

PROPOSED DRIVEWAY CONSTRUCTION

14 MIRROOL ST, NORTH NARRABEEN, NSW

CIVIL ENGINEERING WORKS



LOCALITY SKETCH
SCALE: N.T.S.

DRAWING SCHEDULE	
21P54_DA_C000	COVER SHEET, DRAWING SCHEDULE & LOCALITY SKETCH
21P54_DA_C010	NOTES
21P54_DA_C101	DETAIL PLAN, SHEET 1 OF 2
21P54_DA_C102	DETAIL PLAN, SHEET 2 OF 2
21P54_DA_C110	KERB DETAILS AND TYPICAL SECTIONS
21P54_DA_C150	DRIVEWAY SECTIONS, SHEET 1 OF 2
21P54_DA_C151	DRIVEWAY SECTIONS, SHEET 2 OF 2
21P54_DA_C310	RETAINING WALL TYPE DETAILS
21P54_DA_C311	CRASH BARRIER DETAILS
21P54_DA_C501	PAVEMENT PLAN, SHEET 1 OF 2
21P54_DA_C502	PAVEMENT PLAN, SHEET 2 OF 2
21P54_DA_C510	PAVEMENT DETAILS
21P54_DA_C600	VEHICLE TURNING PATHS

FOR DA ONLY

SURVEY INFORMATION SURVEYED BY AC DATUM: A.H.D. ORIGIN OF LEVELS: PM 5240 RL 13.358																				Client										Suite 2.01 828 Pacific Highway Gordon NSW 2072										Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hhconsult.com.au Web www.henryandhymas.com.au																				Project										Drawn										Designed										Date																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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1. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL SPECIFICATION. CONTRACTOR TO OBTAIN AND RETAIN A COPY ON SITE DURING THE COURSE OF THE WORKS.
2. ALL NEW WORKS ARE TO MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS AND MARRY IN A 'WORKMANLIKE' MANNER.
3. THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL SERVICES WITH EACH RELEVANT AUTHORITY. ANY DAMAGE TO SERVICES SHALL BE RECTIFIED BY THE CONTRACTOR OR THE RELEVANT AUTHORITY AT THE CONTRACTOR'S EXPENSE. SERVICES SHOWN ON THESE PLANS ARE ONLY THOSE EVIDENT AT THE TIME OF SURVEY OR AS DETERMINED FROM SERVICE DIAGRAMS. H & H CONSULTING ENGINEERS PTY. LTD CANNOT GUARANTEE THE INFORMATION SHOWN NOR ACCEPT ANY RESPONSIBILITY FOR INACCURACIES OR INCOMPLETE DATA.
4. SERVICES & ACCESSSES TO THE EXISTING PROPERTIES ARE TO BE MAINTAINED IN WORKING ORDER AT ALL TIMES DURING CONSTRUCTION.
5. ADJUST EXISTING SERVICE COVERS TO SUIT NEW FINISHED LEVELS TO RELEVANT AUTHORITY REQUIREMENTS WHERE NECESSARY.
6. REINSTATE AND STABILISE ALL DISTURBED LANDSCAPED AREAS.
7. MINIMUM GRADE OF SUBSOIL SHALL BE 0.5% (1/200) FALL TO OUTLETS.
8. ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS, EROSION AND SEDIMENTATION CONTROL PLAN AND NORTHERN BEACHES COUNCIL REQUIREMENTS WHERE APPLICABLE.
9. CONTRACTOR TO CHECK AND CONFIRM SITE DRAINAGE CONNECTIONS ACROSS THE VERGE PRIOR TO COMMENCEMENT OF SITE DRAINAGE WORKS.
10. PROPERTIES AFFECTED BY THE WORKS ARE TO BE NOTIFIED IN ADVANCE WHERE DISRUPTION TO EXISTING ACCESS IS LIKELY.

1. THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL (IF REQUIRED) OF ALL EXISTING SERVICES IN AREAS AFFECTED BY WORKS WITHIN THE CONTRACT AREA OR 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 APPROVAL OF HIS PROGRAM FOR THE RELOCATION/ CONSTRUCTION OF TEMPORARY SERVICES.
4. CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN SUPPLY TO EXISTING BUILDING REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE AND COMMISSIONED, THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT.
5. INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE TO THE PRINCIPAL. CONTRACTOR TO GAIN APPROVAL FROM THE SUPERINTENDENT FOR TIME OF INTERRUPTION.
6. EXISTING SERVICES, BUILDINGS, EXTERNAL STRUCTURES AND TREES SHOWN ON THESE DRAWINGS ARE EXISTING FEATURES PRIOR TO ANY DEMOLITION WORKS.
7. EXISTING SERVICES UNLESS SHOWN ON SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE A DIAL BEFORE YOU DIG SEARCH AND TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
8. ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN Ø80 UPVC SEWER GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND EDGE OF PAVING.

3. DATUM : A.H.D.
2. ORIGIN OF LEVELS : REFER TO BENCH OR STATE SURVEY MARKS WHERE SHOWN ON PLAN.
3. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS & THE DIRECTIONS OF THE SUPERINTENDENT.
5. EXISTING SERVICES UNLESS SHOWN ON THE SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS 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 SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
6. WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS ACHIEVED.
7. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
8. CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATION IS TO BE UNDERTAKEN OVER TELSTRA OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
9. CONTRACTOR TO OBTAIN AUTHORITY APPROVALS WHERE APPLICABLE.
10. MAKE SMOOTH TRANSITION TO EXISTING SURFACES AND MAKE GOOD.
11. THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED LANDSCAPE, ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND SPECIFICATIONS
12. OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED RELATING
13. TO DEVELOPMENT AT THE SITE.
14. TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MINIMUM OF 50mm IN BITUMINOUS PAVING.
15. ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN Ø80 UPVC SEWER GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND EDGE OF PAVING.
16. GRADES TO PAVEMENTS TO BE AS IMPLIED BY RL'S ON PLAN. GRADE EVENLY BETWEEN NOMINATED RL'S. AREAS EXHIBITING PONDING GREATER THAN 5mm DEPTH WILL NOT BE ACCEPTED UNLESS IN A DESIGNATED SAG POINT.
17. ALL COVERS AND GRATES ETC TO EXISTING SERVICE UTILITIES ARE TO BE ADJUSTED TO SUE NEW FINISHED SURFACE LEVELS WHERE APPLICABLE.

1. THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY THE SURVEYOR SPECIFIED IN THE TITLE BLOCK.
2. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. HENRY AND HYMAS PTY. LTD. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.
3. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT HENRY AND HYMAS PTY. LTD. THE FOLLOWING NOTES HAVE BEEN TAKEN DIRECTLY FROM ORIGINAL SURVEY DOCUMENTS.

1. PREPARATION FOR PAVEMENT: CLEAR SITE, STRIP TOP-SOIL, CUT AND FILL AND PREPARATIONS OF SUB-GRADE SHALL BE AS DESCRIBED IN "SUBGRADE PREPARATION - SITEWORKS".
2. SUB-GRADE SHALL BE COMPACTED TO 98% STANDARD MAXIMUM DRY DENSITY RATIO AT OPTIMUM MOISTURE CONTENT $\pm 2\%$ IN ACCORDANCE WITH AS 1289 5.1.1., TOP 300MM TO 100% SDD.
3. FOR A SAND SUBGRADE, COMPACTION SHALL BE TO MIN.90% DENSITY INDEX AS PER AS1289 E6.1
4. LOWER BASE COURSE SHALL BE CONSTRUCTED FROM CRUSHED ROCK COMPACTED TO 98% MODIFIED MAXIMUM DRY DENSITY RATIO AT OPTIMUM MOISTURE CONTENT $\pm 2\%$ IN ACCORDANCE WITH AS 1289 5.1.1. OF THICKNESS NOTED ON DRAWINGS.
5. BASE COURSE SHALL BE CONSTRUCTED FROM FINE CRUSHED ROCK COMPACTED TO 98% MODIFIED MAXIMUM DRY DENSITY RATIO AT OPTIMUM MOISTURE CONTENT $\pm 2\%$ IN ACCORDANCE WITH AS 1289 5.1.1 OF THICKNESS NOTED ON DRAWINGS.
6. WEARING SURFACE SHALL BE ASPHALTIC CONCRETE TO STANDARD SPECIFICATION
7. TESTING OF THE SUBGRADE AND PAVEMENT LAYERS SHALL BE CARRIED OUT BY APPROVED N.A.T.A. REGISTERED LABORATORY

- REFER TO GEOTECHNICAL INVESTIGATION, ENGINEERS OR INFORMATION RELATING TO EXISTING GROUND CONDITIONS, SITE TREATMENT AND SUPERVISION.
2. THE LOCATIONS OF UNDERGROUND SERVICES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED FROM SURVEY AND AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITIONS OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE.
3. HENRY AND HYMAS PTY LTD CAN NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS, ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN ARISING FROM ANY CAUSE WHATSOEVER.
CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION.
FOR COMMENCEMENT OF WORKS ON SITE, SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.
4. ALL SERVICES ARE TO BE LOCATED AND CUT OFF PRIOR TO THE COMMENCEMENT OF EXCAVATION AND FILLING OPERATIONS.
5. ALL TOP SOIL, ORGANIC MATTER AND FILL MATERIAL SHALL BE REMOVED FROM ALL AREAS UNDER BUILDING AND CARPARK LOCATIONS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER. AREAS TO BE FULLY STRIPPED OF EXISTING FILL AND DARK BROWN BLACK UPPER ORGANIC ALLUVIUM, OR OBVIOUS UNSUITABLE MATERIAL.
6. EXCAVATE TO ACHIEVE SUBGRADE LEVELS WHERE NECESSARY.
7. THE EXPOSED SUBGRADE AFTER STRIPPING AND/ OR EXCAVATION IS TO PROOF ROLLED USING NOT FEWER THAN 8 PASSES OF A MINIMUM 8 TONN DEAD WEIGHT SMOOTH DRUM ROLLER UNDER THE SUPERVISION OF AN EXPERIENCED GEOTECHNICAL ENGINEER OR AN EXPERIENCED CIVIL ENGINEER. ANY AREAS ON THE SUBGRADE EXHIBITING EXCESSIVE DEFLECTION / MOVEMENT UNDER ROLLER TO BE EXCAVATED TO A MIN. DEPTH OF 0.5m AND REPLACED WITH APPROVED GRANULAR MATERIAL COMPACTED IN 250mm LOOSE LAYERS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
8. ENGINEERED FILL FOR REPLACEMENT OF SOFT OR HEAVING AREAS OR FILL EXCAVATED TO COMPRISE ESSENTIALLY OF GRANULAR MATERIALS (EG. FILLING SHALE), WITH A PARTICLE SIZE NOT GREATER THAN 75mm DIAMETER. ENGINEERED FILL TO BE PLACED IN LAYERS NOT EXCEEDING 250mm LOOSE THICKNESS AND COMPACTED TO 100% OF STANDARD MAXIMUM DRY DENSITY (SMD) WITHIN $\pm 2\%$ OF OPTIMUM MOISTURE CONTENT (OMC).
9. IMPORTED FILLING (IF REQUIRED) IS TO BE TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER. THE CONTRACTOR IS TO NOMINATE THE SOURCE AND PROVIDE A SAMPLE FOR APPROVAL PRIOR TO IMPORTATION AND PLACEMENT ON SITE.
10. ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SUPERINTENDENT AND SHALL COMPLY WITH THE FOLLOWING.
FREE FORM ORGANIC AND PERISHABLE MATTER
MAXIMUM PARTICLE SIZE = 75mm
MAXIMUM PLASTICITY INDEX = 15m
MIN CBR 5%

ALL IMPORTED FILL MATERIAL SHALL BE IN ACCORDANCE WITH SPECIFICATIONS FROM GEOTECH ENGINEER.
11. ALL EARTHWORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RECOMMENDATIONS AND ADVICE BY GEOTECHNICAL ENGINEER.
12. IN-SITU DENSITY TESTING AND SUPERVISION MUST BE CARRIED OUT IN ACCORDANCE WITH THE RECOMMENDATIONS AND ADVICE BY GEOTECHNICAL ENGINEER.

- INCLUDES ALL KERBS, GUTTERS, DISH DRAINS, CROSSING AND EDGES.
1. ALL KERBS, GUTTERS, DISH DRAINS AND CROSSING TO BE CONSTRUCTED ON MINIMUM 75mm GRANULAR BASE COURSE COMPACTED TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 S 2.1.
2. EXPANSION JOINTS (EJ) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILTER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT POINTS OF CURVES AND ELSEWHERE AT 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATION IN KERBS.
3. WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN SLABS.
4. PROVIDE BROOMED FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS, ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.
5. IN THE REPLACEMENT OF KERBS:
EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm FROM LIP OF GUTTER UPON COMPLETION OF NEW KERBS, NEW BASECOURSE AND SURFACE IS TO BE LAID 900mm WIDE TO MATCH EXISTING MATERIALS AND THICKNESS.
EXISTING ALLOTMENT DRAINAGE PIPE'S ARE TO BE BUILT INTO NEW KERB WITH A 100mm DIA HOLE. EXISTING KERBS ARE TO BE COMPLETELY REMOVED WHERE NEW KERBS ARE SHOWN.

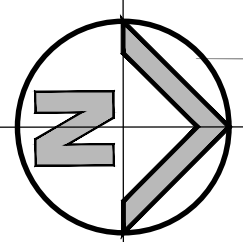
REINFORCEMENT:

- FIX REINFORCEMENT AS SHOWN ON DRAWINGS. THE TYPE AND GRADE IS INDICATED BY A SYMBOL, AS SHOWN BELOW.
 - N. HOT ROLLED DEFORMED BAR, GRADE 500
 - R. PLAIN ROUND BAR, GRADE 250
 - SL OR RL HARD DRAWN WIRE FABRIC SQUARE OR RECTANGULAR
- PROVIDE BAR SUPPORTS OR SPACERS TO GIVE THE FOLLOWING CONCRETE COVER TO ALL REINFORCEMENT UNLESS NOTED OTHERWISE.
 - FOOTINGS: 75 BOTTOM. 65 TOP AND SIDES 40
 - SLABS: 40 WHEN EXPOSED TO WEATHER.
 - DRAINAGE STRUCTURES: 30 WHEN CAST IN FORMS BUT LATER EXPOSED TO WEATHER OR GROUND. 65 WHEN CAST DIRECTLY IN CONTACT WITH GROUND.
- FOR ALL PITS LOCATED IN CORNERS PROVIDE 2N16 TRIMMER BARS AROUND 1200mm LONG AROUND ALL CORNERS OF PITS UNLESS SHOWN OTHERWISE.

