

A



C

D



F

DA1101	COVER PAGE & DRAWING SCHEDULE
DA1201	SPECIFICATIONS SHEET
DA1301	KEY PLAN
DA1401	PROPOSED UTILITIES PLAN
DA1501	CONSTRUCTION MANAGEMENT PLAN SHEET 1
DA1502	CONSTRUCTION MANAGEMENT PLAN SHEET 2
DA1503	CONSTRUCTION MANAGEMENT PLAN SHEET 3
DA2101	CONCEPT SEDIMENT & EROSION CONTROL PLAN SHEET 1
DA2102	CONCEPT SEDIMENT & EROSION CONTROL PLAN SHEET 2
DA2103	CONCEPT SEDIMENT & EROSION CONTROL PLAN SHEET 3
DA3101	CONCEPT BULK EARTHWORKS CUT TO FILL PLAN
DA3501	CONCEPT BULK EARTHWORKS SECTIONS SHEET 1
DA3502	CONCEPT BULK EARTHWORKS SECTIONS SHEET 2
DA4101	CONCEPT STORMWATER & GRADING PLAN - SHEET 1
DA4102	CONCEPT STORMWATER & GRADING PLAN - SHEET 2
DA4301	CONCEPT STORMWATER CATCHMENT PLAN - GENERAL
DA4302	CONCEPT STORMWATER CATCHMENT PLAN - WSUD
DA4303	EXISTING CATCHMENT PLAN - WOOLLOOWARE BAY
DA4304	CONCEPT CATCHMENT PLAN - WOOLLOOWARE BAY
DA4501	CONCEPT SECTIONS
DA4701	CONCEPT STORMWATER MANAGEMENT DETAILS
DA4801	CONCEPT STORMWATER LONGITUDINAL SECTIONS - SHEET 1
DA4802	CONCEPT STORMWATER LONGITUDINAL SECTIONS - SHEET 2
DA4803	CONCEPT STORMWATER LONGITUDINAL SECTIONS - SHEET 3
DA4804	CONCEPT STORMWATER LONGITUDINAL SECTION - SHEET 4
DA4121	CONCEPT STORMWATER & GRADING PLAN
DA4131	CONCEPT STORMWATER & GRADING PLAN
DA4141	CONCEPT STORMWATER & GRADING PLAN
DA4151	CONCEPT STORMWATER & GRADING PLAN - SHEET 1
DA4152	CONCEPT STORMWATER & GRADING PLAN - SHEET 2
DA4153	CONCEPT STORMWATER & GRADING PLAN - SHEET 3
DA4161	CONCEPT STORMWATER & GRADING PLANS - SHEET 1
DA4162	CONCEPT STORMWATER & GRADING PLANS - SHEET 2

7

A

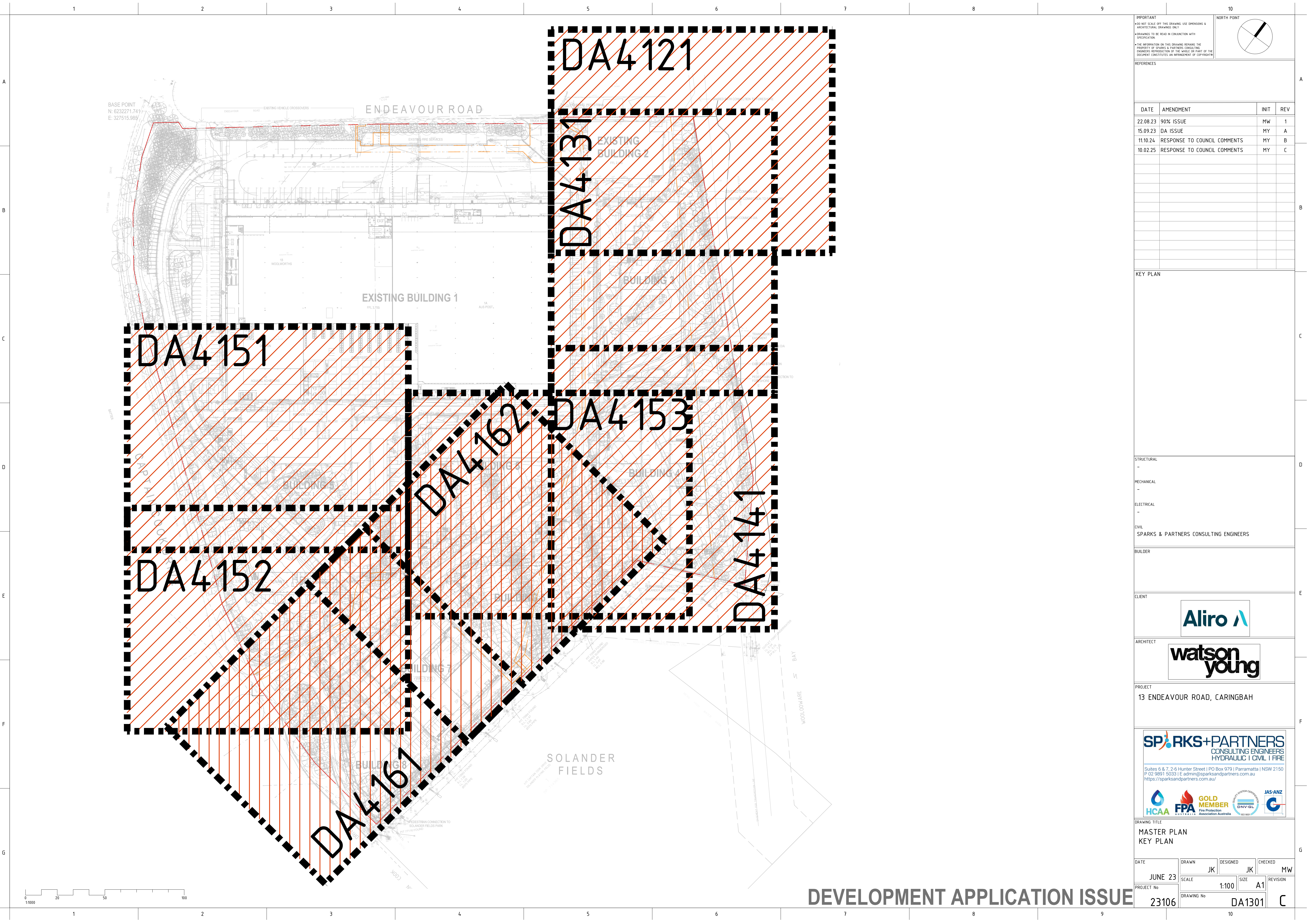
E

C


E

F

6



NORTH POINT



©

KEY PLAN
<p>STRUCTURAL</p> <p>-</p> <p>MECHANICAL</p> <p>-</p> <p>ELECTRICAL</p> <p>-</p> <p>CIVIL</p> <p>SPARKS & PARTNERS CONSULTING ENGINEERS</p>



SPARKS+PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE

Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9981 5033 | E admin@sparksandpartners.com.au
<https://sparksandpartners.com.au/>

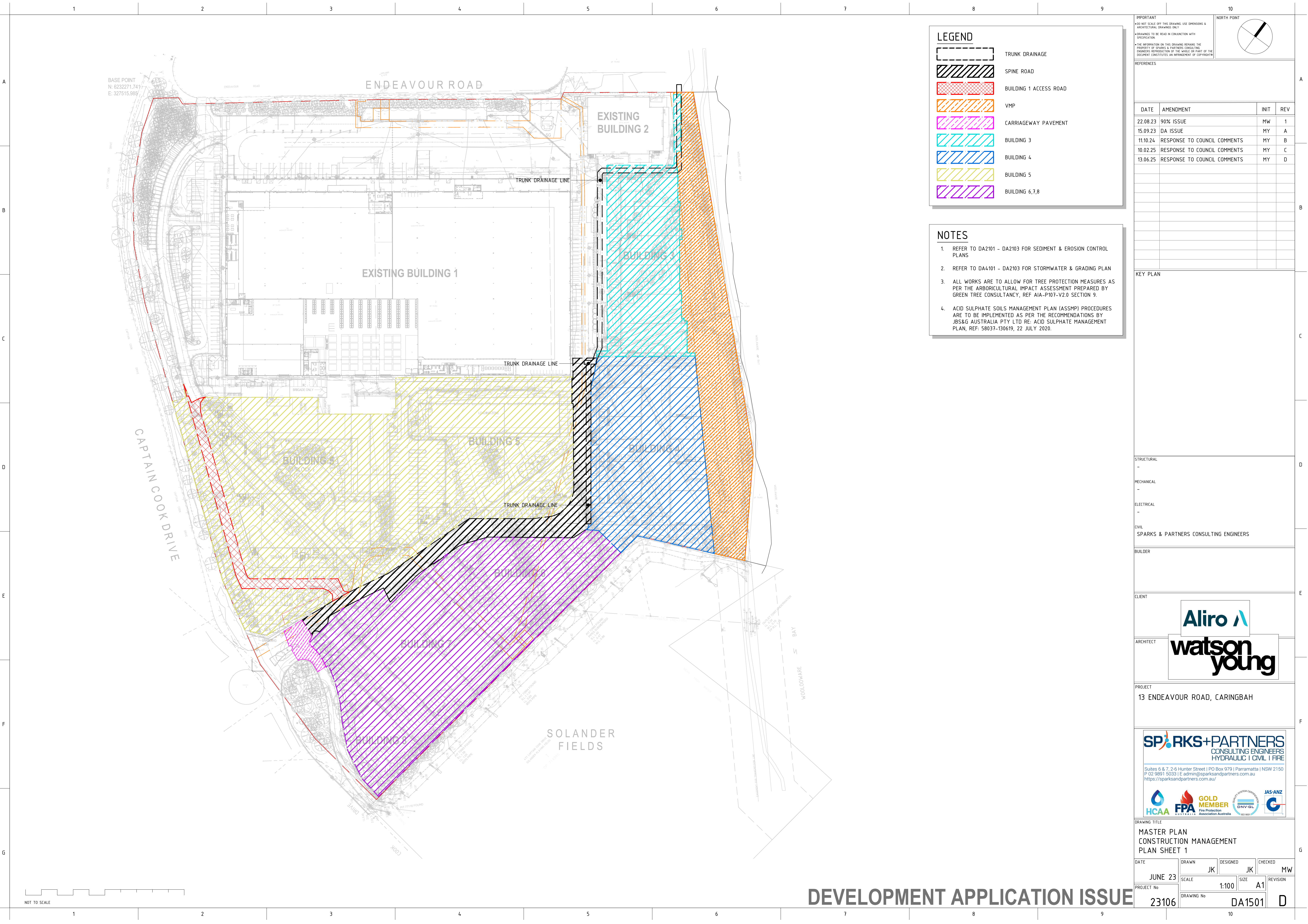
    

HCAA **FPA** **GOLD MEMBER** **ENGINEERS AUSTRALIA** **JAS-ANZ**

Fire Protection Association of Australia

ENV-GL

DEVELOPMENT APPLICATION ISSUE



LEGEND

	TRUNK DRAINAGE
	SPINE ROAD
	BUILDING 1 ACCESS ROAD
	VMP
	CARRIAGEWAY PAVEMENT
	BUILDING 3
	BUILDING 4
	BUILDING 5
	BUILDING 6,7,8

NOTES

- REFER TO DA2101 - DA2103 FOR SEDIMENT & EROSION CONTROL PLANS
- REFER TO DA4101 - DA2103 FOR STORMWATER & GRADING PLAN
- ALL WORKS ARE TO ALLOW FOR TREE PROTECTION MEASURES AS PER THE ARBORICULTURAL IMPACT ASSESSMENT PREPARED BY GREEN TREE CONSULTANCY, REF AIA-P107-V2.0 SECTION 9.
- ACID SULPHATE SOILS MANAGEMENT PLAN (ASSMP) PROCEDURES ARE TO BE IMPLEMENTED AS PER THE RECOMMENDATIONS BY JBS&G AUSTRALIA PTY LTD RE: ACID SULPHATE MANAGEMENT PLAN, REF: 58037-130619, 22 JULY 2020.

IMPORTANT

• DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
• DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
• THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.

REFERENCES

DATE	AMENDMENT	INIT	REV
22.08.23	90% ISSUE	MW	1
15.09.23	DA ISSUE	MY	A
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	B
10.02.25	RESPONSE TO COUNCIL COMMENTS	MY	C
13.06.25	RESPONSE TO COUNCIL COMMENTS	MY	D

KEY PLAN

STRUCTURAL
-

MECHANICAL
-

ELECTRICAL
-

CIVIL
SPARKS & PARTNERS CONSULTING ENGINEERS

BUILDER

CLIENT

ARCHITECT

PROJECT
13 ENDEAVOUR ROAD, CARINGBAH

SPARKS+PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE

Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9891 5033 | E admin@sparksandpartners.com.au
<https://sparksandpartners.com.au/>

HCAA **FPA** **GOLD MEMBER** **DNV-GL** **JAS-ANZ**

DRAWING TITLE
MASTER PLAN
CONSTRUCTION MANAGEMENT
PLAN SHEET 1

DATE	DRAWN	DESIGNED	CHECKED	REVISION
JUNE 23	JK	JK	MW	
PROJECT No	SCALE	SIZE	REVISION	
23106	1:100	A1		
DRAWING No				
DA1501				

D

DEVELOPMENT APPLICATION ISSUE

SPINE ROAD & TRUNK DRAINAGE WORKS - ESCP



LEGEND

- / — / — SITE SECURITY FENCE
- - - - - SEDIMENT FENCE
- [Hatched Box] STABILISED SITE ACCESS
- [Hatched Box] SITE STOCKPILE
- [Symbol] MESH AND GRAVEL INLET FILTER
- [Symbol] GEOTEXTILE INLET FILTER
- [Symbol] SEDIMENT BASIN

- NOTES**
- 1. FINAL LOCATIONS TO BE CONFIRMED BY APPOINTED CONTRACTOR AND STAGING METHODOLOGY.
 - 2. CONTROL MEASURES WILL BE ADOPTED TO MAINTAIN ACCESS FOR EXISTING TENANTS AS PER PHASING.

IMPORTANT

• DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.

• DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.

• THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS+PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.

REFERENCES

DATE	AMENDMENT	INIT	REV
22.08.23	90% ISSUE	MW	1
15.09.23	DA ISSUE	MY	A
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	B
10.02.25	RESPONSE TO COUNCIL COMMENTS	MY	C
13.06.25	UPDATE TO COUNCIL COMMENTS	MY	D

KEY PLAN

STRUCTURAL -

MECHANICAL -

ELECTRICAL -

CIVIL -

BUILDER

G. LAGANA, C. IDA & M. BAGALA

Aliro

watson young

PROJECT

13 ENDEAVOUR ROAD, CARINGBAH

SPARKS+PARTNERS

CONSULTING ENGINEERS

HYDRAULIC | CIVIL | FIRE

Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9891 5033 | E admin@sparksandpartners.com.au
<https://sparksandpartners.com.au/>

HCAA FPA GOLD MEMBER JAS-ANZ

DRAWING TITLE

MASTER PLAN
CONCEPT SEDIMENT & EROSION
CONTROL PLAN SHEET 1

DATE	DRAWN	DESIGNED	CHECKED	REVISION
FEB 2025	MY	MY	MW	
PROJECT No	SCALE	SIZE	REVISION	
24239	1:100	A1		
DRAWING No				

24239

DA2101

D

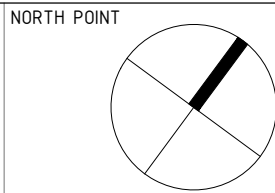
SITE CLEARING AND BULK EARTHWORKS - ESCP



NOTES

- REFER TO DA2101 FOR LEGENDS & GENERAL NOTES
- FINAL LOCATIONS TO BE CONFIRMED BY APPOINTED CONTRACTOR AND STAGING METHODOLOGY.
- CONTROL MEASURES WILL BE ADOPTED TO MAINTAIN ACCESS FOR EXISTING TENANTS AS PER PHASING.

IMPORTANT
• DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
• DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
• THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.



REFERENCES

DATE	AMENDMENT	INIT	REV
22.08.23	90% ISSUE	MW	1
15.09.23	DA ISSUE	MY	A
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	B
10.02.25	RESPONSE TO COUNCIL COMMENTS	MY	C
13.06.25	UPDATE TO COUNCIL COMMENTS	MY	D

KEY PLAN

STRUCTURAL

MECHANICAL

ELECTRICAL

CIVIL

BUILDER

G. LAGANA, C. IDA & M. BAGALA

Aliro

watson young

PROJECT

13 ENDEAVOUR ROAD, CARINGBAH

SPARKS+PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE

Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9891 5033 | E admin@sparksandpartners.com.au
<https://sparksandpartners.com.au/>



DRAWING TITLE

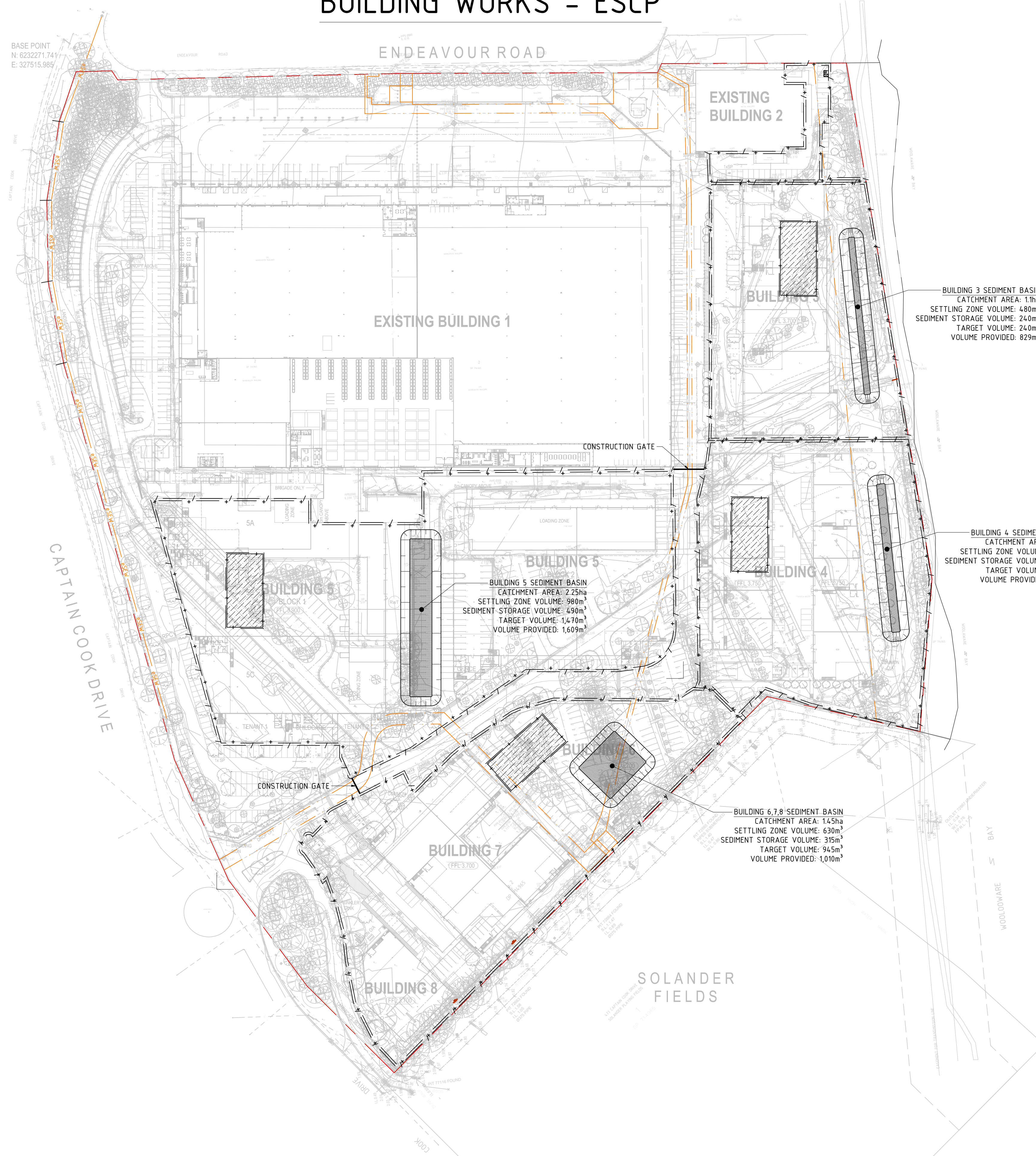
MASTER PLAN
CONCEPT SEDIMENT & EROSION
CONTROL PLAN SHEET 2

DATE	DRAWN	DESIGNED	CHECKED	REVISION
FEB 2025	MY	MY	MW	
PROJECT No	SCALE	SIZE	REVISION	
24239	1:100	A1		
DRAWING No				
DA2102				

