
NORTHROP
Proposed Development at
297 – 299 Canterbury Road,
Revesby
FLOOD RISK ASSESSMENT AND STORMWATER
MANAGEMENT REPORT
PLANNING PROPOSAL SUBMISSION

Disclaimer

This report has been prepared on behalf of and for the exclusive use of Canterbury Bankstown Private Hospital Pty Ltd, and is subject to and issued in accordance with the agreement between Canterbury Bankstown Private Hospital Pty Ltd and Northrop Consulting Engineers. Northrop Consulting Engineers accepts no liability or responsibility whatsoever for it in respect of any use or reliance upon this report by any third party. Copying this report without the permission of Canterbury Bankstown Private Hospital Pty Ltd or Northrop Consulting Engineers is not permitted.

172981 - 297-299 Canterbury Road, Revesby – Flood Risk Assessment Report and Stormwater Management Report

Rev	Description	Prepared by	Reviewed by	Issue Date	Client App	Approval Date
A	ISSUED FOR COUNCIL REVIEW	JL	RH	23/01/18		

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1. Introduction

Northrop Consulting Engineers (Northrop) has been engaged by Canterbury Bankstown Private Hospital Pty Ltd to prepare documentation in support of a Planning Proposal Submission to City of Canterbury Bankstown Council (Council) for the proposed private hospital development at 297 - 299 Canterbury Road, Revesby.

The proposed development will involve the demolition of two existing commercial/industrial buildings and associated infrastructure within the subject site to facilitate the construction of six (6) storey building with tenancies and associated infrastructure and service works.

A SEARs (Secretary's Environmental Assessment Requirements) has been issued for the development. This report has been prepared for submission to Council, for review ahead of progression to EIS (Environmental Impact Statement). Northrop has been engaged to prepare a Flood Risk Assessment and Stormwater Management Report for the proposed development.

The report assesses the flood risks on the site based on the findings of the Council's Salt Pan Creek Catchments Floodplain Risk Management Study & Plan (December 2013), Stormwater System Report (Flood Information), Bankstown Development Control Plan 2015 – Part B12 Schedule 5 and NSW Floodplain Development Manual. Based on the assessment, flood risk management controls are recommended to mitigate the potential flood impact through the site and on the neighbouring property. The report will also outline an overview of the anticipated stormwater management strategy developed for managing stormwater runoff from the proposed development, so to illustrate that the future EIS stormwater can readily meet Council's specifications and requirements within Bankstown Council's Development Engineering Standards.

2. Site Description

2.1. Existing Site Description

The address of the subject site is 297 – 299 Canterbury Road, Revesby otherwise known as Lot 9 DP663160 and Lot 202 DP840245. The site is located within General Industrial zone within the City of Canterbury Bankstown Local Government Area (LGA). Refer to **Figure 1** for the site location.

Figure 1 - Locality Plan

The site covers an area of approximately 9175 m^2. The site is enclosed by Mavis Street on the North Eastern Boundary and Canterbury Road on the South Eastern Boundary. Cafes are located on the North Western Boundary and a warehouse is located on the South Western Boundary.

The existing (pre-development) site condition consists of two buildings for office and warehouse use, open storage area and a bitumen carpark located in front of the office along

Canterbury Road. Access to the site is provided by various driveway entrances along Canterbury Road and Mavis Street.

The site is located in an Overland Flow Risk Precinct as identified in Council's Salt Pan Creek Catchments Floodplain Risk Management Study & Plan.

A site inspection was conducted on 11th January 2018 to aid review of the existing stormwater drainage system of the site. A stormwater easement is located along the South Western boundary for the benefit of 299a Canterbury Road, Revesby. An overland flow path exists above the easement with pit and pipe system underneath. There is currently dense vegetation along the easement. The site has an existing stormwater drainage system which consists of downpipes, grated trench drains and grated inlet pits which seem to discharge to kerb and gutter on Canterbury Road via two 200(w) x 100(h) rectangular hollow sections. Council kerb inlet pits along Canterbury Road and Mavis Street are currently blocked with vegetation and debris contributing to localised ponding.

Based on survey undertaken across the site by LTS Lockley, the general site levels fall from a maximum RL of approximately 31.79 m AHD at the Northern site corner, to a minimum ground surface RL of approximately 26.31 m AHD at the Southern site corner. Refer to Attachment A for the existing site survey plan.

The location and direction of the overland flow path is illustrated in Figure 2.

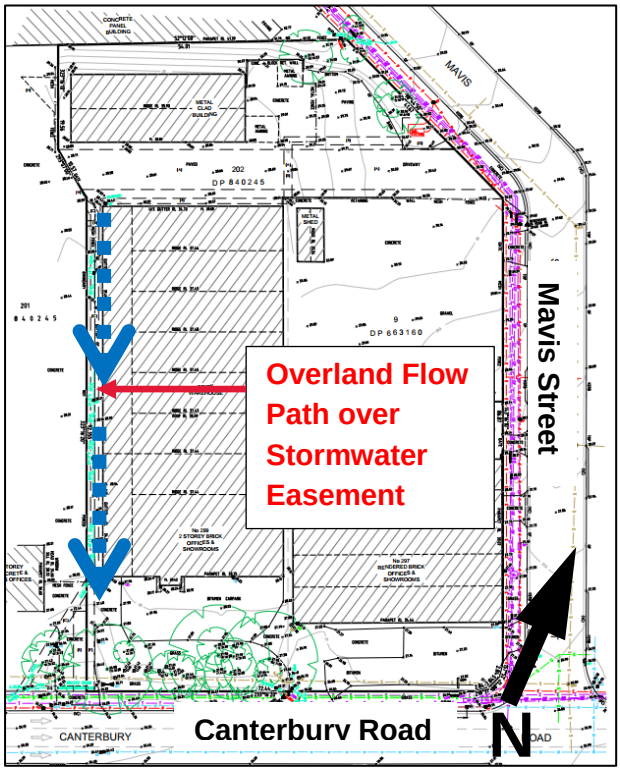


Figure 2 - Plan Illustrating the Overland Flow Path Above the Stormwater Easement.

2.2. Proposed Development

The proposed development will involve the demolition of two existing office/warehouse buildings within the subject site and construction of a six storey private hospital with 251 beds, consulting rooms, child care centre for 60 children, a café and other ancillary tenancies as well as three basement car parking levels for 433 vehicles.

Refer to the architectural drawings prepared by Anthony Vavayis Architects for more details. Refer to Attachment B for Site Plan.

Flood risk has been assessed for the proposed development in accordance with NSW Floodplain Development Manual, Council's Stormwater System Report (Flood Certificate), Council's Salt Pan Creek Catchments Floodplain Risk Management Study & Plan and Bankstown Development Control Plan 2015 – Part B12 Schedule 5. Refer to section 3 of the report.

An overview of the anticipated stormwater management strategy for managing stormwater runoff from the proposed development is outlined. This outline illustrates that the future EIS stormwater can readily meet Council's guidelines and requirements as specified in Bankstown City Council's Development Engineering Standards. Refer to section 4 of the report.

3. Flood Risk Assessment & Management

3.1. Flood Information

The site is located in an Overland Flow Risk Precinct as identified in Council's Salt Pan Creek Catchments Floodplain Risk Management Study & Plan (December 2013). Overland flow risk precinct is a new category of risk precinct introduced in Council's floodplain risk management study and plan. It applies to areas where inundation is between 0.05m and 0.25m in depth in 1% AEP event and away from a major watercourse or a major drainage system. The site is not in the vicinity of any known major watercourse or a major drainage system. According to Fairford Rd Catchment Flood Study Report on which Council's Stormwater System Report (Refer Attachment C) and Salt Pan Creek Catchments Floodplain Risk Management Study & Plan are based on, only small sections of the site is inundated to a maximum depth of up to 0.25m in 1% AEP event. Refer to figure 3 below.

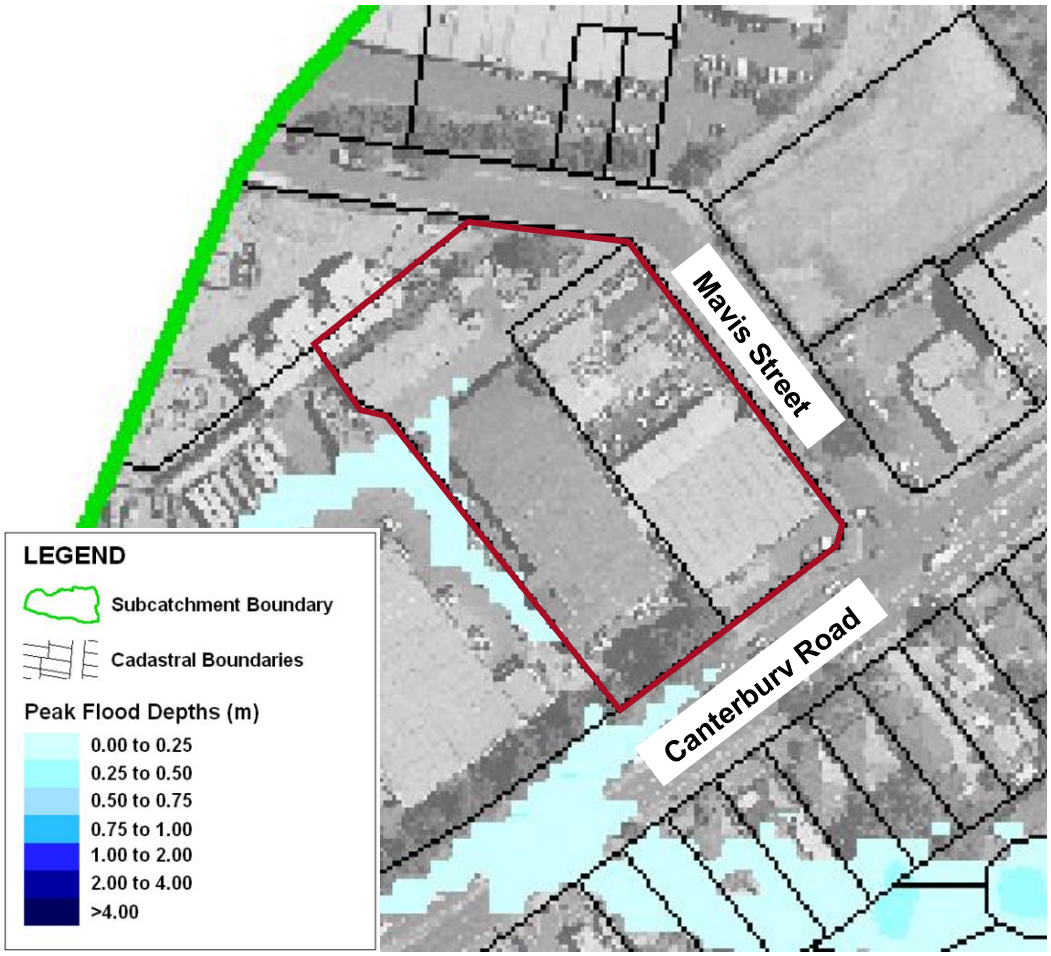


Figure 3 – 1% AEP Flood Extent (Fairford Rd Catchment Flood Study Report).

