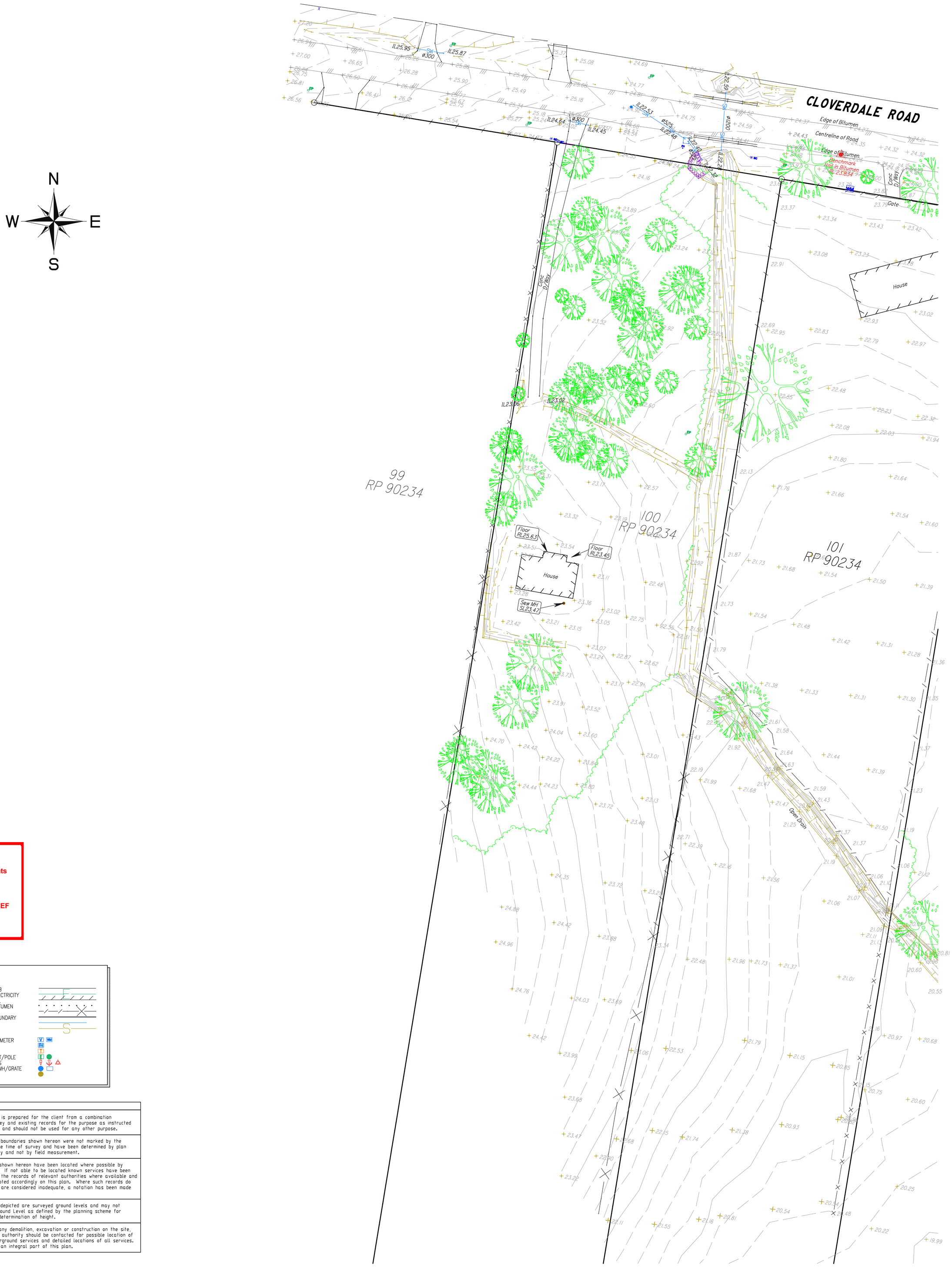

BCC DS

Plans/Documents RECEIVED

08/06/2023

APPLICATION REF

A006067610,

LEGEND

- EDGE OF KERB
- OVERHEAD ELECTRICITY
- BUILDING WALL
- CROWN OF BITUMEN
- FENCE LINES
- PROPERTY BOUNDARY
- STORMWATER
- SEWER MAIN
- WATER VALVE/METER
- FIRE HYDRANT
- TELSTRA PIT
- ELECTRCITY PIT/POLE
- SURVEY MARKS
- STORMWATER MH/GRATE
- SEWER MH

Notes:

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- Contours depicted are surveyed ground levels and may not represent Ground Level as defined by the planning scheme for the overall determination of height.
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terramap
CONSULTING CADASTRAL & ENGINEERING SURVEYORS

Unit 12, 178-182 Redland Bay Road
Capalaba, QLD 4157
www.terramap.com.au

Ph 32451611 Fax 32451944
reception@terramap.com.au

Alex Wu

SCALE 1 : 800 A3

0 8m 16m 24m 32m 40m

SURVEYOR:	JO
DATE OF SURVEY:	11/5/17
CONTOUR INTERVAL:	0.25m
LEVEL DATUM:	AHD DERIVED
ORIGIN:	PSM 186215 RL20.590
MERIDIAN:	RP 90234

Contour and Detail Survey
Lots 99-103 on RP 90234
18-32 Cloverdale Road, Doolandella
Sheet 3 of 3

Rev	DATE	By	AMENDMENT
2	31/03/22	MP	Updated Boundary
1	20/12/21	RK	Datum changed to MGA2020
0	15/5/17	AS	ORIGINAL ISSUE

DRAWN: 20.01.2016
CHECKED: 20.01.2016
APPROVED: 20.01.2016

DRAWING NUMBER: 3814/002-3
REV: 2

N

W E

S

100
RP 90234

101
RP 90234

102
RP 90234

103
RP 90234

105
SP 235699

Contours in this area are indicative only

Contours in this area are indicative only

Contours in this area are indicative only

General Location of high bank

General Location of high bank

General Location of high bank

BLUNDER CREEK

LEGEND

- EDGE OF KERB
- OVERHEAD ELECTRICITY
- BUILDING WALL
- CROWN OF BITUMEN
- FENCE LINES
- PROPERTY BOUNDARY
- STORMWATER
- SEWER MAIN
- WATER VALVE/METER
- FIRE HYDRANT
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- ELECTRCITY PIT/POLE
- SURVEY MARKS
- STORMWATER MH/GRATE
- SEWER MH

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reception@terramap.com.au

Alex Wu

SCALE 1 : 800 A3

0 8m 16m 24m 32m 40m

SURVEYOR:	RS & NM
DATE OF SURVEY:	20.01.2016
CONTOUR INTERVAL:	0.25m
LEVEL DATUM:	AHD DERIVED
ORIGIN:	PSM 186215 RL20.590
MERIDIAN:	RP 90234

Contour and Detail Survey
Lots 99-103 on RP 90234
18-32 Cloverdale Road, Doolandella
Sheet 2 of 3

