Hunters Hill Local Area Traffic Committee

26 June 2025 at 10:30am

AGENDA

Notice is hereby given that the Hunters Hill Local Area Traffic Committee of the Hunter's Hill Council will be held in the Council Chambers at 22 Alexandra Street Hunters Hill on

Thursday 26 June 2025

Beginning at 6.00pm for the purpose of considering and determining matters included in this agenda.

Mitchell Murphy
General Manager

Hunter's Hill Council Values

Our values are at the **HEART** of what we do and who we are. As such, we are represented by the following values:

H onesty

E xcellence

A ccountability

R espect

T eamwork

ORDER OF BUSINESS

Attendance, Apologies,

Declarations of Interests

Confirmation of minutes

Reports

HUNTER'S HILL COUNCIL
HUNTERS HILL LOCAL AREA TRAFFIC COMMITTEE
26 June 2025

INDEX

ITEM NO	:	3.1
SUBJECT	:	FERN ROAD AT WYBALENA ROAD - PROPOSED FORMAL DELINEATION OF THE INTERSECTION
STRATEGIC OUTCOME	:	SAFE WALKING, CYCLING, AND ACTIVE TRAVEL IS SUPPORTED AND ENCOURAGED WITH IMPROVED INFRASTRUCTURE.
ACTION	:	IMPLEMENT THE RECOMMENDATIONS OF THE LOCAL TRAFFIC COMMITTEE
REPORTING OFFICER	:	LEANNE STATHAKIS

Ref:770985

PURPOSE

To define the T- intersection with delineation to ensure motorist give way from Fern Street into Wybalena Road, and to assist motorist to park legally.

RECOMMENDATION

1. That Give way control line marking be installed across Fern Street
2. That the statutory 10m 'No Stopping' at the intersection be installed by yellow line marking
3. That double centre line be installed in Fern Street at the intersection with Wybalena Road up to the 10m statutory 'No Stopping' zone

BACKGROUND

Residents have raised concerns of near misses at this location due to vehicles not giving way.

REPORT

Both roads are dead ends and intersect with each other in a slightly unsymmetrical manner. Parked vehicles are common and reduce the carriageway to one way.
As Fern Road has a wider bend on the north intersecting side with Wybalena and as there is no line marking its difficult to gauge the road alignment and hence where to stop.
Community consultation was undertaken, and 5 responses were received as shown below.

AGREE YES/NO	FEEDBACK	RESPONSE
Y	Try not to lose parking Stop sign St Malo and Wybalena	There will be no loss of legal parking. STOP sign not required and very difficult to enforce. The proposed line marking will assist.
Y		
y		
Y	But dislikes Giveway sign and loss of parking and doesn't believe the 10m is correct #11	The 'Give way 'SIGN does not be installed. It is noted that there is a garden at this location
Y	PREFER STOP	STOP sign not required and very difficult to enforce. The proposed line marking will assist.

Council has considered the submissions received and recommends to proceed with the line marking as proposed.

CONCLUSION

The proposed work will delineate the intersection of Fern Road and Wybalena Road to formalise the right of way control. The marking of the statutory 10m 'No Stopping' at the intersection will assist motorists to park legally ensuring sight lines are maintained.

FINANCIAL IMPACT ASSESSMENT

There is no direct financial impact on Council's adopted budget as a result of this report.

ENVIRONMENTAL IMPACT ASSESSMENT

There is no direct environmental impact on Council arising from Council consideration of this matter.

SOCIAL IMPACT ASSESSMENT

There is no direct social impact on Council arising from Council consideration of this matter.

RISK ASSESSMENT

There are no direct or indirect risks impacting on Council arising from consideration of this matter.

ATTACHMENTS

There are no attachments to this report.

ITEM NO	:	3.2
SUBJECT	:	MORTIMER LEWIS DRIVE AND WARUDA PLACE - INTERSECTION DELINEATION
STRATEGIC OUTCOME	:	SAFE WALKING, CYCLING, AND ACTIVE TRAVEL IS SUPPORTED AND ENCOURAGED WITH IMPROVED INFRASTRUCTURE.
ACTION	:	IMPLEMENT THE RECOMMENDATIONS OF THE LOCAL TRAFFIC COMMITTEE
REPORTING OFFICER	:	LEANNE STATHAKIS

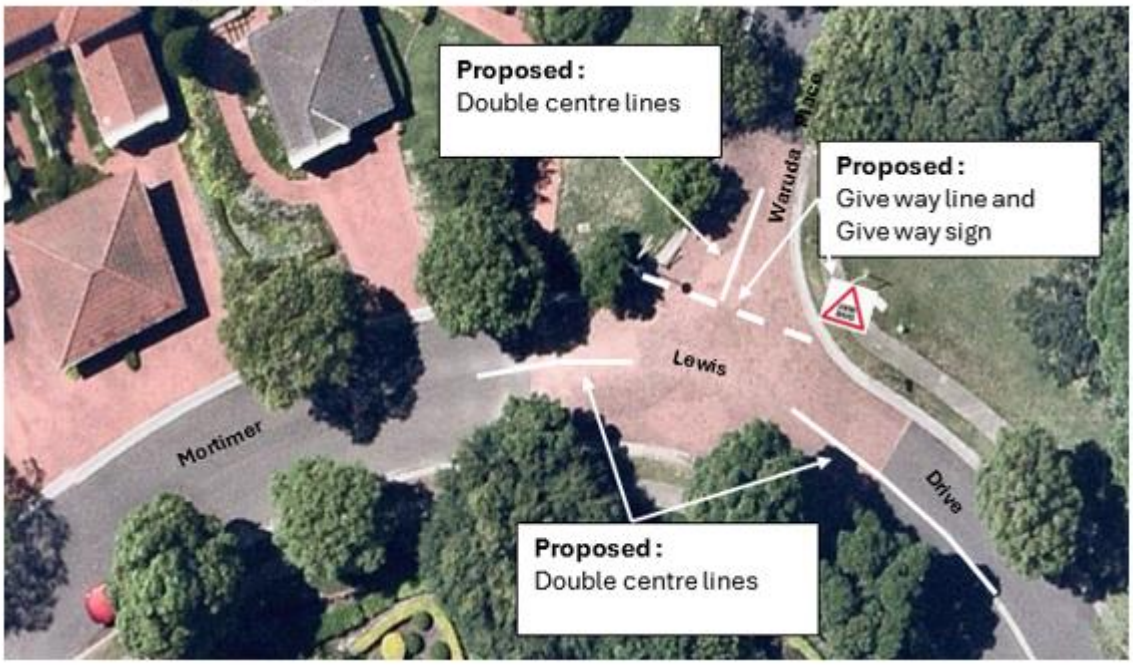
Ref:771255

PURPOSE

To formalise the intersection of Mortimer Lewis Drive and Waruda Place to define the right way and to delineate the bend of Mortimer Lewis Drive and the intersection with Waruda Place.

RECOMMENDATION

1. That double centre lines be installed on the intersecting streets of Mortimer Lewis iDrive and Waruda Place as shown below.
2. That 'Give way' line marking and sign posting be undertaken to define the right of way as shown below.



BACKGROUND

A resident has raised concern of near misses at the intersection as vehicles do not give way or cross to the wrong side of the road.

Waruda Place and Mortimer Lewis Drive are local roads at Huntleys Cove. Both roads intersect on a bend and the t-intersection at this location together with the absence of of line marking and signage does define the intersection or the right of way.

REPORT
The proposal will define the carriage way of both roads and T-intersection will be defined.

Community consultation was carried out and 10 responses were received and 1 was not in favour of the proposal. A summary of the feedback is listed below

AGREE YES/NO	FEEDBACK	RESPONSE
Y	Consider lower speed to 30km/h	The current speed zone is 40km/h. 85% speed along Mortimer Lewis Drive 26 Km/h eastbound and 35km/h westbound. 30km/h zones are for very high pedestrian areas such as Manly Corso
Y	Problem is parked vehicles MLD– restrict to 1 side	This would need community consultation. This was suggested for Waruda Place and the proposal did not gain sufficient support from residents
Y	Include removal of parking both sides west of intersection	BB lines could be extended
y	Problem is parked vehicles MLD– restrict to 1 side	This would need community consultation. This was suggested for Waruda Place and the proposal did not gain sufficient support from residents
Y		
Y		
Y	FIX PAVERS	Pavers will be inspected
N	Unless there have been accidents. Doesn't think it's a good idea on pavers	No recorded accidents Asset manager to review pavers prior to any new work
yes	Also wants a 3 tonne restriction	The area cannot used as a bypass of major roads, therefore is not necessary
yes	Also wants a 3 tonne restriction	The area cannot used as a bypass of major roads, therefore is not necessary

CONCLUSION
In consideration of the submissions , Council proposal to delineate the intersection with line marking will assist drivers in navigating the intersection and improve safety.

FINANCIAL IMPACT ASSESSMENT
There is no direct financial impact on Council's adopted budget as a result of this report.

ENVIRONMENTAL IMPACT ASSESSMENT
There is no direct environmental impact on Council arising from Council consideration of this matter.

SOCIAL IMPACT ASSESSMENT
There is no direct social impact on Council arising from Council consideration of this matter.

RISK ASSESSMENT
There are no direct or indirect risks impacting on Council arising from consideration of this matter.

ATTACHMENTS

There are no attachments to this report.

ITEM NO	:	3.3
SUBJECT	:	WOOLWICH ROAD NEAR FRANKI AVENUE - PROPOSED WOMBAT CROSSING
STRATEGIC OUTCOME	:	SAFE WALKING, CYCLING, AND ACTIVE TRAVEL IS SUPPORTED AND ENCOURAGED WITH IMPROVED INFRASTRUCTURE.
ACTION	:	IMPLEMENT THE RECOMMENDATIONS OF THE LOCAL TRAFFIC COMMITTEE
REPORTING OFFICER	:	LEANNE STATHAKIS

Ref:772854

PURPOSE

To provide a safe formal crossing on Woolwich Road near Franki Avenue to accommodate pedestrian movements between Clarkes Point and Franki Avenue parking areas to the cafes, restaurants and hotel on Woolwich Road and to improve on the on-road bike environment.

RECOMMENDATION

1. That the first draft detail design for a raised crossing (wombat) be supported, and that comments be sought from committee members for further consideration prior to community consultation and adoption by Council.

BACKGROUND

Council's bike plan identified the area east of Burns Bay Road which includes Alexandra Street, Ferry Street, Woolwich Road and the Point Road as route HH1 as an on-road bike path.

The bike plan recommended the introduction of traffic calming measures, such as raised devices to reduce the speed of vehicles travelling along route HH1.

REPORT

Council received funding from TfNSW Get Active program for detail design. Council approved a number of devices along this route including a raised marked crossing on Woolwich Road near Franki Avenue.

The design is approximately 80% complete and has been forwarded to the Get Active Program leaders and TfNSW Network & Safety for review and technical feedback, as shown at Attachment 1. The design has attempted to reduce the loss of parking while accommodating the desire line of pedestrians. The attached design will see a relocation of the bus stop on the south side.

Some points raised so far that have been forwarded to the contractors, LT Urban for review; include:

- Confirmation of the statutory 'No Stopping' requirements on the approaches and departure of the crossing
    - LT Urban Response - *The No Stopping distances have been reduced to 7.5 m on the approach since kerb extensions of 2.5m wide have been used. This is as per TfNSW TDT 2002/12b - Stopping & Parking restrictions at Intersections & Crossings.*

- Give way line marking standards – Giveway Line marking not parallel to Woolwich Road.
    - LT Urban Response - *The give way line marking has been moved out into Woolwich Rd at Franki Ave so the eastern end (Right Side) is out along the kerb extension. This allows the vehicles exiting Franki Ave to be further into Woolwich Rd and provides more sight distance for these vehicles looking in both directions along Woolwich Rd.*

- Swept (turning) path confirmation
    - LT Urban Response – *Swept paths provided in attachments*
- Minimising lane widths to 3.2m wide and moving the crossing to the east to allow for kerb extension
    - LT Urban Response - *Kerb extensions in Woolwich Rd are 2.5m wide for both sides of the street, in the current design. The kerb extensions provide good sight distance in both directions along Woolwich Rd. The crossing distance has been reduced by 5m. The 3.2m lane width cannot be achieved at this location since bus movements for the approach and departure to & from the bus stops to the east of the pedestrian crossing require the current lane widths. Widening the kerb extensions would also impact the swept paths for a car exiting the driveway of No. 102 and the left turn from Woolwich Rd into Franki Ave for a 8.8m service vehicle.*
- Confirming that the crossing is 3.6m wide
    - LT Urban Response - *Yes the crossing width is 3.6m wide.*

- Could a Kerb extension be considered at Franki Avenue to reduce crossing width across Franki Avenue
    - LT Urban Response - *The kerb extension is possible. It would be an increase to the project scope.*

- Possibility of kerb extension on the NW side to increase outdoor dining space-
    - LT Urban Response - *Extension of the kerb build out west to the frontage No. 102 would result in loss of 2 on street car spaces.*

Council will be considering the feedback from all stakeholders, and will make any necessary amendments prior to community consultation

Next Steps
Community consultation be undertaken and feedback provided to consultants for consideration and if appropriate any changes incorporated into the design.

CONCLUSION

The raised crossing will improve safety for pedestrians and reduce vehicle speed improving the amenity for both pedestrians and Cyclists.
Community consultation will be caried out and all comments from the community and stakeholders will be forwarded to the consultants, LT urban for consideration.

FINANCIAL IMPACT ASSESSMENT

There is no direct financial impact on Council's adopted budget as a result of this report.

ENVIRONMENTAL IMPACT ASSESSMENT

There is no direct environmental impact on Council arising from Council consideration of this matter.

SOCIAL IMPACT ASSESSMENT

There is no direct social impact on Council arising from Council consideration of this matter.

RISK ASSESSMENT

There are no direct or indirect risks impacting on Council arising from consideration of this matter.

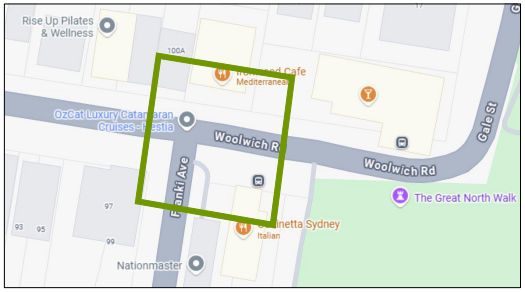
ATTACHMENTS

1. Detail Design ⇩
2. 12.5 Metre Bus ⇩
3. 8.8 Metre Service Vehicle ⇩
4. 8.8 Metre Service Vehicle 2 ⇩
5. B85 Car ⇩

HUNTERS HILL BIKE PLAN - SITE 15
WOOLWICH RD/ FRANKI AVE
INTERSECTION WORKS

CIVIL INFRASTRUCTURE WORKS
TRAFFIC SAFETY IMPROVEMENT WORKS
PROJECT No: 25-007C

LOCALITY PLAN



CONSULTANT

LT Urban ENGINEERING

DRAWING SCHEDULE

DWG No.	DRAWING TITLE	REV	DATE
25-007C-101	COVER PAGE	1	27/05/25
25-007C-102	SPECIFICATIONS & NOTES	1	27/05/25
25-007C-103	OVERALL LAYOUT PLAN	1	27/05/25
25-007C-104	LAYOUT PLAN 1	1	27/05/25
25-007C-105	LAYOUT PLAN 2	1	27/05/25
25-007C-110	SIGNAGE & LINEMARKING	1	27/05/25
25-007C-130	SETOUT PLAN 1	1	27/05/25
25-007C-131	SETOUT PLAN 2	1	27/05/25
25-007C-132	SETOUT PLAN 3	1	27/05/25
25-007C-140	LONGSECTION 1	1	27/05/25
25-007C-141	LONGSECTION 2	1	27/05/25
25-007C-160	DETAILS 1	1	27/05/25
25-007C-161	DETAILS 2	1	27/05/25

PLOTTED BY : PAUL DATED 26/05/2025 - LT Urban Engineering

FILE LOCATION : C:\Users\tburn\LT Urban Dropbox\LT Urban Team Folder\LTUrban-Work\Council Projects\Hunters Hill\Woolwich - Franki\Design

SITE WORKS

1. ALL WORKS TO BE IN ACCORDANCE WITH HUNTERS HILL COUNCIL REQUIREMENTS, SPECIFICATIONS AND AUSTRALIAN STANDARDS. CONFLICTS SHALL BE REFERRED TO THE SUPERINTENDENT FOR DIRECTION.
2. THE CONTRACTOR IS TO DESIGN, OBTAIN APPROVALS AND CARRY OUT REQUIRED TEMPORARY TRAFFIC AND PEDESTRIAN CONTROL PROCEDURES DURING CONSTRUCTION IN ACCORDANCE WITH TfNSW AND LOCAL COUNCIL REGULATIONS AND REQUIREMENTS.
3. THE CONTRACTOR IS TO OBTAIN ALL AUTHORITY APPROVALS AS REQUIRED.
4. RESTORE ALL PAVED, COVERED, GRASSED AND LANDSCAPED AREAS TO THEIR ORIGINAL CONDITION ON COMPLETION OF WORKS. WHERE PLANTING OF CONSTRUCT NEW GRASS IS NECESSARY REFER TO RELEVANT COUNCIL OFFICER.
5. ON COMPLETION OF ANY TRENCHING WORKS, ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL, GRASSED AREAS AND ROAD PAVEMENTS.
6. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
7. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO LODGMENT OF TENDER AND ON SITE WORKS. THE PRICE AS TENDERED SHALL BE INCLUSIVE OF ALL WORKS SHOWN ON THE TENDER PROJECT DRAWINGS. ADDITIONAL PAYMENTS FOR WORKS SHOWN ON THE TENDER PROJECT DRAWINGS WILL NOT BE APPROVED.
8. THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, AND ANY OTHER PLANS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED RELATING TO WORKS ON THE SUBJECT SITES.
9. ANY EXISTING TREES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
   - A) PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE.
   - B) ENSURING THAT NOTHING IS NAILED TO THEM.
   - C) 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 DRIPLINE AND THE TRUNK, WHICH EVER IS 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
10. DO NOT OBTAIN DIMENSIONS BY SCALING THE DRAWINGS.
11. IN CASE OF DOUBT OR DISCREPANCY REFER TO SUPERINTENDENT FOR CLARIFICATION OR CONFIRMATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
12. WHERE CONSTRUCT NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
13. MAKE SMOOTH TRANSITION TO EXISTING FEATURES AND MAKE GOOD WHERE JOINED.
14. THESE PLANS SHALL BE READ IN CONJUNCTION WITH ALL APPROVED DRAWINGS AND SPECIFICATIONS PREPARED BY OTHER PROJECT CONSULTANTS.
15. TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MIN 50mm IN BITUMINOUS PAVING.
16. ALL CIVIL ENGINEERING DESIGN HAS BEEN DOCUMENTED UNDER THE ASSUMPTION THAT ALL NECESSARY SITE CONTAMINATION REMEDIATION WORKS HAVE BEEN SATISFACTORILY COMPLETED (IF APPLICABLE) AND THAT THE SITE IS NOT AFFECTED BY ANY SOIL STRATA OR GROUNDWATER TABLE CONTAMINATION.
17. ALL EXCESSIVE MATERIAL AND WASTE PRODUCED SHOULD BE DISPOSED OF TO AN APPROVED WASTE MANAGEMENT FACILITY.
18. SERVICE ADJUSTMENTS: ALL SERVICES AFFECTED BY CONSTRUCT NEW WORK TO BE ADJUSTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT SERVICE AUTHORITY.
19. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE WHERE REQUIRED. THE TfNSW CERTIFIED TRAFFIC CONTROLLER SHALL BE USED FOR THIS PURPOSE.

ACCESS AND SAFETY

1. THE CONTRACTOR SHALL COMPLY WITH ALL STATUTORY AND INDUSTRIAL REQUIREMENTS FOR PROVISION OF A SAFE WORKING ENVIRONMENT INCLUDING TRAFFIC AND PEDESTRIAN CONTROL.
2. THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES ACCESS TO ALL BUILDINGS ADJACENT THE WORKS IS NOT DISRUPTED.
3. WHERE NECESSARY THE CONTRACTOR SHALL PROVIDE SAFE PASSAGE OF VEHICLES AND/OR PEDESTRIANS THROUGH OR BY THE SITE.

SURVEY NOTES

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN SUPPLIED BY LANDSCAPE SURVEYS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. LT URBAN ENGINEERING 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 LT URBAN ENGINEERING THE FOLLOWING NOTES HAVE BEEN TAKEN DIRECTLY FROM THE ORIGINAL SURVEY DOCUMENTS.