Council's Stormwater System Report shows that only small sections of the 1% AEP flood extent of the site has depth larger than 0.1m, and there appear to be no areas where the depth is greater than 0.2m. Refer to figure 4 below.

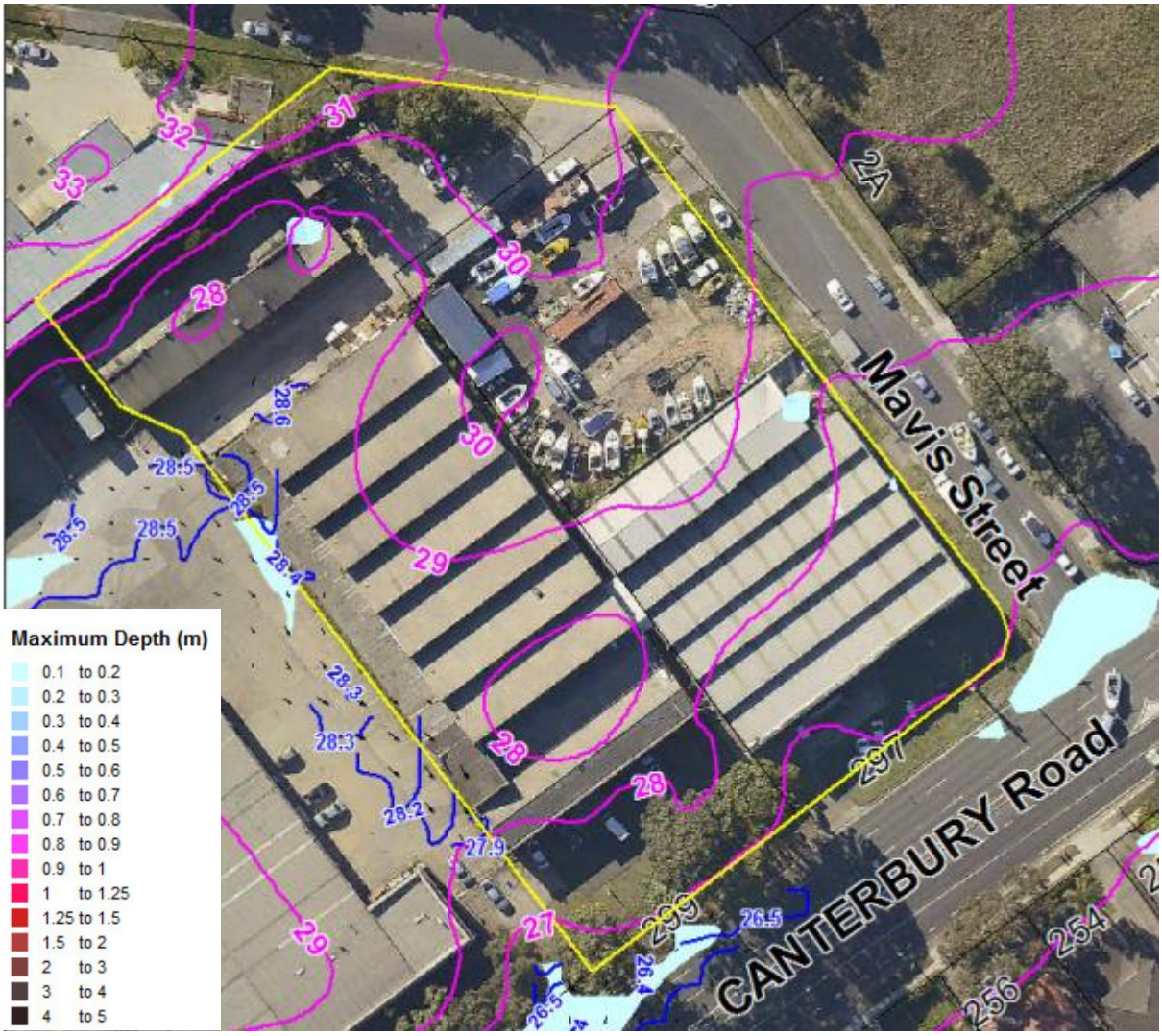


Figure 4 – 1% AEP Flood Depths (Council's Stormwater System Report).

Small sections of the site are inundated to a depth of up to 0.25m in PMF event according to Fairford Rd Catchment Flood Study Report. Refer to figure 5 below.

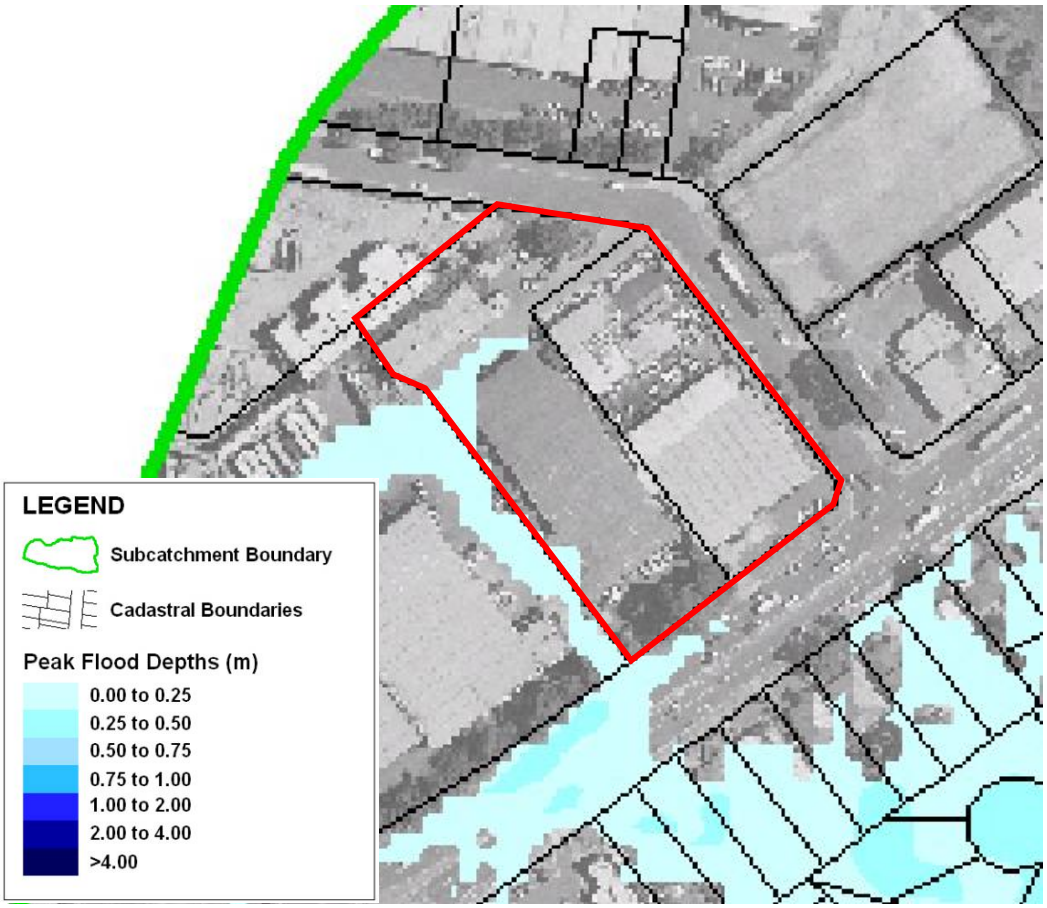


Figure 5 – PMF Extent (Fairford Rd Catchment Flood Study Report).

Council's Stormwater System Report shows small sections of the PMF extent has depth larger than 0.1m, and there appear to be no areas where the depth is greater than 0.2m. Refer to figure 6 below.