- CONCRETE MIX PARAMETERS:
 - MAXIMUM AGGREGATE SIZE 20mm
 - FLEXURAL STRENGTH AT 28 DAYS = 3.5 MPa (F'_{cr} 32MPa)
 - FLEXURAL STRENGTH AT 90 DAYS = 3.85 MPa
 - MAXIMUM WATER / CEMENT RATIO =0.45
 - MAXIMUM SHRINKAGE LIMIT = 600 MICROSTRAINS (AS1012.13) AFTER 8 WEEKS OF DRYING
 - MINIMUM CEMENT CONTENT = 300kg/m³
 - CEMENT TO BE TYPE GP (NORMAL CEMENT) TO AS 3972
 - SLUMP = 50mm
2. SAWN JOINTS ARE TO BE CUT BETWEEN 2-4 HOURS AFTER CONCRETE POUR USING SOFT CUT SAW TO AVOID DAMAGING THE SURFACE DURING SAWCUT.
3. FOR EXPANSION JOINTS, 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. THE BUILDER SHALL PROVIDE CONSTANT SUPERVISION OF CONCRETE POURS EXECUTED BY SUB-CONTRACTORS TO ENSURE:
 - REINFORCEMENT DISPLACED OFF CHAIRS ARE REPLACED PRIOR TO CONCRETE PLACEMENT.
 - NO SITE WATER IS ADDED TO CONCRETE OR CONCRETE IN WAITING TRUCKS. (REQUIRED SLUMP FOR PLACEMENT SHALL BE ACHIEVED USING SUPER PLASTICISER).
 - ALL CONCRETE IS FULLY COMPACTED USING A POKER VIBRATOR.
 - NO POURS ARE EXECUTED WHEN THE AMBIENT TEMPERATURE EQUALS OR EXCEEDS 35°C.
 - POURS ARE PROTECTED FROM ANY HOT DRYING WINDS.
4. REFER TO COMPACTION NOTES FOR PREPARATION OF SUB-BASE AND SUB-GRAD.
5. CURING: THE FINISHED CONCRETE SHALL BE CURED FOR A MINIMUM OF SEVEN DAYS USING AT LEAST ONE OF THE FOLLOWING METHODS:
 - SPENDING OR CONTINUOUS SPRINKLING WITH WATER.
 - THE USE OF AN ABSORBENT COVERING KEPT CONSTANTLY WET. (WHEN THE AMBIENT TEMPERATURE EXCEEDS 32°C CURING MAY ONLY BE ACHIEVED USING THE ABOVE 2 METHODS.
 - THE USE OF AN IMPERMEABLE SHEET MEMBRANE OVER A MOISTENED SURFACE. (THE MEMBRANE SHALL BE FIXED AND LAPPED SO THAT NO AIR CIRCULATION CAN OCCUR AT THE CONCRETE SURFACE).
 - THE USE OF A CURING COMPOUND COMPLYING WITH AS3799, APPLIED UNIFORM IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS, AND WHEN DRY THE COAT SHOULD BE CONTINUOUS, FLEXIBLE AND WITHOUT VISIBLE BREAKS OR PIN HOLES FOR SEVEN DAYS.
6. BROOM CONCRETE FINISH UNLESS SPECIFIED OTHERWISE TO ARCHITECTS REQUIREMENTS.

Drawn S.Chen	Designed N.Wetzlar	Date DEC 2021
Checked N.Wetzlar	Approved A.Francis	Scale @A1 N.T.S.
Drawing number 21P54_DA_C010		Revision 01

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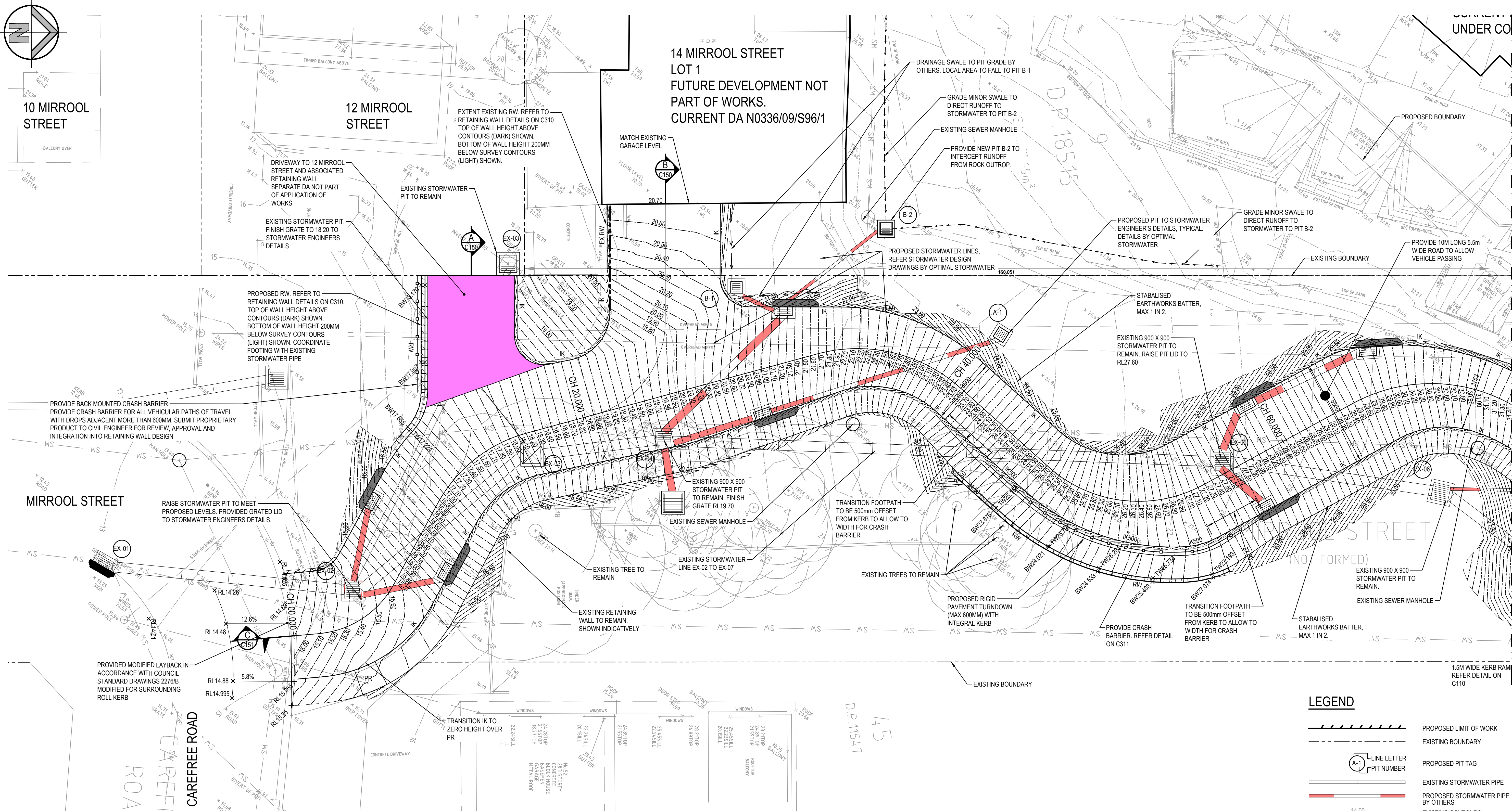


10 MIRROOL STREET

12 MIRROOL STREET

14 MIRROOL STREET
LOT 1
FUTURE DEVELOPMENT NOT
PART OF WORKS.
CURRENT DA N0336/09/S96/1

UNDER CO



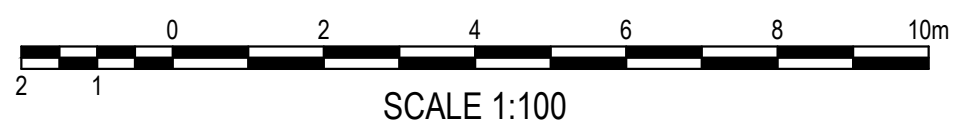
DETAIL PLAN
SCALE 1:100

LEGEND

- PROPOSED LIMIT OF WORK
- EXISTING BOUNDARY
- PROPOSED PIT TAG
- EXISTING STORMWATER PIPE
- PROPOSED STORMWATER PIPE BY OTHERS
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED SPOT LEVEL
- EXISTING ELECTRICAL MAINS LINE
- EXISTING GAS LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- PROPOSED RETAINING WALL
- FUTURE RETAINING WALL (NOT PART OF WORKS)
- PROPOSED INTEGRAL KERB

IMPORTANT NOTE:
PROVIDE VEHICLE CRASH
BARRIER FOR ALL VEHICULAR
PATHS OF TRAVEL WITH DROPS
ADJACENT MORE THAN 600MM.

FOR DA ONLY



SURVEY
INFORMATION
SURVEYED BY AC
DATUM: A.H.D.
ORIGIN OF LEVELS: PM 5240 RL 13.358

REVISION	AMENDMENT	DATE	DESIGNED	DRAWN	DATE
01	ISSUED FOR DA ONLY	28.10.2024			

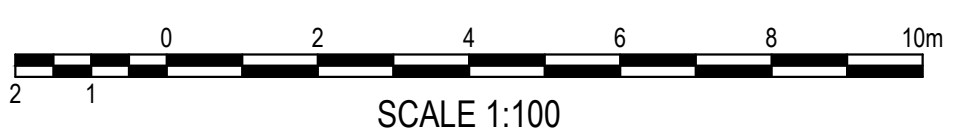
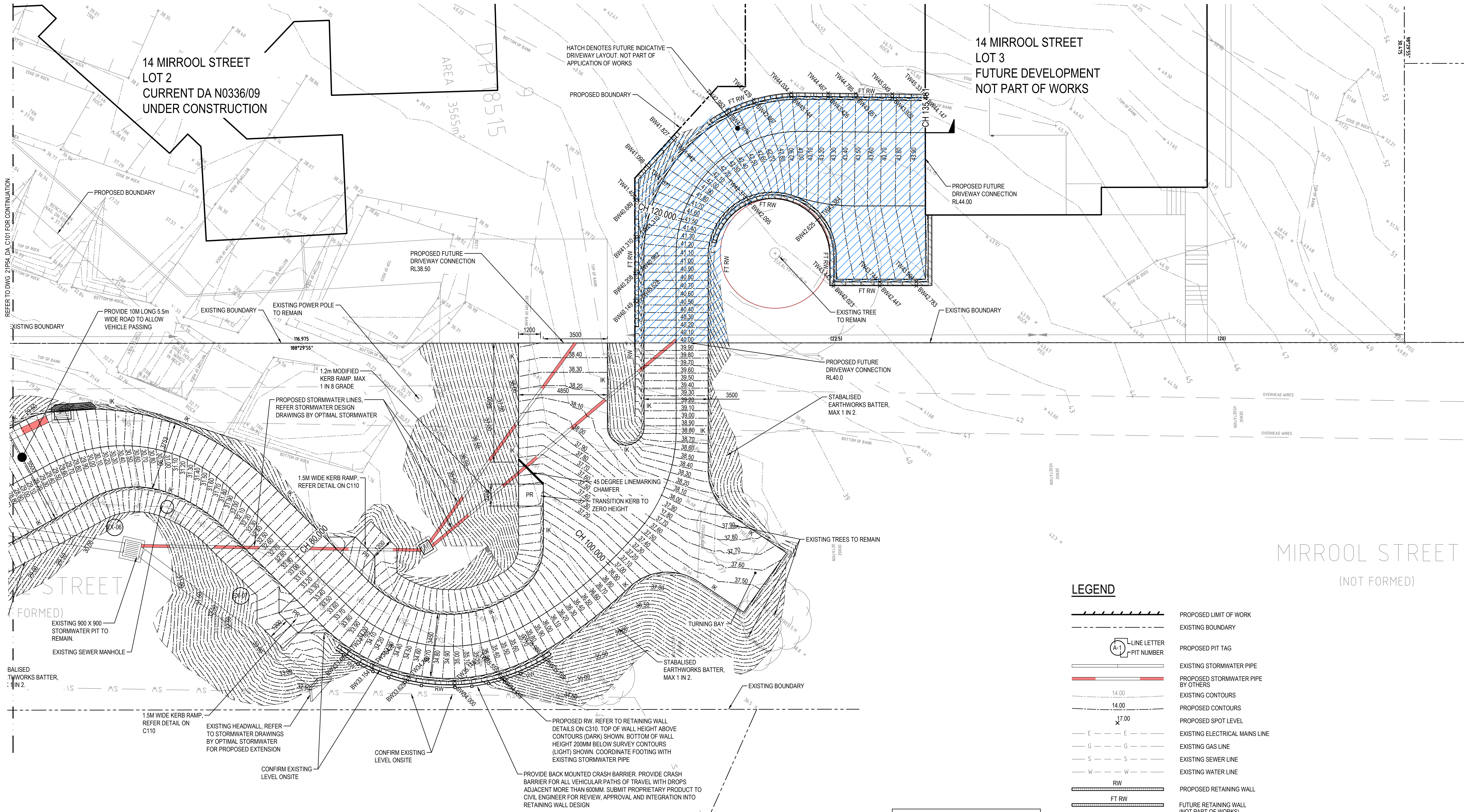
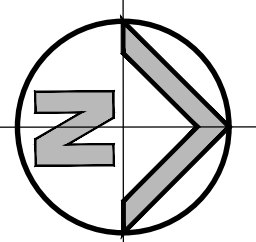
Client
MR. MICK WYKROTA
Architect
B PIOTROWSKI (M ARCH)
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DRAWING TO BE PRINTED IN COLOUR



Project
PROPOSED DRIVEWAY CONSTRUCTION
14 MIRROOL ST, NORTH NARRABEEN
Title
DETAIL PLAN
SHEET 1 OF 2

Drawn
S.Chen
Checked
N.Wetzlar
Drawing number
21P54_DA_C101
Designed
N.Wetzlar
Approved
A.Francis
Scale @A3
1:100
Date
DEC 2021
Revision
01



DETAIL PLAN
SCALE 1:100

LEGEND

- PROPOSED LIMIT OF WORK
- EXISTING BOUNDARY
- PROPOSED PIT TAG
- EXISTING STORMWATER PIPE
- PROPOSED STORMWATER PIPE BY OTHERS
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED SPOT LEVEL
- EXISTING ELECTRICAL MAINS LINE
- EXISTING GAS LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- PROPOSED RETAINING WALL
- FUTURE RETAINING WALL (NOT PART OF WORKS)
- PROPOSED INTEGRAL KERB
- PRAM RAMP

IMPORTANT NOTE:
PROVIDE VEHICLE CRASH
BARRIER FOR ALL VEHICULAR
PATHS OF TRAVEL WITH DROPS
ADJACENT MORE THAN 600MM.

