# GREGORY HILLS TOWN CENTRE STAGE 2 DEVELOPMENT APPLICATION







LOCALITY PLAN NTS

SCHED	ULE OF DRAWINGS
DRAWING No.	DESCRIPTION
210113-TC2-DA-000	TITLE SHEET, DRAWING LIST & LOCALITY PLAN
210113-TC2-DA-001	NOTES AND LEGEND SHEET
210113-TC2-DA-010	GENERAL ARRANGEMENT PLAN
210113-TC2-DA-020	EROSION & SEDIMENT CONTROL AND DEMOLITION PLAN
210113-TC2-DA-021	SEDIMENT AND EROSION CONTROL DETAILS
210113-TC2-DA-030	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 1
210113-TC2-DA-031	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 2
210113-TC2-DA-032	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 3
210113-TC2-DA-033	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 4
210113-TC2-DA-050	PAVEMENT PLAN
210113-TC2-DA-060	SIGNAGE AND LINEMARKING PLAN
210113-TC2-DA-080	TURNING PATH PLAN SHEET 1
210113-TC2-DA-081	TURNING PATH PLAN SHEET 2
210113-TC2-DA-082	TURNING PATH PLAN SHEET 3
210113-TC2-DA-090	CATCHMENT PLAN

ROSION	AND	SEDIMENT	CONTROL
		NOTES	

## GENERAL INSTRUCTIONS

- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONTROL OF EROSION AND SEDIMENTATION TO THE SATISFACTION OF COUNCIL. NSW OFFICE OF WATER, OFFICE OF ENVIRONMENT AND HERITAGE, THE EROSION AND SEDIMENTATION CONTROLS SHOWN ON THE DRAWINGS SHALL ONLY BE USED AS A GUIDE BY THE CONTRACTOR, AND SHALL REPRESENT THE MINIMUM REQUIREMENT ONLY.
- . THE CONTRACTOR SHALL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS DOCUMENTED OR AS OTHERWISE DIRECTED BY THE SUPERINTENDENT ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH
- a. LOCAL AUTHORITY REQUIREMENTS Ь. EPA REQUIREMENTS c. NSW DEPARTMENT OF HOUSING MANUAL "MANAGING URBAN
- STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH 2004.
- MAINTAIN THE EROSION CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
- WHEN STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SEDIMENT FENCES ARE ERECTED AROUND PITS.
- 5. CONTRACTOR IS TO ENSURE ALL EROSION & SEDIMENT CONTROL DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED. PARTICULARLY FOLLOWING STORM EVENTS.
- LAND DISTURBANCE
- 6. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
- a. INSTALL A SEDIMENT FENCE ALONG THE BOUNDARIES AS SHOWN ON PLAN. REFER DETAIL.
- b. CONSTRUCT STABILISED CONSTRUCTION ENTRANCE TO LOCATION AS DETERMINED BY SUPERINTENDENT/ENGINEER. REFER DETAIL.
- c. INSTALL SEDIMENT BASIN AS SHOWN ON PLAN (D) INSTALL SEDIMENT TRAPS AS SHOWN ON PLAN.
- d. UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE, PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

#### **EROSION CONTROL**

- DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
- FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.

## SEDIMENT CONTROL

- 9. 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
- 10. 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.
- 11. 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.
- 12. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.
- 13. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
- 14. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:

#### OTHER MATTERS

- a. PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS
- INSTALLED OUTSIDE THE DRIP LINE
- b. ENSURING THAT NOTHING IS NAILED TO THEM
- PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS.
- (I) ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE AND THE TRUNK, WHICH EVER IS THE GREATER
- (II) A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS PLACED UNDER ALL FILL LAYERS OF MORE THAN 300 MILLIMETRES DEPTH (III) CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.

SURVEY	NOTES
	110120

#### THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY LEAN LACKENBY & HAYWARD , BEING REGISTERED SURVEYORS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. CARDNO DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT CARDNO THE FOLLOWING NOTES HAVE BEEN TAKEN DIRECTLY FROM THE ORIGINAL SURVEY DOCUMENTS.

## SURVEY LEGEND

ELECTRICITY (AERIAL), POWER POLE, POWER POLE & LIGHT, LIGHT POLE ELECTRICITY (UNDERGROUND), PILLAR, PIT	PP  PP&L  ELP    −  −  Eu  EP
TELECOMMUNICATION CABLE (UNDERGROUND), PIT, ACCESS PIT, PILLAR, EQUIPMENT HOUSING TELECOMMUNICATION CABLE (AERIAL), POLE	T TEL O
SHARED TELECOMMUNICATION/ELECTRICITY	TE
WATER MAIN, METER, HYDRANT, STOP VALVE	
GAS MAIN, METER, MARKER, VALVE	G
SEWER MAIN, ACCESS CHAMBER, INSPECTION POINT, LAMP HOLE	$\begin{array}{c} \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $
DRAINAGE PIPE KERB INLET PIT, SEALED PIT, GRATED PIT, DOWN PIPE, GUTTER OVERFLOW	S₩ PIT ↓↓↓↓ ◎ DP
SIGN (GENERAL), TRAFFIC LIGHT, TRAFFIC LIGHT CONTROL BOX	SIGN
FENCE	/ / /
WATERCOURSE/TABLE DRAIN	
EMBANKMENT/BATTER	
CONTOURS	58.6

# BULK EARTHWORKS NOTES

ORIGIN OF LEVELS: REFER SURVEY NOTES

LEVELS, TOP OF KERB LEVEL

- STRIP ALL TOPSOIL/ORGANIC MATERIAL FROM CONSTRUCTION AREA AND REMOVE FROM SITE OR STOCK PILE AS DIRECTED BY SUPERINTENDENT.
- EXCAVATED MATERIAL TO BE USED AS STRUCTURAL FILL PROVIDED THE PLACEMENT MOISTURE CONTENT OF THE MATERIAL IS +/- 2% OF THE OPTIMUM MOISTURE CONTENT.
- . COMPACT FILL AREAS AND SUBGRADE TO NOT LESS THAN: LOCATION STANDARD DRY DENSITY (AS 1289 E 5.1.1.)
- UNDER BUILDING SLABS ON GROUND 98% UNDER ROADS AND CARPARKS 98%
- LANDSCAPED AREAS UNLESS NOTED OTHERWISE 98%
- 5. FOR NON COHESIVE MATERIAL, COMPACT TO 75% DENSITY INDEX.
- BEFORE PLACING FILL, PROOF ROLL EXPOSED SUBGRADE WITH AN 8 TONNE (MIN) DEADWEIGHT SMOOTH DRUM VIBRATORY ROLLER TO DETECT THEN REMOVE SOFT SPOTS (AREAS WITH MORE THAN 2mm MOVEMENT UNDER ROLLER).
- FREQUENCY OF COMPACTION TESTING SHALL BE NOT LESS THAN :-(A) 1 TEST PER 200m<sup>3</sup> OF FILL PLACED PER 300 LAYER OF FILL. (B) 3 TESTS PER VISIT
- (C) 1 TEST PER 1000m<sup>2</sup> OF EXPOSED SUBGRADE "LEVEL 1" TESTING SHALL BE TESTING IN ACCORDANCE WITH AS 3798 (1996).
- FILLING TO BE PLACED IN MAXIMUM 150mm LOOSE LAYERS AND COMPACTED AS SPECIFIED
- NO FILLING SHALL TAKE PLACE TO EXPOSED SUBGRADE UNTIL THE AREA HAS BEEN PROOF ROLLED IN THE PRESENCE OF CARDNO AND APPROVAL GIVEN IN WRITING THAT FILLING CAN PROCEED.

- SUPPORT TYPE. THEIR SOCKETS. HEIGHT

  - APPROVAL BY CARDNO.

  - FURTHER DIRECTIONS.

03	16.10.17	RE-ISSUED FOR DEVELOPMENT APPLICATION	MDH	MKH	
02	17.02.17	ISSUED FOR DEVELOPMENT APPLICATION	GC	MKH	
01	30.01.17	ISSUED FOR CLIENT REVIEW	MDH	MKH	
Rev.	Date	Description	Des.	Verif.	Appd.

# STORMWATER DRAINAGE NOTES

#### STORMWATER DESIGN CRITERIA: (A) AVERAGE RECURRENCE INTERVAL:

10 YEAR ARI ROOFED AREAS TO SURCHARGE PIT 10 YEAR ARI EXTERNAL PAVEMENTS

PIPES 375 DIA. AND LARGER TO BE REINFORCED CONCRETE CLASS '2' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS, U.N.O.

PIPES 300 DIA AND LESS SHALL BE DWV GRADE (CLASS SN8) uPVC WITH SOLVENT WELDED JOINTS.

4. EQUIVALENT STRENGTH FRC PIPES MAY BE USED.

. ALL PIPES ARE TO BE UNIFORMLY SUPPORTED ALONG THE LENGTH OF THE BARREL BY SUITABLE FILL MATERIAL. REFER TO BEDDING

PIPES WITH SOCKETS SHALL BE LAID IN BEDDING WHERE SUITABLE RECESSES HAVE BEEN PROVIDED TO ENSURE PIPES DO NOT BEAR ON

ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE UPVC PRESSURE PIPE GRADE 6. ENSURE ALL VERTICALS AND DOWNPIPES ARE UPVC PRESSURE PIPE, GRADE 6 FOR A MIN OF 3.0m IN

B. PIPES TO BE INSTALLED TO TYPE HS1 SUPPORT IN ACCORDANCE WITH AS 3725 (2007) IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75).

REFER TO AS/NRS 3725:2007 TABLE B1 FOR REQUIRED FILL DEPTHS ABOVE PIPE BARREL PRIOR TO USE OF COMPACTION MACHINERY OR TRAVERSING OF PIPES BY GENERAL SITE EQUIPMENT.

10. WHERE WORKING METHODS REQUIRE HIGHER CLASS PIPE, THE CONTRACTOR SHALL REFER TO AS 3725 (2007) TO DETERMINE THE APPROPRIATE PIPE CLASS. PROPOSED PIPE CLASS SHALL BE REVIEWED BY CARDNO PRIOR TO INSTALLATION.

11. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 (2003) AND AS/NZS 3500 3.2

12. PRECAST PITS MAY BE USED EXTERNAL TO THE BUILDING SUBJECT TO

13. ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.

14. WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED.

15. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.

16. GRATES AND COVERS SHALL CONFORM TO AS 3996.

7. ALL BOX CULVERTS SHALL BE STRUCTURALLY DESIGNED BY THE MANUFACTURER AND DELIVERED TO SITE AS FIT FOR PURPOSE.

18. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS. ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.

19. ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR

# KERBING NOTES

ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25 MPa U.N.O IN REINFORCED CONCRETE NOTES.

2. ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON 175mm GRANULAR BASECOURSE COMPACTED TO MINIMUM 95% MODIFIED DRY DENSITY (AS 1289 5.2.1).

EXPANSION JOINTS (E.J) 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 POINTS OF CURVES AND ELSEWHERE AT MAX 12m CENTERS EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.

. WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTERS EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.

BROOMED FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.

6. IN THE REPLACEMENT OF KERB AND GUTTER :--

EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm U.N.O FROM THE LIP OF GUTTER. UPON COMPLETION OF THE NEW KERB AND GUTTER NEW BASECOURSE AND SURFACE TO BE LAID 900mm WIDE U.N.O. EXISTING ALLOTMENT DRAINAGE PIPES ARE TO BE BUILT INTO THE NEW KERB AND GUTTER WITH 100mm DIA HOLE.

EXISTING KERB AND GUTTER IS TO BE COMPLETELY REMOVED WHERE NEW KERB AND GUTTER IS SHOWN.

# CONCRETE NOTES

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

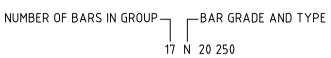
2. CONCRETE QUALITY

ALL REQUIREMENTS OF THE CURRENT ACSE CONCRETE SPECIFICATION DOCUMENT 1 SHALL APPLY TO THE FORMWORK, REINFORCEMENT AND CONCRETE UNLESS NOTED OTHERWISE.

AS 3600 F'c MPa	SPECIFIED	NOMINAL
AT 28 DAYS	SLUMP	AGG. SIZE
32	60	20
25	80	20
	AT 28 DAYS 32	AT 28 DAYS SLUMP 32 60

CEMENT TYPE SHALL BE (ACSE SPECIFICATION) TYPE SL PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 1379.

- 3. NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING BY CARDNO.
- +. CLEAR CONCRETE COVER TO ALL REINFORCEMENT FOR DURABILITY SHALL BE 40mm TOP AND 70mm FOR EXTERNAL EDGES UNLESS NOTED OTHERWISE.
- ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS, PLASTIC CHAIRS OR CONCRETE CHAIRS AT NOT GREATER THAN 1m CENTRES BOTH WAYS. BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS.
- . THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS. COMPLETELY FILLING THE FORMWORK. THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED AND CURED IN ACCORDANCE WITH R.T.A. SPECIFICATION R83. . REINFORCEMENT SYMBOLS:
- N DENOTES GRADE 450 N BARS TO AS 1302 GRADE N R DENOTES 230 R HOT ROLLED PLAIN BARS TO AS 1302
- SL DENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS 1304



NOMINAL BAR SIZE IN mm \_\_\_\_\_\_ SPACING IN mm THE FIGURE FOLLOWING THE FABRIC SYMBOL SL IS THE REFERANCE NUMBER FOR FABRIC TO AS 1304.

8. FABRIC SHALL BE LAPPED IN ACCORDANCE WITH THE FOLLOWING DETAIL:

LAP TWO WIRES

# JOINT NOTES

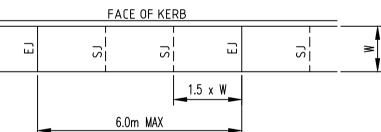
PEDESTRIAN PAVEMENT JOINTS

I. ALL PEDESTRIAN PAVEMENTS ARE TO BE JOINTED AS FOLLOWS. (U.N.O) 2. EXPANSION JOINTS ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX. 6.0m CENTRES.

B. WEAKENED PLANE JOINTS ARE TO BE LOCATED AT A MAX. SPACING OF 1.5 x WIDTH OF THE PAVEMENT.

4. WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND OR ADJACENT PAVEMENT JOINTS.

5. PEDESTRIAN PAVEMENT JOINT DETAIL.



NB: CHECK RELEVANT COUNCIL REQUIREMENTS IF IN PUBLIC ROAD.

# SITEWORKS NOTES

- 1. ORIGIN OF LEVELS:- REFER SURVEY NOTES.
- 2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO CARDNO.
- 3. MAKE SMOOTH CONNECTION WITH EXISTING WORKS.
- 4. ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
- 5. ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
- . PROVIDE 10mm WIDE EXPANSION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVEMENTS.
- 7. ASPHALTIC CONCRETE SHALL CONFORM TO R.M.S. SPECIFICATION R116.
- B. ALL BASECOURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH R.M.S. FORM 3051, COMPACTED TO MINIMUM 98% MODIFIED DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m<sup>3</sup> OF BASECOURSE MATERIAL PLACED.
- 9. ALL SUB-BASE COURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH R.M.S. FORM 3051, AND COMPACTED TO MINIMUM 95% MODIFIED DENSITY IN ACCORDANCE WITH A.S 1289 5.2.1 FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m<sup>3</sup> OF SUB-BASE COURSE MATERIAL PLACED
- 10. AS AN ALTERNATIVE TO THE USE OF IGNEOUS ROCK AS A SUB-BASE MATERIAL IN (9) A CERTIFIED RECYCLED CONCRETE MATERIAL COMPLYING WITH R.M.S. FORM 3051 WILL BE CONSIDERED. SUBJECT TO MATERIAL SAMPLES AND APPROPRIATE CERTIFICATIONS BEING PROVIDED TO THE SATISFACTION OF CARDNO.
- 11. SHOULD THE CONTRACTOR WISH TO USE A RECYCLED PRODUCT THIS SHALL BE CLEARLY INDICATED IN THEIR TENDER AND THE PRICE DIFFERENCE BETWEEN AN IGNEOUS PRODUCT AND A RECYCLED PRODUCT SHALL BE CLEARLY INDICATED.
- 12. WHERE NOTED ON THE DRAWINGS THAT WORKS ARE TO BE CARRIED BY OTHERS, (eq. ADJUSTMENT OF SERVICES), THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF THESE WORKS.

# GENERAL

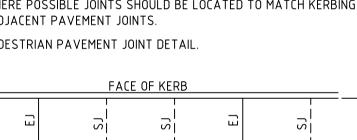
1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH CAMDEN COUNCIL STANDARDS.

- 2. CAMDEN COUNCIL STANDARD DETAILS TO BE USED WHERE POSSIBLE.
- 3. UTILITY ADJUSTMENTS AT DEVELOPERS EXPENSE. 4. CONDUITS TO BE PLACED WHERE REQUIRED BY THE RELEVANT AUTHORITIES.
- 5. SUBSOIL DRAINAGE LINES TO BE PLACED AS INDICATED ON DRAWINGS.

6. A MINIMUM OF 3m OF SUBSOIL LINE SHALL BE LAID INTO UPSTREAM SIDE OF COUNCIL PITS

		Diawii	Dale
		MDH	JAN'17
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Drawn

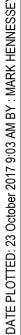


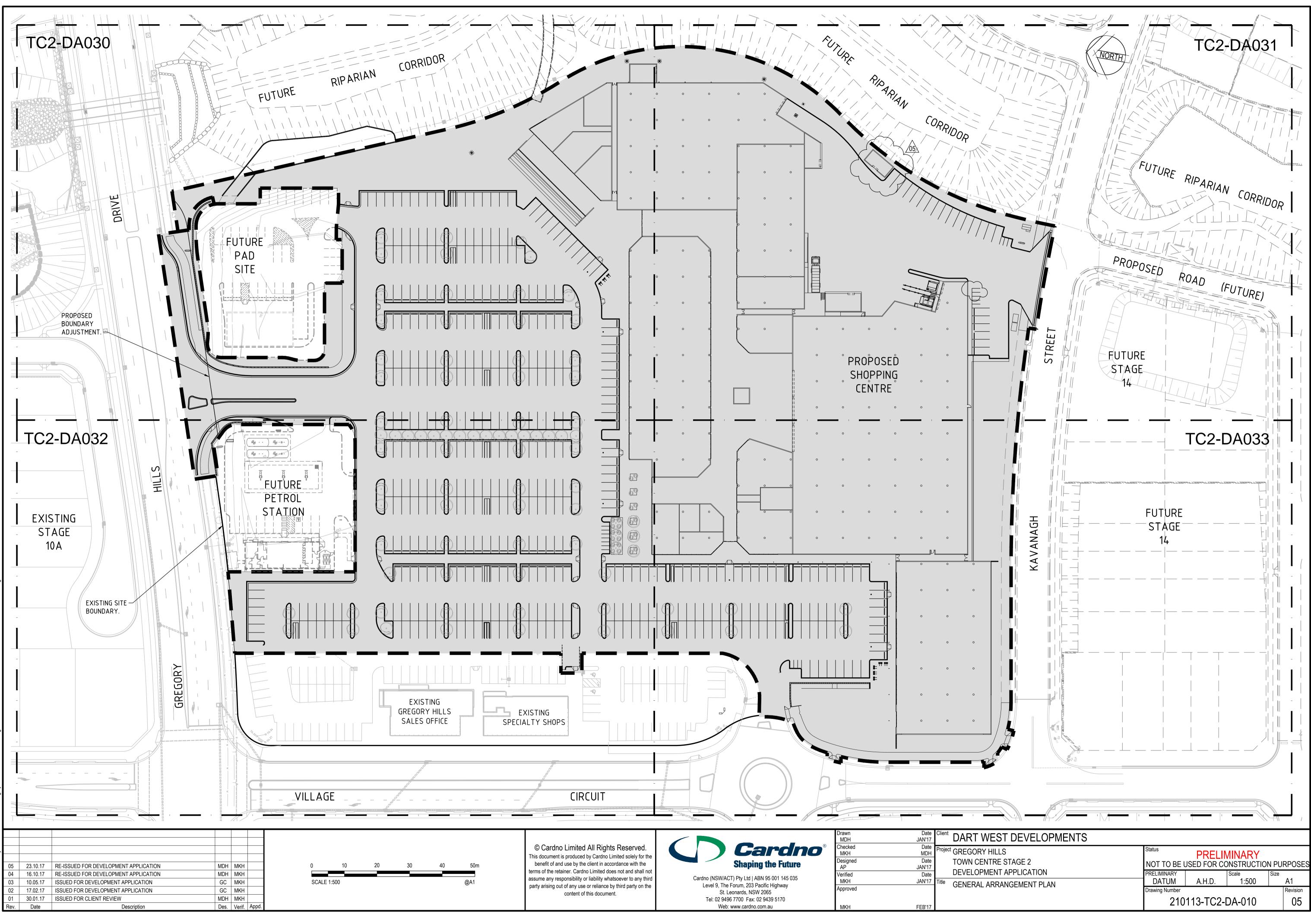
## PROPOSED WORKS LEGEND EXISTING (REFER SURVEY NOTES) PROPOSED • F112.75 FINISHED SURFACE LEVEL \_\_\_\_\_<u>112.0\_\_\_</u> PROPOSED CONTOUR KERB AND GUTTER MOUNTABLE KERB K.0 KERB ONLY F.K FLUSH KERB DISH DRAIN Β° BOLLARD **----**STORMWATER PIT AND PIPE SIZE DOWN PIPE ODP