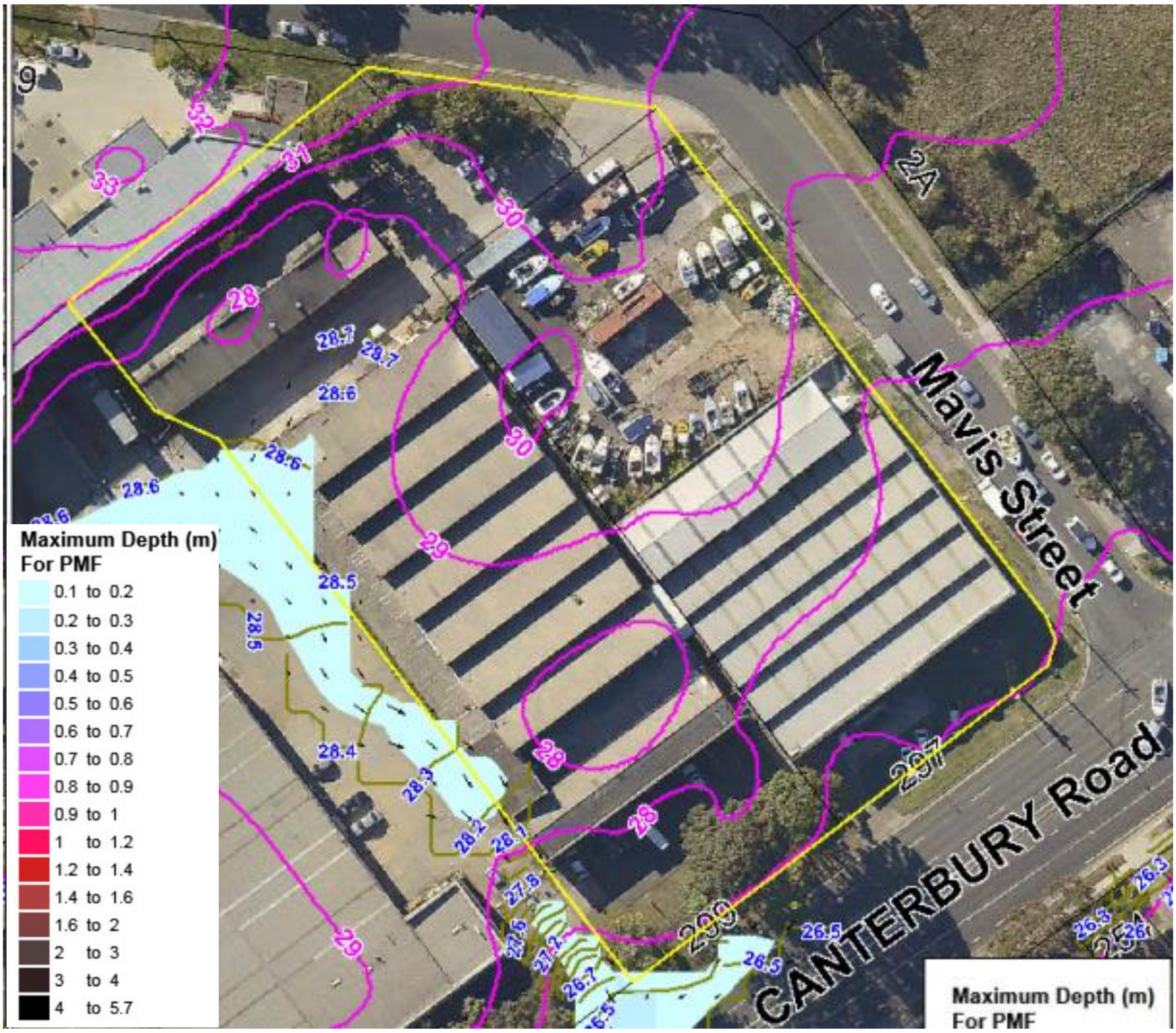


Figure 6 - PMF Depths (Council's Stormwater System Report).

The flood extents for 1% AEP and PMF events documented in figure 3 and figure 5 extend into the existing building. This is possibly due to an error in modelling of the terrain where airborne laser scanning (ALS) survey did not capture existing buildings. The error needs further attention in relation to potential loss of flood storage. However, as the flood depth is less than 0.1m for most of the area beyond the building line, at this stage we conclude that the effect would be negligible.

Council's Stormwater System Report shows maximum velocity depth product of $0.2m^2/s$ for both 1% AEP and PMF events. This corresponds to Low Hazard for both 1% AEP and PMF events in NSW Floodplain Development Manual and presents no difficulty to evacuation vehicles and able-bodied adults in wading to safety. Refer to figure 7 & figure 8 below.

Figure 7– 1% Velocity Depth Product (Council's Stormwater System Report).

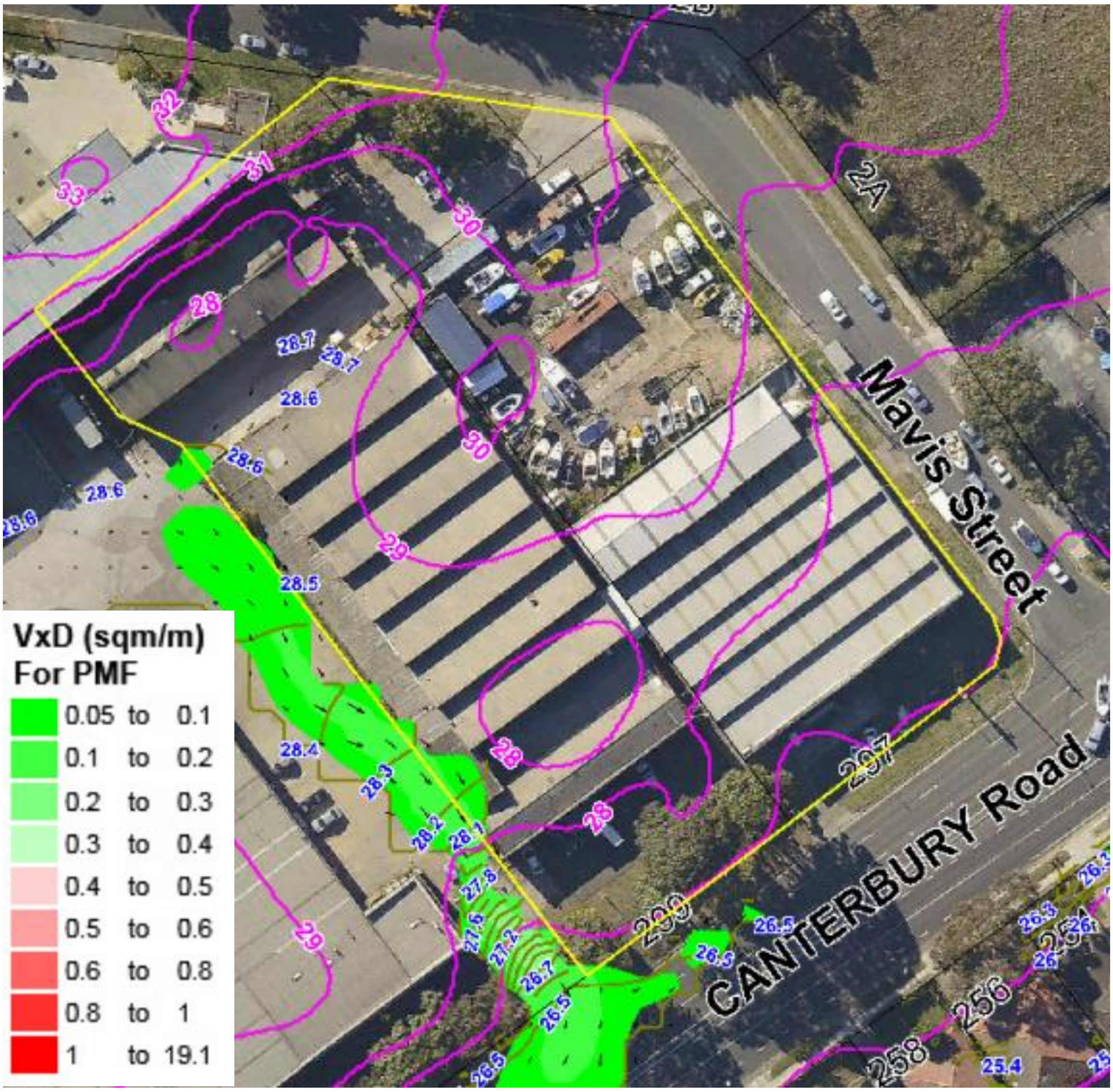


Figure 8– PMF Velocity Depth Product (Council's Stormwater System Report).

3.2. Flood Risk Management

It is evident from the flood information that the site is not affected by major flooding but by overland flow issues along the stormwater easement. To ensure that the proposed development does not have an adverse impact on the neighbouring property as well as having appropriate flood risk management controls, the proposed development design needs to incorporate relevant provisions and controls from Council's Stormwater System Report (Flood Certificate), Council's Salt Pan Creek Catchments Floodplain Risk Management Study & Plan, Bankstown Development Control Plan 2015 – Part B12 Schedule 5 and NSW Floodplain Development Manual.

The set of provisions and controls that apply to the proposed development are:

3.2.1 FLOOD PLANNING LEVEL (FPL)

Council's Stormwater System Report states that the habitable floor levels are to be at least 500mm above 1% AEP flood level. However, the PMF level is also to be considered as governing the FPL as the proposed development is an emergency response facility such as a hospital according to NSW Floodplain Development Manual. Therefore, FPLs along the 1% AEP and PMF affected areas need to be the higher of 1% AEP level + 500mm freeboard or PMF level. Refer to Attachment D: Flood Planning Levels (FPLs).

Basement car parks need to be protected from being inundated in the 1% AEP event. Northrop would suggest that access openings adjacent the 1% AEP and PMF extent should maintain min 300mm-500mm freeboard above the 1% AEP flood level.

Disposal and loading bay areas should be protected from overland flow inundation via a retaining wall or similar.

3.2.2 OVERLAND FLOW PATH

Overland flow path exists over the existing stormwater easement along the south western boundary. Fence along the south western boundary should be open style for stormwater runoff to pass unobstructed over the site. The proposed landscape area along the south western boundary needs to closely match the existing levels to minimise changes in the existing flood levels, flows and velocities within the development site and neighbouring land.

3.2.3 EVACUATION

Most of the site has velocity depth product of less than 0.05. Small sections of the site are hydraulically classified as Low Hazard (NSW Floodplain Development Manual). Reliable access for pedestrians and vehicles is provided and poses no evacuation difficulties.

3.3 Flood Impact

Incorporation of the above flood risk management measures will ensure the potential flood impact on the site is mitigated.

To ensure that the proposed development does not increase flooding effects on the neighbouring property, flood storage, flood levels, flows and velocities should generally be maintained per existing along the overland flow path. Overland flow path controls applied to the site are:

- Open style fence along south western boundary to not impede or divert overland flow
- Proposed levels along the south western boundary to closely match the existing levels
- Allowance for compensation within the boundary landscape area for potential loss of overland flow path storage caused by the proposed building. This will require further attention during the EIS stage, however Northrop note as the overland flow depth is less than 0.1m for most of the extent beyond the building line, we conclude the effect will be negligible and readily accounted for with site grading with the south western landscape area.

4. Stormwater Management

4.1 On-Site Detention Requirement

On-Site Detention is to be designed in accordance with Council's Development Engineering Standards. Council require that peak stormwater discharges from the site must not exceed pre-development stormwater discharges. Northrop note that the storage requirement is expected to be minor given that the pre-development site condition is mostly impervious, and the proposed development does not propose an increase in impervious area. Therefore the proposed development should readily be able to account for the OSD requirements.

4.2 Stormwater Quality

Stormwater quality objectives are to be satisfied as per Bankstown Council's Development Engineering Standards. Northrop note that the stormwater system will likely require the incorporation of gross pollutant traps, other proprietary treatment devices and/or landscaped WSUD devices in order to sufficiently remove pollutants. There appears no impediment to incorporate such treatment requirements as part of the EIS design/documentation.

4.3 Stormwater Drainage

The stormwater drainage system is to be designed in accordance with AS3500.3 and Bankstown Council's Development Engineering Standards and connect to Council's stormwater system. We anticipate the proposed site stormwater drainage system to include roof drainage system, connecting to an in ground pit and pipe system designed for 5% AEP event. The in ground stormwater system will convey stormwater so to discharge to Council's external stormwater network. It's likely the final site discharge would be to Council's existing drainage network within Canterbury Road. The stormwater management strategy is to be finalised and formally proposed as part of the next stage of the development, the EIS submission.