NOTES

(1)SURVEY DOES NOT INCLUDE LOCATION OF ANY UNDERGROUND INFRASTRUCTURE AND SERVICES BEFORE ANY EXCAVATION IS UNDERTAKEN INVESTIGATION SHOULD TAKE PLACE REGARDING THE EXISTENCE/LOCATION OF ANY SERVICES WHICH MAY BE OWNED BY ANY SERVICE PROVIDERS
BEFORE YOU DIG AUSTRALIA DIAL 1100

EROSION & SEDIMENT CONTROL NOTES

1. THE CONTRACTOR SHALL INSTIGATE ALL SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH STATUTORY REQUIREMENTS AND IN PARTICULAR THE "BLUE BOOK" (MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION, PRODUCED BY THE DEPARTMENT OF HOUSING). THESE MEASURES ARE TO BE REGULARLY INSPECTED AND MAINTAINED.
2. INFORM ALL CONTRACTORS OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS.
3. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE ESTABLISHMENT & MANAGEMENT OF A DETAILED SCHEME MEETING COUNCIL'S REQUIREMENTS, AND ALL OTHER REGULATORY AUTHORITY REQUIREMENTS. PAY ALL FEES.
4. THE FOLLOWING STANDARD DRAWINGS SHALL BE USED IN CONJUNCTION WITH THIS PLAN;
   - SD5-5 EARTH DIVERSION SWALE
   - SD6-14 STABILISED SITE ACCESS
   - SD6-8 SEDIMENT FENCE
   - SD6-11 MESH & GRAVEL INLET FILTER
   - SD6-12 GEOTEXTILE INLET FILTER
5. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE SHALL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
   - A) INSTALL ALL TEMPORARY SEDIMENT FENCES AND BARRIER FENCES. WHERE FENCES ARE ADJACENT TO EACH OTHER THE SEDIMENT FENCE CAN BE INCORPORATED INTO THE BARRIER FENCE.
   - B) CONSTRUCT TEMPORARY STABILISED SITE ACCESS. INCLUDING SHAKE DOWN AND WASH PAD.
   - C) INSTALL SEDIMENT CONTROL MEASURES AS OUTLINED ON THE APPROVED PLANS.
6. UNDERTAKE SITE DEVELOPMENT WORKS SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF MINIMUM WORKABLE SIZE.
7. MAINTAIN AND MANAGE ENVIRONMENTAL PROTECTION MEASURES THROUGHOUT CONTRACT.
8. AT ALL TIMES AND IN PARTICULAR DURING WINDY AND DRY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
9. WATER SHALL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN STABILISED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED OUT.
10. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES SHALL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE STABILISED / REHABILITATED.
11. ALLOW FOR THE ESTABLISHMENT OF OTHER EROSION PROTECTION MEASURES.
12. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED TO ENSURE THAT THEY OPERATE EFFECTIVELY. REPAIRS AND/OR MAINTENANCE SHALL BE UNDERTAKEN REGULARLY AND AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.
13. LIMIT OR STOP WORKS IN PERIODS OF WET WEATHER.
14. PROTECT ALL STOCKPILES OF MATERIALS FROM SCOUR AND EROSION. MAINTAIN ALL STORMWATER PIPES AND PITS CLEAR OF DEBRIS AND SEDIMENT
15. CONTROL WATER FROM UPSTREAM OF THE SITE SUCH THAT IT DOES NOT ENTER THE DISTURBED SITE.

EXISTING UNDERGROUND SERVICES NOTES

1. THE CONTRACTOR SHALL EXECUTE A "BEFORE-YOU-DIG-AUSTRALIA" SEARCH FOR SERVICE LOCATION PLANS.
2. ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA, THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE AND CONFIRM 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.
3. CARE TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER COMMUNICATION, GAS OR ELECTRICAL SERVICES. HAND EXCAVATION ONLY IN THESE AREAS.
4. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING SERVICES THAT ARE TO BE RETAINED IN THE VICINITY OF THE PROPOSED WORKS. ANY AND ALL DAMAGE TO THESE SERVICES AS A RESULT OF THESE WORKS SHALL BE REPAIRED BY THE CONTRACTOR UNDER THE DIRECTION OF THE SUPERINTENDENT, AND AT NO EXTRA COST.
5. THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED.
6. PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL GAIN APPROVAL OF THE PROGRAM FOR THE RELOCATION AND/OR CONSTRUCTION OF TEMPORARY SERVICES AND FOR ANY ASSOCIATED INTERRUPTION OF SUPPLY.
7. THE CONTRACTOR SHALL ALLOW LIAISON WITH RESPECTIVE UTILITY AUTHORITIES TO RESOLVE POTENTIAL CLASHES BETWEEN THE WORKS AND EXISTING SERVICES (AS REQUIRED).

UTILITY SERVICE LOCATIONS NOTES

WARNING: THE UTILITY SERVICES INDICATED ON THE PLANS ARE BASED ON THE DIAL BEFORE YOU DIG INFORMATION. WARNING THE PLANS ARE INDICATIVE ONLY.

LTURBAN ENGINEERING CANNOT AND WILL NOT BE HELD RESPONSIBLE TO FOR ACCURACY OF THE INFORMATION ON THE PLANS.

BEFORE ANY CONSTRUCTION PLANNING OR EXCAVATION IS UNDERTAKEN AN INVESTIGATION SHOULD TAKE PLACE REGARDING THE EXISTENCE/LOCATION OF ANY SERVICES WHICH MAY EXISTENCE/LOCATION OF ANY SERVICES WHICH MAY BE OWNED BY ANY SERVICE PROVIDERS
BEFORE YOU DIG AUSTRALIA DIAL 1100.
THIS SERVICE INVESTIGATION IS THE RESPONSIBILITY OF THE CONTRACTOR CONDUCTING THE WORKS.

CONCRETE NOTES

1. THIS SECTION SPECIFIES MISCELLANEOUS MINOR CONCRETE WORKS AND DOES NOT APPLY TO BUILDINGS OR BRIDGES.
2. CONFORM TO THE REQUIREMENTS OF ALL AUSTRALIAN AND INDUSTRY ACCEPTED STANDARDS TO THE EXTENT THAT THEY ARE RELEVANT AND THAT THEY ARE NOT EXCEEDED BY THIS SPECIFICATION.
3. PROVIDE MANUFACTURER'S TEST CERTIFICATES FOR QUALITY OF CEMENT, AGGREGATE AND REINFORCEMENT IF REQUESTED.
4. UNLESS SHOWN OR SPECIFIED OTHERWISE SUPPLY CONCRETE WITH THE FOLLOWING PROPERTIES;
   - COMPRESSIVE STRENGTH: N32
   - AGGREGATE SIZE: 20mm
   - SUMP 80mm + OR - 15mm

   CONDUCT SLUMP TESTING ON SITE FOR EACH AND EVERY TRUCK.
5. FORMWORK
   - DESIGN AND CONSTRUCT FORMS SO THAT THEY ARE MORTAR TIGHT AND CAN BE REMOVED WITHOUT DAMAGING THE CONCRETE.
   - BUILD FORMS TRUE TO LINE AND BRACED IN A SUBSTANTIAL NON-YIELDING MANNER.
   - DO NOT PLACE CONCRETE UNTIL FORMWORK HAS BEEN INSPECTED BY THE SUPERINTENDENT.
   - FORMWORK TO BE CLASS 5 (AS3600).
   - FORMWORK FOR ALL EXTERNAL CORNERS OF EXPOSED CONCRETE SHALL INCORPORATE A 20 X 20 FILLET U.N.O.
6. U.N.O. CLEAR CONCRETE COVERS SHALL BE;

ENVIRONMENT	COVER
- SURFACES OF MEMBERS CAST AGAINST, AND IN CONTACT WITH THE GROUND.	50mm
- SURFACES OF MEMBERS CAST AGAINST, AND IN CONTACT WITH THE GROUND SEPARATED BY MEMBRANE	30mm
- SURFACES OF MEMBERS IN ABOVE GROUND EXTERIOR ENVIRONMENTS	40mm

7. PLACING OF CONCRETE
   - GIVE THE SUPERINTENDENT SUFFICIENT NOTICE SO THAT INSPECTION MAY BE MADE BEFORE AND DURING POURING CONCRETE
   - PROVIDE VERIFICATION THAT ALL CONSTITUENT MATERIALS, FORMWORK, FALSEWORK, REINFORCEMENT AND ENVIRONMENTAL CONDITIONS COMPLY WITH ALL REQUIREMENTS. DO NOT CAST ANY CONCRETE WITHOUT THAT VERIFICATION.
   - DO NOT PLACE CONCRETE IF THE TEMPERATURE OF THE CONCRETE EXCEEDS 35 DEGREES CELSIUS, OR THE AMBIENT AIR TEMPERATURE EXCEEDS 40 DEGREES CELSIUS.
   - PLACE AND COMPACT CONCRETE WITHIN THE FOLLOWING TIME AFTER THE ADDITION OF THE MIXING WATER TO THE MIX:

CONC. TEMP. AT TIME OF PLACING	MAXIMUM TIME (MIN.)
25°C°C - 28°C°C	75
28°C°C - 32°C°C	60
32°C°C - 35°C°C	45

   - PLACE CONCRETE IN A CONTINUOUS OPERATION BETWEEN CONSTRUCTION JOINTS SO THAT THE FACE OF THE CONCRETE IS IN A PLASTIC STATE WHEN SUCCEEDING CONCRETE IS PLACED AGAINST IT.
   - DO NOT ALLOW CONCRETE TO FREE-FALL FROM A HEIGHT GREATER THAN 1.5 METRES.
   - PLACE ALL CONCRETE IN DRY WEATHER UNLESS OTHERWISE APPROVED.
   - FOR EACH TRUCK OF PREMIXED CONCRETE AN IDENTIFICATION CERTIFICATE ON DELIVERY LISTING THE INFORMATION REQUIRED BY AS 1379 AND ANY OTHER PARTICULAR REQUIREMENTS FOR SPECIAL CLASS CONCRETE.
   - CONSTRUCT KERBS AND GUTTERS AS INTEGRAL UNITS.
8. SURFACE FINISHES
   - FINISH SURFACES TO A SMOOTH AND EVEN COLOUR
   - REMOVE FREE SURFACE WATER DURING FINAL SCREEDING OF UNFORMED SURFACES.
   - ROUND OFF EXPOSED EDGES AND CORNERS.
   - PROTECT EXPOSED SURFACES FROM RAIN UNTIL FINAL SET HAS OCCURRED.
9. ALL SLABS ARE TO BE CURED FOR A MINIMUM OF SEVEN (7) DAYS. CURING OPERATIONS SHALL INCLUDE PLACEMENT OF MOIST HESSIAN OVER WET CONCRETE IMMEDIATELY AFTER FINISHING WORKS HAVE BEEN COMPLETED. THE HESSIAN SHALL BE OVERLAYED BY PLASTIC SHEET. THE HESSIAN SHALL BE CONTINUOUSLY AND CONSISTENTLY MOIST DURING THE CURING PERIOD. PVA MEMBRANES ARE NOT PERMITTED.
10. REMOVE AND REPLACE RAIN DAMAGED CONCRETE.
11. CONFORM TO;

- FINISHED LEVEL	+ OR - 15mm FROM THE SPECIFIED LEVEL
- INVERT LEVEL	+ OR - 5mm FROM THE SPECIFIED LEVEL
- STRAIGHT EDGE	3mm MAXIMUM IN 3m
- DEVIATION OF SURFACE	6mm MAXIMUM IN 15m
- CHAINAGE AT VEHICLE CROSSING	+ OR - 150mm
- WIDTH OF VEHICULAR CROSSING	+ OR - 25mm

12. DEFECTIVE CONCRETE & MATERIALS
   - CONCRETE WHICH IS NOT PLACED, CURED OR FINISHED AS SPECIFIED, DOES NOT HAVE THE SPECIFIED STRENGTH OR OTHER SPECIFIED PROPERTIES, IS NOT SOUND, DENSE, DURABLE OR CRACK-FREE WILL BE CONSIDERED DEFECTIVE
   - THE CONTRACTOR SHALL BEAR ALL COST AND DELAYS RESULTING FROM THE REJECTION OF CONCRETE AND SUBSEQUENT RECTIFICATION.
   - REMOVE THE CONCRETE TO A POINT AGREED WITH THE SUPERINTENDENT AT WHICH VISUALLY AND STRUCTURALLY ACCEPTABLE CONSTRUCTION JOINT CAN BE MADE, AND THE DEFECTIVE ELEMENT REBUILT.
   - REPAIR DEFECTIVE SURFACE FINISHES IF APPROVED BY THE SUPERINTENDENT. APPROVAL WILL NOT BE GIVEN IF THE DEFECTIVE AREA IS TOO EXTENSIVE OR THE TECHNIQUES PROPOSED ARE NOT ADEQUATE TO ENSURE A VISUALLY ACCEPTABLE AND DURABLE REPAIR.
13. FIBRE REINFORCED CONCRETE
   -REINFORCED WITH EPC BARCHIP 48-4KG/M3
14. -DOWELLED JOINTS SHALL BE PROVIDED AT CONNECTION TO EXISTING AND WHEN MATCHING TO EXISTING SLABS.

SIGNAGE AND LINEMARKING

1. ALL SIGNAGE TO BE IN ACCORDANCE WITH THE CURRENT VERSION OF THE TfNSW REGULATORY SIGNS MANUAL.
2. ALL PAVEMENT MARKING TO BE IN ACCORDANCE WITH TfNSW REQUIREMENTS.
3. TRANSITION LINEMARKING TO SUIT EXISTING WHERE REQUIRED.
4. RELOCATE/ REMOVE EXISTING SIGNS AS REQUIRED.
5. REMOVE ALL REDUNDANT PAVEMENT MARKING AS REQUIRED.
6. PROVIDE ADEQUATE APPROACH WARNING SIGNS DURING AND AFTER CONSTRUCTION.
7. PROVIDE RETRO-REFLECTORISED PAVEMENT MARKERS TO COUNCIL AND TfNSW REQUIREMENTS.
8. ALL LINEMARKING TO BE WHITE IN COLOUR WITH THE EXCEPTION OF C2 AND C3 LINES AND LINEMARKING ON CONCRETE PAVEMENTS WHICH ARE TO BE YELLOW.

STORMWATER NOTES

1. ALL PIPES LESS THAN OR EQUAL TO Ø225mm ARE TO BE SOLVENT WELD-JOINTED SEWER GRADE uPVC CLASS SN4, OR (min) CLASS 2 RUBBER-RING JOINTED RCP (UNO).
2. 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 HEIGHT.
3. PIPES GREATER THAN OR EQUAL TO Ø375mm ARE TO BE (min) CLASS 2 RUBBER-RING JOINTED RCP (UNO).
4. ALL PIPES ARE TO BE LAID AT (min) 1.0% GRADE (UNO)
5. EQUIVALENT STRENGTH FRC PIPES MAY ONLY BE USED WITH THE CONFIRMATION FROM LT URBAN ENGINEERING .
6. THE USE OF PRE-CAST STORMWATER DRAINAGE PITS IS NOT ACCEPTED WITHOUT CONFIRMATION BETWEEN LT URBAN ENGINEERING ENGINEERS, COUNCIL AND THE CONTRACTOR REGARDING QUALITY CONTROL, AND CERTIFICATION OF FINISHES.
7. GRATES AND COVERS SHALL CONFORM TO AS 3996.
   - A) USE DUCTILE IRON COVERS AND GRATES COMPLYING WITH RELEVANT AUSTRALIAN AND COUNCIL STANDARDS.
   - B) ALL COVERS AND GRATES TO BE POSITIONED IN A FRAME AND MANUFACTURED AS A UNIT.
   - C) ALL COVERS AND GRATES TO BE FITTED WITH POSITIVE COVER LIFTING KEYS.
   - D) UNLESS DETAILED OR SPECIFIED OTHERWISE COVERS AND GRATES TO BE CLASS "D" IN VEHICULAR PAVEMENTS AND CLASS "B" ELSEWHERE.
   - E) USE GALVINISED GRATES IN ALL RAINGARDENS U.N.O.
8. ALL PIPE BENDS, JUNCTIONS, ETC. ARE TO BE PROVIDED USING PURPOSE MADE FITTINGS OR STORMWATER PITS.
9. ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.
10. ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT PIPE PENETRATIONS SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.
11. THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTERS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.
12. BEDDING SHALL BE (UNO) TYPE HS2 UNDER ROADS; H2 GENERAL AREAS, IN ACCORDANCE WITH CURRENT RELEVANT INDUSTRY STANDARDS AND GUIDELINES.
13. U.NO. MATERIAL USED FOR BEDDING OF PIPES SHALL BE APPROVED NON-COHESIVE GRANULAR MATERIAL HAVING HIGH PERMEABILITY AND HIGH STABILITY WHEN SATURATED AND FREE OF ORGANIC AND CLAY MATERIAL.
14. WHERE TRENCHES ARE IN ROCK, THE PIPE SHALL BE BEDDED ON A MIN. 50mm CONCRETE BED (OR 75mm THICK BED OF 12mm BLUE METAL) UNDER THE BARREL OF THE PIPE. THE PIPE COLLAR AT NO POINT SHALL BEAR ON THE ROCK.
15. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
16. THE CONTRACTOR SHALL ENSURE AND PROTECT THE INTEGRITY OF ALL STORMWATER PIPES DURING CONSTRUCTION. ANY AND ALL DAMAGE TO THESE PIPES AS A RESULT OF THESE WORKS SHALL BE REPAIRED BY THE CONTRACTOR UNDER THE DIRECTION OF THE SUPERINTENDENT, AND AT NO EXTRA COST.
17. ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED, CLEANED AND INVERT LEVELS CONFIRMED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS.
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. NOTE THAT THE PIT COVER LEVEL NOMINATED IN GUTTERS ARE TO THE INVERT OF THE GUTTER WHICH ARE 40mm LOWER THAN THE PAVEMENT LEVEL AT LIP OF GUTTER.
20. Ø100mm SUB-SOIL DRAINAGE LINES TO BE SLOTTED PVC AND SHALL BE CONNECTED TO A STORMWATER DRAINAGE PIT (AT min. 1% LONGITUDINAL GRADE) AND PROVIDED IN THE FOLLOWING LOCATIONS:
   - A) THE HIGH SIDE OF PROPOSED TRAFFICKED AND CARPARK PAVEMENT AREAS.
   - B) ALL PLANTER AND TREE BEDS PROPOSED ADJACENT TO PAVEMENT AREAS.
   - C) BEHIND RETAINING WALLS (IN ACCORDANCE WITH DRAWINGS)
   - D) ALL OTHER AREAS SHOWN ON THE DRAWINGS.
21. THE CONTRACTOR SHALL INSTALL INSPECTION OPENINGS TO ALL SUBSOIL DRAINAGE LINES AND DOWNPIPE LINES AS SPECIFIED ON DRAWINGS, AT MAXIMUM 60m CENTRES AND AT ALL UPSTREAM ENDPOINTS.
22. WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED.
23. PROVIDE 3.0m LENGTH OF Ø100 SUBSOIL DRAINAGE PIPE, TO THE UPSTREAM SIDES OF STORMWATER PITS, LAID IN STORMWATER PIPE TRENCHES AND CONNECTED TO THE DRAINAGE PIT.
24. ALL RECTANGULAR HOLLOW SECTIONS (RHS) SPECIFIED AS STORMWATER CONDUITS TO BE HOT DIPPED GALVANISED AND HAVE (MINIMUM) 5mm WALL THICKNESS.
25. EXCAVATIONS FOR PIPE WORK TO BE CARRIED OUT IN ACCORDANCE WITH LANE COVE COUNCIL SPECIFICATION.

KERBING NOTES

1. ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 32 MPa U.N.O IN REINFORCED CONCRETE NOTES.
2. ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON 100mm 5 MPa LEAN MIX CONCRETE BASE UNLESS NOTED OTHERWISE.
3. 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 5m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
4. WEAKENED PLANE JOINTS TO BE MIN 5mm WIDE AND LOCATED AT 2.5m CENTRES. KERB JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
5. FLOAT FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS U.N.O. 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 600mm U.N.O FROM THE LIP OF GUTTER. UPON COMPLETION OF THE CONSTRUCT NEW KERB AND GUTTER CONSTRUCT NEW BASECOURSE AND SURFACE TO BE LAID 600mm WIDE U.N.O.
7. EXISTING ALLOTMENT DRAINAGE PIPES ARE TO BE BUILT INTO THE CONSTRUCT NEW KERB AND GUTTER WITH 100mm DIA HOLE.
8. EXISTING KERB AND GUTTER IS TO BE COMPLETELY REMOVED WHERE CONSTRUCT NEW KERB AND GUTTER IS SHOWN.