DEVELOPMENT APPLICATION ISSUE

G

BUILDING WORKS - ESCP

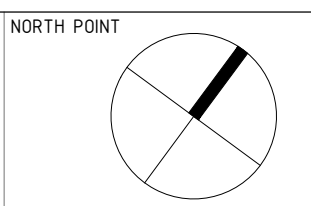


SEDIMENT BASIN NOTES

1. SEDIMENT BASIN EXTENTS SHOWN ARE AS PER THE RECOMMENDATIONS OF "THE BLUE BOOK" FOR SITES ADJACENT TO SENSITIVE WATERWAYS AND BASED ON THE FOLLOWING:
 - 1.1. DESIGN RAINFALL DEPTH DATES: 10
 - 1.2. DESIGN RAINFALL DEPTH PERCENTILE: 85
 - 1.3. RAINFALL EVENT DEPTH (mm): 63
 - 1.4. SOIL TYPE: D AND F
 - 1.5. BASIN TYPE: WET (SD6-4)
 - 1.6. DISTURBED AREA: WHOLE CATCHMENT
2. BASIN EXTENTS SHOWN ARE PROVIDED TO DEMONSTRATE AVAILABLE SITE AREA TO ACCOMMODATE RECOMMENDED BASIN SIZING. FINAL EXTENTS IS TO BE CONFIRMED BASED ON ACTUAL DISTURBED AREA DURING CONSTRUCTION.
3. SEDIMENT BASINS ARE TO NOT ALLOW OVERFLOW TO THE EXISTING OR PROPOSED DRAINAGE SYSTEMS.
4. BASINS ARE TO BE DEWATERED AT A MINIMUM EVERY 5 DAYS OR BEFORE PREDICTED RAIN EVENTS.
5. DISCHARGED WATER IS TO ACHIEVE TARGETS SET BY THE APPROVAL AUTHORITY OR THE FOLLOWING AS A MINIMUM:
 - 5.1. OIL AND GREASE: NON VISIBLE
 - 5.2. pH: 6.5-8.5
 - 5.3. TSS: <50mg/L
6. WHEN SEDIMENT STORAGE VOLUMES HAVE BEEN REACHED, SEDIMENT IS TO BE REMOVED AND EITHER STOCKPOLED ON SITE FOR REUSE OR DISPOSED TO A LICENSED FACILITY.
7. ESCP MEASURES TO BE MAINTAINED BY CONTRACTOR
8. FINAL LOCATIONS TO BE CONFIRMED BY APPOINTED CONTRACTOR AND STAGING METHODOLOGY.
9. CONTROL MEASURES WILL BE ADOPTED TO MAINTAIN ACCESS FOR EXISTING TENANTS AS PER PHASING

IMPORTANT

- DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY
- DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION
- THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT®



REFERENCES

DATE	AMENDMENT	INIT	REV
22.08.23	90% ISSUE	MW	1
15.09.23	DA ISSUE	MY	A
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	B
10.02.25	RESPONSE TO COUNCIL COMMENTS	MY	C
13.06.25	UPDATE TO COUNCIL COMMENTS	MY	D

KEY PLAN

STRUCTURAL	
-	
MECHANICAL	
-	
ELECTRICAL	
-	
CIVIL	
-	

G. LAGANA, C. IDA & M. BAGALA



PROJECT	13 ENDEAVOUR ROAD, CARINGBAH
---------	------------------------------

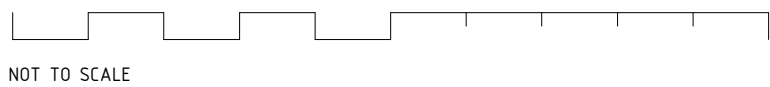


DRAWING TITLE

MASTER PLAN
CONCEPT SEDIMENT & EROSION
CONTROL PLAN SHEET 3

DATE	DRAWN	DESIGNED	CHECKED
FEB 2025	MY	MY	MW
PROJECT No	SCALE	SIZE	REVISION
24239	1:100	A1	
	DRAWING No	DA2103	D

DEVELOPMENT APPLICATION ISSUE




BULK EARTHWORKS NOTES

1. BULK EARTHWORKS ARE TO BE UNDERTAKEN IN ACCORDANCE WITH AS3798-2007, GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS.
2. THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL INVESTIGATION REPORT FOR SPECIFIC SITE CONDITIONS AND WORKS METHODOLOGY.
3. CUT TO FILL DEPTHS SHOWN ARE BASED ON LEVELS AND PAVEMENT THICKNESS' IN COMPARISON TO SURVEY REFERENCED IN C1201 RESULTING IN THE FOLLOWING CUT TO FILL VOLUMES:

$$\begin{aligned}\text{CUT} &= 6,420\text{m}^3 \\ \text{FILL} &= 46,443\text{m}^3 \\ \text{TOTAL CUT / FILL} &= 40,022\text{m}^3\end{aligned}$$
4. STRIPPING OF THE FOLLOWING SURFACES HAS BEEN TAKEN INTO ACCOUNT IN THE ABOVE VOLUME CALCULATIONS:
 - EXISTING EXTERNAL HARDSTAND = 200mm
 - EXISTING WAREHOUSE/OFFICE SLABS = 200mm
 - EXISTING VEGETATION = 200mm
5. VOLUMES DETAILED ABOVE DO NOT TAKE INTO ACCOUNT BULKING & COMPACTION OF THE MATERIAL, TEMPORARY SEDIMENT BASIN, DETAILED EXCAVATION, TRENCHING EXCAVATION, GROUND IMPROVEMENT WORKS, OR PAVEMENT PRE-LOADING
6. VOLUMES BASED ON THE FOLLOWING PAVEMENT THICKNESS' TAKEN FROM FINISHED SURFACE:
 - WAREHOUSE BUILDING PAD
270mm (170mm SLAB + 100mm SUB-BASE)
 - OFFICE BUILDING PAD
270mm (170mm SLAB + 100mm SUB-BASE)
 - HARDSTAND AREA
270mm (170mm SLAB + 100mm SUB-BASE)
 - LANDSCAPE AREAS
300mm (TOPSOIL OR OTHER LANDSCAPING)
 - ASPHALT ROAD AREA
410mm (30mm ASPHALT + 180mm BASE + 200mm SUB-BASE)
6. THE CONTRACTOR SHALL VERIFY LEVELS PRIOR TO CONSTRUCTION COMMENCEMENT, ANY DISCREPANCIES SHALL BE NOTIFIED TO THE ENGINEER OR SUPERINTENDENT FOR CLARIFICATION.
7. REFER TO C3501 FOR BULK EARTHWORKS SECTIONS

DEVELOPMENT APPLICATION ISSUE

NORTH POINT



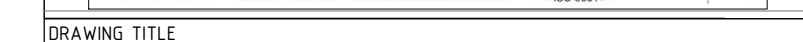
KEY PLAN

STRUCTURAL	
-	
MECHANICAL	
-	
ELECTRICAL	
-	
CIVIL	
SPARKS & PARTNERS CONSULTING ENGINEERS	
BUILDER	
CLIENT	

**watson
young**

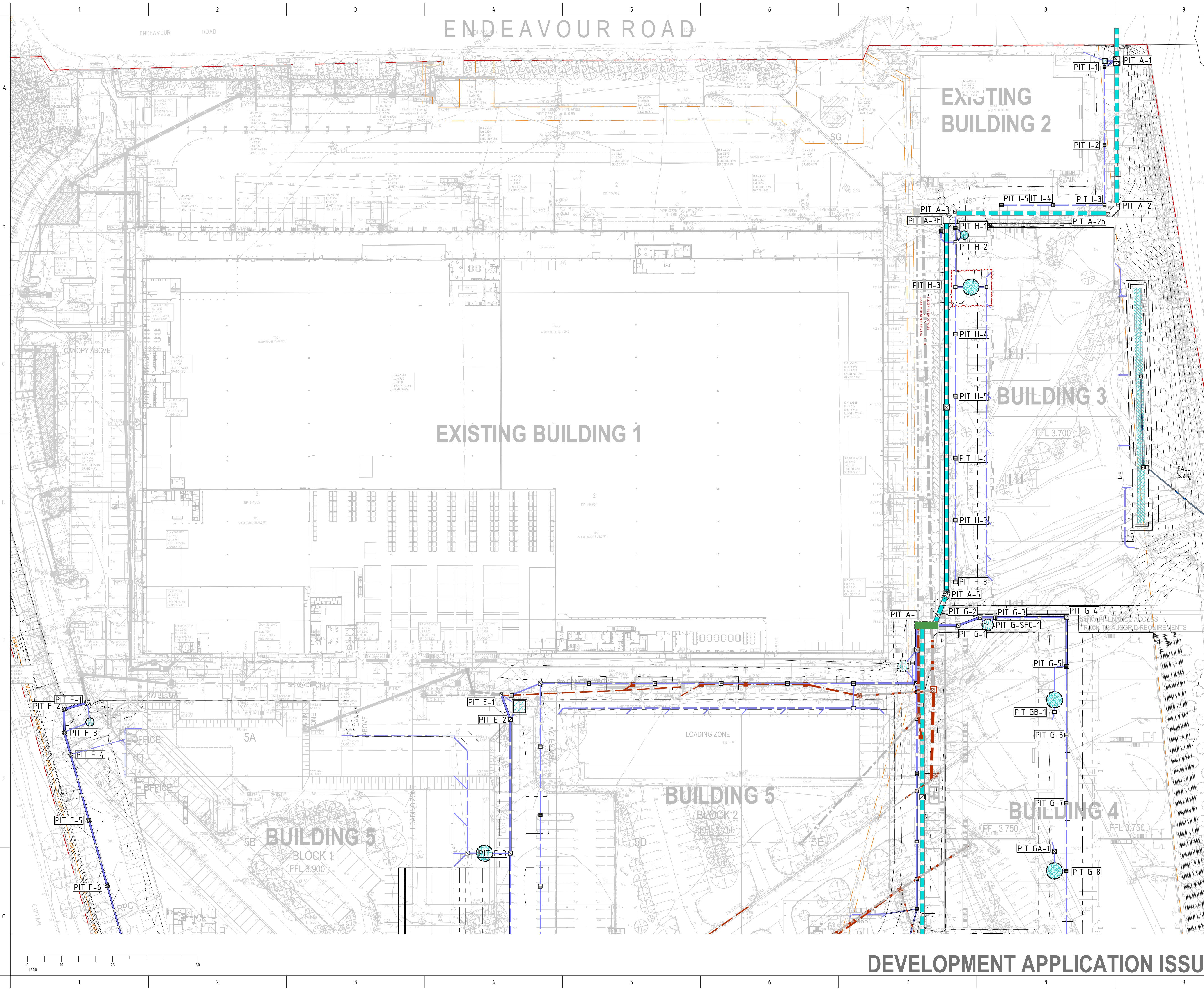
PROJECT	13 ENDEAVOUR ROAD, CARINGBAH
---------	------------------------------

Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9891 5033 | E admin@sparksandpartners.com.au
<https://sparksandpartners.com.au/>



MASTER PLAN
CONCEPT BULK EARTHWORKS CUT
TO FILL PLAN

DATE	DRAWN	DESIGNED	CHECKED
JUNE 23	JK	JK	MW
PROJECT No	SCALE	SIZE	REVISION
23106	1:100	A1	
	DRAWING No		
	DA3101		



IMPORTANT

- DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
- ADVANCEMENTS TO BE READ IN CONJUNCTION WITH SPECIFICATION.

REFERENCES

THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.

DATE	AMENDMENT	INIT	REV
16.06.23	20% ISSUE	JK	1
29.06.23	REVISED SITE GRADING	MY	2
10.07.23	50% ISSUE	JK	3
28.07.23	75% ISSUE	JK	4
22.08.23	90% ISSUE	MW	5
15.09.23	DA ISSUE	MY	A
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	B
10.02.25	RESPONSE TO COUNCIL COMMENTS	MY	C
13.06.25	RESPONSE TO COUNCIL COMMENTS	MY	D

KEY PLAN

STRUCTURAL
MECHANICAL
ELECTRICAL
CIVIL
SPARKS & PARTNERS CONSULTING ENGINEERS
BUILDER
CLIENT
ARCHITECT
PROJECT
13 ENDEAVOUR ROAD, CARINGBAH

Aliro
watson young

SPARKS+PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE
Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9691 5033 | E admin@sparksandpartners.com.au
https://sparksandpartners.com.au/

HCAA **FPA** **GOLD MEMBER** **JAS-ANZ** **DNV-GL**

DRAWING TITLE
MASTER PLAN
CONCEPT STORMWATER &
GRADING PLAN - SHEET 1

DATE	DRAWN	DESIGNED	CHECKED	MW
JUNE 23	JK	JK	JK	MW

PROJECT No 23106

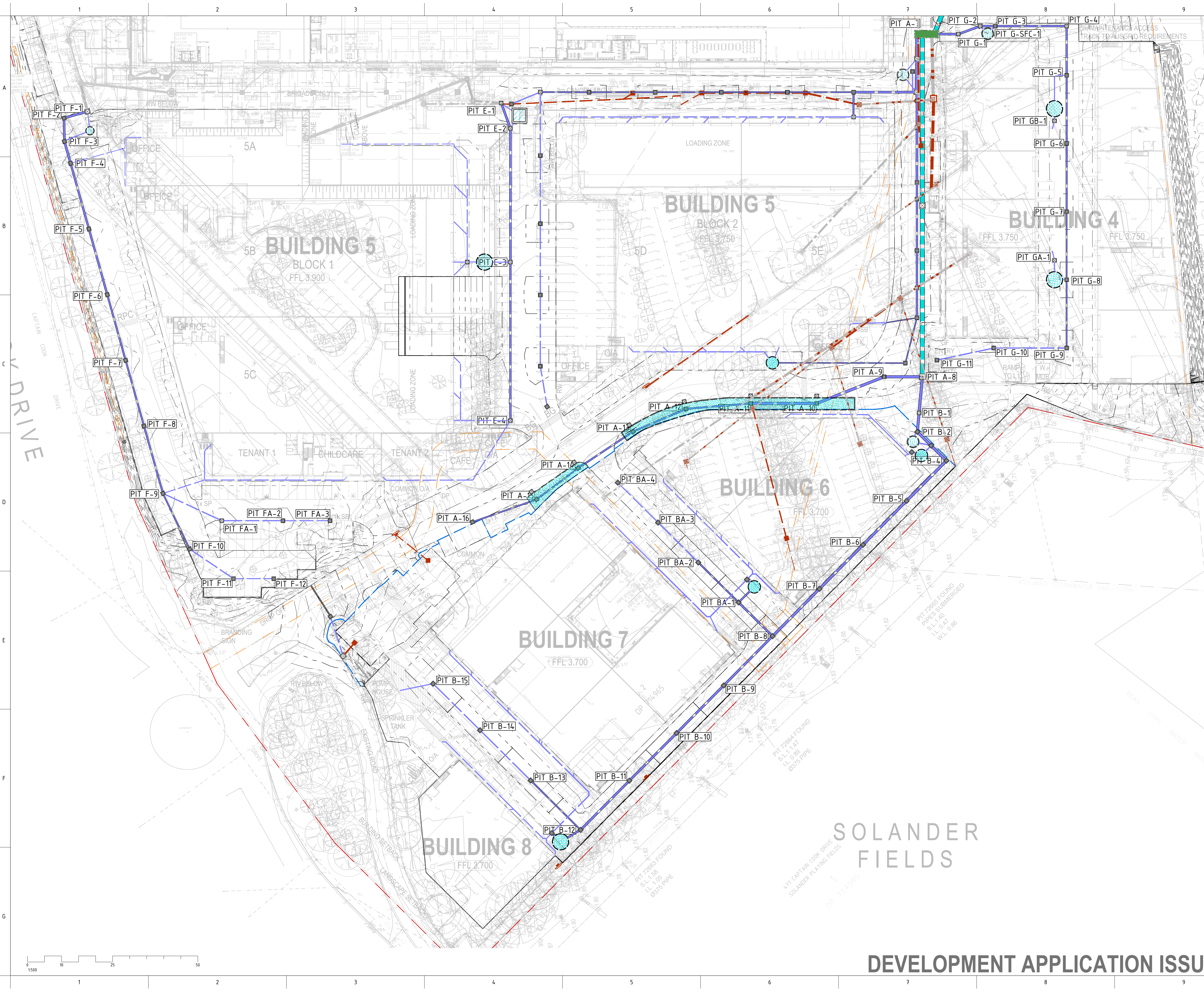
DRAWING No DA4101

SCALE 1:500

SIZE A1

REVISION D

DEVELOPMENT APPLICATION ISSUE



IMPORTANT

DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.

ARRANGING TO BE READ IN CONJUNCTION WITH SPECIFICATION.

THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.

REFERENCES

DATE	AMENDMENT	INIT	REV
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	1
10.02.25	RESPONSE TO COUNCIL COMMENTS	MY	A
13.06.25	RESPONSE TO COUNCIL COMMENTS	MY	B

KEY PLAN

STRUCTURAL -

MECHANICAL -

ELECTRICAL -

CIVIL SPARKS & PARTNERS CONSULTING ENGINEERS

BUILDER

CLIENT

Aliro

watson young

PROJECT

13 ENDEAVOUR ROAD, CARINGBAH

SPARKS+PARTNERS

CONSULTING ENGINEERS

HYDRAULIC | CIVIL | FIRE

Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150

P 02 9891 5033 | E admin@sparksandpartners.com.au

<https://sparksandpartners.com.au/>

HCAA FPA GOLD MEMBER JAS-ANZ

Fire Protection Association Australia

DRAWING TITLE

MASTER PLAN

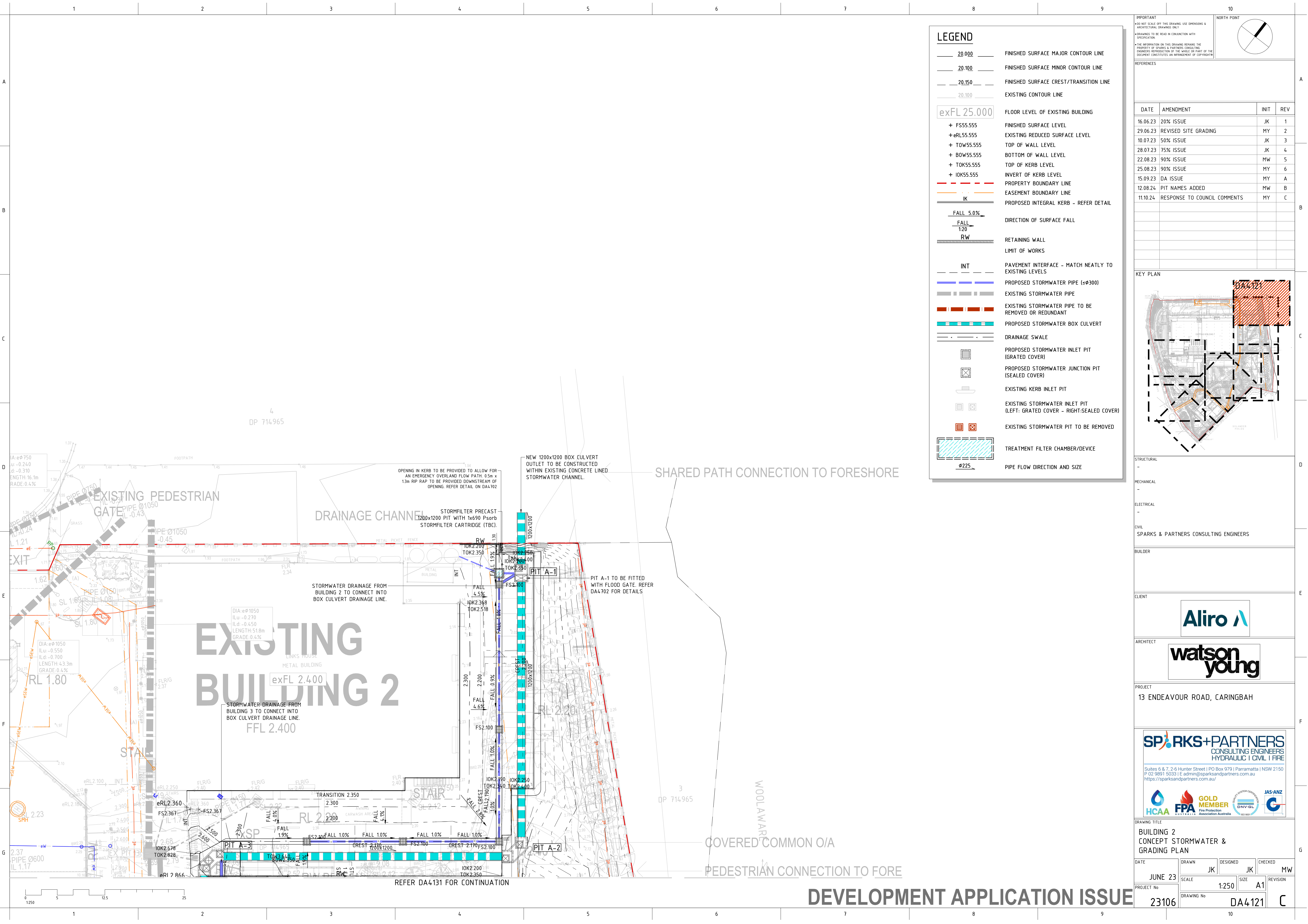
CONCEPT STORMWATER & GRADING PLAN - SHEET 2

DATE	DRAWN	DESIGNED	CHECKED	MW
JUNE 23	JK	JK	JK	MW

PROJECT No	SCALE	SIZE	REVISION
23106	1:500	A1	B

DRAWING No DA4102

DEVELOPMENT APPLICATION ISSUE



LEGEND

20.000

20.100

20.150

20.100

exFL 25.000

+ FS55.555

+ eRL55.555

+ TOW55.555

+ BOW55.555

+ TOK55.555

+ IOK55.555

IK

FALL 5.0%

FALL 1:20

RW

INT

PROPOSED STORMWATER PIPE (ø300)

EXISTING STORMWATER PIPE

EXISTING STORMWATER PIPE TO BE REMOVED OR REDUNDANT

PROPOSED STORMWATER BOX CULVERT

DRAINAGE SWALE

PROPOSED STORMWATER INLET PIT (GRADED COVER)

PROPOSED STORMWATER JUNCTION PIT (SEALED COVER)

EXISTING KERB INLET PIT

EXISTING STORMWATER INLET PIT (LEFT: GRADED COVER - RIGHT:SEALED COVER)

EXISTING STORMWATER PIT TO BE REMOVED

TREATMENT FILTER CHAMBER/DEVICE

ø225

FINISHED SURFACE MAJOR CONTOUR LINE

FINISHED SURFACE MINOR CONTOUR LINE

FINISHED SURFACE CREST/TRANSITION LINE

EXISTING CONTOUR LINE

FLOOR LEVEL OF EXISTING BUILDING

FINISHED SURFACE LEVEL

EXISTING REDUCED SURFACE LEVEL

TOP OF WALL LEVEL

BOTTOM OF WALL LEVEL

TOP OF KERB LEVEL

INVERT OF KERB LEVEL

PROPERTY BOUNDARY LINE

EASEMENT BOUNDARY LINE

PROPOSED INTEGRAL KERB - REFER DETAIL

DIRECTION OF SURFACE FALL

RETAINING WALL

LIMIT OF WORKS

PAVEMENT INTERFACE - MATCH NEATLY TO EXISTING LEVELS

EXISTING STORMWATER PIPE

EXISTING STORMWATER PIPE TO BE REMOVED OR REDUNDANT

PROPOSED STORMWATER BOX CULVERT

DRAINAGE SWALE

PROPOSED STORMWATER INLET PIT (GRADED COVER)

PROPOSED STORMWATER JUNCTION PIT (SEALED COVER)

EXISTING KERB INLET PIT

EXISTING STORMWATER INLET PIT (LEFT: GRADED COVER - RIGHT:SEALED COVER)

EXISTING STORMWATER PIT TO BE REMOVED

TREATMENT FILTER CHAMBER/DEVICE

PIPE FLOW DIRECTION AND SIZE

IMPORTANT

• DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.

• DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.

• THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
16.06.23	20% ISSUE	JK	1
29.06.23	REVISED SITE GRADING	MY	2
10.07.23	50% ISSUE	JK	3
28.07.23	75% ISSUE	JK	4
22.08.23	90% ISSUE	MW	5
25.08.23	90% ISSUE	MY	6
15.09.23	DA ISSUE	MY	A
12.08.24	PIT NAMES ADDED	MW	B
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	C

KEY PLAN

STRUCTURAL

-

MECHANICAL

-

ELECTRICAL

-

CIVIL

SPARKS & PARTNERS CONSULTING ENGINEERS

BUILDER

CLIENT

ARCHITECT

PROJECT

13 ENDEAVOUR ROAD, CARINGBAH

SPARKS+PARTNERS

CONSULTING ENGINEERS

HYDRAULIC | CIVIL | FIRE

Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9891 5033 | E admin@sparksandpartners.com.au
https://sparksandpartners.com.au/

DRAWING TITLE

BUILDING 2
CONCEPT STORMWATER & GRADING PLAN

DATE

JUNE 23

DESIGNED

JK

CHECKED

MW

PROJECT No

23106

SCALE

1:250

SIZE

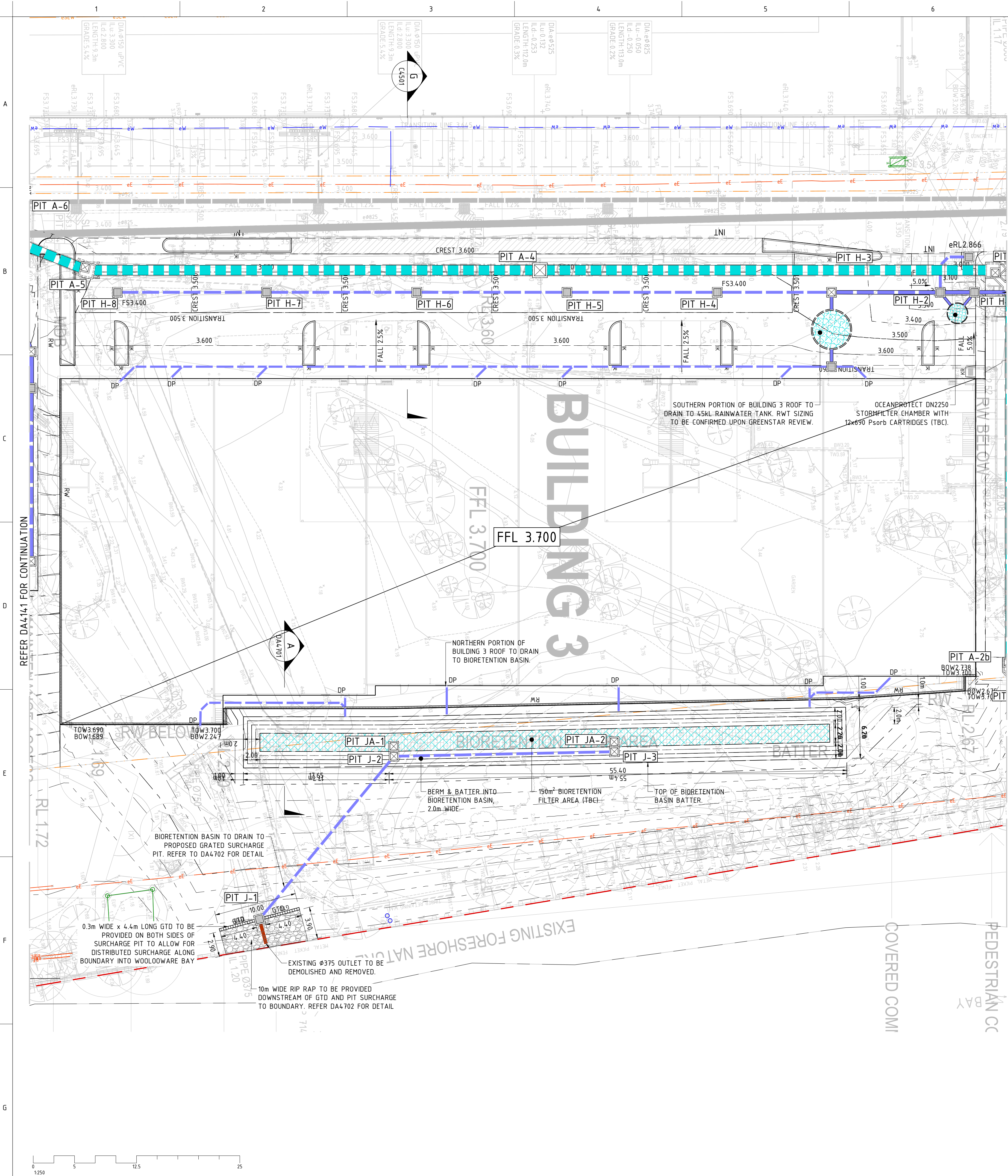
A1


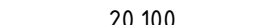
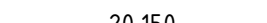


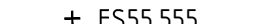
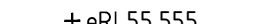
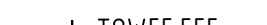





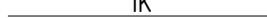


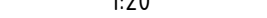
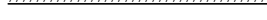






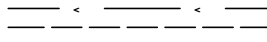





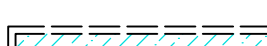

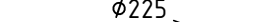
REVISION

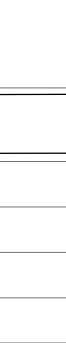
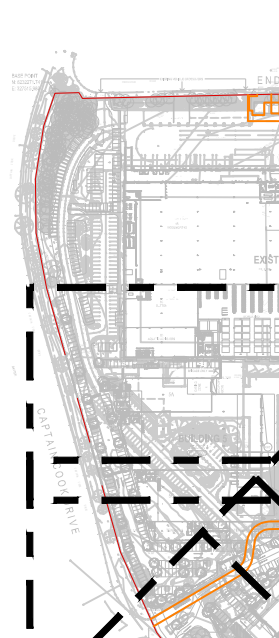






DRAWING No

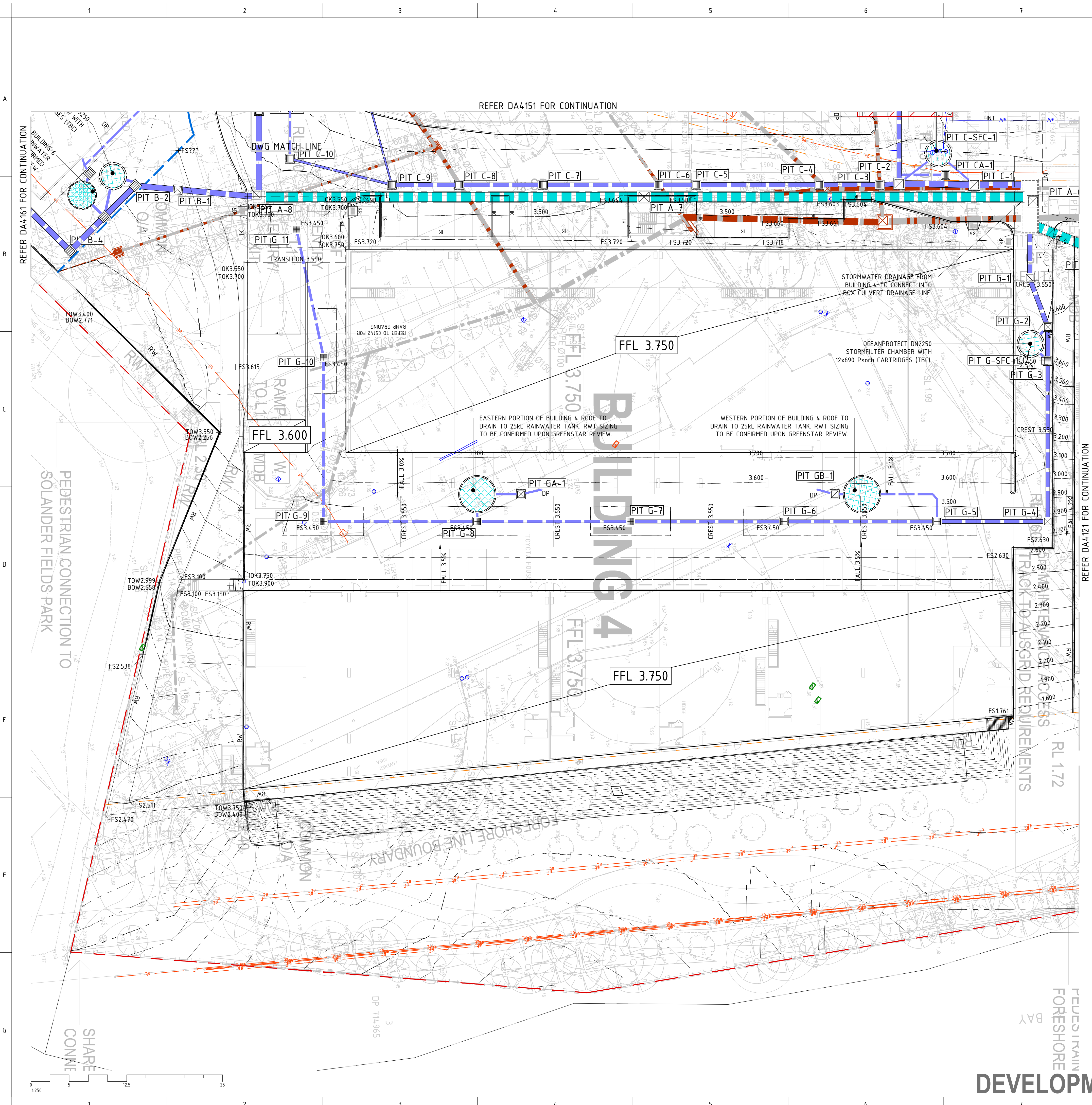
DA4-121

DEVELOPMENT APPLICATION ISSUE


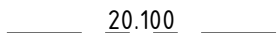
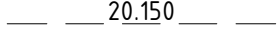


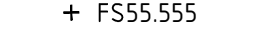
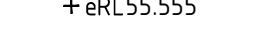
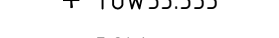
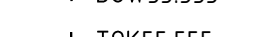
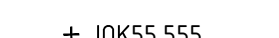


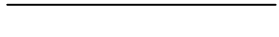
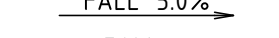
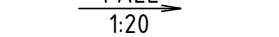








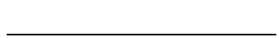
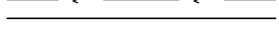
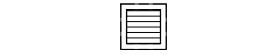






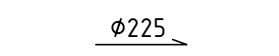



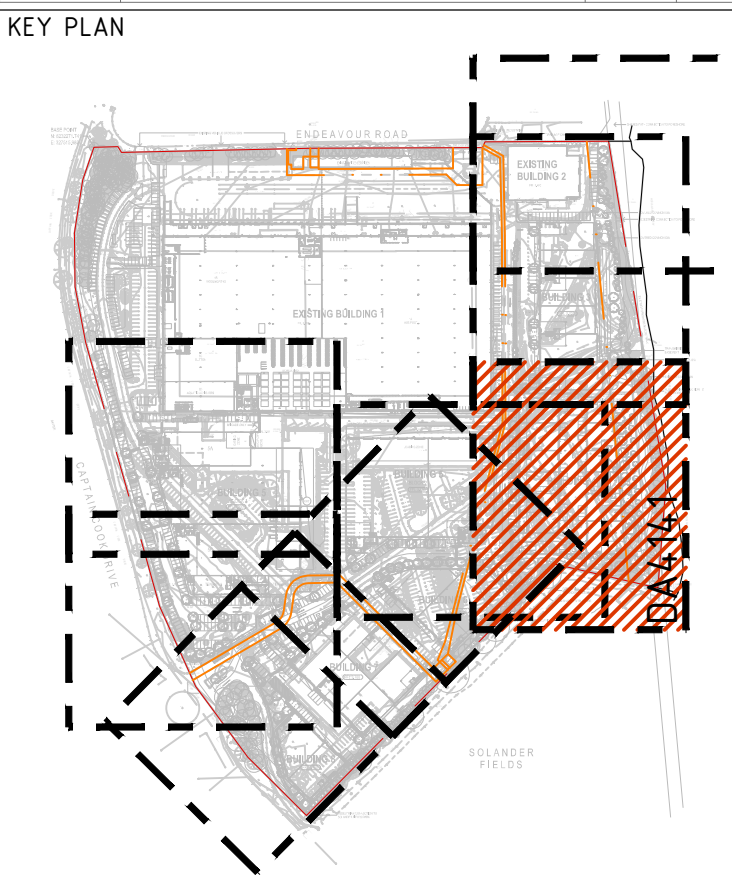
LEGEND	
	FINISHED SURFACE MAJOR CONTOUR LINE
	FINISHED SURFACE MINOR CONTOUR LINE
	FINISHED SURFACE CREST/TRANSITION LINE
	EXISTING CONTOUR LINE
	FLOOR LEVEL OF EXISTING BUILDING
 + FS55.555	FINISHED SURFACE LEVEL
 + eRL55.555	EXISTING REDUCED SURFACE LEVEL
 + TOW55.555	TOP OF WALL LEVEL
 + BOW55.555	BOTTOM OF WALL LEVEL
 + TOK55.555	TOP OF KERB LEVEL
 + IOK55.555	INVERT OF KERB LEVEL
	PROPERTY BOUNDARY LINE
	EASEMENT BOUNDARY LINE
	PROPOSED INTEGRAL KERB - REFER DETAIL
	DIRECTION OF SURFACE FALL
	
	RETAINING WALL
	LIMIT OF WORKS
	PAVEMENT INTERFACE - MATCH NEATLY TO EXISTING LEVELS
	PROPOSED STORMWATER PIPE (≤ø300)
	EXISTING STORMWATER PIPE
	EXISTING STORMWATER PIPE TO BE REMOVED OR REDUNDANT
	PROPOSED STORMWATER BOX CULVERT
	DRAINAGE SWALE
	PROPOSED STORMWATER INLET PIT (GRATED COVER)
	PROPOSED STORMWATER JUNCTION PIT (SEALED COVER)
	EXISTING KERB INLET PIT
	EXISTING STORMWATER INLET PIT
	(LEFT: GRATED COVER - RIGHT:SEALED COVER)
	EXISTING STORMWATER PIT TO BE REMOVED
	
	TREATMENT FILTER CHAMBER/DEVICE
	PIPE FLOW DIRECTION AND SIZE

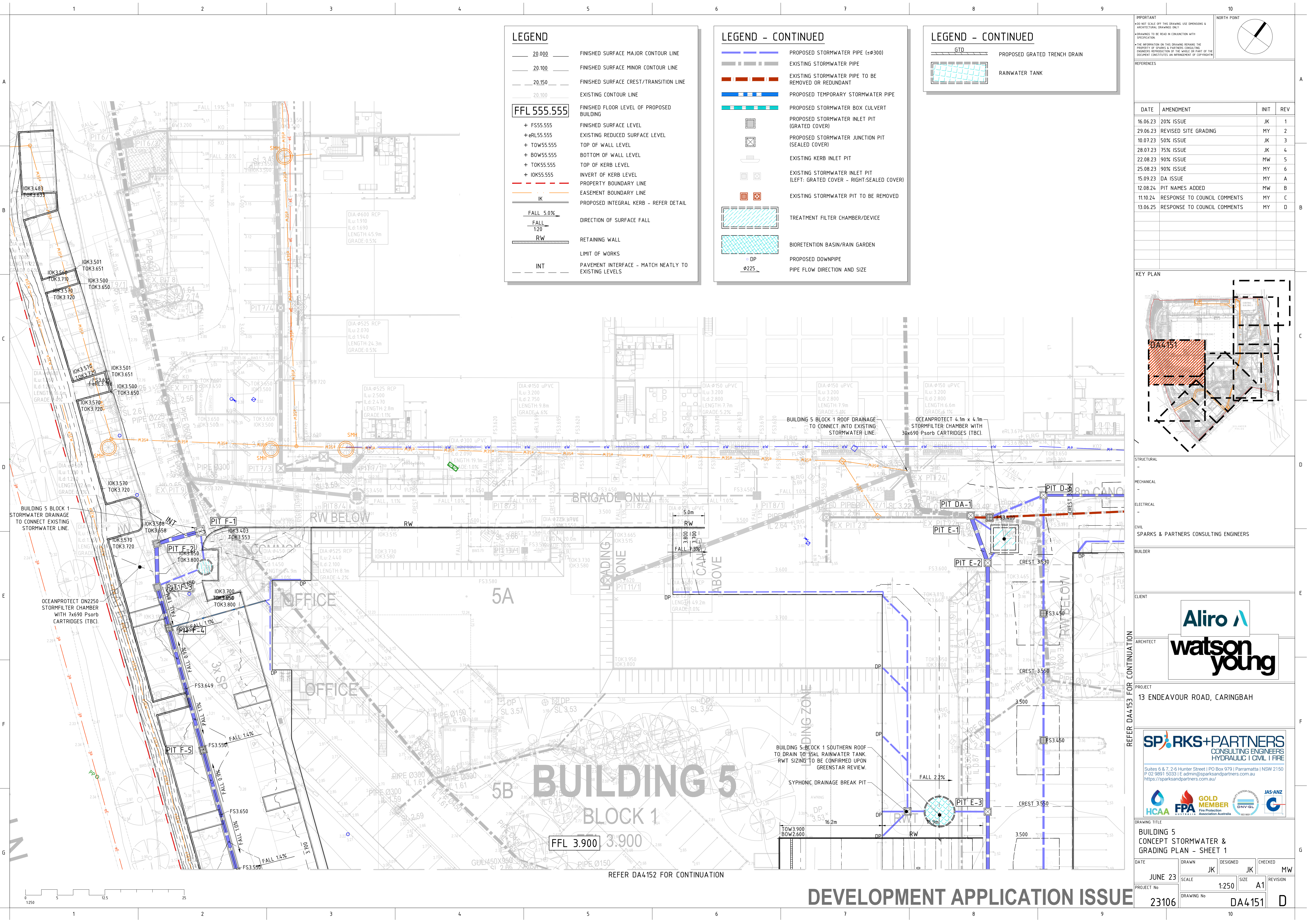
IMPORTANT • DO NOT SCALE OFF THIS DRAWING USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY • ADVISORS TO BE READ IN CONJUNCTION WITH SPECIFICATION • THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRACTION OF COPYRIGHT.		NORTH POINT 	
REFERENCES			
KEY PLAN			
			