5. Conclusion

Northrop has been engaged by Canterbury Bankstown Private Hospital Pty Ltd to prepare a flood risk assessment and stormwater management plan in support of a Planning Proposal submission to the City of Canterbury Bankstown Council for the proposed development at 297 - 299 Canterbury Road, Revesby.

The department of planning has issued a SEARs (Secretary's Environmental Assessment Requirements) for the development. The Council requires a flood risk assessment management report to be submitted for review as part of a planning proposal prior to progression to EIS (Environmental Impact Statement).

The flood risk assessment has been undertaken in accordance with Council's Stormwater System Report (flood information), Council's Salt Pan Creek Catchments Floodplain Risk

Management Study & Plan (December 2013), Bankstown Development Control Plan 2015 – Part B12 Schedule 5 and NSW Floodplain Development Manual.

The report finds that the site is affected by overland flow through the existing stormwater easement. The flood risk management strategies and controls are recommended to mitigate potential flood impact on the site and on the neighbouring property.

The stormwater management strategy including On-Site Detention, stormwater quality targets and stormwater drainage are to be designed in accordance with Bankstown Council's Development Engineering Standards and AS3500.3. This report has commented on the anticipated stormwater management strategy, so to illustrate that the future EIS stormwater can readily meet requirements.

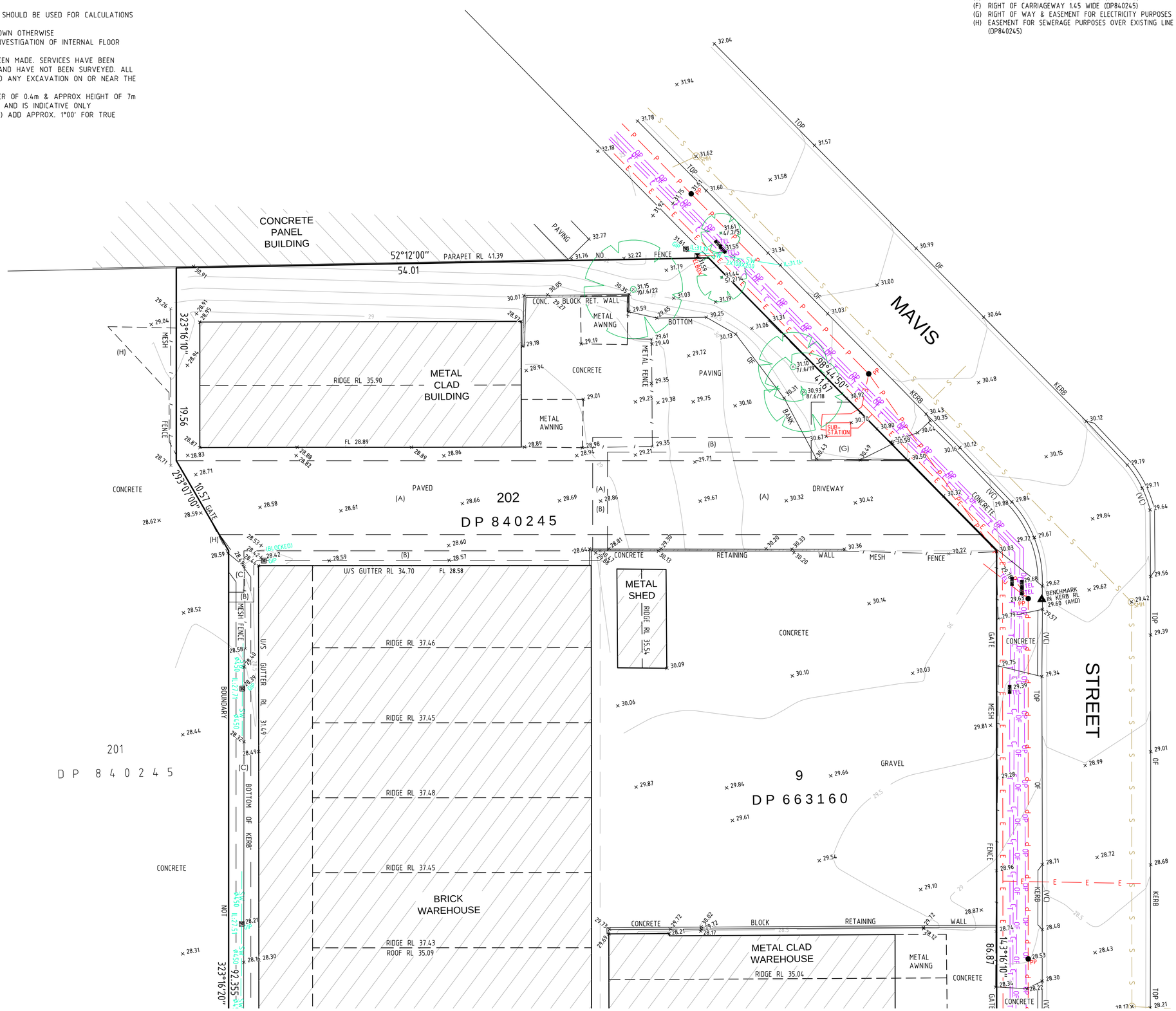
Attachment A: Site Survey

NOTES

1. THE BOUNDARIES HAVE NOT BEEN MARKED ON GROUND
2. ALL AREAS AND DIMENSIONS HAVE BEEN COMPILED FROM PLANS MADE AVAILABLE BY THE OFFICE of LAND & PROPERTY INFORMATION (NSW) AND ARE SUBJECT TO FINAL SURVEY
3. ORIGIN OF LEVELS ON A.H.D. IS TAKEN FROM **SSM181807** R.L. 28.291 (A.H.D.) IN LACHLAN STREET
4. CONTOUR INTERVAL **0.5 m**
5. CONTOURS ARE INDICATIVE ONLY. ONLY SPOT LEVELS SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION
6. KERB LEVELS ARE TO THE TOP OF KERB UNLESS SHOWN OTHERWISE
7. FLOOR LEVELS SHOWN ARE THRESHOLD LEVELS. NO INVESTIGATION OF INTERNAL FLOOR LEVELS HAS BEEN UNDERTAKEN
8. NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE. SERVICES HAVE BEEN PLOTTED FROM RELEVANT AUTHORITIES INFORMATION AND HAVE NOT BEEN SURVEYED. ALL RELEVANT AUTHORITIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION ON OR NEAR THE SITE
9. 8/.4/7 DENOTES TREE SPREAD OF 8m, TRUNK DIAMETER OF 0.4m & APPROX HEIGHT OF 7m
10. SHOWS APPROXIMATE POSITION OF ROAD LINEMARKING AND IS INDICATIVE ONLY
11. BEARINGS SHOWN ARE MGA (MAP GRID OF AUSTRALIA) ADD APPROX. 1°00' FOR TRUE NORTH

(A) RIGHT OF CARRIAGEWAY 7.5 WIDE (DP840245)
(B) EASEMENT FOR UNDERGROUND MAINS 1.0 AND 1.5 WIDE (DP840245)
(C) EASEMENT TO DRAIN WATER 1.5 WIDE AND VARIABLE (DP840245)
(D) EASEMENT TO DRAIN WATER 1.0 WIDE (DP4245)
(E) RIGHT OF CARRIAGEWAY 2.45 WIDE (DP840245)
(F) RIGHT OF CARRIAGEWAY 1.45 WIDE (DP840245)
(G) RIGHT OF WAY & EASEMENT FOR ELECTRICITY PURPOSES (VIDE W113896)
(H) EASEMENT FOR SEWERAGE PURPOSES OVER EXISTING LINE OF PIPES (DP840245)

MGA
T.N.
1°00' APPROX.



CONTINUES ON SHEET 2

LEGEND

BENCH MARK	▲
OPTUS PIT	OP
TELSTRA PILLAR	TP
COMMS PIT	COM
TELSTRA PIT	TEL
ELECTRICITY BOX	ELBOX
POWER POLE	PP
PIT WITH CONCRETE LID	CLID
FLAG POLE	FP
ROAD TRAFFIC AUTHORITY	RMS
GRATED INLET PIT	GIP
KERB INLET PIT	KIP
SEWER INSPECTION POINT	SIP
SEWER MANHOLE	SMH
STOP VALVE	SV
HYDRANT	HYD
FIRE HYDRANT	FH
WATER METER	WM
GAS METER	GM
GAS VALVE	GAS
VEHICLE CROSSING	(VC)
PRAM CROSSING	(PC)
GAS (DBYD)	G
TELSTRA (DBYD)	T
WATER (DBYD)	W
STORMWATER (DBYD)	SW
SEWER (DBYD)	S
ELECTRICITY (OVERHEAD)	P
ELECTRICITY (U'GROUND) (DBYD)	E

DIAL BEFORE YOU DIG www.1100.com.au

REFER TO NOTES AND LEGEND

0 4 6 8 12 16 20
SCALE 1: 200 @ A1

Revision	Date	Description	Reference
D	00/00/00	-	00
C	00/00/00	-	00
B	00/00/00	-	00
A	00/00/00	-	00

THIS IS THE PLAN REFERRED TO IN MY LETTER DATED:

.....
Registered Surveyor NSW

LTS LOCKLEY
Registered Surveyors NSW
www.ltsl.com.au
Suite 1, Level 1
810 Pacific Highway
Gordon NSW 2072
Locked Bag 5
Gordon NSW 2072
P 1300 587 000
F 02 9499 7760

Client CANTERBURY BANKSTOWN PRIVATE HOSPITAL

Drawing title
PLAN OF DETAIL AND LEVELS OVER LOT 9 DP 663160 & LOT 202 DP 840245 KNOWN AS 297-299 CANTERBURY ROAD, REVESBY

datum	project number	reference number
AHD	44795	44795DT
site Area	scale	date of survey
9175m²	1:200 @A1	23/06/2017
LGA	SHEET	
CANTERBURY/BANKSTOWN	OF 2 SHEETS	1