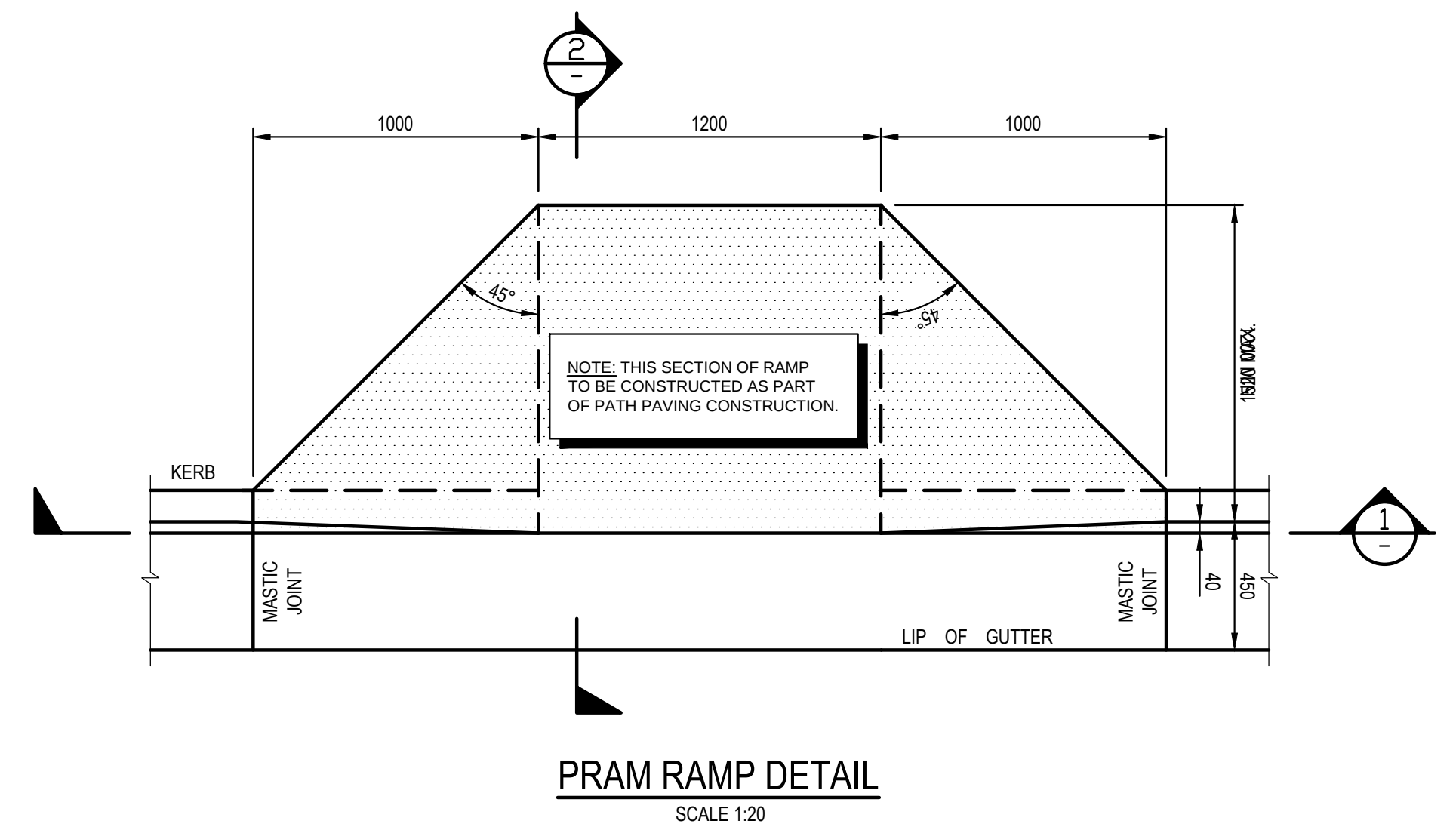
MIRROOL STREET
(NOT FORMED)

FOR DA ONLY

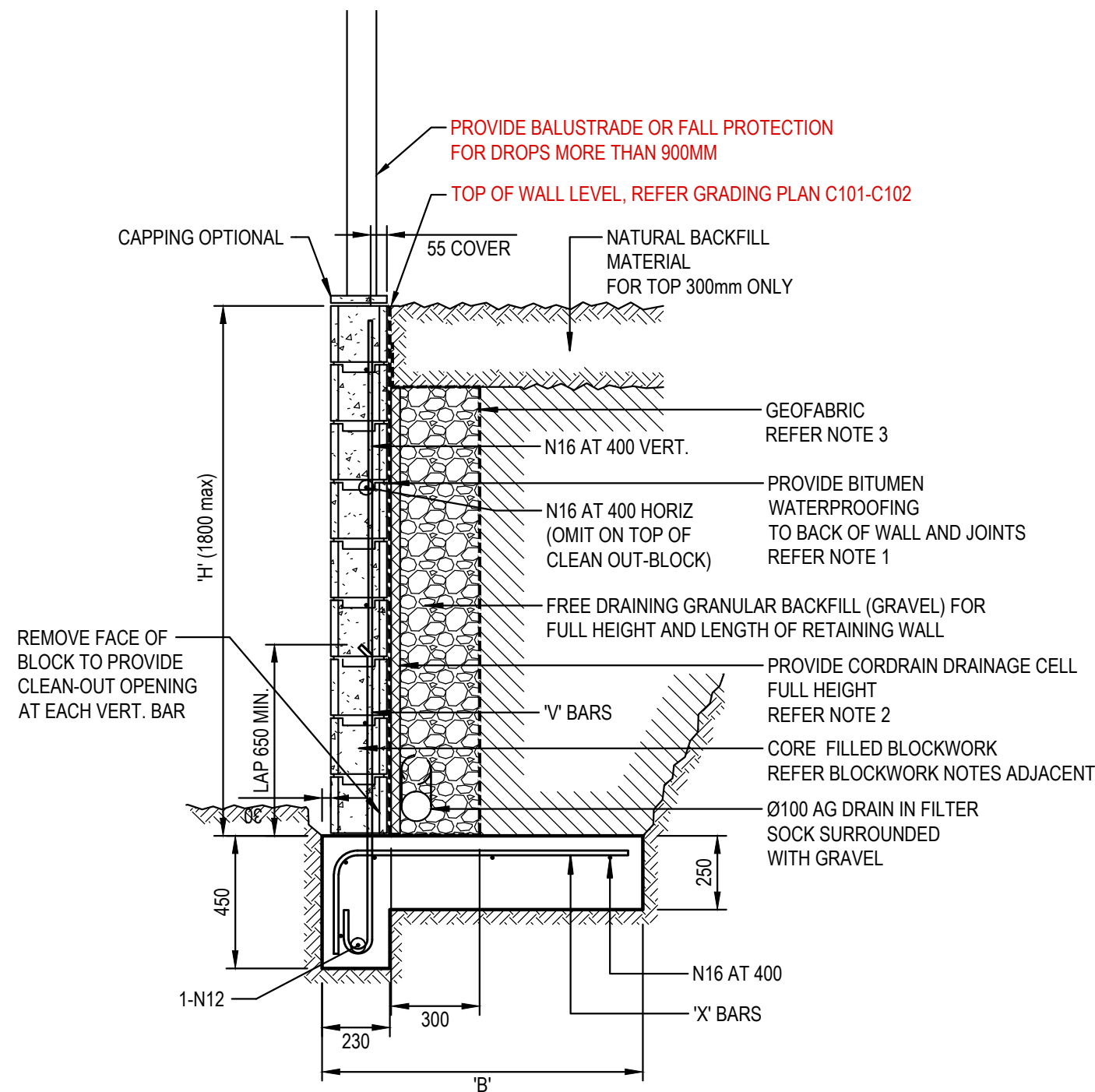
SURVEY INFORMATION SURVEYED BY AC DATUM: A.H.D. ORIGIN OF LEVELS: PM 5240 RL 13.358				Client MR. MICK WYKROTA				Project PROPOSED DRIVEWAY CONSTRUCTION 14 MIRROOL ST, NORTH NARRABEEN				Drawn S.Chen		Designed N.Wetzlar		Date DEC 2021	
Architect B PIOTROWSKI (M ARCH)				Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hnhconsult.com.au Web www.henryandhymas.com.au				Checked N.Wetzlar				Approved A.Francis		Scale @A3 1:100		Revision	
01 ISSUED FOR DA ONLY				This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.				Drawing number 21P54_DA_C102				Sheet 2 of 2		Revision		01	
REVISION				DRAWING TO BE PRINTED IN COLOUR				henry&hymas									
AMENDMENT																	
DRAWN																	
DESIGNED																	
DATE																	
28.10.2024																	
REVISION																	
AMENDMENT																	



1. ALL KERBS, GUTTERS, DISH DRAINS AND CROSSING TO BE CONSTRUCTED ON MINIMUM 75mm GRANULAR BASE COURSE COMPACTED TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 S 2.1.
2. EXPANSION JOINTS (EJ) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT PORTS OF CURVES AND ELSEWHERE AT 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATION IN KERBS.
3. WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN SLABS.
4. BROADMED FINISHED TO ALL RAMPED AND VEHICULAR CROSSINGS, ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOOR FINISHED.
5. IN THE REPLACEMENT OF KERBS
EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm FROM LIP OF GUTTER. UPON COMPLETION OF NEW KERBS, NEW BASE COURSE AND SURFACE IS TO BE LAID 900mm WIDE TO MATCH EXISTING MATERIALS AND THICKNESS.
EXISTING ALLOTMENT DRAINAGE PIPE ARE TO BE BUILT INTO NEW KERB WITH A 100mm DIA HOLE.
EXISTING KERBS ARE TO BE COMPLETELY REMOVED WHERE NEW KERBS ARE SHOWN.



<u>SURVEY</u> <u>INFORMATION</u> SURVEYED BY AC DATUM: A.H.D. ORIGIN OF LEVELS: PM 5240 RL 13.358										Client MR. MICK WYKROTA Architect B PIOTROWSKI (M ARCH) This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.										Suite 2 01 828 Pacific Highway Gordon NSW 2072 Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hhconsult.com.au Web www.henryandhymas.com.au 										Project PROPOSED DRIVEWAY CONSTRUCTION 14 MIRROOL ST, NORTH NARRABEEN Title KERB DETAILS AND TYPICAL SECTIONS										Drawn A.Fernandes Designed N.Wetzlar Date OCT 2024 Checked N.Wetzlar Approved A.Francis Scale @A1 1:100									
01 ISSUED FOR DA ONLY										AFe NW 28.10.2024										Revision																													
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IMPORTANT NOTE: TOP AND BOTTOM OF WALL LEVELS TO BE CONFIRMED PRIOR TO CONSTRUCTION. CIVIL ENGINEER TO INSPECT ALL RETAINING WALL PLACEMENTS, FOOTINGS, REINFORCEMENT AND BLOCKWORK PRIOR TO CONSTRUCTION