STRUCTURAL -			
MECHANICAL -			
ELECTRICAL -			
CIVIL SPARKS & PARTNERS CONSULTING ENGINEERS			
BUILDER			
CLIENT			
			
ARCHITECT			
			
PROJECT			
13 ENDEAVOUR ROAD, CARINGBAH			
<div style="position: absolute; bottom: -50px; width: 100%;"> <p style="margin: 0;">S P R K S + PARTNERS</p> <p style="font-size: small; margin: 0;">CONSULTING ENGINEERS HYDRAULIC CIVIL FIRE</p> <hr/> <p style="font-size: x-small; margin: 0;">Suites 6 & 7, 2-6 Hunter Street PO Box 979 Parramatta NSW 2150 P 02 9891 5033 E admin@sparksandpartners.com.au https://sparksandpartners.com.au/</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <small>HCAA AUSTRALIA</small> </div> <div style="text-align: center;">  <small>GOLD MEMBER FPA Fire Protection Association Australia</small> </div> <div style="text-align: center;">  <small>ISO SYSTEM CERTIFIED DNV GL ISO 9001</small> </div> <div style="text-align: center;">  <small>JAS-ANZ G</small> </div> </div> </div>			
DRAWING TITLE			
BUILDING 3 CONCEPT STORMWATER & GRADING PLAN			
DATE	DRAWN	DESIGNED	CHECKED
JUNE 23	JK	JK	MW
PROJECT No	SCALE	SIZE	REVISION
23106	1:250	A1	
DRAWING No		PAGE	
DA4131			



LEGEND

	FINISHED SURFACE MAJOR CONTOUR LINE
	FINISHED SURFACE MINOR CONTOUR LINE
	FINISHED SURFACE CREST/TRANSITION LINE
	EXISTING CONTOUR LINE
	FLOOR LEVEL OF EXISTING BUILDING
	FINISHED SURFACE LEVEL
	EXISTING REDUCED SURFACE LEVEL
	TOP OF WALL LEVEL
	BOTTOM OF WALL LEVEL
	TOP OF KERB LEVEL
	INVERT OF KERB LEVEL
	PROPERTY BOUNDARY LINE
	EASEMENT BOUNDARY LINE
	PROPOSED INTEGRAL KERB - REFER DETAIL
	DIRECTION OF SURFACE FALL
	
	
	RETAINING WALL
	LIMIT OF WORKS
	PAVEMENT INTERFACE - MATCH NEATLY TO EXISTING LEVELS
	PROPOSED STORMWATER PIPE ($\leq \phi 300$)
	EXISTING STORMWATER PIPE
	EXISTING STORMWATER PIPE TO BE REMOVED OR REDUNDANT
	PROPOSED STORMWATER BOX CULVERT
	DRAINAGE SWALE
	PROPOSED STORMWATER INLET PIT (GRATED COVER)
	PROPOSED STORMWATER JUNCTION PIT (SEALED COVER)
	EXISTING KERB INLET PIT
	EXISTING STORMWATER INLET PIT (LEFT: GRATED COVER - RIGHT:SEALED COVER)
	
	EXISTING STORMWATER PIT TO BE REMOVED
	
	TREATMENT FILTER CHAMBER/DEVICE
	PIPE FLOW DIRECTION AND SIZE

[illegible]



LEGEND

- 20.000 FINISHED SURFACE MAJOR CONTOUR LINE
- 20.100 FINISHED SURFACE MINOR CONTOUR LINE
- 20.150 FINISHED SURFACE CREST/TRANSITION LINE
- 20.100 EXISTING CONTOUR LINE
- FFL 555.555** FINISHED FLOOR LEVEL OF PROPOSED BUILDING
- + FSS5.555 FINISHED SURFACE LEVEL
- + eRL55.555 EXISTING REDUCED SURFACE LEVEL
- + TOW55.555 TOP OF WALL LEVEL
- + BOW55.555 BOTTOM OF WALL LEVEL
- + TOK55.555 TOP OF KERB LEVEL
- + IOK55.555 INVERT OF KERB LEVEL
- PROPERTY BOUNDARY LINE
- EASEMENT BOUNDARY LINE
- PROPOSED INTEGRAL KERB - REFER DETAIL
- FALL 5.0% DIRECTION OF SURFACE FALL
- FALL 1.20 RETAINING WALL
- RW LIMIT OF WORKS
- INT PAVEMENT INTERFACE - MATCH NEATLY TO EXISTING LEVELS

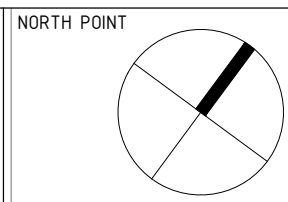
LEGEND - CONTINUED

- PROPOSED STORMWATER PIPE (sø300)
- EXISTING STORMWATER PIPE
- EXISTING STORMWATER PIPE TO BE REMOVED OR REDUNDANT
- PROPOSED TEMPORARY STORMWATER PIPE
- PROPOSED STORMWATER BOX CULVERT
- PROPOSED STORMWATER INLET PIT (GRADED COVER)
- PROPOSED STORMWATER JUNCTION PIT (SEALED COVER)
- EXISTING KERB INLET PIT
- EXISTING STORMWATER INLET PIT (LEFT: GRADED COVER - RIGHT:SEALED COVER)
- EXISTING STORMWATER PIT TO BE REMOVED
- TREATMENT FILTER CHAMBER/DEVICE
- BIORETENTION BASIN/RAIN GARDEN
- DP PROPOSED DOWNPIPE
- PIPE FLOW DIRECTION AND SIZE

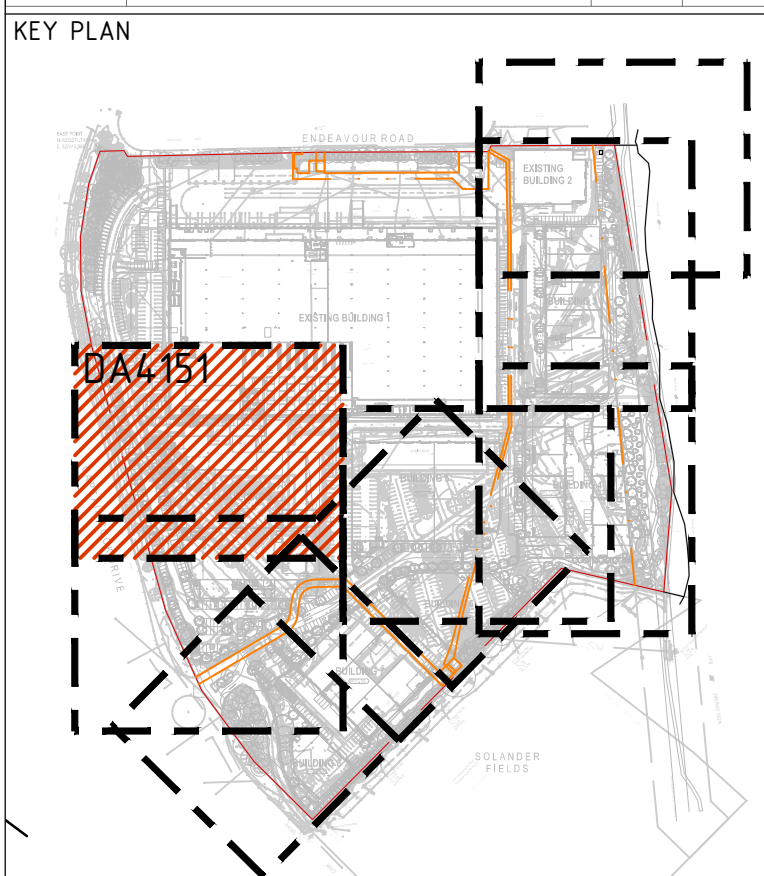
LEGEND - CONTINUED

- GTD PROPOSED GRATED TRENCH DRAIN
- RAINWATER TANK

IMPORTANT
DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.



DATE	AMENDMENT	INIT	REV
16.06.23	20% ISSUE	JK	1
29.06.23	REVISED SITE GRADING	MY	2
10.07.23	50% ISSUE	JK	3
28.07.23	75% ISSUE	JK	4
22.08.23	90% ISSUE	MW	5
25.08.23	90% ISSUE	MY	6
15.09.23	DA ISSUE	MY	A
12.08.24	PIT NAMES ADDED	MW	B
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	C
13.06.25	RESPONSE TO COUNCIL COMMENTS	MY	D



STRUCTURAL
MECHANICAL
ELECTRICAL
CIVIL
SPARKS & PARTNERS CONSULTING ENGINEERS
BUILDER
CLIENT



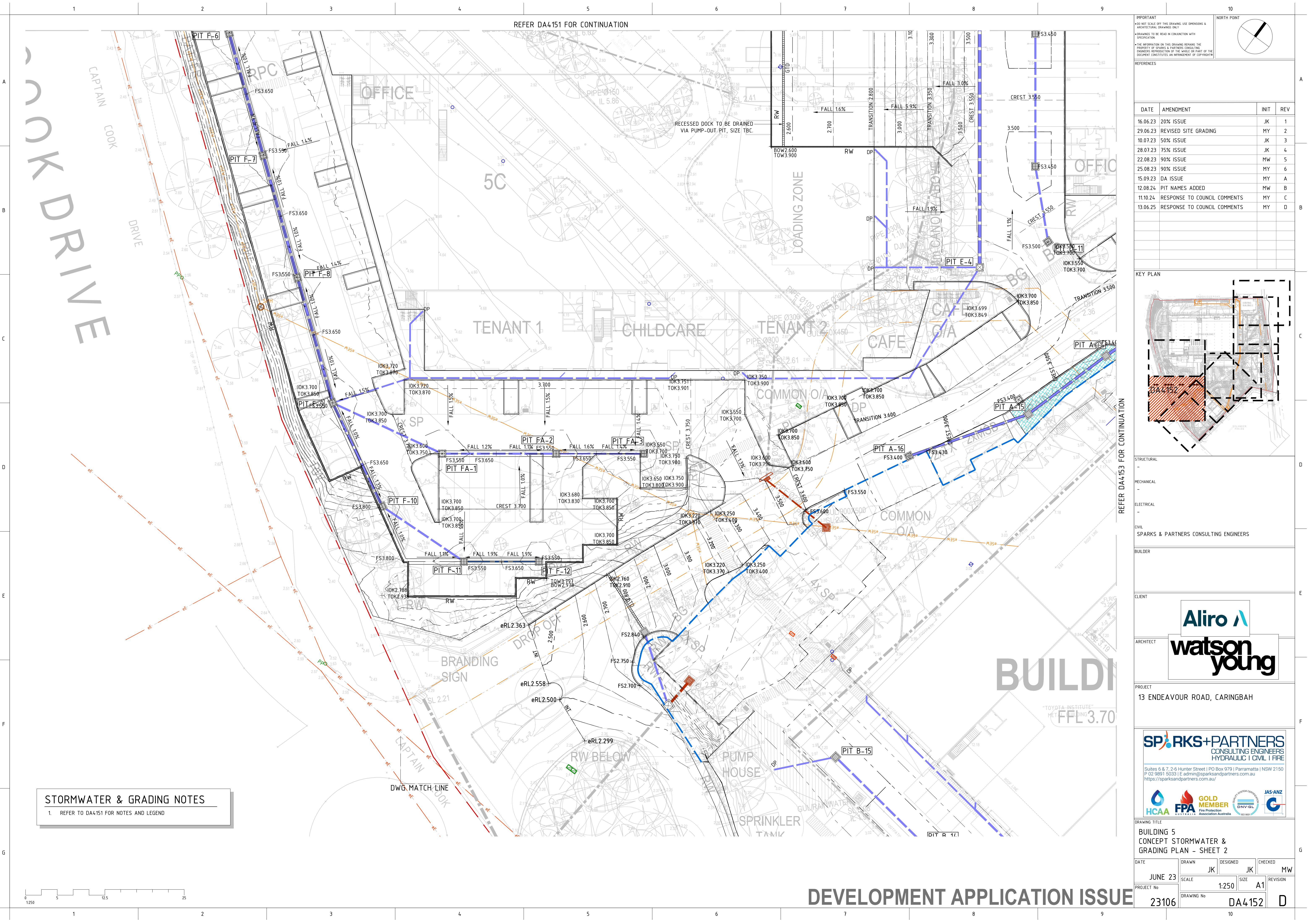
PROJECT
13 ENDEAVOUR ROAD, CARINGBAH



DRAWING TITLE
BUILDING 5
CONCEPT STORMWATER & GRADING PLAN - SHEET 1

DATE	DRAWN	DESIGNED	CHECKED	REVISION
JUNE 23	JK	JK	MW	
PROJECT No	SCALE	SIZE	REVISION	
23106	1:250	A1		
DRAWING No				
DA4151				

DEVELOPMENT APPLICATION ISSUE



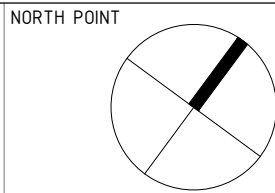
REFER DA4151 FOR CONTINUATION

REFER DA4153 FOR CONTINUATION

STORMWATER & GRADING NOTES

1. REFER TO DA4151 FOR NOTES AND LEGEND

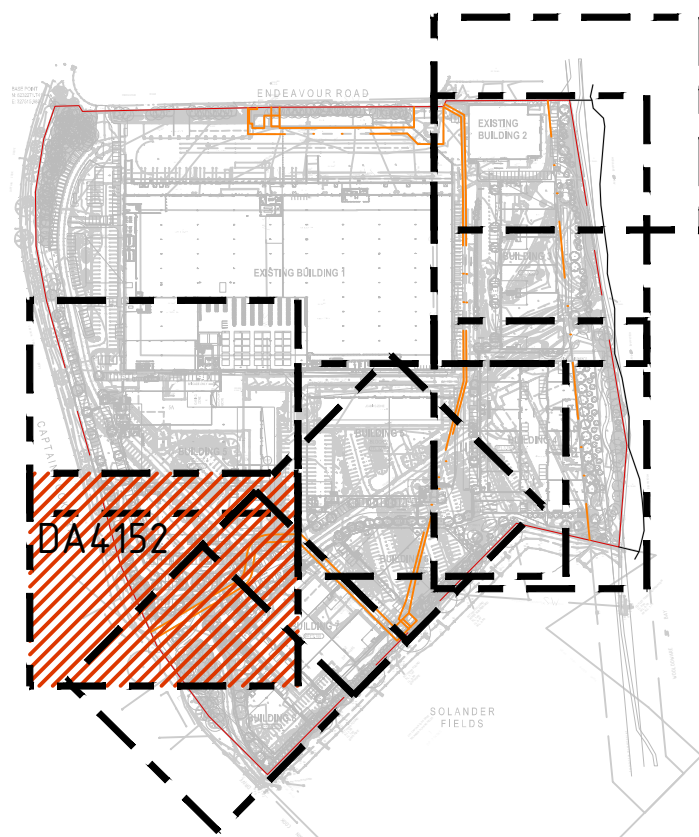
IMPORTANT
DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
ADVISEMENTS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.



REFERENCES

DATE	AMENDMENT	INIT	REV
16.06.23	20% ISSUE	JK	1
29.06.23	REVISED SITE GRADING	MY	2
10.07.23	50% ISSUE	JK	3
28.07.23	75% ISSUE	JK	4
22.08.23	90% ISSUE	MW	5
25.08.23	90% ISSUE	MY	6
15.09.23	DA ISSUE	MY	A
12.08.24	PIT NAMES ADDED	MW	B
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	C
13.06.25	RESPONSE TO COUNCIL COMMENTS	MY	D

KEY PLAN



STRUCTURAL

MECHANICAL

ELECTRICAL

CIVIL
SPARKS & PARTNERS CONSULTING ENGINEERS

BUILDER

CLIENT



PROJECT
13 ENDEAVOUR ROAD, CARINGBAH

SPARKS+PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE

Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9891 5033 | E admin@sparksandpartners.com.au
<https://sparksandpartners.com.au/>

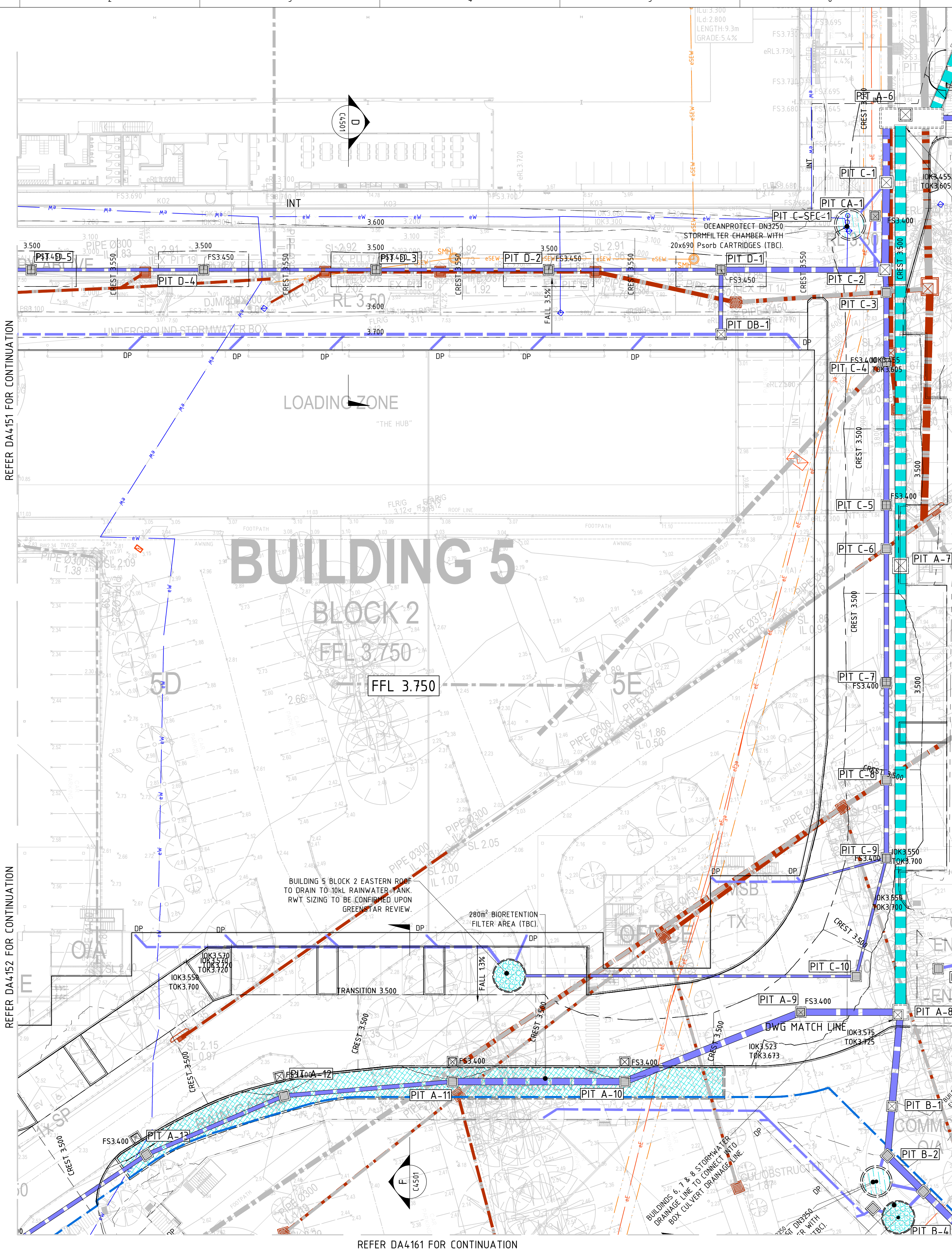


DRAWING TITLE

BUILDING 5
CONCEPT STORMWATER &
GRADING PLAN - SHEET 2

DATE	DRAWN	DESIGNED	CHECKED	MW
JUNE 23	JK	JK		
PROJECT No	SCALE	SIZE	REVISION	
23106	1:250	A1		
DRAWING No	DA4152			D

DEVELOPMENT APPLICATION ISSUE



STORMWATER & GRADING NOTES

1. REFER TO DA4151 FOR NOTES AND LEGEND

IMPORTANT

• DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
• DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
• THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
16.06.23	20% ISSUE	JK	1
29.06.23	REVISED SITE GRADING	MY	2
10.07.23	50% ISSUE	JK	3
28.07.23	75% ISSUE	JK	4
22.08.23	90% ISSUE	MW	5
25.08.23	90% ISSUE	MY	6
15.09.23	DA ISSUE	MY	A
12.08.24	PIT NAMES ADDED	MW	B
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	C

KEY PLAN

STRUCTURAL

-

MECHANICAL

-

ELECTRICAL

-

CIVIL

SPARKS & PARTNERS CONSULTING ENGINEERS

BUILDER

CLIENT

ARCHITECT

PROJECT

13 ENDEAVOUR ROAD, CARINGBAH

CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE
Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9891 5033 | E admin@sparksandpartners.com.au
https://sparksandpartners.com.au/

