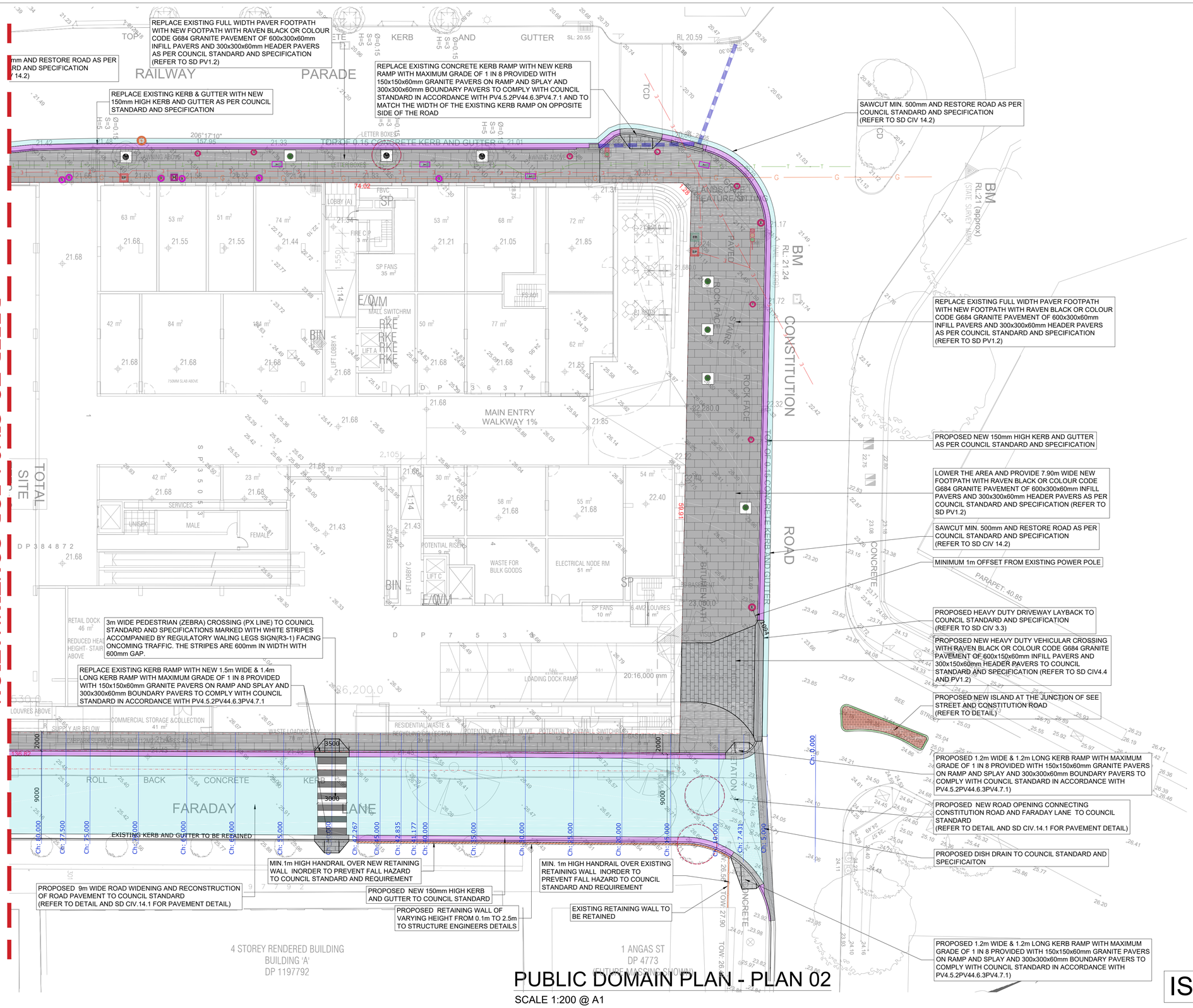
A20022- CIV04	JM	F



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	TELECOM CABLE AS PER DBYD
	SEWER MAIN
W	WATER MAIN AS PER DBYD
	ELECTRICITY MAIN (DBYD)
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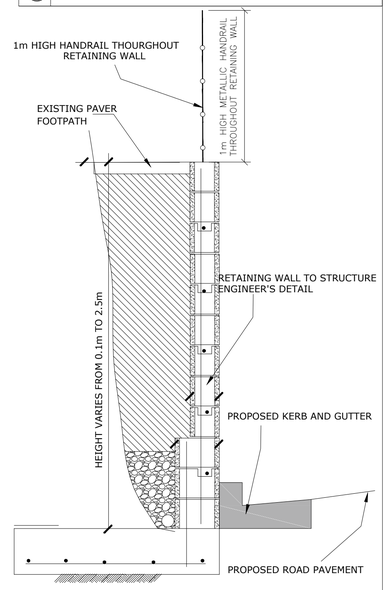

TYPICAL RETAINING WALL SECTION

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PUBLIC DOMAIN PLAN - PLAN 02

SCALE 1:200 @ A1

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PROJECT

PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE

PUBLIC DOMAIN PLAN - PLAN02
(SHEET 2 OF 2)

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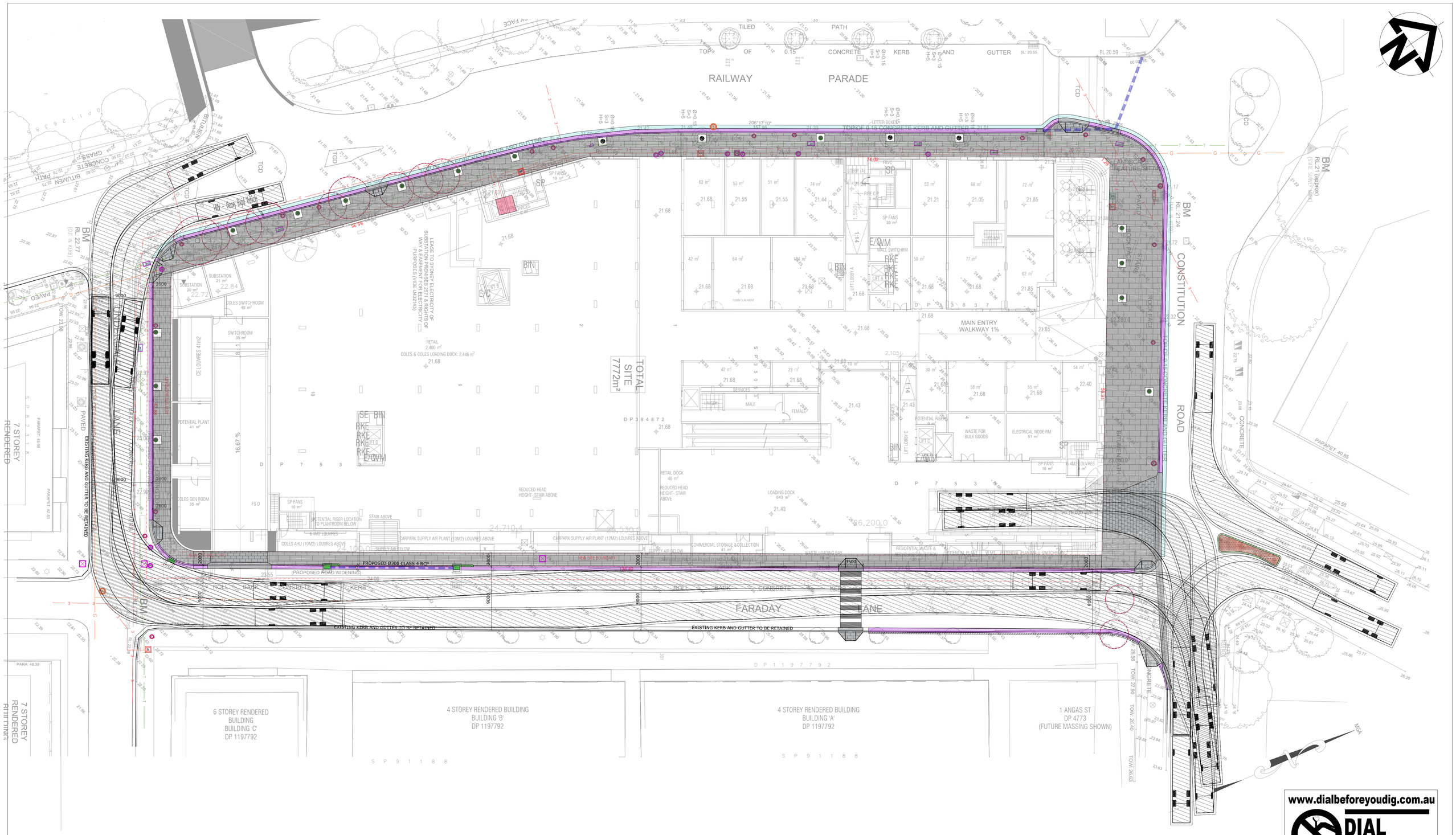

SWEPT PATH ANALYIS - HRV

SCALE 1:250 @ A1

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PROJECT

PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE
HRV SWEPT PATH ANALYSIS

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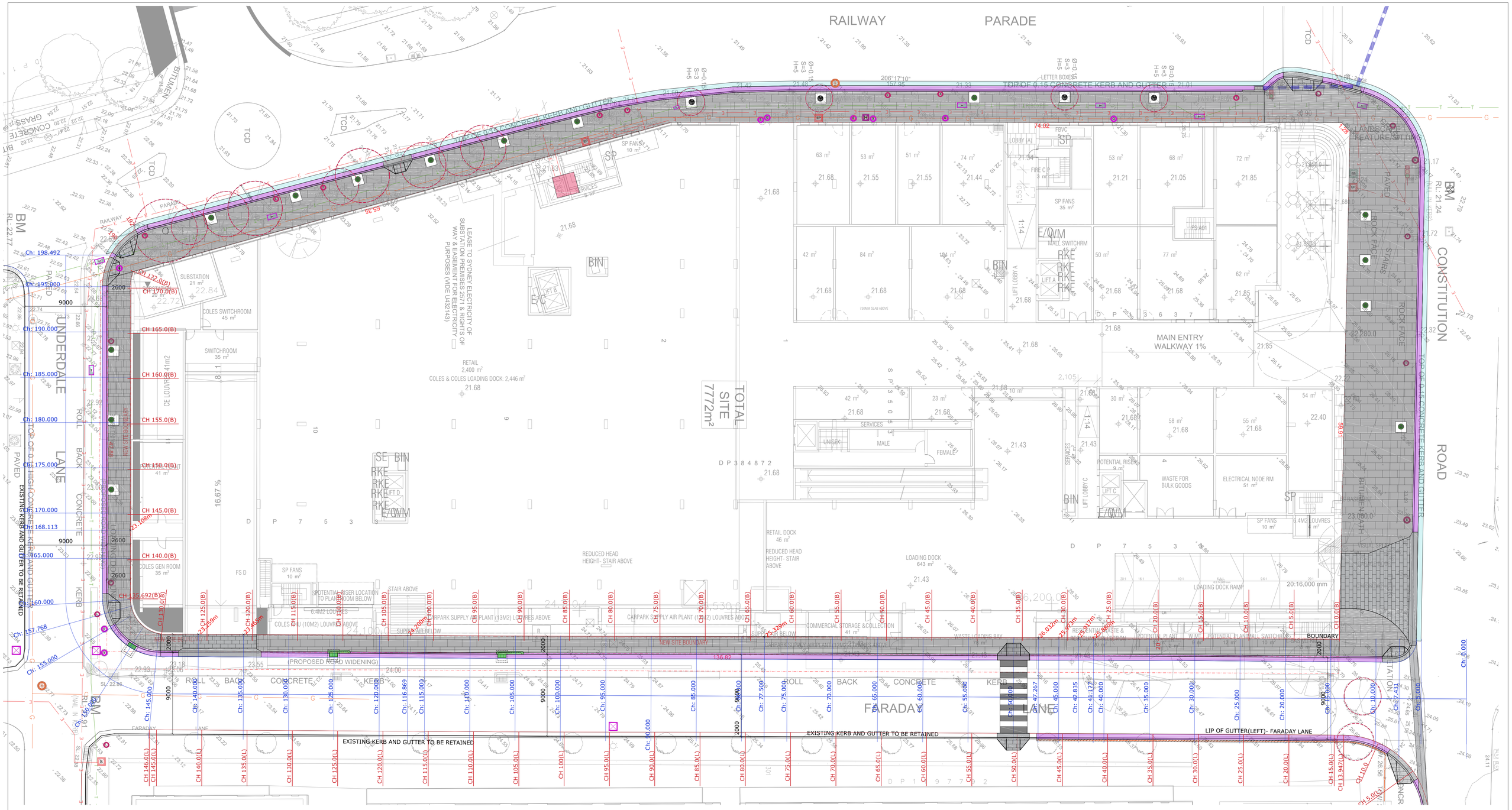
DRAWING NO.	APPROVED	REVISION
A20022- CIV06	JM	F