(A) RIGHT OF CARRIAGEWAY 7.5 WIDE (DP840245)
(B) EASEMENT FOR UNDERGROUND MAINS 1.0 AND 1.5 WIDE (DP840245)
(C) EASEMENT TO DRAIN WATER 1.5 WIDE AND VARIABLE (DP840245)
(D) EASEMENT TO DRAIN WATER 1.0 WIDE (DP40245)
(E) RIGHT OF CARRIAGEWAY 2.45 WIDE (DP840245)
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(G) RIGHT OF WAY & EASEMENT FOR ELECTRICITY PURPOSES (VIDE W113896)
(H) EASEMENT FOR SEWERAGE PURPOSES OVER EXISTING LINE OF PIPES (DP840245)

DIAL BEFORE YOU DIG www.1100.com.au

REFER TO NOTES AND LEGEND ON SHEET 1

SCALE 1:200 @ A1 (0, 4, 6, 8, 12, 16, 20)

Revision	Date	Description	Reference
D	00/00/00	-	00
C	00/00/00	-	00
B	00/00/00	-	00
A	00/00/00	-	00

THIS IS THE PLAN REFERRED TO IN MY LETTER DATED:

....
Registered Surveyor NSW

LTS LOCKLEY
Registered Surveyors NSW
www.ltsl.com.au
Suite 1, Level 1
810 Pacific Highway
Gordon NSW 2072
Locked Bag 5
Gordon NSW 2072
P 1300 587 000
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Client: CANTERBURY BANKSTOWN PRIVATE HOSPITAL

Drawing title: PLAN OF DETAIL AND LEVELS OVER LOT 9 DP 663160 & LOT 202 DP 840245 KNOWN AS 297-299 CANTERBURY ROAD, REVESBY

datum: AHD	project number: 44795	reference number: 44795DT
site Area: 9175m²	scale: 1:200 @A1	date of survey: 23/06/2017
LGA: CANTERBURY/BANKSTOWN	SHEET 2 OF 2 SHEETS	2

Attachment B: Site Plan

NOTE
All dimensions to be verified prior to commencement of any shop drawings or fabrication. shop drawings are to be approved before construction. all dimensions are in millimeters unless otherwise noted. Annotated dimensions are to be used in preference to scaling from drawings.

LEGEND

- Adminstration
- Childcare
- Circulation
- Common Areas
- Hospital
- Pool
- Retail
- Services
- Tenancy

A B C D E F H G I J K L M

4750 8350 8550 8100 8500 8100 8500 8100 8500 8400 8500 8400

96750

15m SETBACK

6m SETBACK

6m SETBACK

1 2 3 4 5 6 7 8 9 10

5235 7050 8200 8200 8200 8200 8200 3310 4515

6m SETBACK 61110

CANTERBURY ROAD

P3000 1

TENANCY
TENANCY
TENANCY
TENANCY
TENANCY
PHARMACY
CAFE

TENANCY

ADMINISTRATION
RECEPTION
AMENITIES

HOSPITAL
BACK OF HOUSE

MEDICAL WASTE
DISPOSAL

LOADING BAY
LOADING BAY

AMBULANCE BAY
AMBULANCE BAY

LIFT LOBBY
SERVICE LIFT
GP CLINIC
FLORIST / GIFT SHOP
ENTRY

HYDROTHERAPY POOL

TO BASEMENT CAR PARK

CHILDCARE FOYER

PASSENGER DROP-OFF / PICK-UP

2 P3000

MAVIS STREET

rev	date	amendment
	09.08.2017	Preliminary
	04.08.2017	Preliminary

REVISION

ANTHONY VAVAYIS +ASSOCIATES
ARCHITECTS DESIGNERS PLANNERS

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P: 20/26A LIME STREET KING STREET WHARF
SYDNEY NSW 2000
ANTHONY VAVAYIS & ASSOCIATES PTY. LTD.
ACN 069 737 935
NOMINATED ARCHITECT - ANTHONY VAVAYIS NO.5243

PROJECT TITLE
Canterbury Bankstown Private Hospital
297-299 Canterbury Road
Revesby NSW

CLIENT
Owner

DRAWING TITLE
Ground Level

SCALE @ A1 1 : 200 DATE JULY 2017
DRAWN BY DK PROJECT 17018

P2010

Attachment C: Stormwater System Report

Level 1, 66 - 72 Rickard Road, Bankstown NSW
PO Box 8, Bankstown NSW 1885
Tel: (02) 9707 9010 - Fax: (02) 9707 9408
DX 11220 BANKSTOWN
council@cbcity.nsw.gov.au

CITY OF CANTERBURY BANKSTOWN

To: Jason Lee
Level 11
345 George St
SYDNEY NSW 2000

STORMWATER SYSTEM REPORT
297 Canterbury Road, REVESBY NSW 2212

Date: 03-Jan-2018
Ref: WP-SIA/2/2018
Development type: **Private Hospital**

NO	FLOOD/OVERLAND FLOW STUDY REQUIRED

The site is affected by the following Private Stormwater system components:

- A 1.5 m wide & variable width drainage easement located south western site boundary within the site.

- Overland flowpath [floodway] for excess stormwater runoff from the upstream catchment and associated with this drainage system.

The site will be subject to stormwater inundation from this overland flowpath during large storm events. Refer to the attached **"100 Year ARI Flood & PMF Extent Maps from Fairford Road Catchment Study"**. Provision should be made on site, and at boundary fences, for this stormwater runoff to pass unobstructed over the site. Stormwater flowing naturally onto the site must not be impeded or diverted.

For this development, a flood /overland flow study to determine the 100 year ARI* water surface level is not necessary.

The Development Application submission shall be based on an AHD datum for levels where sites are affected by overland flow / flooding. Refer Bankstown Council's *Development Engineering Standards**.**

The proposed development including floor levels, shall comply with the development controls specified in Part B12 Schedule 5, of Bankstown's Development Control Plan 2015 - Catchments Affected by Stormwater Flooding.

Habitable floor levels are to be at least 500mm above the 100 year ARI* flood level at the site adjacent to the proposed buildings.

Runoff on the site, and naturally draining to it is to be collected and disposed of to Council's requirements detailed in Bankstown Council's *Development Engineering Standards****.

All structures and buildings must be located clear of pipelines and easements. Proposed structures may require special footings due to their proximity to stormwater easements and pipelines. Refer to Bankstown Council's *Development Engineering Standards****.

This report is given without the benefit of development plans or a site survey.

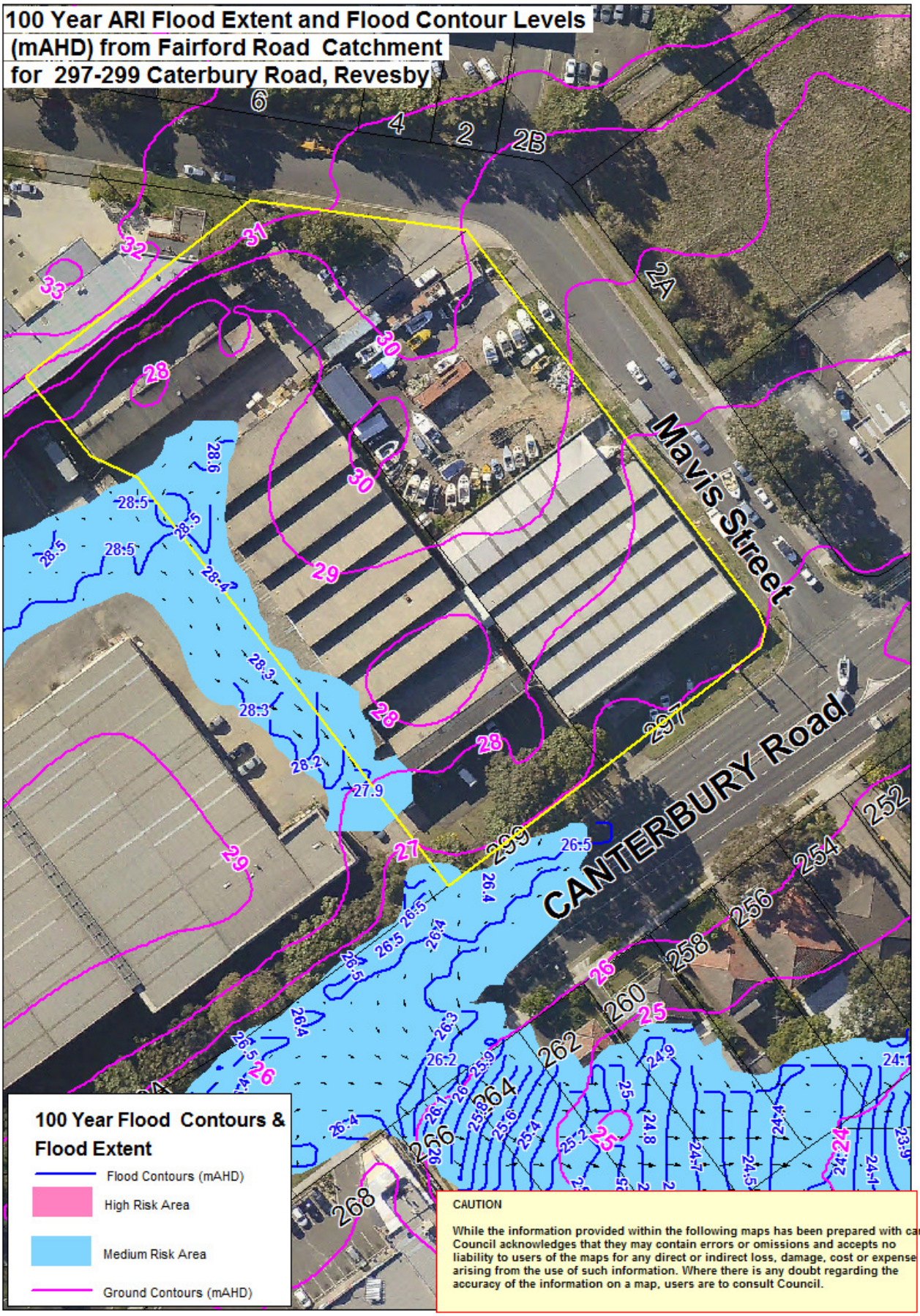
This report relates to the exposure of the subject site to Private stormwater system, both underground and overland. It does not assess the suitability or otherwise of this site for the proposed development.