ASPHALTIC CONCRETE

1. GENERAL
   ALL ASPHALTIC CONCRETE (AC) WORK TO BE PREPARED AND CARRIED OUT IN ACCORDANCE WITH GOOD ASPHALTIC PAVING PRACTICE AS DESCRIBED IN AS2734-1994 "ASPHALT (HOT-MIXED) PAVING - GUIDE TO GOOD PRACTICE" AND CURRENT RTA SPECIFICATIONS.
2. PAVEMENT PREPARATION
   - A) THE EXISTING SURFACE TO BE SEALED SHALL BE WITHIN +/- 2% OF THE OPTIMUM AND BROOMED BEFORE COMMENCEMENT OF WORK TO ENSURE COMPLETE REMOVAL OF ALL SUPERFICIAL FOREIGN MATTER.
   - B) PRIME ALL SURFACES TO BE SEALED. ALLOW PRIME TO SETTLE FOR A MINIMUM OF 3 DAYS BEFORE APPLYING TACK COAT AND ASPHALT.
   - C) SWEEP PRIMED SURFACES BEFORE APPLYING TACK COAT.
   - D) 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.
   - E) ALL DEFECTS IN THE BASE COURSE INCLUDING CRACKS, SURFACE DEFORMATION AND THE LIKE SHALL BE REPAIRED AS DIRECTED BY THE SUPERINTENDENT PRIOR TO PLACEMENT OF TACK COAT AND/OR AC COURSES.
3. PLACEMENT
   ALL ASPHALT SHALL BE PLACED UTILISING APPROVED MECHANICAL PAVING MACHINES. DO NOT HAND PLACE ASPHALT WITHOUT PRIOR APPROVAL FROM ENGINEER.
4. 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.
5. COMPACTION
   - A) ALL COMPACTION SHALL BE UNDERTAKEN USING SELF PROPELLED ROLLERS.
   - B) INITIAL ROLLING SHALL BE COMPLETED BEFORE THE MIX TEMPERATURE FALLS BELOW 105°C USING A STEEL DRUM ROLLER HAVING A MINIMUM WEIGHT OF 8 TONNES AND A MAXIMUM UNIT LOAD ON THE REAR DRUM EQUIVALENT TO 55kN/m WIDTH OF DRUM.
   - C) SECONDARY ROLLING SHALL BE COMPLETED BEFORE THE MIX TEMPERATURE FALLS BELOW 80°C USING A PNEUMATIC TYRED ROLLER OF AT LEAST 10 TONNES MASS, A MINIMUM TYRE PRESSURE OF 550kPa AND A MINIMUM TOTAL LOAD OF 1 TONNE ON EACH TYRE.
   - D) ROLLED SURFACES SHALL BE SMOOTH AND FREE OF UNDULATIONS. BONY AND UNEVEN SURFACES WILL BE REJECTED.
   - E) PROVIDE 2 No. MINIMUM COMPACTION TESTS.
6. FINISHED SURFACE PROPERTIES
   FINISHED SURFACES SHALL BE SMOOTH, DENSE AND TRUE TO SHAPE AND SHALL NOT VARY MORE THAN:
   - A) 3mm FROM THE SPECIFIED PLAN LEVEL AT ANY POINT.
   - B) 3mm FROM THE BOTTOM OF A 3m STRAIGHT EDGE LAID TRANSVERSELY.
   - C) 5mm FROM THE BOTTOM OF A 3m STRAIGHT EDGE LAID LONGITUDINALLY.
   - D) MINUS 0 TO PLUS 2mm ADJACENT TO OTHER ELEMENTS SUCH AS KERBS AND THE LIKE TO AVOID POOLING OF SURFACE WATER.
   - E) MINUS 0 FROM THE SPECIFIED THICKNESS.
7. DO NOT STORE PLANT EQUIPMENT OR TRAFFIC CONSTRUCT NEWLY LAID ASHPALTIC CONCRETE PAVEMENTS WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
8. DO NOT APPLY MARKING PAINTS UNTIL ASPHALT HAS CURED IN ACCORDANCE WITH PAINT MANUFACTURER'S SPECIFICATIONS.

PAVEMENTS

1. ALL PAVEMENT MATERIALS SHALL COMPLY WITH CURRENT TfNSW SPECIFICATIONS AND HUNTERS HILL COUNCIL SPECIFICATIONS. CONFLICTS SHALL BE REFERRED TO THE SUPERINTENDENT FOR DIRECTION. PROVIDE MECHANICAL ANALYSIS FOR EACH BATCH OF PAVEMENT MATERIAL TO ENSURE CONFORMITY.
2. MINIMUM COMPACTION STANDARDS:
   - A) BASE 100% STANDARD MAXIMUM DRY DENSITY
   - B) SUBBASE 100% STANDARD MAXIMUM DRY DENSITY
   - C) SUBGRADE100% STANDARD MAXIMUM DRY DENSITY
3. THE CONTRACTOR SHALL CONFIRM THE DESIGN CBR WITH A MINIMUM OF 3 TESTS TAKEN AT SUBGRADE LEVEL. WHERE DISCREPANCY IS FOUND, CONTACT THE DESIGNING ENGINEER.
4. ALLOW FOR COMPACTION TESTING BY NATA REGISTERED LABORATORY FOR: BASE LAYER, SUBBASE LAYER, SUBGRADE IN ACCORDANCE WITH THE LATEST VERSION OF AS3798 FOR PAVEMENTS, (MINIMUM 2 TESTS PER LAYER). ALLOW FOR AT LEAST TWO SUCCESSFUL COMPACTION TESTS IN EACH LAYER.
5. MATCH CONSTRUCT NEW PAVEMENTS NEATLY AND FLUSH WITH EXISTING WHERE REQUIRED.

SAFETY IN DESIGN NOTES

1. LT URBAN ENGINEERING HAS ASSESSED THE HEALTH AND SAFETY RISKS RELATED TO THE DESIGN. LT URBAN ENGINEERING HAS NOT IDENTIFIED ANY UNUSUAL OR UNIQUE HAZARDS AND SO HAS NOT PREPARED A SAFETY IN DESIGN REPORT.

THE FOLLOWING GENERAL SAFETY PROCEDURES ARE TO BE FOLLOWED AS NOTED :
A. ALL WORKS AROUND OR NEAR THE VICINITY OF EXISTING SERVICES ARE TO BE AS PER EACH SERVICE PROVIDERS REQUIREMENTS. ALLOW FOR PROTECTION TO OVERHEAD POWER LINES IN ACCORDANCE WITH THE ELECTRICAL AUTHORITY REGULATIONS & WORK COVER. SEE "UTILITY SERVICE LOCATIONS NOTES" AND "EXISTING UNDERGROUND SERVICES NOTES" FOR ADDITIONAL INFORMATION.

B. ALL EXCAVATION WORK WITH AN EXCAVATED DEPTH OF GREATER THAN 1.5 METRES IS TO COMPLY WITH SAFE WORK AUSTRALIA CODE OF PRACTICE EXCAVATION WORK (2018)

C. PRIOR TO COMMENCING ANY WORKS ON SITE, THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH AS 1742.3 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES - TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS' AND THE TfNSW PUBLICATION 'TRAFFIC CONTROL AT WORK SITES' VERSION 5.0. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE WHERE REQUIRED. ALL TRAFFIC CONTROLLERS MUST BE AUTHORISED BY THE RELEVANT AUTHORITY IE TfNSW OR THE COUNCIL.

2. LT URBAN ENGINEERING'S ASSESSMENT DOES NOT RELIEVE ANY OTHER PARTY FROM UNDERTAKING THEIR OWN SAFETY IN DESIGN REVIEW, AND DOES NOT RELIEVE ANY OTHER PARTY OF THEIR OBLIGATIONS UNDER THE WORK HEALTH & SAFETY ACT.

PROPOSED WORKS LEGEND

Symbol	Description
	CONSTRUCT NEW 150MM HIGH CONCRETE KERB & GUTTER AS PER COUNCIL STANDARD
	CONSTRUCT NEW CONCRETE LAYBACK 70MM HIGH SEE DETAIL
KO	CONSTRUCT NEW 150MM BARRIER KERB ONLY AS COUNCIL STANDARD DETAIL
MT	CONSTRUCT NEW 125MM HIGH MOUNTABLE KERB AS PER COUNCIL STANDARD DETAIL
FK	CONSTRUCT NEW 150MM WIDE FLUSH KERB AS PER COUNCIL STANDARD DETAIL
DW	CONSTRUCT NEW 200MM WIDE CONCRETE DWARF WALL AS PER COUNCIL STANDARD DETAIL
SS	CONSTRUCT NEW 150MM SANDSTONE BARRIER KERB
	STANDARD KERB RAMP TO COUNCILS SEPCIFICATION
	100MM THICK CONCRETE FOOTPATH
	TOP SOIL & TURF OR LANDSCAPING
	25MM THICK AC5 ASPHALT FOOTPATH ON 100MM THICK DGB20
	MILL AND RESHEET WITH 50MM THICK AC10 NEW DESIGN LEVELS.
	FULL DEPTH ROAD RECONSTRUCTION. RECONSTRUCT WITH 300MM OF DGB20 (COMPACTED IN MAX 150MM LAYERS) THEN 50MM OVERLAY USING AC10 WITH AR450 TO NEW DESIGN LEVELS.
	TOP SOIL & LOW LEVEL PLANTING
	CORRECTION LAYER - LIFT WITH AC20 TO 50 MM BELOW DESIGN LEVEL. CORRECTION COURSE (0-250M THICK) IN MULTIPLE LAYERS, LAYERS MIN 50MM MAX 100MM THICK, AS REQUIRED IN SOME LOCATIONS. OVERLAY 50MM AC14 TO NEW DESIGN LEVELS
	ROAD GULLY PIY WITH EKI AND GRATE
	BUTTERFLY GRATE ONLY PIT
	TREE TO BE REMOVED
	TREE TO REMAIN
	UPVC PIPE

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ISSUE	DESCRIPTION	DESIGN	DRAWN	VER'D	APP'D	DATE
1	80% DETAILED DESIGN	PT	ADJ	PT	PT	27/05/25