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PUBLIC DOMAIN ALIGNMENT CHAINAGE AND SPOT ELEVATION

SCALE 1:200 @ A1

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PROJECT

PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE

PUBLIC DOMAIN ALIGNMENT CHAINAGE AND SPOT ELEVATION

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DRAWING NO.	APPROVED	REVISION
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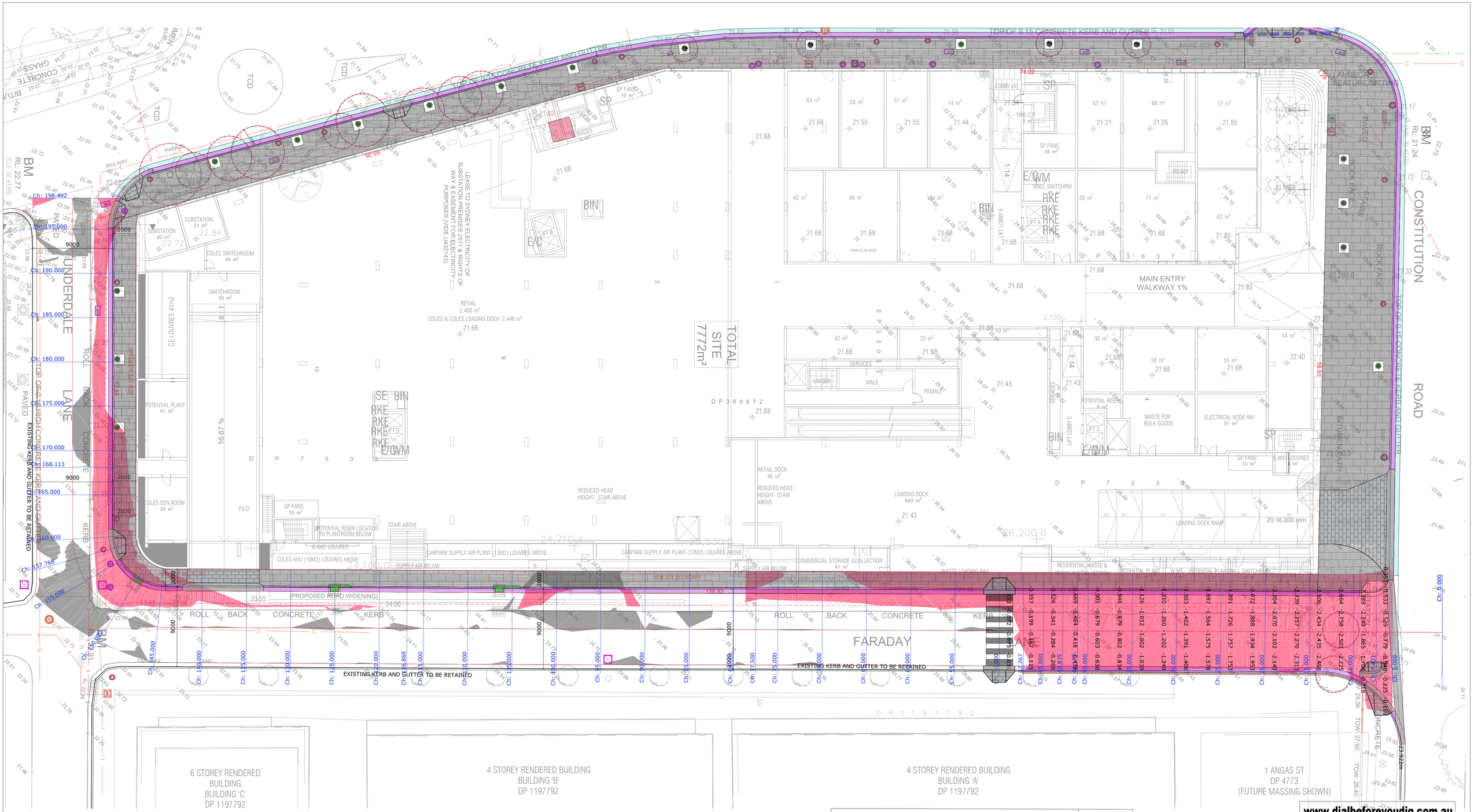

CUT AND FILL ANALYSIS

SCALE 1:200 @ A1

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2D Area	Cut	Fill	Net
Surface1	1.000	1.000	1797.271sq.m	719.978 Cu. M.	2.902 Cu. M.	717.076 Cu. M.<Cut>
Totals			1797.271sq.m	719.978 Cu. M.	2.902 Cu. M.	717.076 Cu. M.<Cut>

Surface Analysis: Elevation Ranges

Number	Color	Minimum Elevation (m)	Maximum Elevation (m)	REMARKS
1		-2.918	-0.100	CUT
2		0.000	0.200	FILL

SPOT ELEVATION DENOTES CUT/FILL

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PROJECT

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1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE

CUT AND FILL DETAILS

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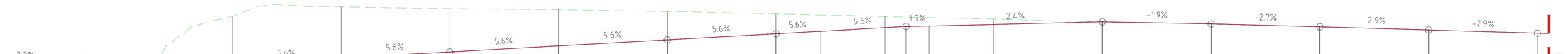
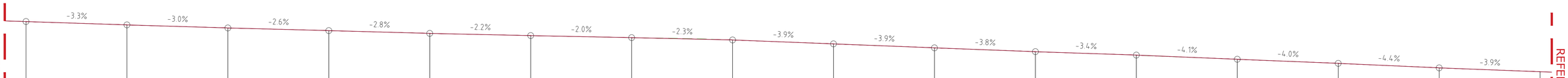


VERT EXAG 1:1
Datum 20.000

REFER BELOW FOR CONTINUATION

CHAINAGE	DESIGN LEVELS	EXISTING LEVELS	DEPTH
0.000	24.128	24.128	0.000
0.748	24.111	24.111	0.000
4.726	23.865	23.865	0.000
5.000	23.848	24.242	-0.395
5.069	23.844	24.281	-0.437
5.520	23.804	24.346	-0.542
5.972	23.844	24.364	-0.520
10.000	24.069	26.267	-2.198
15.000	24.348	26.702	-2.354
20.000	24.628	26.627	-1.999
25.000	24.907	26.573	-1.666
30.000	25.186	26.484	-1.297
35.000	25.466	26.374	-0.908
37.024	25.579	26.324	-0.745
40.000	25.745	26.250	-0.505
40.979	25.800	26.228	-0.428
42.029	25.820	26.205	-0.385
45.000	25.892	26.139	-0.247
50.000	26.013	26.013	0.000
55.000	25.918	25.918	0.000
60.000	25.785	25.785	0.000
65.000	25.639	25.639	0.000
70.000	25.492	25.492	0.000



REFER ABOVE FOR CONTINUATION

REFER BELOW FOR CONTINUATION

70.000	25.492	25.492	0.000
75.000	25.327	25.327	0.000
80.000	25.176	25.176	0.000
85.000	25.045	25.045	0.000
90.000	24.907	24.907	0.000
95.000	24.798	24.798	0.000
100.000	24.698	24.698	0.000
105.000	24.583	24.583	0.000
110.000	24.390	24.390	0.000
115.000	24.194	24.194	0.000
120.000	24.004	24.004	0.000
125.000	23.836	23.836	0.000
130.000	23.630	23.630	0.000
135.000	23.427	23.427	0.000
140.000	23.205	23.205	0.000
145.000	23.013	23.013	0.000

REFER ABOVE FOR CONTINUATION

145.000	23.013	23.013	0.000
150.000	22.860	22.860	0.000
155.000	22.901	22.847	0.054
160.000	22.942	22.942	0.000
165.000	23.016	23.016	0.000
170.000	23.021	23.021	0.000
175.000	22.997	22.997	0.000
180.000	22.950	22.950	0.000
185.000	22.867	22.867	0.000
190.000	22.762	22.762	0.000
195.000	22.630	22.630	0.000
198.492	22.483	22.483	0.000

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UNDERDALE LANE AND FARADAY LANE ROAD CENTRELINE LONGITUDINAL SECITON

SCALE 1:100 @ A1

ISSUE FOR DA APPROVAL

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F	ISSUED FOR DA APPROVAL	28-01-2022
E	ISSUED FOR COUNCIL REVIEW	23-01-2022
D	ISSUED FOR COORDINATION	02-12-2021
C	ISSUED FOR COORDINATION	29-11-2021
B	ISSUED FOR COORDINATION	26-11-2021
A	ISSUED FOR COORDINATION	24-11-2021

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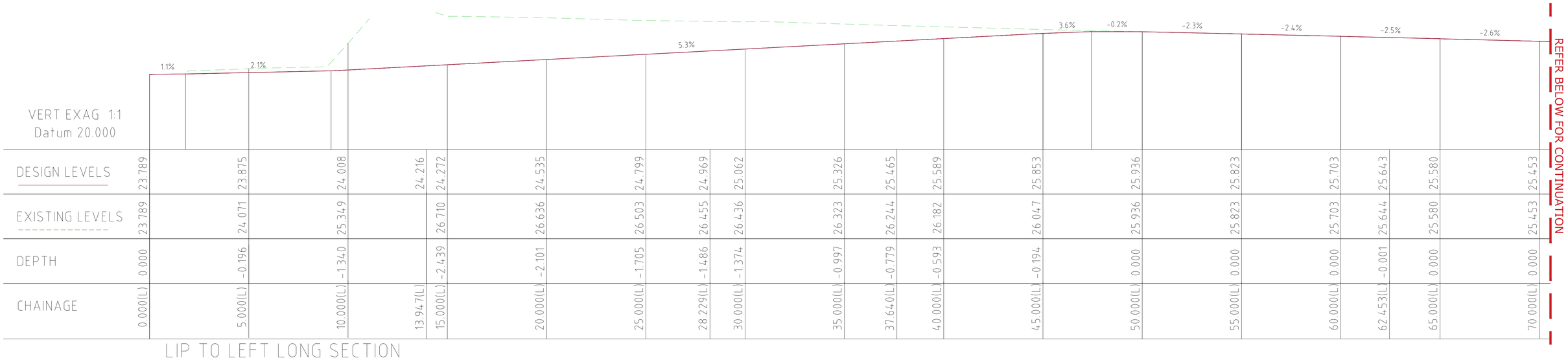
CURZON AND PARTNERS PTY LTD ACN 649993377