150 AND 200 SERIES BLOCK WALL

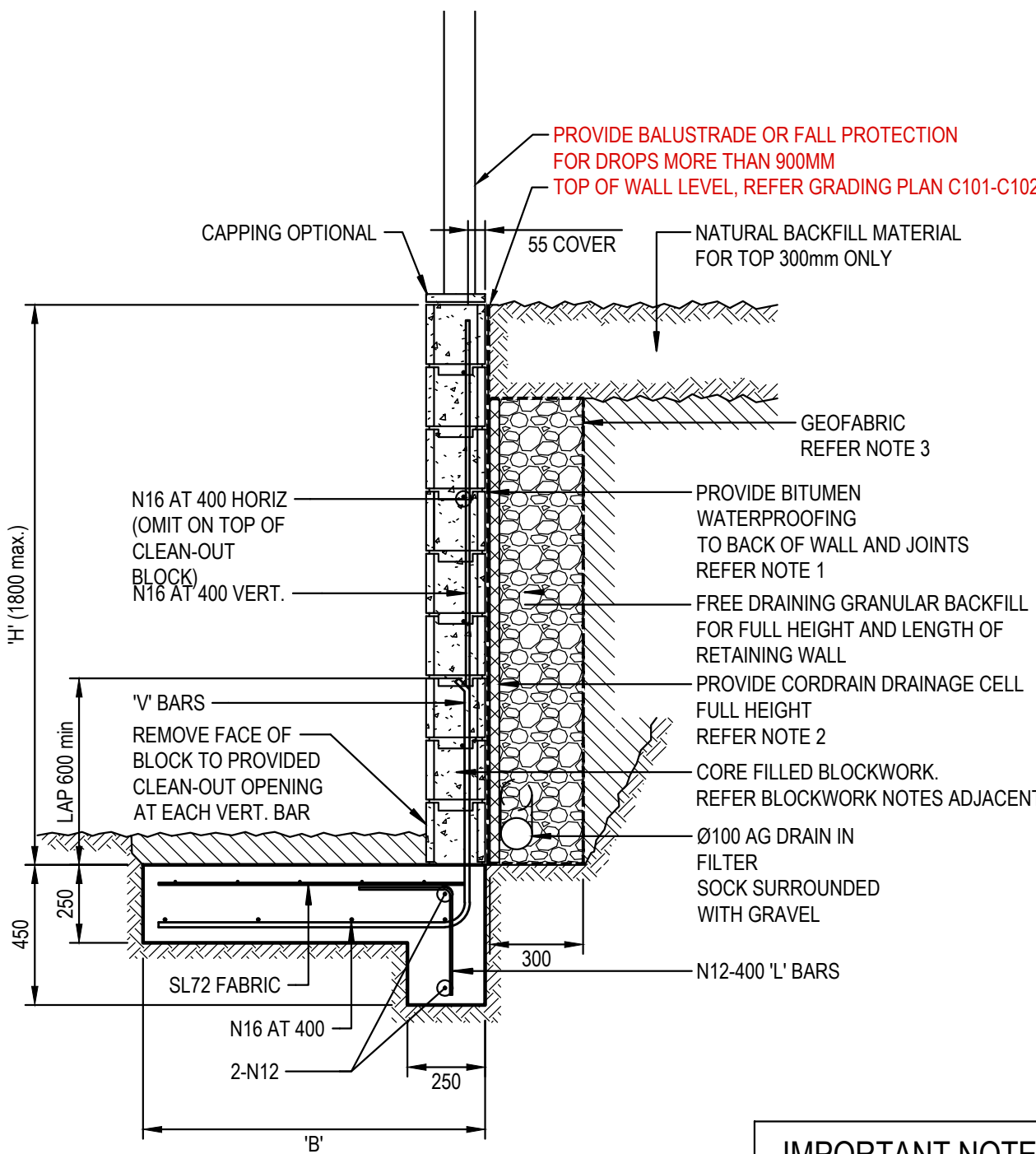
RETAINING WALL SCHEDULE						
TOTAL HEIGHT 'H' (mm)	HEIGHT OF BLOCK TYPE			'B' (mm)	'V' & 'X' BARS	'K' BARS
	150 SERIES	200 SERIES	300 SERIES			
800	-	800	-	900	N16 AT 400	-
1000	-	1000	-	1000	N16 AT 400	-
1200	-	1200	-	1100	N16 AT 400	-
1400	-	1400	-	1200	N16 AT 400	-
1600	-	1600	-	1300	N16 AT 400	-
1800	-	1800	-	1400	N20 AT 400	-

NOTES:

1. ENSURE REAR FACE OF RETAINING WALL IS FULLY WATERPROOFED. USE EMER-PROOF ECOFLEX OR APPROVED EQUIVALENT IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION. EG: 2 COATS min. APPLIED IN OPPOSITE DIRECTIONS AND ALLOWED TO CURE FOR 7 DAYS. (TO BE CONFIRMED BY THE ARCHITECT)
2. INSTALL FULL HEIGHT DRAINAGE CELL TO REAR OF WALL. USE NYLEX CORDRAIN/18 OR APPROVED EQUIVALENT. AT 1500 CENTRES.
3. PROVIDE GEOFABRIC MATERIAL AS SEPARATION BETWEEN GRANULAR BACKFILL (GRAVEL) AND NATURAL BACKFILL MATERIAL. USE BIDIM A24 OR APPROVED EQUIVALENT.
4. MINIMUM ALLOWABLE BEARING PRESSURE AT BASE = 150 kPa
5. DESIGN ABOVE DOES NOT ACCOMMODATE CRASH BARRIER. SUBMIT CRASH BARRIERS TO CIVIL ENGINEER TO FINALISE RETAINING WALL DESIGN.

MASONRY CONSTRUCTION:

- B1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3700 AND AS NOTED ON THE DRAWINGS.
- B2 BRICK AND BLOCK COMPRESSIVE STRENGTH (f_{uc}) SHALL BE 15 MPa MINIMUM UNO. STRENGTH GRADE SHALL BE CLEARLY INDICATED ON THE DELIVERY DOCKETS.
- B3 JOINT MORTAR SHALL BE OF CLASS M3 WITH 1:1:6 (CEMENT: LIME: SAND) PROPORTIONS BY VOLUME AND COMPLY WITH AS3700. MORTAR JOINTS SHALL BE 10 mm THICK AND HAVE A MAXIMUM TOOLED DEPTH OF 3 mm UNO.
- B4 NON-LOAD BEARING WALLS SHALL BE SEPARATED FROM THE LOAD-BEARING ELEMENTS BY 15 mm THICK 'CANETTE' OR EXPANDED POLYSTYRENE UNO AT BOTH HORIZONTAL AND VERTICAL FACES.
- NON-LOAD BEARING WALLS SHALL BE TIED TO THE SOFFITS OF BEAMS OR SLABS OVER BY USING 'MET 4-1' TIES (OR APPROVED EQUIVALENT), AT 800 mm MAX. CENTRES, UNO ON THE DRAWINGS, TO MANUFACTURER'S SPECIFICATIONS
- B5 WHERE CONCRETE SLABS BEAR ON UNREINFORCED MASONRY, INCLUDING CLAY BRICKS, RENDER THE BEARING SURFACE OF THE MASONRY WALL WITH 1:3 (CEMENT : SAND) MORTAR TO ACHIEVE A LEVEL SURFACE AND PLACE A PRE-GREASED METAL SLIP JOINT PROTECTED BY 0.2 mm POLYETHYLENE SHEET TAPED TO THE FORMWORK BEFORE PLACING CONCRETE. SPECIAL DETAILS SUCH AS WATER-PROOFING MAY APPLY FOR ROOF SLABS OR SIMILARLY EXPOSED ELEMENTS.



IMPORTANT NOTE: PROVIDE VEHICLE CRASH BARRIER FOR ALL VEHICULAR PATHS OF TRAVEL WITH DROPS ADJACENT MORE THAN 600MM. PROVIDE BARRIER SAMPLE TO CIVIL ENGINEER TO ASSESS STRUCTURAL DESIGN

150 OR 200 SERIES BLOCK WALL

RETAINING WALL SCHEDULE						
TOTAL HEIGHT 'H' (mm)	HEIGHT OF BLOCK TYPE			'B' (mm)	'V' & 'X' BARS	'K' BARS
	150 SERIES	200 SERIES	300 SERIES			
800	-	800	-	800	N16 AT 400	-
1000	-	1000	-	1200	N16 AT 400	-
1200	-	1200	-	1500	N16 AT 400	-
1400	-	1400	-	1700	N16 AT 400	-
1600	-	1600	-	1900	N16 AT 400	-
1800	-	1800	-	2200	N20 AT 400	-

NOTES:

1. ENSURE REAR FACE OF RETAINING WALL IS FULLY WATERPROOFED. USE EMER-PROOF ECOFLEX OE APPROVE EQUIVALENT IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS. EG: 2 COATS min. APPLIED IN OPPOSITE DIRECTIONS AND ALLOWED TO CURE FOR 7 DAYS.
2. INSTALL FULL HEIGHT DRAINAGE CELL TO REAR OF WALL. USE NYLEX CORDRAIN/18 OR APPROVED EQUIVALENTS.
3. PROVIDE GEOFABRIC MATERIAL AS SEPARATION BETWEEN GRANULAR BACKFILL (GRAVEL) AND NATURAL BACKFILL MATERIAL. USE BIDIM A24 OR APPROVED EQUIVALENT.
4. MINIMUM ALLOWABLE BEARING PRESSURE AT BASE = 150 kPa
5. DESIGN ABOVE DOES NOT ACCOMMODATE CRASH BARRIER. SUBMIT CRASH BARRIERS TO CIVIL ENGINEER TO FINALISE RETAINING WALL DESIGN.

B6 CONTROL JOINTS

1. CONTROL JOINTS SHALL BE PROVIDED IN MASONRY WALLS AS PER THE TABLE BELOW UNLESS CLOSER SPACINGS ARE SPECIFIED ELSEWHERE IN THE DOCUMENTATION.

MASONRY TYPE	LOCATION	JOINT SIZE (mm)	SPACING (m)
CONCRETE MASONRY	- EXTERNAL	10	7.0
	- EXTERNAL	10	5.0
	- (WITH OPENINGS > 900mm IN HEIGHT)	10	6.0
	- INTERNAL (FACE FINISHED)	10	6.0
LIGHT-WEIGHT MASONRY	- INTERNAL / EXTERNAL	10	5.0
	- INTERNAL / EXTERNAL	10	6.0
CLAY MASONRY	- INTERNAL / EXTERNAL	15	6.0 *
	- PARAPET WALLS	15	4.0

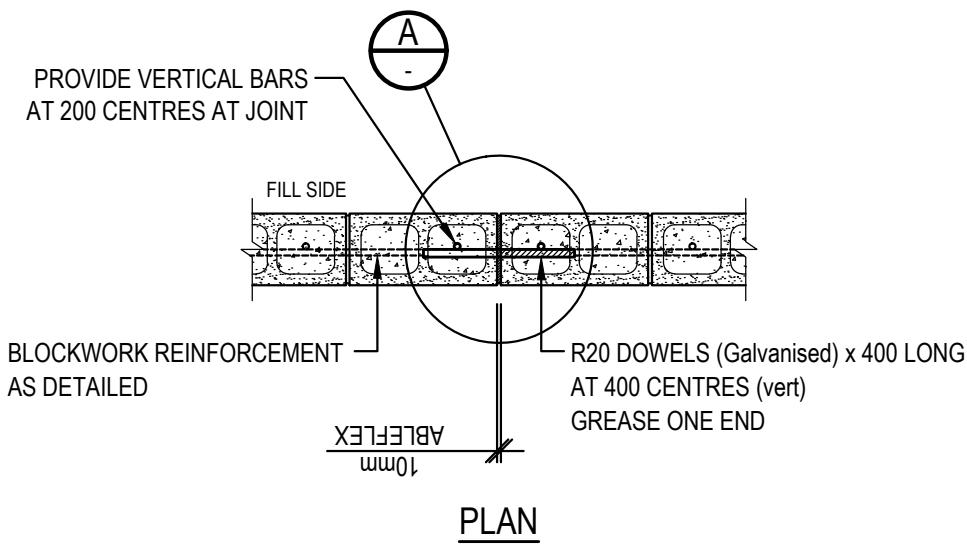
* - FOR REACTIVE 'CLASS M' SITES ONLY. REFER TABLE 4.3 OF AS3700:2011 FOR ARTICULATION JOINTS IN CLAY MASONRY.

2. CONTROL JOINTS SHALL BE PLACED AT HALF THE SPECIFIED SPACING FROM A CORNER. PROVIDE JOINTS TO MATCH JOINTS IN THE SUPPORTING STRUCTURE.
3. CONTROL JOINTS MUST BE KEPT FREE OF MORTAR AND SEALED WITH A POLYETHYLENE FOAM BACKING ROD SQUEEZED INTO THE GAP AND A GUNNED-IN MASTIC SEALANT. IF THE WALL IS TO BE FIRE-RATED, A FIRE-RATED SEALING SYSTEM WILL BE REQUIRED INSTEAD.

B7 BLOCKWORK

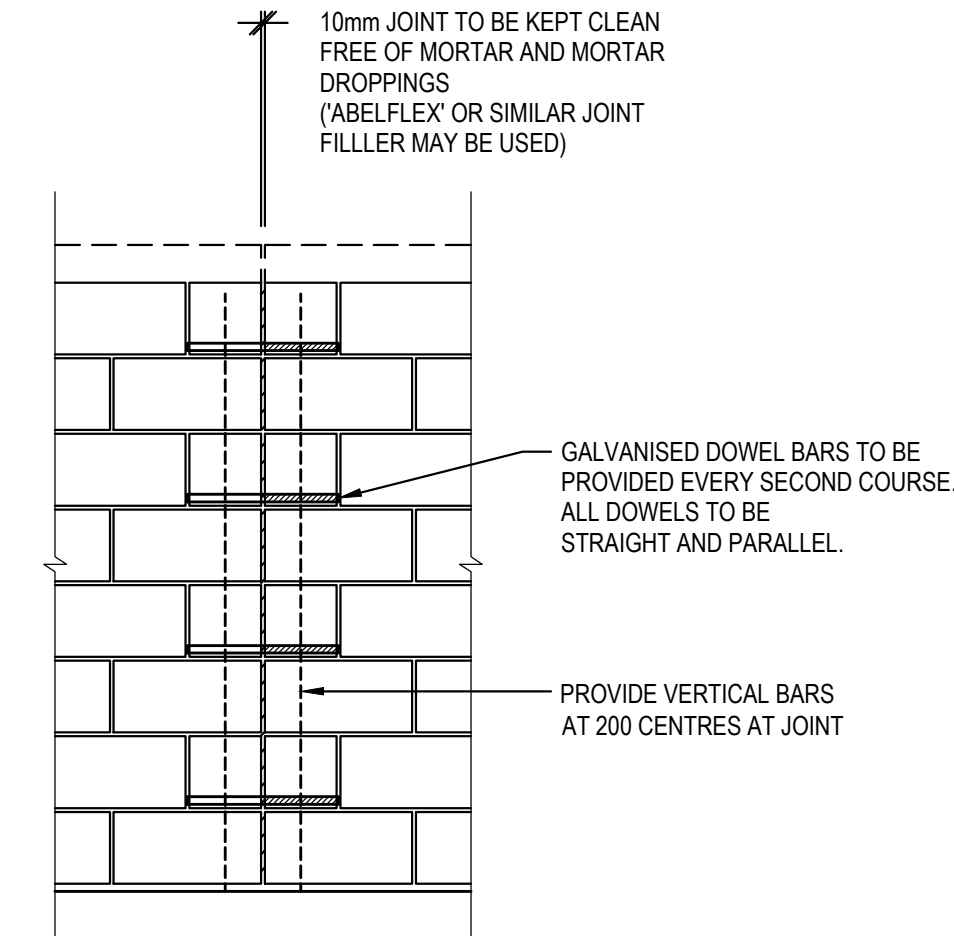
1. IN CORE-FILLED BLOCKWORK, EXCESS MORTAR PROTRUDING INTO THE CORES SHALL BE REMOVED BY RODDING AFTER EACH COURSE IS LAID. EVERY CORE FILLED WITH GROUT SHALL HAVE A CLEANOUT BLOCK IN THE BOTTOM COURSE.
2. REINFORCEMENT SHALL BE PLACED AND SECURELY TIED IN POSITION AS SHOWN ON THE DRAWINGS. STARTER BARS SHALL BE HELD IN PLACE BY TYING TO HORIZONTAL BARS AT CLEANOUT BLOCKS. PROVIDE COVER TO REINFORCEMENT AS SHOWN IN THE DETAILS.
3. CORE FILLING GROUT SHALL BE AS NOTED IN CONCRETE NOTES IN LIFTS NO MORE THAN 1200mm IN HEIGHT.

