



DEVELOPMENT APPLICATION

ORAN PARK - TRANCHE 8

CNR ORAN PARK DRIVE & PETER BROCK DRIVE ORAN PARK

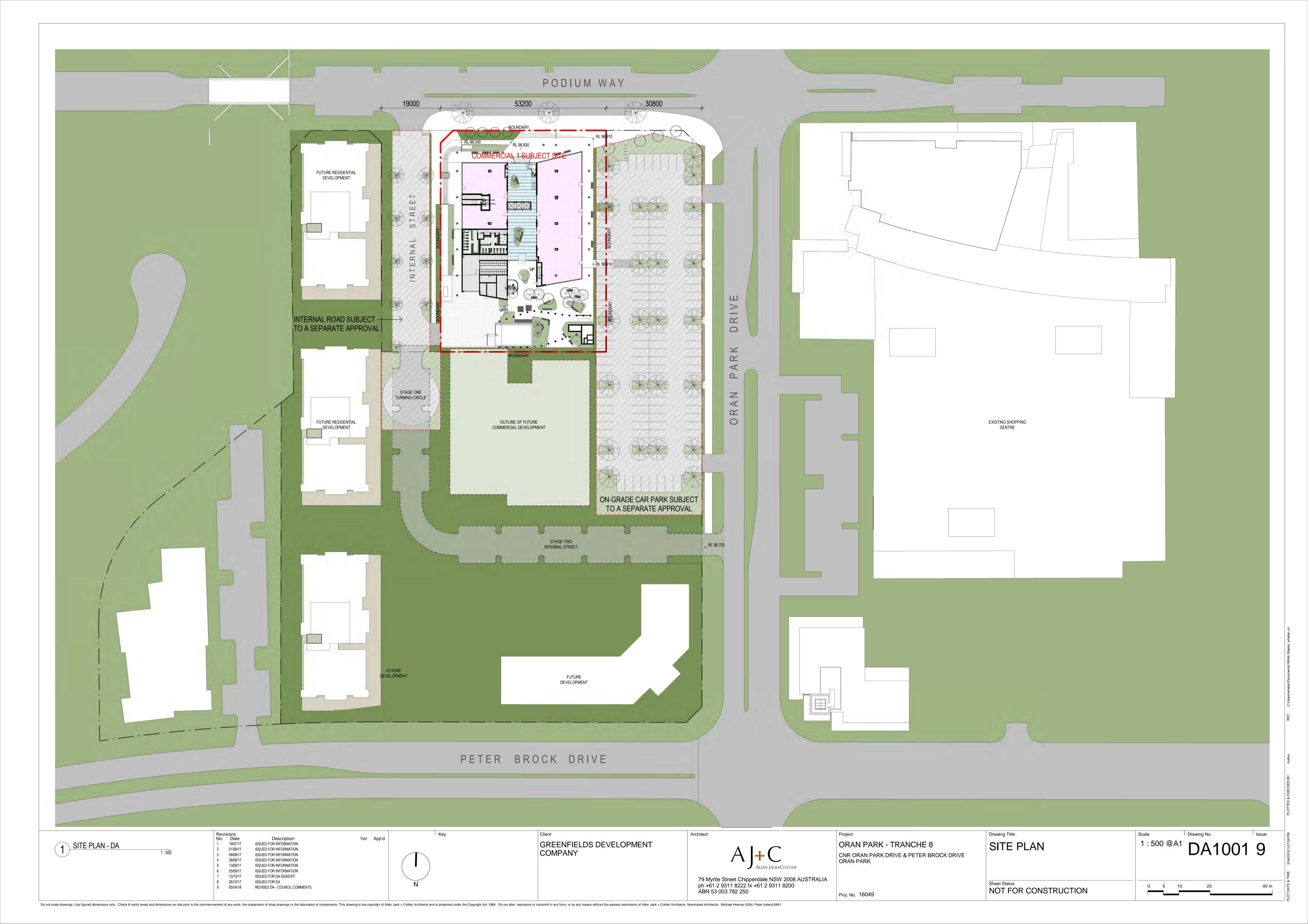
DA DRAWING LIST		
SHEET NUMBER SHEET NAME REVIS		
DA0000	COVER SHEET	3
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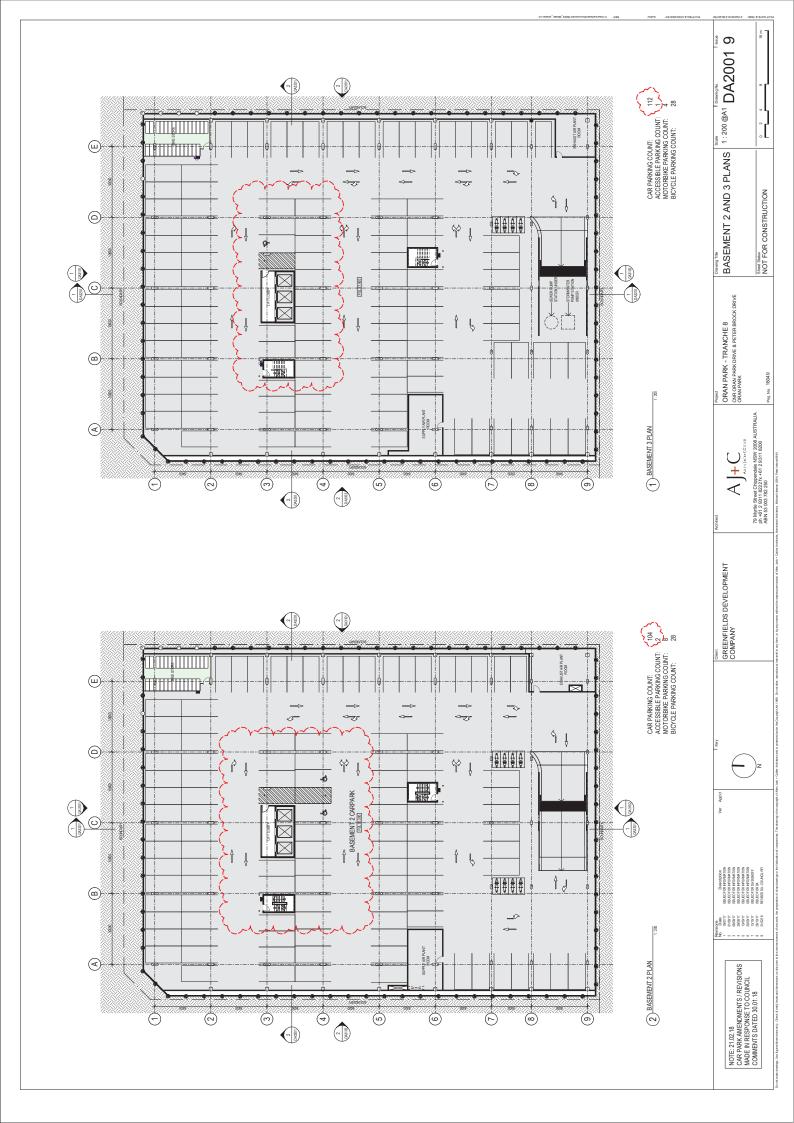
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	05/04/18	REV

ABN 53 003 782 250

Proj. No. 16049





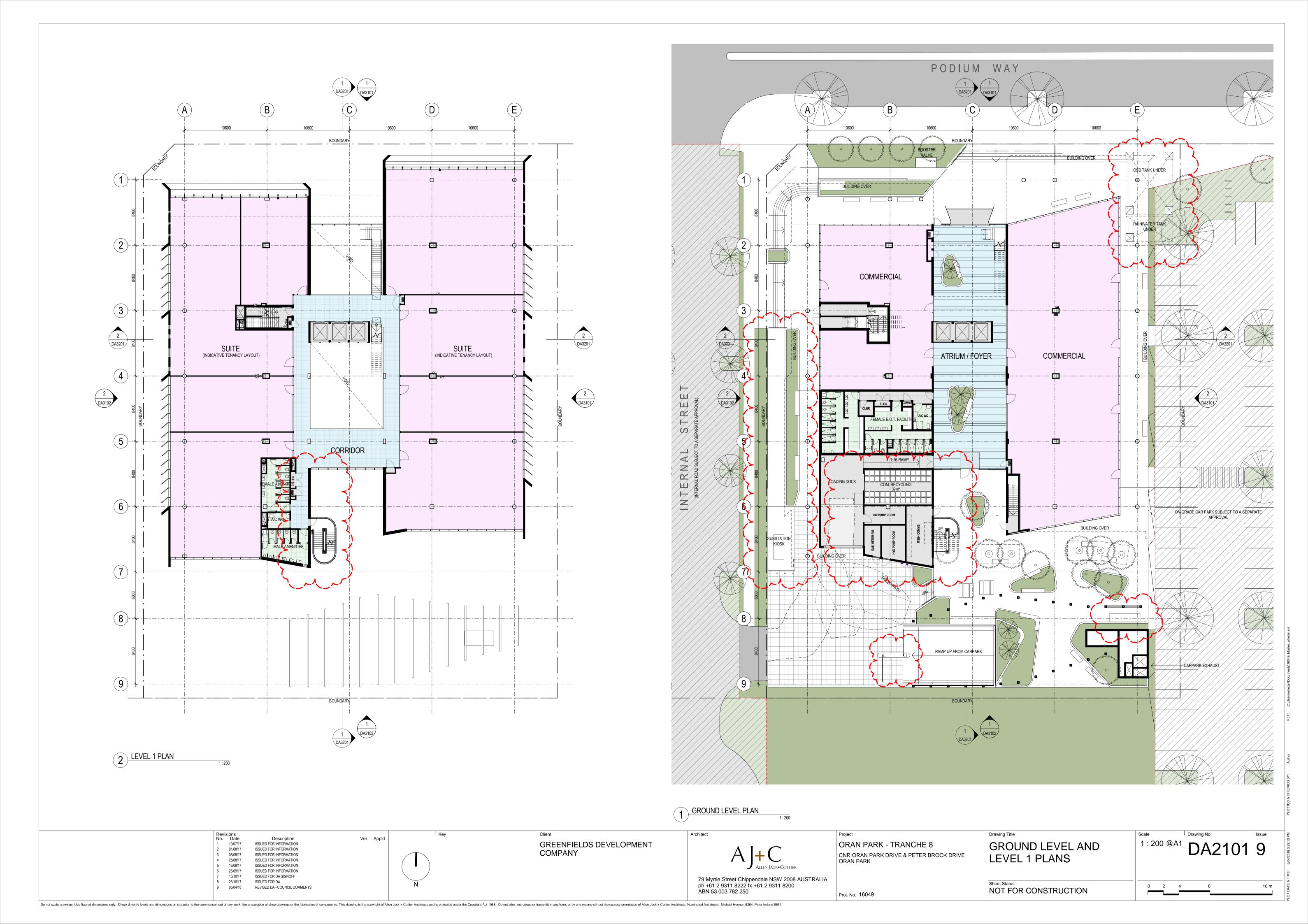
VISITOR VISITOR VISITOR ---VISITOR - - -**VISITOR** .ф.--VISITOR \Longrightarrow VISITOR VISITOR ---EXHAUST AIR PLANT ROOM CAR PARKING COUNT: ACCESSIBLE PARKING COUNT: VISITOR PARKING COUNT: MOTORBIKE PARKING COUNT: BICYCLE PARKING COUNT: TOTAL CAR PARKING COUNT: 314 TOTAL ACCESSIBLE PARKING COUNT: TOTAL MOTORBIKE PARKING COUNT: TOTAL BICYCLE PARKING COUNT: Revisions No. Date 1 19/07/17 Ver App'd Description 1:200 @A1 DA2002 10 GREENFIELDS DEVELOPMENT COMPANY ORAN PARK - TRANCHE 8 BASEMENT 1 PLAN ISSUED FOR INFORMATION ISSUED FOR INFORMATION NOTE: 05.04.18 CNR ORAN PARK DRIVE & PETER BROCK DRIVE ORAN PARK 08/08/17 28/08/17 ISSUED FOR INFORMATION CAR PARK AMENDMENTS / REVISIONS ISSUED FOR INFORMATION 13/09/17 ISSUED FOR INFORMATION MADE IN RESPONSE TO COUNCIL ISSUED FOR INFORMATION ISSUED FOR DA SIGNOFF 25/09/17 13/10/17 79 Myrtle Street Chippendale NSW 2008 AUSTRALIA ph +61 2 9311 8222 fx +61 2 9311 8200 ABN 53 003 782 250 REQUEST FOR ADDITIONAL 26/10/17 21/02/18 ISSUED FOR DA INFORMATION REVISED DA - COUNCIL RFI NOT FOR CONSTRUCTION