PROJECT
PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

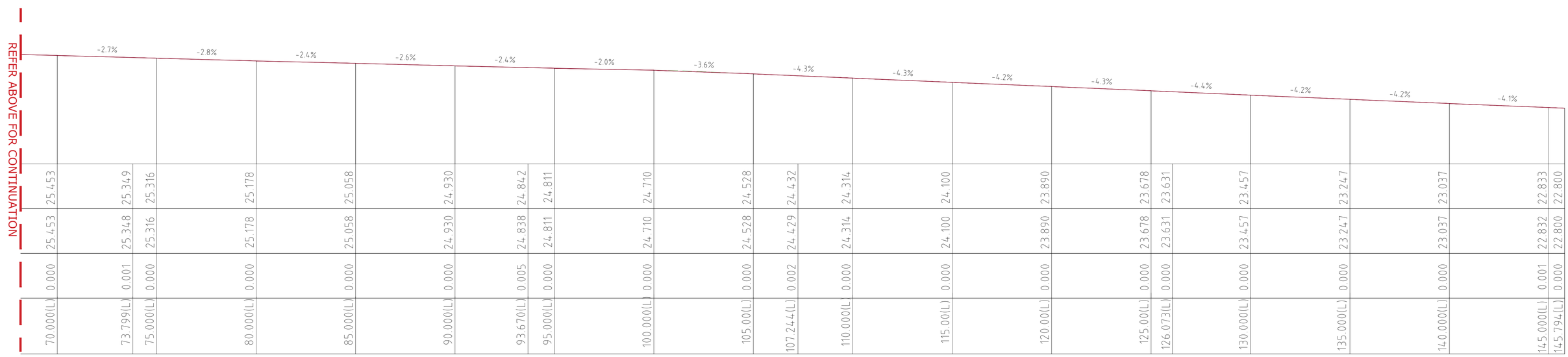
DRAWING TITLE
UNDERDALE AND FARADAY LANE ROAD CENTRELINE LONG SECTION

SCALES	DESIGNED	DRAFTED
AS SHOWN	DM	DM
DRAWING NO.	APPROVED	REVISION
A20022- CIV9	JM	F



CHAINAGE	DESIGN LEVELS	EXISTING LEVELS	DEPTH
0.000(L)	23.789	23.789	0.000
5.000(L)	23.875	24.071	-0.196
10.000(L)	24.008	25.349	-1.340
13.947(L)	24.216		
15.000(L)	24.272	26.710	-2.439
20.000(L)	24.535	26.636	-2.101
25.000(L)	24.799	26.503	-1.705
28.229(L)	24.969	26.455	-1.486
30.000(L)	25.062	26.436	-1.374
35.000(L)	25.326	26.323	-0.997
37.640(L)	25.465	26.244	-0.779
40.000(L)	25.589	26.182	-0.593
45.000(L)	25.853	26.047	-0.194
50.000(L)	25.936	25.936	0.000
55.000(L)	25.823	25.823	0.000
60.000(L)	25.703	25.703	0.000
62.453(L)	25.643	25.644	-0.001
65.000(L)	25.580	25.580	0.000
70.000(L)	25.453	25.453	0.000

LIP TO LEFT LONG SECTION



CHAINAGE	DESIGN LEVELS	EXISTING LEVELS	DEPTH
70.000(L)	25.453	25.453	0.000
73.799(L)	25.349	25.348	0.001
75.000(L)	25.316	25.316	0.000
80.000(L)	25.178	25.178	0.000
85.000(L)	25.058	25.058	0.000
90.000(L)	24.930	24.930	0.000
93.670(L)	24.842	24.838	0.005
95.000(L)	24.811	24.811	0.000
100.000(L)	24.710	24.710	0.000
105.00(L)	24.528	24.528	0.000
107.244(L)	24.432	24.429	0.002
110.000(L)	24.314	24.314	0.000
115.00(L)	24.100	24.100	0.000
120.00(L)	23.890	23.890	0.000
125.00(L)	23.678	23.678	0.000
126.073(L)	23.631	23.631	0.000
130.000(L)	23.457	23.457	0.000
135.000(L)	23.247	23.247	0.000
140.000(L)	23.037	23.037	0.000
145.000(L)	22.833	22.832	0.001
145.794(L)	22.800	22.800	0.000

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FARADAY LANE LIP OF GUTTER (LEFT) - LONGITUDINAL SECITON

SCALE 1:100 @ A1

ISSUE FOR DA APPROVAL

REVISION	AMENDMENT	ISSUE DATE
F	ISSUED FOR DA APPROVAL	28-01-2022
E	ISSUED FOR COUNCIL REVIEW	23-01-2022
D	ISSUED FOR COORDINATION	02-12-2021
C	ISSUED FOR COORDINATION	29-11-2021
B	ISSUED FOR COORDINATION	26-11-2021
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CURZON AND PARTNERS PTY LTD ACN 649993377

PROJECT

PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE
FARADAY LANE LIP OF GUTTER (LEFT) - LONGITUDINAL SECTION

SCALES	DESIGNED	DRAFTED
AS SHOWN	DM	DM
DRAWING NO.	APPROVED	REVISION
A20022- CIV10	JM	F

VERT EXAG 1:1
Datum 20.000

REFER BELOW FOR CONTINUATION

CHAINAGE	DESIGN LEVELS	EXISTING LEVELS	DEPTH
0.000(B)	24.430	26.746	-2.316
5.000(B)	24.721	26.781	-2.061
10.000(B)	25.012	26.720	-1.709
15.000(B)	25.272	26.607	-1.335
16.626(B)	25.357	26.570	-1.213
17.399(B)	25.397	26.554	-1.156
20.000(B)	25.533	26.497	-0.964
25.000(B)	25.794	26.459	-0.666
30.000(B)	25.965	26.310	-0.344
35.000(B)	26.072	26.180	-0.107
40.000(B)	26.011	26.149	-0.139
45.000(B)	25.885	26.091	-0.206
50.000(B)	25.742	25.879	-0.137
55.000(B)	25.595	25.682	-0.087
60.000(B)	25.433	25.517	-0.083
65.000(B)	25.280		
70.000(B)	25.145		

5.8% 5.8% 5.2% 5.2% 5.2% 3.4% 2.1% -1.2% -2.5% -2.9% -2.9% -3.2% -3.1% -2.7%

REFER ABOVE FOR CONTINUATION

REFER BELOW FOR CONTINUATION

CHAINAGE	DESIGN LEVELS	EXISTING LEVELS	DEPTH
70.000(B)	25.145		
75.000(B)	25.008		
80.000(B)	24.894	24.744	0.150
80.737(B)	24.879	24.738	0.141
81.171(B)	24.870	24.737	0.133
85.000(B)	24.792	24.713	0.079
90.000(B)	24.681		
95.000(B)	24.502		
100.000(B)	24.306		
105.000(B)	24.115		
110.000(B)	23.943		
115.000(B)	23.743		
120.000(B)	23.507		
125.000(B)	23.291		
129.963(B)	23.125		
130.000(B)	23.125		
135.000(B)	23.114	23.170	-0.056
135.692(B)	23.113	23.178	-0.066
140.000(B)	23.104		
145.000(B)	23.111		

-2.7% -2.3% -2.0% -2.2% -3.6% -3.9% -3.8% -3.4% -4.0% -4.7% -4.4% -3.3% -0.2% 0.1%

REFER ABOVE FOR CONTINUATION

CHAINAGE	DESIGN LEVELS	EXISTING LEVELS	DEPTH
145.000(B)	23.111		
150.000(B)	23.088		
155.000(B)	23.042		
160.000(B)	22.960		
165.000(B)	22.856		
169.781(B)	22.687		
170.000(B)	22.680		
171.883(B)	22.613		

-0.5% -0.9% -1.6% -2.1% -3.5%

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UNDERDALE AND FARADAY LANE BOUNDARY - LONGITUDINAL SECITON

SCALE 1:100 @ A1

ISSUE FOR DA APPROVAL

REVISION	AMENDMENT	ISSUE DATE
F	ISSUED FOR DA APPROVAL	28-01-2022
E	ISSUED FOR COUNCIL REVIEW	23-01-2022
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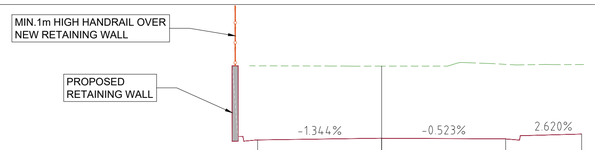
CURZON AND PARTNERS PTY LTD ACN 649993377

PROJECT
PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE
UNDERDALE LANE AND FARADAY LANE BOUNDARY LONG SECTION

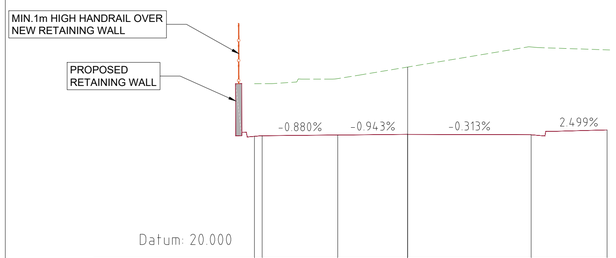
SCALES	DESIGNED	DRAFTED
AS SHOWN	DM	DM
DRAWING NO.	APPROVED	REVISION
A20022- CIV11	JM	F



Datum: 20.000

PROPOSED LEVELS	24.404	24.294	24.348	24.327	24.485
EXISTING LEVELS		26.712	26.702	26.760	26.754
LEVEL DIFFERENCE		-2.419	-2.354	-2.433	-2.268
OFFSETS	-4.619	-4.049	0.000	4.051	6.530

Chainage 15.000



Datum: 20.000

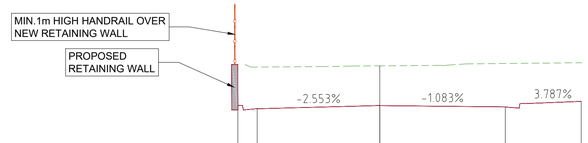
PROPOSED LEVELS	24.003	24.026	24.047	24.069	24.056	24.212
EXISTING LEVELS	25.723	25.723	25.890	26.267	26.921	26.827
LEVEL DIFFERENCE	-1.720	-1.698	-1.843	-2.198	-2.865	-2.615
OFFSETS	-5.000	-4.749	-2.281	0.000	4.032	6.512

Chainage 10.000

Datum: 20.000

PROPOSED LEVELS	24.036	23.970	23.922	23.884	23.922	23.913	23.913	23.910	23.916	23.919	23.925	23.919	23.917	23.938	23.975	23.976
EXISTING LEVELS	24.096	24.117	24.130	24.132	24.134	24.874	25.392	25.275	25.302	25.283	25.261	25.178	25.156	25.089	25.018	25.013
LEVEL DIFFERENCE	-0.060	-0.147	-0.209	-0.248	-0.212	-0.961	-1.479	-1.364	-1.386	-1.364	-1.336	-1.260	-1.239	-1.150	-1.043	-1.037
OFFSETS	-9.200	-8.282	-7.527	-6.756	-6.020	-4.192	-3.390	-2.570	-1.587	-0.856	0.000	3.210	4.091	5.487	6.529	6.600

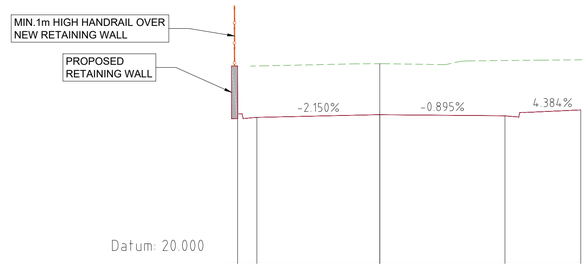
Chainage 07.431



Datum: 20.000

PROPOSED LEVELS	25.194	25.084	25.186	25.142	25.322
EXISTING LEVELS		26.443	26.484	26.560	26.585
LEVEL DIFFERENCE		-1.359	-1.297	-1.418	-1.263
OFFSETS	-4.632	-4.002	0.000	4.099	6.578

Chainage 30.000



Datum: 20.000

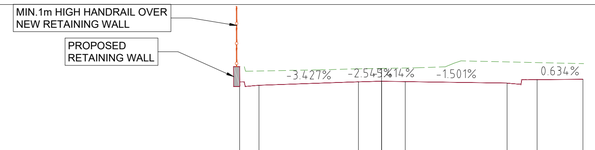
PROPOSED LEVELS	24.931	24.821	24.907	24.870	25.061
EXISTING LEVELS		26.497	26.573	26.675	26.699
LEVEL DIFFERENCE		-1.676	-1.666	-1.805	-1.638
OFFSETS	-4.642	-4.012	0.000	4.088	6.562

Chainage 25.000

Datum: 20.000

PROPOSED LEVELS	24.667	24.557	24.628	24.599	24.776
EXISTING LEVELS		26.625	26.627	26.740	26.782
LEVEL DIFFERENCE		-2.067	-1.999	-2.141	-2.006
OFFSETS	-4.661	-4.031	0.000	4.070	6.546