Rev	DATE	By	AMENDMENT
2	31/03/22	MP	Updated Boundary
1	20/12/21	RK	Datum changed to MGA2020
0	20.01.16	GJW	ORIGINAL ISSUE

DRAWN:	20.01.2016
CHECKED:	20.01.2016
APPROVED:	20.01.2016
DRAWING NUMBER:	3814/002-2
REV	2

LEGEND

EDGE OF KERB
OVERHEAD ELECTRICITY
BUILDING WALL
CROWN OF BITUMEN
FENCE LINES
PROPERTY BOUNDARY
STORMWATER
SEWER MAIN

WATER VALVE/METER
FIRE HYDRANT
TELSTRA PIT
ELECTRCITY PIT/POLE
SURVEY MARKS
STORMWATER MH/GRATE
SEWER MH

Notes:

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- The title boundaries shown hereon were not marked by the author at the time of survey and have been determined by plan dimension only and not by field measurement.
- Services shown hereon have been located where possible by field survey. If not able to be located known services have been plotted fron the records of relevant authorities where available and have been noted accordingly on this plan. Where such records do not exist or are considered inadequate, a notation has been made hereon.
- Contours depicted are surveyed ground levels and may not represent Ground Level as defined by the planning scheme for the overall determination of height.
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CLOVERDALE ROAD
Edge of Bitumen
Centreline of Road
Edge of Bitumen
Benchmark Nail in Bitumen RL24.834
Conc D/Way
Gate
Vegetation
Change of Grade
IL20.66
PP #33148
Bitumen D/Way
Sew MH SL24.05
225 Dia
House
Shed
Concrete Ret Wall
Sew Septic MH SL22.53
Conc Slab
SW MH SL21.81
Building Pads
Sew MH SL20.64
IL18.71
IL18.69
101 RP 90234
102 RP 90234
103 RP 90234
CP SP 287112
IL19.59
SW
300 RCP
SW Grate SL20.56
Open Drain
Sew MH SL20.08
IL18.06
IL18.03
IL17.62
Sew MH SL20.00
600 Dia
EMT A SP287107
EMT B SP287107

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Alex Wu

SCALE 1 : 800 A3
0 8m 16m 24m 32m 40m

SURVEYOR:	RS & NM
DATE OF SURVEY:	04.09.15 & 20.01.2016
CONTOUR INTERVAL:	0.25m
LEVEL DATUM:	AHD DERIVED
ORIGIN:	PSM 186215 RL20.590
MERIDIAN:	RP 90234

Contour and Detail Survey
Lots 99-103 on RP 90234
18-32 Cloverdale Road, Doolandella
Sheet 1 of 3

Rev	DATE	By	AMENDMENT
7	22/04/22	MP	Updated Boundary
6	31/03/22	MP	Updated Boundary
5	17/03/22	JO	Survey Extended
4	20/12/21	RK	Datum changed to MGA2020
3	15/5/17	AS	Survey Extended
2	21/10/16	AS	Sewer IL added
1	20.01.16	GJW	ORIGINAL ISSUE
0	14.09.15	BG	ORIGINAL ISSUE

DRAWN: 20.01.2016
CHECKED: 20.01.2016
APPROVED: 20.01.2016
DRAWING NUMBER: 3814/002-1
REV: 7

APPENDIX

B

Intrax,
Proposed Reconfiguration of Lot

REV.	AMENDMENT	DATE
C-3	WIDENING OF EASEMENT	15/02/2022
C-4	ALTERATION OF BUSH LOT FRONTAGE	05/05/2022
C-5	REALIGNMENT OF POTENTIAL ACTIVE TRANSPORT ROUTE	05/07/2022
D-1	REDESIGN	5/6/2023

Intrax
Ground Floor D2, 643 Kessels Rd,
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Intrax Consulting Group
VIC | NSW | SA | QLD

PROPOSED RECONFIGURATION OF LOT APPLICATION OVER

LOTS 101-103 ON RP90234
12, 18 & 26 CLOVERDALE ROAD
LOCALITY OF DOOLANDELLA LOCAL AUTHORITY OF BRISBANE C.C.

This plan was prepared as a proposed subdivision and should not be used for any other purpose. The dimensions,areas and total number of lots shown hereon are subject to field survey and also to the requirements of Council and any other authority which may have requirements under any relevant legislation. In particular,no reliance should be placed on the information on this plan for any financial dealings involving the land. This note is an integral part of this plan.

HORIZONTAL DATUM:	MGA, Zone 56
VERTICAL DATUM:	AHD
ORIGIN:	3814002-1
CONTOUR INTERVAL:	0.25 m

SCALE:	1:400
DATE:	5/6/2023
SHEET NO.	2 OF 2
REVISION:	(D-1)
DRAWN:	Stanfield's
CHECKED:	
APPROVED:	
SURVEYED:	

S152485

D

A1

Scale 1: 400 @ A1 – Lengths are in Metres.
Scale 1: 800 @ A3 – Lengths are in Metres.

LEGEND

- PP — Denotes Power Pole
- Denotes Development Boundary
- Denotes Existing Lot Boundaries
- Denotes Option for Future Bikeway
- Denotes Watercourse
- Denotes Drainage Easement
- Denotes Access Easement
- Denotes Overland Flow Flooding Easement
- Denotes Creek Flooding Easement
- Denotes Covenant
- Denotes Building Envelope
- Denotes Garage Built to Boundary
- Denotes New Road
- Denotes Existing Road
- Denotes Drainage Reserve
- Denotes Bio-retention Basin
- Denotes Detached House Lots (35 Dwellings)
- Denotes Environmental Protection Zone (1 Dwelling)

(36 Dwellings Total)

SHEET 2

SHEET 1

Scale 1: 750 @ A1 — Lengths are in Metres.

5 0 5 10 20 30 40 50 60 70 80 90 100 110

Scale 1: 1500 @ A3 — Lengths are in Metres.

10 0 20 40 60 80 100 120 140 160 180 200 220

REV.	AMENDMENT	DATE
C-3	WIDENING OF EASEMENT	15/02/2022
C-4	ALTERATION OF BUSH LOT FRONTAGE	05/05/2022
C-5	REALIGNMENT OF POTENTIAL ACTIVE TRANSPORT ROUTE	05/07/2022
D-1	REDESIGN	05/06/2023

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Intrax Consulting Group
VIC | NSW | SA | QLD

PROPOSED RECONFIGURATION OF LOT APPLICATION OVER

LOTS 101-103 ON RP90234

12, 18 & 26 CLOVERDALE ROAD

LOCALITY OF DOOLANDELLA LOCAL AUTHORITY OF BRISBANE C.C.