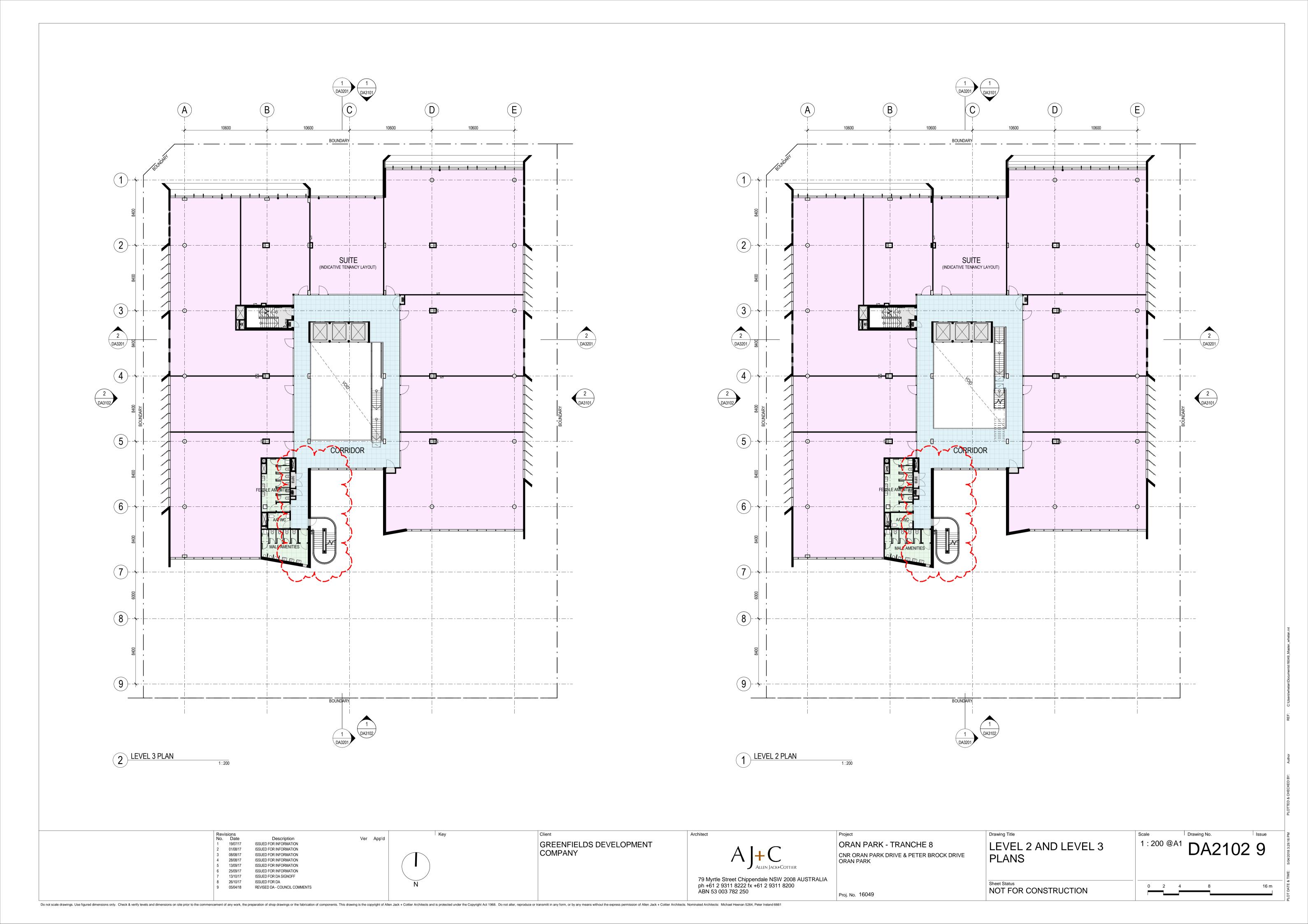
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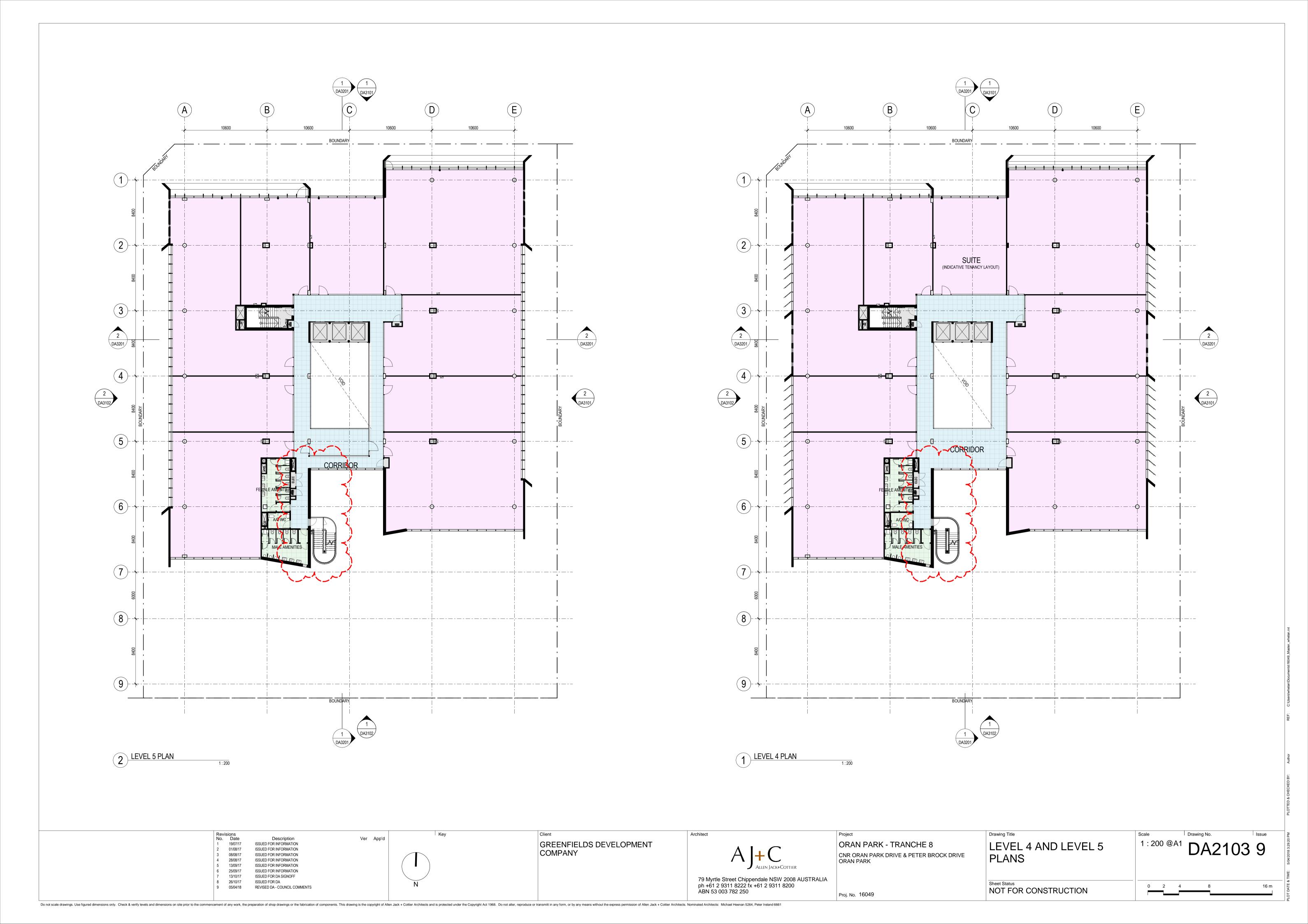
REVISED DA - COUNCIL COMMENTS

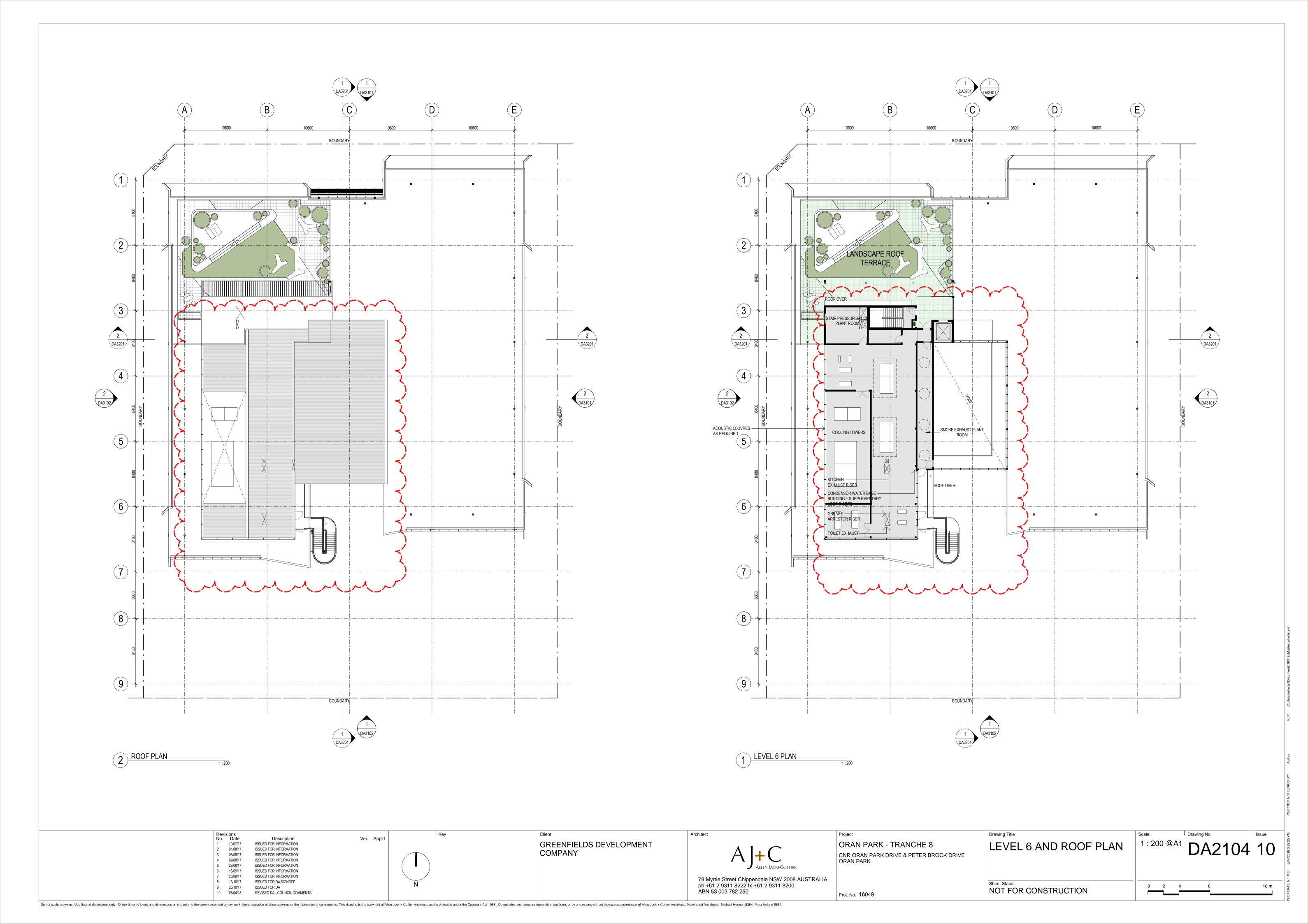
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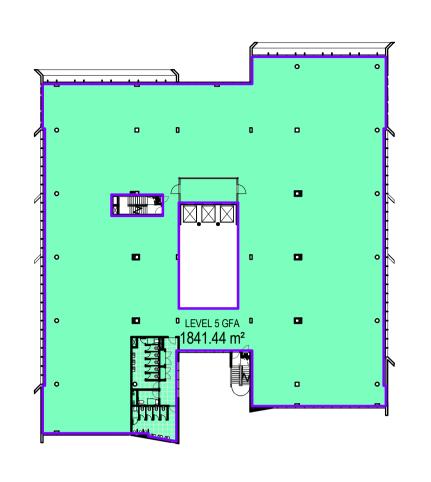
10 05/04/18