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PROJECT: HUNTERS HILL BIKE PLAN - SITE 15 WOOLWICH RD/ FRANKI AVE INTERSECTION WORKS
DRAWING TITLE: SPECIFICATIONS & NOTES
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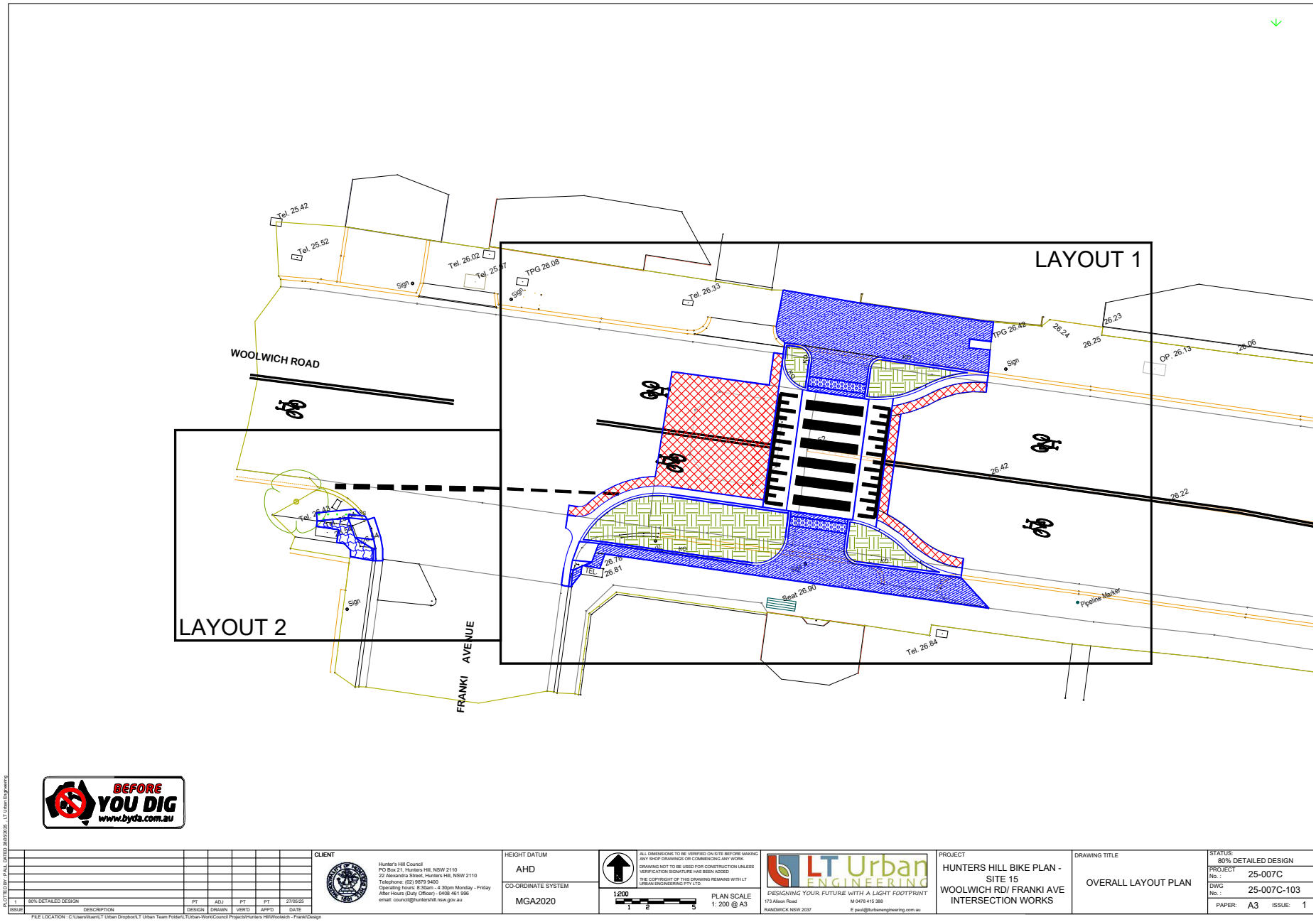
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LAYOUT 2
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FRANKI AVENUE
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WOOLWICH RD/ FRANKI AVE INTERSECTION WORKS
DRAWING TITLE
OVERALL LAYOUT PLAN
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80% DETAILED DESIGN
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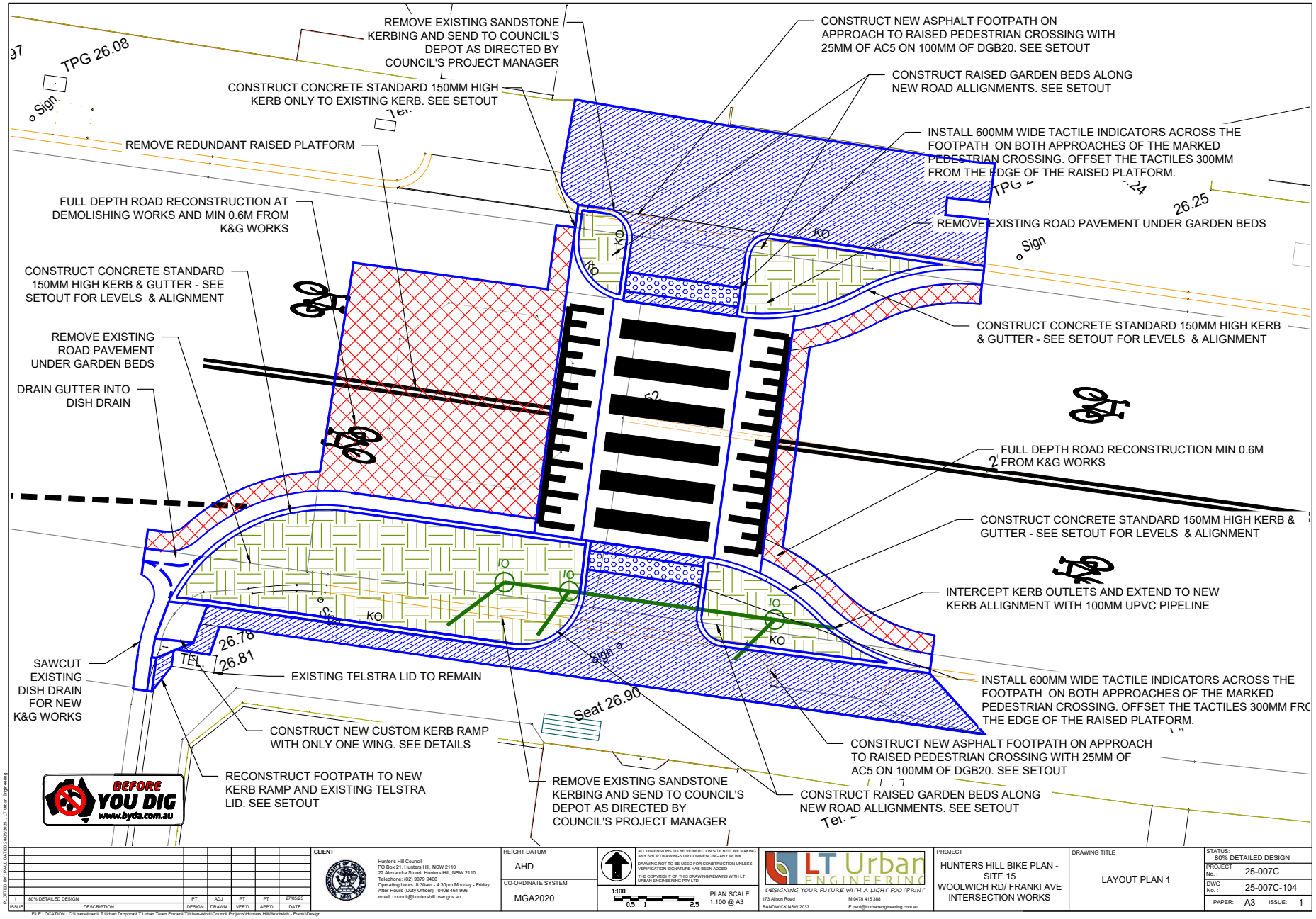
REMOVE EXISTING SANDSTONE KERBING AND SEND TO COUNCIL'S DEPOT AS DIRECTED BY COUNCIL'S PROJECT MANAGER
CONSTRUCT NEW ASPHALT FOOTPATH ON APPROACH TO RAISED PEDESTRIAN CROSSING WITH 25MM OF AC5 ON 100MM OF DGB20. SEE SETOUT
CONSTRUCT RAISED GARDEN BEDS ALONG NEW ROAD ALLIGNMENTS. SEE SETOUT
CONSTRUCT CONCRETE STANDARD 150MM HIGH KERB ONLY TO EXISTING KERB. SEE SETOUT
INSTALL 600MM WIDE TACTILE INDICATORS ACROSS THE FOOTPATH ON BOTH APPROACHES OF THE MARKED PEDESTRIAN CROSSING. OFFSET THE TACTILES 300MM FROM THE EDGE OF THE RAISED PLATFORM.
REMOVE REDUNDANT RAISED PLATFORM
FULL DEPTH ROAD RECONSTRUCTION AT DEMOLISHING WORKS AND MIN 0.6M FROM K&G WORKS
REMOVE EXISTING ROAD PAVEMENT UNDER GARDEN BEDS
CONSTRUCT CONCRETE STANDARD 150MM HIGH KERB & GUTTER - SEE SETOUT FOR LEVELS & ALIGNMENT
REMOVE EXISTING ROAD PAVEMENT UNDER GARDEN BEDS
DRAIN GUTTER INTO DISH DRAIN
FULL DEPTH ROAD RECONSTRUCTION MIN 0.6M FROM K&G WORKS
CONSTRUCT CONCRETE STANDARD 150MM HIGH KERB & GUTTER - SEE SETOUT FOR LEVELS & ALIGNMENT
INTERCEPT KERB OUTLETS AND EXTEND TO NEW KERB ALLIGNMENT WITH 100MM UPVC PIPELINE
SAWCUT EXISTING DISH DRAIN FOR NEW K&G WORKS
EXISTING TELSTRA LID TO REMAIN
INSTALL 600MM WIDE TACTILE INDICATORS ACROSS THE FOOTPATH ON BOTH APPROACHES OF THE MARKED PEDESTRIAN CROSSING. OFFSET THE TACTILES 300MM FRO THE EDGE OF THE RAISED PLATFORM.
CONSTRUCT NEW CUSTOM KERB RAMP WITH ONLY ONE WING. SEE DETAILS
CONSTRUCT NEW ASPHALT FOOTPATH ON APPROACH TO RAISED PEDESTRIAN CROSSING WITH 25MM OF AC5 ON 100MM OF DGB20. SEE SETOUT
RECONSTRUCT FOOTPATH TO NEW KERB RAMP AND EXISTING TELSTRA LID. SEE SETOUT
REMOVE EXISTING SANDSTONE KERBING AND SEND TO COUNCIL'S DEPOT AS DIRECTED BY COUNCIL'S PROJECT MANAGER
CONSTRUCT RAISED GARDEN BEDS ALONG NEW ROAD ALLIGNMENTS. SEE SETOUT
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26.25
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Seat 26.90
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DRAWING TITLE
LAYOUT PLAN 1
STATUS: 80% DETAILED DESIGN
PROJECT No.: 25-007C
DWG No.: 25-007C-104
PAPER: A3 ISSUE: 1
ISSUE 1 | DESCRIPTION 80% DETAILED DESIGN | DESIGN PT | DRAWN ADJ | VERD PT | APPD PT | DATE 27/05/25
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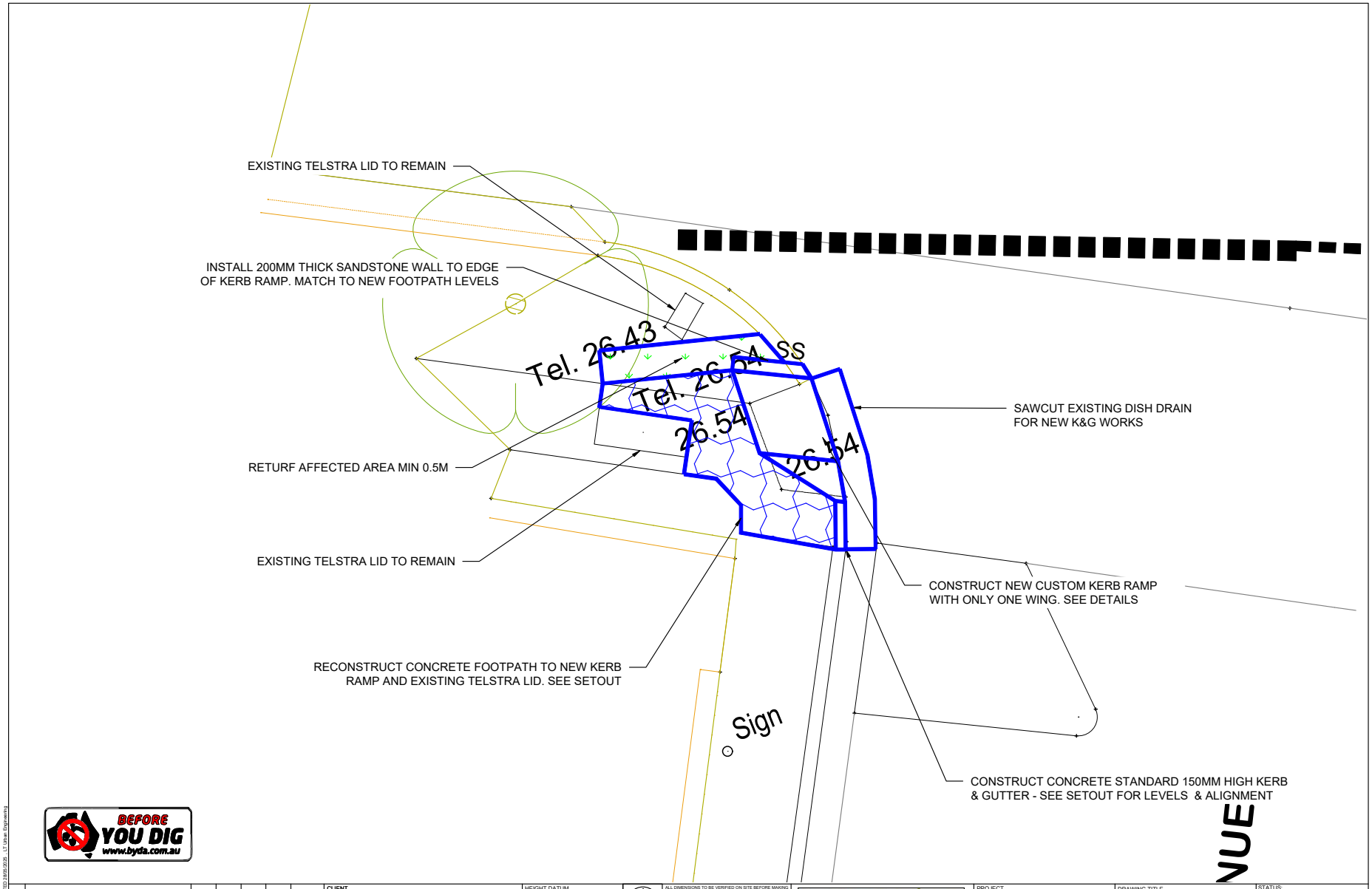
EXISTING TELSTRA LID TO REMAIN
INSTALL 200MM THICK SANDSTONE WALL TO EDGE OF KERB RAMP. MATCH TO NEW FOOTPATH LEVELS
Tel. 26.43
Tel. 26.54
SS
26.54
26.54
SAWCUT EXISTING DISH DRAIN FOR NEW K&G WORKS
RETURF AFFECTED AREA MIN 0.5M
EXISTING TELSTRA LID TO REMAIN
CONSTRUCT NEW CUSTOM KERB RAMP WITH ONLY ONE WING. SEE DETAILS
RECONSTRUCT CONCRETE FOOTPATH TO NEW KERB RAMP AND EXISTING TELSTRA LID. SEE SETOUT
Sign
CONSTRUCT CONCRETE STANDARD 150MM HIGH KERB & GUTTER - SEE SETOUT FOR LEVELS & ALIGNMENT
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PROJECT
HUNTERS HILL BIKE PLAN - SITE 15
WOOLWICH RD/ FRANKI AVE INTERSECTION WORKS
DRAWING TITLE
LAYOUT PLAN 2
STATUS: 80% DETAILED DESIGN
PROJECT No.: 25-007C
DWG No.: 25-007C-105
PAPER: A3 ISSUE: 1
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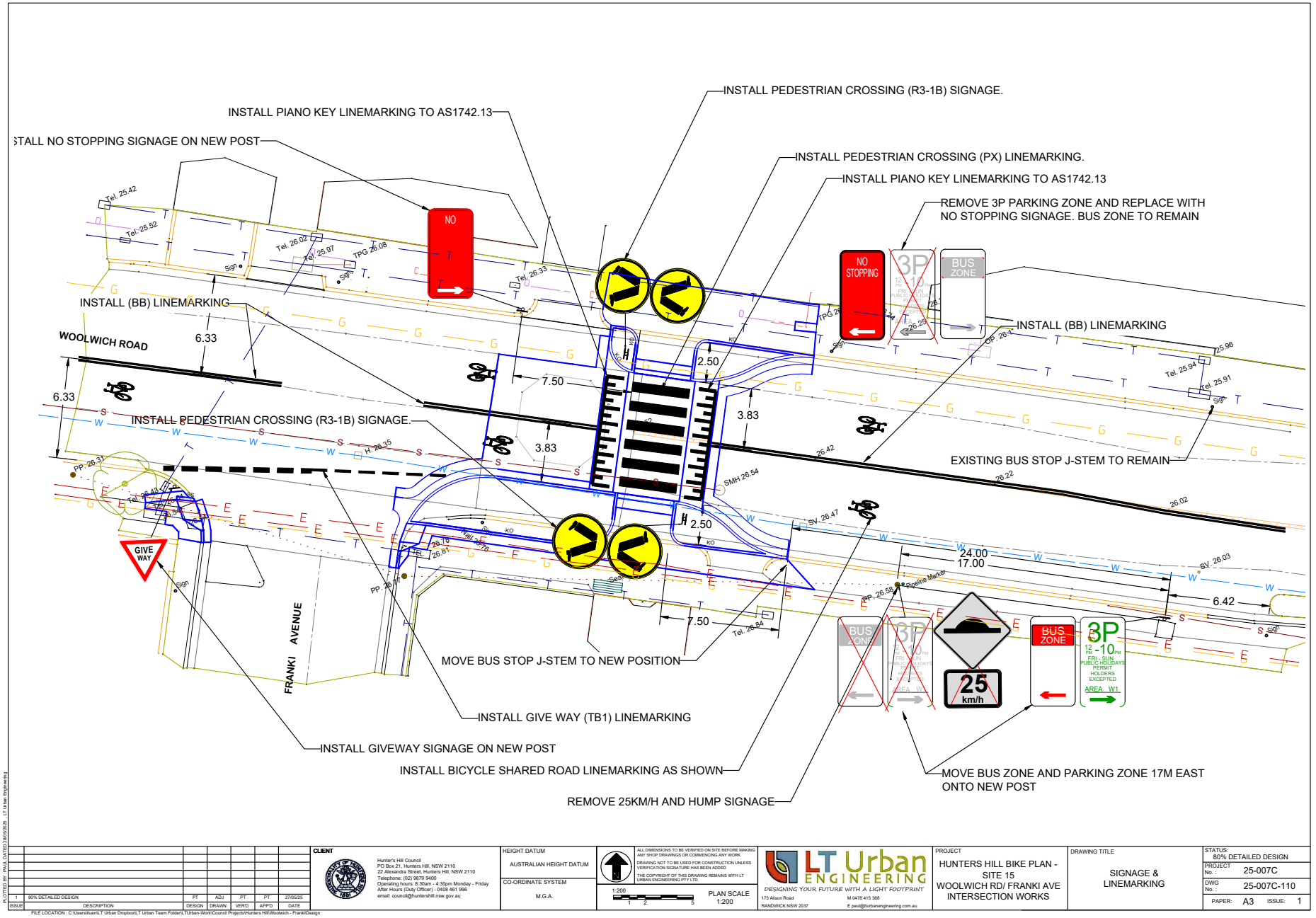

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PROJECT: HUNTERS HILL BIKE PLAN - SITE 15
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DRAWING TITLE: SIGNAGE & LINEMARKING

STATUS: 80% DETAILED DESIGN
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DWG No.: 25-007C-110
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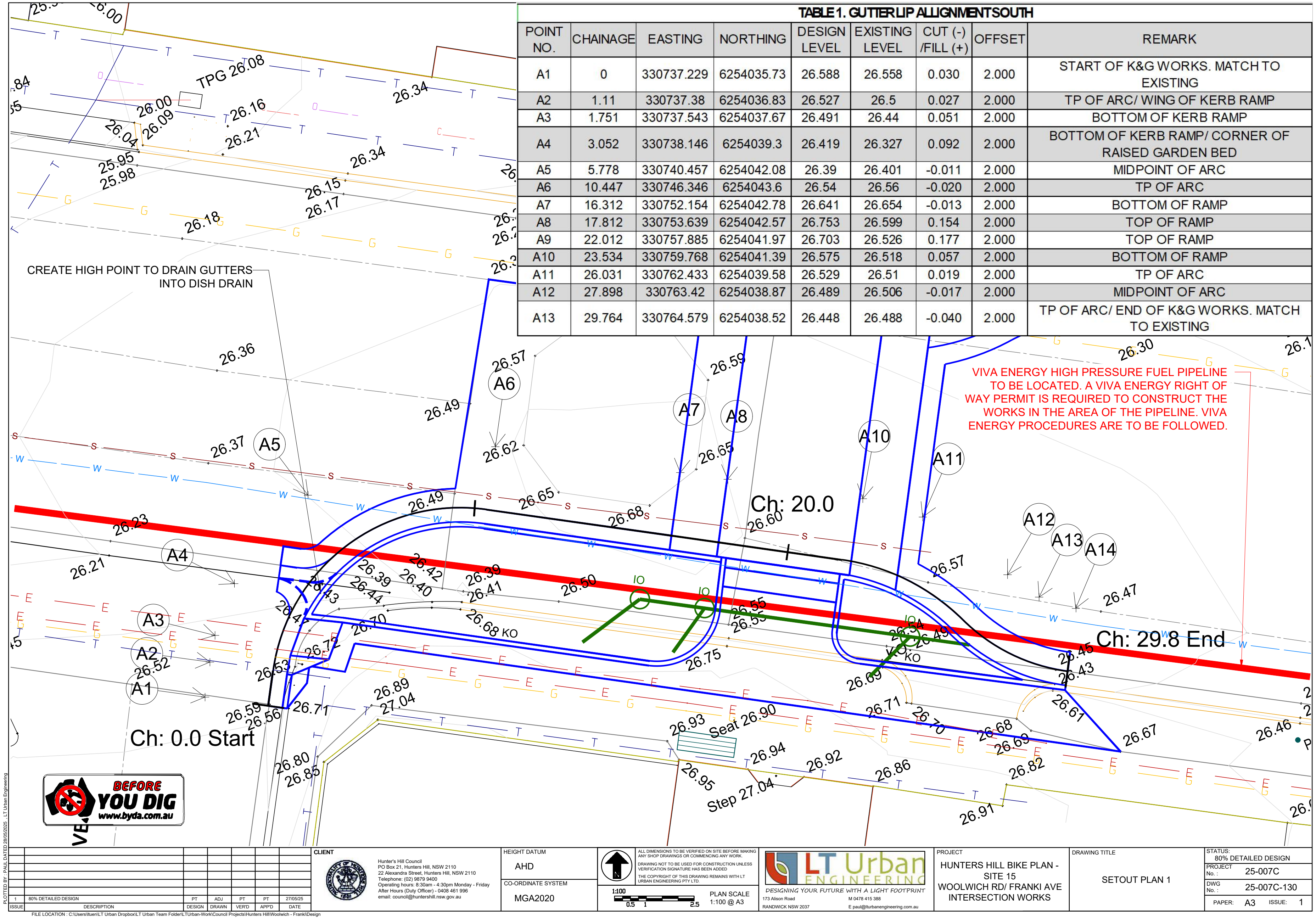
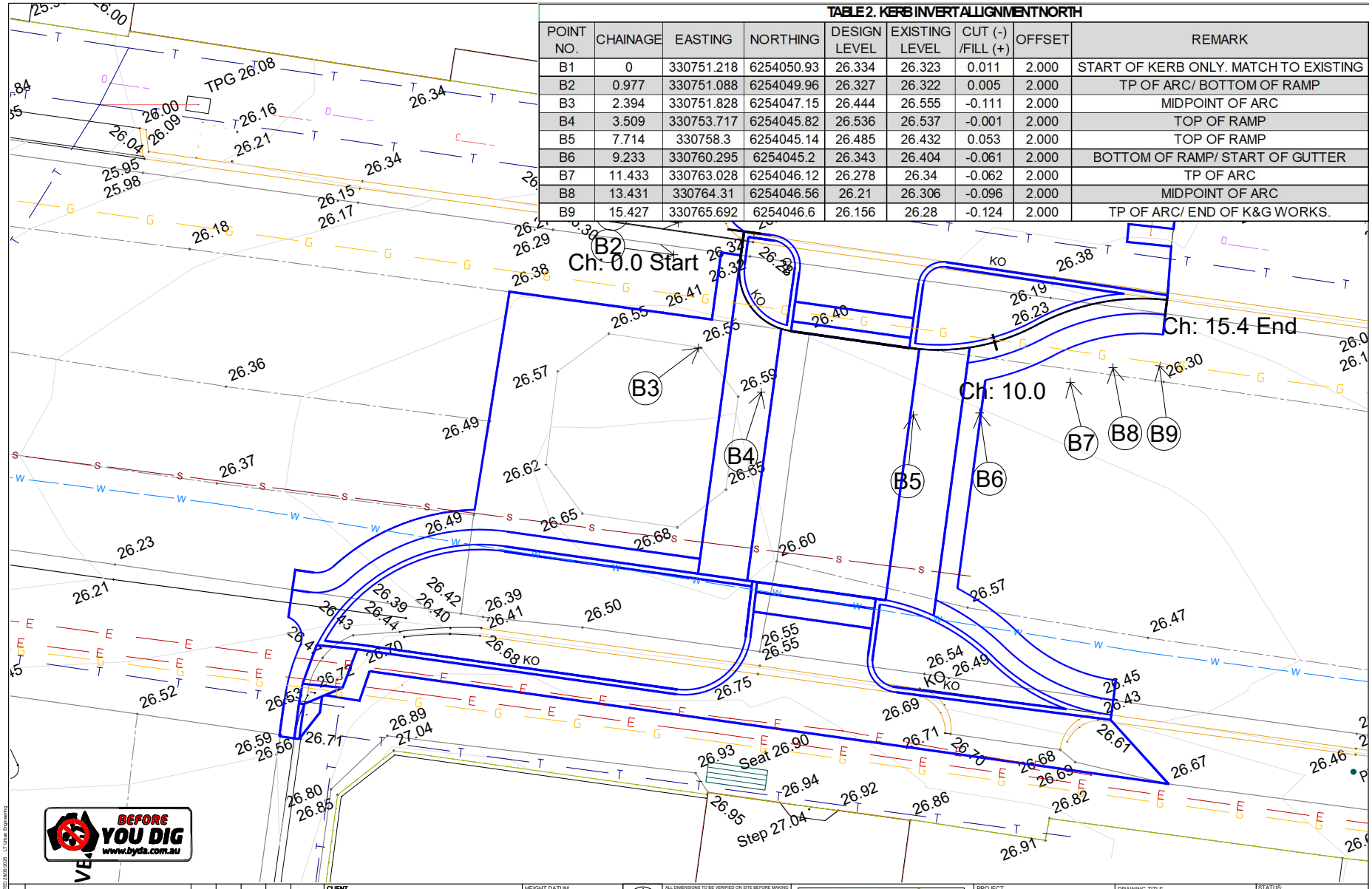


TABLE 1. GUTTER LIP ALLIGNMENT SOUTH

POINT NO.	CHAINAGE	EASTING	NORTHING	DESIGN LEVEL	EXISTING LEVEL	CUT (-) /FILL (+)	OFFSET	REMARK
A1	0	330737.229	6254035.73	26.588	26.558	0.030	2.000	START OF K&G WORKS. MATCH TO EXISTING
A2	1.11	330737.38	6254036.83	26.527	26.5	0.027	2.000	TP OF ARC/ WING OF KERB RAMP
A3	1.751	330737.543	6254037.67	26.491	26.44	0.051	2.000	BOTTOM OF KERB RAMP
A4	3.052	330738.146	6254039.3	26.419	26.327	0.092	2.000	BOTTOM OF KERB RAMP/ CORNER OF RAISED GARDEN BED
A5	5.778	330740.457	6254042.08	26.39	26.401	-0.011	2.000	MIDPOINT OF ARC
A6	10.447	330746.346	6254043.6	26.54	26.56	-0.020	2.000	TP OF ARC
A7	16.312	330752.154	6254042.78	26.641	26.654	-0.013	2.000	BOTTOM OF RAMP
A8	17.812	330753.639	6254042.57	26.753	26.599	0.154	2.000	TOP OF RAMP
A9	22.012	330757.885	6254041.97	26.703	26.526	0.177	2.000	TOP OF RAMP
A10	23.534	330759.768	6254041.39	26.575	26.518	0.057	2.000	BOTTOM OF RAMP
A11	26.031	330762.433	6254039.58	26.529	26.51	0.019	2.000	TP OF ARC
A12	27.898	330763.42	6254038.87	26.489	26.506	-0.017	2.000	MIDPOINT OF ARC
A13	29.764	330764.579	6254038.52	26.448	26.488	-0.040	2.000	TP OF ARC/ END OF K&G WORKS. MATCH TO EXISTING

TABLE 2. KERB INVERT ALLIGNMENT NORTH

POINT NO.	CHAINAGE	EASTING	NORTHING	DESIGN LEVEL	EXISTING LEVEL	CUT (-) /FILL (+)	OFFSET	REMARK
B1	0	330751.218	6254050.93	26.334	26.323	0.011	2.000	START OF KERB ONLY. MATCH TO EXISTING
B2	0.977	330751.088	6254049.96	26.327	26.322	0.005	2.000	TP OF ARC/ BOTTOM OF RAMP
B3	2.394	330751.828	6254047.15	26.444	26.555	-0.111	2.000	MIDPOINT OF ARC
B4	3.509	330753.717	6254045.82	26.536	26.537	-0.001	2.000	TOP OF RAMP
B5	7.714	330758.3	6254045.14	26.485	26.432	0.053	2.000	TOP OF RAMP
B6	9.233	330760.295	6254045.2	26.343	26.404	-0.061	2.000	BOTTOM OF RAMP/ START OF GUTTER
B7	11.433	330763.028	6254046.12	26.278	26.34	-0.062	2.000	TP OF ARC
B8	13.431	330764.31	6254046.56	26.21	26.306	-0.096	2.000	MIDPOINT OF ARC
B9	15.427	330765.692	6254046.6	26.156	26.28	-0.124	2.000	TP OF ARC/ END OF K&G WORKS.