RODDING POINT

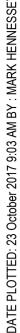
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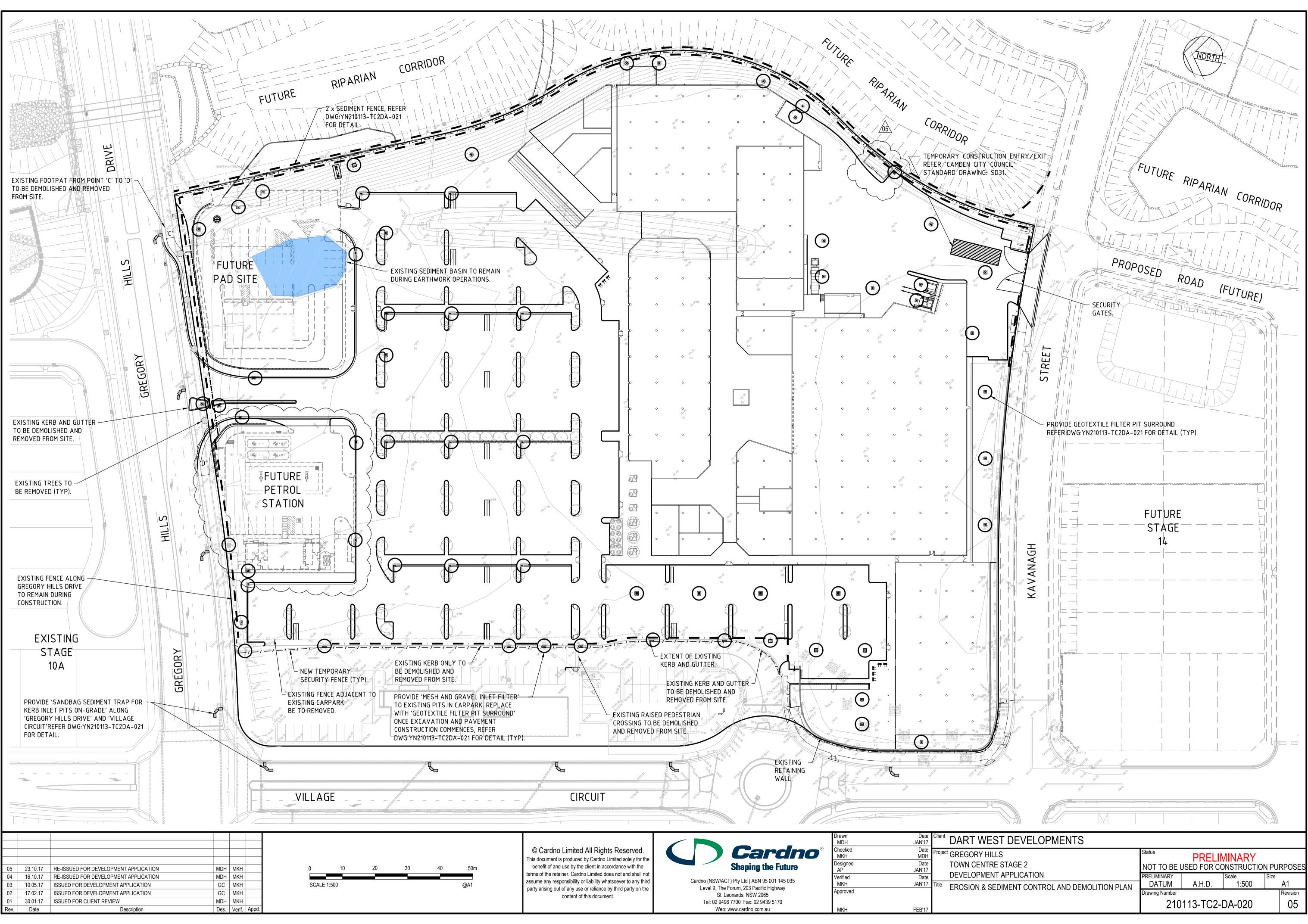
Internet DART WEST DEVELOPMENTS				
<sup>oject</sup> GREGORY HILLS TOWN CENTRE STAGE 2	Status NOT TO BE U		MINARY	N PURPOSES
DEVELOPMENT APPLICATION	PRELIMINARY		Scale	Size
<sup>le</sup> NOTES AND LEGEND SHEET	DATUM	A.H.D.	N.T.S.	A1
	Drawing Number			Revision
	210 <sup>-</sup>	113-TC2-	DA-001	03





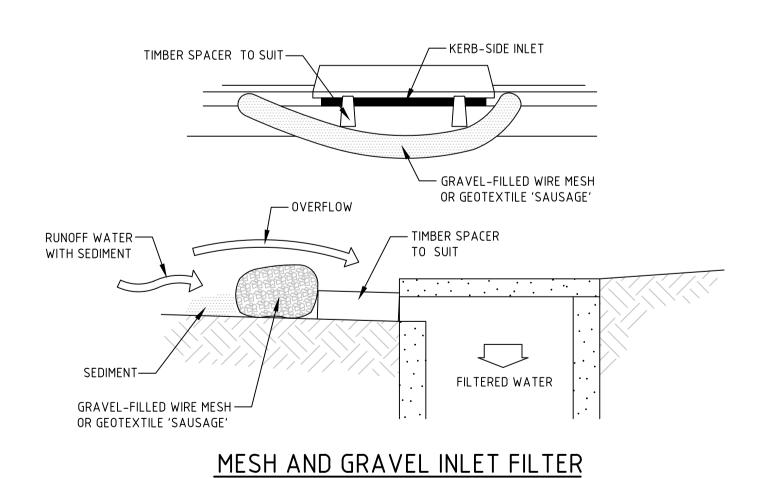
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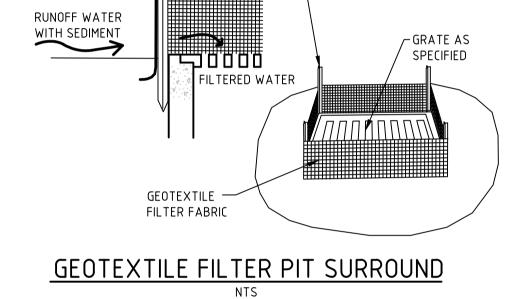


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NTS



🦯 STAR PICKETS –

- SANDBAGS OVERLAP ONTO KERB

2m MIN

SANDBAG SEDIMENT TRAP

FOR KERB INLET ON GRADE

NTS

THREE LAYERS OF SANDBAGS

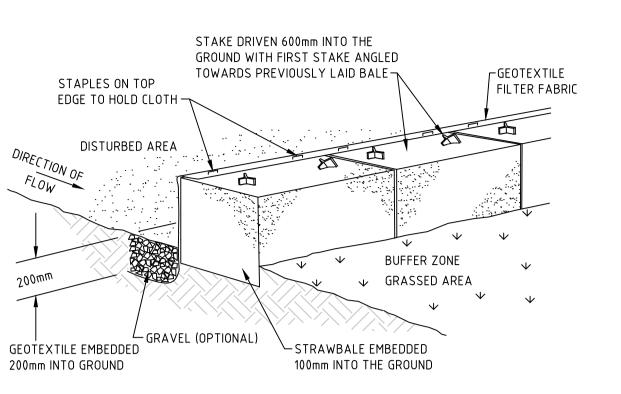
WITH ENDS OVERLAPPED

GAP BETWEEN BAGS ACT AS SPILLWAY

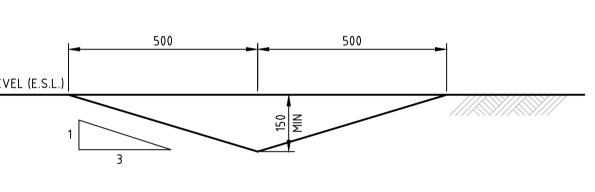
GEOTEXTILE

FILTER FABRIC -

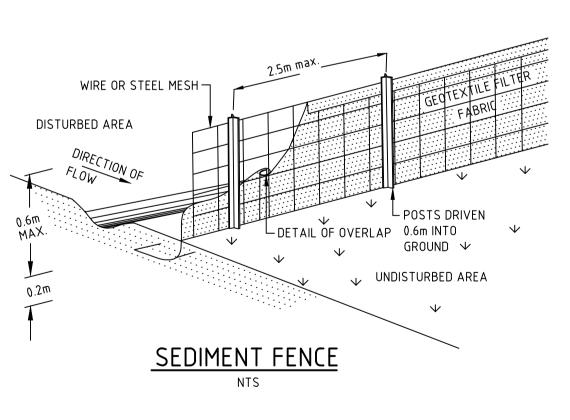
EXISTING SURFACE LEVEL (E.S.L.