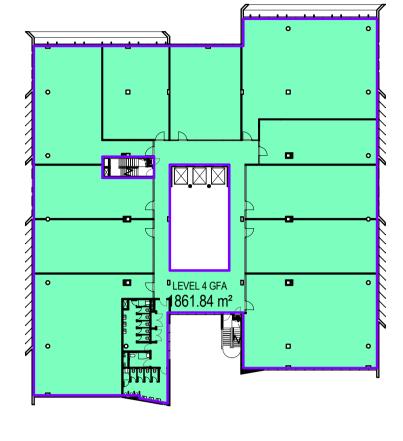


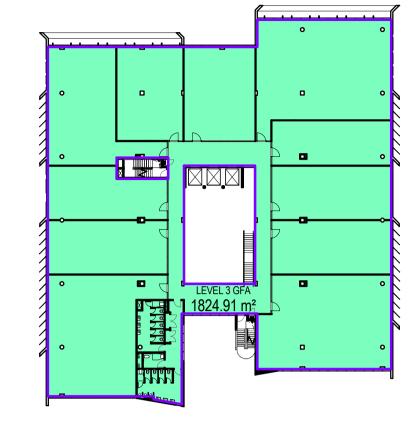








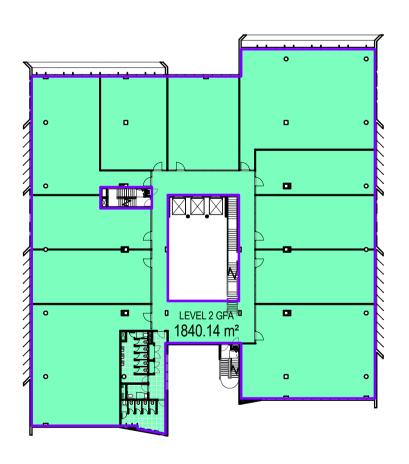




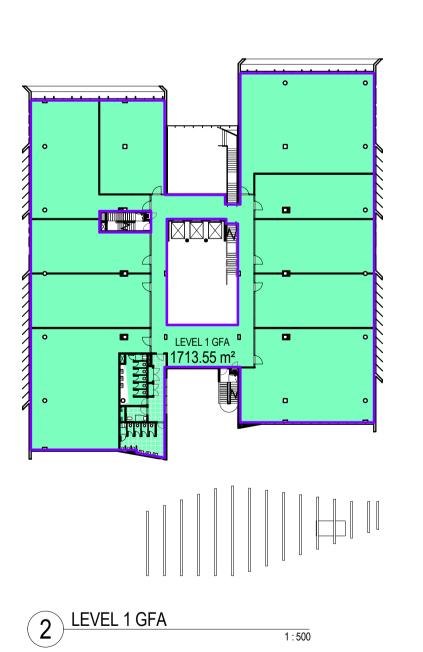








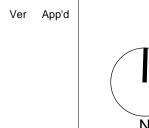






GROSS FLOOR AREA (GFA)		
Name	Area	
GROUND FLOOR GFA	1226 m²	
LEVEL 1 GFA	1714 m²	
LEVEL 2 GFA	1840 m²	
LEVEL 3 GFA	1825 m²	
LEVEL 4 GFA	1862 m²	
LEVEL 5 GFA	1841 m²	
Grand total	10307 m²	

Revisions		
No.	Date	Description
1	25/09/17	ISSUED FOR INFORMA
2	13/10/17	ISSUED FOR DA SIGNO
3	26/10/17	ISSUED FOR DA



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GREENFIELDS DEVELOPMENT COMPANY



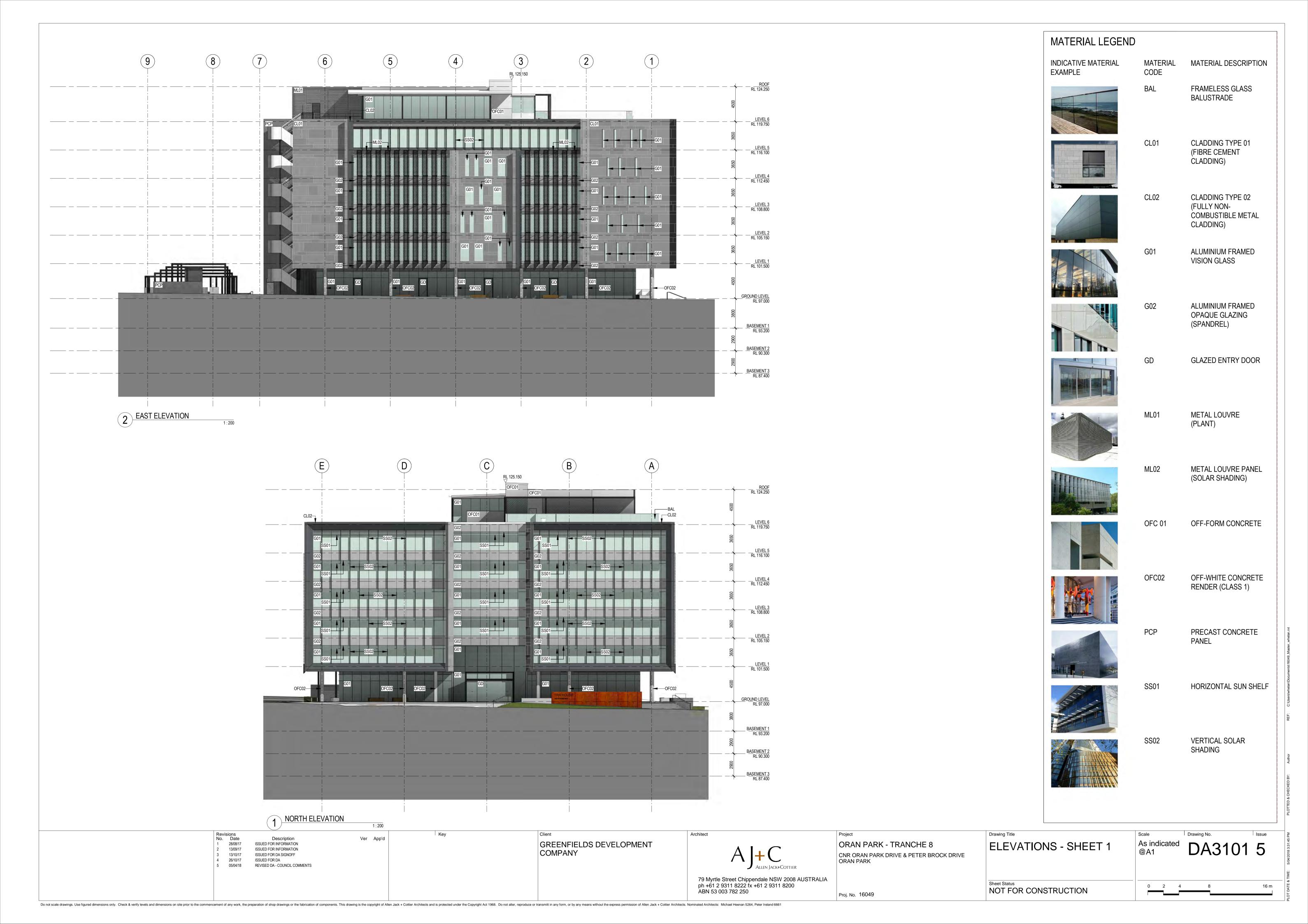
CNR ORAN PARK DRIVE & PETER BROCK DRIVE ORAN PARK 79 Myrtle Street Chippendale NSW 2008 AUSTRALIA ph +61 2 9311 8222 fx +61 2 9311 8200 ABN 53 003 782 250

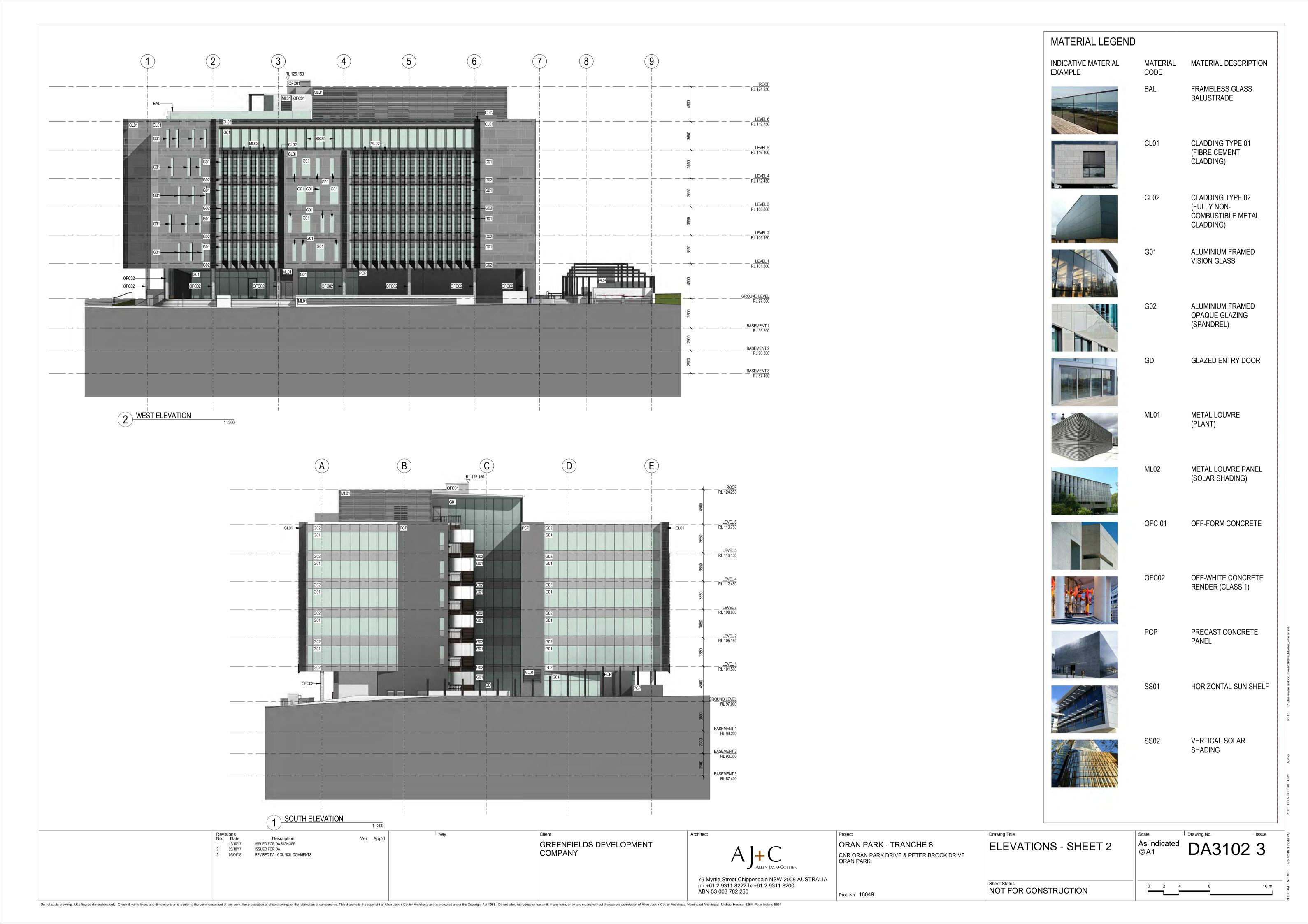
AREA CALCULATIONS -GFA

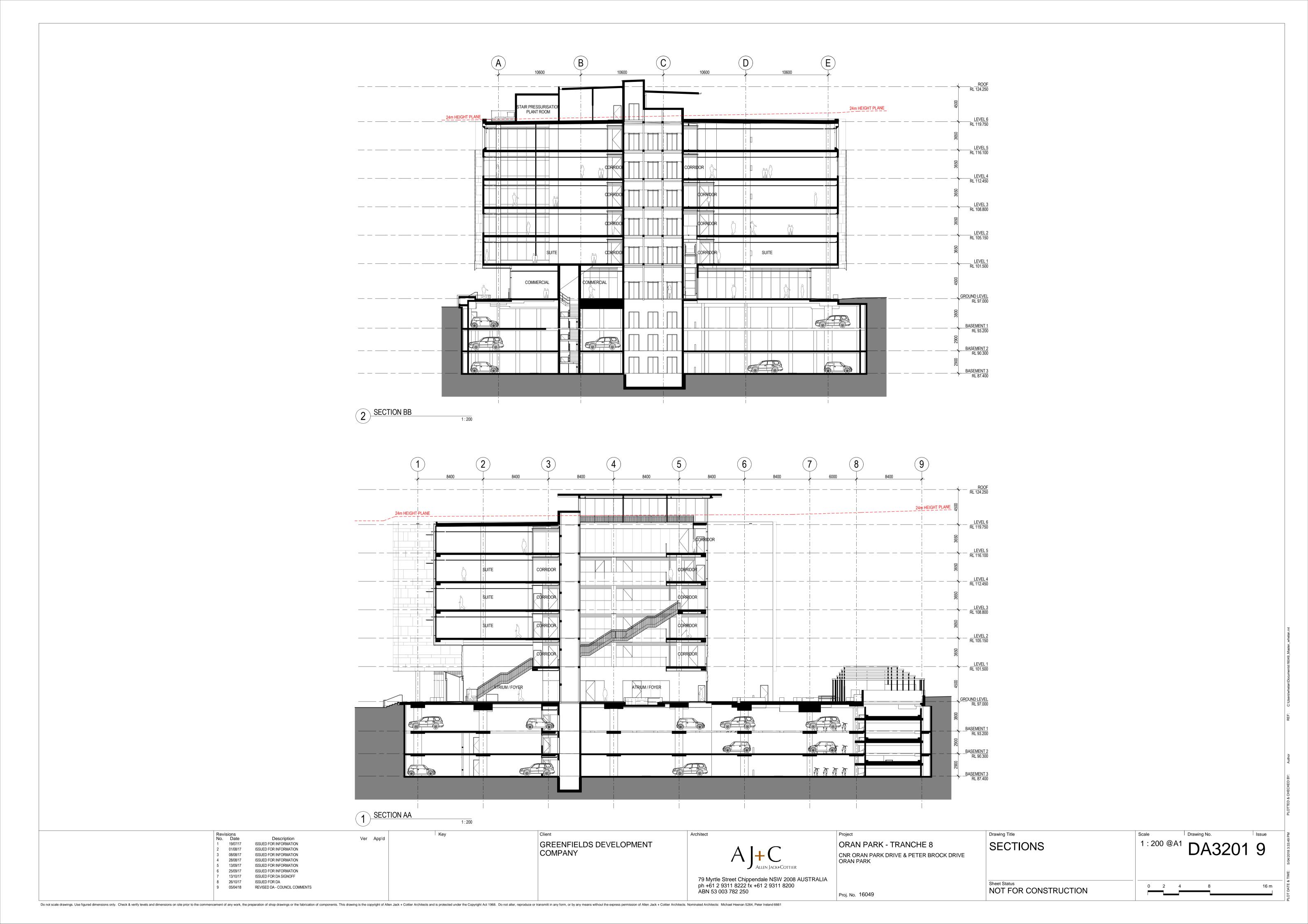
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ORAN PARK - TRANCHE 8