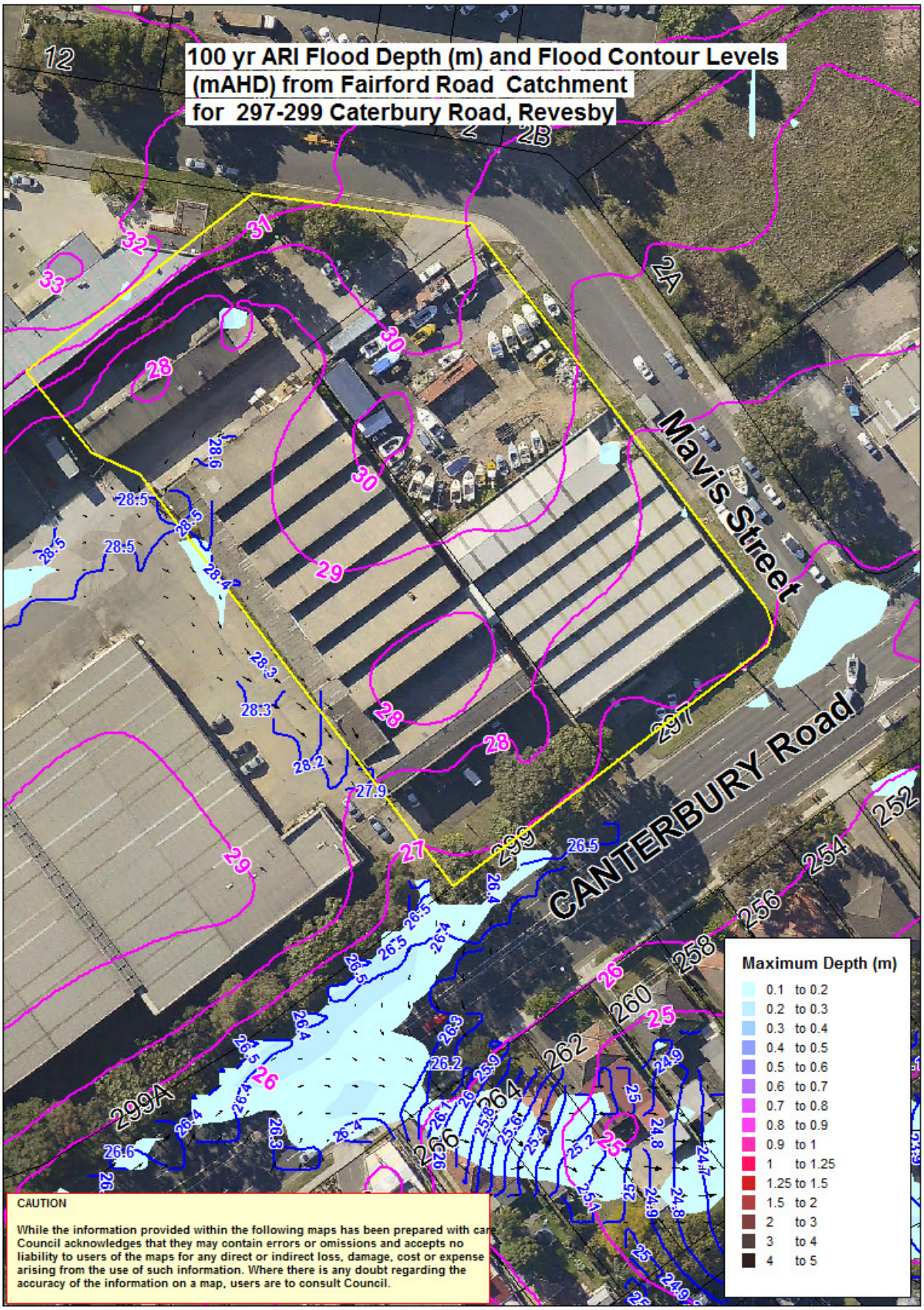
* Average Recurrence Interval

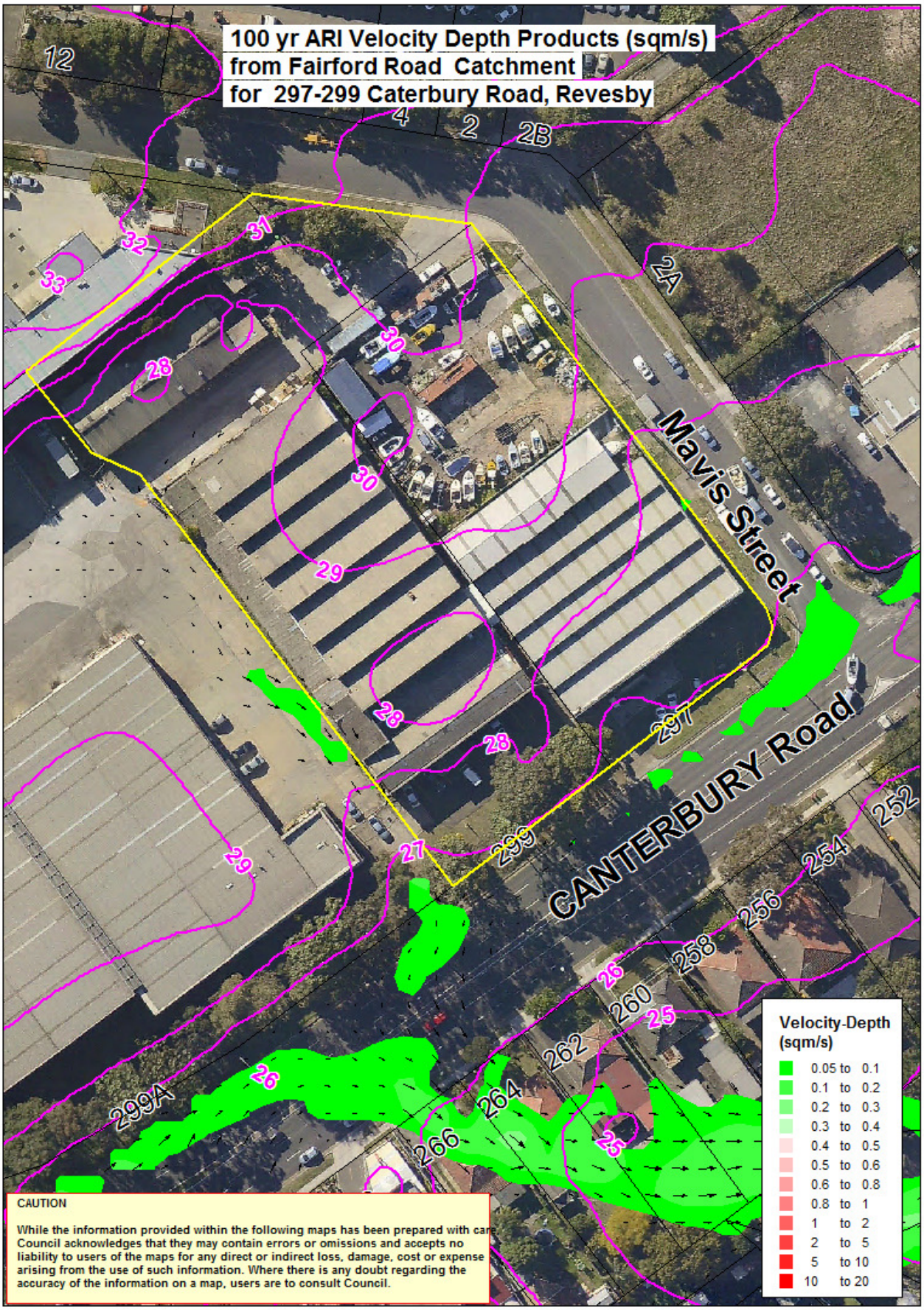
** Australian Height Datum

*** Bankstown Council's *Development Engineering Standards* and *Bankstown's Development Control Plan 2015* is available from Council's Customer Service Centre.

Pushpa Goonetilleke
ENGINEER


100 Year ARI Flood Extent and Flood Contour Levels (mAHD) from Fairford Road Catchment for 297-299 Caterbury Road, Revesby
Mavis Street
CANTERBURY Road
6
4
2
2B
2A
297
299
252
254
256
258
260
262
264
266
268
100 Year Flood Contours & Flood Extent
Flood Contours (mAHD)
High Risk Area
Medium Risk Area
Ground Contours (mAHD)
CAUTION
While the information provided within the following maps has been prepared with care, Council acknowledges that they may contain errors or omissions and accepts no liability to users of the maps for any direct or indirect loss, damage, cost or expense arising from the use of such information. Where there is any doubt regarding the accuracy of the information on a map, users are to consult Council.


100 yr ARI Flood Depth (m) and Flood Contour Levels (mAHD) from Fairford Road Catchment for 297-299 Caterbury Road, Revesby
Mavis Street
CANTERBURY Road
Maximum Depth (m)
0.1 to 0.2
0.2 to 0.3
0.3 to 0.4
0.4 to 0.5
0.5 to 0.6
0.6 to 0.7
0.7 to 0.8
0.8 to 0.9
0.9 to 1
1 to 1.25
1.25 to 1.5
1.5 to 2
2 to 3
3 to 4
4 to 5
CAUTION
While the information provided within the following maps has been prepared with care Council acknowledges that they may contain errors or omissions and accepts no liability to users of the maps for any direct or indirect loss, damage, cost or expense arising from the use of such information. Where there is any doubt regarding the accuracy of the information on a map, users are to consult Council.