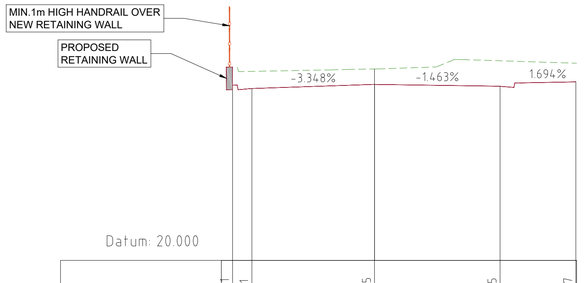
Chainage 20.000



Datum: 20.000

PROPOSED LEVELS	25.783	25.673	25.785	25.804	25.793	25.743	25.857	25.867
EXISTING LEVELS		26.139	26.211	26.224	26.237	26.435	26.413	26.379
LEVEL DIFFERENCE		-0.466	-0.426	-0.420	-0.444	-0.693	-0.556	-0.512
OFFSETS	-4.631	-4.001	-0.756	0.000	0.774	4.100	5.078	6.575

Chainage 41.177



Datum: 20.000

PROPOSED LEVELS	25.721	25.611	25.745	25.685	25.827
EXISTING LEVELS		26.171	26.250	26.516	26.437
LEVEL DIFFERENCE		-0.559	-0.505	-0.831	-0.611
OFFSETS	-4.633	-4.003	0.000	4.101	6.576

Chainage 40.000

Datum: 20.000

PROPOSED LEVELS	25.458	25.348	25.466	25.414	25.583
EXISTING LEVELS		26.310	26.374	26.462	26.476
LEVEL DIFFERENCE		-0.963	-0.908	-1.048	-0.893
OFFSETS	-4.634	-4.004	0.000	4.105	6.579

Chainage 35.000

CROSS SECTIONS

SCALE 1:100 @ A1

REV	AMENDMENT	ISSUE DATE	ISSUE
F	ISSUED FOR DA APPROVAL	28-01-2022	
E	ISSUED FOR COUNCIL REVIEW	23-01-2022	
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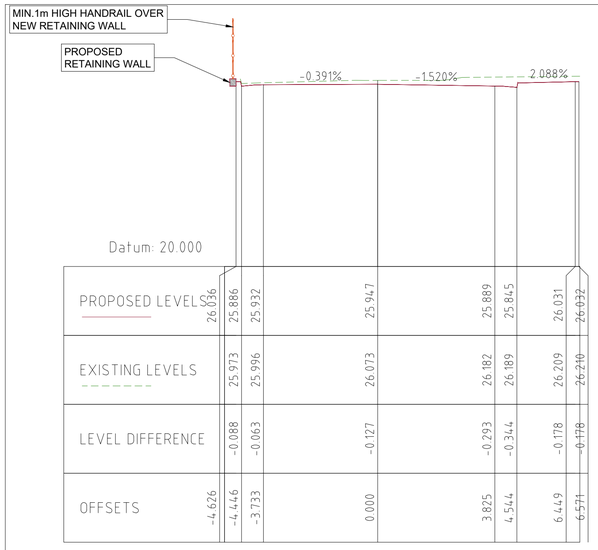
PROJECT

PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE

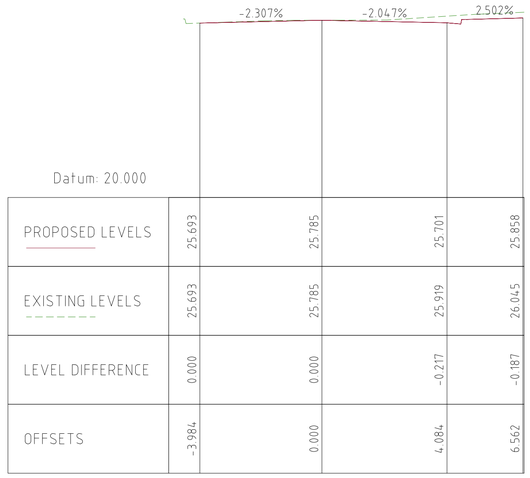
CROSS SECTIONS(SHEET 1 OF 5)

SCALES	DESIGNED	DRAFTED
AS SHOWN	DM	DM
DRAWING NO. A20022- CIV12	APPROVED JM	REVISION F



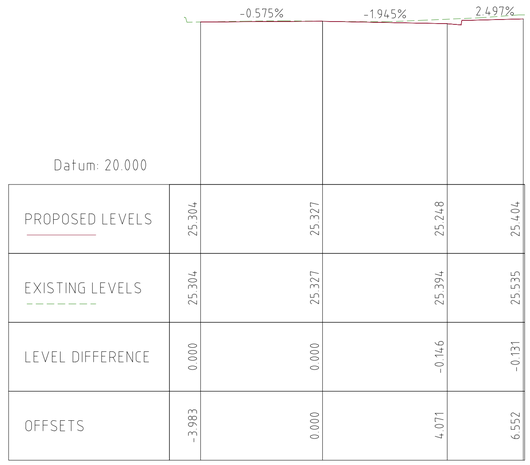
PROPOSED LEVELS	26.036	25.886	25.932	25.947	25.889	25.845	26.031	26.032
EXISTING LEVELS		25.973	25.996	26.073	26.182	26.189	26.209	26.210
LEVEL DIFFERENCE		-0.088	-0.063	-0.127	-0.293	-0.344	-0.178	-0.178
OFFSETS	-4.626	-4.446	-3.733	0.000	3.825	4.544	6.449	6.571

Chainage 47.267



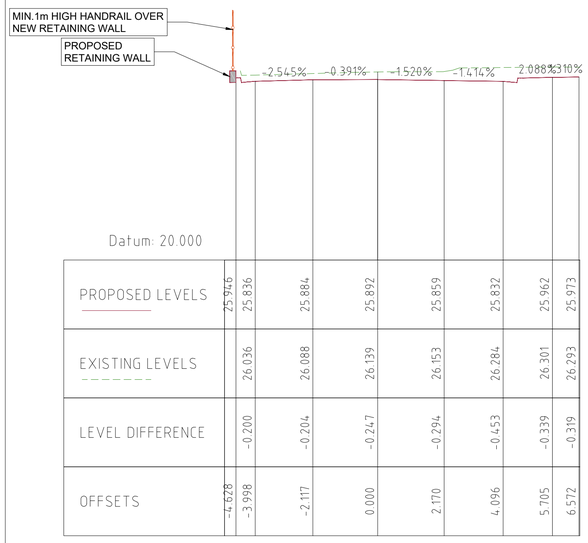
PROPOSED LEVELS	25.693	25.785	25.701	25.858
EXISTING LEVELS	25.693	25.785	25.919	26.045
LEVEL DIFFERENCE	0.000	0.000	-0.217	-0.187
OFFSETS	-3.984	0.000	4.084	6.562

Chainage 60.000



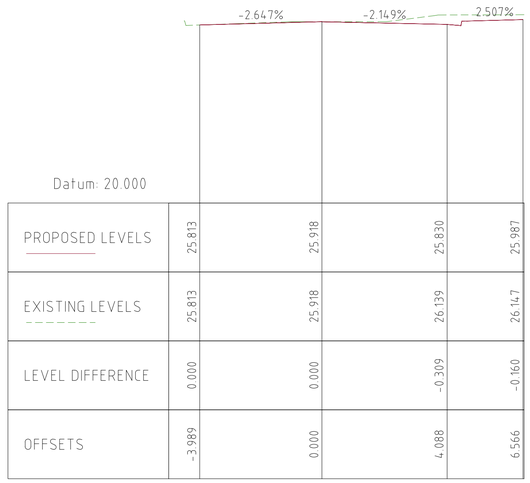
PROPOSED LEVELS	25.304	25.327	25.248	25.404
EXISTING LEVELS	25.304	25.327	25.394	25.535
LEVEL DIFFERENCE	0.000	0.000	-0.146	-0.131
OFFSETS	-3.983	0.000	4.071	6.552

Chainage 75.000



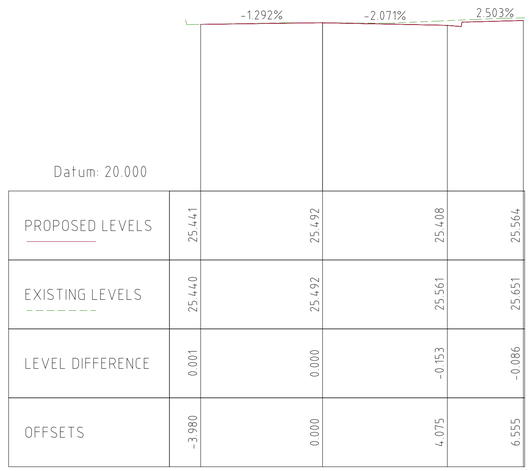
PROPOSED LEVELS	25.946	25.836	25.884	25.892	25.859	25.832	25.962	25.973
EXISTING LEVELS		26.036	26.088	26.139	26.153	26.284	26.301	26.293
LEVEL DIFFERENCE		-0.200	-0.204	-0.247	-0.294	-0.453	-0.339	-0.319
OFFSETS	-4.628	-3.998	-2.117	0.000	2.170	4.096	5.705	6.572

Chainage 45.000



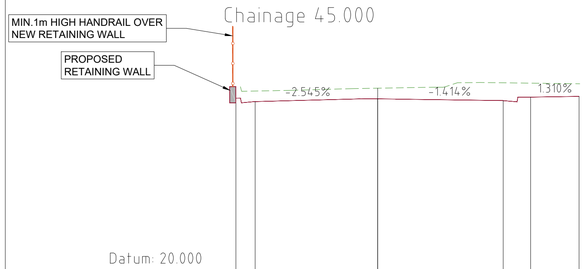
PROPOSED LEVELS	25.813	25.918	25.830	25.987
EXISTING LEVELS	25.813	25.918	26.139	26.147
LEVEL DIFFERENCE	0.000	0.000	-0.309	-0.160
OFFSETS	-3.989	0.000	4.088	6.566

Chainage 55.000



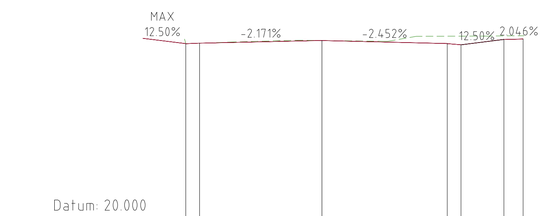
PROPOSED LEVELS	25.441	25.492	25.408	25.564
EXISTING LEVELS	25.440	25.492	25.561	25.651
LEVEL DIFFERENCE	0.001	0.000	-0.153	-0.086
OFFSETS	-3.980	0.000	4.075	6.555

Chainage 70.000



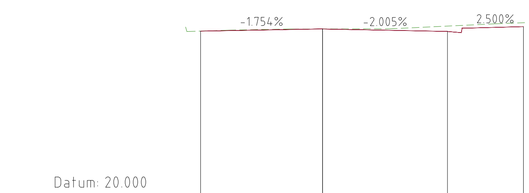
PROPOSED LEVELS	25.860	25.750	25.840	25.781	25.896	25.917
EXISTING LEVELS		26.094	26.187	26.362	26.351	26.331
LEVEL DIFFERENCE		-0.344	-0.348	-0.582	-0.455	-0.414
OFFSETS	-4.630	-4.000	0.000	4.098	4.994	6.574

Chainage 42.835



PROPOSED LEVELS	25.910	25.926	26.013	25.913	25.873	26.048	26.060
EXISTING LEVELS	25.910	25.926	26.013	26.154	26.155	26.163	26.170
LEVEL DIFFERENCE	0.000	0.000	0.000	-0.241	-0.282	-0.107	-0.109
OFFSETS	-4.639	-3.993	0.000	4.092	4.542	5.942	6.569

Chainage 50.000



PROPOSED LEVELS	25.570	25.639	25.558	25.714
EXISTING LEVELS	25.570	25.639	25.733	25.842
LEVEL DIFFERENCE	0.000	0.000	-0.176	-0.128
OFFSETS	-3.981	0.000	4.079	6.559