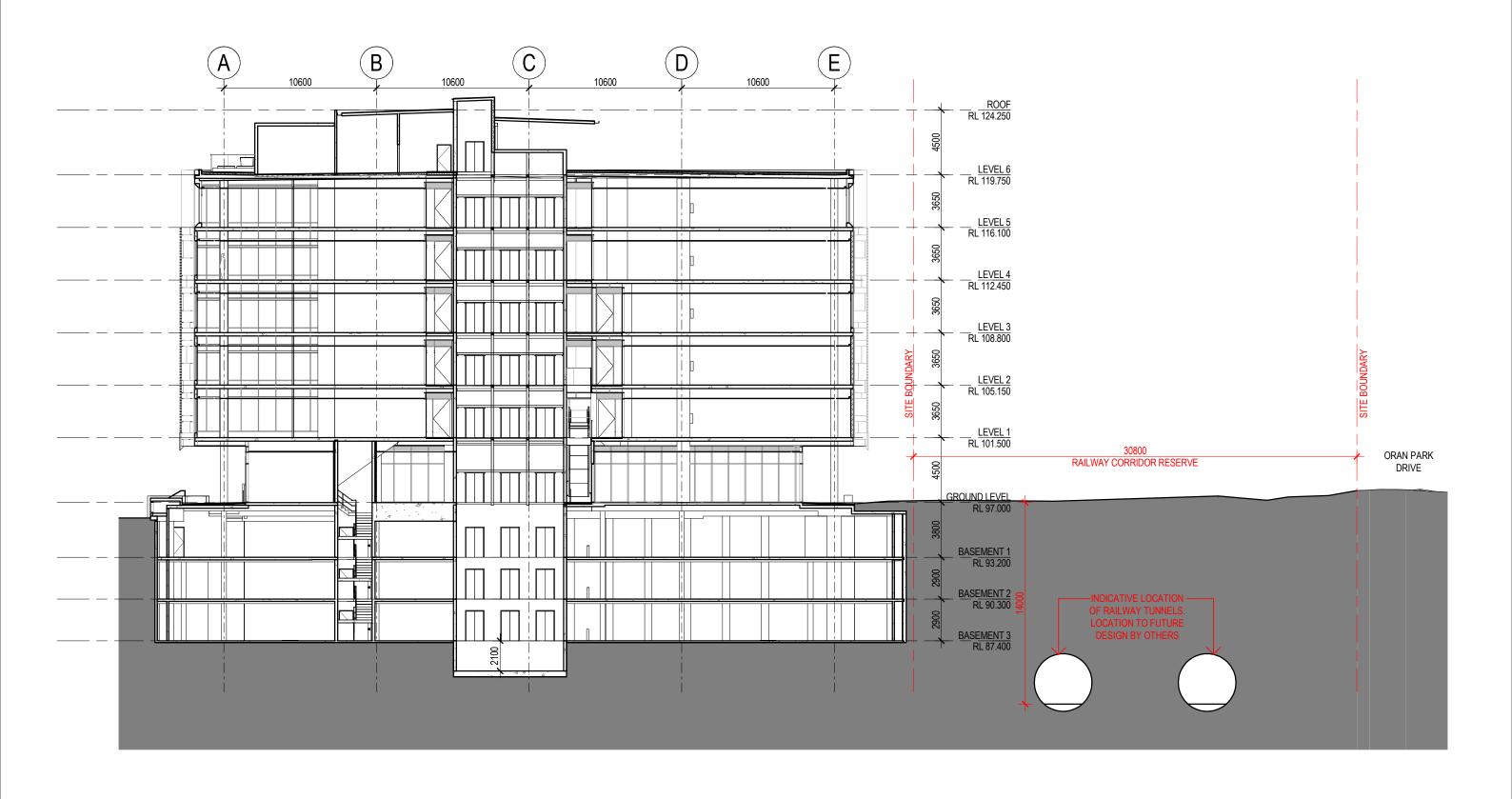


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PERSPECTIVE VIEW - NORTH FACADE

SECTIONAL PERSPECTIVE



ORAN PARK - TRANCHE 8 16049

20170126: LANDSCAPE ARCHITECTURAL DRAWING LIST

Sheet Number	Sheet Name	Revision
LD-DA100	COVER SHEET	3
LD-DA101	SITE PLAN	3
LD-DA102	GROUND LEVEL - DETAIL PLAN	3
LD-DA110	LEVEL 6 ROOF TERRACE	3

^{*} PLEASE NOTE PLANS TO BE READ IN CONJUNCTION WITH THE FOLLOWING DAIDESIGN REPORT PREPARED BY SCOTT CARVER

20170126-LR-DA100 [1]

NOTE:

DO NOT SCALE FROM DRAWINGS. WRITTEN DIMENSIONS GOVERN. IF IN DOUBT OBTAIN WRITTEN ADVICE FROM SCOTT CARVER OR WHERE APPLICABLE VIA THE PRINCIPALS REPRESENTATIVE WHERE APPLICABLE VIA THE PRINCIPALS REPRESENTATIVE STATED. ALL DIMENSIONS ARE MINIMUM SETTING OUT REQUIREMENTS.

ALL DIMENSIONS SHOULD BE VERIFIED ON SITE PRIOR TO PROCEEDING WITH THE WORKS. NOTIFY THE PRINCIPALS REPRESENTATIVE IN WRITING OF ANY DISCREPANCIES.

ALL ARCHITECTURAL DRAWINGS MUST BE READ IN COMJUNCTION WITH RELEVANT CONTRACTS, ARCHITECTURAL REPORTS, SCHEDULES AND SPECIFICATIONS AND ALL OTHER CONSULTANT? CONTRACT DOCUMENTATION. NOTIFY THE PRINCIPALS REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN DOCUMENTATION WITH CARRIFICATION OR DRECTION.

UISIGNE-PAYALLES BE INVESTED OLOUMENT JUTK IN WITH INTO IT OB INIT CLARIFICATION UNRECHION.

INSTALLATION OF SYSTEMS AND PROPRIETARY PRODUCTS TO BE STRICTLY IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

**ALL WORK TO COMPLY WITH THE NATIONAL CONSTRUCTION CODE INCLIDING RELEVANT AUSTRALIAN STANDARDS AND REQUIREMENTS OF THE
BUILDING CODE OF AUSTRALLA AND AUSTRALLIAN MORK HEALTH AND SAFETY LEGISLATION.

**DESIGN DRAWINGS AND AUSTRALLIAN MORK HEALTH AND SAFETY LEGISLATION.

**DESIGN DRAWINGS AND EASTER BASED ON SURVEY INFORMATION, PRIOR TO DETAILED DESIGN AND CONSTRUCTION, THE CONTRACTOR IS TO UNDERTAKE
A FULL SURVEY TO VERIF BLAS CONSTRUCTION ONFIRM LOCATION OF EXISTING.

ORAN PARK - TRANCHE 8 COMMERCIAL

History [Rev#] [Description]
A DRAFT DA [Date]

20170126-LD-DA100.DWG 22 February 2018

FOR DA

LANDSCAPE:

DEVELOPMENT APPLICATION

CORNER OF ORAN PARK DRIVE & PETER BROCK DRIVE **ORAN PARK**

GREENFIELDS DEVELOPMENT COMPANY



CONTEXT MAP NTS



[Status]

FOR DA Esther Dickins

[File] 20170126-LD-DA100.DWG

22 February 2018

History

[Rev#] [Description]
A DRAFT DA [Date] 24.10.2017 1 FOR DA 2 FOR DA 3 FOR DA 27.10.2017 12.02.2018 22.02.2018 LEGEND:

Site Boundary

+ 99.50 Proposed nominal design levels: refer to ovil engineers drawings

Existing trees to be retained

Relocated tree

PA Planter areas (in Ground)

RPA Raised planter (600mm above slab level, 1200 soil depth)

to Turk

P2 Paving Type 2: 400 x 400 x 40mm 'Raven Rack' exfolated grante finish.

Paving Type 3: 90 x 90 x 40mm Raven Blcx* natural split grantle self paving.

F4 Paving Type 4: 198 x 198 x 60mm Black elolisted baset finish.

Paving Type 5: Reinforced charcoal colound concrete with 600 x 600mm saw-cuts.

Pig Paving Type 6: Lightly washed plain concrete.

Pieving Type B: Reinforced charcoal coloured

54 Feature sculptural seat with LED strip covelightin under. Off form honed coloured concrete as per library seat elements.

(g) Rubbish bin. To Council Standards.

1g. Thee grill in paving

§11 Pengola structure for shade and amenity aid visually integrates car park ramp and service enclosures.











[Status]

Esther Dickins

20170126-LD-DA100.DWG

22 February 2018

History

FOR DA

[Date] 24.10.2017 27.10.2017 12.02.2018 22.02.2018 [Rev#] [Description]
A DRAFT DA 1 FOR DA 2 FOR DA 3 FOR DA LEGEND

Site Boundary

P2 Paving Type 2: 400 x 400 x 40mm 'Raven Back' exfoliated granite finish.

Paving Type 4: 196 x 196 x 60mm Black erfoliated beset finish.

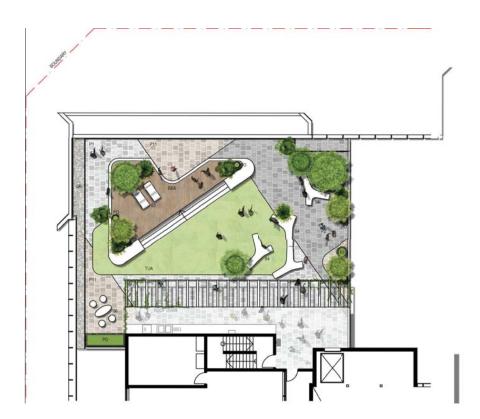
Paving Type 6: Lightly washed plain concrete

(g) Rubbish bin. To Council Standards

1G. Tree grill in paving







[Scale] 1 : 100 @ A1





History

FOR DA

Esther Dickins RLA | RUD #1053 20170126-LD-DA100.DWG 22 February 2018

[Date] 24.10.2017 27.10.2017 12.02.2018 22.02.2018 [Rev#] [Description]
A DRAFT DA 1 FOR DA 2 FOR DA 3 FOR DA LEGEND:

[Status]

Site Boundary

680, serving bench and seating bar under rover of roof.

PO Quatro GRC plant pots with lush planting

55 Fixed deck chair seat

Rubbish bin

GR Gravel ballant

PROPOSED COMMERCIAL BUILDING ORAN PARK DRIVE, ORAN PARK NSW CIVIL ENGINEERING WORKS

GENERAL NOTES:

- 1. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH CAMDEN SHIRE COUNCIL'S SPECIFICATION. CONTRACTOR TO OBTAIN AND RETAIN A COPY ON SITE DURING THE COURSE OF THE WORKS.
- 2. ALL NEW WORKS ARE TO MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS AND MARRY IN A 'WORKMANLIKE' MANNER.
- 3. THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL SERVICES WITH EACH RELEVANT THE RELEVANT AUTHORITY AT THE CONTRACTOR'S EXPENSE. SERVICES SHOWN ON THESE PLANS ARE ONLY THOSE EVIDENT AT THE TIME OF SURVEY OR AS DETERMINED FROM SERVICE DIAGRAMS, HENRY AND HYMAS CONSULTING PTY, LTD, CANNOT GUARANTEE THE INFORMATION SHOWN NOR ACCEPT ANY RESPONSIBILITY FOR INACCURACIES OR INCOMPLETE DATA.
- 4. SERVICES & ACCESSES TO THE EXISTING PROPERTIES ARE TO BE MAINTAINED IN WORKING ORDER AT ALL TIMES DURING CONSTRUCTION.
- ADJUST EXISTING SERVICE COVERS TO SUIT NEW FINISHED LEVELS TO RELEVANT AUTHORITY REQUIREMENTS WHERE NECESSARY.
- 6. REINSTATE AND STABILISE ALL DISTURBED LANDSCAPED AREAS.
- 7. MINIMUM GRADE OF SUBSOIL SHALL BE 0.5% (1:200) FALL TO OUTLETS.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES ARE TO BE CONSTRUCTED. PLACED AND MAINTAINED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS. EROSION AND SEDIMENTATION CONTROL PLAN AND CAMDEN SHIRE COUNCIL'S REQUIREMENTS WHERE APPLICABLE.
- 9. CONTRACTOR TO CHECK AND CONFIRM SITE DRAINAGE CONNECTIONS ACROSS THE VERGE PRIOR TO COMMENCEMENT OF SITE DRAINAGE WORKS.
- 10. PROPERTIES AFFECTED BY THE WORKS ARE TO BE NOTIFIED IN ADVANCE WHERE DISRUPTION TO EXISTING ACCESS IS LIKELY.