Element	Slump	Max. Agg. Size	Cement Type	Exposure Classifn.	Min. Conc. Grade (f _c) MPa U.N.O.	Conc. Cover (U.N.O.)
Core Filling Grout	230±30	10	GP	-	20	-

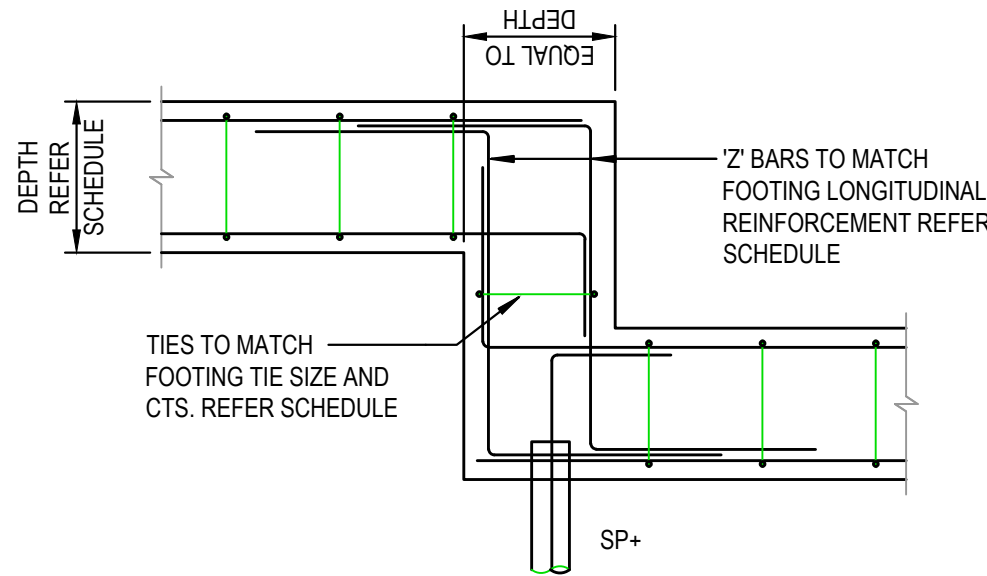


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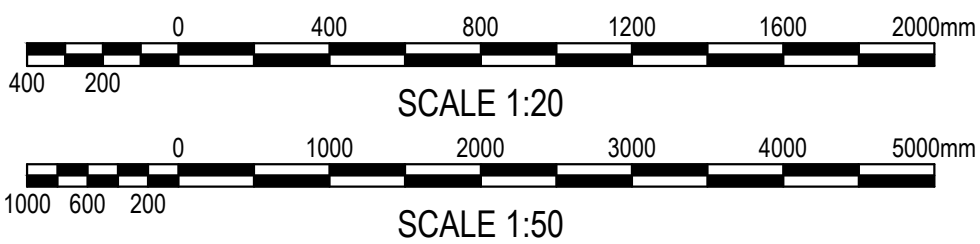
1. UNLESS OTHERWISE NOTED ON PLAN JOINTS SHALL BE LOCATED AT 8000 CENTRES max. AND 4000 FROM CORNERS.
2. PROVIDE SILICON SEALANT BOTH FACES IN ALL JOINTS. USE PARCHEM EMER-SEAL CR OR AN APPROVED EQUIVALENT.



TYPICAL BLOCKWORK VERTICAL EXPANSION JOINT



TYPICAL FOOTING STEP DETAIL
SCALE 1:20



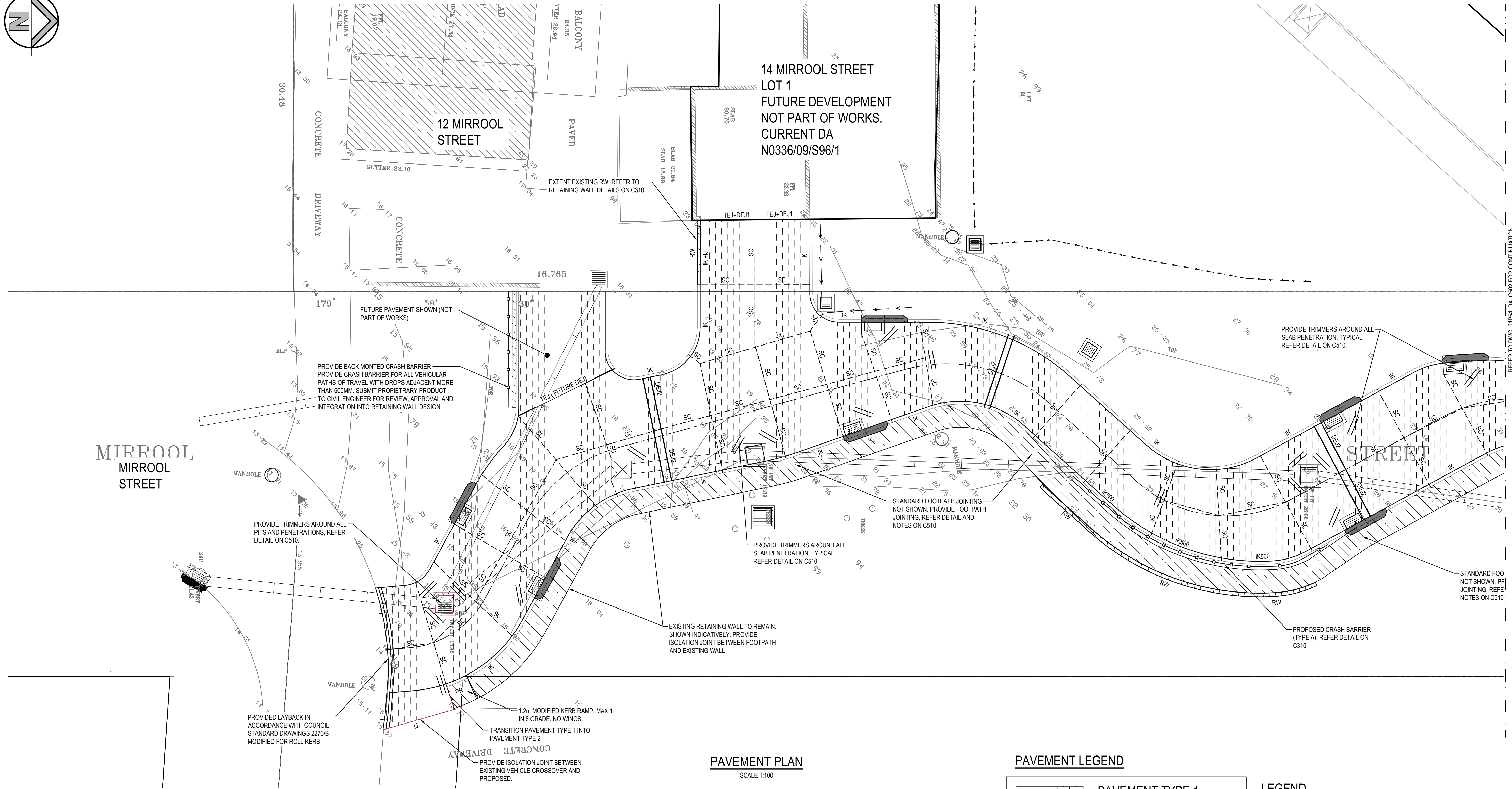
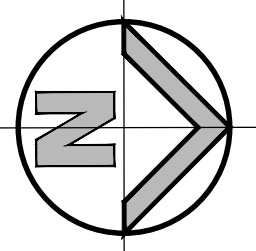
FOR DA ONLY

SURVEY INFORMATION				Client				Project				Drawn			
SURVEYED BY AC				MR. MICK WYKROTA				PROPOSED DRIVEWAY CONSTRUCTION				S.Chen			
DATUM: A.H.D.				B PIOTROWSKI (M ARCH)				14 MIRROOL ST, NORTH NARRABEEN				N.Wetzlar			
ORIGIN OF LEVELS: PM 5240 RL 13.358				This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.				Title				Drawing number			
01 ISSUED FOR DA ONLY				DRAWING TO BE PRINTED IN COLOUR				21P54_DA_C310				Revision			
REVISION				DATE				01							



FOR DA ONLY

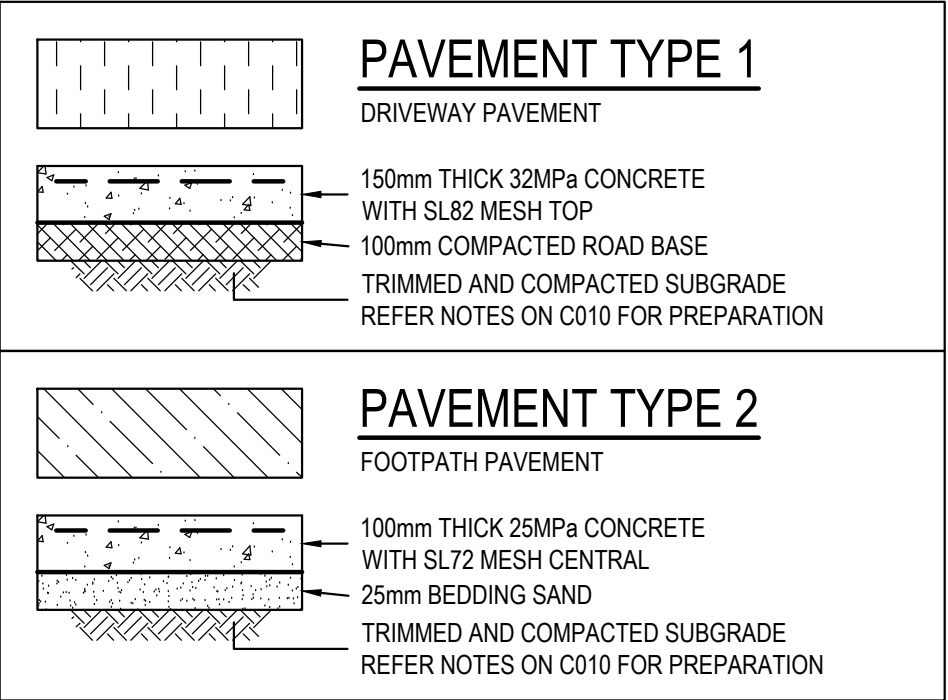
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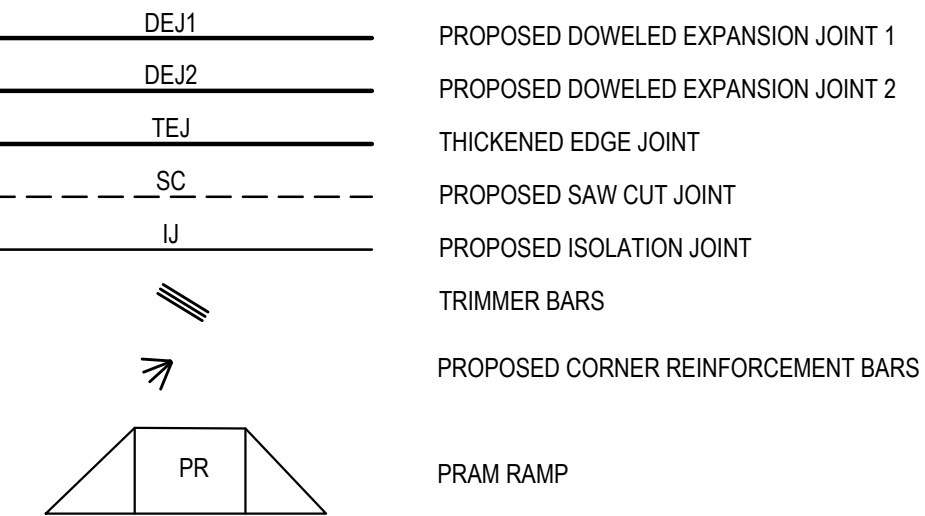
PAVEMENT PLAN
SCALE 1:100

- IMPORTANT NOTES:
1. LIGHT DUTY PAVEMENT AND FOOTPATH JOINTING NOT SHOWN. CONTRACTOR TO PROVIDE PROVISIONAL SUM FOR FOOTPATH JOINTING. REFER STANDARD DETAILS ON C510 OF INDICATE JOINT LAYOUTS.
 2. REFER TO STANDARD NOTES ON C010 AND PAVEMENT JOINTING AND NOTES ON C510.
 3. SAW CUTS AND JOINTING TO BE PROVIDED IN ACCORDANCE WITH STANDARD NOTES ON C510.
 4. TRIMMERS TO BE PROVIDED IN ACCORDANCE WITH STANDARD NOTES ON C510.
 5. ISOLATIONS JOINTS TO BE PROVIDED IN ACCORDANCE WITH STANDARD NOTES ON C510.
 6. REFER TO C510 FOR PAVEMENT JOINTING DETAILS AND NOTES.