Chainage 65.000

CROSS SECTIONS

SCALE 1:100 @ A1

REV	AMENDMENT	ISSUE DATE	ISSUE
F	ISSUED FOR DA APPROVAL	28-01-2022	
E	ISSUED FOR COUNCIL REVIEW	23-01-2022	
D	ISSUED FOR COORDINATION	02-12-2021	
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A	ISSUED FOR COORDINATION	24-11-2021	

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CURZON AND PARTNERS PTY LTD ACN 649993377

PROJECT

PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE

CROSS SECTIONS(SHEET 2 OF 5)

SCALES	DESIGNED	DRAFTED
AS SHOWN	DM	DM
DRAWING NO.	APPROVED	REVISION
A20022- CIV13	JM	F

Datum: 20.000

PROPOSED LEVELS	25.048	25.045	24.995	25.119
EXISTING LEVELS	25.048	25.045		
LEVEL DIFFERENCE	-0.001	0.000		
OFFSETS	-4.006	0.000	4.062	6.545

Chainage 85.000

Datum: 20.000

PROPOSED LEVELS	24.695	24.698	24.614	24.771
EXISTING LEVELS	24.702	24.698	24.715	24.708
LEVEL DIFFERENCE	-0.007	0.000	-0.101	0.063
OFFSETS	-4.032	0.000	4.059	6.546

Chainage 100.000

Datum: 20.000

PROPOSED LEVELS	24.083	24.194	24.113	24.270
EXISTING LEVELS	24.083	24.194		
LEVEL DIFFERENCE	0.000	0.000		
OFFSETS	-4.024	0.000	4.076	6.568

Chainage 115.000

Datum: 20.000

PROPOSED LEVELS	25.168	25.176	25.106	25.254
EXISTING LEVELS	25.168	25.176		
LEVEL DIFFERENCE	0.000	0.000		
OFFSETS	-3.994	0.000	4.066	6.549

Chainage 80.000

Datum: 20.000

PROPOSED LEVELS	24.802	24.798	24.718	24.874
EXISTING LEVELS	24.802	24.798	24.746	24.737
LEVEL DIFFERENCE	0.000	0.000	-0.028	0.137
OFFSETS	-4.027	0.000	4.059	6.539

Chainage 95.000

Datum: 20.000

PROPOSED LEVELS	24.296	24.390	24.308	24.495
EXISTING LEVELS	24.296	24.390		
LEVEL DIFFERENCE	0.000	0.000		
OFFSETS	-4.034	0.000	4.066	6.561

Chainage 110.000

Datum: 20.000

PROPOSED LEVELS	25.236	25.240	25.251	25.216	25.177	25.306	25.329
EXISTING LEVELS	25.237	25.260	25.251	25.228	25.344	25.459	25.528
LEVEL DIFFERENCE	-0.001	-0.020	0.000	-0.011	-0.167	-0.153	-0.199
OFFSETS	-3.988	-1.991	0.000	2.033	4.069	5.625	6.550

Chainage 77.500

Datum: 20.000

PROPOSED LEVELS	24.920	24.907	24.830	24.987
EXISTING LEVELS	24.919	24.907		
LEVEL DIFFERENCE	0.001	0.000		
OFFSETS	-4.018	0.000	4.058	6.542

Chainage 90.000

Datum: 20.000

PROPOSED LEVELS	24.510	24.583	24.490	24.647
EXISTING LEVELS	24.509	24.583		
LEVEL DIFFERENCE	0.001	0.000		
OFFSETS	-4.038	0.000	4.060	6.553

Chainage 105.000

CROSS SECTIONS

SCALE 1:100 @ A1

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F	ISSUED FOR DA APPROVAL	28-01-2022	
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PROJECT

PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE

CROSS SECTIONS(SHEET 3 OF 5)

SCALES	DESIGNED	DRAFTED
AS SHOWN	DM	DM
DRAWING NO.	APPROVED	REVISION
A20022- CIV14	JM	F

Datum: 20.000

PROPOSED LEVELS	23.659	23.836	23.748	23.905
EXISTING LEVELS	23.659	23.836		
LEVEL DIFFERENCE	0.000	0.000		
OFFSETS	-4.005	0.000	4.095	6.583

Chainage 125.000

Datum: 20.000

PROPOSED LEVELS	23.020	23.206	23.128	23.188	23.258
EXISTING LEVELS	23.020	23.205	23.332		
LEVEL DIFFERENCE	0.000	0.000	-0.204		
OFFSETS	-3.977	0.000	4.124	5.023	6.600

Chainage 140.000

Datum: 20.000

PROPOSED LEVELS	22.811	22.830	22.890	22.901	22.820	22.926	22.991	23.116
EXISTING LEVELS	22.802	22.811	22.847	22.847	23.101	23.110	23.143	23.161
LEVEL DIFFERENCE	0.009	0.019	0.042	0.054	-0.281	-0.184	-0.151	-0.045
OFFSETS	-5.000	-4.560	-1.073	0.000	4.095	4.893	6.254	7.012

Chainage 155.000

Datum: 20.000

PROPOSED LEVELS	23.873	24.004	23.926	24.082
EXISTING LEVELS	23.872	24.004		
LEVEL DIFFERENCE	0.000	0.000		
OFFSETS	-4.015	0.000	4.085	6.576

Chainage 120.000

Datum: 20.000

PROPOSED LEVELS	23.230	23.427	23.342	23.402	23.465
EXISTING LEVELS	23.230	23.427			
LEVEL DIFFERENCE	0.000	0.000			
OFFSETS	-3.986	0.000	4.114	5.013	6.598

Chainage 135.000

Datum: 20.000

PROPOSED LEVELS	22.787	22.860	22.842	23.120
EXISTING LEVELS	22.784	22.860	23.201	
LEVEL DIFFERENCE	0.003	0.000	-0.359	
OFFSETS	-3.827	0.000	4.125	6.844

Chainage 150.000

Datum: 20.000

PROPOSED LEVELS	24.004	24.074	24.123	24.073	24.043	24.182	24.200
EXISTING LEVELS	24.008	24.096	24.116				
LEVEL DIFFERENCE	-0.004	-0.023	0.007				
OFFSETS	-4.021	-1.500	0.000	2.553	4.079	5.876	6.571

Chainage 116.869

Datum: 20.000

PROPOSED LEVELS	23.440	23.630	23.548	23.698
EXISTING LEVELS	23.439	23.630		
LEVEL DIFFERENCE	0.001	0.000		
OFFSETS	-3.996	0.000	4.104	6.591

Chainage 130.000

Datum: 20.000

PROPOSED LEVELS	22.800	23.013	22.947	23.122
EXISTING LEVELS	22.800	23.012	23.195	
LEVEL DIFFERENCE	0.000	0.000	-0.248	
OFFSETS	-4.031	0.000	4.132	6.600

Chainage 145.000

CROSS SECTIONS

SCALE 1:100 @ A1

REV	AMENDMENT	ISSUE DATE	ISSUE
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PROJECT

PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

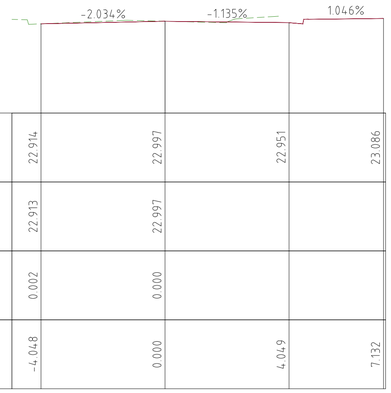
DRAWING TITLE

CROSS SECTIONS(SHEET 4 OF 5)

SCALES	DESIGNED	DRAFTED
AS SHOWN	DM	DM
DRAWING NO.	APPROVED	REVISION
A20022- CIV15	JM	F

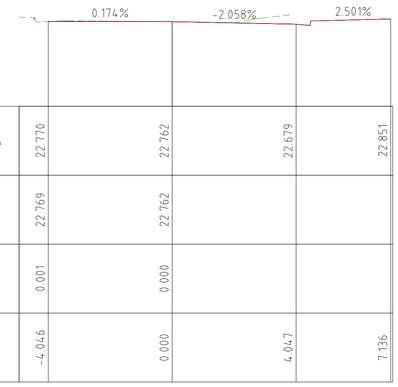
PROPOSED LEVELS	22.931	23.016	22.929	23.104
EXISTING LEVELS	22.932	23.016	23.160	
LEVEL DIFFERENCE	-0.001	0.000	-0.231	
OFFSETS	-4.050	0.000	4.050	7.130

Chainage 165.000



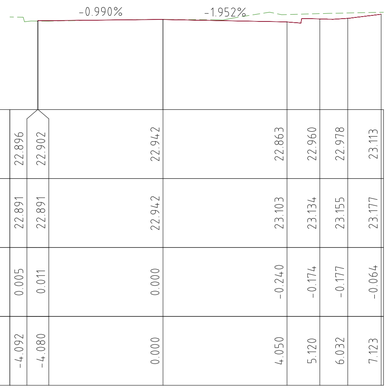
PROPOSED LEVELS	22.914	22.997	22.951	23.086
EXISTING LEVELS	22.913	22.997		
LEVEL DIFFERENCE	0.002	0.000		
OFFSETS	-4.048	0.000	4.049	7.132

Chainage 175.000



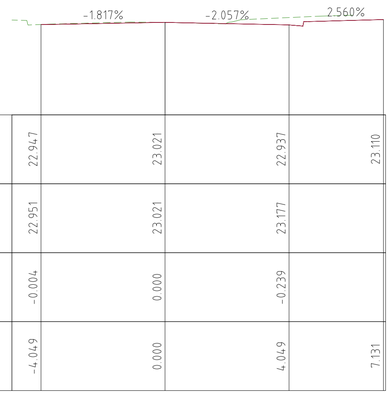
PROPOSED LEVELS	22.770	22.762	22.679	22.851
EXISTING LEVELS	22.769	22.762		
LEVEL DIFFERENCE	0.001	0.000		
OFFSETS	-4.046	0.000	4.047	7.136

Chainage 190.000



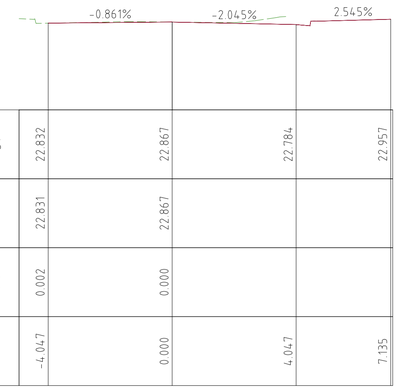
PROPOSED LEVELS	22.896	22.902	22.942	22.863	22.960	22.978	23.113
EXISTING LEVELS	22.891	22.891	22.942	23.103	23.134	23.155	23.177
LEVEL DIFFERENCE	0.005	0.011	0.000	-0.240	-0.174	-0.177	-0.064
OFFSETS	-4.092	-4.080	0.000	4.050	5.120	6.032	7.123

Chainage 160.000



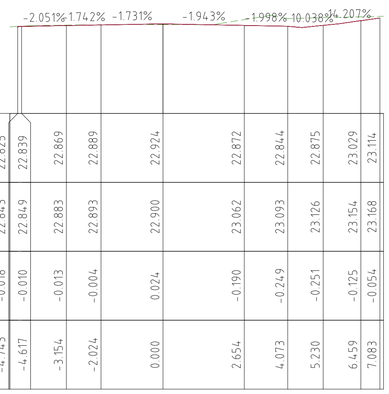
PROPOSED LEVELS	22.947	23.021	22.937	23.110
EXISTING LEVELS	22.951	23.021	23.177	
LEVEL DIFFERENCE	-0.004	0.000	-0.239	
OFFSETS	-4.049	0.000	4.049	7.131