100 yr ARI Velocity Depth Products (sqm/s)
from Fairford Road Catchment
for 297-299 Caterbury Road, Revesby
12
4
2
2B
2A
Mavis Street
CANTERBURY Road
297
299
299A
252
254
256
258
260
262
264
266
Velocity-Depth (sqm/s)
0.05 to 0.1
0.1 to 0.2
0.2 to 0.3
0.3 to 0.4
0.4 to 0.5
0.5 to 0.6
0.6 to 0.8
0.8 to 1
1 to 2
2 to 5
5 to 10
10 to 20
CAUTION
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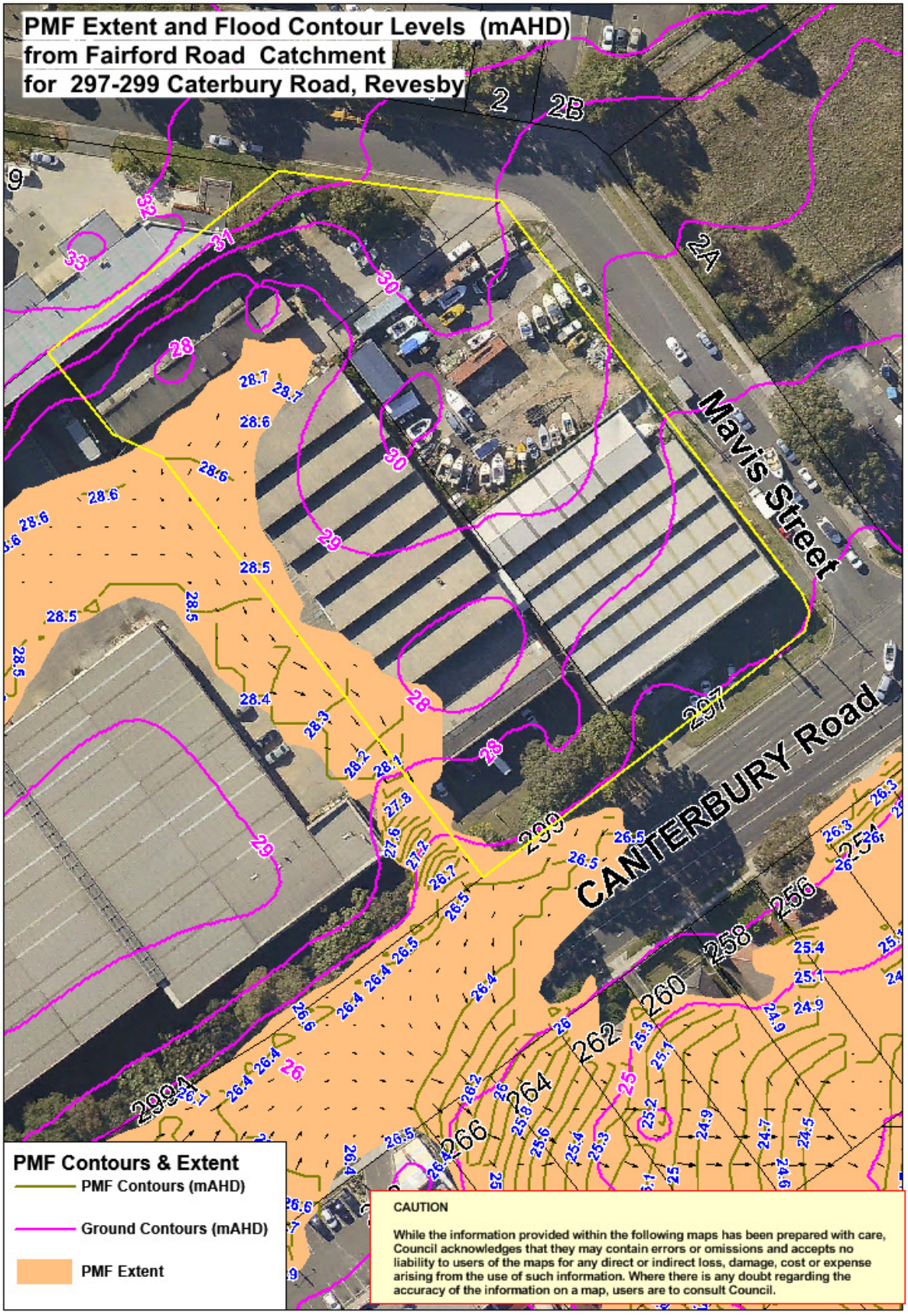
PMF Extent and Flood Contour Levels (mAHD)
from Fairford Road Catchment
for 297-299 Caterbury Road, Revesby
Mavis Street
CANTERBURY Road
297
299
PMF Contours & Extent
PMF Contours (mAHD)
Ground Contours (mAHD)
PMF Extent
CAUTION
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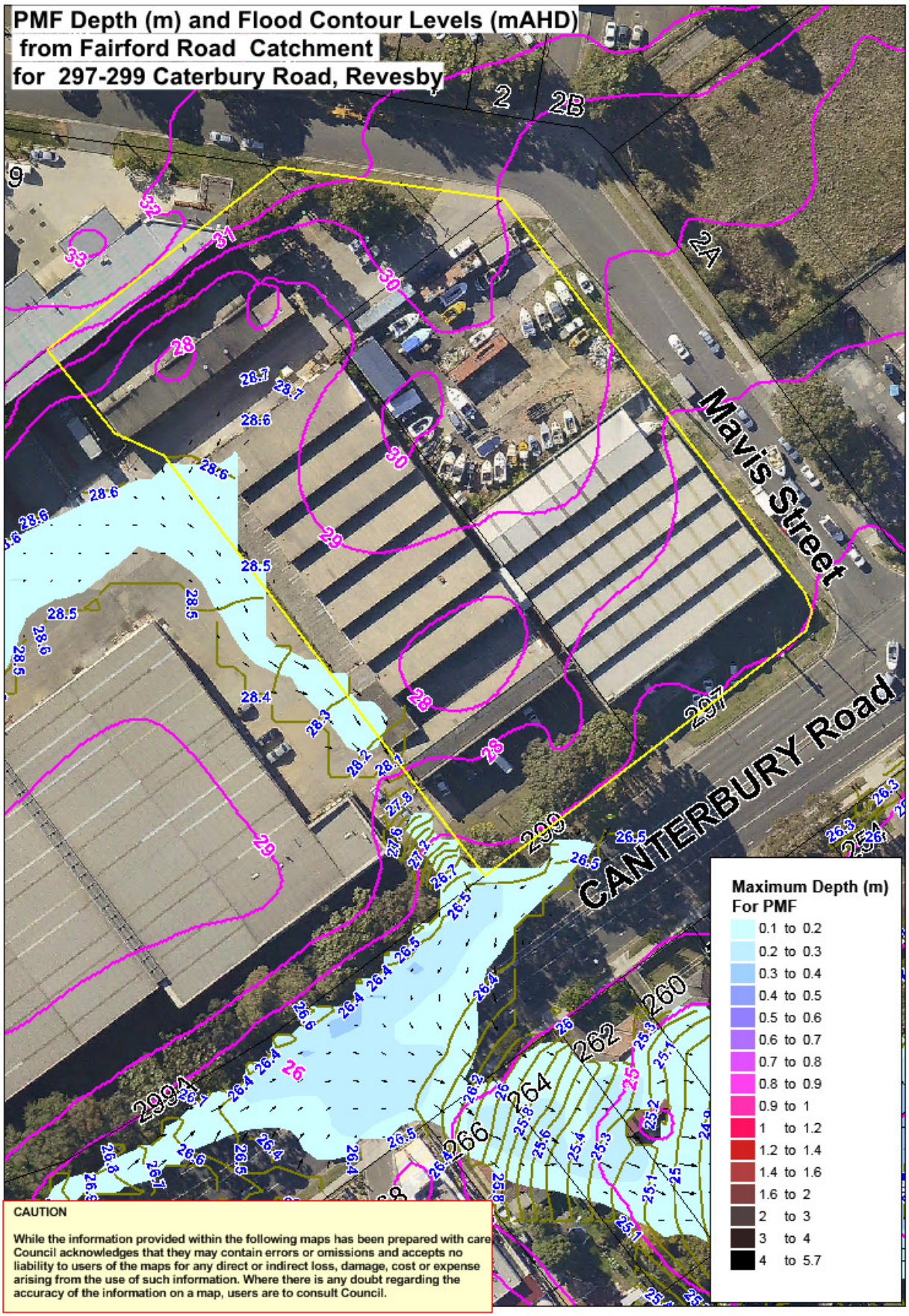

CAUTION

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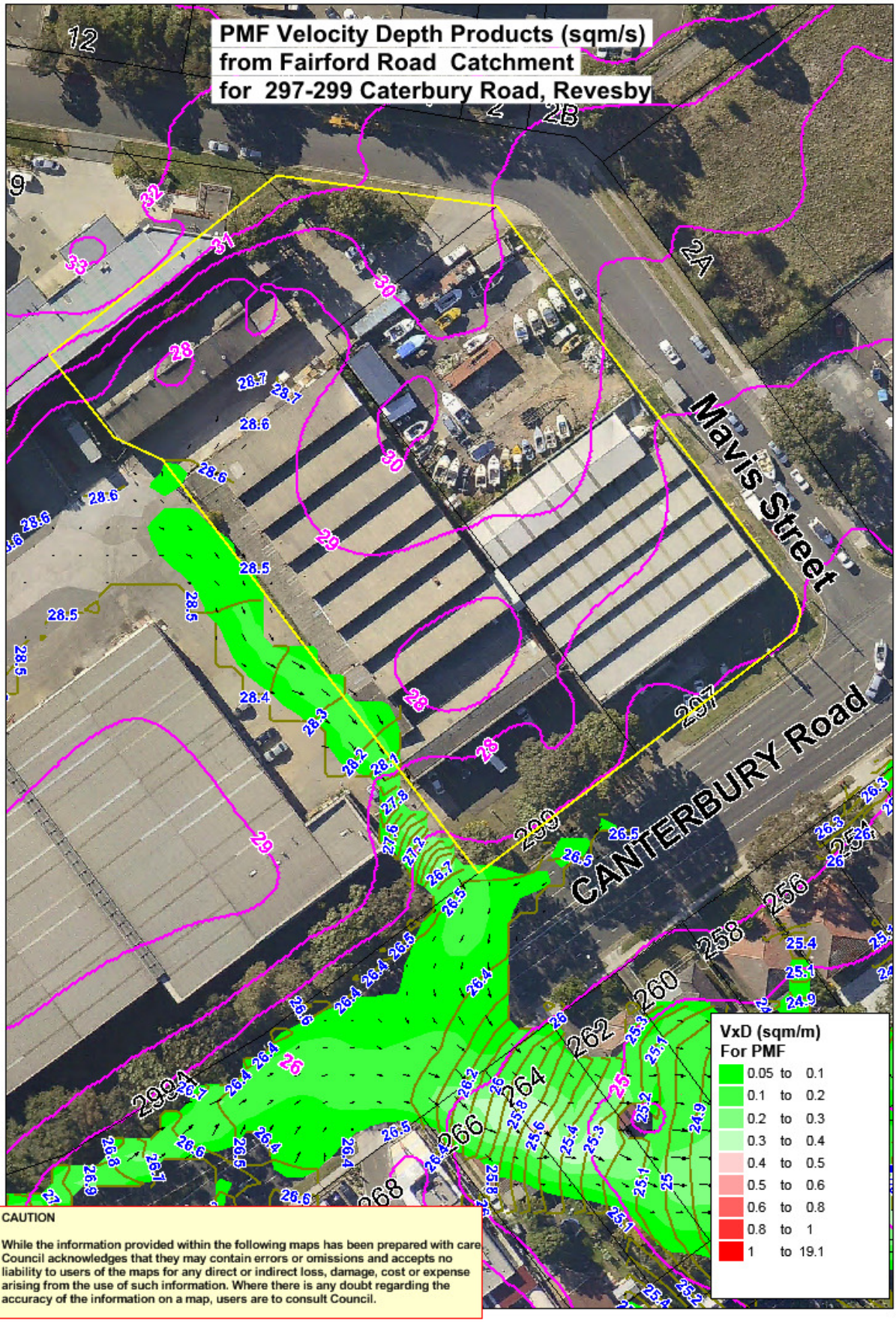