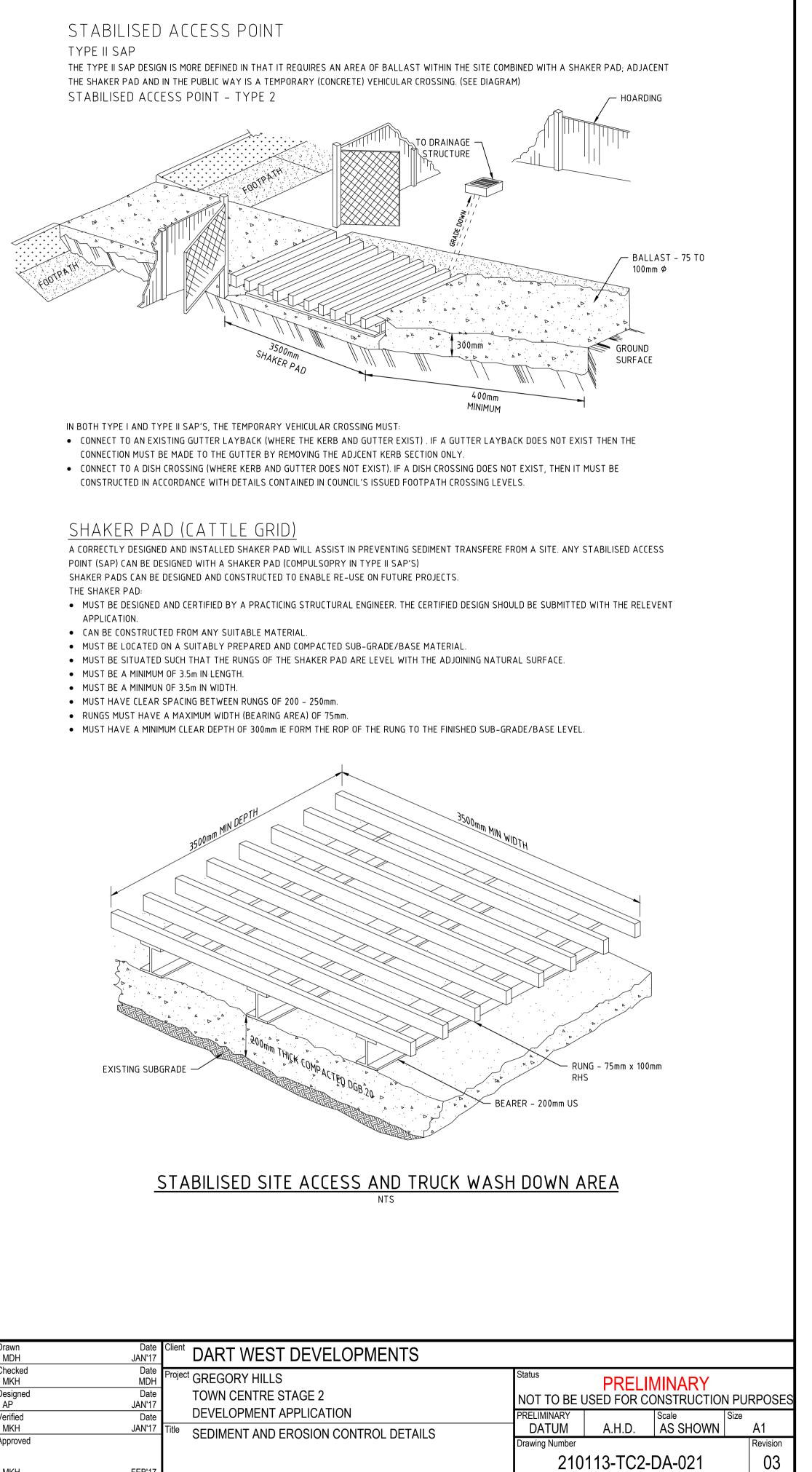


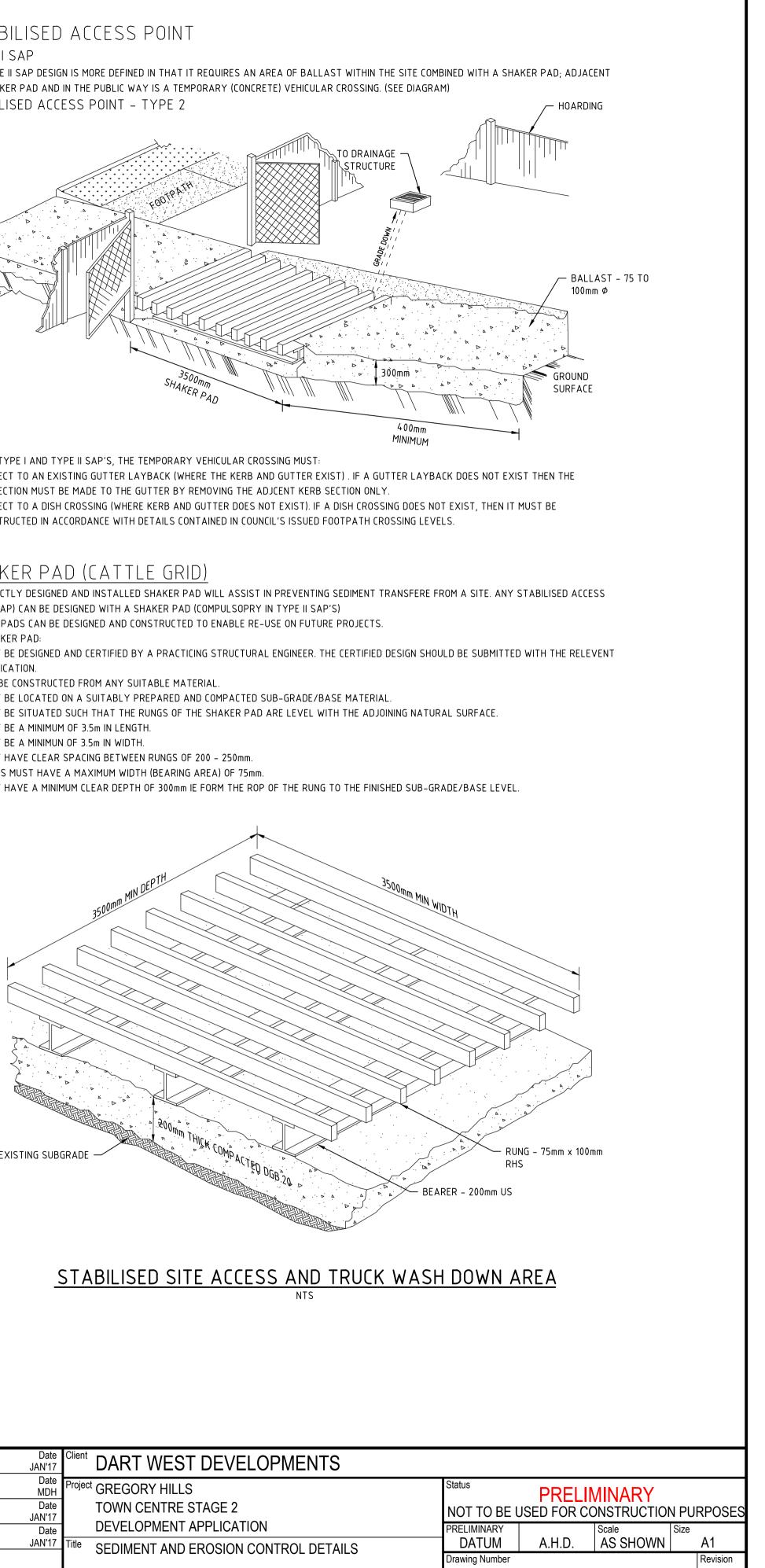
## STRAWBALE AND GEOTEXTILE SEDIMENT FILTER NTS



TEMPORARY CATCH DRAIN (MIN. FALL 1%)