HORIZONTAL DATUM:	MGA, Zone 56
VERTICAL DATUM:	AHD
ORIGIN:	3814002-1
CONTOUR INTERVAL:	0.25 m

SCALE:	1:750
DATE:	5/06/2023
SHEET NO.	1 OF 2
	S152485

SURVEYED:	
DRAWN:	Stanfield's
CHECKED:	
APPROVED:	
REVISION:	(D-1)

D A1

APPENDIX

C

OSKA Consulting Group, 1 in 50yr ARI (2% AEP) Pre-development Flood Maps

Legend

- Site
- Cadastral
- 0.25m Pre Dev Flood Level Contours

Pre Development Maximum Water Level (m)

- <= 16.50
- 16.50 - 19.00
- 19.00 - 19.75
- 19.75 - 20.25
- 20.25 - 20.75
- 20.75 - 21.50
- 21.50 - 24.00
- > 24.00

N

ISSUE No.	DATE	AMENDMENT
1	21-04-23	ISSUED FOR REPORT

OSKA CONSULTING GROUP

CLIENT: QLD INTERNATIONAL INVESTMENT PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
12, 18 & 26 CLOVERDALE ROAD
DOOLANDELLA QLD 4077

DESIGN	DRAWN	APPROVED
BG	BG	

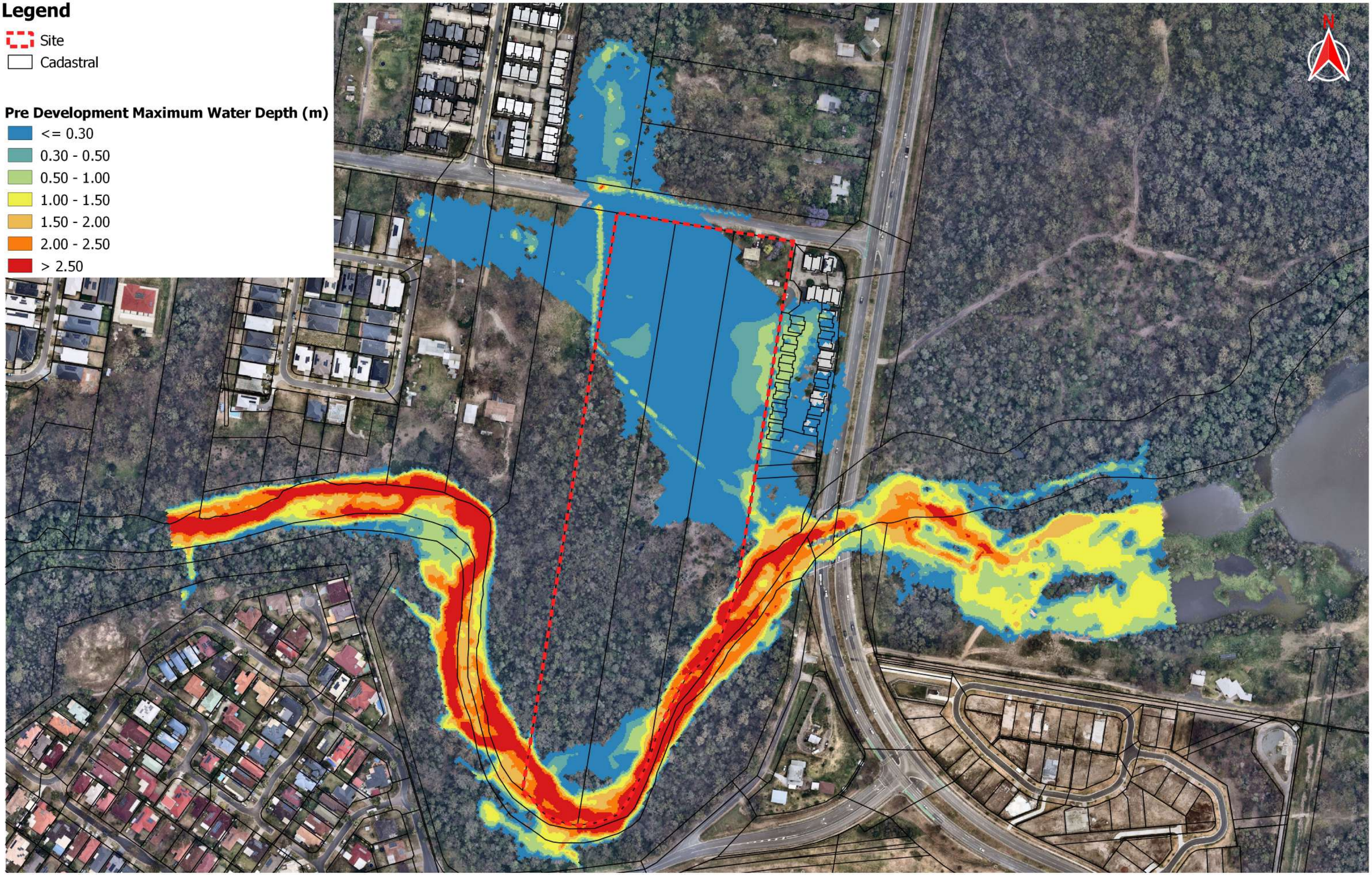
TITLE: PRE DEVELOPMENT MAXIMUM WATER LEVEL

SCALE 1:2750 — 0 40 80 120 160 200 m

PROJECT NO. OSK3426

DWG NO. SK-001

ISSUE 1



ISSUE No.	DATE	AMENDMENT
1	21-04-23	ISSUED FOR REPORT

OSKA CONSULTING GROUP

CLIENT: QLD INTERNATIONAL INVESTMENT PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
12, 18 & 26 CLOVERDALE ROAD
DOOLANDELLA QLD 4077

DESIGN	DRAWN	APPROVED
BG	BG	

TITLE: PRE DEVELOPMENT MAXIMUM WATER DEPTH

SCALE 1:2750 — 0 40 80 120 160 200 m

PROJECT NO. OSK3426

DWG NO. SK-002

ISSUE 1

APPENDIX

D

OSKA Consulting Group, 1 in 50yr ARI (2% AEP) Post-development Flood Maps

Legend

- Site
- Cadastral
- 0.25m Post Dev Flood Level Contours
- Proposed Building Envelopes
- Proposed Easements

Post Development Maximum Water Level (m)

- <= 16.50
- 16.50 - 19.00
- 19.00 - 19.75
- 19.8 - 20.25
- 20.25 - 20.75
- 20.75 - 21.5
- 21.50 - 24.00
- > 24.00

N

ISSUE No.	DATE	AMENDMENT
2	17-05-23	ISSUED FOR REPORT
1	21-04-23	ISSUED FOR REPORT

OSKA CONSULTING GROUP

CLIENT: QLD INTERNATIONAL INVESTMENT PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
12, 18 & 26 CLOVERDALE ROAD
DOOLANDELLA QLD 4077

DESIGN	DRAWN	APPROVED
BG	BG	

TITLE: POST DEVELOPMENT MAXIMUM WATER LEVEL

SCALE 1:2750 — 0 40 80 120 160 200 m

PROJECT NO. OSK3426

DWG NO. SK-101

ISSUE 2

Legend

- Site
- Cadastral
- Proposed Building Envelopes
- Proposed Easements

Post Development Maximum Water Depth (m)

- <= 0.30
- 0.30 - 0.50
- 0.50 - 1.00
- 1.00 - 1.50
- 1.50 - 2.00
- 2.00 - 2.50
- > 2.50