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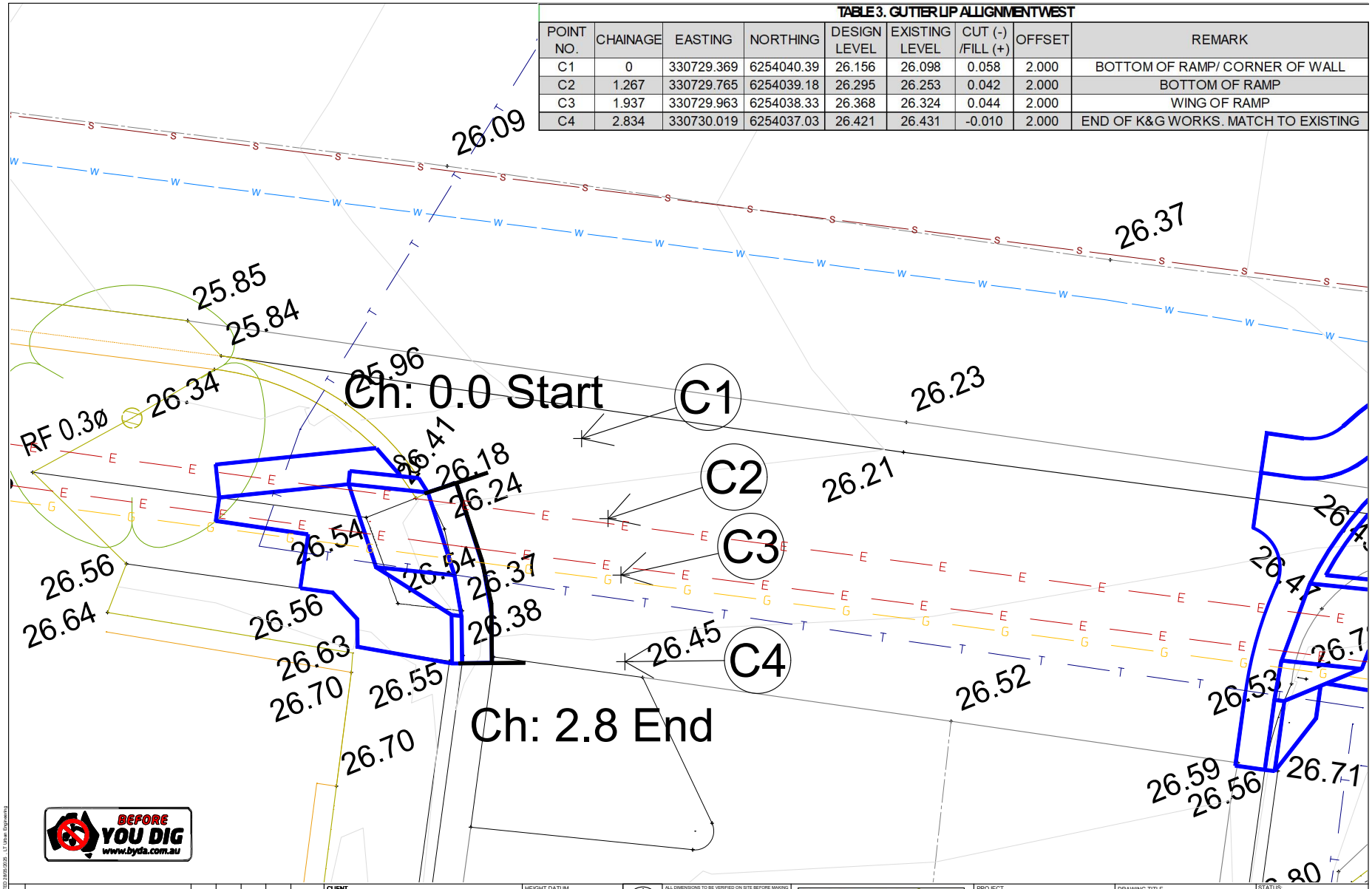
PROJECT: HUNTERS HILL BIKE PLAN - SITE 15 WOOLWICH RD/ FRANKI AVE INTERSECTION WORKS

DRAWING TITLE: SETOUT PLAN 2

STATUS: 80% DETAILED DESIGN
PROJECT No.: 25-007C
DWG No.: 25-007C-131
PAPER: A3 ISSUE: 1

TABLE 3. GUTTER LIP ALLIGNMENT WEST

POINT NO.	CHAINAGE	EASTING	NORTHING	DESIGN LEVEL	EXISTING LEVEL	CUT (-) /FILL (+)	OFFSET	REMARK
C1	0	330729.369	6254040.39	26.156	26.098	0.058	2.000	BOTTOM OF RAMP/ CORNER OF WALL
C2	1.267	330729.765	6254039.18	26.295	26.253	0.042	2.000	BOTTOM OF RAMP
C3	1.937	330729.963	6254038.33	26.368	26.324	0.044	2.000	WING OF RAMP
C4	2.834	330730.019	6254037.03	26.421	26.431	-0.010	2.000	END OF K&G WORKS. MATCH TO EXISTING



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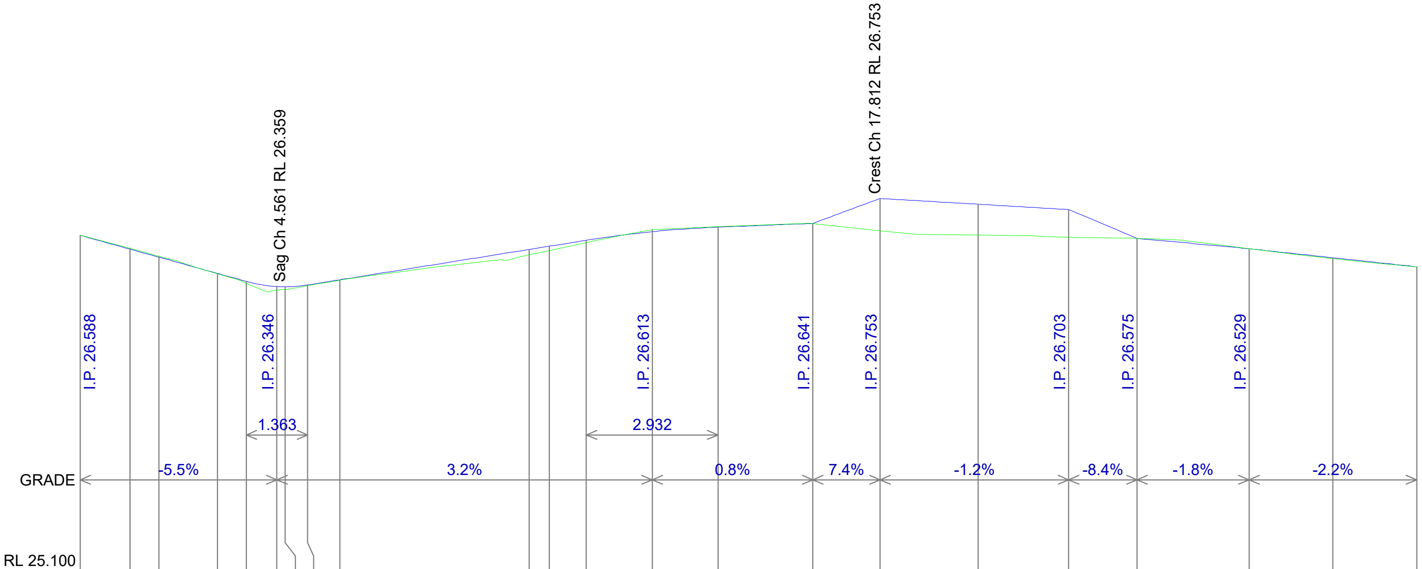
PROJECT: HUNTERS HILL BIKE PLAN - SITE 15 WOOLWICH RD/ FRANKI AVE INTERSECTION WORKS

DRAWING TITLE: SETOUT PLAN 3

STATUS: 80% DETAILED DESIGN
PROJECT No.: 25-007C
DWG No.: 25-007C-132
PAPER: A3 ISSUE: 1



FILL (+) CUT (-)	+0.000	-0.003	-0.004	+0.002	+0.008	+0.016	+0.012	+0.003	+0.001	+0.025	+0.019	+0.010	-0.009	-0.001	+0.000	+0.144	+0.138	+0.123	+0.000	+0.000	+0.005	+0.000
DESIGN SURFACE	26.588	26.527	26.491	26.419	26.383	26.360	26.359	26.367	26.390	26.526	26.540	26.566	26.604	26.625	26.641	26.753	26.727	26.703	26.575	26.529	26.489	26.448
EXISTING SURFACE	26.588	26.530	26.495	26.417	26.375	26.344	26.347	26.364	26.389	26.501	26.521	26.556	26.613	26.626	26.641	26.609	26.589	26.580	26.575	26.529	26.484	26.448
CHAINAGE	0.000	1.110	1.751	3.052	3.698	4.379	4.561	5.061	5.778	10.000	10.447	11.272	12.738	14.203	16.312	17.812	20.000	22.012	23.534	26.031	27.898	29.764

LONGITUDINAL SECTION
GUTTER LIP SOUTH Ch 0.000 to Ch 29.764
SCALES: HORIZONTAL 1:100 VERTICAL 1:20

GUTTER LIP SOUTH

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PROJECT: HUNTERS HILL BIKE PLAN - SITE 15 WOOLWICH RD/ FRANKI AVE INTERSECTION WORKS

DRAWING TITLE: LONGSECTION 1

STATUS: 80% DETAILED DESIGN
PROJECT No. : 25-007C
DWG No. : 25-007C-140
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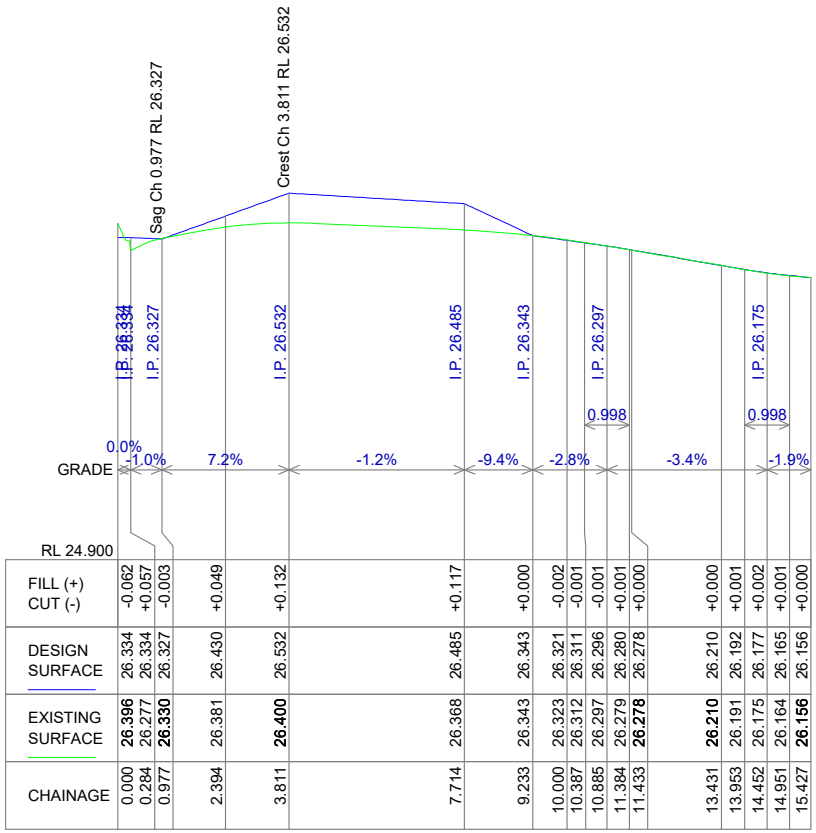
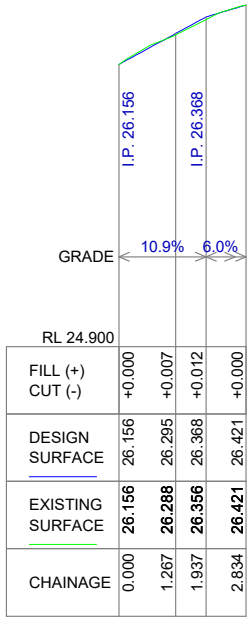


FILL (+) CUT (-)	-0.062	+0.057	-0.003	+0.049	+0.132	+0.117	+0.000	-0.002	-0.001	-0.001	+0.001	+0.000	+0.000	+0.001	+0.002	+0.001	+0.000
DESIGN SURFACE	26.334	26.334	26.327	26.430	26.532	26.485	26.343	26.321	26.311	26.296	26.280	26.278	26.210	26.192	26.177	26.165	26.156
EXISTING SURFACE	**26.396**	26.277	**26.330**	26.381	**26.400**	26.368	26.343	26.323	26.312	26.297	26.279	**26.278**	**26.210**	26.191	26.175	26.164	**26.156**
CHAINAGE	0.000	0.284	0.977	2.394	3.811	7.714	9.233	10.000	10.387	10.885	11.384	11.433	13.431	13.953	14.452	14.951	15.427

LONGITUDINAL SECTION
KERB INVERT NORTH Ch 0.000 to Ch 15.427
SCALES: HORIZONTAL 1:100 VERTICAL 1:20

KERB INVERT NORTH



FILL (+) CUT (-)	+0.000	+0.007	+0.012	+0.000
DESIGN SURFACE	26.156	26.295	26.368	26.421
EXISTING SURFACE	**26.156**	**26.288**	**26.356**	**26.421**
CHAINAGE	0.000	1.267	1.937	2.834

LONGITUDINAL SECTION
GUTTER LIP WEST 2 Ch 0.000 to Ch 2.834
SCALES: HORIZONTAL 1:100 VERTICAL 1:20

GUTTER LIP WEST

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DRAWING TITLE: LONGSECTION 2

STATUS: 80% DETAILED DESIGN
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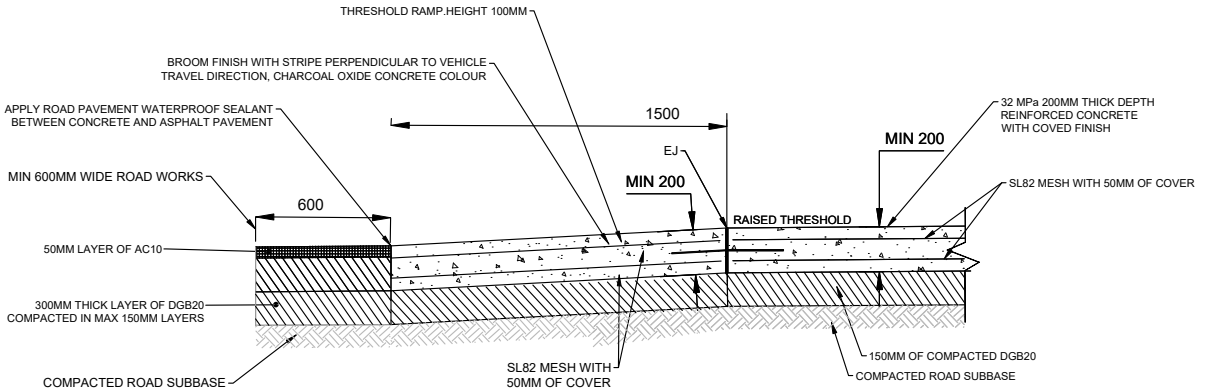
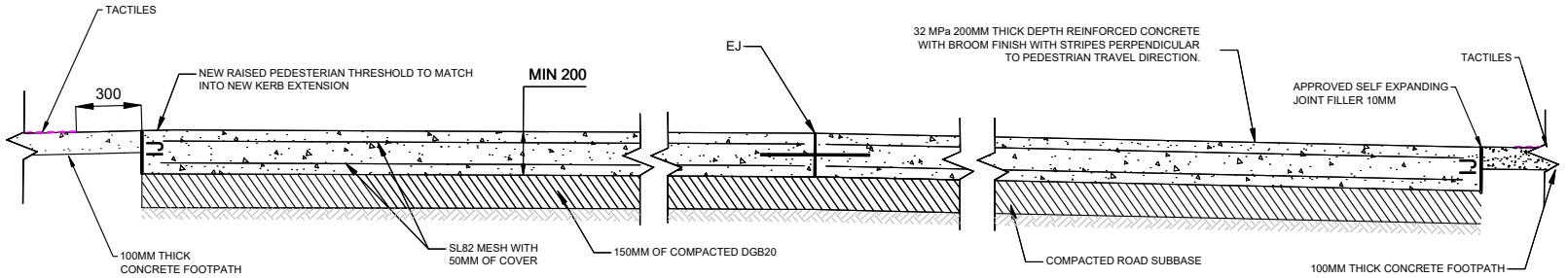


TYPICAL SECTION RAISED CONCRETE PLATFORM
N.T.S



TYPICAL SECTION RAISED CONCRETE PLATFORM - PERPENDICULAR TO ROAD
N.T.S

JOINTING NOTES
1. FOR TIEBAR DETAILS, REFER TO RMS STANDARD DRAWINGS VOLUME CJ SHEET 11.