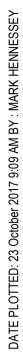


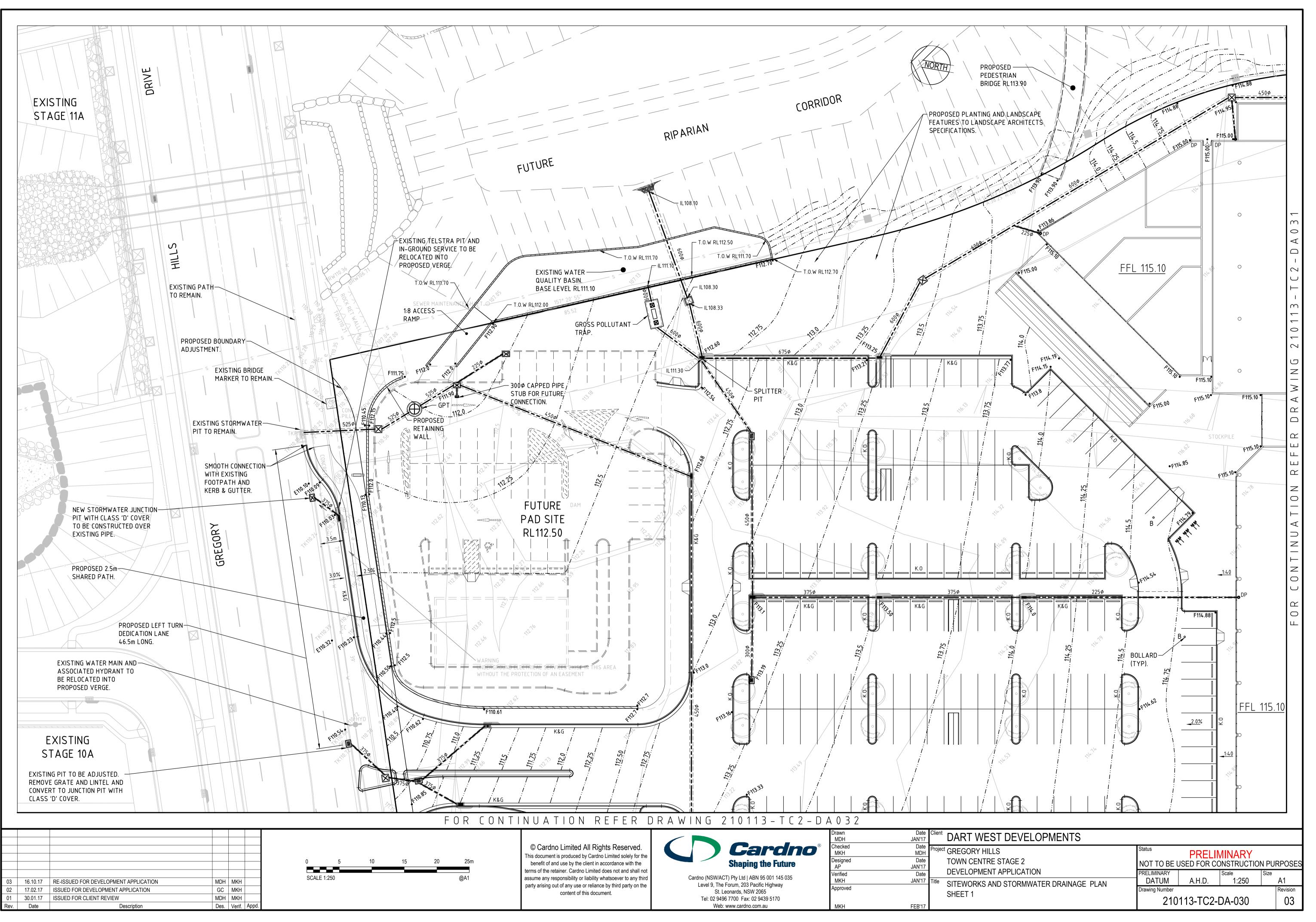




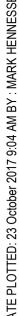
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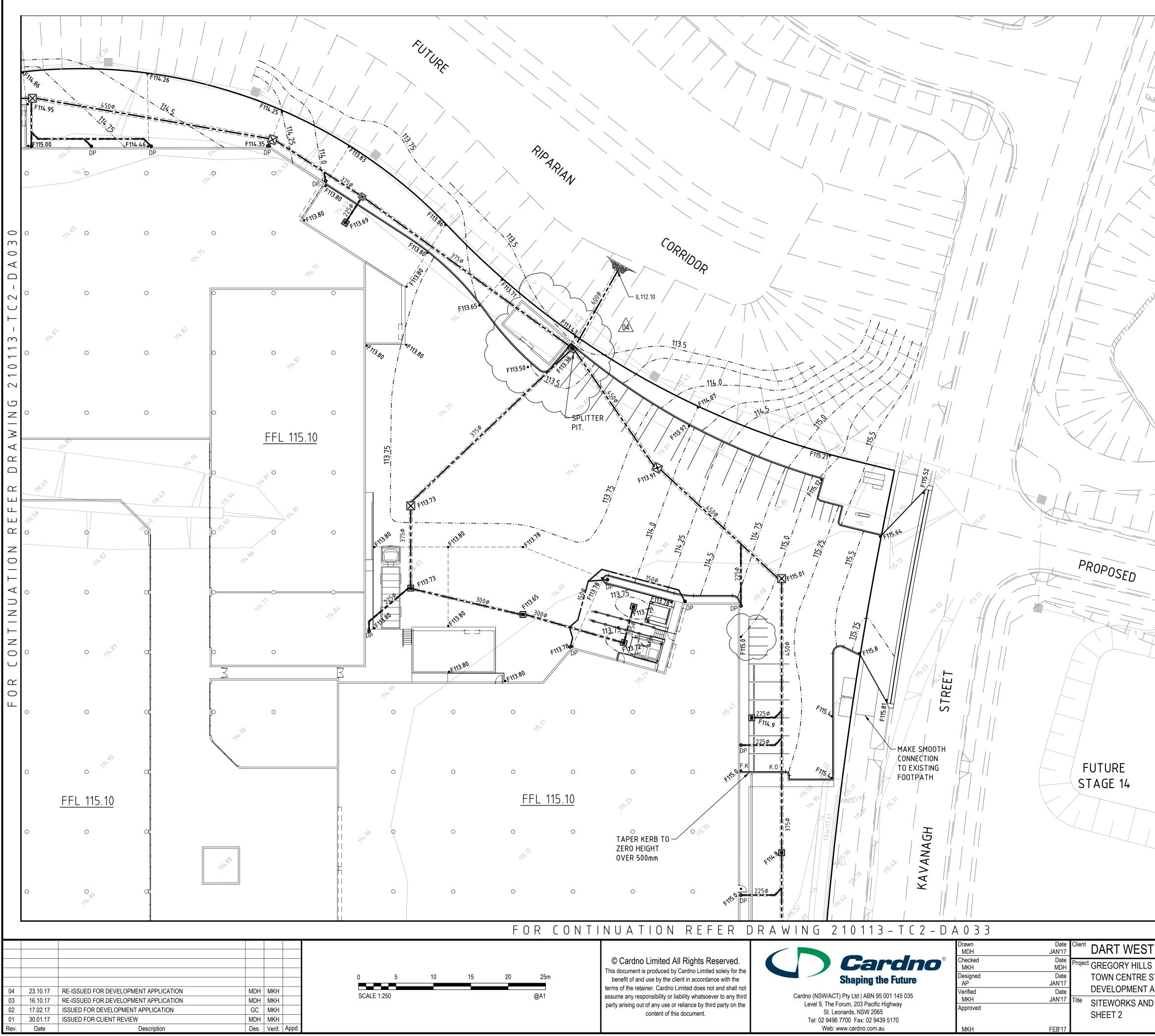
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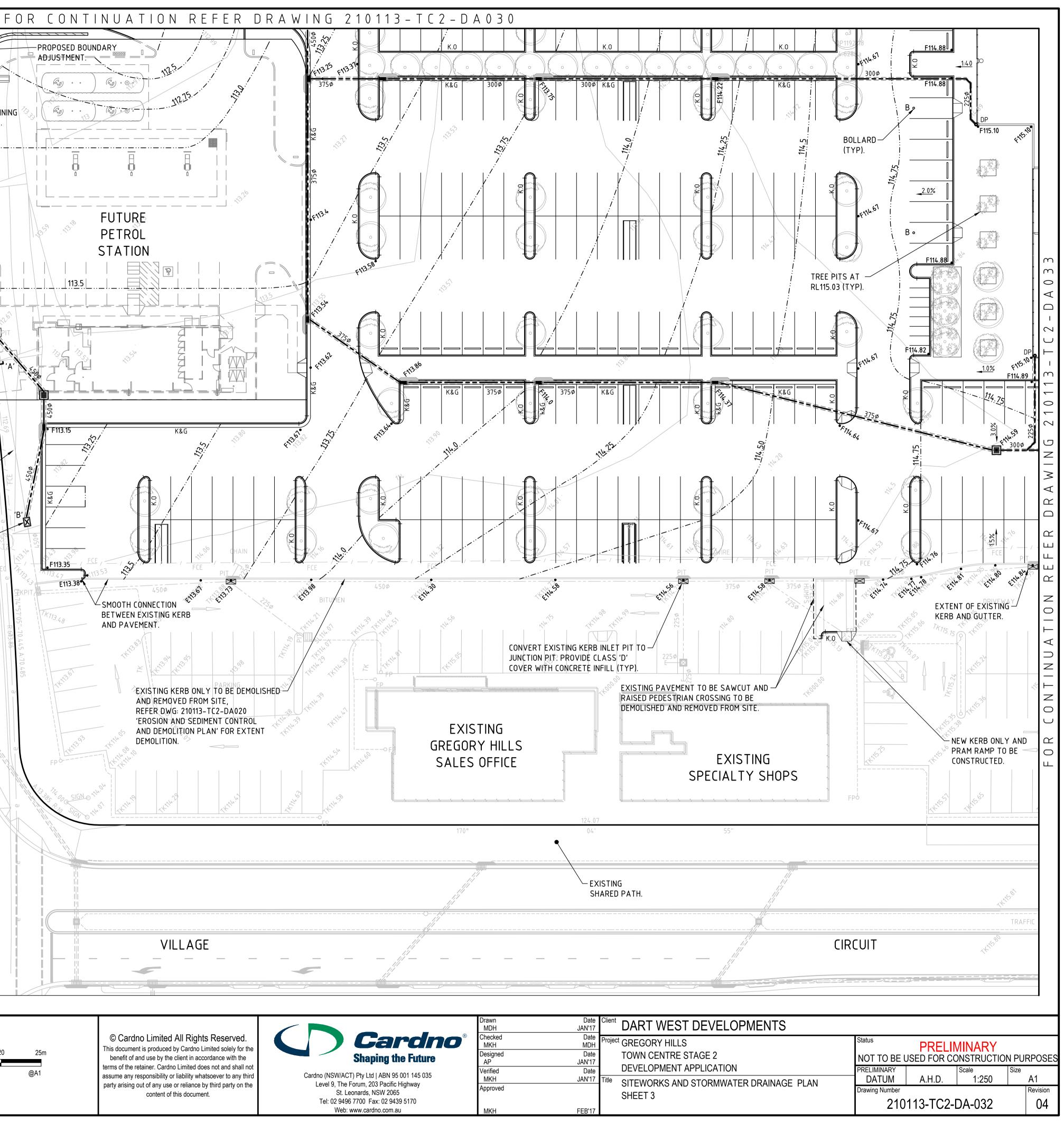




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STORMWATER DRAINAGE PLAN	DATUM A.H	H.D.	1:250	A1 Revision
	Drawing Number 210113-	т <u>с</u> 2-D/	1-031	Revision 04

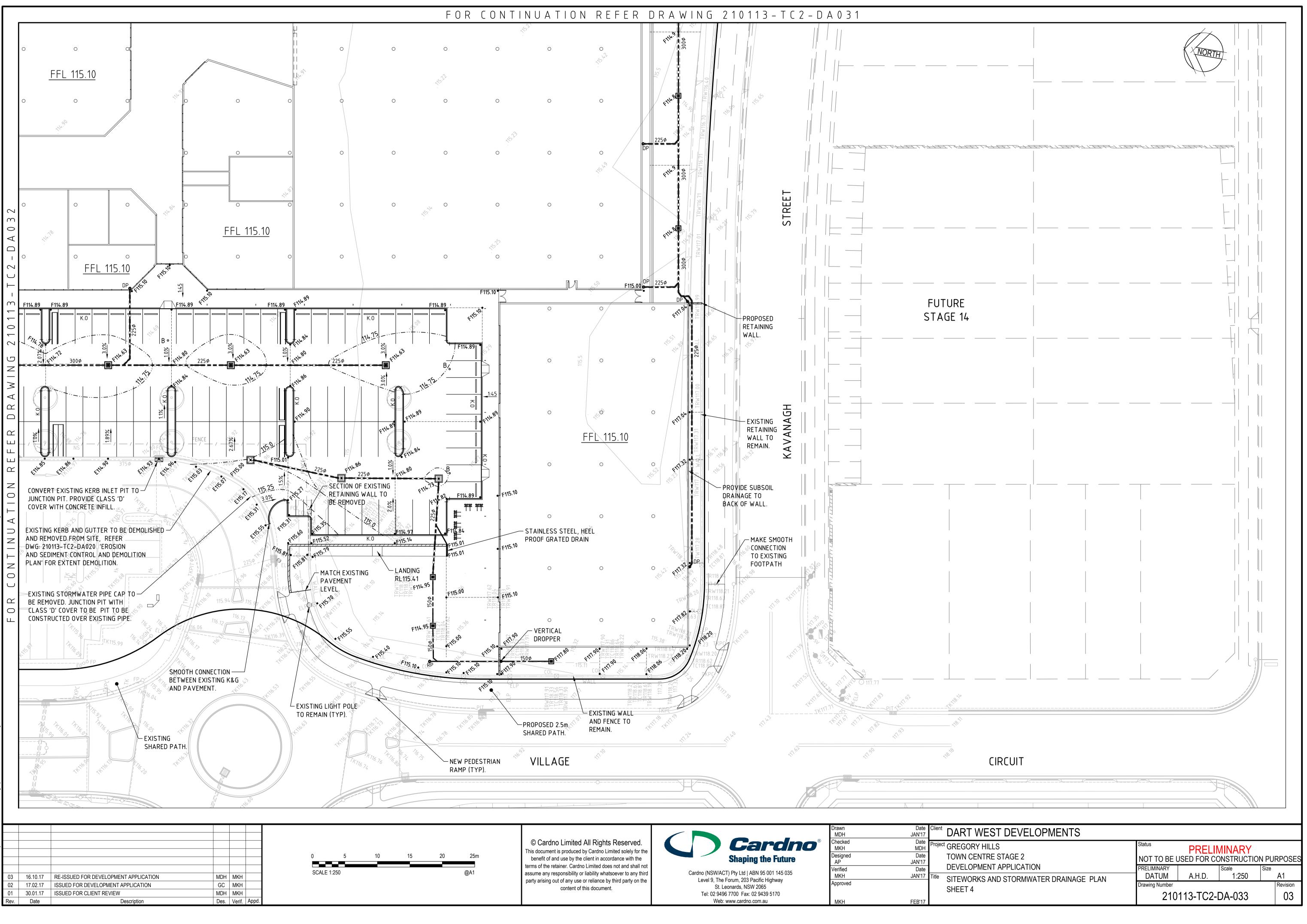
PROPOSED 2.5m-SHARED PATH. TAINING WALL. SMOOTH CONNECTION-WITH EXISTING FOOTPATH AND EXISTING KERB & GUTTER. STAGE 10A DRIVE EXISTING DRAINAGE PIT TO REMAIN. ADJUST CAPPED EXISTING-GRATE TO SUIT 450Ø PIPE. PROPOSED LEVELS. HILLS EXISTING LIGHT POLE TO REMAIN. B EXISTING 450Ø STORMWATER PIPE -BETWEEN POINT 'A' AND 'B' TO BE DEMOLISHED AND REMOVED FROM SITE. JUNCTION PIT WITH CLASS 'C' GREGORY COVER TO BE CONSTRUCTED OVER EXISTING PIPE. 16.10.17 RE-ISSUED FOR DEVELOPMENT APPLICATION MDH MKH SCALE 1:250 GC MKH 10.05.17 ISSUED FOR DEVELOPMENT APPLICATION ISSUED FOR DEVELOPMENT APPLICATION GC MKH 17.02.17 ISSUED FOR CLIENT REVIEW MDH MKH 30.01.17 Date Description Des. Verif. Appd.