PAVEMENT LEGEND



LEGEND



FOR DA ONLY

SURVEY
INFORMATION
SURVEYED BY AC
DATUM: A.H.D.
ORIGIN OF LEVELS: PM 5240 RL 13.358

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR DA ONLY	AFe	NW	28.10.2024					

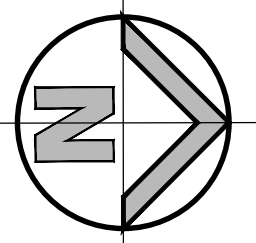
Client	MR. MICK WYKROTA
Architect	B PIOTROWSKI (M ARCH)
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DRAWING TO BE PRINTED IN COLOUR	



Project	PROPOSED DRIVEWAY CONSTRUCTION 14 MIRROOL ST, NORTH NARRABEEN
Title	PAVEMENT PLAN SHEET 1 OF 2

Drawn S.Chen	Designed N.Wetzlar	Date DEC 2021
Checked N.Wetzlar	Approved A.Francis	Scale (B/A) 1:100
Drawing number 21P54_DA_C501		Revision 01

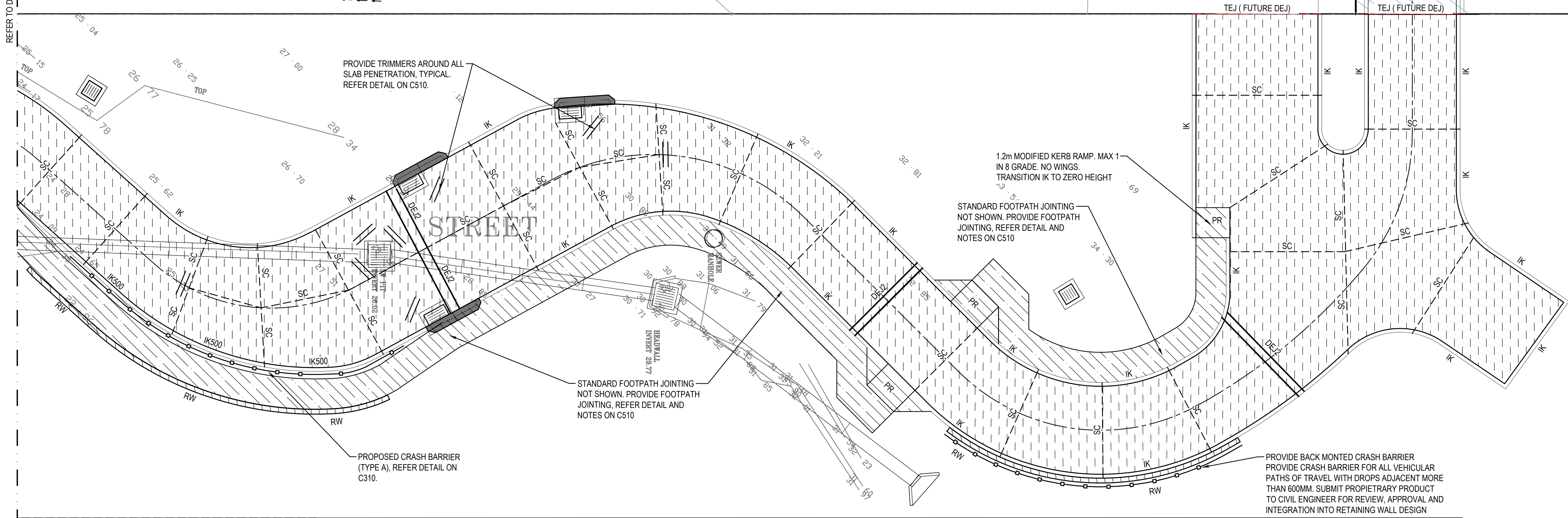


14 MIRROOL STREET
LOT 2
CURRENT DA N0336/09
UNDER CONSTRUCTION

14 MIRROOL STREET
LOT 3
FUTURE DEVELOPMENT
NOT PART OF WORKS

HATCH DENOTES FUTURE INDICATIVE
DRIVEWAY LAYOUT. NOT PART OF
APPLICATION OF WORKS

REFER TO DWG 21P54_DA_C501 FOR CONTINUATION



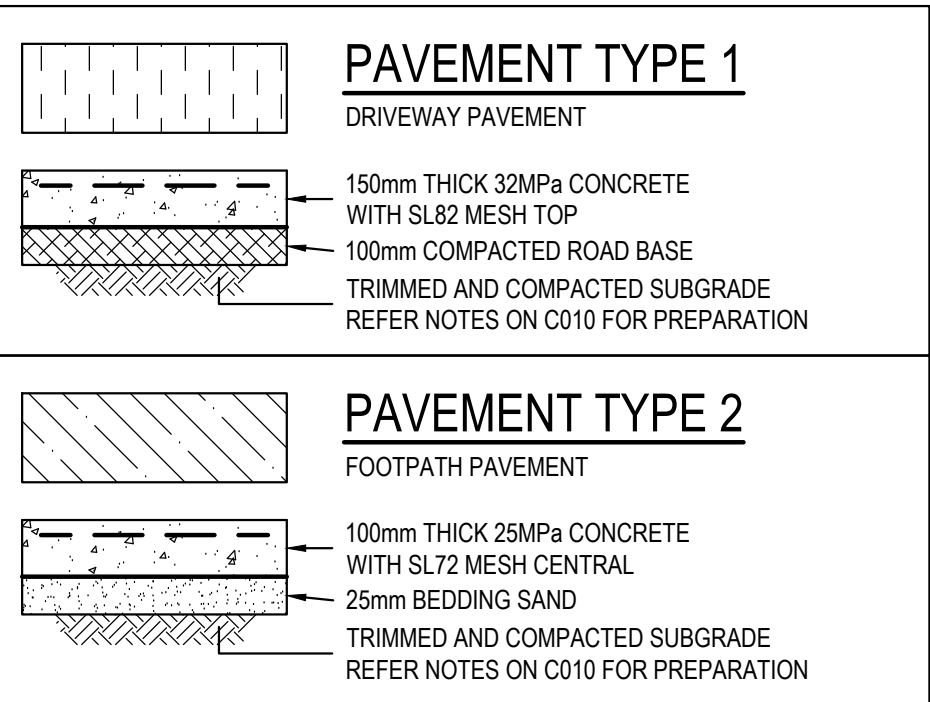
PAVEMENT PLAN

SCALE 1:100

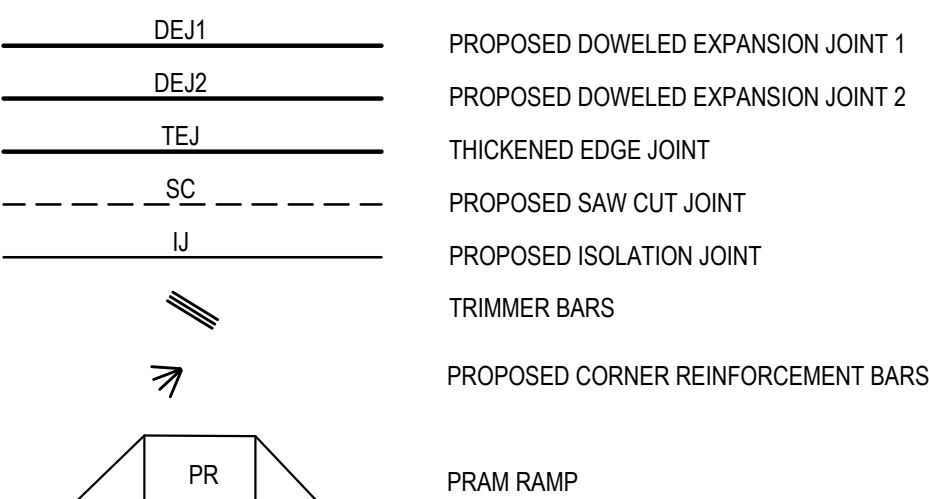
IMPORTANT NOTES:

1. LIGHT DUTY PAVEMENT AND FOOTPATH JOINTING NOT SHOWN. CONTRACTOR TO PROVIDE PROVISIONAL SUM FOR FOOTPATH JOINTING. REFER STANDARD DETAILS ON C510 OF INDICATE JOINT LAYOUTS.
2. REFER TO STANDARD NOTES ON C010 AND PAVEMENT JOINTING AND NOTES ON C510.
3. SAW CUTS AND JOINTING TO BE PROVIDED IN ACCORDANCE WITH STANDARD NOTES ON C510.
4. TRIMMERS TO BE PROVIDED IN ACCORDANCE WITH STANDARD NOTES ON C510.
5. ISOLATIONS JOINTS TO BE PROVIDED IN ACCORDANCE WITH STANDARD NOTES ON C510.
6. REFER TO C510 FOR PAVEMENT JOINTING DETAILS AND NOTES.

PAVEMENT LEGEND



LEGEND



FOR DA ONLY

**SURVEY
INFORMATION**
SURVEYED BY AC
DATUM: A.H.D.
ORIGIN OF LEVELS: PM 5240 RL 13.358

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR DA ONLY	AFe	NW	28.10.2024					

Client	MR. MICK WYKROTA
Architect	B PIOTROWSKI (M ARCH)
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DRAWING TO BE PRINTED IN COLOUR	



Project	PROPOSED DRIVEWAY CONSTRUCTION 14 MIRROOL ST, NORTH NARRABEEN
Title	PAVEMENT PLAN SHEET 2 OF 2

Drawn S.Chen	Designed N.Wetzlar	Date DEC 2021
Checked N.Wetzlar	Approved A.Francis	Scale @A3 1:100
Drawing number 21P54_DA_C502		Revision 01

RIGID CONCRETE PAVEMENT NOTES

- GENERAL:
- CARRY OUT ALL CONCRETE WORK IN ACCORDANCE WITH AS3600-1994 AND THE SPECIFICATION. KEEP A COPY OF THESE DOCUMENTS ON SITE.
 - VERIFY ALL SETTING OUT DIMENSIONS WITH THE ARCHITECT AND/OR THE SURVEYOR.
 - DO NOT OBTAIN DIMENSIONS BY SCALING THE DRAWINGS.
 - IN CASE OF DOUBT - ASK.

- CONCRETE:
- PLACE CONCRETE OF THE FOLLOWING CHARACTERISTIC COMPRESSIVE STRENGTH F_C AS DEFINED IN AS3600-2018 OR RTA FORM 609. ADD WATER REDUCING ADMIXTURE EQUAL TO WRDA.

	AS3600 F _C MPa AT 28 DAYS	SPECIFIED SLUMP	NOMINAL AGG. SIZE
ALL KERBS, PITS ETC.	25	80	20
VEHICULAR PAVING	REFER TO CONCRETE PAVEMENT NOTES BELOW		

- USE TYPE GP CEMENT IN ACCORDANCE WITH AS3972.
- ALL CONCRETE SHALL BE SUBJECT TO PROJECT CONTROL SAMPLE AND TESTING TO AS3600-2018.
- CONSOLIDATE BY VIBRATION. CURE SURFACES BY COVERING WITH PLASTIC AND KEEPING SURFACE MOIST FOR MIN 7 DAYS.

REINFORCEMENT:

- FIX REINFORCEMENT AS SHOWN ON DRAWINGS. THE TYPE AND GRADE IS INDICATED BY A SYMBOL AS SHOWN BELOW.
 - N: HOT ROLLED DEFORMED BAR, GRADE 500
 - R: PLAIN ROLLED BAR, GRADE 250
 - SL OR RL: HARD DRAWN WIRE FABRIC SQUARE OR RECTANGULAR
- PROVIDE BAR SUPPORTS OR SPACERS TO GIVE THE FOLLOWING CONCRETE COVER TO ALL REINFORCEMENT UNLESS NOTED OTHERWISE.
 - FOOTINGS: 75 BOTTOM, 65 TOP AND SIDES 40
 - SLABS: 40 WHEN EXPOSED TO WEATHER.
 - DRAINAGE STRUCTURES: 30 WHEN CAST IN FORMS BUT LATER EXPOSED TO WEATHER OR GROUND. 65 WHEN CAST DIRECTLY IN CONTACT WITH GROUND.
- FOR ALL PITS LOCATED IN CONCRETE PROVIDE 2N16 TRIMMER BARS AROUND 1200mm LONG AROUND ALL CORNERS OF PITS UNLESS SHOWN OTHERWISE.

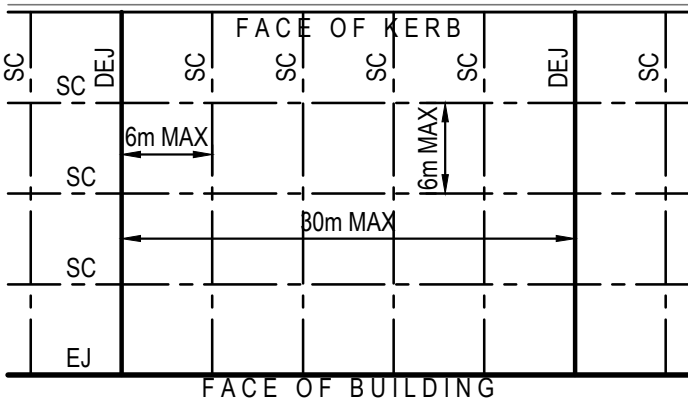
CONCRETE VEHICULAR PAVEMENT NOTES:

- CONCRETE MIX PARAMETERS:
 - MAXIMUM AGGREGATE SIZE 20mm
 - FLEXURAL STRENGTH AT 28 DAYS = 3.5 MPa (F_C=32MPa)
 - FLEXURAL STRENGTH AT 90 DAYS = 3.85 MPa
 - MAXIMUM WATER / CEMENT RATIO = 0.45
 - MAXIMUM SHRINKAGE LIMIT = 600 MICROSTRAINS (AS1012.13) AFTER 8 WEEKS OF DRYING
 - MINIMUM CEMENT CONTENT = 300kg/m³
 - CEMENT TO BE TYPE GP (NORMAL CEMENT) TO AS 3972
 - SLUMP = 50mm
- SAWN JOINTS ARE TO BE CUT BETWEEN 2-4 HOURS AFTER CONCRETE POUR USING SOFF CUT SAW TO AVOID DAMAGING THE SURFACE DURING SAWCUT.
- FOR EXPANSION JOINTS, 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. THE BUILDER SHALL PROVIDE CONSTANT SUPERVISION OF CONCRETE POURS EXECUTED BY SUB-CONTRACTORS TO ENSURE:
 - REINFORCEMENT DISPLACED OFF CHAIRS ARE REPLACED PRIOR TO CONCRETE PLACEMENT.
 - NO SITE WATER IS ADDED TO CONCRETE OR CONCRETE IN WAITING TRUCKS. (REQUIRED SLUMP FOR PLACEMENT SHALL BE ACHIEVED USING SUPER PLASTICISER).
 - ALL CONCRETE IS FULLY COMPACTED USING A POKER VIBRATOR.
 - NO POURS ARE EXECUTED WHEN THE AMBIENT TEMPERATURE EQUALS OR EXCEEDS 35°C.
 - POURS ARE PROTECTED FROM ANY HOT DRYING WINDS.
- REFER TO COMPACTION NOTES FOR PREPARATION OF SUB-BASE AND SUB-GRADE.
- CURING: THE FINISHED CONCRETE SHALL BE CURED FOR A MINIMUM OF SEVEN DAYS USING AT LEAST ONE OF THE FOLLOWING METHODS:
 - PONDING OR CONTINUOUS SPRINKLING WITH WATER.
 - THE USE OF AN ABSORBENT COVER KEPT CONSTANTLY WET. (WHEN THE AMBIENT TEMPERATURE EXCEEDS 32°C CURING MAY ONLY BE ACHIEVED USING THE ABOVE 2 METHODS.
 - THE USE OF AN IMPERMEABLE SHEET MEMBRANE OVER A MOISTENED SURFACE. (THE MEMBRANE SHALL BE FIXED AND LAPPED SO THAT NO AIR CIRCULATION CAN OCCUR AT THE CONCRETE SURFACE).
 - THE USE OF A CURING COMPOUND COMPLYING WITH AS3799, APPLIED UNIFORMLY IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS, AND WHEN DRY THE COAT SHOULD BE CONTINUOUS, FLEXIBLE AND WITHOUT VISIBLE BREAKS OR PIN HOLES FOR SEVEN DAYS.
- BROOM CONCRETE FINISH UNLESS SPECIFIED OTHERWISE TO ARCHITECTS REQUIREMENTS.