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PROJECT: HUNTERS HILL BIKE PLAN - SITE 15 WOOLWICH RD/ FRANKI AVE INTERSECTION WORKS

DRAWING TITLE: DETAILS 1

STATUS: 80% DETAILED DESIGN
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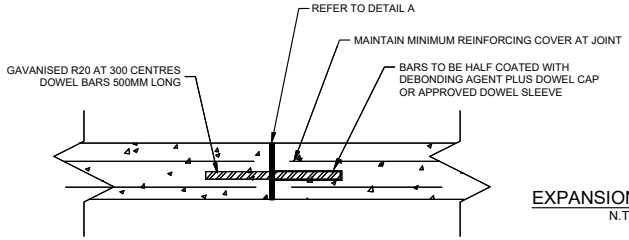
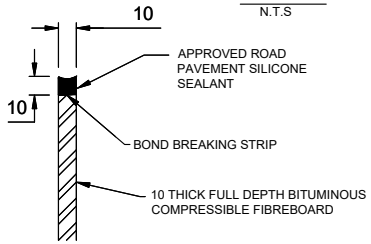
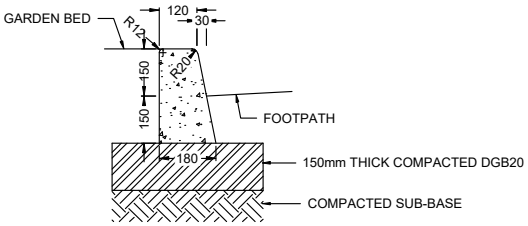


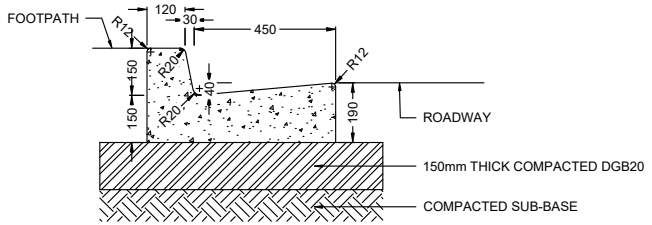
EXPANSION JOINT (EJ)
N.T.S



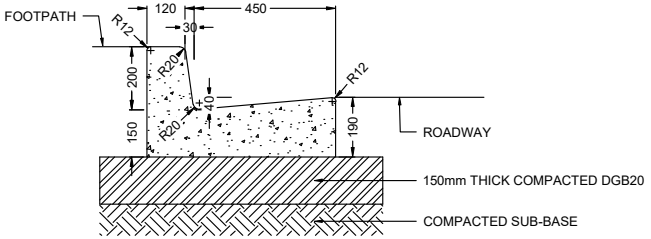
DETAIL A
N.T.S



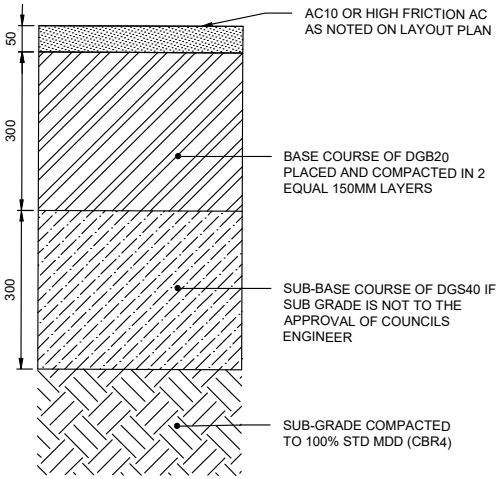
BARRIER KERB ONLY DETAILS (150MM HIGH)
N.T.S



STANDARD BARRIER KERB DETAILS (150MM HIGH)
N.T.S



MODIFIED BARRIER KERB DETAILS (200MM HIGH)
N.T.S



FULL DEPTH ROAD RECONSTRUCTION DETAIL
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ISSUE	DESCRIPTION	PT DESIGN	ADJ DRAWN	PT VERD	PT APPD	DATE
1	80% DETAILED DESIGN	PT	ADJ	PT	PT	27/05/25

FILE LOCATION : C:\Users\tburn\LT Urban Dropbox\LT Urban Team Folder\LTUrban-Work\Council Projects\Hunters Hill\Woolwich - Franki\Design

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After Hours (Duty Officer) - 0408 461 996
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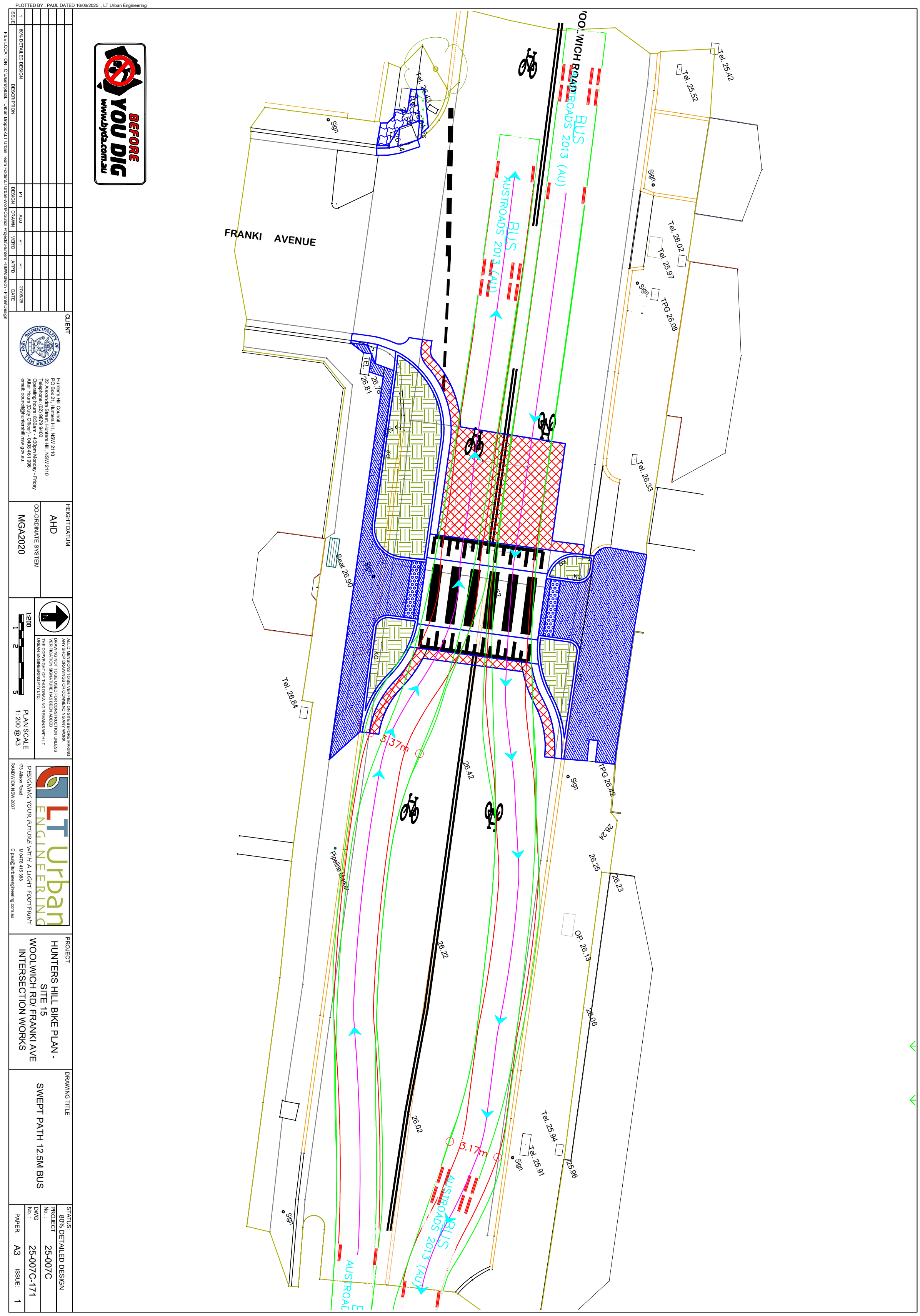
PROJECT: HUNTERS HILL BIKE PLAN - SITE 15 WOOLWICH RD/ FRANKI AVE INTERSECTION WORKS

DRAWING TITLE: DETAILS 2

STATUS: 80% DETAILED DESIGN
PROJECT No.: 25-007C
DWG No.: 25-007C-161
PAPER: A3 ISSUE: 1


FRANKI AVENUE
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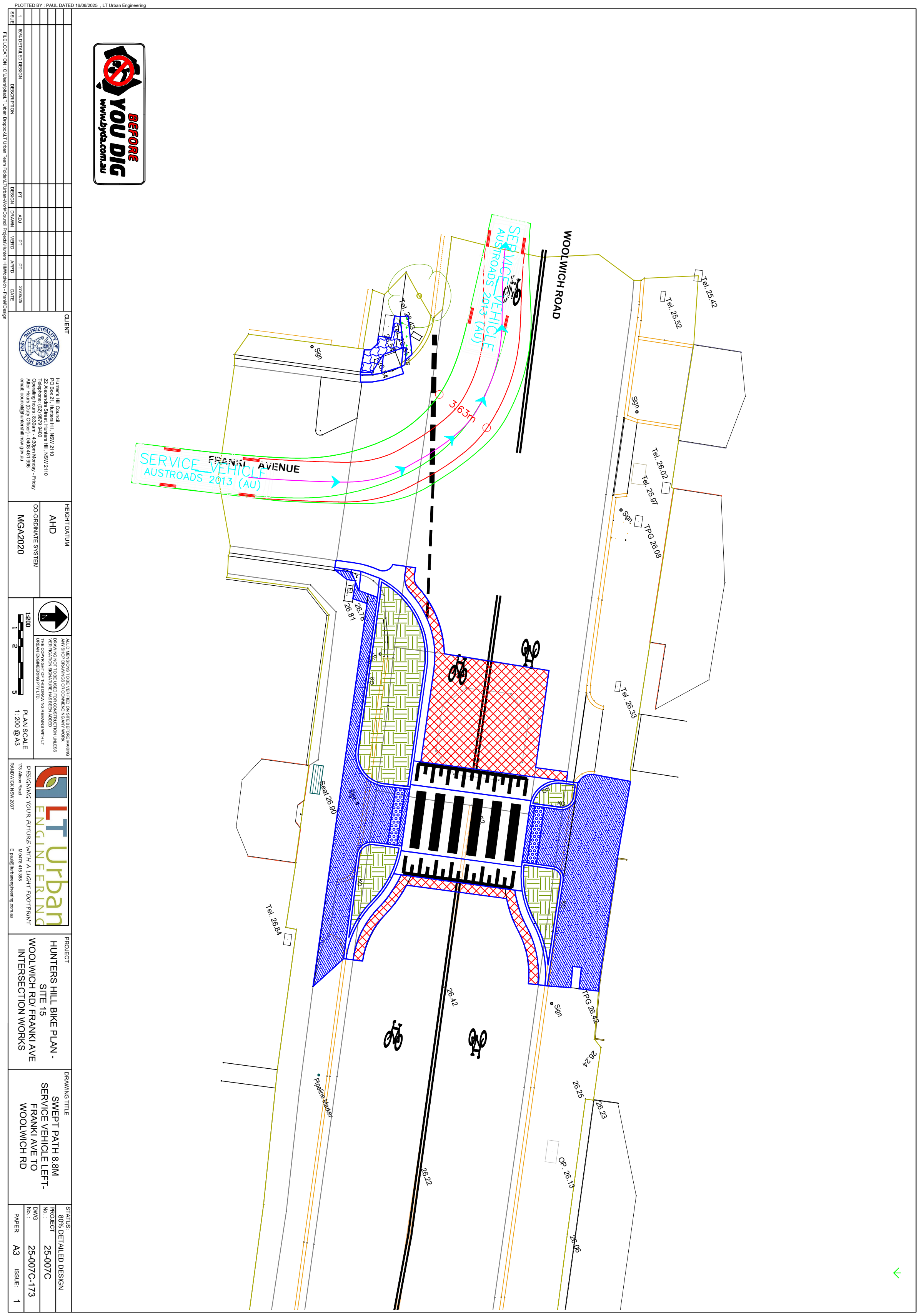
HEIGHT DATUM
AHD
CO-ORDINATE SYSTEM
MGA2020
PLAN SCALE
1: 200 @ A3
PROJECT
HUNTERS HILL BIKE PLAN - SITE 15
WOOLWICH RD/ FRANKI AVE INTERSECTION WORKS
DRAWING TITLE
SWEPT PATH 12.5M BUS
STATUS:
80% DETAILED DESIGN
25-007C
25-007C-171
A3
1
3.37m
3.17m
AUSTROADS 2013 (AU)
BUS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SERVICE VEHICLE
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SWEPT PATH 8.8M SERVICE VEHICLE LEFT- FRANKI AVE TO WOOLWICH RD
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PLAN SCALE 1 : 200 @ A3
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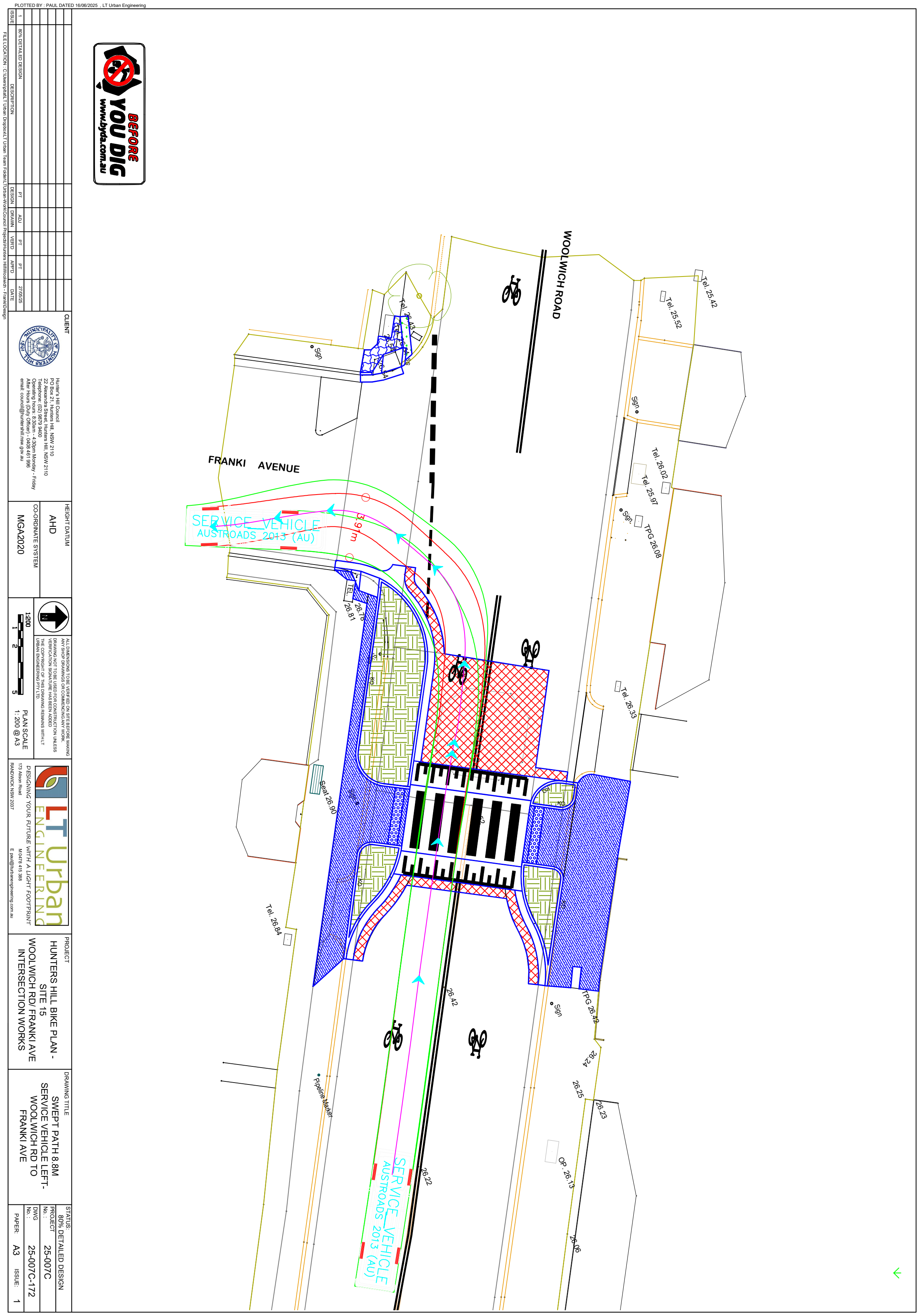

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DESIGNING YOUR FUTURE WITH A LIGHT FOOTPRINT
HUNTERS HILL BIKE PLAN - SITE 15
WOOLWICH RD/ FRANKI AVE INTERSECTION WORKS
SWEPT PATH 8.8M SERVICE VEHICLE LEFT- WOOLWICH RD TO FRANKI AVE
25-007C
25-007C-172
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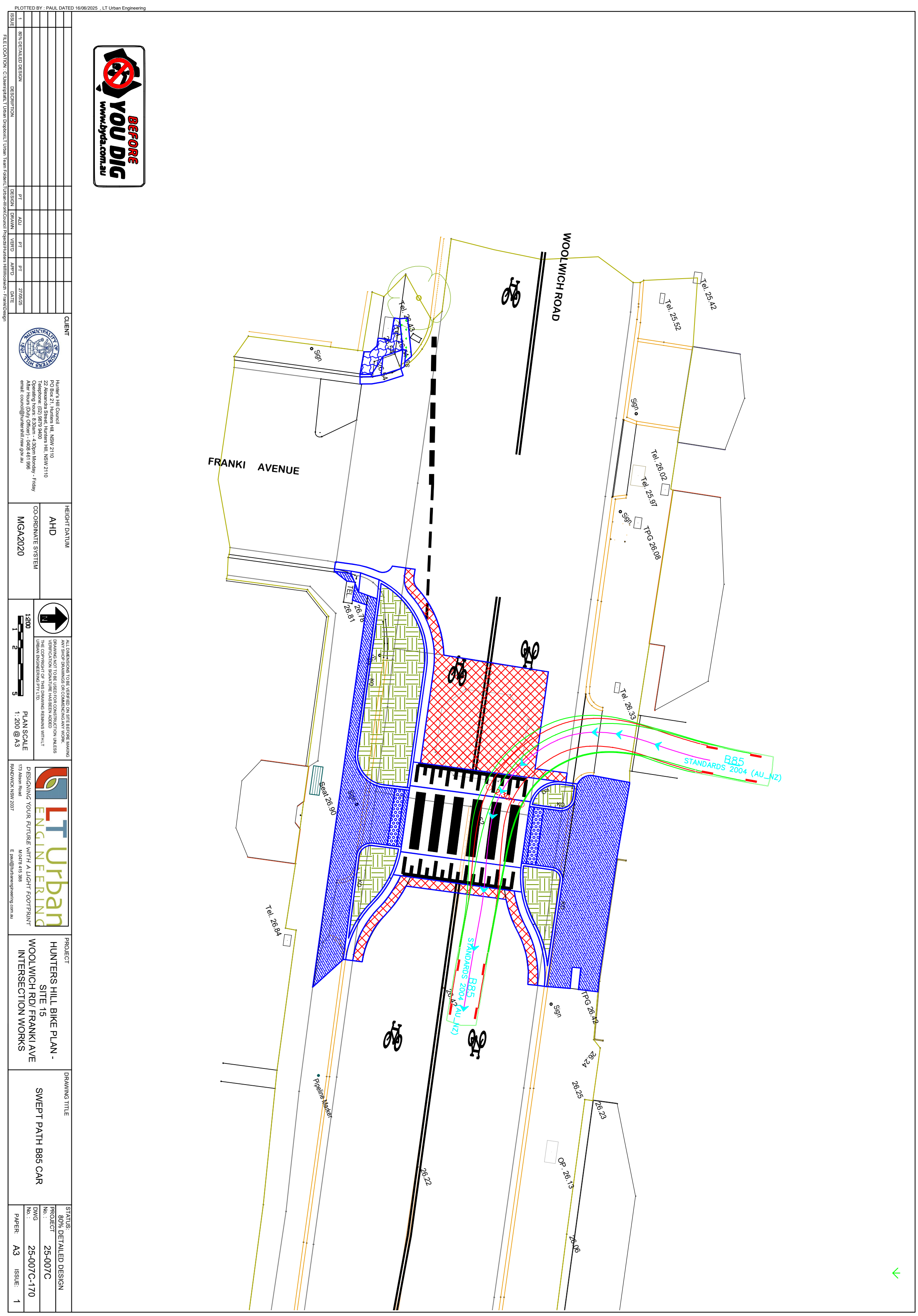

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PLAN SCALE
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LT Urban ENGINEERING
DESIGNING YOUR FUTURE WITH A LIGHT FOOTPRINT
PROJECT
HUNTERS HILL BIKE PLAN - SITE 15
WOOLWICH RD/ FRANKI AVE INTERSECTION WORKS
DRAWING TITLE
SWEPT PATH B85 CAR
STATUS:
80% DETAILED DESIGN
PROJECT No.: 25-007C
DWG No.: 25-007C-170
PAPER: A3
ISSUE: 1

ITEM NO	:	3.4
SUBJECT	:	BORONIA LATM
STRATEGIC OUTCOME	:	SAFE WALKING, CYCLING, AND ACTIVE TRAVEL IS SUPPORTED AND ENCOURAGED WITH IMPROVED INFRASTRUCTURE.
ACTION	:	IMPLEMENT THE RECOMMENDATIONS OF THE LOCAL TRAFFIC COMMITTEE
REPORTING OFFICER	:	LEANNE STATHAKIS

Ref:772923

PURPOSE
To adopt the Local Area Traffic Management Plan for the implementation of devices for 40km/h Local Area Traffic area based on feedback from TfNSW and the community.

RECOMMENDATION

1. That the Boronia LATM be adopted by Council, as shown on the attached report

2. That detail designs be undertaken and community consultation be carried out prior to construction

BACKGROUND
An initial study of the area was carried out in 2021 by consultant's PTC in response to concerns raised by residents, regarding speeding vehicles and motorist using local streets to travel through avoiding Pittwater Road and Ryde Road. There was also a series of a few accidents within the area. An updated review was later undertaken by PTC in 2024 due to concerns raised by residents about the lack of consultation and notification when devices were implemented in 2024.

During this time Council was awarded a grant to implement the 40km/h Local Area based on the initial PTC proposal. Funding included funds for detail design and construction.

Council decided to review the initial plan and PTC undertook a new study. Two options were presented one which included road closures. Road closures were not supported by TfNSW.

Council resolved on the 24 February 2025 to adopt Option C , and to undertake Community consultation for 28 days with also included a community meeting. Based on community feedback which noted that slow points were not supported due to the loss of parking, and speed humps were preferred an amended option C is for formal adoption by Council as shown below in figure 1.

REPORT

The report by PTC as attached summarises the finding of local traffic patterns including speed, origin and destination and vehicle accidents and how Option C was derived. The Proposal for the Boronia precinct will improve local amenity and connectivity for pedestrians.