N

ISSUE No.	DATE	AMENDMENT
2	17-05-23	ISSUED FOR REPORT
1	21-04-23	ISSUED FOR REPORT

OSKA CONSULTING GROUP

CLIENT
QLD INTERNATIONAL INVESTMENT PTY LTD

PROJECT
PROPOSED RESIDENTIAL SUBDIVISION
12, 18 & 26 CLOVERDALE ROAD
DOOLANDELLA QLD 4077

DESIGN	DRAWN	APPROVED
BG	BG	

TITLE
POST DEVELOPMENT MAXIMUM WATER DEPTH

SCALE 1:2750

0 40 80 120 160 200 m

PROJECT NO. OSK3426

DWG NO. SK-102

ISSUE 2

Legend

- Site
- Cadastral
- Proposed Building Envelopes
- Proposed Easements

Post Development Maximum Water Velocity (m/s)

- <= 0.50
- 0.50 - 1.00
- 1.00 - 1.50
- 1.50 - 2.00
- 2.00 - 2.50
- 2.50 - 3.00
- 3.00 - 4.00
- 4.00 - 5.00
- > 5.00

N

ISSUE No.	DATE	AMENDMENT
2	17-05-23	ISSUED FOR REPORT
1	21-04-23	ISSUED FOR REPORT

OSKA CONSULTING GROUP

CLIENT: QLD INTERNATIONAL INVESTMENT PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
12, 18 & 26 CLOVERDALE ROAD
DOOLANDELLA QLD 4077

DESIGN	DRAWN	APPROVED
BG	BG	

TITLE: POST DEVELOPMENT MAXIMUM WATER VELOCITY

SCALE 1:2750 — 0 40 80 120 160 200 m

PROJECT NO. OSK3426

DWG NO. SK-103

ISSUE 2

Legend

- Site
- Cadastral
- Proposed Building Envelopes
- Proposed Easements

Post Development Maximum Hazard - D*V (m2/s)

- <= 0.30
- 0.30 - 0.50
- 0.50 - 1.00
- 1.00 - 1.50
- 1.50 - 2.00
- 2.00 - 2.50
- 2.50 - 5.00
- > 5.00

N

ISSUE No.	DATE	AMENDMENT
2	17-05-23	ISSUED FOR REPORT
1	21-04-23	ISSUED FOR REPORT

OSKA CONSULTING GROUP

CLIENT: QLD INTERNATIONAL INVESTMENT PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
12, 18 & 26 CLOVERDALE ROAD
DOOLANDELLA QLD 4077

DESIGN	DRAWN	APPROVED
BG	BG	

TITLE: POST DEVELOPMENT MAXIMUM HAZARD (D*V)

SCALE 1:2750 — 0 40 80 120 160 200 m

PROJECT NO. OSK3426

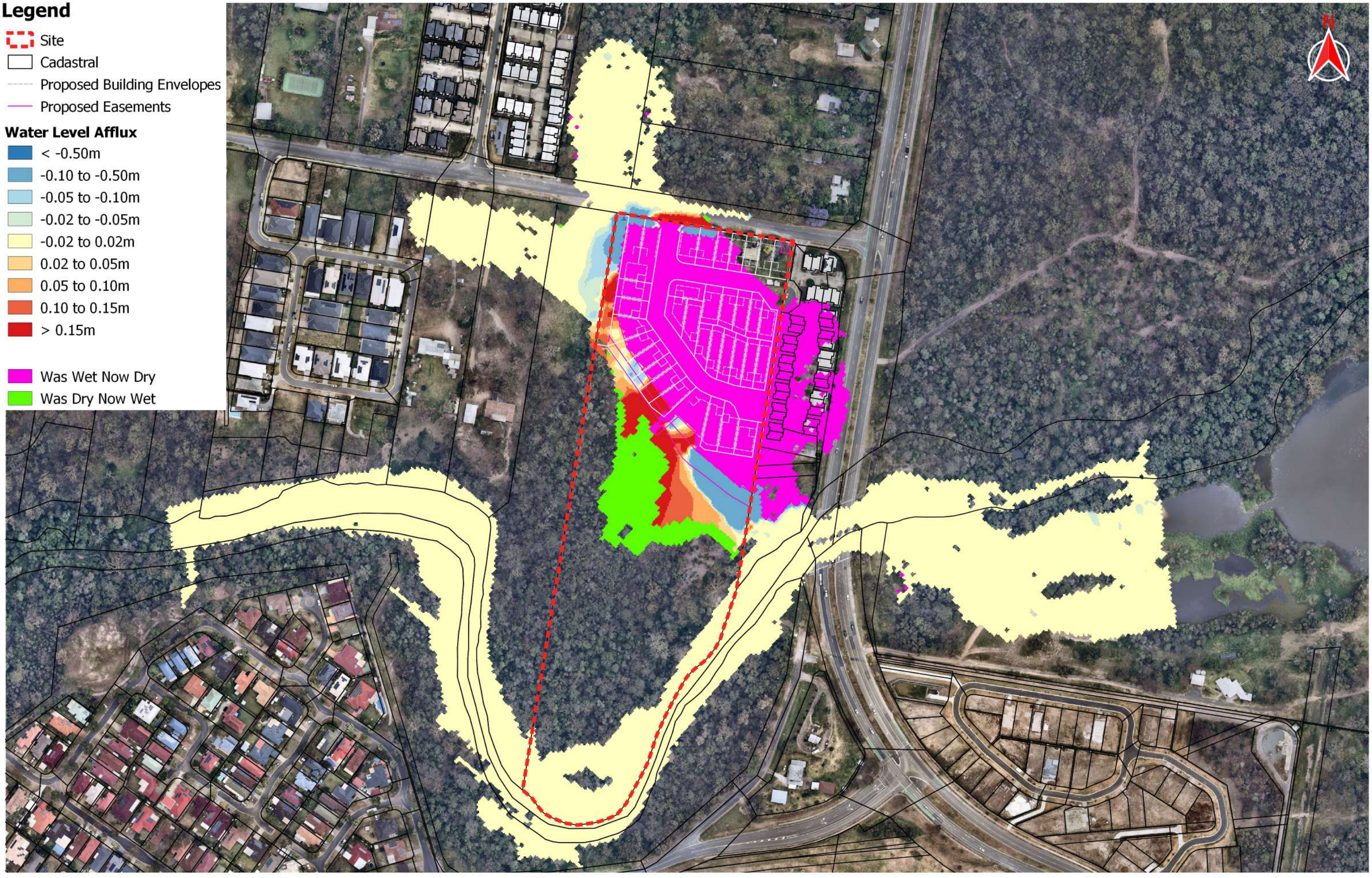
DWG NO. SK-104

ISSUE 2

APPENDIX

E

OSKA Consulting Group, 1 in 50yr ARI (2% AEP) Flood Level Afflux Map



ISSUE No.	DATE	AMENDMENT
2	17-05-23	ISSUED FOR REPORT
1	21-04-23	ISSUED FOR REPORT

OSKA CONSULTING GROUP

CLIENT: QLD INTERNATIONAL INVESTMENT PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
12, 18 & 26 CLOVERDALE ROAD
DOOLANDELLA QLD 4077