CAUTION

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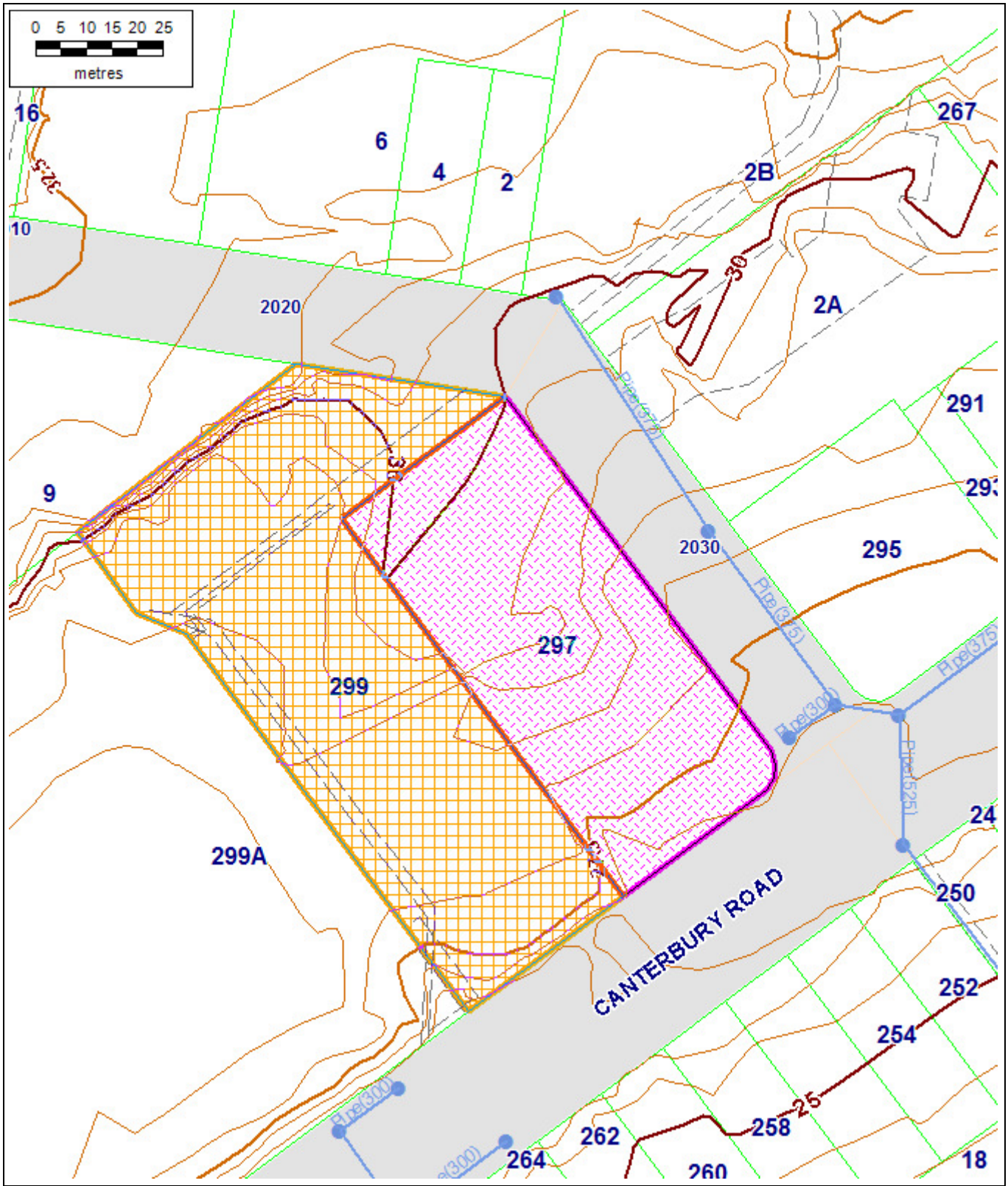

1:1,091
3 January 2018

297-299 Canterbury Road, Revesby

GIS Map

DISCLAIMER: COUNCIL EXPRESSLY DISCLAIMS ALL LIABILITY FOR ERRORS OR OMISSIONS.
THIS PLAN HAS NO LEGAL STANDING

CANTERBURY BANKSTOWN

1:1,091
3 January 2018

297-299 Canterbury Road, Revesby

Aerial Map

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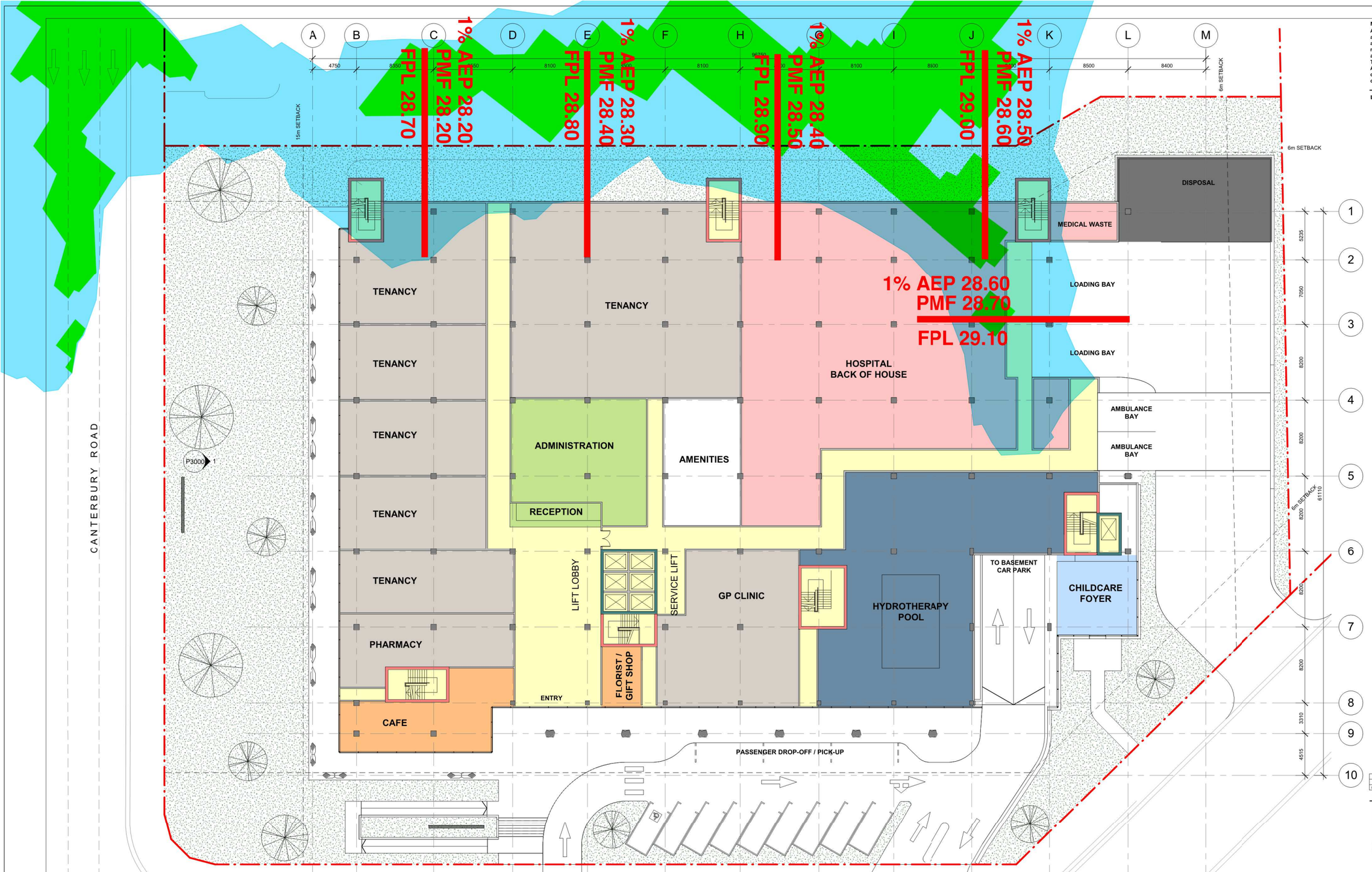
THIS PLAN HAS NO LEGAL STANDING

CANTERBURY BANKSTOWN

Legend

- Suburb
- Drainage Conduits
- Drainage Devices
- Sydney Water
- Contour Major 5m
- Contour Intermediate 2.5m
- Contour Minor 0.5m
- Parcel
- Parcel Associate
- Parcel Vinculum
- Jetty
- Easements
- Road Boundaries
- Aerial Photo 2014(LPI)
- Road Names
- Road Sections
- Airport Internal Road
- Water Boundary
- Railway
- Airport Taxiway

Attachment D: Flood Planning Levels (FPLs)



NOTE
All dimensions to be verified prior to commencement of any shop drawings or fabrication. shop drawings are to be approved before construction. all dimensions are in millimeters unless otherwise noted. Annotated dimensions are to be used in preference to scaling from drawings.

LEGEND

ATTACHMENT D: FLOOD PLANNING LEVELS (FPLS)

LEGEND

1% AEP EXTENT (FAIRFORD RD CATCHMENT FLOOD STUDY REPORT

PMF EXTENT (STORMWATER SYSTEM REPORT)

FPL FLOOD PLANNING LEVEL

P3000

rev	date	amendment
	09.08.2017	Preliminary
	04.08.2017	Preliminary

REVISION

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NOMINATED ARCHITECT - ANTHONY VAVAYIS NO.5243

PROJECT TITLE
Canterbury Bankstown Private Hospital
297-299 Canterbury Road
Revesby NSW

CLIENT
Owner

DRAWING TITLE
Ground Level

SCALE @ A1 1 : 200 DATE JULY 2017
DRAWN BY DK PROJECT 17018

P2010