Figure 1

CONCLUSION

Option C traffic calming measures to implement a 40km/h Local Area Traffic Area provides a balance approach to establish a self-enforcing 40km/h Local Area to improve local amenity to the area and should be adopted by Council and the next stage of engaging consultants for detail design and construction should commence for Council to deliver this project by 30 June 2027.

FINANCIAL IMPACT ASSESSMENT

There is no direct financial impact on Council's adopted budget as a result of this report.

ENVIRONMENTAL IMPACT ASSESSMENT

There is no direct environmental impact on Council arising from Council consideration of this matter.

SOCIAL IMPACT ASSESSMENT

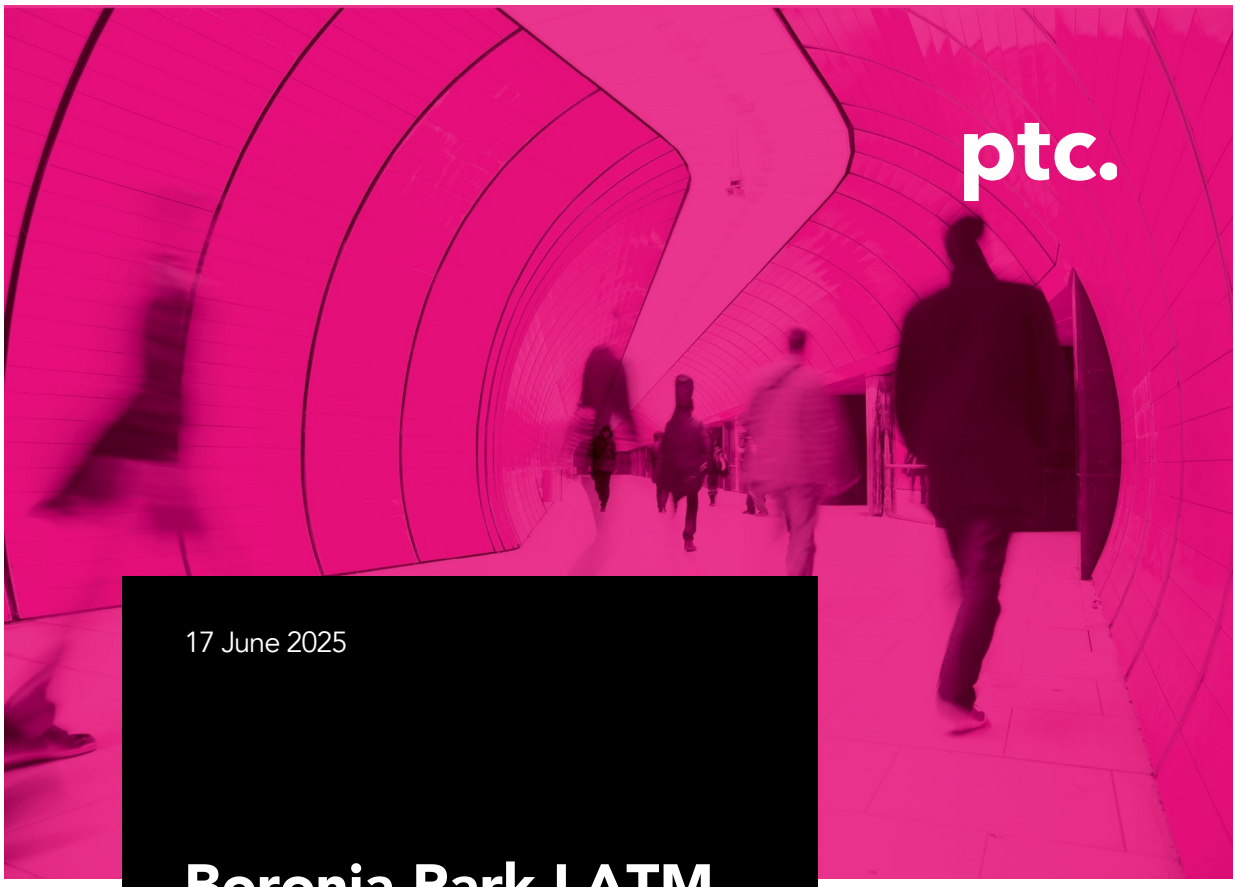
There is no direct social impact on Council arising from Council consideration of this matter.

RISK ASSESSMENT

There are no direct or indirect risks impacting on Council arising from consideration of this matter.

ATTACHMENTS

1. Boronia Local area Traffic Report ⇩



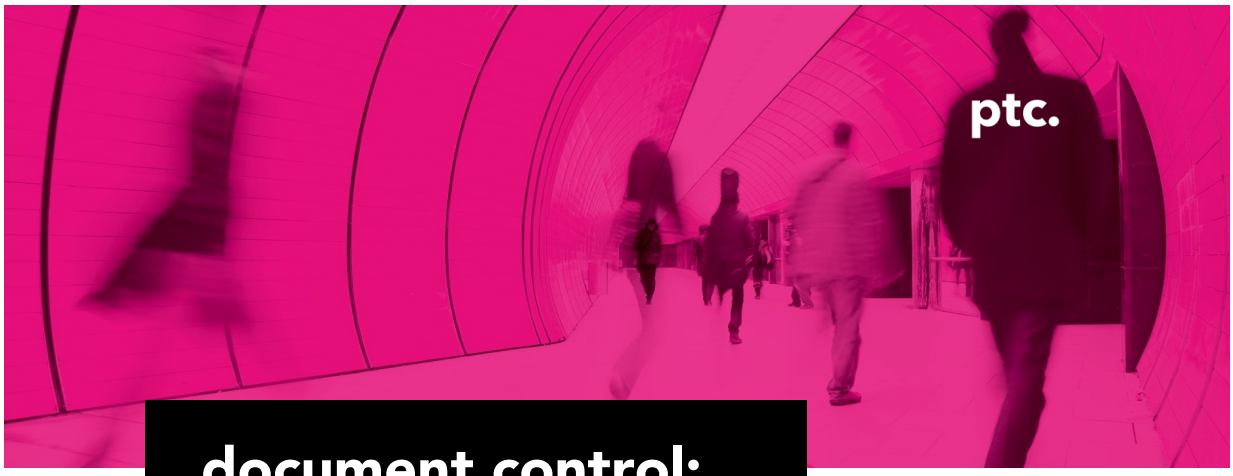
17 June 2025

Boronia Park LATM

Local Area Traffic Management;

For: Hunters Hill Council

Document reference number: **[24-1034]**



document control;

Issue:	Date	Issue details	Author	Reviewed
1	19/12/24	Draft	MA / AM	AM
2	20/01/24	Final	AM/ DP	AM
3	05/02/2025	Final 01	MA/AM/ DP	AM
4	16/06/2025	Final report	MA/AM/ DP	AM
4	17/06/2025	Final report	MA/AM/ DP	AM

For the attention of:

Peter Chudek

Hunters Hill Council

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contents;

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1. Executive Summary

ptc. has been engaged by Hunters Hill Council to recommend traffic calming solutions in the framework of a Local Area Traffic Management plan (LATM) for the area of Boronia Park bounded by High Street, Pittwater Road, Ryde Road and Park Road.

This study builds upon an initial study completed by ptc. in 2021 seeking to address concerns by Hunters Hill Council that roads within the study area are being used for 'rat-running' and is therefore detrimental to the local area and residents that live there.

This study presents an analysis of road safety, traffic volumes and the existing conditions experienced by local residents within the study area.

An updated review of traffic volumes, speeds, and crash data has reconfirmed that vehicle speeds and volumes are higher than appropriate for a residential setting. These findings, coupled with updated stakeholder feedback and community consultation, have informed the refinement of previous options into a revised and balanced scheme.

Council has now endorsed Option C, a hybrid solution incorporating feedback from residents and Transport for NSW (TfNSW). Option C avoids full road closures while still achieving traffic calming, pedestrian safety, and amenity improvements. The measures include:

- Wombat crossings (new and upgraded) at key pedestrian locations;
- Speed humps, both reconstructed and new, on local streets;
- Pedestrian refuges and gateway treatments to reinforce the 40 km/h local traffic area;
- Edge line marking to visually narrow roadways and promote lower speeds.

This plan is supported by $3.5 million in funding under the Towards Zero Safer Roads Program, with the project scheduled for staged delivery through to June 2027. While no solution completely eliminates local traffic, the proposed scheme seeks to shift driver behaviour, prioritise pedestrian safety, and create safer, calmer residential streets.

The community will benefit from reduced traffic intrusion while maintaining access for essential services, visitors, and public transport.

This report outlines the analysis that informed the development of Option C and presents it for Council's consideration. Detailed design and technical documentation will follow as part of the project's next phase.

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2. Introduction

2.1. Project Summary

ptc. has been engaged by Hunters Hill Council to recommend traffic calming solutions in the framework of a Local Area Traffic Management plan (LATM) for the area of Boronia Park bounded by High Street, Pittwater Road, Ryde Road and Park Road, the study area is presented in Figure 1.

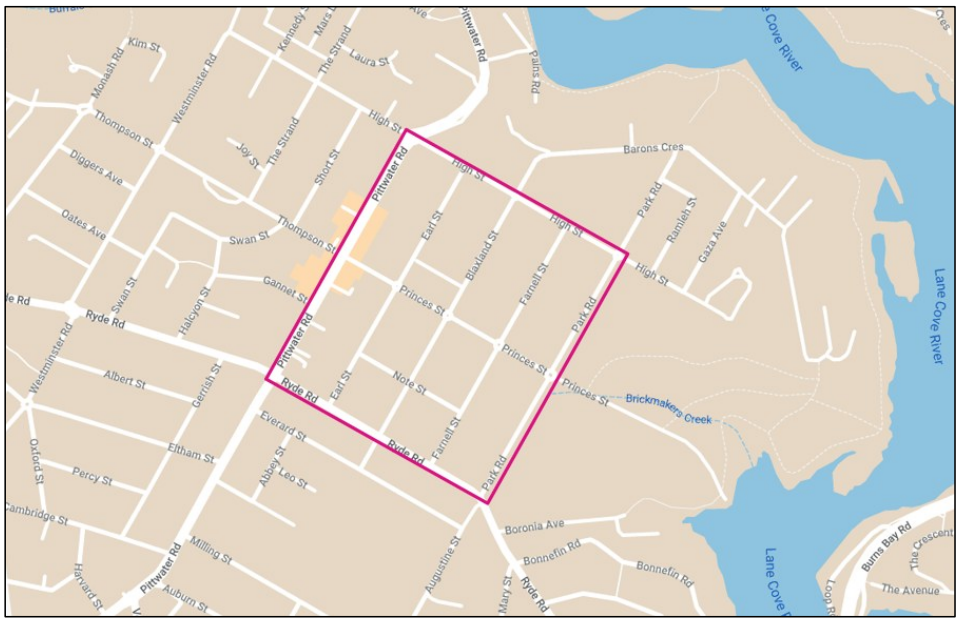

Figure 1 - Study area

This report follows an earlier LATM study prepared by ptc. in 2021. Parts of that study were implemented and since removed in response to feedback from the community.

The purpose of this report is to acknowledge the community response, which related primarily to the design of the features installed and the impact on on-street parking as key concerns.

The LATM process was initially commenced to address two impacts on the area, being a high volume of vehicles passing through the area, and vehicle speeds being higher than desired for the residential character of the roads within the study area.

Too many vehicles
Travelling too fast

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3. Objectives

The objectives of the LATM should be consistent with the other goals of local land use and community planning within the Hunters Hill LGA, being:

- community values and goals
- amenity and environmental standards
- road safety targets
- development plans and standards
- level of service performance measures for the whole network
- integrated local transport commitments
- encouragement of walking and cycling

While some older style LATM features are located within the study area, the traffic volume and speed data indicate that these are having a limited impact.

While a purely traffic engineering approach may lead to an LATM that removes unwanted traffic and slow down vehicles, in the context of the points above, the implementation of an LATM should enhance the places in which we live. The objective therefore drives solutions that improve the area, with a side effect being to reduce traffic and vehicles speeds.

Engineering in isolation can tend towards rational inputs, which receive an emotive response, which was experienced with some of the LATM features installed in the area. If the primary goal is redefined as an area improvement program, i.e. to "enhance the places in which we live", this tends towards emotive solutions, which create rational outcomes, e.g. the measurable reduction in traffic volumes and vehicle speeds.

In this context, the development and endorsement of Option C represents a refined and balanced approach, one that incorporates both community preferences and technical assessments. Option C avoids full road closures and instead applies self-enforcing low-speed treatments such as raised crossings, speed humps, gateway treatments, and pedestrian refuges. These measures not only reduce vehicle speeds but also contribute positively to the streetscape and pedestrian experience.

The LATM also aligns with Council's broader vision to implement a 40 km/h Local Traffic Area, supported by funding from the Towards Zero Safer Roads Program, reinforcing the importance of integrating speed management with urban design and liveability objectives.

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4. Crash Data

An analysis of the TfNSW crash database shows that over the past five years, locations for crashes have mostly occurred on Pittwater Road, Ryde Road and High Street with two accidents recorded within the study area (noting that these are only reported incidents) where a Police presence was necessary.

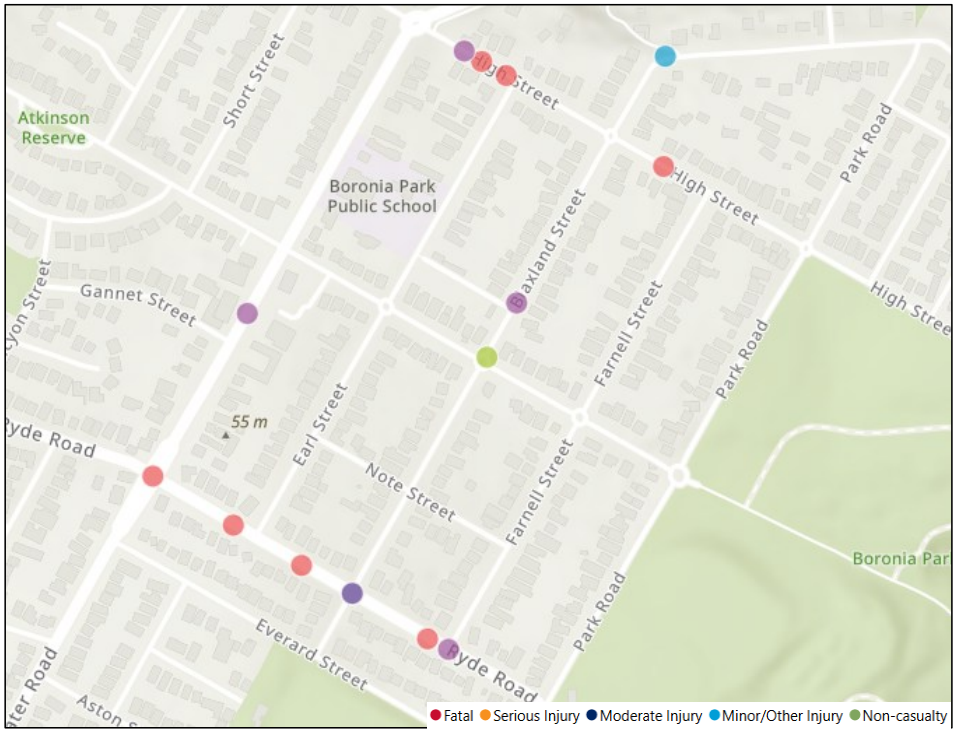

Figure 2 - Five-year crash history (source: TfNSW crash database)

Reporting year	Crash Id	Degree of crash	RUM - code	RUM - description	Type of location	Natural lighting	Longitude	Latitude	Number killed	Number injured
2019	1195360	Non-casualty (towaway)	71	Off rd left => obj	2-way undivided	Daylight	151.139095	-33.821021		
2019	1218312	Non-casualty (towaway)	73	Off rd rght => obj	T-junction	Darkness	151.137162	-33.820095		
2020	1222305	Non-casualty (towaway)	21	Right through	X-intersection	Daylight	151.132814	-33.824175		
2020	1234956	Minor/Other Injury	39	Other same direction	2-way undivided	Daylight	151.133977	-33.822513		2
2020	1249905	Non-casualty (towaway)	73	Off rd rght => obj	2-way undivided	Darkness	151.134655	-33.825076		
2021	1252045	Non-casualty (towaway)	71	Off rd left => obj	2-way undivided	Daylight	151.136857	-33.819945		
2021	1256515	Minor/Other Injury	1	Ped emerging	2-way undivided	Daylight	151.137279	-33.822407		1
2021	1259087	Non-casualty (towaway)	71	Off rd left => obj	2-way undivided	Darkness	151.136196	-33.825820		
2021	1260399	Non-casualty (towaway)	71	Off rd left => obj	2-way undivided	Daylight	151.133819	-33.824667		
2021	1269904	Minor/Other Injury	71	Off rd left => obj	2-way undivided	Darkness	151.136649	-33.819843		1
2021	1271622	Serious Injury	2	Ped far side	Roundabout	Daylight	151.136910	-33.822959		1
2021	1271741	Moderate Injury	10	Cross traffic	X-intersection	Daylight	151.135258	-33.825371		2
2022	1288063	Moderate Injury	49	Other manoeuvring	X-intersection	Unknown	151.135258	-33.825371		1
2023	1315969	Minor/Other Injury	30	Rear end	X-intersection	Daylight	151.135258	-33.825371		2
2023	1332106	Minor/Other Injury	21	Right through	T-junction	Daylight	151.136445	-33.825939		1

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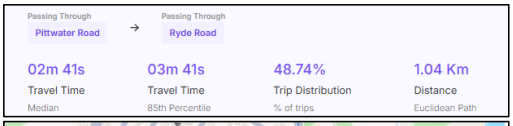
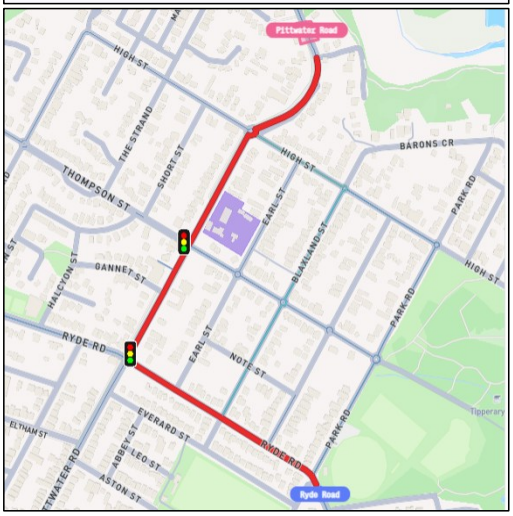
5. Compass IOT Data

To quantify the traffic volumes passing through the study area, we have accessed the Compass IOT database, which records a sample of vehicles that share location data. The data is able to produce Origin / Destination maps, and we have run the southbound and northbound directions to determine that percentage of vehicles that use the roads within the study area, rather than the perimeter roads.