SITEWORKS NOTES

- DATUM : A.H.D.
- ORIGIN OF LEVELS: REFER TO BENCH OR STATE SURVEY MARKS WHERE
- CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
- ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS & THE DIRECTIONS OF THE SUPERINTENDENT.
- EXISTING SERVICES UNLESS SHOWN ON THE SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
- WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE. FREE FROM ABRUPT CHANGES IS ACHIEVED.
- THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
- CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATION IS TO BE UNDERTAKEN OVER TELSTRA OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
- CONTRACTOR TO OBTAIN AUTHORITY APPROVALS WHERE APPLICABLE.
- MAKE SMOOTH TRANSITION TO EXISTING SURFACES AND MAKE GOOD.
- THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED LANDSCAPE, ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED RELATING TO DEVELOPMENT AT THE SITE.
- TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MINIMUM OF 50mm IN BITUMINOUS PAVING.
- ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN Ø80 uPVC SEWER GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND EDGE OF PAVING.
- GRADES TO PAVEMENTS TO BE AS IMPLIED BY RL'S ON PLAN . GRADE EVENLY BETWEEN NOMINATED RL'S. AREAS EXHIBITING PONDING GREATER THAN 5mm DEPTH WILL NOT BE ACCEPTED UNLESS IN A DESIGNATED SAG POINT.
- ALL COVERS AND GRATES ETC TO EXISTING SERVICE UTILITIES ARE TO BE ADJUSTED TO SUIT NEW FINISHED SURFACE LEVELS WHERE APPLICABLE.



LOCALITY SKETCH

DRAWING SCHEDULE		
17689a_DA_C000	COVER SHEET, DRAWING SCHEDULE, NOTES AND LOCALITY SKETCH	
17689a_DA_C100	GENERAL ARRANGEMENT PLANS	
17689a_DA_C101	DETAIL PLAN, SHEET 1 OF 2	
17689a_DA_C102	DETAIL PLAN, SHEET 2 OF 2	
17689a_DA_C110	DETAIL PLAN - BASEMENT LEVEL 1	
17689a_DA_C120	DRIVEWAY SECTIONS	
17689a_DA_C200	STORMWATER MISCELLANEOUS DETAILS AND PIT LID SCHEDULE	
17689a_DA_C201	OSD PLAN, SECTIONS AND DETAILS	
17689a_DA_C250	STORMWATER CATCHMENT PLANS	
17689a_DA_SE01	SEDIMENT AND EROSION CONTROL PLAN	
17689a_DA_SE02	SEDIMENT AND EROSION CONTROL DETAILS	

DRAINAGE NOTES:

- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE MINIMUM COVER OF 600mm ON ALL PIPES.
- 3. PROTECTION OF PIPES DUE TO LOADS EXCEEDING W7 WHEEL LOAD SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- 4. BEDDING TYPE SHALL BE TYPE H2 FOR RCP. WHERE NECESSARY THE OVERLAY ZONE SHALL BE REDUCED TO ACCOMMODATE PAVEMENT REQUIREMENTS. REFER TO THIS DRAWING FOR DETAILS.
- 5. MINIMUM COVER OVER EXISTING PIPES FOR PROTECTION DURING CONSTRUCTION SHALL BE 800mm.
- 6. NO CONSTRUCTION LOADS SHALL BE APPLIED TO PLASTIC PIPES.
- 7. FINISHED SURFACE LEVELS SHOWN ON LAYOUT PLAN DRGS TAKE PRECEDENCE OVER DESIGN DRAINAGE SURFACE LEVELS.
- 8. ALL PIPES UP TO AND INCLUDING 300 DIA. SHALL BE SOLVENT OR RUBBER RING JOINTED PVC CLASS SH PIPE TO AS1260. ALL OTHER PIPES TO BE RCP USING CLASS 2 RUBBER RING JOINTED PIPE. HARDIES FRC PIPE MAY BE USED IN LIEU OF RCP IF DESIRED IN GROUND. ALL AERIAL PIPES TO BE PVC CLASS SH
- ALL PITS IN TRAFFICABLE AREAS (CLASS "D" LOADING MAX) TO HAVE 150mm THICK CONCRETE WALLS AND BASI DESIGN DRAWINGS IN THIS SET. GALV.MILD STEEL GRATING AND FRAME TO SUIT DESIGN LOADING. PRECAST PITS, STANDARDS.
- 10. ALL PITS, GRATINGS AND FRAMES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION AND TO BE IN ACCORDANCE WITH AS3500.3 AND AS3996.
- 11. PIT CHAMBER DIMENSIONS ARE TO BE SELECTED TO SATISFY THE FOLLOWING:
- DEPTH TO INVERT
- IF PIT LID SIZE IS SMALLER THAN THE PIT CHAMBER SIZE THEN THE PIT LID IS TO BE CONSTRUCTED ON THE CORNER OF THE PIT CHAMBER WITH THE STEP IRONS DIRECTLY BELOW. ALTERNATIVELY THE PIT LID TO BE USED, IS TO BE
- 12. FOR PIPE SIZES GREATER THAN Ø300mm, PIT FLOOR IS TO BE BENCHED TO FACILITATE FLOW.
- 13. GALVANISED STEP IRONS SHALL BE PROVIDED AT 300 CTS FOR PITS HAVING A DEPTH EXCEEDING 1200mm. SUBSOIL DRAINAGE PIPE SHALL BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES. (MINIMUM LENGTH 3m).
- 14. ALL SUBSOIL PIPES SHALL BE 100mm SLOTTED PVC IN A FILTER SOCK, UNO, WITH 3m INSTALLED UPSTREAM OF
- 15. ALL PIPEWORK SHALL HAVE MINIMUM DIAMETER 100.
- 16. MINIMUM GRADE FOR ROOFWATER DRAINAGE LINES SHALL BE 1%.
- 17. ALL PIPE JUNCTIONS AND TAPER UP TO AND INCLUDING 300 DIA. SHALL BE VIA PURPOSE MADE FITTINGS.
- 18. ALL ROOF DRAINAGE TO BE INSTALLED IN ACCORDANCE WITH AS3500, PART 3. TESTING TO BE UNDERTAKEN AND REPORTS PROVIDED TO THE SUPERINTENDENT.
- 19. LOCATION OF THE DIRECT DOWN PIPE CONNECTIONS MAY VARY ON SITE TO SUIT SITE CONDITIONS, WHERE CONNECTION SHOWN ON LONG SECTIONS CHAINAGES ARE INDICATIVE ONLY.
- 20. PITS IN EXCESS OF 1.5 m DEEP TO HAVE WALL AND FLOOR THICKNESS INCREASED TO 200mm. REINFORCED WITH N12@200 CTS CENTRALLY PLACED BOTH WAYS THROUGHOUT U.N.O.ON SEPARATE DESIGN DRAWINGS IN THIS SET. IF DEPTH EXCEEDS 5m CONTACT ENGINEER.
- 21. SUBSOIL DRAINAGE LINES FOR LANDSCAPE AREA NOT SHOWN ON THESE DRAWINGS. REFER TO LANDSCAPING
- 22. ALL STORMWATER PITS TO HAVE Ø100 uPVC SLOTTED SUBSOIL PIPES CONNECTED TO THEM. THESE SUBSOILS TO EXTEND 3m UPSTREAM OF THE PIT AT A MINIMUM GRADE.

SURVEY NOTES

FROM ORIGINAL SURVEY DOCUMENTS.

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY THE SURVEYOR SPECIFIED IN THE TITLE THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. HENRY AND HYMAS PTY. LTD. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT HENRY AND HYMAS PTY. LTD. THE FOLLOWING NOTES HAVE BEEN TAKEN DIRECTLY

PRELIMINARY

AUG 2017

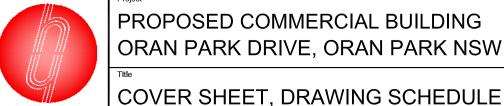
NTS

GREENFIELDS DEVELOPMENT COMPANY ALLEN JACK + COTTIER PRELIMINAR' JG 20.10.2017 MC JG 06.10.2017 01 PRELIMINARY This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas. DRAWN DESIGNED DATE DRAWN DESIGNED DATE REVISION