; A06.01-DWG [DAroposed 7-1 DRAINAGE 113 - TC2DA - Pr TORMWATER [ orks; X - 2101<sup>°</sup> Orks and ST Å άĽ 13 -210 ×



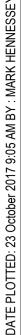
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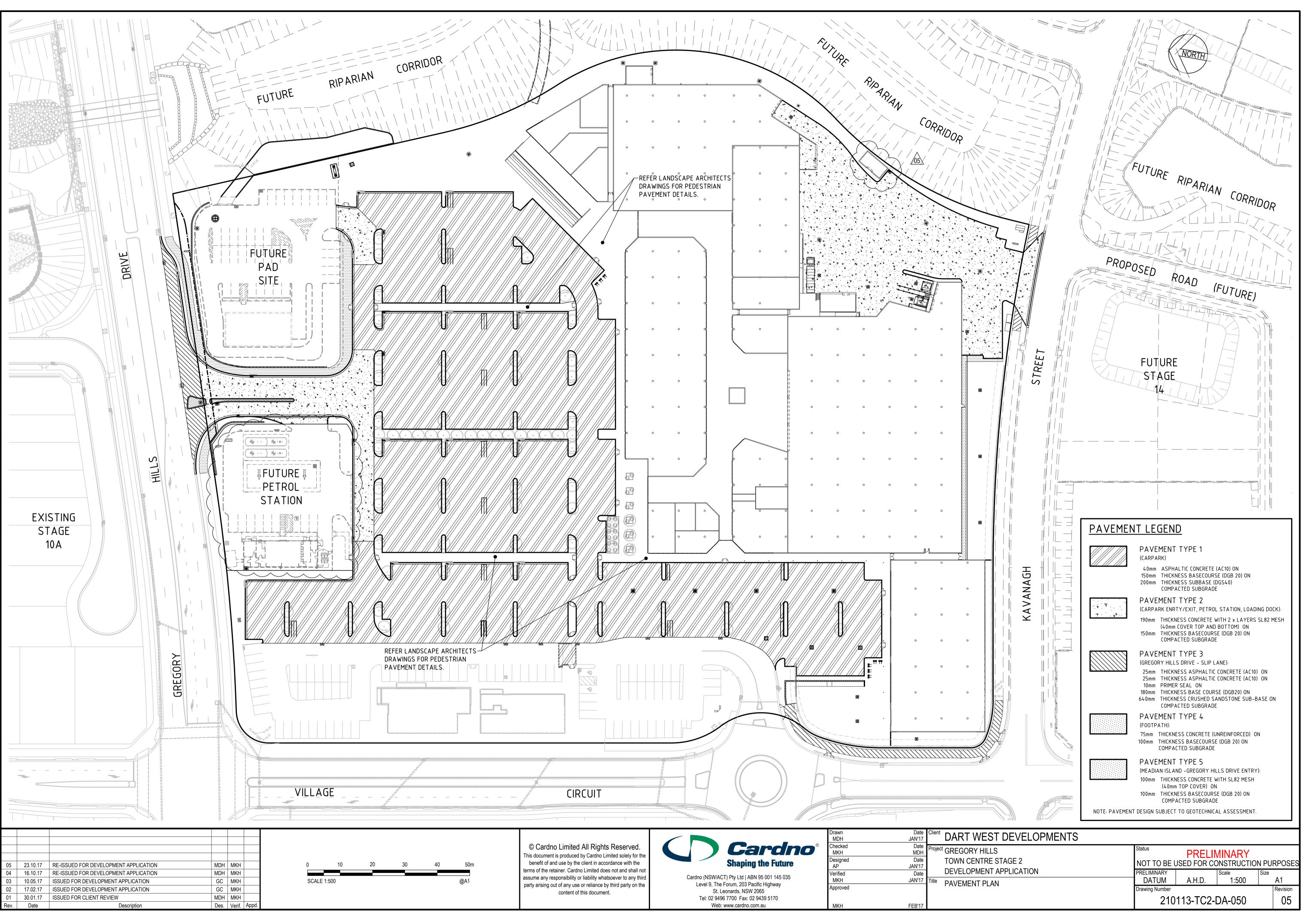
LOTTED: 23 October 2017 9:10 AM BY : MARK HENNESSE



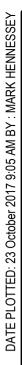
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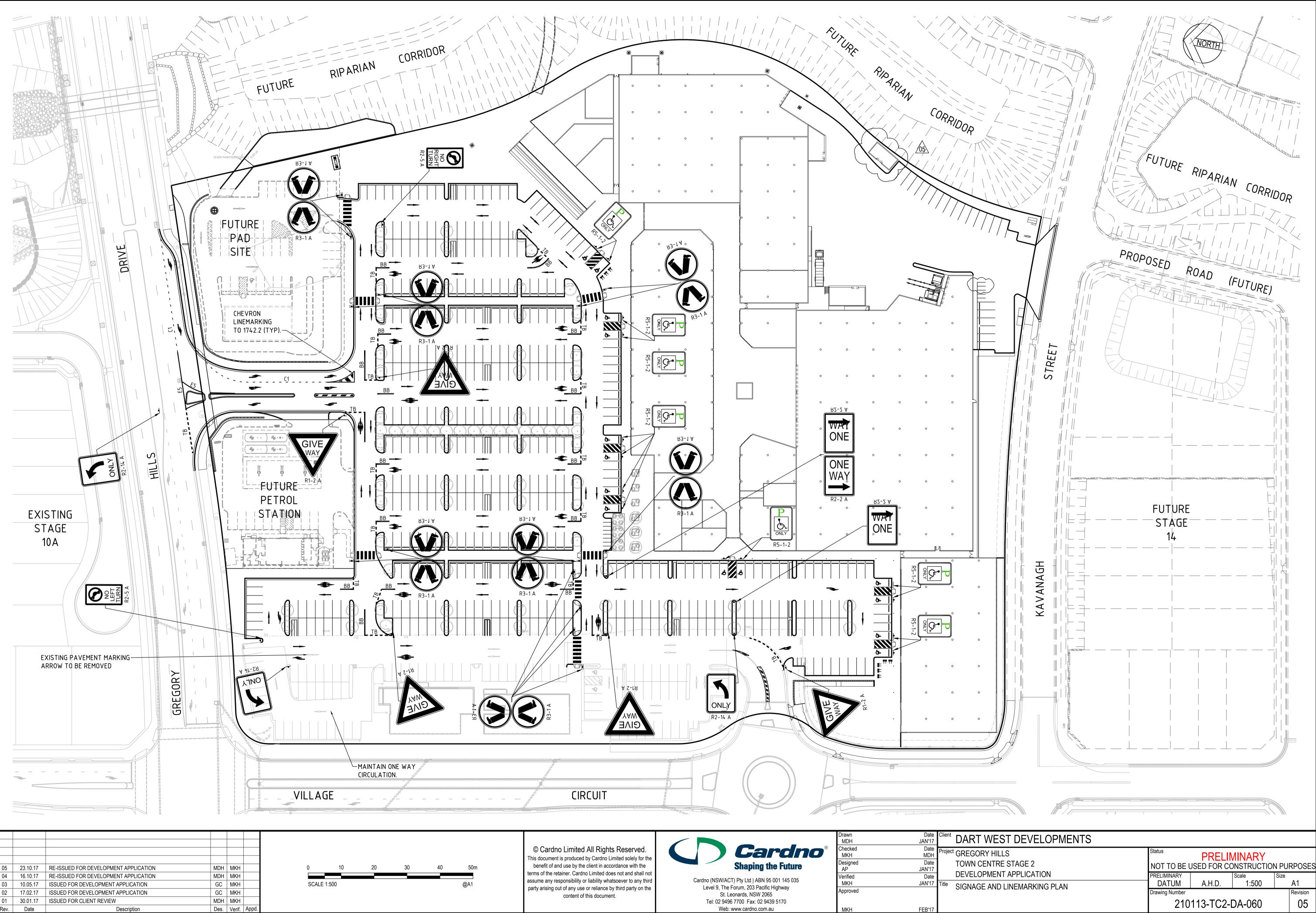
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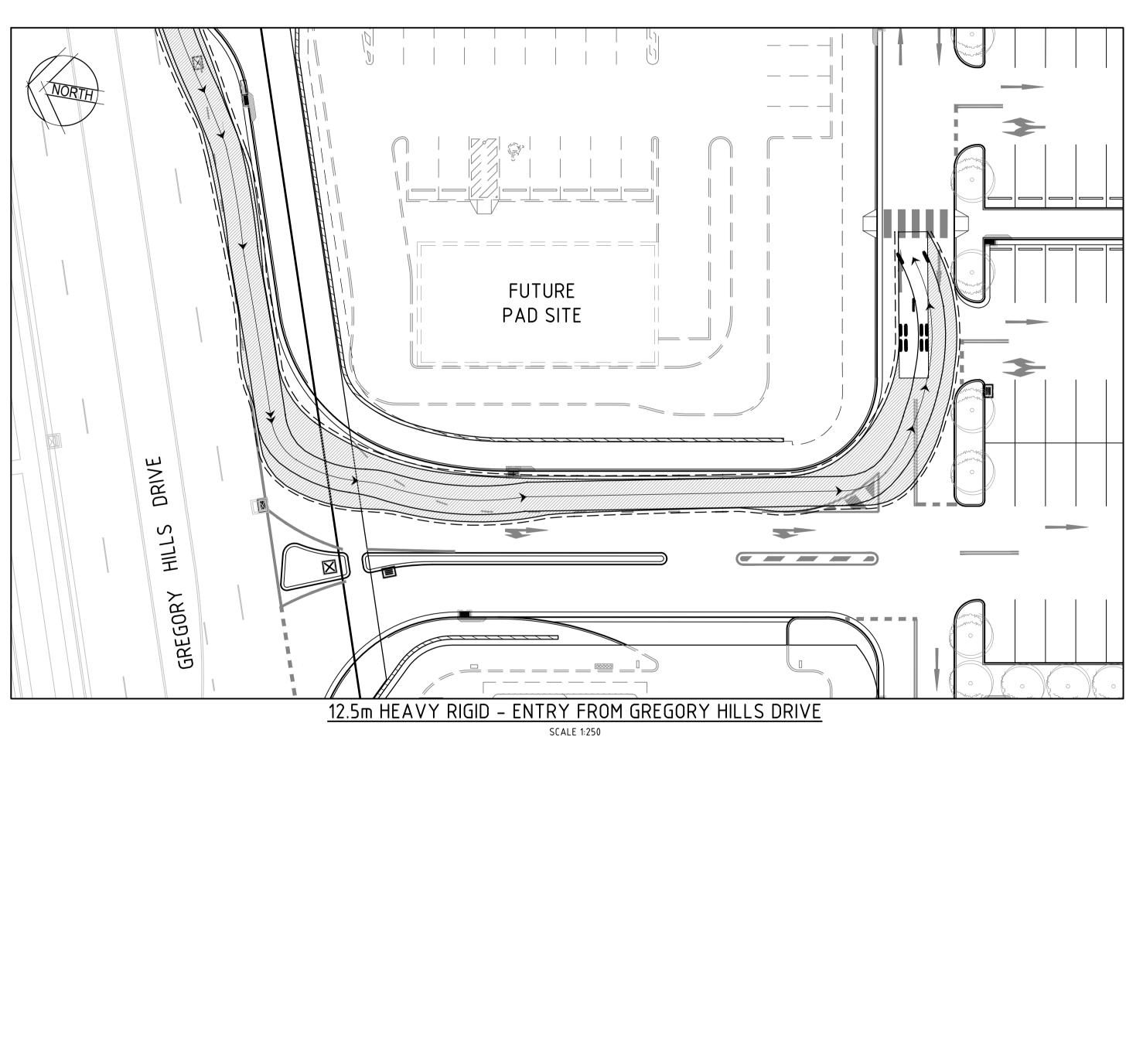