JOINTING NOTES

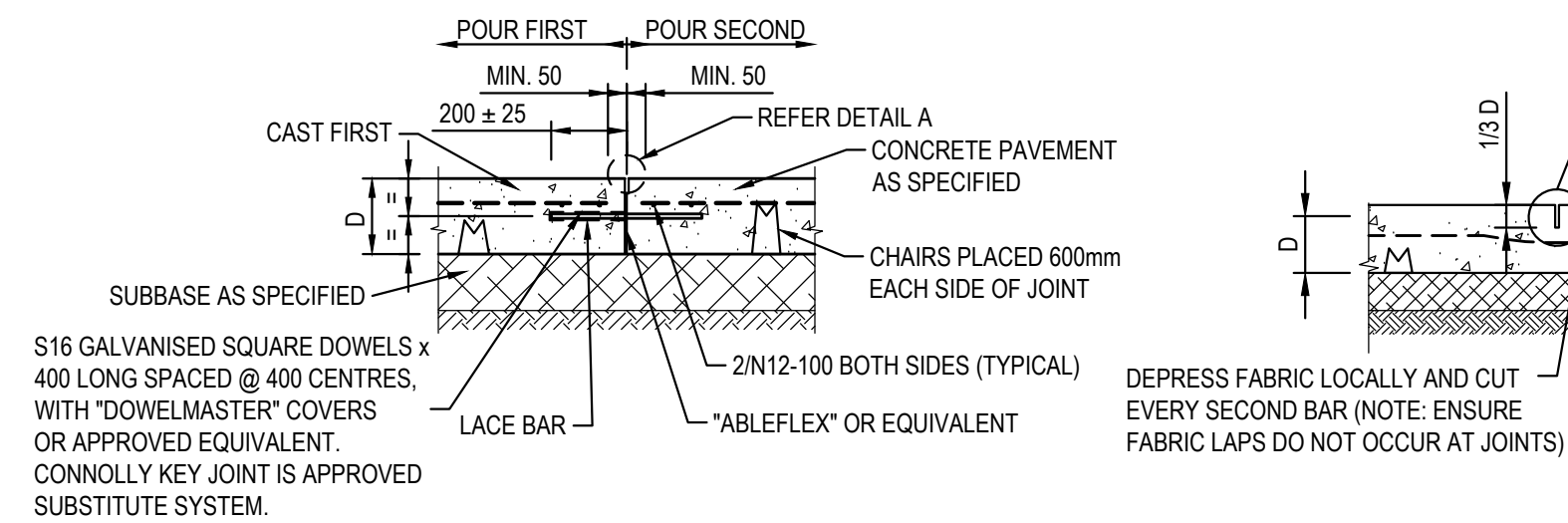
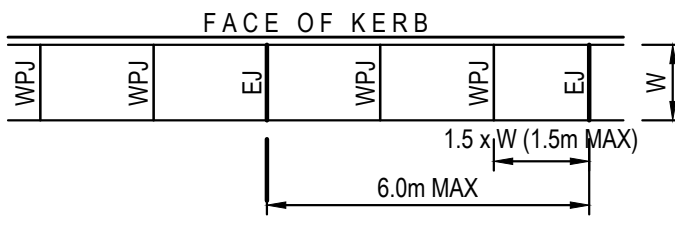
VEHICULAR PAVEMENT JOINTING

- ALL VEHICULAR PAVEMENTS TO BE JOINTED AS SHOWN ON DRAWINGS.
- KEYED CONSTRUCTION JOINTS SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 6m CENTRES.
- 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.
- PROVIDE 10mm WIDE FULL DEPTH EXPANSION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVERS.
- VEHICULAR PAVEMENT JOINTING AS FOLLOWS.



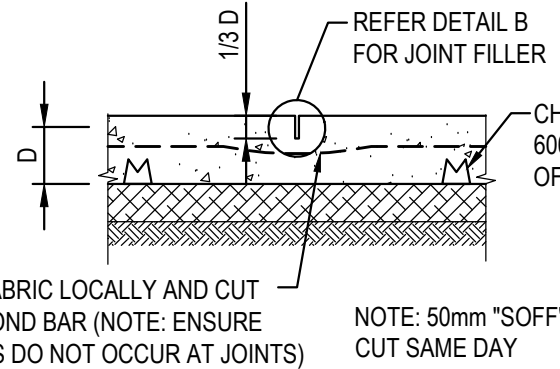
PEDESTRIAN FOOTPATH JOINTING

- EXPANSION JOINTS ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 6m CENTRES.
- WEAKENED PLANE JOINTS ARE TO BE LOCATED AT A MAX 1.5 x WIDTH OF THE PAVEMENT.
- WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND / OR ADJACENT PAVEMENT JOINTS.
- ALL PEDESTRIAN FOOTPATH JOINTINGS AS FOLLOWS U.N.O.



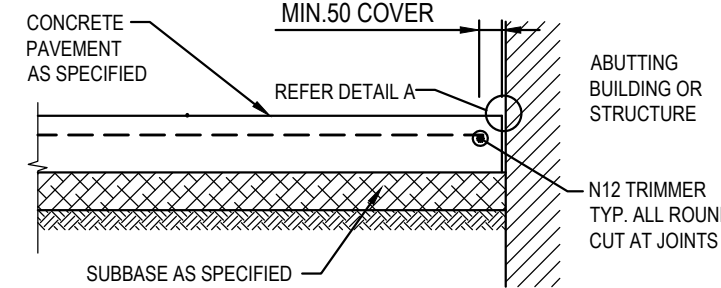
DOWELED EXPANSION JOINT (DEJ1)

SCALE 1:20



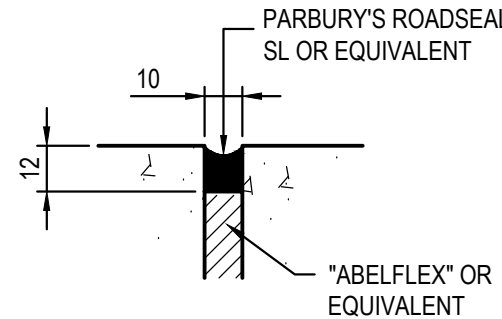
SAWN CUT JOINT (SC)

SCALE 1:20

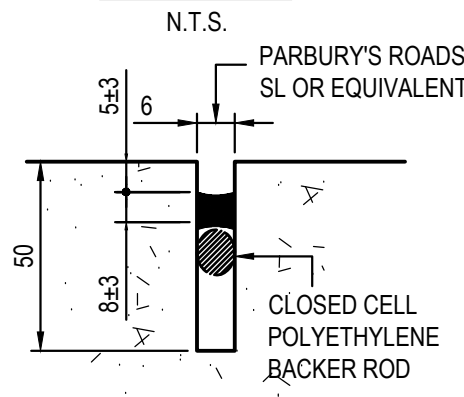


ISOLATION JOINT (IJ)

SCALE 1:20

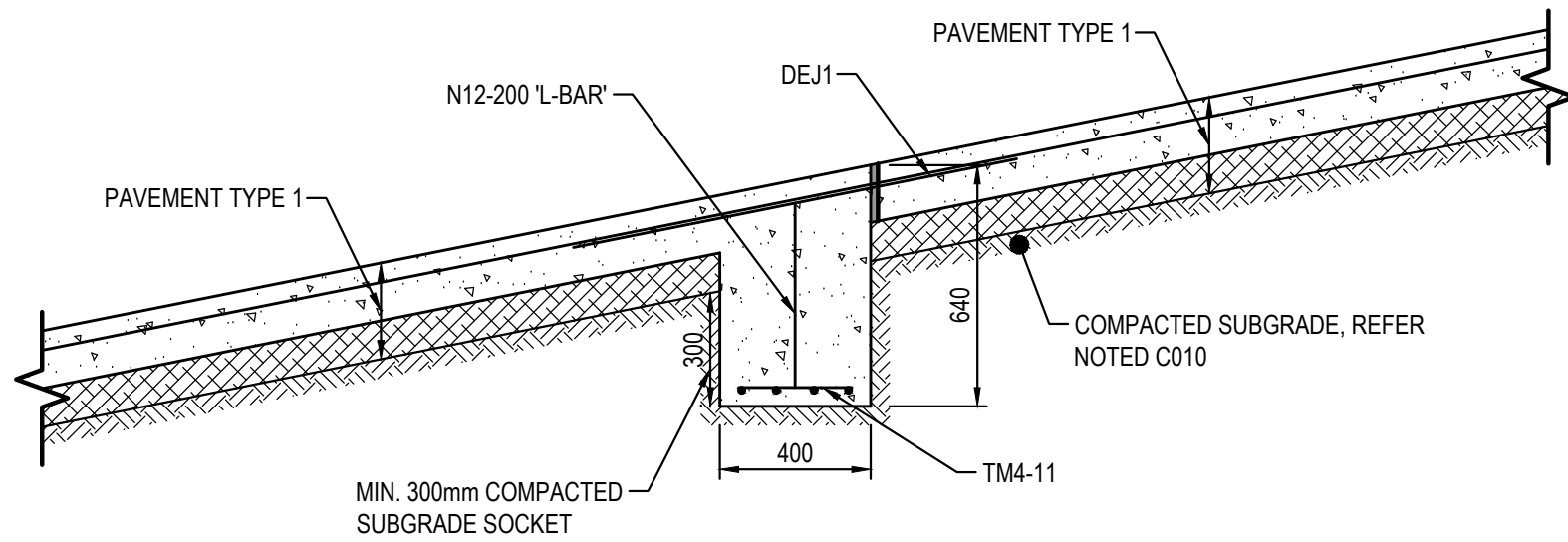


DETAIL A



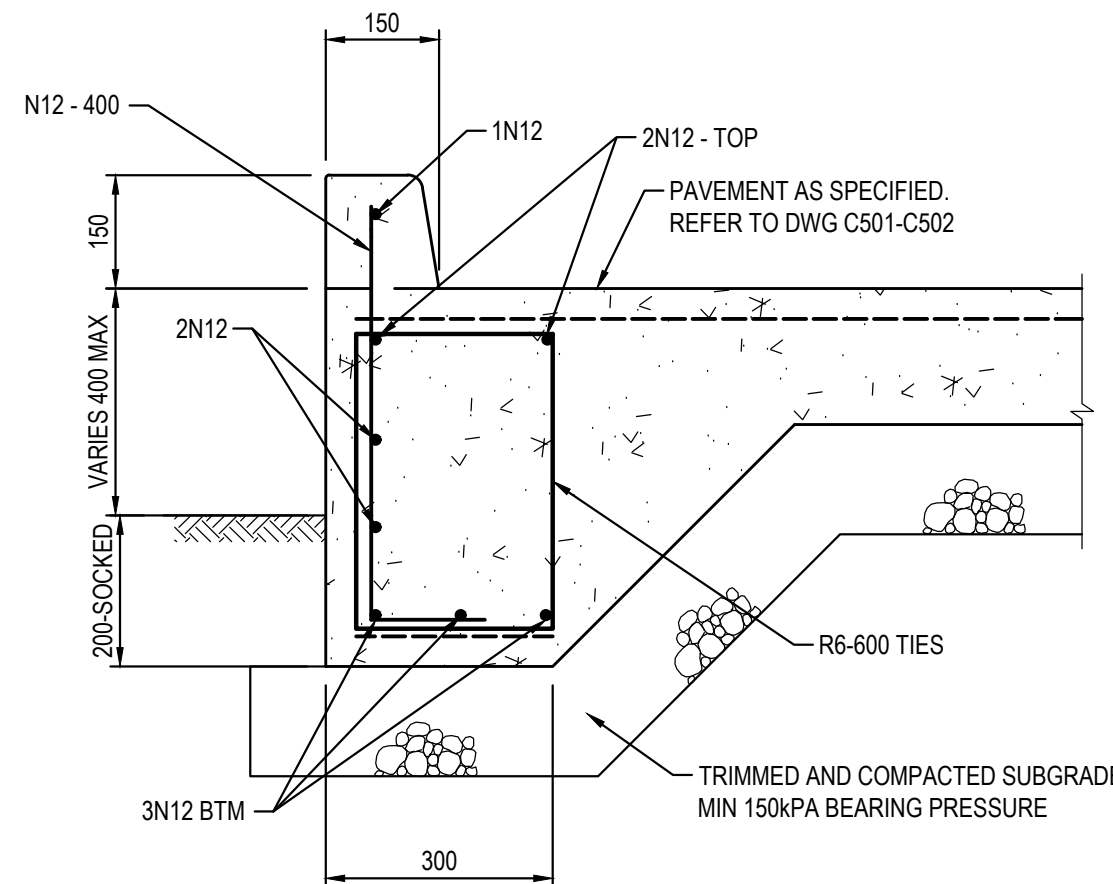
DETAIL B

N.T.S.