PROPOSED COMMERCIAL BUILDING ORAN PARK DRIVE, ORAN PARK NSW

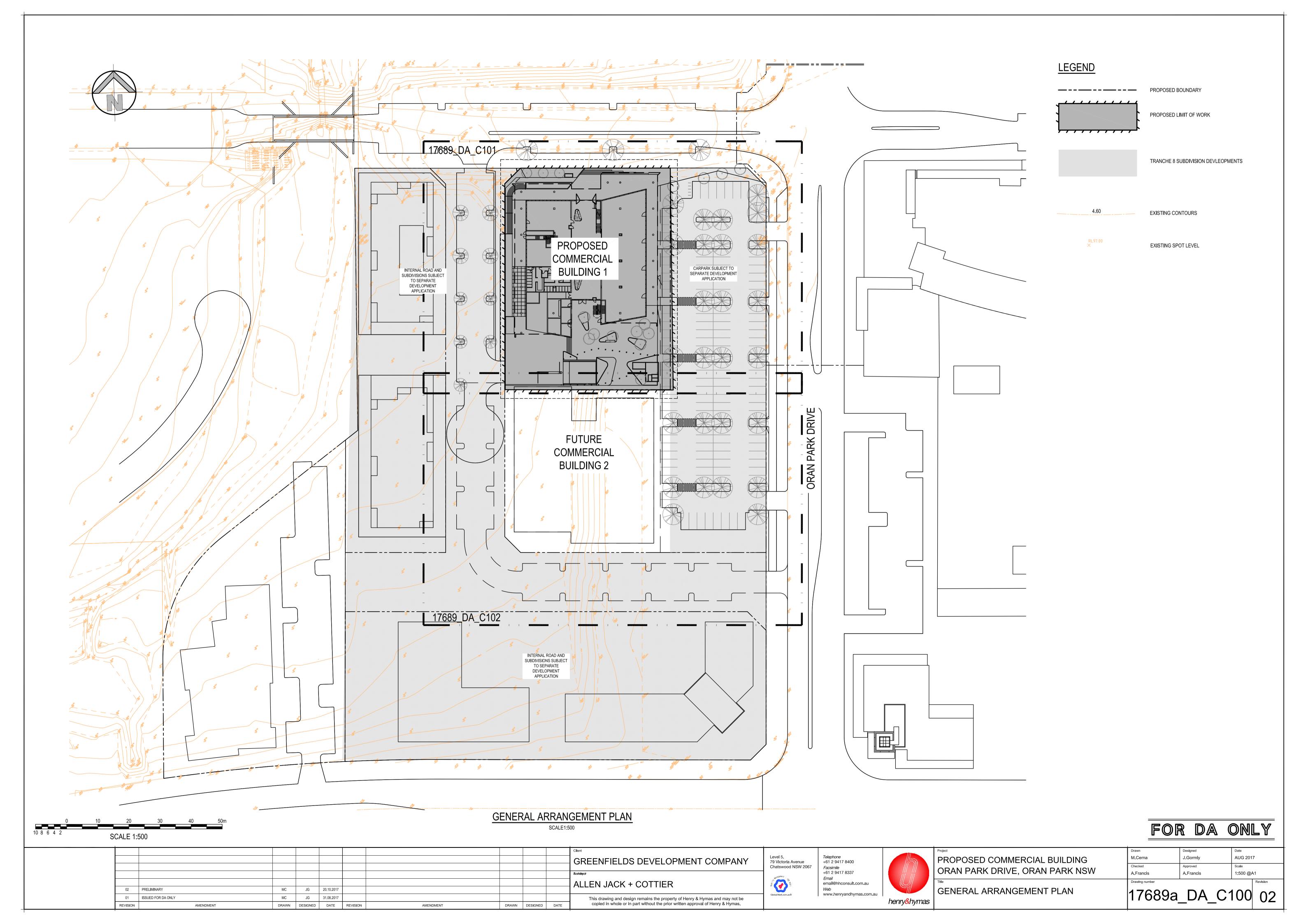
NOTES AND LOCALITY SKETCH

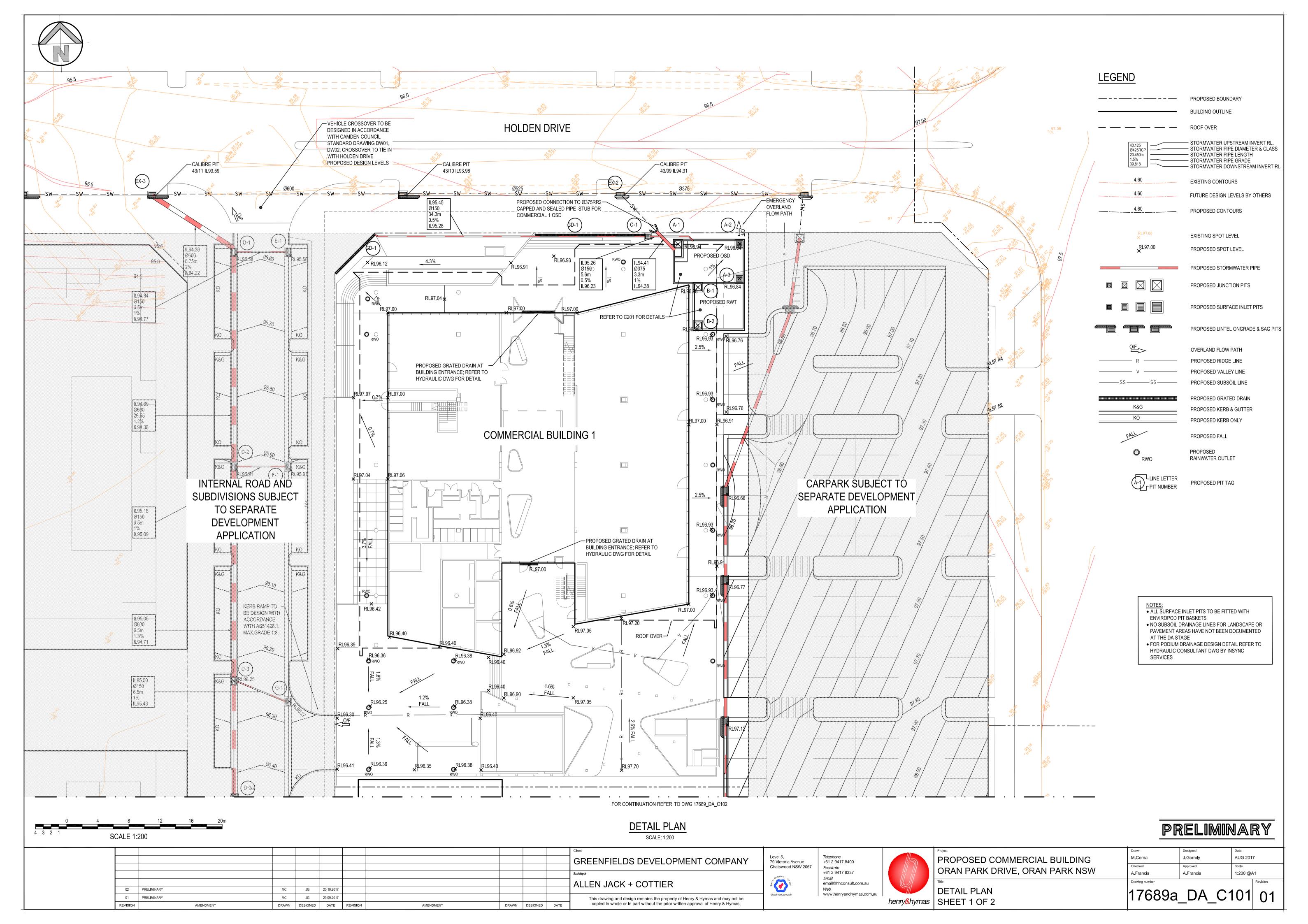
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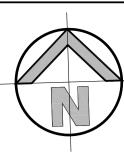
M.Cerna

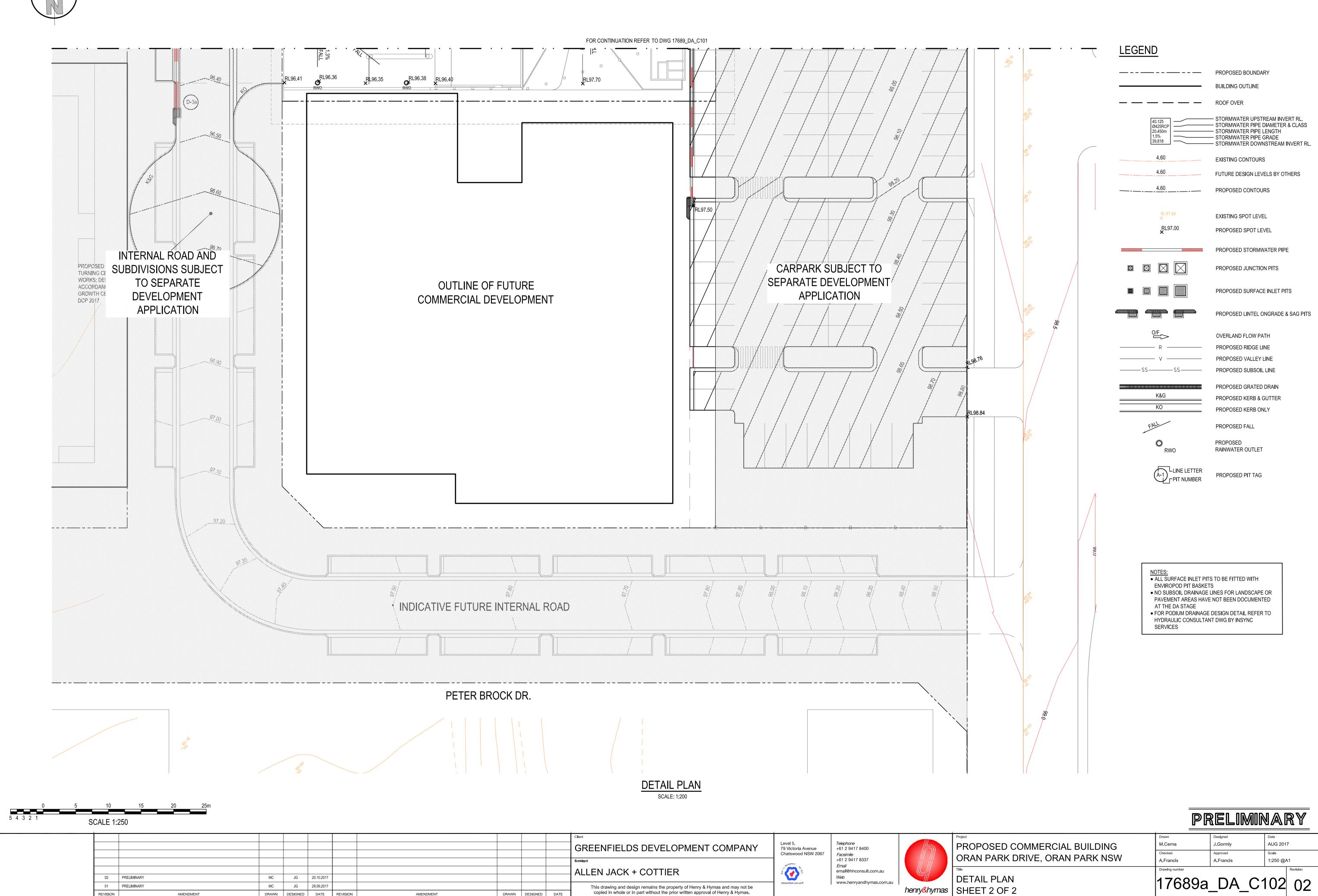
17689a DA C000 02

J.Gormly







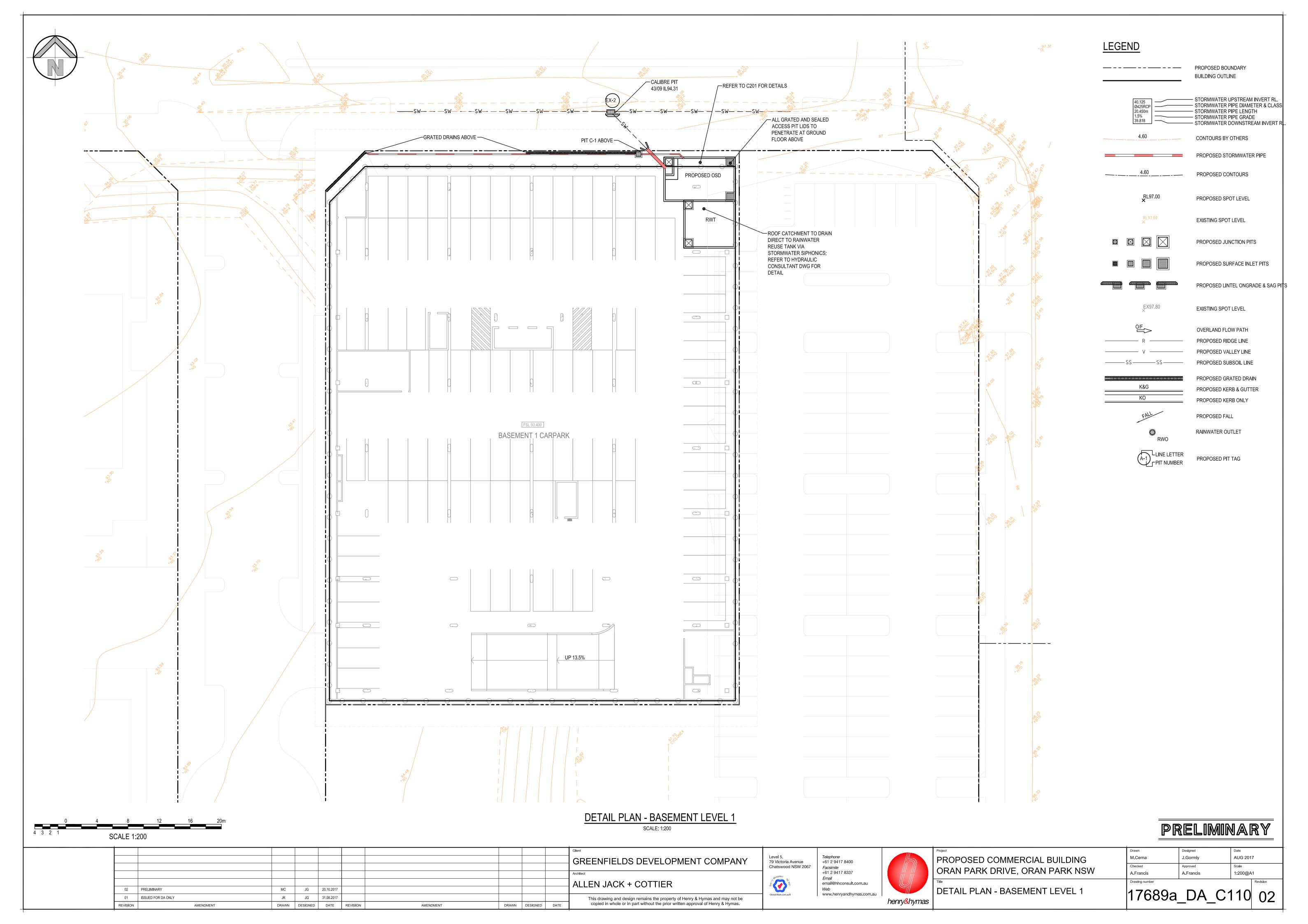


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DRAWN DESIGNED DATE REVISION