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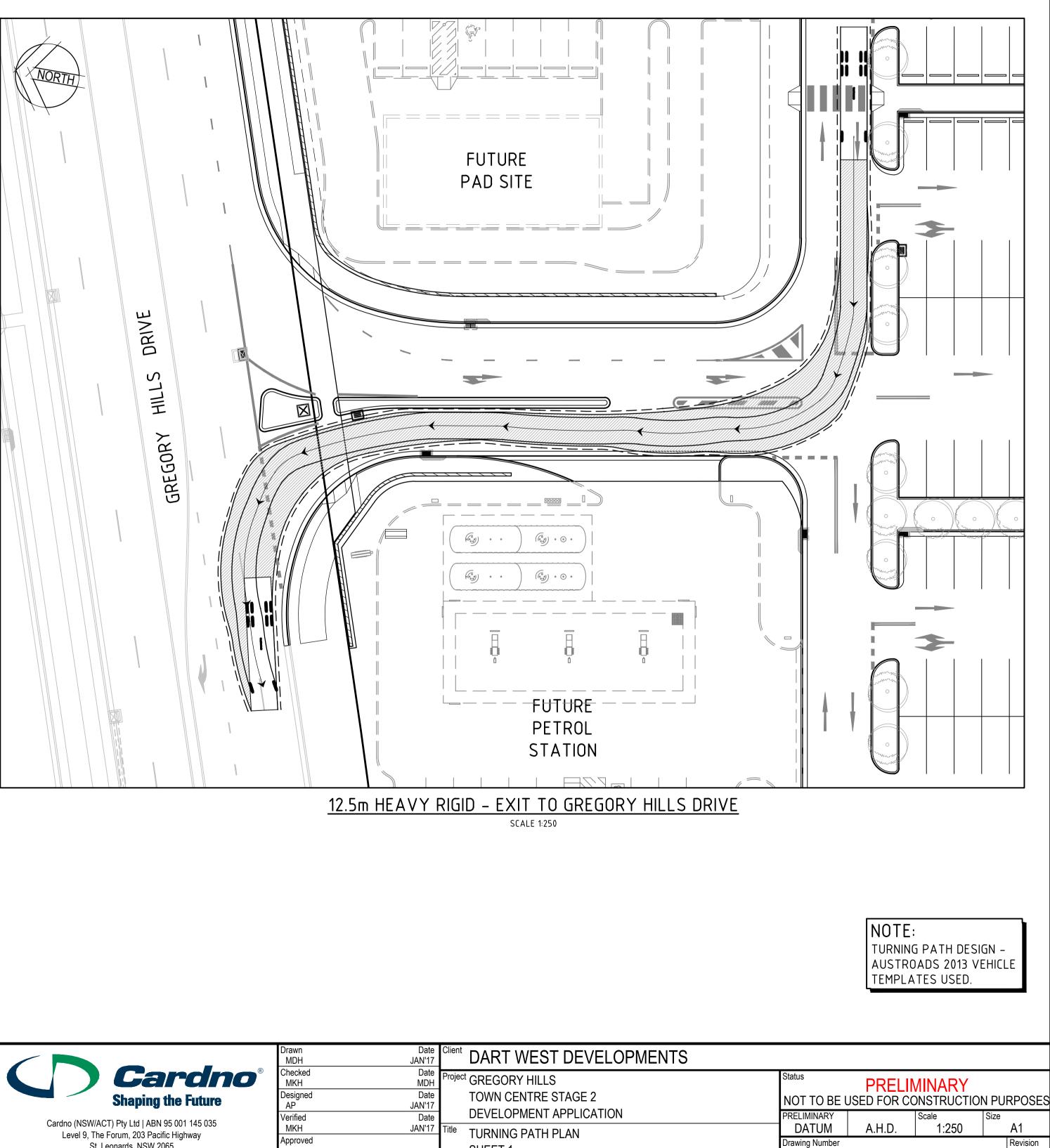




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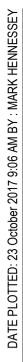
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02	17.02.17	ISSUED FOR DEVELOPMENT APPLICATION	GC	MKH							
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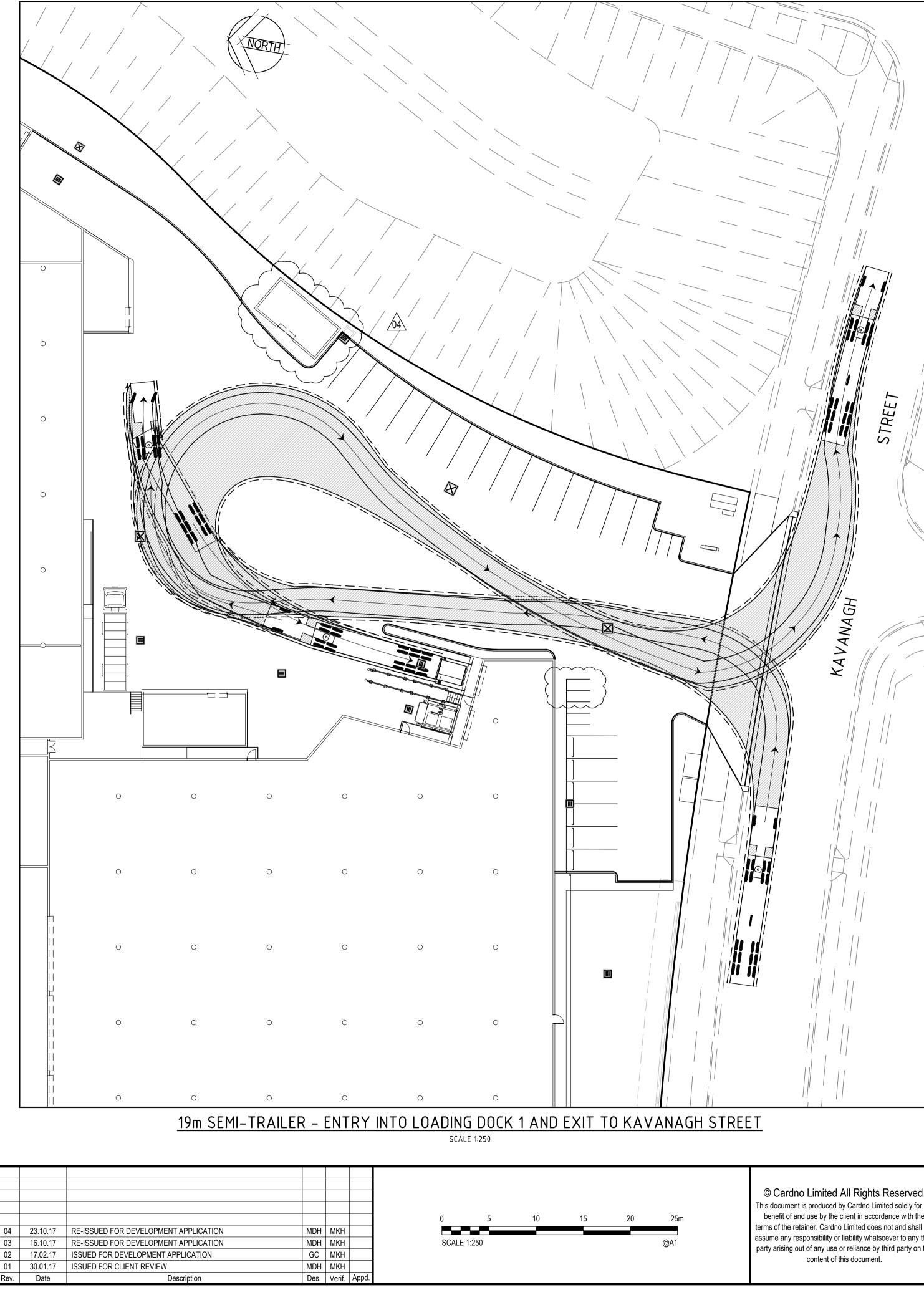


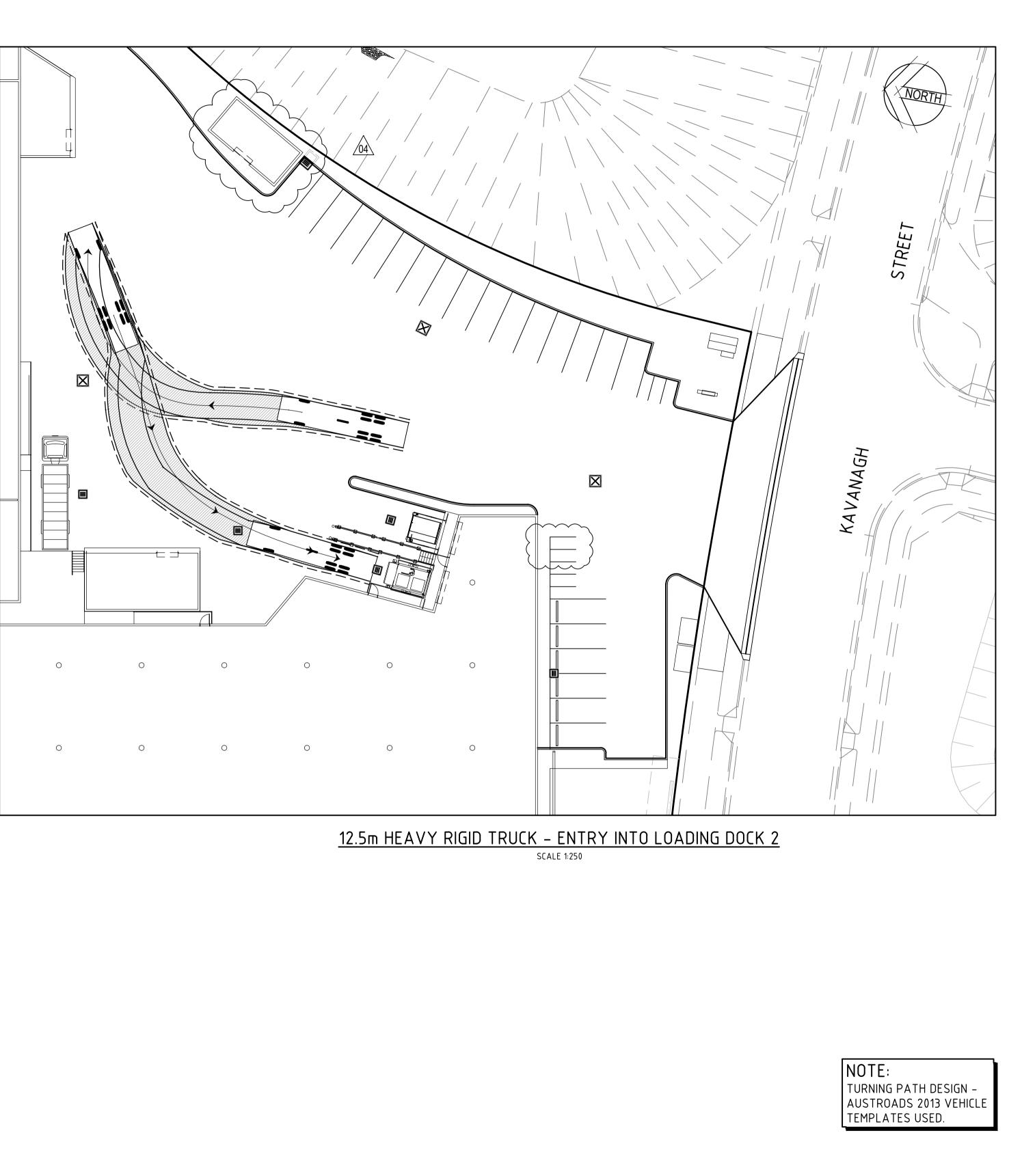
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	Web: www.cardno.com.au	МКН	FEB'17	