DESIGN	DRAWN	APPROVED
BG	BG	

TITLE: POST DEVELOPMENT WATER LEVEL AFFLUX

SCALE 1:2750 — 0 40 80 120 160 200 m

PROJECT NO. OSK3426

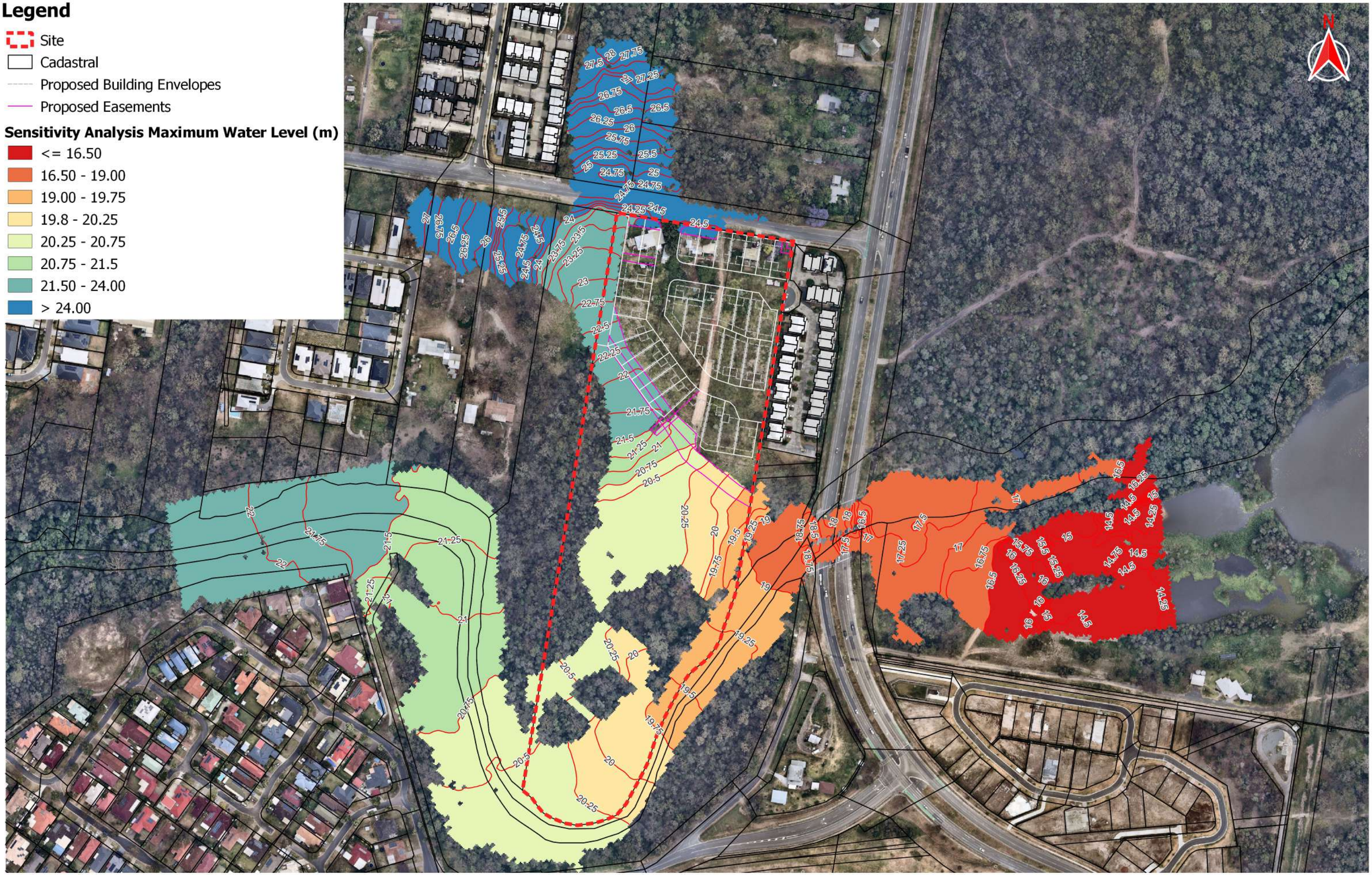
DWG NO. SK-201

ISSUE 2

APPENDIX

F

OSKA Consulting Group, 1 in 50yr ARI (2% AEP) Sensitivity Analysis Flood Map



ISSUE No.	DATE	AMENDMENT
2	17-05-23	ISSUED FOR REPORT
1	21-04-23	ISSUED FOR REPORT

OSKA CONSULTING GROUP

CLIENT: QLD INTERNATIONAL INVESTMENT PTY LTD

PROJECT: PROPOSED RESIDENTIAL SUBDIVISION
12, 18 & 26 CLOVERDALE ROAD
DOOLANDELLA QLD 4077

DESIGN	DRAWN	APPROVED
BG	BG	

TITLE: POST DEVELOPMENT SENSITIVITY ANALYSIS MAXIMUM WATER LEVEL

SCALE 1:2750 — 0 40 80 120 160 200 m

PROJECT NO. OSK3426

DWG NO. SK-301

ISSUE 2

APPENDIX

G

OSKA Consulting Group, Flood Overlay Code (Ref: OSK3426-0009)

Table 8.2.11.3.A: Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments/Response
Section A—If for accepted development subject to compliance with identified requirements (acceptable outcomes only) or assessable development for a dwelling house including any secondary dwelling Note—Development for a dwelling house does not require assessment against any other sections of this code.		
Development involving any habitable or non-habitable part of a dwelling house, including any secondary dwelling, is located and designed to: a. minimise the risk to people from flood hazard; b. achieve acceptable flood immunity; c. minimise property impacts from a flood event up to and including the defined flood event; d. minimise disruption to residents, recovery time and rebuilding or restoration costs after a flood event up to and including the defined flood event.	Development for a dwelling house including any secondary dwelling: a. is not located in the Brisbane River flood planning area 1, 2a or 2b sub-categories or the Creek/waterway flood planning area 1 or 2 sub-categories; or b. is only located in these sub-categories, if a Registered Professional Engineer Queensland certifies that the dwelling house and any secondary dwelling are structurally designed to be able to resist hydrostatic and hydrodynamic loads associated with flooding up to and including the defined flood event.	**N/A**
	AO1.2 Development for a dwelling house and any secondary dwelling complies with the minimum flood planning levels in Table 8.2.11.3.B. Note—If located in an area that has no flood level information available from the Council such as an overland flow path, a Registered Professional Engineer of Queensland with expertise in undertaking flood studies is to certify that the flood level and development levels for the dwelling house and any secondary dwelling achieve the required flood planning levels in Table 8.2.11.3.B.	**N/A**
	AO1.3 Development involving a building undercroft complies with the minimum clearance requirements in Table 8.2.11.3.E. Editor's note—For creek/waterway, storm-tide and river flooding, applicable flood planning information is available from Council's FloodWise Property Report. Note—The Flood planning scheme policy provides guidance on undercroft design.	**N/A**