DRAWING TITLE

BUILDING 5
CONCEPT STORMWATER &
GRADING PLAN - SHEET 3

DATE

JUNE 23

PROJECT No

23106

DRAWN

JK

DESIGNED

JK

CHECKED

MW

SCALE

1:250

SIZE

A1

REVISION

DRAWING No

DA4153

DEVELOPMENT APPLICATION ISSUE

C



IMPORTANT

• DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY

• DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION

• THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT ©

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
16.06.23	20% ISSUE	JK	1
29.06.23	REVISED SITE GRADING	MY	2
10.07.23	50% ISSUE	JK	3
28.07.23	75% ISSUE	JK	4
22.08.23	90% ISSUE	MW	5
25.08.23	90% ISSUE	MY	6
15.09.23	DA ISSUE	MY	A
12.08.24	PIT NAMES ADDED	MW	B
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	C
13.06.25	RESPONSE TO COUNCIL COMMENTS	MY	D

A

B

C

D

E

F

G

A

B

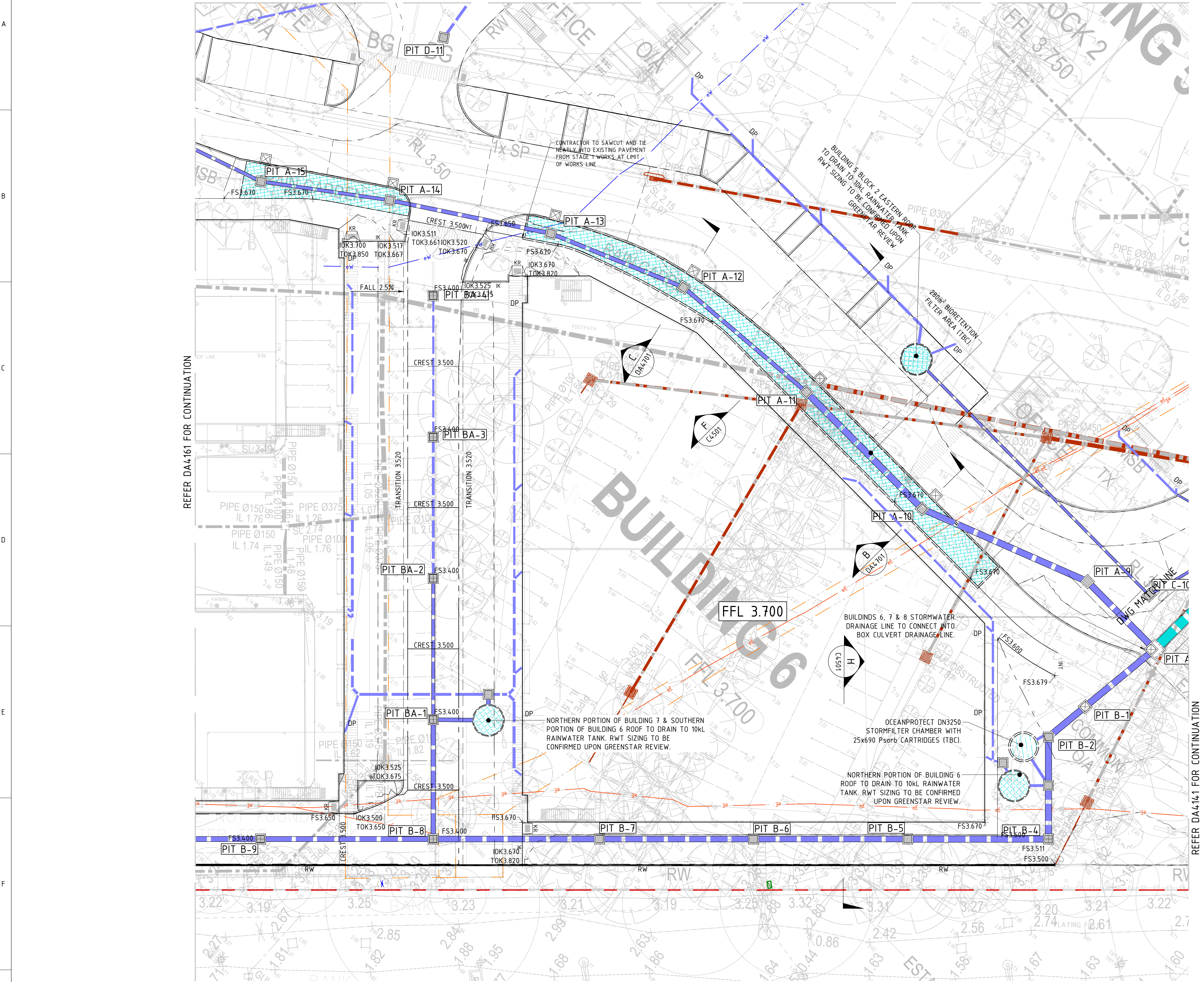
C

D

E

F

G



IMPORTANT

- DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
- ADRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
- THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
16.06.23	20% ISSUE	JK	1
29.06.23	REVISED SITE GRADING	MY	2
10.07.23	50% ISSUE	JK	3
28.07.23	75% ISSUE	JK	4
22.08.23	90% ISSUE	MW	5
25.08.23	90% ISSUE	MY	6
15.09.23	DA ISSUE	MY	A
12.08.24	PIT NAMES ADDED	MW	B
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	C

KEY PLAN

STRUCTURAL

MECHANICAL

ELECTRICAL

CIVIL

SPARKS & PARTNERS CONSULTING ENGINEERS

BUILDER

CLIENT

ARCHITECT

PROJECT

13 ENDEAVOUR ROAD, CARINGBAH

CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE

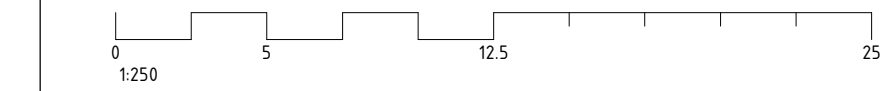
Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9891 5033 | E admin@sparksandpartners.com.au
<https://sparksandpartners.com.au/>

DRAWING TITLE

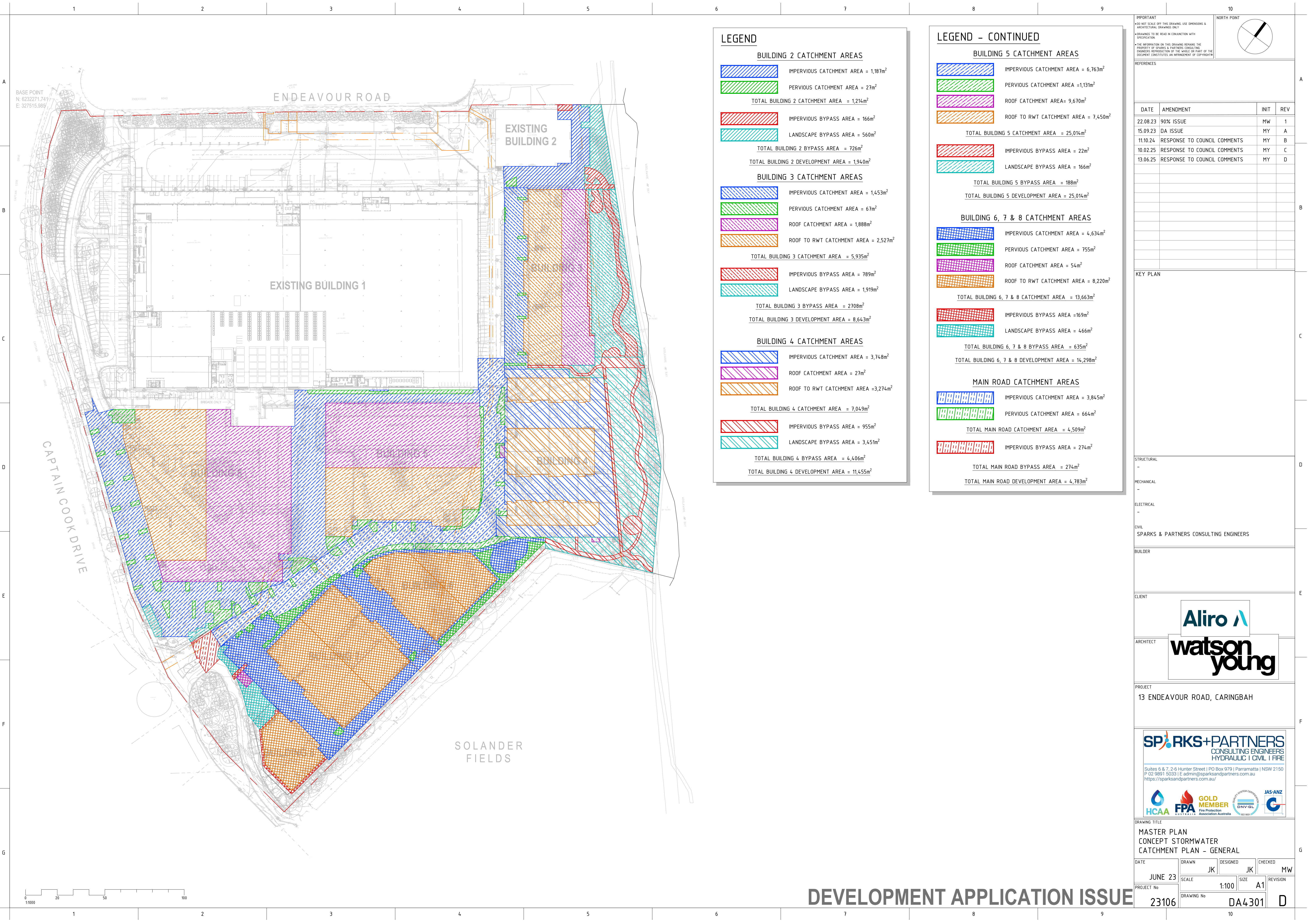
BUILDING 6 7 8
CONCEPT STORMWATER &
GRADING PLANS – SHEET 2

DATE	DRAWN	DESIGNED	CHECKED	REVISION
JUNE 23	JK	JK	MW	
PROJECT No	SCALE	SIZE	REVISION	
23106	1:250	A1		
DRAWING No				
DA4162				

C



DEVELOPMENT APPLICATION ISSUE



LEGEND

BUILDING 2 CATCHMENT AREAS

- IMPERVIOUS CATCHMENT AREA = 1,187m²
- PERVIOUS CATCHMENT AREA = 27m²
- TOTAL BUILDING 2 CATCHMENT AREA = 1,214m²
- IMPERVIOUS BYPASS AREA = 166m²
- LANDSCAPE BYPASS AREA = 560m²
- TOTAL BUILDING 2 BYPASS AREA = 726m²
- TOTAL BUILDING 2 DEVELOPMENT AREA = 1,940m²

BUILDING 3 CATCHMENT AREAS

- IMPERVIOUS CATCHMENT AREA = 1,453m²
- PERVIOUS CATCHMENT AREA = 67m²
- ROOF CATCHMENT AREA = 1,888m²
- ROOF TO RWT CATCHMENT AREA = 2,527m²
- TOTAL BUILDING 3 CATCHMENT AREA = 5,935m²
- IMPERVIOUS BYPASS AREA = 789m²
- LANDSCAPE BYPASS AREA = 1,919m²
- TOTAL BUILDING 3 BYPASS AREA = 2708m²
- TOTAL BUILDING 3 DEVELOPMENT AREA = 8,643m²

BUILDING 4 CATCHMENT AREAS

- IMPERVIOUS CATCHMENT AREA = 3,748m²
- ROOF CATCHMENT AREA = 27m²
- ROOF TO RWT CATCHMENT AREA = 3,274m²
- TOTAL BUILDING 4 CATCHMENT AREA = 7,049m²
- IMPERVIOUS BYPASS AREA = 955m²
- LANDSCAPE BYPASS AREA = 3,451m²
- TOTAL BUILDING 4 BYPASS AREA = 4,406m²
- TOTAL BUILDING 4 DEVELOPMENT AREA = 11,455m²

LEGEND - CONTINUED

BUILDING 5 CATCHMENT AREAS

- IMPERVIOUS CATCHMENT AREA = 6,763m²
- PERVIOUS CATCHMENT AREA = 1,131m²
- ROOF CATCHMENT AREA = 9,670m²
- ROOF TO RWT CATCHMENT AREA = 7,450m²
- TOTAL BUILDING 5 CATCHMENT AREA = 25,014m²
- IMPERVIOUS BYPASS AREA = 22m²
- LANDSCAPE BYPASS AREA = 166m²
- TOTAL BUILDING 5 BYPASS AREA = 188m²
- TOTAL BUILDING 5 DEVELOPMENT AREA = 25,014m²

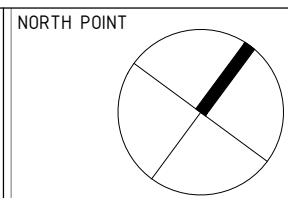
BUILDING 6, 7 & 8 CATCHMENT AREAS

- IMPERVIOUS CATCHMENT AREA = 4,634m²
- PERVIOUS CATCHMENT AREA = 755m²
- ROOF CATCHMENT AREA = 54m²
- ROOF TO RWT CATCHMENT AREA = 8,220m²
- TOTAL BUILDING 6, 7 & 8 CATCHMENT AREA = 13,663m²
- IMPERVIOUS BYPASS AREA = 169m²
- LANDSCAPE BYPASS AREA = 466m²
- TOTAL BUILDING 6, 7 & 8 BYPASS AREA = 635m²
- TOTAL BUILDING 6, 7 & 8 DEVELOPMENT AREA = 14,298m²

MAIN ROAD CATCHMENT AREAS

- IMPERVIOUS CATCHMENT AREA = 3,845m²
- PERVIOUS CATCHMENT AREA = 664m²
- TOTAL MAIN ROAD CATCHMENT AREA = 4,509m²
- IMPERVIOUS BYPASS AREA = 274m²
- TOTAL MAIN ROAD BYPASS AREA = 274m²
- TOTAL MAIN ROAD DEVELOPMENT AREA = 4,783m²

IMPORTANT
• DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
• DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
• THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.



REFERENCES			
DATE	AMENDMENT	INIT	REV
22.08.23	90% ISSUE	MW	1
15.09.23	DA ISSUE	MY	A
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	B
10.02.25	RESPONSE TO COUNCIL COMMENTS	MY	C
13.06.25	RESPONSE TO COUNCIL COMMENTS	MY	D

KEY PLAN	
STRUCTURAL	-
MECHANICAL	-
ELECTRICAL	-
CIVIL	SPARKS & PARTNERS CONSULTING ENGINEERS

CLIENT

ARCHITECT

PROJECT

13 ENDEAVOUR ROAD, CARINGBAH

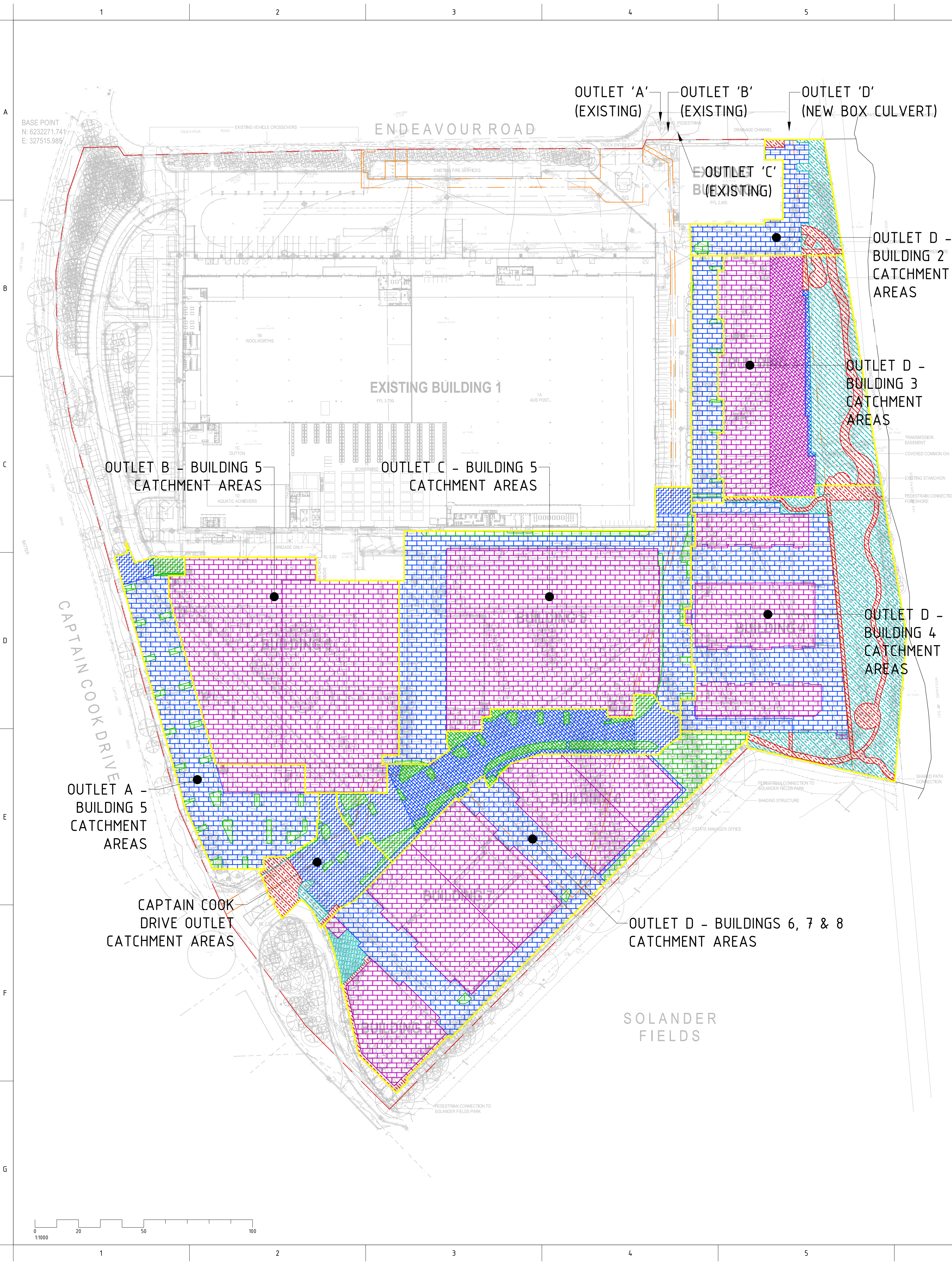
SPARKS+PARTNERS CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE

Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9891 5033 | E admin@sparksandpartners.com.au
https://sparksandpartners.com.au/

HCAA FPA GOLD MEMBER JAS-ANZ
Fire Protection Association Australia

DRAWING TITLE			
MASTER PLAN CONCEPT STORMWATER CATCHMENT PLAN - GENERAL			
DATE	DRAWN	DESIGNED	CHECKED
JUNE 23	JK	JK	MW
PROJECT No	SCALE	SIZE	REVISION
23106	1:100	A1	
DRAWING No	DA4301		D

DEVELOPMENT APPLICATION ISSUE



LEGEND	
OUTLET A, BUILDING 5 CATCHMENTS	
	IMPERVIOUS AREA TO FILTER BASKET = 171m ²
	PERVIOUS AREA TO FILTER BASKET = 112m ²
	IMPERVIOUS AREA TO FILTER CHAMBER = 3,367m ²
	PERVIOUS AREA TO FILTER CHAMBER = 359m ²
	ROOF AREA TO FILTER CHAMBER = 519m ²
TOTAL CATCHMENT AREA = 4,527m ²	
OUTLET B, BUILDING 5 CATCHMENTS	
	ROOF AREA TO FILTER CHAMBER = 9,226m ²
TOTAL CATCHMENT AREA = 9,226m ²	
OUTLET C, BUILDING 5 CATCHMENTS	
	IMPERVIOUS AREA TO FILTER CHAMBER = 4,012m ²
	PERVIOUS AREA TO FILTER CHAMBER = 473m ²
	ROOF AREA TO FILTER CHAMBER = 7,344m ²
TOTAL CATCHMENT AREA = 11,829m ²	
OUTLET D, BUILDING 2 CATCHMENTS	
	IMPERVIOUS AREA TO FILTER CHAMBER = 1,208m ²
	PERVIOUS AREA TO FILTER CHAMBER = 31m ²
TOTAL CATCHMENT AREA = 1,239m ²	
	IMPERVIOUS BYPASS AREA = 166m ²
	PERVIOUS BYPASS AREA = 560m ²
TOTAL BYPASS AREA = 726m ²	
OUTLET D, BUILDING 3 CATCHMENTS	
	IMPERVIOUS AREA TO FILTER CHAMBER = 1,440m ²
	PERVIOUS AREA TO FILTER CHAMBER = 67m ²
	ROOF AREA TO FILTER CHAMBER = 2,535m ²
	IMPERVIOUS AREA TO BIO-BASIN = 160m ²
	ROOF AREA TO BIO-BASIN = 1,892m ²
TOTAL CATCHMENT AREA = 6,129m ²	
	IMPERVIOUS BYPASS AREA = 629m ²
	PERVIOUS BYPASS AREA = 1,919m ²
TOTAL BYPASS AREA = 2,548m ²	

LEGEND - CONTINUED	
OUTLET D, BUILDING 4 CATCHMENTS	
	IMPERVIOUS AREA TO FILTER CHAMBER = 3,770m ²
	ROOF AREA TO FILTER CHAMBER = 3,288m ²
TOTAL CATCHMENT AREA = 7,058m ²	
	IMPERVIOUS BYPASS AREA = 955m ²
	PERVIOUS BYPASS AREA = 3,466m ²
TOTAL BYPASS AREA = 4,421m ²	
OUTLET D, BUILDING 6,7,8 CATCHMENTS	
	IMPERVIOUS AREA TO FILTER CHAMBER = 3,219m ²
	PERVIOUS AREA TO FILTER CHAMBER = 922m ²
	ROOF AREA TO FILTER CHAMBER = 8,578m ²
TOTAL CATCHMENT AREA = 12,719m ²	
	IMPERVIOUS BYPASS AREA = 176m ²
	PERVIOUS BYPASS AREA = 245m ²
TOTAL BYPASS AREA = 421m ²	
CAPTAIN COOK DRIVE OUTLET CATCHMENTS	
	IMPERVIOUS AREA TO FILTER BASKET = 907m ²
	PERVIOUS AREA TO FILTER BASKET = 223m ²
	IMPERVIOUS AREA TO BIO-BASIN = 2,004m ²
	ROOF AREA TO BIO-BASIN = 638m ²
TOTAL CATCHMENT AREA = 3,772m ²	
	IMPERVIOUS AREA TO FILTER BASKET = 1,159m ²
	PERVIOUS AREA TO FILTER BASKET = 101m ²
TOTAL CATCHMENT AREA = 1,260m ²	
	IMPERVIOUS BYPASS AREA = 328m ²
	PERVIOUS BYPASS AREA = 151m ²
TOTAL BYPASS AREA = 479m ²	

IMPORTANT

DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.