DOWELED EXPANSION JOINT (DEJ2)

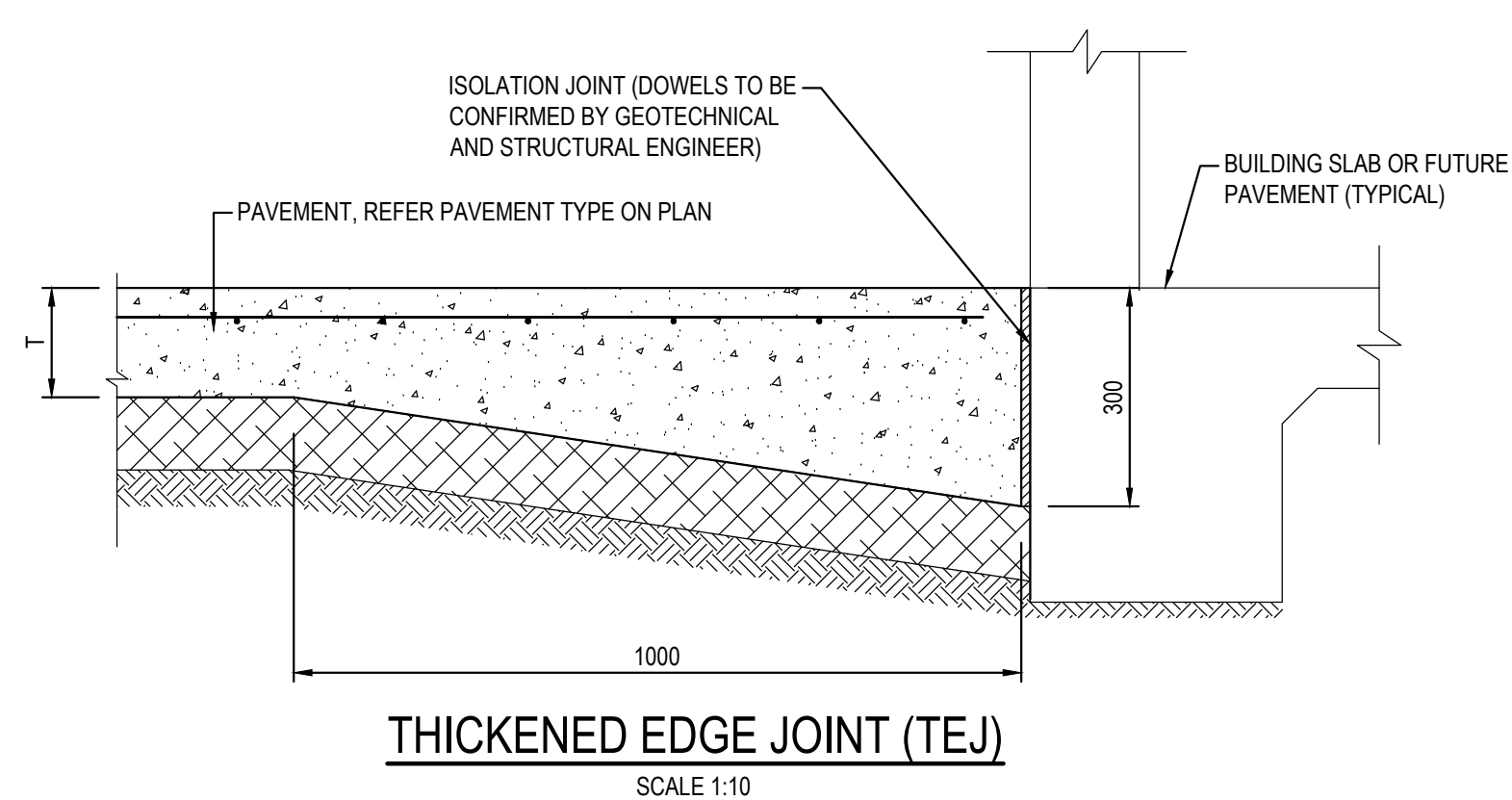
SCALE 1:20



INTEGRAL KERB (IK) - UNSUPPORTED EDGE (MAX 400MM)

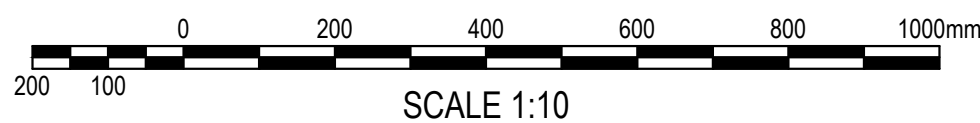
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APPLY DETAIL WHERE SITE CONDITIONS DO NOT ALLOW FOR SUBGRADE TO BE FINISHED AT TOP OF INTEGRAL KERB LEVEL. MAX 400MM FROM TOP OF KERB TO PREPARED SUBGRADE.

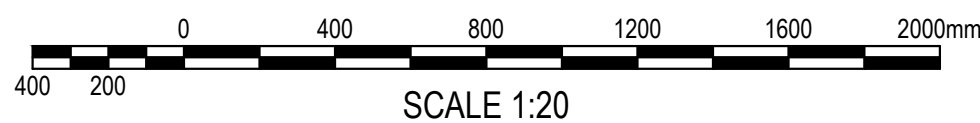


THICKENED EDGE JOINT (TEJ)

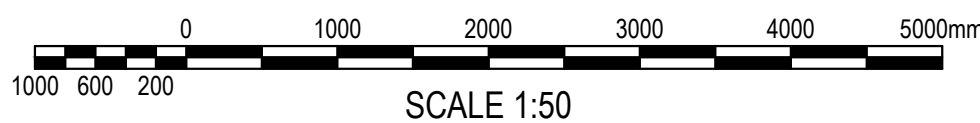
SCALE 1:10



SCALE 1:10



SCALE 1:20



SCALE 1:50

SURVEY INFORMATION

SURVEYED BY AC
DATUM: A.H.D.
ORIGIN OF LEVELS: PM 5240 RL 13.358

REVISION	AMENDMENT	DATE	DESIGNED	DRAWN	DATE	DESIGNED	DRAWN	DATE
01	ISSUED FOR DA ONLY	28.10.2024	NW	AFa				

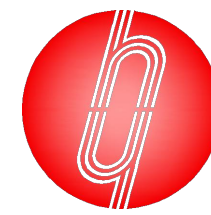
Client
MR. MICK WYKROTA
Architect
B PIOTROWSKI (M ARCH)

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DRAWING TO BE PRINTED IN COLOUR



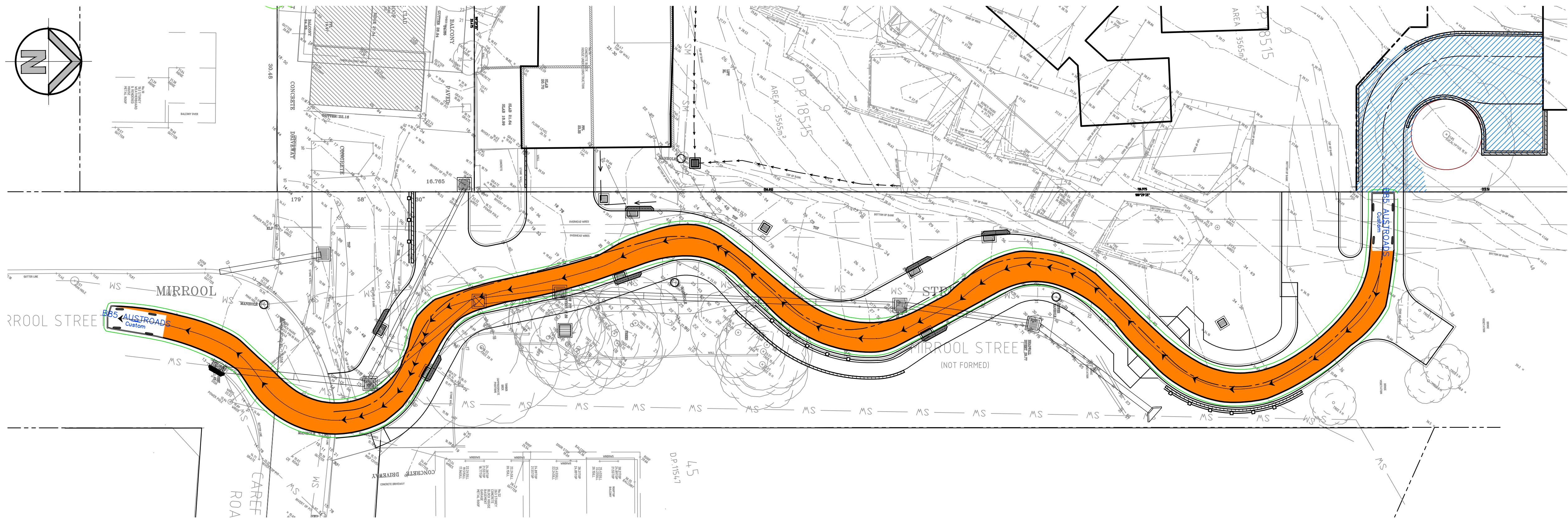
Project
**PROPOSED DRIVEWAY CONSTRUCTION
14 MIRROOL ST, NORTH NARRABEEN**

Title
PAVEMENT DETAILS

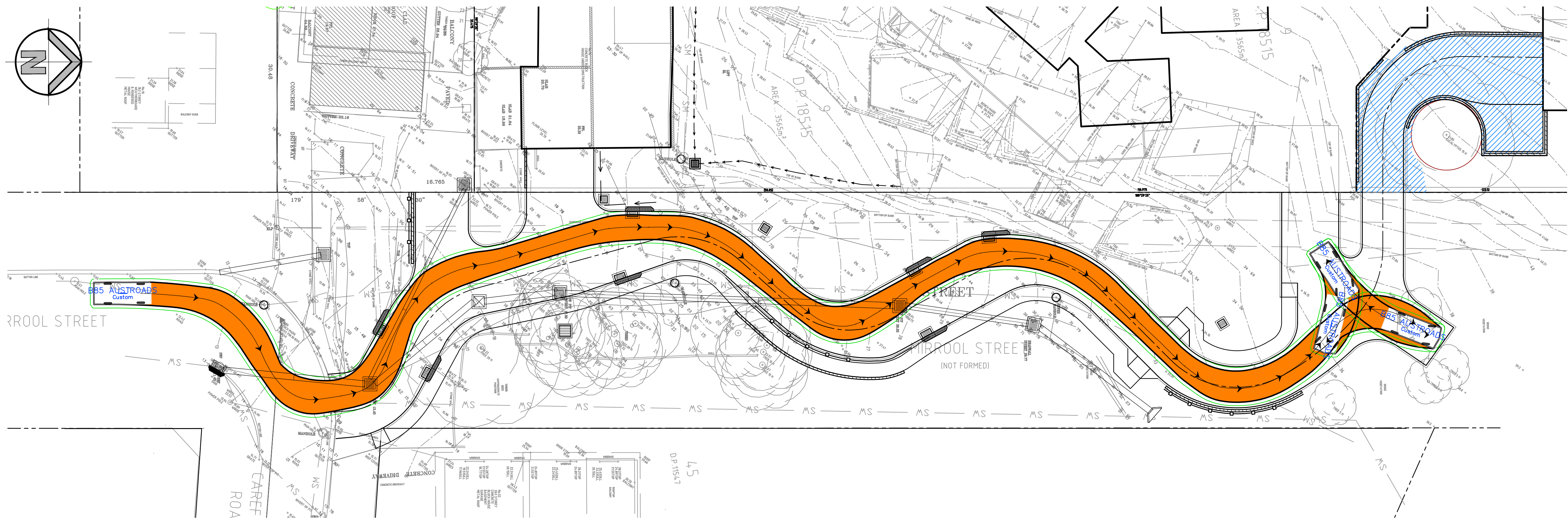
Drawn
S.Chen
Designed
N.Wetzlar
Approved
A.Francis
Date
DEC 2021
Scale (B/A)
1:100

Drawing number
21P54_DA_C510
Revision
01

FOR DA ONLY

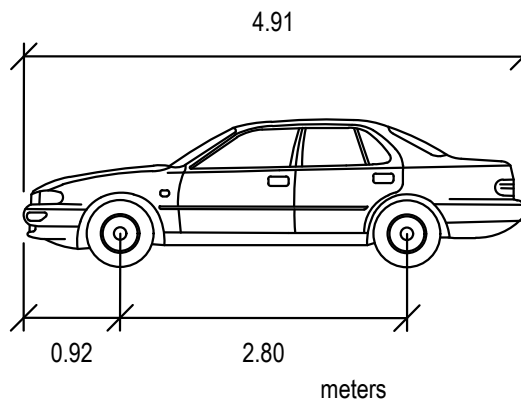


VEHICLE TURNING PATH - EXIT
SCALE 1:200



VEHICLE TURNING PATH - ENTRANCE
SCALE 1:200

LEGEND



Width	: 1.87
Track	: 1.77
Lock to Lock Time	: 6.0
Steering Angle	: 34.1

VEHICLE - B85
N.T.S

FOR DA ONLY

SURVEY
INFORMATION
SURVEYED BY AC
DATUM: A.H.D.
ORIGIN OF LEVELS: PM 5240 RL 13.358

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Project
**PROPOSED DRIVEWAY CONSTRUCTION
14 MIRROOL ST, NORTH NARRABEEN**
Title
VEHICLE TURNING PATHS

Drawn A.Fernandes	Designed N.Wetzlar	Date OCT 2024
Checked N.Wetzlar	Approved A.Francis	Scale @A3 1:200
Drawing number 21P54_DA_C600		Revision 01