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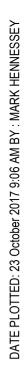
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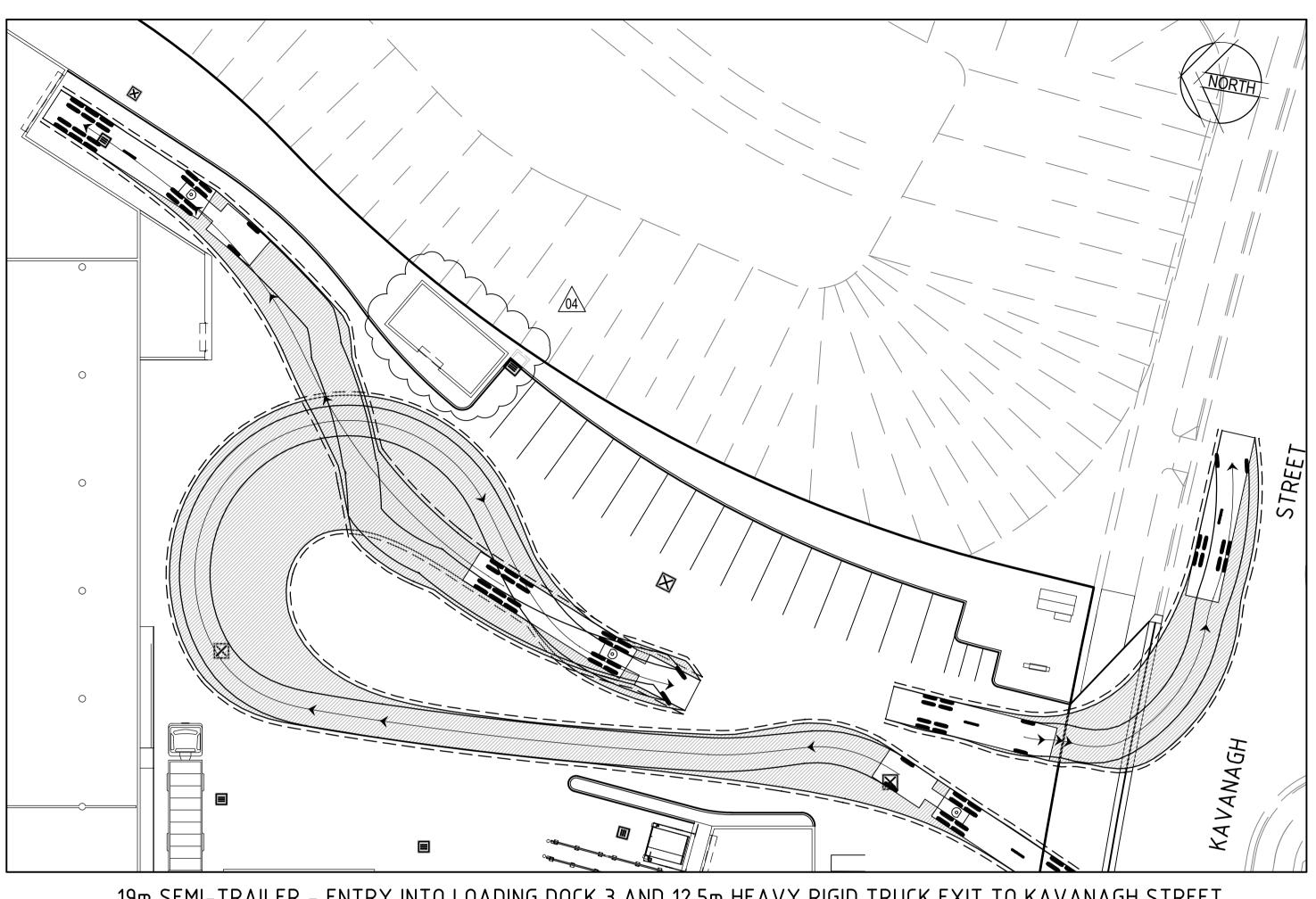
 JAN'17
 DEVELOPMENT AP

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Designed AP Verified MKH Approved SHEET 2 FEB'17 MKH

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T DEVELOPMENTS							
S STAGE 2	Status PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSE						
APPLICATION	PRELIMINARY DATUM	A.H.D.	Scale 1:250	Size A1			
PLAN	Drawing Number 210113-TC2-DA-081						

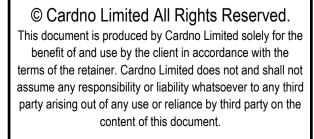




<u>19m SEMI–TRAILER – ENTRY INTO LOADING DOCK 3 AND 12.5m HEAVY RIGID TRUCK EXIT TO KAVANAGH STREET</u> SCALE 1:250

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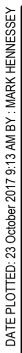


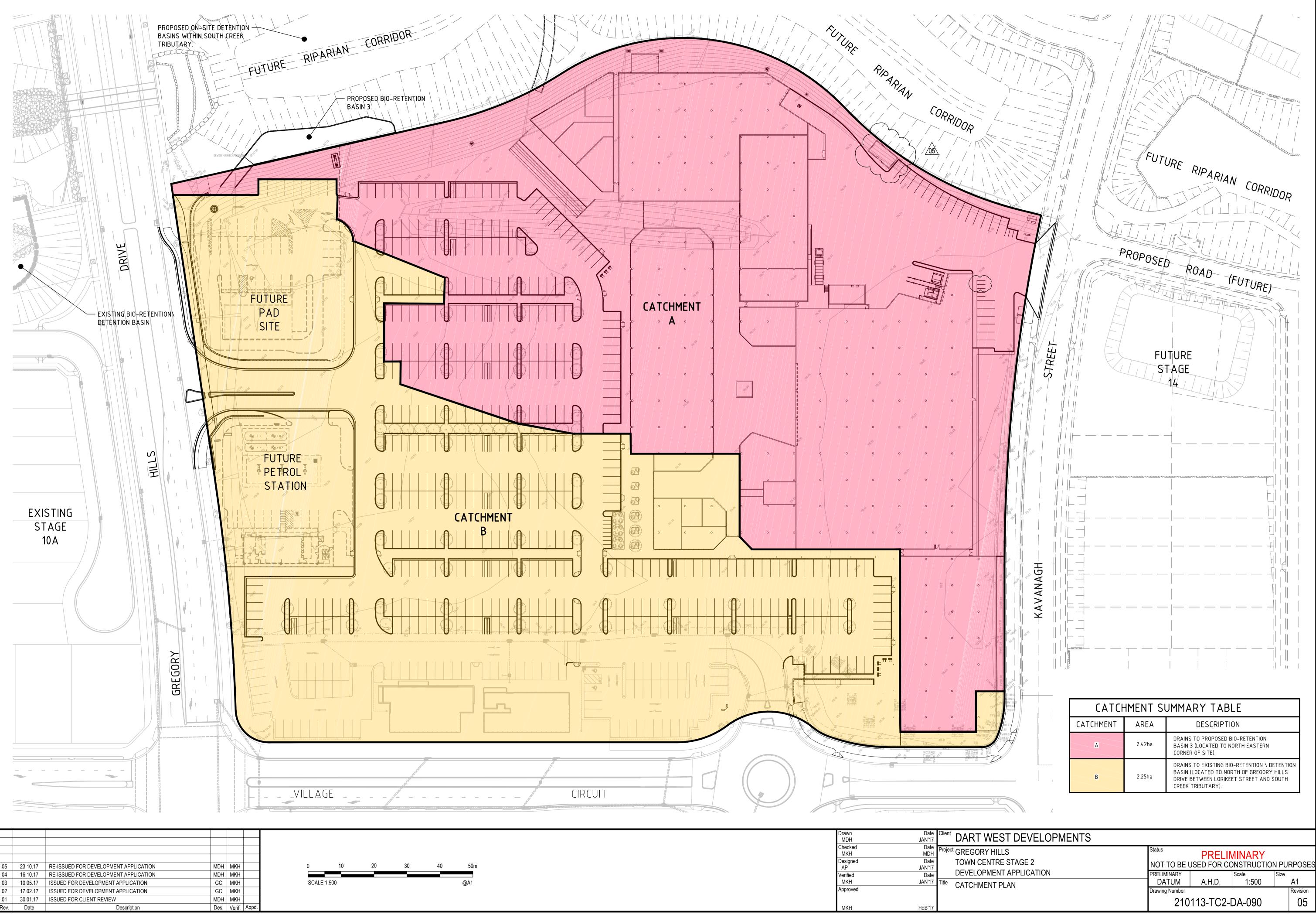


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Drawn MDH	Date JAN'17	Client DART WEST DEVELOPMENTS				
Checked MKH Designed AP	Date MDH Date JAN'17	Project GREGORY HILLS TOWN CENTRE STAGE 2	Status NOT TO BE U		MINARY	ON PURPOSES
Verified MKH	Date JAN'17	DEVELOPMENT APPLICATION	PRELIMINARY DATUM	A.H.D.	Scale 1:250	Size A1
Approved		TURNING PATH PLAN SHEET 3	Drawing Number	Α.Π.υ.	1.230	Revision
МКН	FEB'17		210	113-TC2-	DA-082	04

NOTE:
TURNING PATH DESIGN -
AUSTROADS 2013 VEHICLE
TURNING PATH DESIGN – AUSTROADS 2013 VEHICLE TEMPLATES USED.





AP	JAN'17		
Verified	Date		DEVEL
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МКН	FEB'17		