NORTH POINT

DATE	AMENDMENT	INIT	REV
22.08.23	90% ISSUE	MW	1
15.09.23	DA ISSUE	MY	A
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	B
10.02.25	RESPONSE TO COUNCIL COMMENTS	MY	C

KEY PLAN

STRUCTURAL

-

MECHANICAL

-

ELECTRICAL

-

CIVIL

SPARKS & PARTNERS CONSULTING ENGINEERS

BUILDER

CLIENT

ARCHITECT

PROJECT

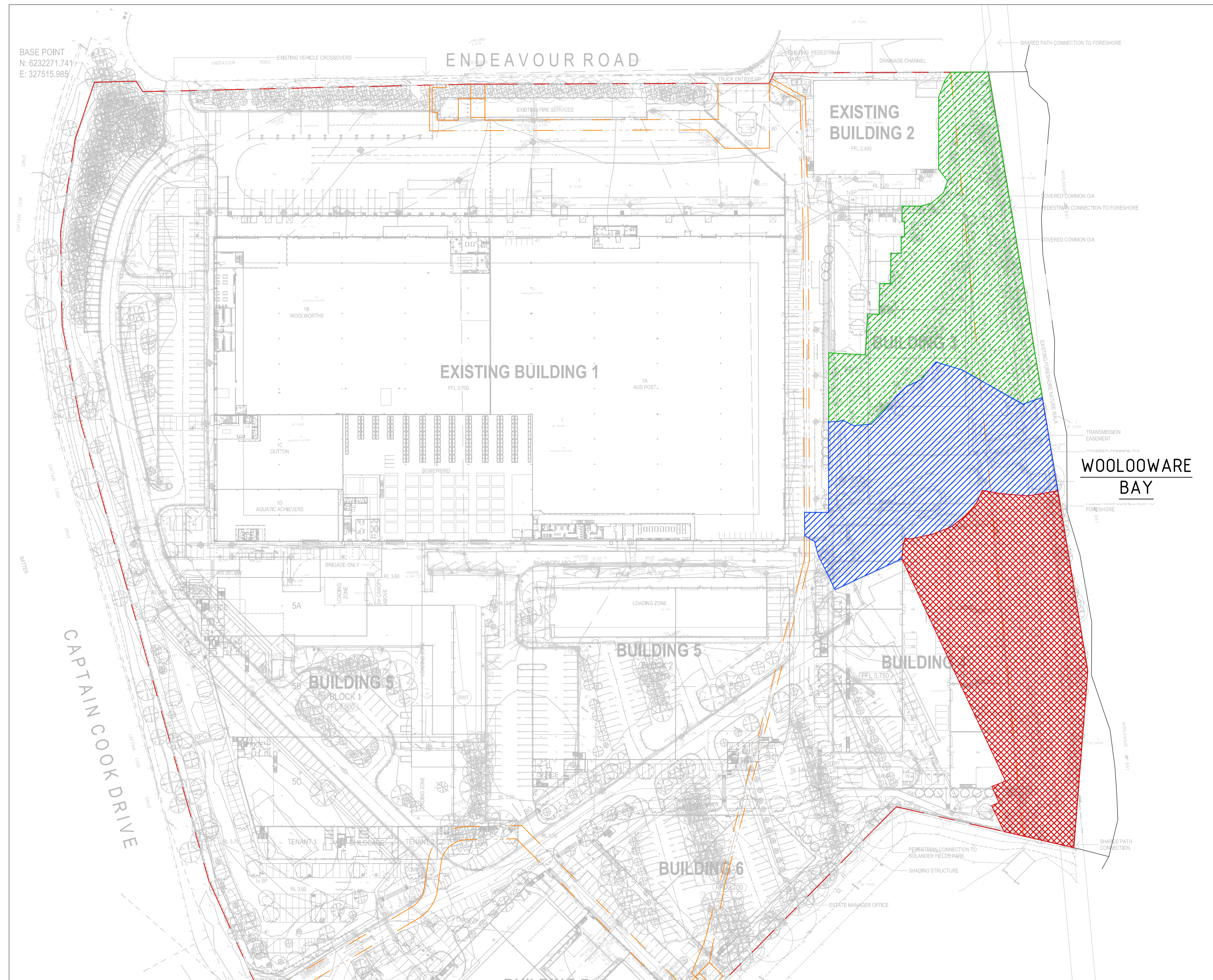
13 ENDEAVOUR ROAD, CARINGBAH

HYDRAULIC | CIVIL | FIRE
Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9891 5033 | E admin@sparksandpartners.com.au
https://sparksandpartners.com.au/

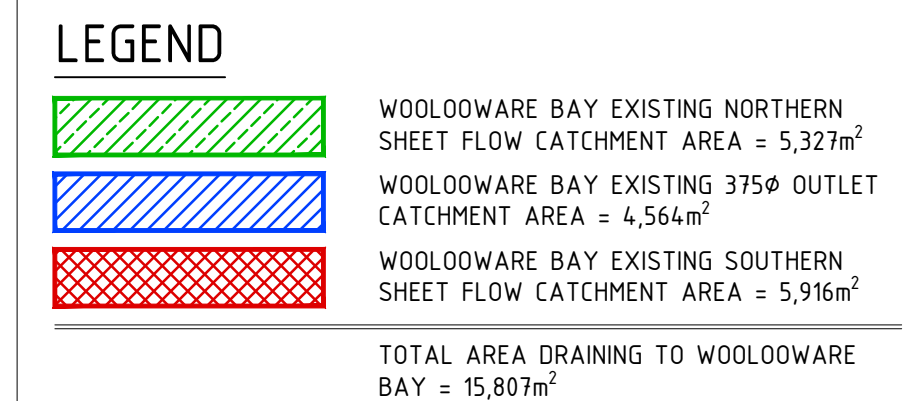
DRAWING TITLE

MASTER PLAN
CONCEPT STORMWATER
CATCHMENT PLAN - WSUD

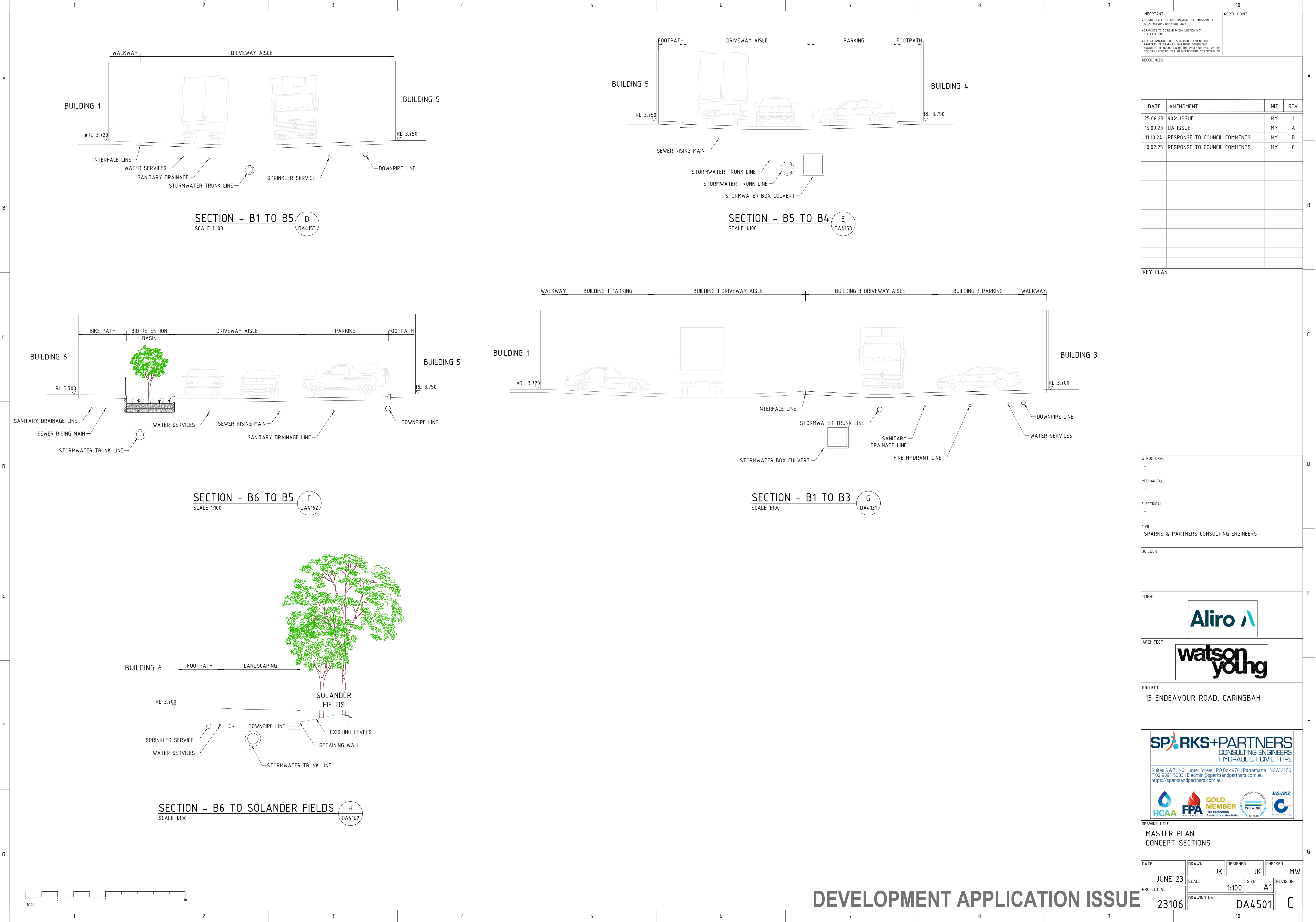
DATE	DRAWN	DESIGNED	CHECKED	
JUNE 23	JK	JK		MW
PROJECT No	SCALE	SIZE	REVISION	
23106	1:100	A1		
DRAWING No				
	DA4302			C

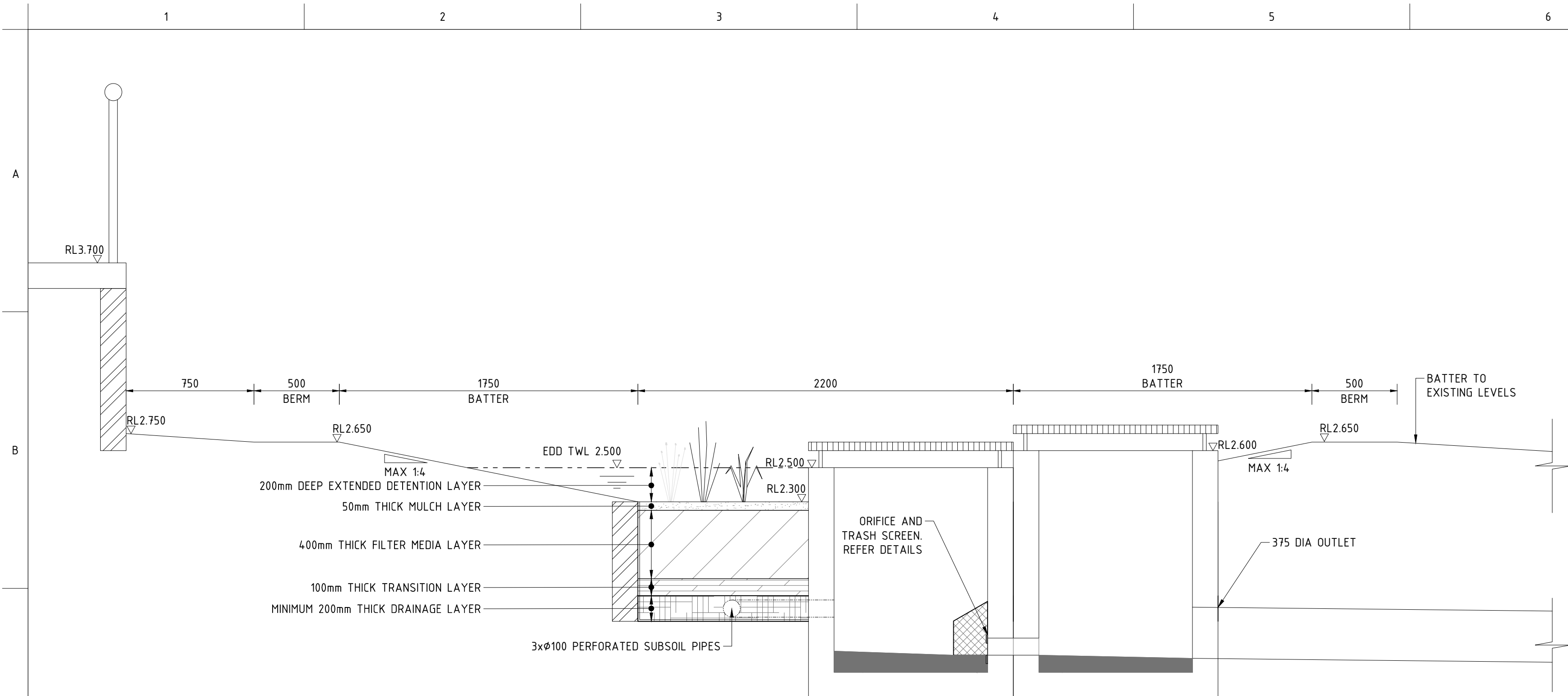


EXISTING WOOLLOOWARE BAY CATCHMENT PLAN



IMPORTANT		NORTH POINT	
<p>*DO NOT SCALE OFF THIS DRAWING: USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY</p> <p>*DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION</p> <p>*THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.</p>			
REFERENCES			
DATE	AMENDMENT	INIT	REV
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	A
17.10.24	RESPONSE TO COUNCIL COMMENTS	MY	B
10.02.25	RESPONSE TO COUNCIL COMMENTS	MY	C
KEY PLAN			
STRUCTURAL			
-			
MECHANICAL			
-			
ELECTRICAL			
-			
CIVIL			
SPARKS & PARTNERS CONSULTING ENGINEERS			
BUILDER			
CLIENT			
ARCHITECT			
PROJECT			
13 ENDEAVOUR ROAD, CARINGBAH			
 Suites 6 & 7, 2-6 Hunter Street PO Box 979 Parramatta NSW 2150 P 02 9991 5033 E admin@sparksandpartners.com.au https://sparksandpartners.com.au/			
DRAWING TITLE			
MASTER PLAN EXISTING CATCHMENT PLAN - WOOLLOOWARE BAY			
DATE	DRAWN	DESIGNED	CHECKED
JUNE 23	JK	JK	MW
PROJECT No	SCALE	SIZE	REVISION
23106	1:100	A1	
DRAWING No			
23106		DA4303	