Performance outcomes	Acceptable outcomes	Comments/Response
PO2 Development within the Creek/waterway flood planning area sub-categories or Overland flow flood planning area sub-category: a. maintains the conveyance of flood waters to allow flow and debris to pass predominantly unimpeded through the site; b. does not concentrate, intensify or divert floodwater onto upstream, downstream or adjacent properties; c. will not result in a material increase in flood levels or flood hazard on upstream, downstream or adjacent properties.	**AO2** Development: a. is not located within the Creek/waterway flood planning area 1, 2 or 3 sub-categories or the Overland flow flood planning area sub-category; or b. provides an open undercroft area from natural ground level to habitable floor level for any area inundated by the defined flood event; or Note—This undercroft area is not suitable for providing non-habitable rooms, secure storage of valuables, or future enclosing for storage or car parking. The clear area may include structural elements such as columns and floor substructure. The Flood planning scheme policy provides guidance on undercroft design. Editor's note—An open undercroft design may be achieved through a 'valance' treatment around the perimeter of an otherwise internally clear undercroft. Editor's note—For Creek/waterway, storm-tide and river flooding, applicable flood planning information is available from Council's FloodWise Property Report. c. a report from a Registered Professional Engineer Queensland certifies that the development in the Creek/waterway flood planning area or Overland flow flood planning area sub-categories will not result in a material increase in flood level or flood hazard on upstream, downstream or adjacent properties. Note—Flood studies demonstrate that the development and engineering design methods conform to the principles within the Flood planning scheme policy and the Infrastructure design planning scheme policy.	**N/A**
Section B—If accepted development subject to compliance with identified requirements (acceptable outcomes only) or assessable development other than for a dwelling house or reconfiguring a lot Note—If development that is accepted development subject to compliance with identified requirements complies with the acceptable outcomes of this part, no further assessment against this code is required.		
PO3 Development:	**AO3**	**N/A**

Performance outcomes	Acceptable outcomes	Comments/Response
a. is compatible with flood hazard in a defined flood event; b. minimises the risk to people from flood hazard; c. does not reduce the ability of evacuation resources including emergency services to access and evacuate the site in a flood emergency, with consideration to the scale of the development; d. minimises impacts on property from flooding; e. minimises disruption to residents, business or site operations and recovery time due to flooding; f. minimises the need to rebuild structures after a flood event greater than the defined flood event. Note—Where Table 8.2.11.3.C identifies that a flood risk assessment is required, compliance with this performance outcome can be achieved by submitting a flood risk assessment, which may be included within a flood study, addressing the criteria within this performance solution. Preparing flood risk assessments and flood studies is required to be in accordance with the Flood planning scheme policy. Note—An emergency management plan prepared in accordance with the Flood planning scheme policy, which sets out procedures for evacuation due to flooding may be used to demonstrate compliance with this performance outcome.	Development for a material change of use is identified in Table 8.2.11.3.C as compatible with the flood hazard in the relevant flood planning area.	
PO4 Development for a park ensures that the design of a park and location of structures and facilities responds to the flood hazard and balances the safety of intended users with: a. maintaining continuity of operations; b. impacts of flooding on asset life and ongoing maintenance costs; c. efficient recovery after flood events; d. recreational benefits to the city; e. availability of suitable land within the park.	**AO4.1** Development involving a building or structure in a park complies with the flood planning levels specified in Table 8.2.11.3.D.	**N/A**
	AO4.2 Development involving a building or structure in a park where Table 8.2.11.3.D does not apply: a. is not located within the 20% AEP flood extent of any creek/waterway or overland flow path; or b. is located above the 20% AEP flood level of any creek/waterway or overland flow path.	**N/A**

Performance outcomes	Acceptable outcomes	Comments/Response
Section C—If for assessable development other than for a dwelling house		
PO5 Development is located and designed to: a. minimise the risk to people from flood hazard on the site; b. minimise flood damage to the development and contents of buildings up to the defined flood event; c. provide suitable amenity; d. minimise disruption to residents, recovery time and the need to rebuild structures after a flood event up to and including the defined flood event.	**AO5.1** Development complies with the flood planning levels specified in Table 8.2.11.3.D. Note—If located in an area with no Council-derived flood levels such as an overland flow path, a Registered Professional Engineer Queensland with expertise in undertaking flood studies is to derive the applicable flood level and certify that the development meets the required flood planning levels in Table 8.2.11.3.D. The study is to demonstrate that the development and engineering design methods conform to the principles within the Flood planning scheme policy and the Infrastructure design planning scheme policy.	**AO** No development has been proposed within or near the Creek/waterway flood planning area. The development complies for the minimum floor levels for overland flow. The minimum lot levels have been set using the greater of the maximum water levels from the sensitivity analysis or the maximum water levels for the post development plus 500mm.
	AO5.2 Development is: a. not located in the: i. Brisbane River flood planning area 1, 2a, or 2b sub-categories; ii. Creek/waterway flood planning area 1 or 2 sub-categories; iii. Overland flow flood planning area sub-category; or b. only located in these sub-categories if a Registered Professional Engineer Queensland with expertise in undertaking flood studies certifies that: i. the development design, siting and any mitigation measures will ensure the development is structurally adequate to resist hydrostatic, hydrodynamic and debris impact loads associated with flooding up to the defined flood event; and ii. the risk to people is managed to an acceptable level.	**AO** The site is located within the Creek/water and Overland Flow flood planning areas, however the development is only located within the Overland Flow flood planning area. The development will propose a drainage channel to convey the overland flow around the development. For further information on the proposed drainage channel and the hydraulic modelling, refer to the Hydraulic Impact Assessment prepared by OSKA Consulting Group (Ref: OSK3426-0008).

Performance outcomes	Acceptable outcomes	Comments/Response
PO6 Development involving essential electrical services or a basement storage area is suitably located and designed to ensure public safety and minimise flood recovery and economic consequences of damage during a flood.	**AO6.1** Development ensures that: a. all areas containing essential electrical services comply with the flood planning levels in Table 8.2.11.3.D; or b. if a basement contains essential electrical services or a private basement storage area, the basement is a waterproof structure with walls and floors impermeable to the passage of water with all entry points and services located at or above the relevant flood planning level in Table 8.2.11.3.D. Note—A basement storage area does not include a bike storage room, change room, building maintenance storage and non-critical electrical services.	**AO** Electrical services and location will comply with the requirement of this code.
	AO6.2 Development involving a basement that relies on a pumping solution to manage floodwater ingress or for dewatering after a flood provides a secondary pump system with a backup power source for the pump.	**N/A**
PO7 Development does not directly or indirectly create a material adverse impact on flood behaviour or drainage on properties that are upstream, downstream or adjacent to the development.	**AO7.1** Development: a. does not block, or divert floodwaters for any area affected by creek/waterway or overland flow flooding, excluding storm-tide flooding and Brisbane River flooding sources; or b. does not result in a material increase in flood level or hydraulic hazard on upstream, downstream or adjacent properties. Note—Compliance with this acceptable solution can be demonstrated by the submission of a flood study by a Registered Professional Engineer of Queensland with expertise in undertaking flood studies demonstrating that the development and engineering design methods conform to the principles within the Flood planning scheme policy and the Infrastructure design planning scheme policy.	**PO** The development will propose to divert overland flow around the development through the creation of a drainage channel. For further information on the proposed diversion channel and the hydraulic modelling & results, refer to the Hydraulic Impact Assessment prepared by OSKA Consulting Group (Ref: OSK3426-0008)**.**