Chainage 170.000



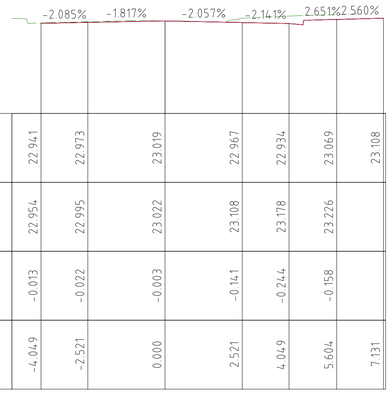
PROPOSED LEVELS	22.832	22.867	22.784	22.957
EXISTING LEVELS	22.831	22.867		
LEVEL DIFFERENCE	0.002	0.000		
OFFSETS	-4.047	0.000	4.047	7.135

Chainage 185.000



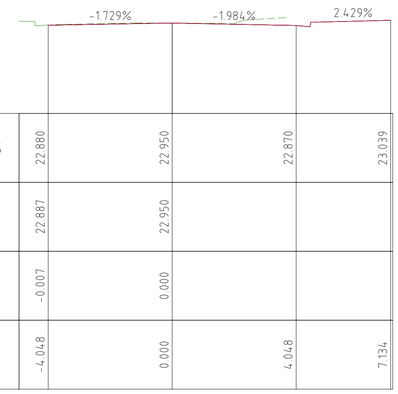
PROPOSED LEVELS	22.825	22.839	22.869	22.889	22.924	22.872	22.844	22.875	23.029	23.114
EXISTING LEVELS	22.843	22.849	22.883	22.893	22.900	23.062	23.093	23.126	23.154	23.168
LEVEL DIFFERENCE	-0.018	-0.010	-0.013	-0.004	0.024	-0.190	-0.249	-0.251	-0.125	-0.054
OFFSETS	-4.743	-4.617	-3.154	-2.024	0.000	2.654	4.073	5.230	6.459	7.083

Chainage 157.768



PROPOSED LEVELS	22.941	22.973	23.019	22.967	22.934	23.069	23.108
EXISTING LEVELS	22.954	22.995	23.022	23.108	23.178	23.226	
LEVEL DIFFERENCE	-0.013	-0.022	-0.003	-0.141	-0.244	-0.158	
OFFSETS	-4.049	-2.521	0.000	2.521	4.049	5.604	7.131

Chainage 168.113



PROPOSED LEVELS	22.880	22.950	22.870	23.039
EXISTING LEVELS	22.887	22.950		
LEVEL DIFFERENCE	-0.007	0.000		
OFFSETS	-4.048	0.000	4.048	7.134

Chainage 180.000

CROSS SECTIONS

SCALE 1:100 @ A1

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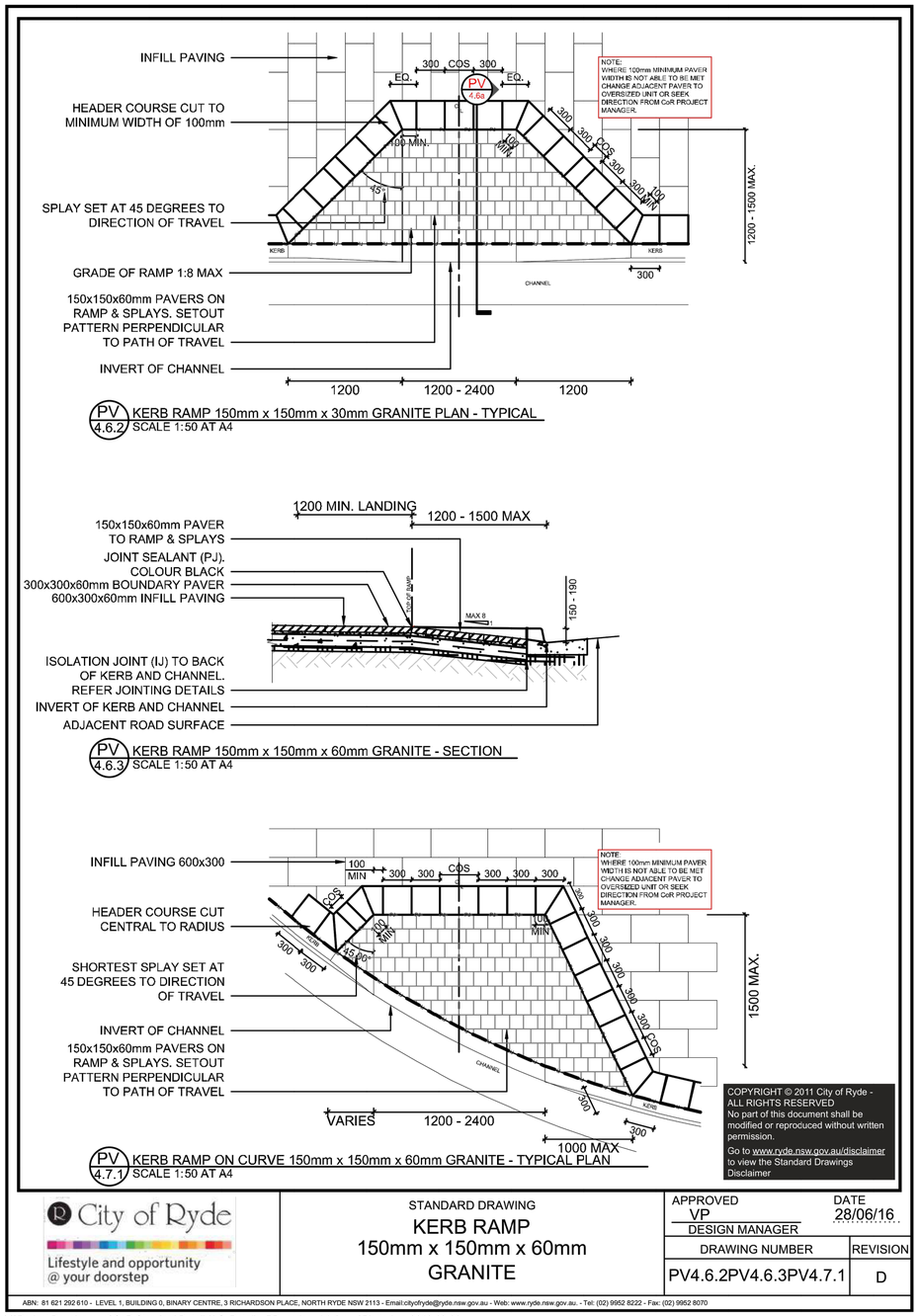
PROJECT

PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE

CROSS SECTIONS(SHEET 5 OF 5)

SCALES	DESIGNED	DRAFTED
AS SHOWN	DM	DM
DRAWING NO.	APPROVED	REVISION
A20022- CIV16	JM	F



City of Ryde
Lifestyle and opportunity @ your doorstep

STANDARD DRAWING
KERB RAMP
150mm x 150mm x 60mm
GRANITE

APPROVED	DATE
VP DESIGN MANAGER	28/06/16
DRAWING NUMBER	REVISION
PV4.6.2PV4.6.3PV4.7.1	D

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Y:\Project Development\CoR Standard Details\LS_Details_PD_series_A4.dwg / Plotted on 2018-03-26

GRANITE PAVER SPECIFICATION

Type:	General Paver - Select flame exfoliated granite Grade >1:8 Paver - Select bush hammered granite
Description:	Natural stone which is of uniform quality, sound, free from defects (such as vents, cracks, fissures, seams, porous inclusions, foreign material, loose surface material striations, stains, and discolouration) liable to affect its strength, appearance, durability, or proper functioning under the intended conditions of use.
Matching:	Select stone for the optimum matching of visual properties such as colour and pattern.
Finish:	General Paver. W rated - Sawn edges with exfoliated surface to provide a finish in accordance with AS/NZS 4586:2004. Grade >1:8 Paver. V rated - Sawn edges with bush hammered surface to provide a finish in accordance with AS/NZS 4586:2004.
Colour:	Raven Black or colour code G684 Header paving and banding as per landscape drawings. For Top Ryde CBD, Rosa (matching existing material laid in Blaxland Rd, Ryde)
Size:	Footpaths 600 x 300 x 60 mm (Infill pavers); 300 x 300 x 60 mm (Header pavers) Driveways 600 x 300 x 60 mm (Infill pavers); 300 x 300 x 60 mm (Header pavers) Commercial Driveways- Transition pavers 600 x 150 x 60 mm; Infill pavers: 300 x 150 x 60 mm Special pavers: 150 x 150 x 60 mm
Breaking Load:	Minimum 5Kn
Tolerance:	Plan area +/-1mm Thickness: +/- 2mm
Water Absorption:	Maximum 0.3% Moisture Content And Total Water Absorption in accordance with ASTM C97
Chamfers and Edges:	Stone edge is not to be chamfered unless specified. Finish to exposed edges to match surface finish - no sawn edges to be exposed

BE ACHIEVED PAVERS ARE TO BE GLUED TO STEEL SECTION AS REQUIRED WITH HIGH STRENGTH EPOXY ADHESIVE.

SERVICE LID TREATMENT:
REPLACE ALL EXISTING SERVICE LIDS WITH STAINLESS STEEL OR GALVANISED STEEL INFILL COVERS AND FRAMES.
NEW SERVICE LIDS ARE TO BE PRE APPROVED BY THE APPROPRIATE AUTHORITY.
ADJUST HEIGHT OF PIT FRAME/LID AS REQUIRED TO SUIT FINISH LEVEL OF NEW WORK.
PROVIDE 10mm WIDE SEALANT (COLOUR: BLACK) AROUND PERIMETER OF SERVICE PIT LID/FRAME.

CLEANING OF PAVERS:
ALL PAVERS LAID DURING THE COURSE OF ONE WORKING DAY MUST HAVE JOINTING SAND BROOMED IN AND BE CLEANED AT THE END OF THAT DAY BEFORE PROCEEDING WITH LAYING OF SUBSEQUENT PAVERS. THIS IS TO PREVENT RESIDUE BUILD UP ON PAVERS WHICH MAY BECOME DIFFICULT TO CLEAN IF LEFT OVERNIGHT OR FOR PROLONGED PERIODS.

INSTALLATION OF GRANITE

CONCRETE BLINDING LAYER:
PLACE 125mm THICK CONCRETE (25MPA) WITH SL72 MESH MINIMUM COVER 40mm.
PLACE CONCRETE BLINDING LAYER ON MINIMUM 50mm DEEP DGB20 TO 98% STANDARD DRY COMPACTION IN ACCORDANCE WITH AS1289.5.1.1. REFER TO DETAIL PV1.1 & PV1.2
ANY SOFT SPOTS IN SUB-GRADE TO BE REMOVED AND IDENTIFIED WITH SUPERINTENDENT.

PAVER JOINTING:
BETWEEN INDIVIDUAL PAVERS - JOIN FLUSH TOGETHER LEAVING A 2mm GAP. FORM CONTINUOUS EVEN SURFACE TO AVOID TRIP HAZARDS. THE JOINTS BETWEEN PAVERS ARE TO BE FILLED WITH ULTRA FINE SILICA SAND CEMENT MIX AS SUPPLIED BY BENEDICTS SAND AND SOIL (PH:9986 3500) OR AN APPROVED EQUIVALENT.
AT ISOLATION AND EXPANSION JOINTS - FILL 5-10mm GAP WITH FOAM BACKING ROD AND APPROVED ONE COMPONENT, THIXOTROPIC, POLYURETHANE BASED JOINT SEALANT. SEALANT COLOUR TO BE BLACK UNLESS SPECIFIED OTHERWISE. REFER TO DETAILS PV3.1.1 - PV3.6

BLINDING SLAB JOINTS:
AS PER CONCRETE JOINTS WITH ADDITION OF ISOLATION JOINTS FOAM TO FINISH 20mm BELOW FINISHED PAVER LEVEL TO ACCOMMODATE BACKING ROD AND APPROVED JOINT SEALANT. REFER DETAILS PV3.1.1 - PV3.6

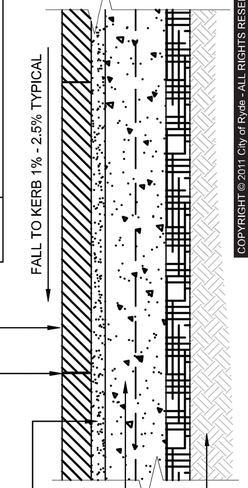
SETOUT – PAVERS:
PAVERS SHALL BE SETOUT AS PER DIMENSIONS AND LOCATIONS AS SHOWN IN TYPICAL DETAILS PV4.1 - PV4.9

LAYING – PAVERS:
LAYING OF PAVERS IS TO COMMENCE FROM PROPERTY BOUNDARY TOWARDS BACK OF KERB. REFER TO DETAIL PV4.1 - PV4.9 UNLESS OTHERWISE SPECIFIED.
ENSURE ALL PAVERS ARE FULLY BEDDED ON A 30mm THICK 8:1 SAND/CEMENT SCREED. SAND USED SHALL BE WHITE WELL GRADED WASHED SAND, PASSING A 4.75mm SIEVE.
PAVERS ARE TO BE MANUALLY TAMPERED WITH A RUBBER MALLET INTO THE WET MORTAR. THE USE OF VIBRATING COMPACTION EQUIPMENT EG. WAKA PLATE. IS STRICTLY PROHIBITED. WHERE PAVERS ARE TO BE LAID IN A RADIAL OR CURVE ALIGNMENT, PAVERS TO BE CUT RADIAL TO CENTRE. REFER TO DETAILS PV4.1 - PV4.9
ALL PAVERS TO BE LAID LEVEL TO THOSE ADJACENT TO AVOID TRIP HAZARDS.
MINIMUM CUT PAVER WIDTH SHOULD BE NO LESS THAN 100mm UNLESS APPROVED BY SUPERINTENDENT.