AMENDMENT

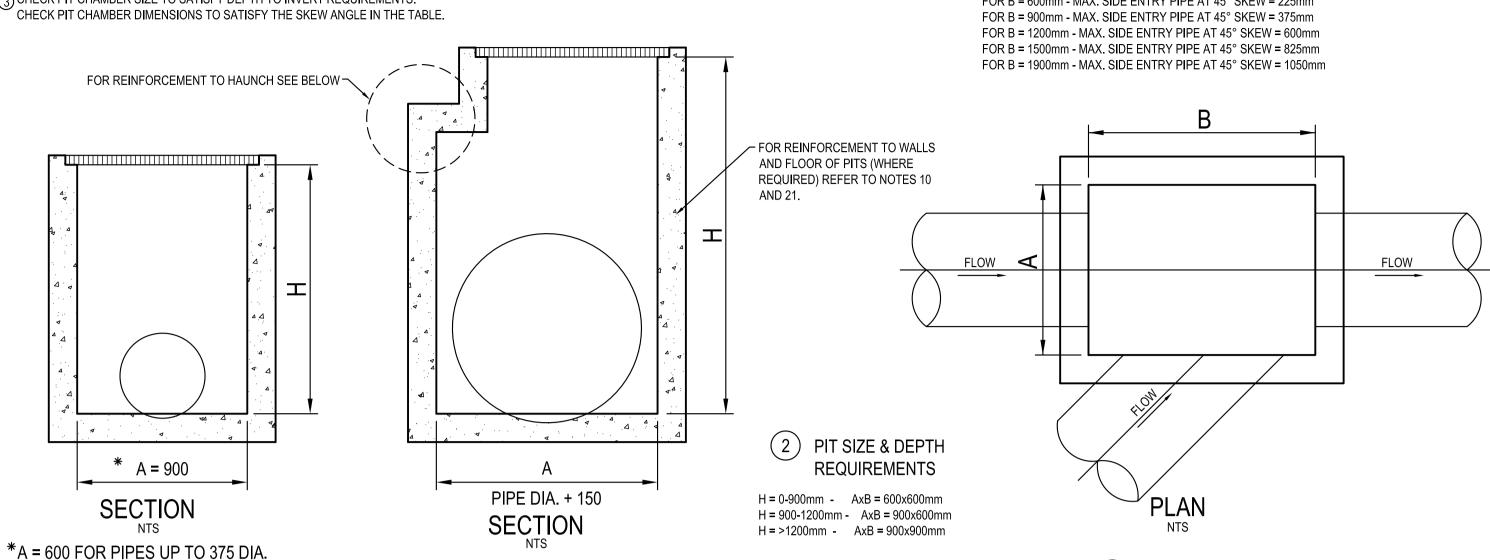
DRAWN DESIGNED DATE



TYPICAL PIT CHAMBER SIZES

IT IS THE CONTRACTORS RESPONSIBILITY TO SELECT PIT CHAMBER SIZE WITH REGARDS TO PIPE SIZE, DEPTH TO

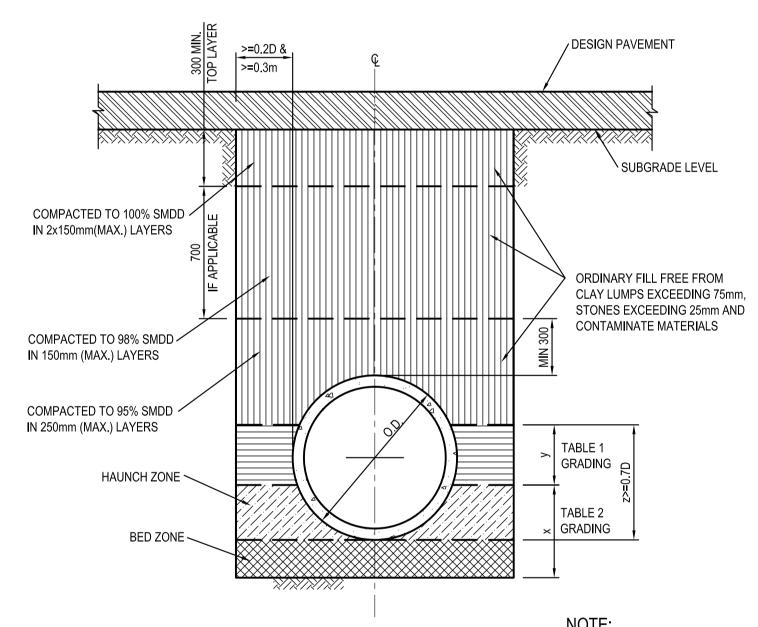




WEIGHT PASISNG (%)
100
100 TO 50
100 TO 30
50 TO 15
25 TO 0

TABLE 2		
SIEVE SIZE (MM)	WEIGHT PASISNG (%)	
19.0	100	
2.36	100 TO 50	
0.60	90 TO 20	
0.30	60 TO 10	
0.15	25 TO 0	
0.075	10 TO 0	

TABLE 3				
SUPPORT TYPE	BED ZONE X	HAUNCH ZONE Y	BED AND HAUNCH ZONES COMPACTION	MAX BEDDING FACTOR
HS1		0.1D	50	2.0
HS2	100 IF D<=1500, OR 150 IF D>=1500	0.3D	60	2.5
HS3		0.3D	70	4.0



(1) PIT CHAMBER FOR PIPES

GREATER THAN 600 DIA.

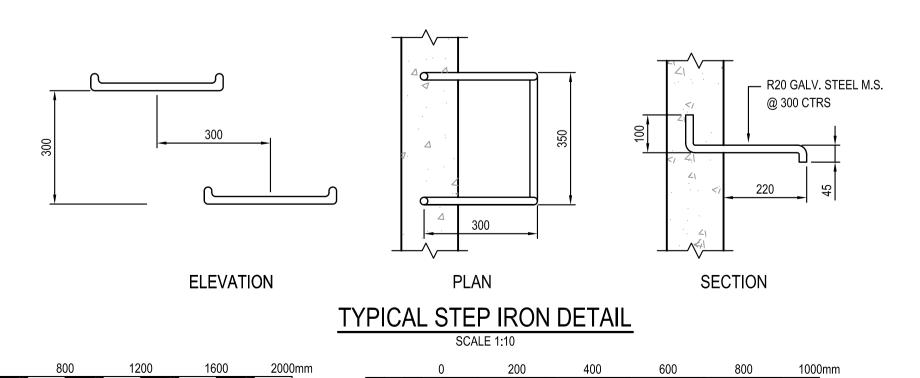
1) PIT CHAMBER DIMENSIONS

FOR PIPES UP TO 600 DIA.

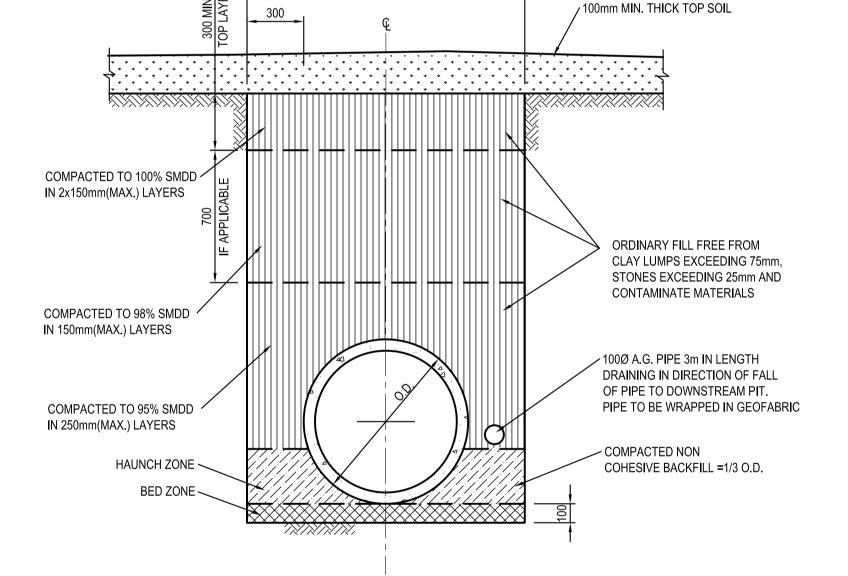


TYPE HS2 TO BE USED AS A TYPICAL SUPPORT FOR TRENCHES UNDER ROADWAY UNLESS SPECIFIED SEPERATELY (3) PIT CHAMBER FOR

SIDE ENTRY ON SKEW

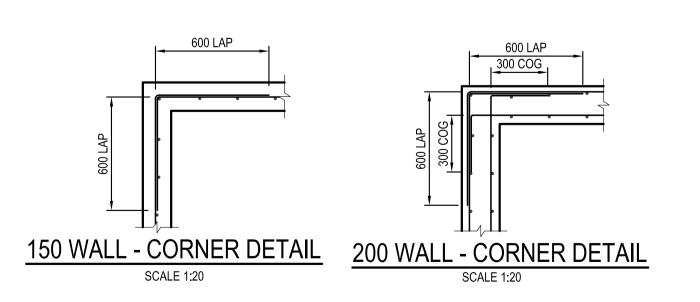


DRAWN DESIGNED DATE REVISION



TRENCH WIDTH = O.D.+600

PIPE TRENCH INSTALLATION IN LANDSCAPE AREAS (H1 & H2 SUPPORT) SCALE 1:20



SCALE 1:20 **SCALE 1:10** GREENFIELDS DEVELOPMENT COMPANY **ALLEN JACK + COTTIER** JG 20.10.2017 PRELIMINAR' 01 PRELIMINARY JG 29.09.2017 This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.

AMENDMENT

DRAWN DESIGNED DATE



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STORMWATER MISCELLANEOUS DETAILS

PROPOSED COMMERCIAL BUILDING ORAN PARK DRIVE, ORAN PARK NSW

J Knight AUG 2017 A Francis A Francis AS SHOWN @ A1 17689a_DA_C200 02

PIT LID SCHEDULE

PIT/STRUCTURE NUMBER	DESCRIPTION
A-1 B-1 B-2	JUNCTION PIT WITH HINGED 900x900mm LIGHT DUTY SEAL LID CLASS 'B' IN ACCORDANCE WITH CAMDEN COUNCIL OR APPROVED EQUIVALENT.
A-2 A-3	JUNCTION PIT WITH HINGED 900x900mm LIGHT DUTY SEAL LID CLASS 'B' IN ACCORDANCE WITH CAMDEN COUNCIL OR APPROVED EQUIVALENT.
(C-1)	JUNCTION PIT WITH HINGED 600x600mm LIGHT DUTY SEAL LID CLASS 'B' IN ACCORDANCE WITH CAMDEN COUNCIL OR APPROVED EQUIVALENT.
GD-1 GD-2	150mm HEELPROOF GRATED DRAIN LIGHT DUTY CLASS 'B' IN ACCORDANCE WITH CAMDEN COUNCIL OR APPROVED EQUIVALENT

DRAINAGE NOTES:

1. ALL STORMWATER WORK TO COMPLY WITH AS 3500 PART 3.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE MINIMUM COVER OF 600mm ON ALL PIPES.

3. PROTECTION OF PIPES DUE TO LOADS EXCEEDING W7 WHEEL LOAD SHALL BE THE CONTRACTOR'S

4. BEDDING TYPE SHALL BE TYPE H2 FOR RCP. WHERE NECESSARY THE OVERLAY ZONE SHALL BE REDUCED TO ACCOMMODATE PAVEMENT REQUIREMENTS. REFER TO THIS DRAWING FOR DETAILS.

5. MINIMUM COVER OVER EXISTING PIPES FOR PROTECTION DURING CONSTRUCTION SHALL BE 800mm.

6. NO CONSTRUCTION LOADS SHALL BE APPLIED TO PLASTIC PIPES.

7. FINISHED SURFACE LEVELS SHOWN ON LAYOUT PLAN DRGS TAKE PRECEDENCE OVER DESIGN DRAINAGE SURFACE LEVELS.

8. ALL PIPES UP TO AND INCLUDING 300 DIA. SHALL BE SOLVENT OR RUBBER RING JOINTED PVC CLASS SH PIPE TO AS1260. ALL OTHER PIPES TO BE RCP USING CLASS 2 RUBBER RING JOINTED PIPE. HARDIES FRC PIPE MAY BE USED IN LIEU OF RCP IF DESIRED IN GROUND. ALL AERIAL PIPES TO BE PVC CLASS SH.

9. ALL PITS IN NON TRAFFICABLE AREAS TO BE PREFABRICATED POLYESTER CONCRETE "POLYCRETE" WITH "LIGHT DUTY" CLASS B GALV. MILD STEEL GRATING AND FRAME.

ALL PITS IN TRAFFICABLE AREAS (CLASS "D" LOADING MAX) TO HAVE 150mm THICK CONCRETE WALLS AND BASE CAST IN-SITU fc=32 MPa, REINFORCED WITH N12-200 BOTH LOADING WAYS CENTRALLY PLACE .U.N.O. ON SEPARATE DESIGN DRAWINGS IN THIS SET. GALV.MILD STEEL GRATING AND FRAME TO SUIT DESIGN LOADING. PRECAST PITS, RECTANGULAR OR CIRCULAR IN SHAPE, MAY BE USED IN LIEU AND SHALL COMPLY WITH RELEVANT AUSTRALIAN STANDARDS.

10. ALL PITS, GRATINGS AND FRAMES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS

SPECIFICATION AND TO BE IN ACCORDANCE WITH AS3500.3 AND AS3996. 11. PIT CHAMBER DIMENSIONS ARE TO BE SELECTED TO SATISFY THE FOLLOWING:

- PIPE SIZE - DEPTH TO INVERT

- SKEW ANGLE

REFER TYPICAL PIT CHAMBER DETAILS BELOW

IF PIT LID SIZE IS SMALLER THAN THE PIT CHAMBER SIZE THEN THE PIT LID IS TO BE CONSTRUCTED ON THE CORNER OF THE PIT CHAMBER WITH THE STEP IRONS DIRECTLY BELOW. ALTERNATIVELY THE PIT LID TO BE USED, IS TO BE THE SAME SIZE AS THE PIT CHAMBER.

12. FOR PIPE SIZES GREATER THAN Ø300mm, PIT FLOOR IS TO BE BENCHED TO FACILITATE FLOW.

13. GALVANISED STEP IRONS SHALL BE PROVIDED AT 300 CTS FOR PITS HAVING A DEPTH EXCEEDING 1200mm. SUBSOIL DRAINAGE PIPE SHALL BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES. (MINIMUM LENGTH 3m).