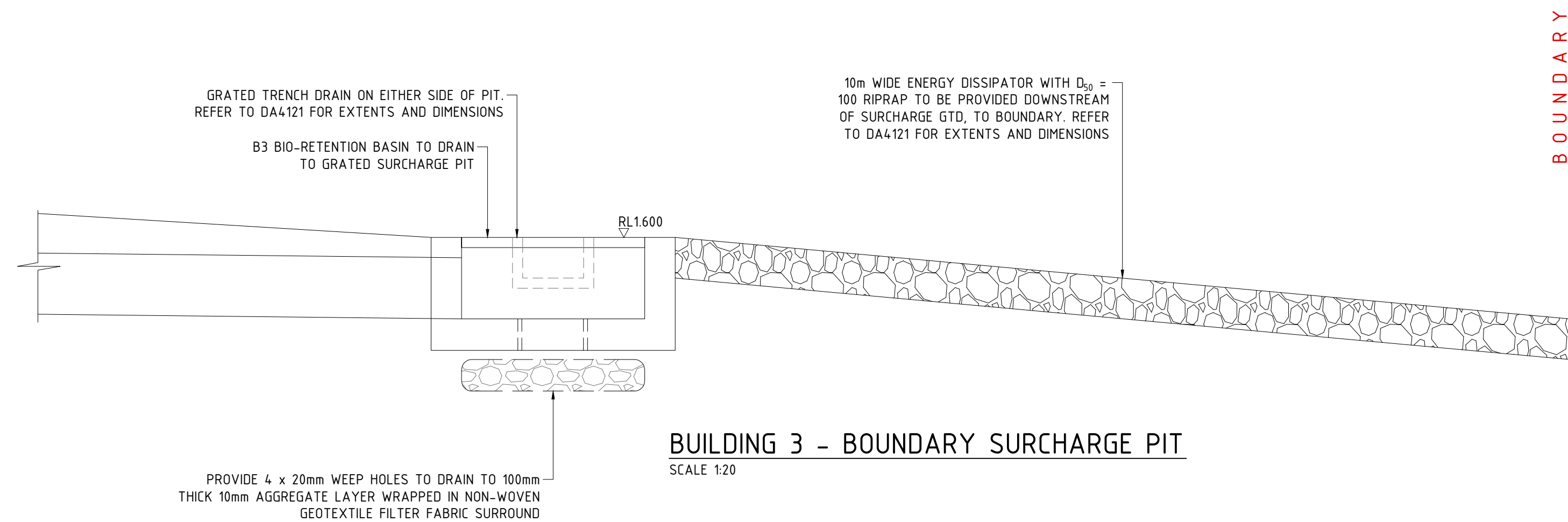


BIO-RETENTION BASIN - BUILDING 3 - TYPICAL SECTION

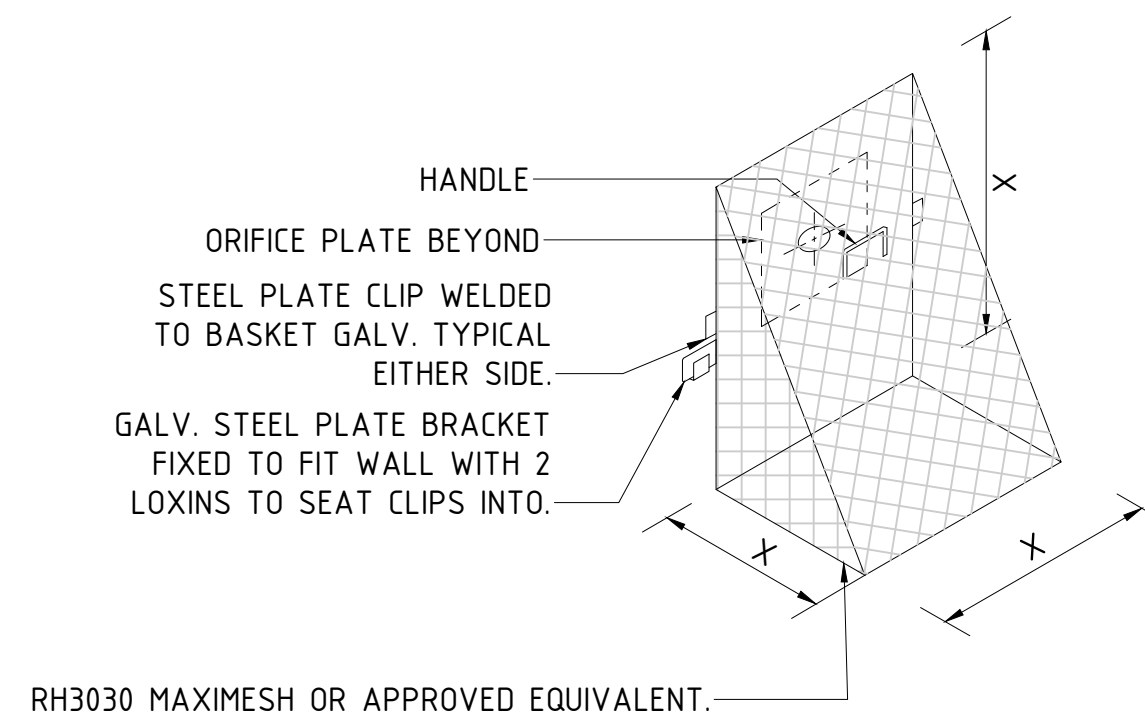
SCALE 1:20

A

DA4131

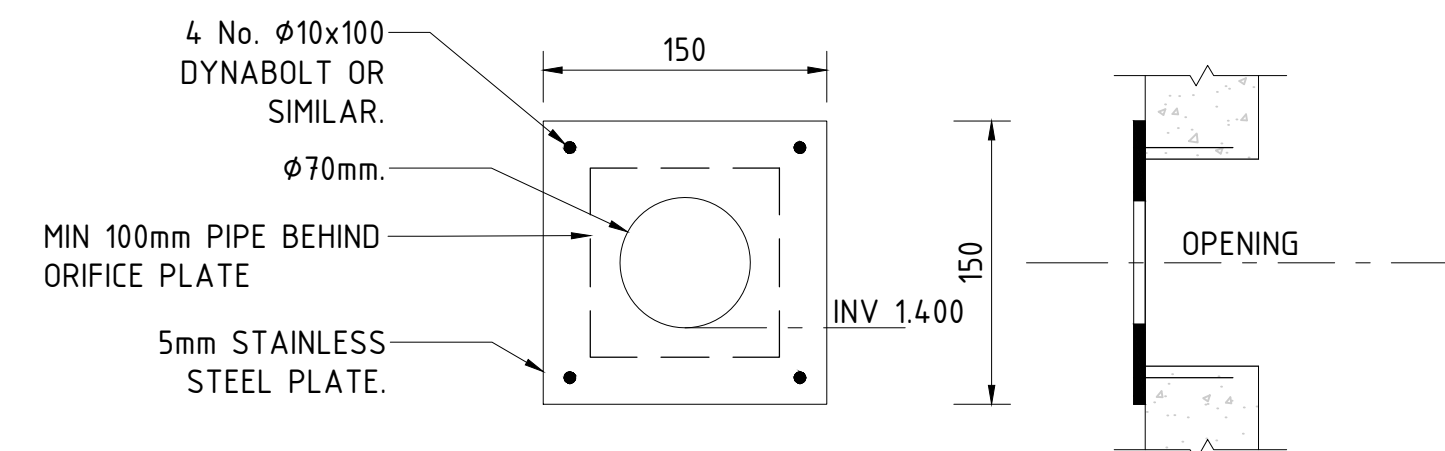


BUILDING 3 - BOUNDARY SURCHARGE PIT
SCALE 1:20



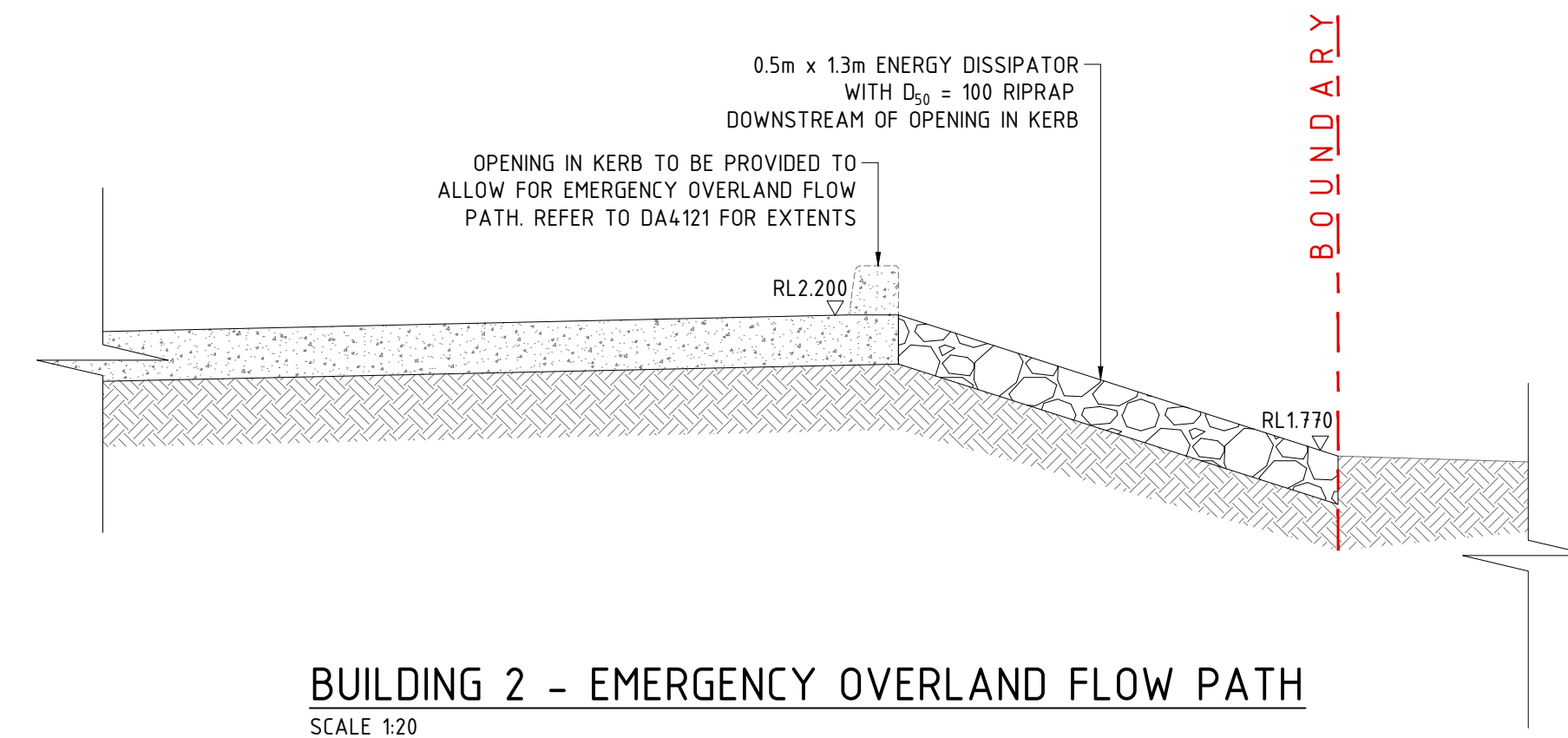
TRASH SCREEN DETAIL

NOT TO SCALE

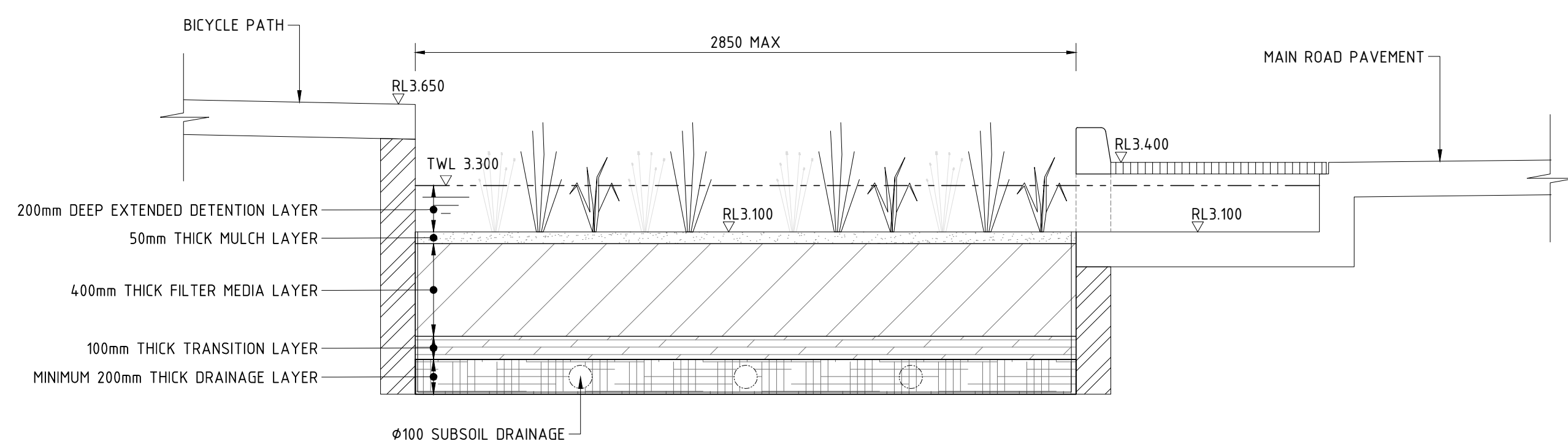


ORIFICE PLATE DETAIL

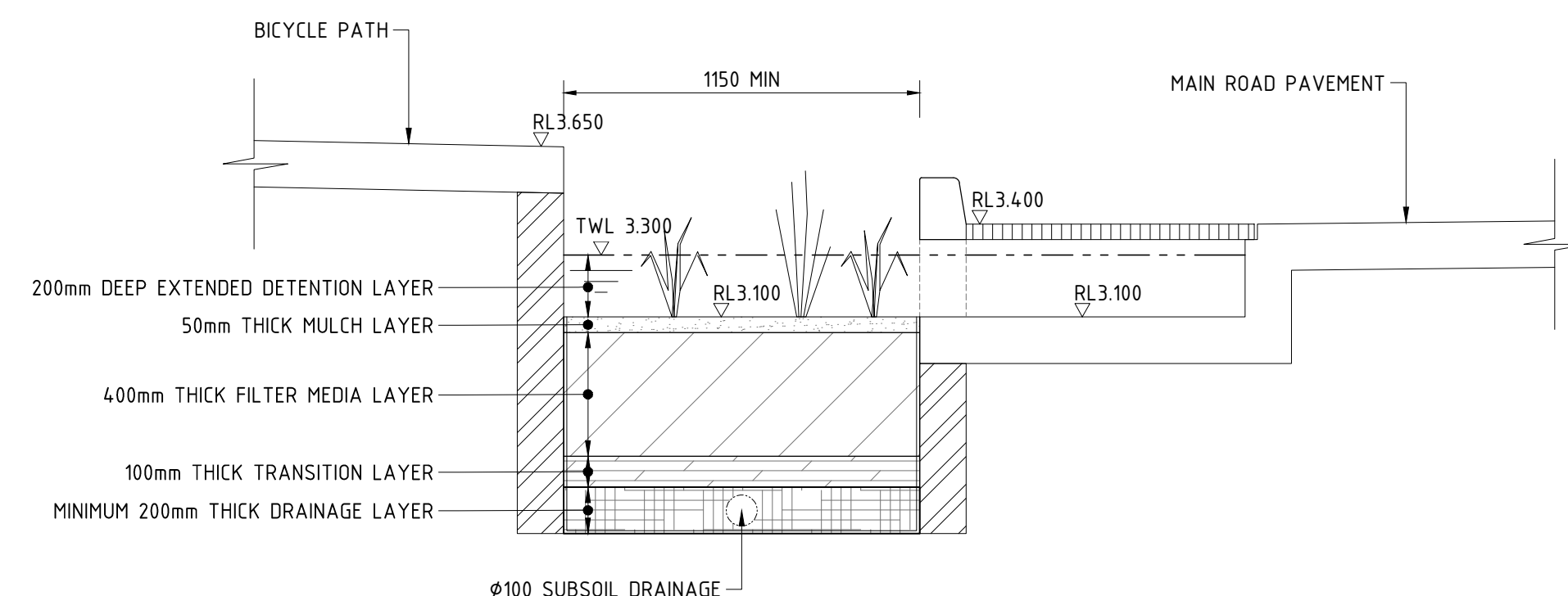
NOT TO SCALE



BUILDING 2 - EMERGENCY OVERLAND FLOW PATH
SCALE 1:20



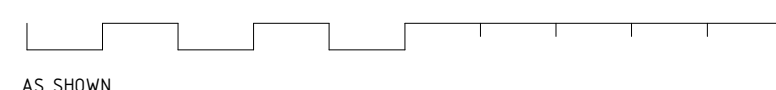
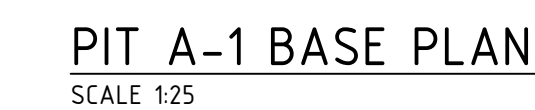
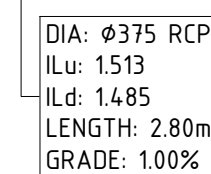
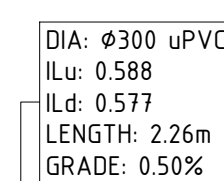
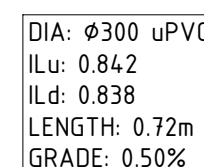
BIO-RETENTION BASIN - MAIN ROAD (MAX WIDTH) - TYPICAL SECTION



BIO-RETENTION BASIN - MAIN ROAD (MIN WIDTH) - TYPICAL SECTION

DEVELOPMENT APPLICATION ISSUE

[illegible]



IMPORTANT	
<ul style="list-style-type: none"> • DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY • DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION. • THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT. 	

[illegible]

KEY PLAN

STRUCTURAL	
-	
MECHANICAL	
-	
ELECTRICAL	
-	
CIVIL	
SPARKS & PARTNERS CONSULTING ENGINEERS	

BUILDER	
---------	--

The Aliro logo, featuring the word "Aliro" in a bold, dark blue sans-serif font, followed by a stylized blue icon resembling a mountain peak or a stylized letter 'A'.

ARCHITECT

**watson
young**

PROJECT	13 ENDEAVOUR ROAD, CARINGBAH
---------	------------------------------

SPARKS+PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE

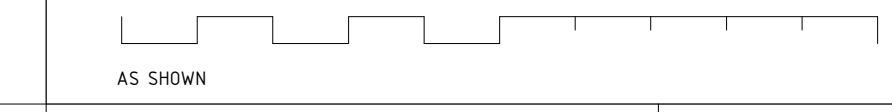
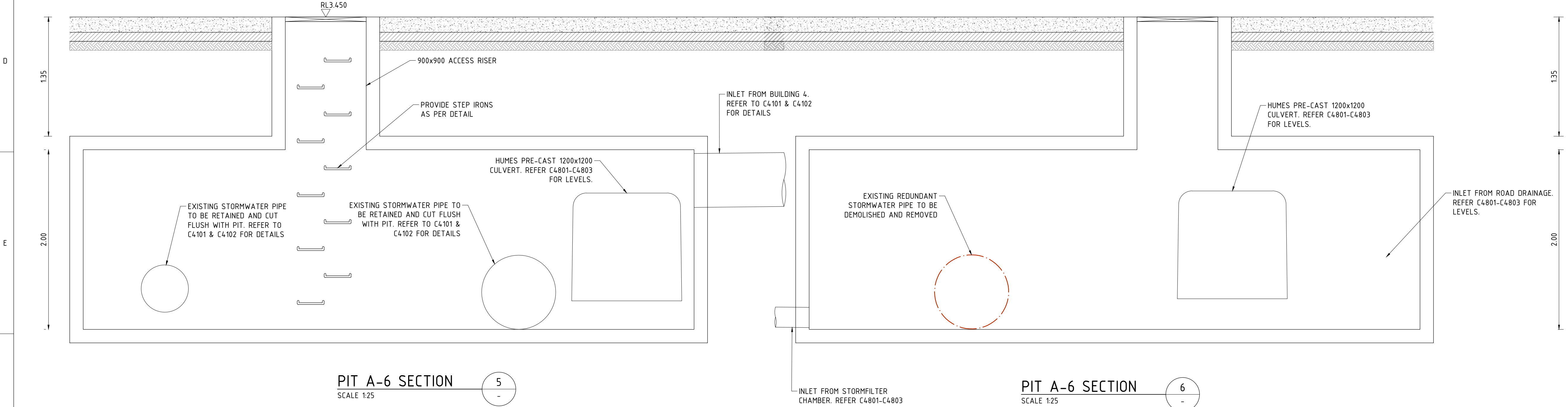
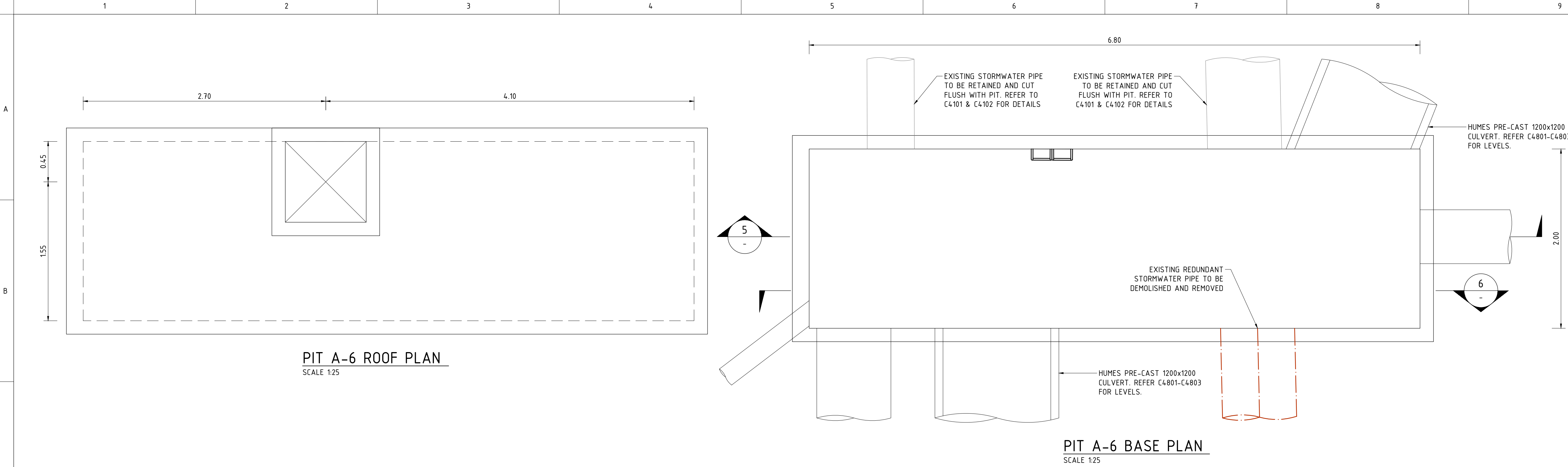
Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9991 5033 | E. admin@sparksandpartners.com.au
<https://sparksandpartners.com.au>

DRAWING TITLE				
MASTER PLAN CONCEPT STORMWATER MANAGEMENT DETAILS - SHEET 2				
DATE	DRAWN	DESIGNED	CHECKED	MW
JUNE 23	JK		JK	
PROJECT No	SCALE	SIZE	REVISION	
23106	AS SHOWN	A1		
DRAWING No		DA4702		A

DA ISSUE

10



IMPORTANT

- DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
- DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
- THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
10.02.25	RESPONSE TO COUNCIL COMMENTS	MY	A

KEY PLAN

STRUCTURAL

-

MECHANICAL

-

ELECTRICAL

-

CIVIL

SPARKS & PARTNERS CONSULTING ENGINEERS

BUILDER

CLIENT

ARCHITECT

PROJECT

13 ENDEAVOUR ROAD, CARINGBAH

HYDRAULIC | CIVIL | FIRE
Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9891 5033 | E admin@sparksandpartners.com.au
<https://sparksandpartners.com.au/>