KERB RAMP:
GENERALLY KERB RAMPS ARE TO BE SETOUT AS SHOWN IN DETAILS PV4.6, PV4.7 & PV4.8
WHERE ANY CHANGES ARE REQUIRED, CONFIRM WITH SUPERINTENDENT. MINIMUM CUT PAVER WIDTH IS TO BE 100mm UNLESS APPROVED BY SUPERINTENDENT.

GRADE >1:8:
ALL PAVERS LAID ON A GRADE STEEPER THAN 1:8 (12.5%) ARE REQUIRED TO BE A "V" RATED PAVER WITH A BUSH HAMMERED FINISH.

ROOF OUTLETS:
WHERE ROOF OUTLET CONNECTIONS ARE TO BE PROVIDED USE 150mm x 90mm GALVANISED STEEL RECTANGULAR HOLLOW SECTION. WHERE MORTAR COVER CANNOT



PV 1.2 PAVEMENT TYPE GRANITE - TYPICAL
SCALE 1:10 AT A4

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STANDARD DRAWING
PAVEMENT TYPE GRANITE

APPROVED	DATE
VP DESIGN MANAGER	15/12/17
DRAWING NUMBER	REVISION
PV1.2	F

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B	ISSUED FOR COORDINATION	26-11-2021
A	ISSUED FOR COORDINATION	24-11-2021

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PROJECT
PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE
COUNCIL STANDARD DRAWINGS - KERB RAMP AND PAVEMENT TYPE GRANITE

SCALES	DESIGNED	DRAFTED
AS SHOWN	DM	DM
DRAWING NO.	APPROVED	REVISION
A20022- CIV17	JM	F

SOIL SPECIFICATION:
PREFERRED SOIL MIX COMPRISES OF 90% RECOVERED SITE SOIL& 10% DOUBLE WASHED COURSE RIVER SAND WITH TERRACOTTEM AND GYPSUM ADDITIVES. CONTAMINATION - WHERE FUEL, OIL, CEMENT OR OTHER PHYTOTOXIC MATERIAL HAS BEEN SPILT ON THE SUB SOIL OR SOIL MIX, EXCAVATE THE CONTAMINATED MATERIAL, DISPOSE OF IT OFF SITE AND REPLACE IT WITH NEW TOPSOIL MIX AS REQUIRED TO ACHIEVE DESIGN LEVELS. REMOVE STONES EXCEEDING 25mm, CLODS OF EARTH EXCEEDING 50mm AND WEEDS, RUBBISH OR OTHER DELETERIOUS MATERIAL.

THOROUGHLY INCORPORATE
- DOUBLE WASHED COARSE RIVER SAND
- 1KG/m3 OF TERRACOTTEM
- GYPSUM TO MANUFACTURERS SPECIFICATION

BACKFILL IN 150MM LAYERS AND LIGHTLY TAMP TO ELIMINATE AIR POCKETS AND/OR VOIDS.

WHERE NO SITE SOIL IS SUITABLE FOR REUSE:
SOIL MIX A - SAND SOIL BLEND 80-20
SOIL MIX B - ORGANIC GARDEN MIX

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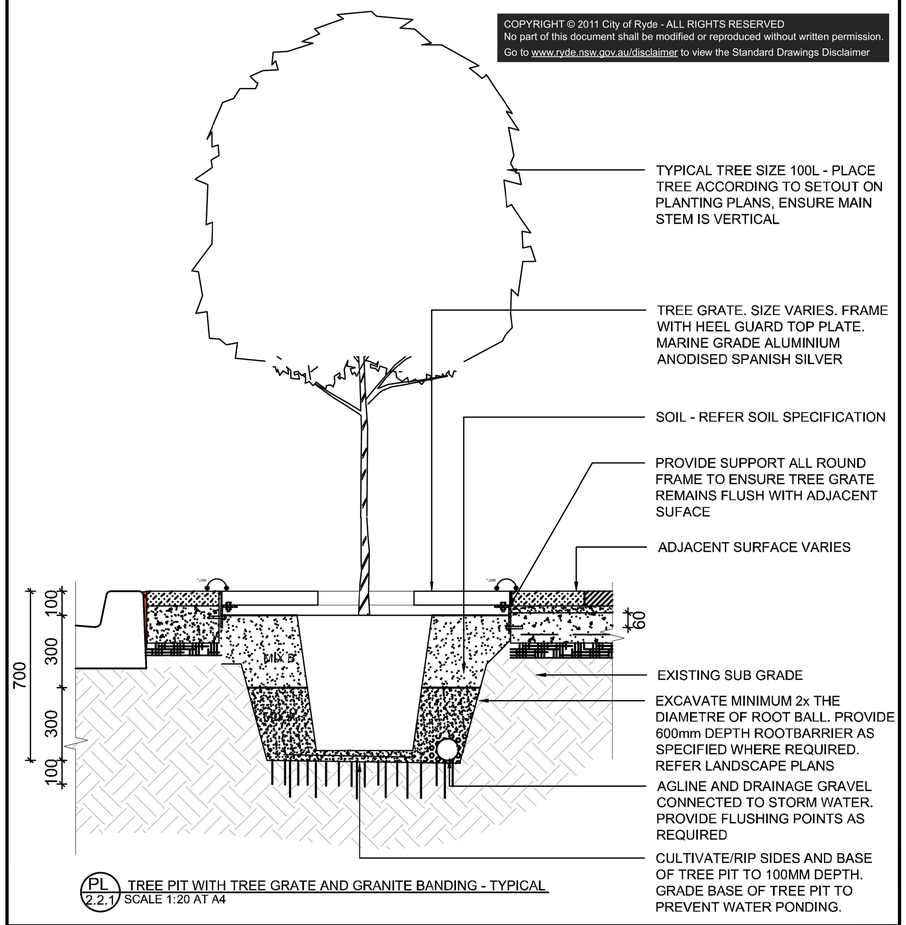

PL 2.2.1 TREE PIT WITH TREE GRATE AND GRANITE BANDING - TYPICAL
SCALE 1:20 AT A4

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STANDARD DRAWING
TREE PIT WITH TREE GRATE AND GRANITE BANDING - TYPICAL

APPROVED	DATE
VP DESIGN MANAGER	15/12/17
DRAWING NUMBER	REVISION
PL2.2.1	B

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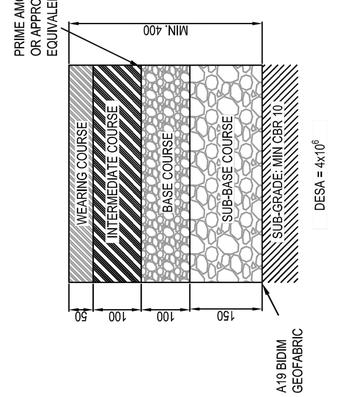
TYPICAL PAVEMENT STRUCTURE - LOCAL ROADS

LAYER	THICKNESS
WEARING COURSE AC14 AUS-SPEC 1144. AT INTERSECTIONS AND CURVES, USE AC14 AUS-SPEC 1144 WITH A15E POLYMER MODIFIED BINDER.	50mm
INTERMEDIATE COURSE AC28 R116. IF THE MIX IS UNAVAILABLE, AC20 R116 IS ACCEPTABLE.	100mm
BASE COURSE DENSELY GRADED BASE OF NOMINAL SIZE 20mm (DGB20) WITH CBR GREATER THAN 80. COMPACTED TO 98% MODIFIED TO AS1289.	100mm
SUB-BASE COURSE DENSELY GRADED SUBBASE OF NOMINAL SIZE 40mm (DGS40) WITH CBR GREATER THAN 30. COMPACTED TO 98% MODIFIED TO AS1289.	150mm
SUB-GRADE COURSE MINIMUM SUBGRADE CBR 10. IF NOT ACHIEVED, PLACE ADDITIONAL 250MM THICK LAYER OF DGS40 OR LIME STABILISE THE SUBGRADE TO A DEPTH OF 250mm TO ACHIEVE CBR 10 OR GREATER. LAY A19 BIDIM GEOFABRIC ON TOP OF THE SUBGRADE. THE SUBGRADE IS TO BE COMPACTED TO 100% STANDARD TO AS1289.	MINIMUM 250mm



ROAD PAVEMENT PROFILE
N.T.S

NOTES:

1. BASE AND SUB-BASE MATERIAL SHALL COMPLY WITH RMS QA SPECIFICATION 3051 GRANULAR BASE AND SUBBASE MATERIALS FOR SURFACED ROAD PAVEMENTS.
2. BASE AND SUB-BASE MATERIAL SHALL BE MANUFACTURED FROM HARD, DURABLE STONE FREE OF CLAY SLUMPS, ORGANIC MATTER AND DELETERIOUS SUBSTANCES. MATERIALS OF DIFFERENT TYPE OR FROM DIFFERENT SOURCES SHALL BE PLACED AND STORED SEPERATELY.
3. PLACE A19 BIDIM GEOFABRIC UNDERNEATH THE SUB-BASE COURSE. TO SEPERATE SUB-GRADE AND GRANULAR MATERIALS.
4. DESIGN TRAFFIC (DESA) FOR THE PAVEMENT SHALL BE $4x10^6$. DESIGN LIFE OF THE PAVEMENT SHALL BE A MINIMUM OF 40 YEARS WITH A GROWTH FACTOR OF 1.2.
5. PRIOR TO THE ISSUE FOR CONSTRUCTION CIVIL WORKS DRAWINGS, PAVEMENT DESIGN AND A GEOTECHNICAL REPORT SHALL BE SUBMITTED TO COUNCIL FOR APPROVAL.
6. DURING CONSTRUCTION EACH PAVEMENT LAYER IS TO BE TESTED FOR COMPLIANCE AND CERTIFIED BY THE ACCREDITED PROVIDER (NATA REGISTERED).
7. NOMINAL CROSS FALL OF PAVEMENT SHALL BE 3%.
8. MAXIMUM LONGITUDINAL GRADE OF THE ROAD SHALL BE 8%.

ALL PAVEMENT DESIGNS ARE SUBJECT TO GEOTECHNICAL INVESTIGATION BY AN ACCREDITED PROVIDER (NATA REGISTERED) AND THE DESIGNS TO BE CARRIED OUT IN ACCORDANCE WITH AUSTROADS GUIDE TO PAVEMENT TECHNOLOGY - PART 2: PAVEMENT STRUCTURAL DESIGN (2017). DESIGN TO BE UNDERTAKEN BY A QUALIFIED CIVIL/GEOTECNICAL ENGINEER AND ACCEPTED BY CITY OF RYDE COUNCIL.