Performance outcomes	Acceptable outcomes	Comments/Response
	AO7.2 Development retains existing overland flow paths and does not rely wholly on piped solutions to manage major flows.	**PO** The development will propose to divert overland flow around the development through the creation of a drainage channel. For further information on the proposed diversion channel and the hydraulic modelling & results, refer to the Hydraulic Impact Assessment prepared by OSKA Consulting Group (Ref: OSK3426-0008).
	AO7.3 Development which creates a new overland flow path or significantly modifies an existing overland flow path via earthworks does not materially worsen hydraulic hazard on the site from existing conditions. Note—Compliance with this acceptable solution can be demonstrated by the submission of a flood study by a Registered Professional Engineer of Queensland with expertise in undertaking flood studies demonstrating that the development and engineering design methods conform to the principles within the Flood planning scheme policy and the Infrastructure design planning scheme policy.	**PO** The development will propose to divert overland flow around the development through the creation of a drainage channel. For further information on the proposed diversion channel and the hydraulic modelling & results, refer to the Hydraulic Impact Assessment prepared by OSKA Consulting Group (Ref: OSK3426-0008).
PO8 Development for filling or excavation in an area affected by creek/waterway flooding does not directly, indirectly or cumulatively cause any material increase in flooding or hydraulic hazard or involve significant redistribution of flood storage from high to lower areas in the floodplain. Note—This can be demonstrated by undertaking earthworks in compliance with the Compensatory earthworks planning scheme policy. Note—This part of the code applies to all development other than a dwelling house and any secondary dwelling which involves filling or excavation, whether or not the development application comprises a separate development application for operational work involving filling or excavation.	**AO8** Development ensures that no filling or excavation greater than 100mm is located in the Creek/waterway flood planning area 1, 2 or 3 sub-categories if contained in the 5% AEP flood extent of any Creek/waterway flood planning area sub-category for which no waterway corridor has been mapped in the Waterway corridors overlay.	**AO** No development has been proposed within the Creek/waterway flood planning areas.

Performance outcomes	Acceptable outcomes	Comments/Response
PO9 Development ensures that the building and site design: a. maintains the conveyance capacity of existing overland flow paths and creek/waterways; b. ensures floodwaters and flood debris can pass predominantly unimpeded under a structure or building to minimise property or building damage, including for a flood larger than the defined flood event; c. mitigates flood impacts by ensuring that filling, excavation and location of services are designed to allow for the conveyance of floodwater across the site. Note—The Flood planning scheme policy provides guidance on relevant considerations in determining minimum undercroft clearances and treatment of ground level in undercroft areas where floodwater conveyance is required underneath development.	**AO9.1** Development involving a building undercroft in the Creek/waterway flood planning area sub-categories or the Overland flow flood planning area sub-category: a. complies with the minimum building undercroft clearance requirements in Table 8.2.11.3.E; b. not located directly above any part of a waterway corridor as mapped in the Waterway corridors overlay.	**N/A** No building undercrofts have been proposed.
	AO9.2 Development involving a building undercroft in the Creek/waterway flood planning area sub-categories or the Overland flow flood planning area sub category: a. has a ground level within the undercroft area that is free draining; b. does not involve excavation below ground level of more than 300mm within the undercroft area.	**N/A** No building undercrofts have been proposed.
PO10 Development for vulnerable uses, difficult to evacuate uses or assembly uses optimises vehicular access and efficient evacuation from the development to parts of the road network unaffected by flood hazard, in order to: a. protect safety of users and emergency services personnel; b. support efficient emergency services access and site evacuation with consideration to the scale of development. Note—A flood risk assessment may be required to address the performance outcomes or acceptable solutions which deal with evacuation and isolation arrangements, and the ability to take refuge. The Flood planning scheme policy provides information for undertaking flood risk assessments.	**AO10** Development for vulnerable uses, difficult to evacuate uses or assembly uses: a. is not isolated in any event up to the relevant flood planning level specified in Table 8.2.11.3.L; or b. has direct vehicle access to a critical route or interim critical route in the Critical infrastructure and movement network overlay for evacuation in a flood; or c. can achieve vehicular evacuation to a suitable flood-free location. Note—A suitable flood-free location is of a size and nature sufficient to provide for the size and characteristics of the population likely to need evacuation to that area.	**N/A**

Performance outcomes	Acceptable outcomes	Comments/Response
PO11 Development has access which, having regard to hydraulic hazard, provides for safe vehicular and pedestrian movement and emergency services access to adjoining roads.	**AO11.1** Development provides an access or driveway into the site which is: a. trafficable during the defined flood event; b. not located in the Creek/waterway flood planning area 1 sub-category; c. not located in the Overland flow flood planning area sub-category if the hydraulic hazard is unsafe in the defined flood event; d. the access or driveway is not inundated by a 10% AEP flood.	**AO** Access and egress from the site is available during a flood event by using the existing cul-de-sac in the northern part of the site. This cul-de-sac has an existing access road connecting to Cloverdale Road that is flood free during the 2% AEP overland flow event.
	AO11.2 Development located in the Creek/waterway flood planning area 1, 2, 3 or 4 sub-categories locates any disabled access in the highest part of the site. Note—explanation of hydraulic hazard provided in the Flood planning scheme policy.	**N/A** No development has been proposed within the Creek/waterway flood planning areas.
PO12 Development involving a new road, a bridge or culvert is designed to minimise impacts to flood behaviour, minimise disruption to traffic during a flood and allow for emergency access.	**AO12** Development involving a new road complies with the flood planning levels in Table 8.2.11.3.F.	**AO** The development complies.
PO13 Development for pedestrian and cyclist paths: a. provides a suitable level of trafficability; b. manages the impacts of flooding on asset life and ongoing maintenance costs;	**AO13.1** Development for cyclist and pedestrian facilities other than on public roads, including those traversing through a park and adjacent to a watercourse and overland flow path, are located above the 39% AEP (2 year ARI) flood immunity from all flooding sources. Note—If the site is subject to more than one type of flooding, the requirement that affords the greatest level of protection will apply.	**N/A**