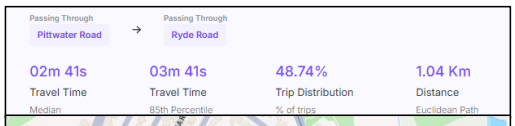
Origin Pittwater Road

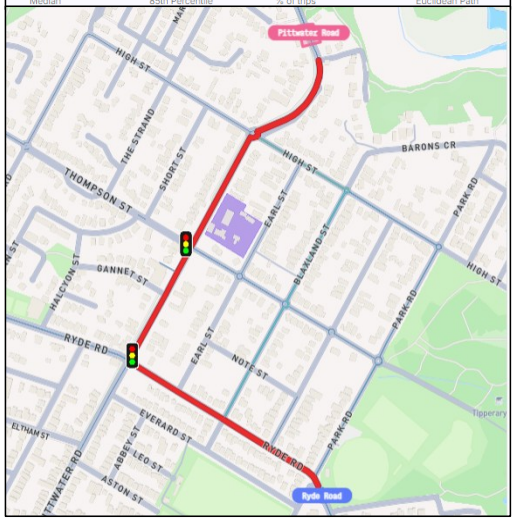
Destination Ryde Road

Trip Distribution:

- **Main Roads: 49%**
- **Local Roads: 51%**

October 23 to October 24





Origin Ryde Road

Destination Pittwater Road

Trip Distribution:

- **Main Roads: 52%**
- **Local Roads: 48%**

October 23 to October 24

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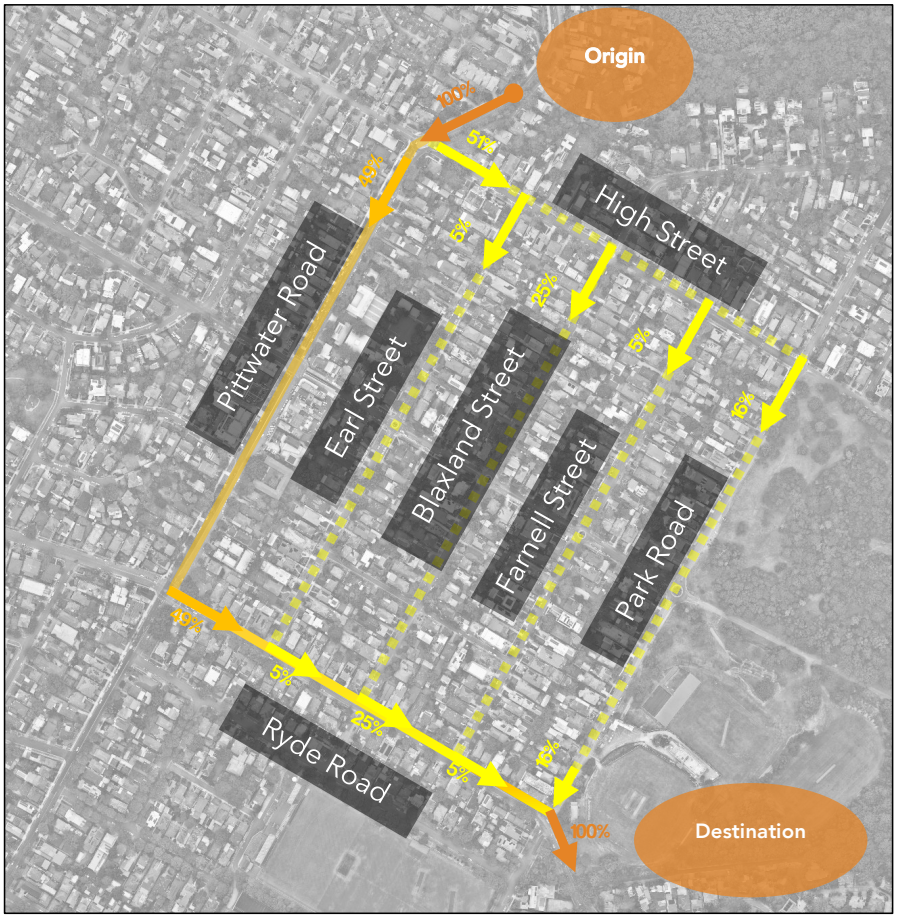

The results indicate that around half the south and northbound traffic is passing through the study area rather than around the perimeter. This is a significant volume of traffic that ideally should be contained within the major roads rather than the residential streets.

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6. Existing Facilities

The existing LATM features within the study area are summarised in this section. They comprise a mix of types/locations and according to the speed and origin/destination data are only partially effective.

Figure 3 - Earl Street

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Figure 4 - Blaxland Street

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Figure 5 - Farnell Street

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7. Better Streets

As part of the focus on improving the streets beyond purely a traffic engineering exercise, we have tested the area using the Health Streets® assessment tools. Based on our own inputs in the various categories, we find a score 46, whereas for a residential area the target score should be around 70.

There is a caveat to this score in that we have undertaken the test as visitors to the area rather than residents, which might result in a higher or lower figure. However, based on our object assessment, the area does not achieve its potential primarily due to the grid pattern and the ability to facilitate through traffic.

An approximation of how the community rates the area can be derived from the 2021 community survey undertaken to support the initial LATM. While the questions don't align exactly with the Healthy Streets questionnaire, the topics are generally consistent. The survey received 275 comments with 3,242 likes/dislikes on the comments. Due to the nature of likes/dislikes, it was difficult to determine whether a dislike was in disagreement with the comment, or the issue being discussed, therefore we would recommend an approach similar to the Healthy Streets survey.

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8. Speed Assessment

During the preparation of the initial LATM study, vehicle speeds were collected on all sections of road within the study area. The results are presented overleaf, while the TfNSW vision for 2025 is described below.

Transport for NSW's vision for 2025 regarding traffic speed limits focuses on enhancing safety and promoting sustainable transportation. The government aims to reduce speed limits in urban areas and local streets to create safer environments for pedestrians and cyclists.

This aligns with their goal of developing 15-minute neighbourhoods, where essential services are easily accessible by walking or cycling.

Key aspects of the vision include:

- Lowering speed limits in urban areas to improve safety for vulnerable road users.
- Creating low-speed traffic environments to encourage walking and cycling.
- Implementing 30-minute cities and 15-minute neighbourhoods to reduce reliance on cars for short trips.
- Piloting Future Transport Hubs in cities such as Parramatta, Chatswood, Wollongong, and Coffs Harbour to provide integrated transport services.

These initiatives are part of Transport for NSW's broader strategy to create a more connected, efficient, and environmentally friendly transport network by 2025.

In relation to reduced vehicles speeds and 40kph speed limits, the Centre for Road Safety (TfNSW) Evaluation of 40kph Speed Limits report found the following key findings:

- *There have been statistically significant reductions in crashes following implementation of 40 km/h High Pedestrian Activity Areas.*
- *Reduced casualties in High Pedestrian Activity Areas occurred for road users generally, not just for pedestrians.*
- *It is likely that expanded coverage of 40 km/h High Pedestrian Activity Areas would generate further road safety benefits.*
- *There are high levels of community support for 40 km/h zones.*
- *Low speed zones achieve broader benefits, as well as safety benefits.*

The final point includes the following, which supports our recommended LATM approach:

"The evaluation found a broad consensus that low speed zones lead to broader benefits in creating an environment that supports pedestrian activity and urban amenity. Integrating speed management as part of urban planning creates an opportunity to improve both road safety and urban liveability."

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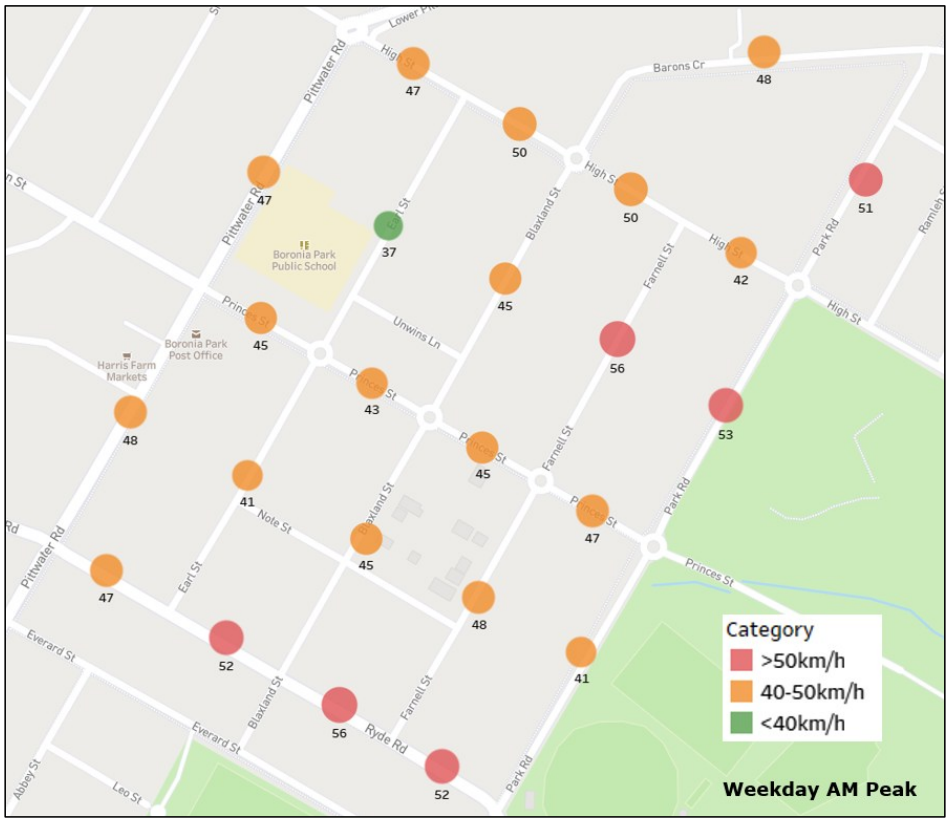

Figure 6 - 85th Percentile vehicle speeds - Weekday AM Peak (Maximum recorded speeds around 70km/h in Farnell St and Park Road)

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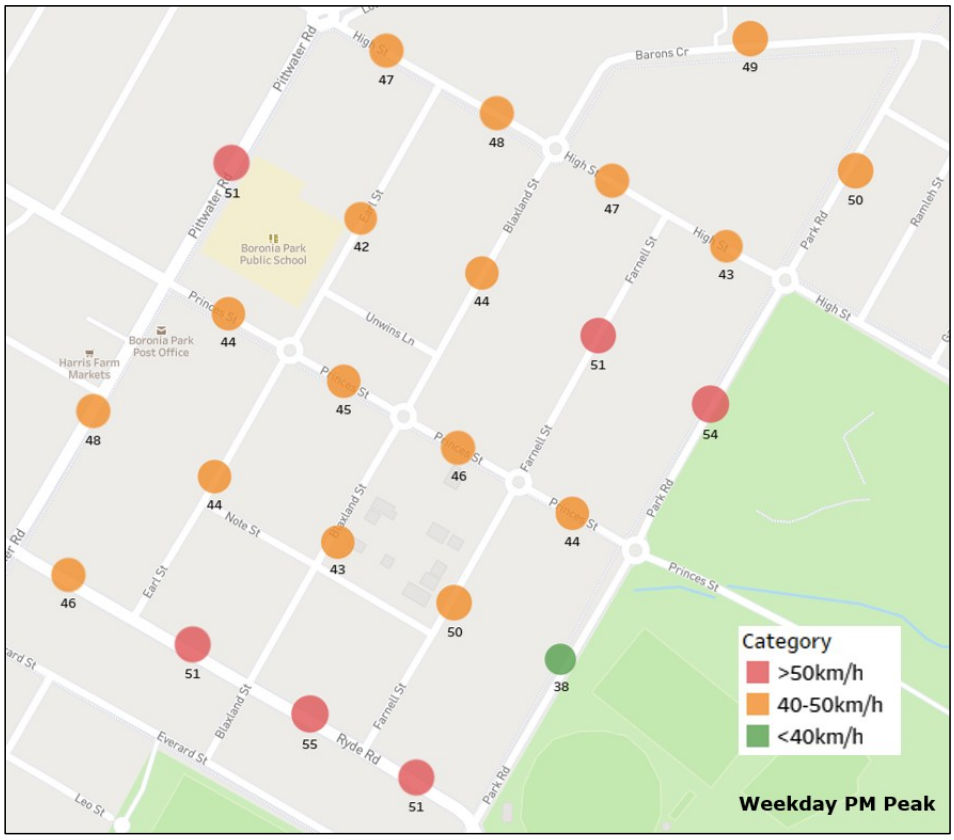

Figure 7 - 85th Percentile vehicle speeds - Weekday PM Peak (Maximum recorded speeds around 70km/h in Farnell St and Park Road)

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9. Available Measures

Feature	Pros	Cons	Effectiveness Score
Roundabout Upgrades	• Implemented within existing footprint • No impact on parking • Improves pedestrian safety • Slows traffic	• Impacts on stormwater design • Increased motion on buses	7
Slow Points	• Reduce vehicle speed • Opportunity for landscaping	• Potential loss of parking • Potential impacts on stormwater design	7
Full Road Closure	• Complete halt to through-traffic • Improved road environment • Opportunity for landscaping • Opportunity for gathering place • Increasing opportunity to walk and cycle	• Potential loss of parking • Potential impacts on stormwater design • Impact on waste and emergency vehicles routes • Potential to increase resident vehicle journeys	10
Partial Road Closure	• Halt to through-traffic in one direction • Slightly improved road environment • Opportunity for landscaping	• Potential loss of parking • Potential impacts on stormwater design • Impact on waste management routes • Potential to increase resident journeys • Not as beneficial to the road environment	8
Continuous Footpath	• Raises visibility of pedestrians • Slows vehicles at common conflict point • All traffic routes retained • No loss of parking • Can accommodate waste collection needs with appropriate design.	• Potential impacts on stormwater design • Does not prevent rat-run activity	5
Gateway Feature	• All traffic routes retained • No loss of parking • Minimal civil works	• Limited pedestrian safety improvement • Does not prevent rat-run activity • Does not dramatically slow vehicle speeds	3
Speed Humps	• Cost effective • Physical restraint on vehicle speed • All traffic routes retained	• Potential loss of parking (large format) • Limited impact on rat-run activity • Can increase noise levels	5
Prohibited Turns	• Low cost • No civil works • Prevents some rat-run activity	• Results in longer journeys for some residents • Requires enforcement to be effective	6

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10. Recommended Features (Option A)

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11. Recommended Features (Option B)

Boronia Park LATM, 17 June 2025 16

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12. Recommended Features (Option C)

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13. Development of Option C (Preferred Option)

Option C was developed through a collaborative process involving Council officers, ptc., Transport for NSW (TfNSW), and community feedback gathered during previous rounds of consultation.

While earlier LATM options (Options A and B) provided technically effective solutions, Option A with full road closures and Option B with minimal intervention, they also revealed challenges in balancing traffic calming objectives with community expectations and network connectivity.

Following feedback from TfNSW and local residents, Option C was prepared as a hybrid of the two original options, retaining the most effective traffic calming elements while addressing practical concerns related to access, bus routes, emergency vehicles, and on-street parking.

Key points in the development of Option C include:

- Community feedback expressing concerns about road closures, parking loss, and visual impacts.
- TfNSW preference for treatments that align with the 40 km/h Local Traffic Area objective while retaining road connectivity.
- Funding alignment, as Council received $3.5 million through the Towards Zero Safer Roads Program, which supports implementation of low-speed, pedestrian-prioritised local areas.
- Design-led approach, shifting from restrictive traffic controls to more subtle, self-enforcing interventions such as gateway treatments, pedestrian refuges, and raised thresholds.

Option C is therefore considered the most balanced and broadly supported scheme, with the potential to deliver long-term safety and amenity improvements for the Boronia Park area.

ptc.

14. Conclusion and Summary

This updated LATM study confirms that vehicle speeds and volumes within the Boronia Park area remain higher than appropriate for a low-speed, residential environment. These conditions contribute to reduced amenity, increased safety risks, and diminished walkability for residents.

In response, a range of traffic calming measures has been assessed. Earlier options explored by Council included full road closures and traditional slow points (Option A), and minimal-impact interventions (Option B). However, following community consultation and engagement with Transport for NSW, a third option, Option C, has been developed and endorsed by Council.

Option C combines the most effective and publicly supported features of the previous options, providing a balanced solution that avoids full road closures while introducing raised pedestrian crossings, upgraded speed humps, gateway treatments, and pedestrian refuges. These measures are designed to establish a self-enforcing 40 km/h Local Traffic Area that enhances safety and liveability without compromising access for residents, emergency services, or public transport.

The project is supported by $3.5 million in funding through the Towards Zero Safer Roads Program, with implementation to occur in stages through to June 2027. Community consultation will proceed in March 2025, followed by detailed design and technical approvals. A final LATM design will be adopted following feedback and formal Council consideration.

This study provides the evidence base for the recommended option and forms the basis for detailed design. The proposed measures are expected to deliver a measurable reduction in vehicle speeds and volumes while improving the safety, accessibility, and character of local streets within the Boronia Park area.

4.1 : For Discussion : Blaxland Road and Barons Crescent - Parking restrictions and traffic congestion

REPORTING OFFICER : LEANNE STATHAKIS

BACKGROUND

A resident has been infringed for parking in the area as shown below in Figure 1, as vehicle B. Residents and visitors to the area find the signage and the unusual road alignment confusing. Council would like to firstly ensure that any changes (if any) provide a safe environment for all and that any signage is clear to ensure that motorist are not infringed unfairly. To make any changes to address residents' concerns Council needs to consider Parking , Buses, and current traffic patterns.

Blaxland Road between High Street and Barons Crescent has a non-standard alignment likely caused by the natural gradient between the crown of the road and the property line.
As such the carriageway of the road has a standard crossfall and then the gradients from the edge of the carriage way to the kerb line on the western side is steeper, and hence not driveable. The carriage way is approximately 7.2m wide

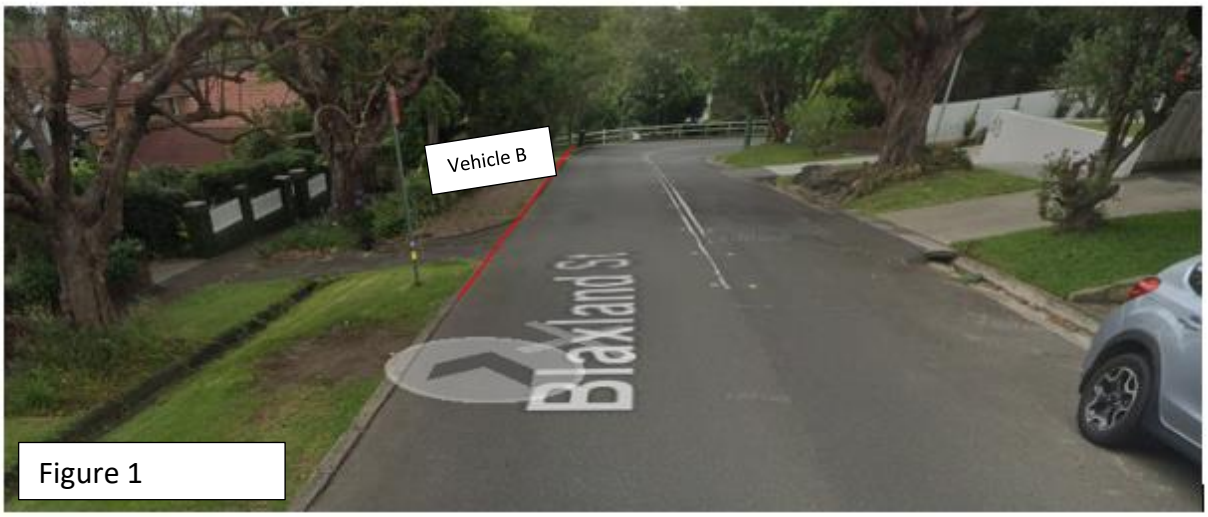

Figure 1

Figure 2

PARKING

The area shown by the red line is sign posted 'No Stopping' and there is a double centre line on the approaches to the bend in this section. The section of Blaxland Road (western side) from High Street, however, is not currently signposted with any parking restrictions, and nor is the east side of the road.

Referring to the two sections as outlined in Figure 1 and Figure 2 a vehicle could be considered to be parked legally as shown by vehicle 'A' as there is no sign posted restrictions, and further north closer to the bend vehicle 'B' is within a sign posted 'No Stopping' zone and hence parked illegally.

Both areas have not be constructed as parking bays, and previous compliance officers have considered all areas to be not suitable for parking.

Issues facing residents is the lack of parking in this area due to the bend in the road and the narrow width of the road, and confusion on where to park.

For Council, the problems of legality may arise for allowing residents to park in the area shown by Vehicle A, should a person fall in this area when it's not suitable for parking. Parking here also impacts sight lines as the driveways are considerably lower than the road.

BUSES

The current Bus route is very under utilised and the bus when travelling south to High Street crosses onto the wrong side of the road on the bend. There has been one accident at this location, but did not involve a bus. Busways have been contacted to provide patronage on the bus service along Blaxland Crescent. Barons Crescent.

The removal of buses from this section would increase parking for residents.

TRAFFIC MOVEMENTS

Currently, traffic movement is 2- way, and council is considering making the section of Barons Crescent/Blaxland Street between Park Road and High Street one way for the following reasons:

1. as the road is not wide enough to accommodate 2-way traffic and drivers need to use driveway space and bus zone areas to move laterally into to allow a vehicle to pass.
2. Parking demand is also high in the area which adds to the congestion, and there may be scope to increase parking as the double centre lines will not be required.
3. residents would only need to look one way to exit their driveway.
4. Motorist would not need to move laterally to the side to give way to oncoming vehicles.

FOR COMMENT/FEEDBACK

1. Parking on Blaxland Road between High Street and Barons Crescent.
    a. Can parking be permitted on the shoulder of the road in the current form?
    b. Should the 'No Stopping' be extended to High Street
2. Proposal for One-way system
    a. Reasons for against
    b. TfNSW Process

ATTACHMENTS

There are no attachments to this report.