DRAWING TITLE

MASTER PLAN
CONCEPT STORMWATER
MANAGEMENT DETAILS - SHEET 3

DATE

JUNE 23

SCALE

AS SHOWN

DESIGNED

JK

CHECKED

JK

PROJECT No

23106

SIZE

A1

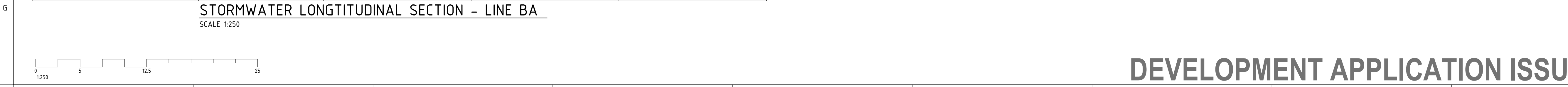
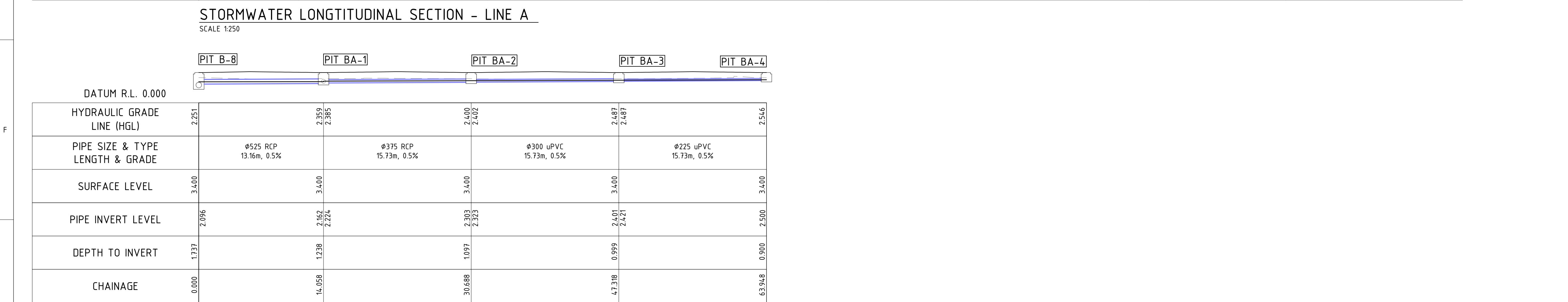
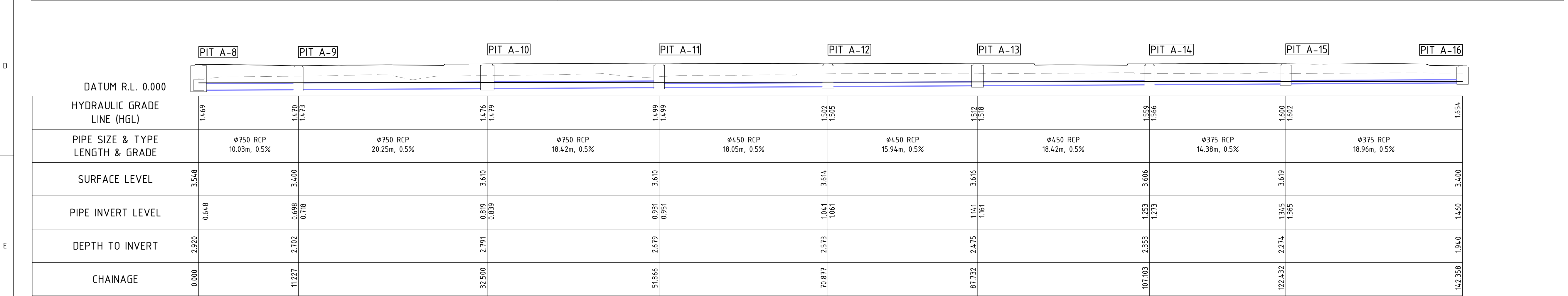
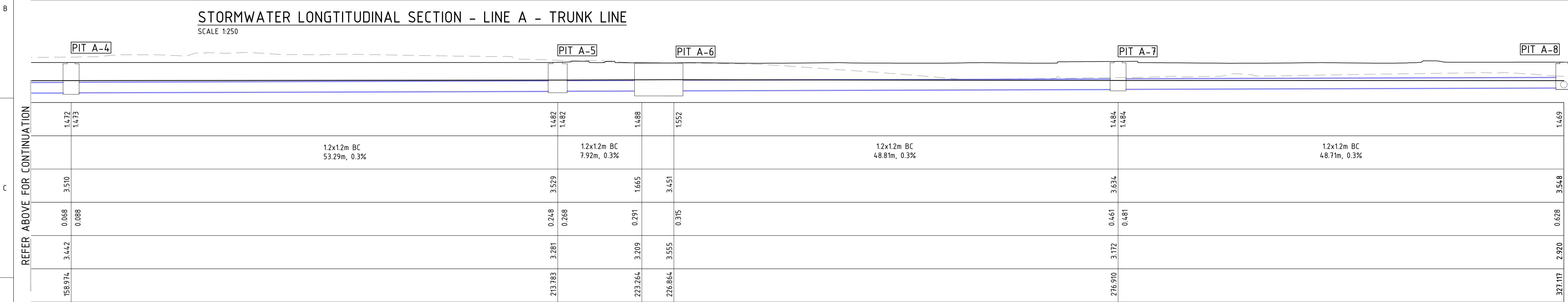
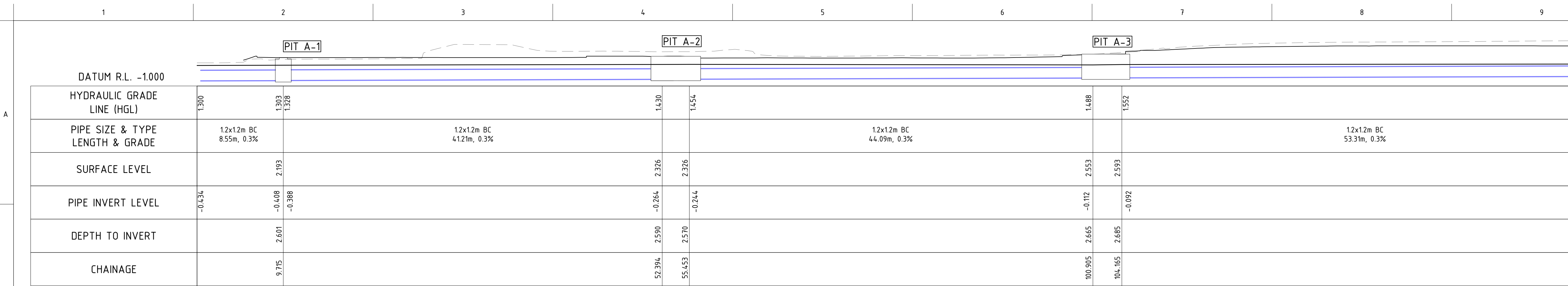
REVISION

DRAWING No

DA4703

A

DA ISSUE



IMPORTANT

• DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
• DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
• THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
12.08.24	DA ISSUE	MW	A
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	B
10.02.25	RESPONSE TO COUNCIL COMMENTS	MY	C

KEY PLAN

STRUCTURAL

-

MECHANICAL

-

ELECTRICAL

-

CIVIL

SPARKS & PARTNERS CONSULTING ENGINEERS

BUILDER

CLIENT

ARCHITECT

PROJECT

13 ENDEAVOUR ROAD, CARINGBAH

CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE
Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150
P 02 9891 5033 | E admin@sparksandpartners.com.au
https://sparksandpartners.com.au/

DRAWING TITLE

MASTER PLAN
CONCEPT STORMWATER
LONGITUDINAL SECTIONS - SHEET

DATE

JUNE 23

DESIGNED

JK

CHECKED

MW

PROJECT No

23106

SCALE

1:250

SIZE

A1

REVISION

C

DRAWING No

DA4801

	1	2		3		4		5		6		7		8		9			
		PIT A-8	PIT B-1	PIT B-2	PIT B-3	PIT B-4	PIT B-5		PIT B-6		PIT B-7		PIT B-8		PIT B-9		PIT B-10		
	DATUM R.L. 0.000																		
	HYDRAULIC GRADE LINE (HGL)	1.469	1.484 1.538	1.549 1.602	1.623 1.636		1.657 1.668		1.694 1.703		1.744 1.793		1.813 1.817		1.850 1.852		1.924 1.924	2.043 2.071	
	PIPE SIZE & TYPE LENGTH & GRADE		ø750 RCP 9.41m, 0.5%	ø750 RCP 4.55m, 0.5%	ø750 RCP 4.81m, 0.5%	ø750 RCP 5.41m, 0.5%		ø750 RCP 15.68m, 0.5%		ø675 RCP 17.25m, 0.5%		ø675 RCP 17.25m, 0.5%		ø675 RCP 18.67m, 0.5%		ø600 RCP 19.44m, 0.5%		ø600 RCP 18.76m, 0.5%	ø600 RCP 18.77m, 0.5%
	SURFACE LEVEL		3.654		3.608		3.562 3.511		3.594		3.591		3.587		3.400		3.400		3.400
	PIPE INVERT LEVEL	0.929	0.976 1.141	1.164 1.184	1.206 1.210		1.239 1.259		1.338 1.358		1.444 1.464		1.550 1.570		1.663 1.683		1.781 1.801		1.894 1.914
	DEPTH TO INVERT		2.698	2.464	2.362		2.272		2.257		2.147		2.037		1.737		1.619		1.506
	CHAINAGE		10.618		16.205	21.916	28.222		44.799		62.951		81.103		100.675		121.013		140.674

STORMWATER LONGTITUDINAL SECTION - LINE B
SCALE 1:250

		PIT B-11	PIT B-12	PIT B-13	PIT B-14	PIT B-15	
	2.094 2.701		2.155 2.199		2.316 2.311		2.532
		ø600 RCP 19.44m, 0.5%		ø375 RCP 19.73m, 0.5%		ø300 uPVC 19.99m, 0.5%	ø300 uPVC 18.50m, 0.5%
	3.400		3.400		3.400		3.878
	2.008 2.028		2.126 2.169		2.248 2.288		2.500
	1.392		1.274		1.192		1.378
	160.340		180.679		201.306		241.604

		PIT D-6	PIT DA-1	
DATUM R.L. 0.000				
HYDRAULIC GRADE LINE (HGL)	2.300		2.346	
PIPE SIZE & TYPE LENGTH & GRADE		ø300 uPVC 8.19m, 0.5%		
SURFACE LEVEL	3.495		3.400	
PIPE INVERT LEVEL	2.020		2.061	
DEPTH TO INVERT	1.475		1.400	
CHAINAGE	0.000		9.176	










STORMWATER LONGTITUDINAL SECTION - LINE DA
SCALE 1:250

		PIT CULVERT JUNCTION	PIT C-1	PIT C-2	PIT C-3	PIT C-4	PIT C-5	PIT C-6	PIT C-7	PIT C-8	PIT C-9	
DATUM R.L. -1.000												
HYDRAULIC GRADE LINE (HGL)	1.601		1.733 1.733		1.749 1.751		1.762 1.762		1.856 1.857		1.991 1.992	2.068
PIPE SIZE & TYPE LENGTH & GRADE		ø825 RCP 5.63m, 0.5%	ø825 RCP 8.60m, 0.5%	ø600 RCP 1.50m, 0.5%	ø600 RCP 6.96m, 0.5%	ø600 RCP 15.15m, 0.5%	ø525 RCP 4.03m, 0.5%	ø525 RCP 14.18m, 0.5%	ø525 RCP 10.02m, 0.5%	ø525 RCP 7.87m, 0.7%		
SURFACE LEVEL	3.461		3.439		3.477		3.400		3.400		3.400	
PIPE INVERT LEVEL	0.035	0.063 0.268		0.311 0.331	0.339 0.359		0.394 0.444		0.620 0.640	0.690 0.710		0.770
DEPTH TO INVERT	3.426	3.446		3.185	3.144		2.911		2.780	2.797		2.630
CHAINAGE	0.000	6.835		16.634	19.176		27.039		62.094	74.009		82.784

STORMWATER LONGTITUDINAL SECTION - LINE C
SCALE 1:250

		PIT C-2	PIT D-1	PIT D-2	
DATUM R.L. 0.000					
HYDRAULIC GRADE LINE (HGL)	1.733		1.814 1.874		1.916 1.931
PIPE SIZE & TYPE LENGTH & GRADE		ø600 RCP 17.39m, 0.4%		ø375 RCP 18.50m, 0.5%	
SURFACE LEVEL	3.477		3.450		3.450
PIPE INVERT LEVEL	1.384		1.460 1.483		1.576 1.596
DEPTH TO INVERT	3.185		1.990		1.874
CHAINAGE	0.000		18.440		37.840

STORMWATER LONGTITUDINAL SECTION - LINE D
SCALE 1:250

REFER ABOVE FOR CONTINUATION	PIT D-3		PIT D-4		PIT D-5		PIT D-6		PIT D-7		PIT D-8		PIT D-9		PIT D-10		PIT D-11	
																		
	1.991	1.984																
	ø375 RCP 18.50m, 0.5%		ø375 RCP 18.50m, 0.5%		ø375 RCP 18.50m, 0.5%		ø375 RCP 13.40m, 0.5%		ø300 uPVC 17.72m, 0.5%		ø300 uPVC 19.10m, 0.5%		ø300 uPVC 20.01m, 0.5%		ø300 uPVC 19.99m, 0.5%		ø300 uPVC 11.07m, 0.5%	
	3.450		3.450		3.450		3.495		3.450		3.450		3.450		3.450		3.500	
	1.688	1.708			1.913	1.933			2.009	2.129			2.225	2.245			2.465	2.540
	1.762		1.649		1.537		1.495		1.341		1.225		1.105		0.985		0.960	
	57.240		76.640		96.040		110.340		128.958		148.958		169.865		190.758		202.777	



IMPORTANT

• DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.

• DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.

• THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
12.08.24	DA ISSUE	MW	A
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	B
10.02.25	RESPONSE TO COUNCIL COMMENTS	MY	C

KEY PLAN

STRUCTURAL

-

MECHANICAL

-

ELECTRICAL

-

CIVIL

SPARKS & PARTNERS CONSULTING ENGINEERS

BUILDER

CLIENT

Aliro

ARCHITECT

watsonyoung

PROJECT

13 ENDEAVOUR ROAD, CARINGBAH

SPARKS+PARTNERS

CONSULTING ENGINEERS

HYDRAULIC | CIVIL | FIRE

Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150

P 02 9891 5033 | E admin@sparksandpartners.com.au

https://sparksandpartners.com.au/

HCAA

FPA

GOLD MEMBER

Fire Protection Association Australia

DNV-GL

JAS-ANZ

DRAWING TITLE

MASTER PLAN
CONCEPT STORMWATER
LONGTITUDINAL SECTIONS - SHEET

DATE

JUNE 23

PROJECT No

23106

DRAWN

JK

DESIGNED

JK

CHECKED

MW

SCALE

1:250

SIZE

A1

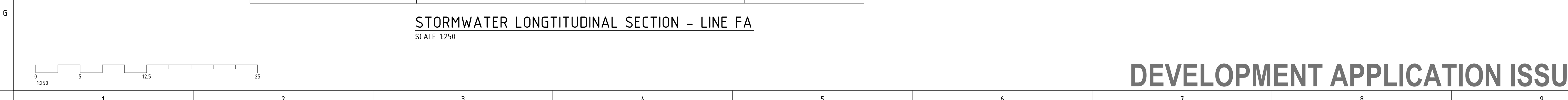
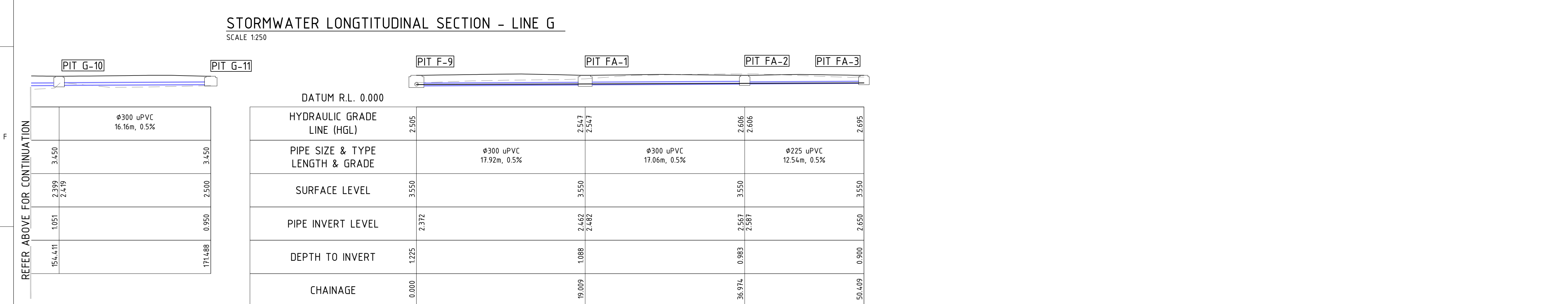
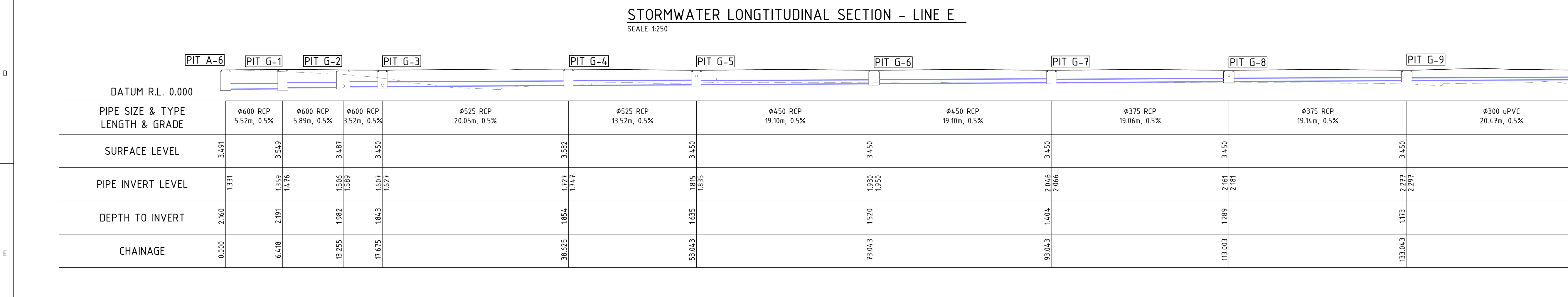
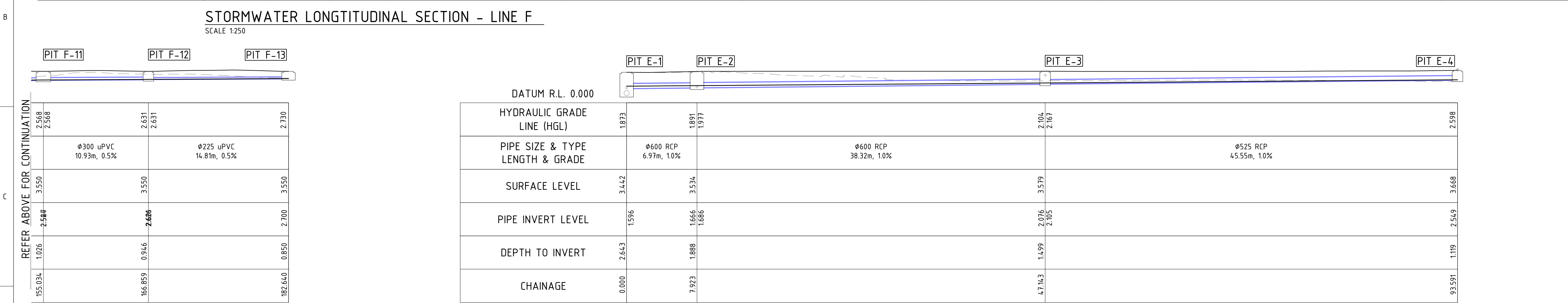
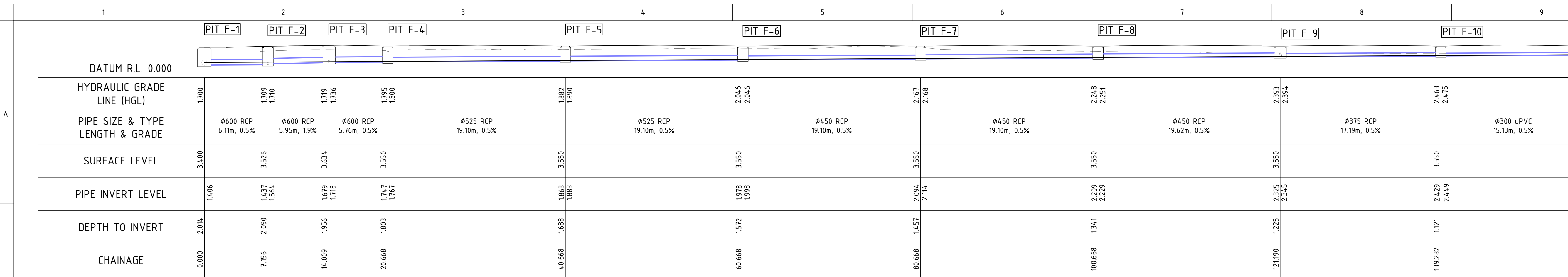
REVISION

C

DRAWING No

DA4802

DEVELOPMENT APPLICATION ISSUE



IMPORTANT

• DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.

• DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.

• THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
12.08.24	DA ISSUE	MW	A
11.10.24	RESPONSE TO COUNCIL COMMENTS	MY	B
10.02.25	RESPONSE TO COUNCIL COMMENTS	MY	C

KEY PLAN

STRUCTURAL

-

MECHANICAL

-

ELECTRICAL

-

CIVIL

SPARKS & PARTNERS CONSULTING ENGINEERS

BUILDER

CLIENT

Aliro

ARCHITECT

watsonyoung

PROJECT

13 ENDEAVOUR ROAD, CARINGBAH

SPARKS+PARTNERS

CONSULTING ENGINEERS

HYDRAULIC | CIVIL | FIRE

Suites 6 & 7, 2-6 Hunter Street | PO Box 979 | Parramatta | NSW 2150

P 02 9891 5033 | E admin@sparksandpartners.com.au | https://sparksandpartners.com.au/

HCAA

FPA

GOLD MEMBER

Fire Protection Association Australia

DNV-GL

JAS-ANZ

DRAWING TITLE

MASTER PLAN

CONCEPT STORMWATER

LONGITUDINAL SECTIONS - SHEET

DATE

JUNE 23

DESIGNED

JK

CHECKED

JK

REVISION

MW

PROJECT No

23106

SCALE

1:250

SIZE

A1

DRAWING No

DA4803

C

DEVELOPMENT APPLICATION ISSUE