Performance outcomes	Acceptable outcomes	Comments/Response
c. balances route availability with recreational and transport connectivity benefits to the city.	**AO13.2** All new on-road cyclist and pedestrian facilities comply with the flood planning levels and trafficability standards for the applicable category of road in Table 8.2.11.3.F or Table 8.2.11.3.K.	**N/A**
PO14 Development which increases the residential population within the Brisbane River flood planning area sub-categories minimises the risk to people in all flood events with consideration to flood hazard, including warning time.	**AO14** Development in the Brisbane River flood planning area sub-categories in areas where the residential flood level is greater than 12.8m AHD involving: a. an increase in the number of residential dwellings; or b. additional residential lots is not subject to an unsafe hydraulic hazard in the 0.2% AEP flood event. Note—Explanation of a hydraulic hazard is provided in the Flood planning scheme policy.	**N/A**
Additional performance outcomes and acceptable outcomes for essential community infrastructure		
PO15 Development involving essential community infrastructure: a. remains functional to serve community need during and immediately after a flood event, or is part of a network that is able to maintain the function of the essential community infrastructure when parts of the development are unable to function during or after a flood; b. is designed, sited and operated to avoid adverse impacts on the community or the environment due to the impacts of flooding on infrastructure, facilities or access and egress routes; c. is able to remain functional or is part of a network which is able to remain functional even when other	**AO15** Development involving essential community infrastructure: a. is ancillary to and not relied upon for the provision of the essential service during a flood; or b. is located above the flood planning levels in Table 8.2.11.3.G; c. has access to or provides the necessary back-up emergency electricity and communications supply in times of flood; d. is designed and constructed to resist hydrostatic and hydrodynamic forces as a result of inundation by the flood event listed for the development type in Table 8.2.11.3.G; e. that services a local area:	**N/A**

Performance outcomes	Acceptable outcomes	Comments/Response
infrastructure or services (such as electricity supply) may be compromised in a flood event; d. contains mitigation measures which are not entirely dependent on human activation to respond to a flood event. Note—Protection of function is required up to and including the flood event in Table 8.2.11.3.G.	i. is able to be accessed in times of flood to service local community needs up to the event listed for that development type in Table 8.2.11.3.G; or ii. has a service continuity plan that demonstrates the continued provision of service during the relevant flood event.	
Additional performance outcomes and acceptable outcomes if development involves the processes in Table 8.2.11.3.H		
PO16 Development involving the storage and handling of hazardous materials avoids or minimises risks to public health and safety and the environment, by: a. protecting underground tanks for hazardous materials against the forces of buoyancy, velocity flow and debris impacts; b. securing above-ground tanks for hazardous materials against flotation and lateral movement; c. preventing damage to hazardous materials pipework or entry of floodwater into hazardous materials pipework; d. preventing damage to or off-site release of packages, drums or containers storing hazardous materials. Note—A chemical hazards flood risk report prepared in accordance with the Management of hazardous chemicals in flood affected areas planning scheme policy can assist in demonstrating achievement of this performance outcome. Note—A pump drainage system is not an acceptable measure to meet the performance outcome.	**AO16** a. Development does not include the storage or handling of hazardous chemicals that exceed the hazardous chemicals flood hazard threshold quantities in Table 8.2.11.3.M. b. Development involving the processes listed in Table 8.2.11.3.H: i. where located in the Flood overlay area, occurs only in the Creek/waterway flood planning area 5 sub-category or the Brisbane River flood planning area 5 sub-category; or ii. is consistent with the standards contained in the Management of hazardous chemicals in flood affected areas planning scheme policy and can operate without risk of environmental harm during a flood event. Note—The Management of hazardous chemicals in flood affected areas planning scheme policy sets out further information and processes including risk assessment for the management of hazardous chemicals in flood planning areas.	**N/A**

Performance outcomes	Acceptable outcomes	Comments/Response
Additional performance outcomes and acceptable outcomes for reconfiguring a lot		
PO17 Development locates and designs all lots resulting from reconfiguring a lot to: a. minimise the risk to people from flood hazard; b. minimise damage to property from flood hazard; c. facilitate safe and efficient evacuation. Note— • Consideration of all floods up to the probable maximum flood is relevant to minimising the risk to people. • Flood warning time is not considered sufficient in the Creek/waterway planning area sub-categories or the Overland flow flood planning area sub-category. • Filling above the flood planning level for a flood event greater than the defined flood event cannot be assumed to mitigate the flood hazard.	**AO17.1** Development creating new lots is identified in Table 8.2.11.3.I as suitable within the relevant flood planning area.	**N/A** No development has been proposed within the Creek/waterway flood planning areas.
	AO17.2 Development provides for reconfiguring a lot design that achieves a road and lot layout which: a. provides trafficable vehicular egress for evacuation during a defined flood event; b. optimises hazard-free movement away from sources of flood hazard within the development. Note—Further advice on road and lot layout is contained in the Flood planning scheme policy.	**AO** Access and egress from the site is available during a flood event by using the existing cul-de-sac in the northern part of the site. This cul-de-sac has an existing access road connecting to Cloverdale Road that is flood free during the 2% AEP overland flow event.
	AO17.3 Development which creates a new residential lot in an area subject to Brisbane River flooding, if the residential flood level is greater than 12.8m AHD is not subject to a hydraulic hazard greater than 0.6m²/s DV or 0.6m deep in a 0.2% AEP flood. Note—Refer to the Flood planning scheme policy for further explanation on the 0.2% AEP flood.	**N/A**
PO18 Development involving reconfiguring a lot: a. minimises the risk to people from flood hazard; b. creates safe evacuation routes or avoids isolation of the development during a flood greater than the defined flood event; c. minimises damage to property and services; d. provides lots and roads that are not frequently flooded or subject to nuisance ponding or seepage; e. ensures lots created for park or private open space minimise the risk to people from flood hazard and are fit for purpose;	**AO18.1** Development involving reconfiguring a lot ensures: a. all lots comply with the flood planning levels in Table 8.2.11.3.J; b. a new road complies with the flood planning levels in Table 8.2.11.3.F.	**AO** The development complies with minimum lot levels to be set above RL 24.68m AHD providing more than 300mm freeboard.
	AO18.2 Development involving reconfiguring a lot creating more than 6 residential lots or a lot for industry ensures the flood planning levels of a dedicated road fronting the	**AO** Access and egress from the site is available during a flood event by using the existing cul-de-sac in the northern part of the site. This cul-de-sac has an existing

Performance outcomes	Acceptable outcomes	Comments/Response
f. provides a lot that is not substantially burdened by flood mitigation infrastructure.	development or providing primary access within 200m of the development: a. complies with Table 8.2.11.3.K; or b. has acceptable trafficability in accordance with the requirements in the Flood planning scheme policy and the Queensland Urban Drainage Manual. Note—The Flood planning scheme policy contains supporting information about trafficability on existing roads and serviceability during floods.	access road connecting to Cloverdale Road that is flood free during the 2% AEP overland flow event.
	AO18.3 Development protects the conveyance of flood hazard area by providing an easement over the: a. 2% AEP flood extent for overland flow flooding; b. 1% AEP flood extent for creek/waterway flooding.	**AO** An easement will be created over the proposed overland flow channel and creek flooding at the rear of the site. For further information on the proposed diversion channel and the hydraulic modelling & results, refer to the Hydraulic Impact Assessment prepared by OSKA Consulting Group (Ref: OSK3426-0008).

APPENDIX

H

BCC FloodWise Property Reports