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STANDARD DRAWING
TYPICAL PAVEMENT STRUCTURE LOCAL ROADS

APPROVED	DATE
VP DESIGN MANAGER	14.08.2019
DRAWING NUMBER	REVISION
CIV.14.1	B

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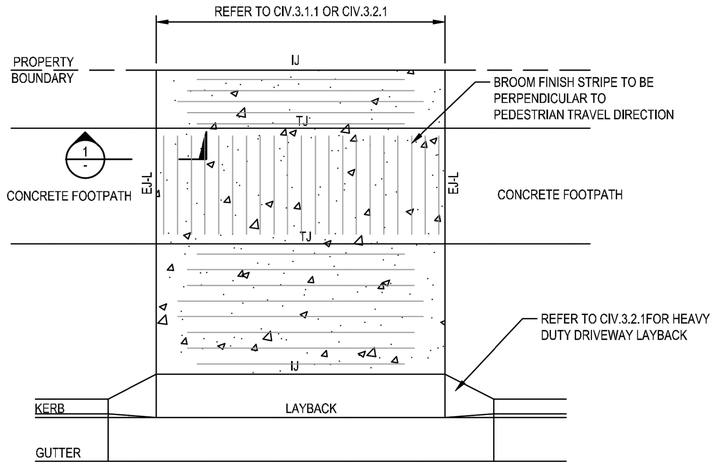
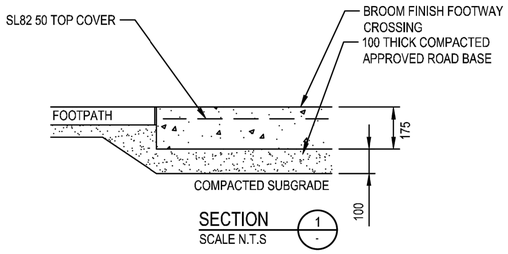
PROJECT
PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE
COUNCIL STANDARD DRAWINGS - TREE PIT DETAIL AND TYPICAL PAVEMENT STRUCTURE LOCAL ROAD

SCALES	DESIGNED	DRAFTED
AS SHOWN	DM	DM
DRAWING NO.	APPROVED	REVISION
A20022- CIV18	JM	F



PLAN
SCALE N.T.S



SECTION 1
SCALE N.T.S

NOTES:

1. HEAVY DUTY LAYBACKS ARE TYPICALLY USED FOR ACCESSES TO MEDIUM TO LARGE COMMERCIAL AND INDUSTRIAL PROPERTIES.
2. REFER TO CIV.11 FOR JOINT DETAIL
3. CONCRETE EDGES SHALL BE FINISHED WITH AN EDGING TOOL.
4. CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 25MPA MINIMUM.
5. CONCRETE SHALL BE PLACED WITH A MAXIMUM SLUMP OF 80MM.
6. MINIMUM CONCRETE COVER SHALL BE 40mm UNLESS NOTED OTHERWISE.
7. THE COUNCIL ENGINEER REQUIRES 24 HOURS NOTICE PRIOR TO POURING OF CONCRETE TO INSPECT THE FORMWARK. NO CONCRETE SHALL BE POURED UNTIL THE EXCAVATION AND FORMWORK HAVE BEEN INSPECTED.
8. REFER TO CIV.5 SERIES FOR STANDARD FOOTPATH DETAILS.
9. ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE .

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STANDARD DRAWING
HEAVY DUTY FOOTWAY CROSSING

APPROVED	DATE
VP DESIGN MANAGER	21/06/18
DRAWING NUMBER	REVISION
CIV.4.4	D

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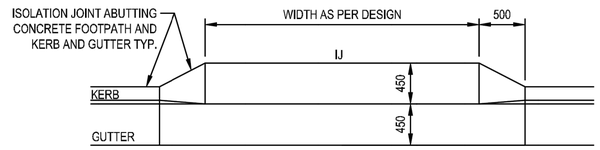
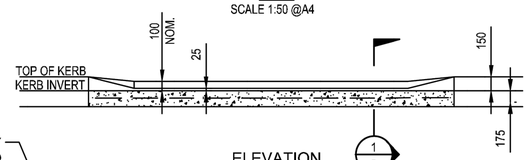
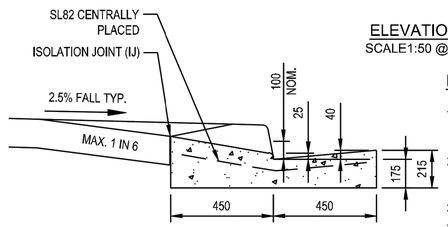


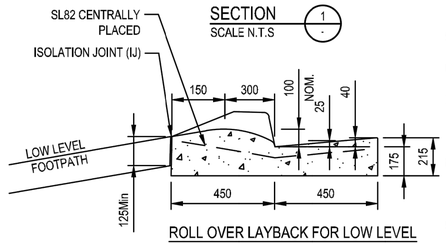
PLAN
SCALE 1:50 @A4



ELEVATION 1
SCALE1:50 @A4



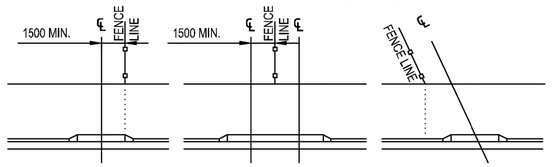
SECTION 1
SCALE N.T.S



ROLL OVER LAYBACK FOR LOW LEVEL FOOTWAYS
SCALE N.T.S

NOTES:

1. HEAVY DUTY LAYBACKS ARE TYPICALLY USED FOR ACCESSES TO LARGE RESIDENTIAL, COMMERCIAL AND INDUSTRIAL PROPERTIES.
2. HEAVY DUTY LAYBACK SHALL CONSIST OF 175mm MINIMUM THICK REINFORCED CONCRETE WITH SL82 OVER 150mm MINIMUM THICKNESS COMPACTED APPROVED ROADBASE.
3. THE LAYBACK SHALL BE STEEL FLOAT FINISHED.
4. EXPANSION JOINTS SHALL BE PLACED AT INTERVALS OF 6m MAXIMUM AND 4m MINIMUM REFER TO CIV.11 FOR JOINTS DETAIL.
5. CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 25MPA MINIMUM.
6. CONCRETE SHALL BE PLACED WITH A MAXIMUM SLUMP OF 80mm.
7. SUBJECT TO APPROVAL FROM COUNCIL'S ENGINEER THE NOMINAL HEIGHT OF DRIVEWAY LAYBACK MAY BE LOWERED TO MINIMUM 75mm TO MEET B85 DESIGN VEHICLE REQUIREMENT.
8. THE COUNCIL ENGINEER REQUIRES 24 HOURS NOTICE PRIOR TO POURING OF CONCRETE TO INSPECT THE FORMWORK. NO CONCRETE SHALL BE POURED UNTIL THE EXCAVATION AND FORMWORK HAVE BEEN INSPECTED.
9. MINIMUM CONCRETE COVER TO BE 40mm UNLESS NOTED OTHERWISE.
10. REFER TO CIV.1.2.1 FOR ROAD RESTORATION DETAIL.
11. ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.



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STANDARD DRAWING
HEAVY DUTY DRIVEWAY LAYBACK

APPROVED	DATE
VP DESIGN MANAGER	21/06/18
DRAWING NUMBER	REVISION
CIV.3.3	E

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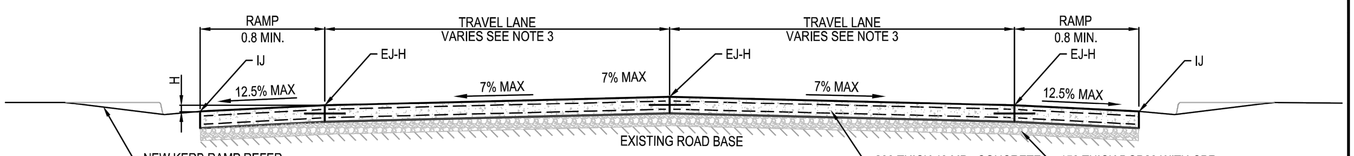
PROJECT
PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE
COUNCIL STANDARD DRAWINGS - HEAVY DUTY LAYBACK AND DRIVEWAY

SCALES	DESIGNED	DRAFTED
AS SHOWN	DM	DM
DRAWING NO.	APPROVED	REVISION
A20022- CIV19	JM	F



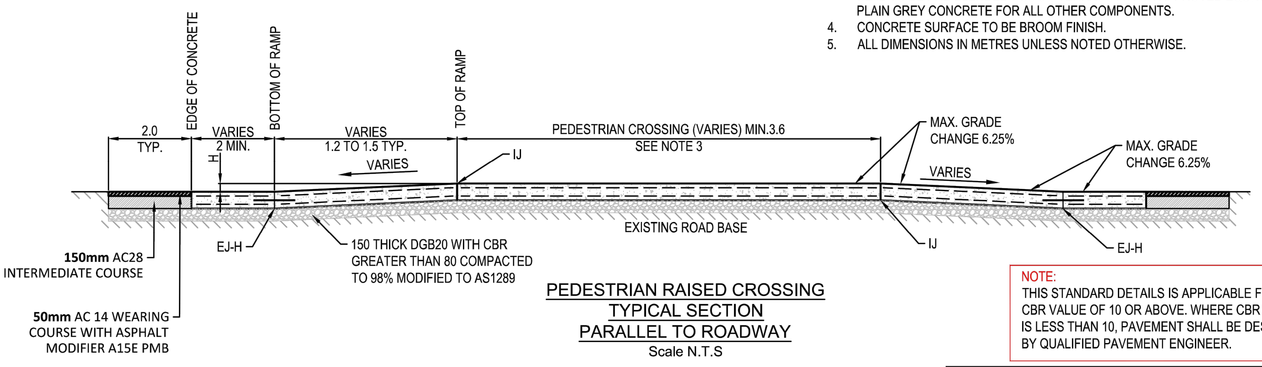
H = 100mm FOR NON-BUS ROUTE
H = 75mm FOR BUS ROUTE

PEDESTRIAN RAISED CROSSING TYPICAL SECTION PERPENDICULAR TO ROADWAY

Scale N.T.S

NOTES:

1. 40Mpa CONCRETE WITH FAST SET ADMIXTURE FOR ALL CONCRETE ELEMENT SUBJECT TO TRAFFIC LOAD. REFER TO CONCRETE SUPPLIER FOR MINIMUM CURING TIME. NO TRAFFIC LOADING IS ALLOWED DURING THE RECOMMENDED CURING TIME.
2. REFER TO CIV.11 FOR TYPICAL JOINT DETAIL.
3. UNLESS SPECIFIED OTHERWISE, CONCRETE FOR THE PEDESTRIAN CROSSING SLAB TO BE PRE-BLENDED CCS 6% TERRACOTTA OR APPROVED EQUIVALENT. PLAIN GREY CONCRETE FOR ALL OTHER COMPONENTS.
4. CONCRETE SURFACE TO BE BROOM FINISH.
5. ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.



PEDESTRIAN RAISED CROSSING TYPICAL SECTION PARALLEL TO ROADWAY

Scale N.T.S

NOTE:
THIS STANDARD DETAILS IS APPLICABLE FOR CBR VALUE OF 10 OR ABOVE. WHERE CBR VALUE IS LESS THAN 10, PAVEMENT SHALL BE DESIGNED BY QUALIFIED PAVEMENT ENGINEER.

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STANDARD DRAWING

RAISED PEDESTRIAN CROSSING TYPICAL SECTIONS

APPROVED	DATE
VP DESIGN MANAGER	04/11/2021
DRAWING NUMBER	REVISION
TM.13	C

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B	ISSUED FOR COORDINATION	26-11-2021
A	ISSUED FOR COORDINATION	24-11-2021

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PROJECT

PROPOSED DEVELOPMENT
1-20 RAILWAY ROAD,
MEADOWBANK

DRAWING TITLE
COUNCIL STANDARD DRAWINGS - RAISED PEDESTRIAN CROSSINGS TYPICAL SECTION

SCALES
AS SHOWN

DRAWING NO.
A20022- CIV20

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