14. ALL SUBSOIL PIPES SHALL BE 100mm SLOTTED PVC IN A FILTER SOCK, UNO, WITH 3m INSTALLED UPSTREAM OF

15. ALL PIPEWORK SHALL HAVE MINIMUM DIAMETER 100.

16. MINIMUM GRADE FOR ROOFWATER DRAINAGE LINES SHALL BE 1%.

17. ALL PIPE JUNCTIONS AND TAPER UP TO AND INCLUDING 300 DIA. SHALL BE VIA PURPOSE MADE FITTINGS.

18. ALL ROOF DRAINAGE TO BE INSTALLED IN ACCORDANCE WITH AS3500, PART 3. TESTING TO BE UNDERTAKEN AND REPORTS PROVIDED TO THE SUPERINTENDENT.

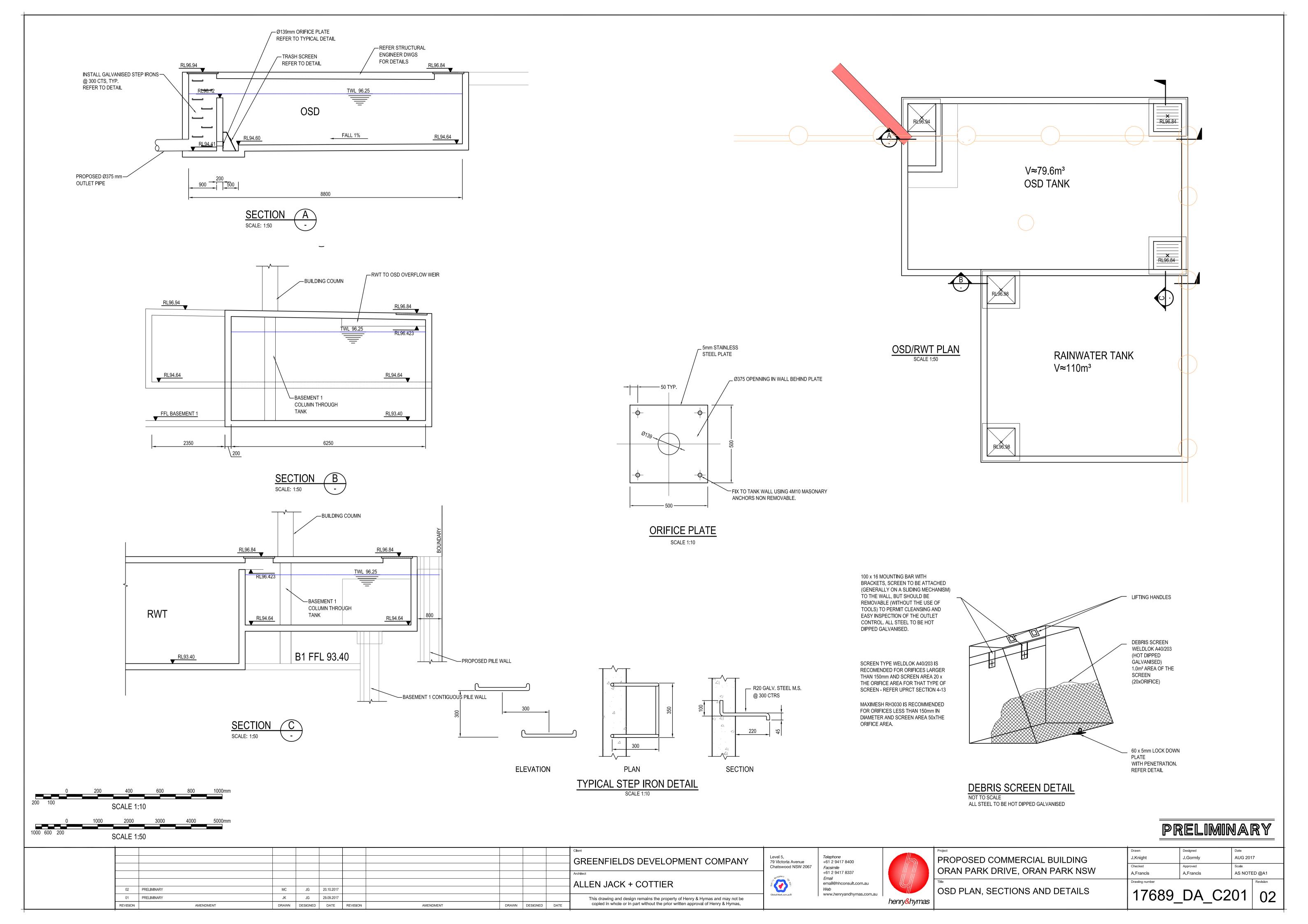
19. LOCATION OF THE DIRECT DOWN PIPE CONNECTIONS MAY VARY ON SITE TO SUIT SITE CONDITIONS, WHERE CONNECTION SHOWN ON LONG SECTIONS CHAINAGES ARE INDICATIVE ONLY.

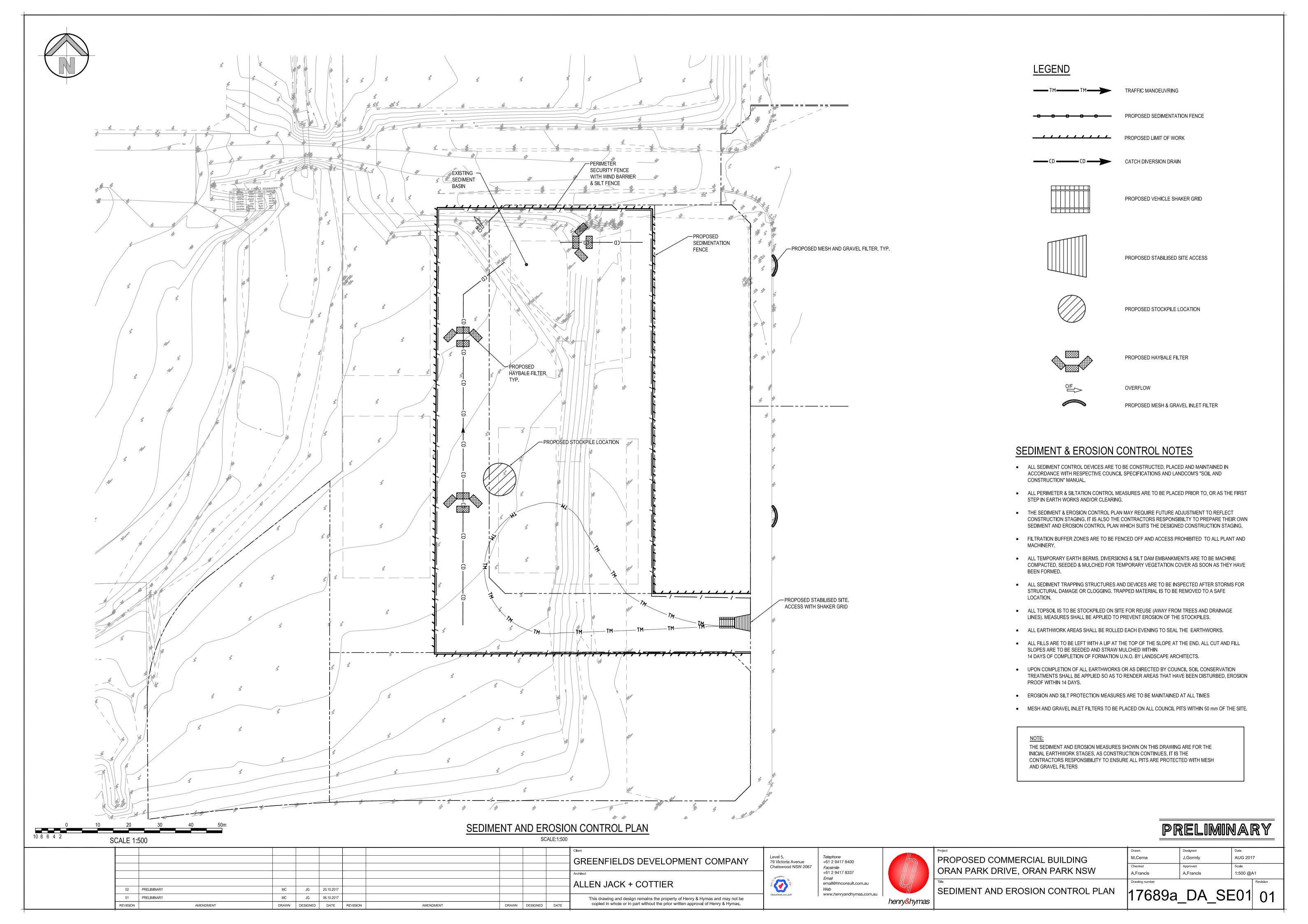
20. PITS IN EXCESS OF 1.5 m DEEP TO HAVE WALL AND FLOOR THICKNESS INCREASED TO 200mm. REINFORCED WITH N12@200 CTS CENTRALLY PLACED BOTH WAYS THROUGHOUT U.N.O.ON SEPARATE DESIGN DRAWINGS IN THIS SET. IF DEPTH EXCEEDS 5m CONTACT ENGINEER.

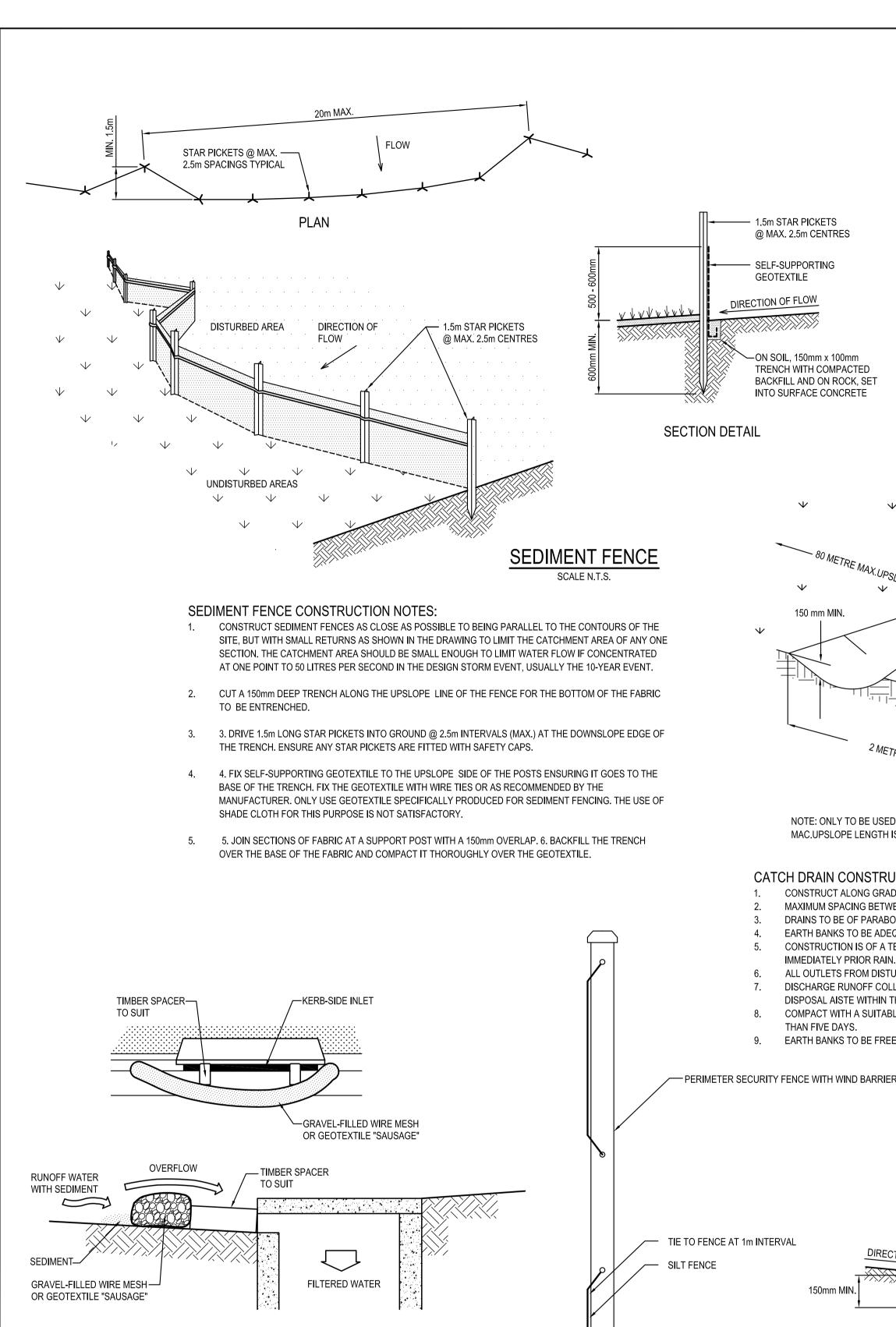
21. SUBSOIL DRAINAGE LINES FOR LANDSCAPE AREA NOT SHOWN ON THESE DRAWINGS. REFER TO LANDSCAPING PLANS FOR DETAILS.

22. ALL STORMWATER PITS TO HAVE Ø100 uPVC SLOTTED SUBSOIL PIPES CONNECTED TO THEM. THESE SUBSOILS TO EXTEND 3m UPSTREAM OF THE PIT AT A MINIMUM GRADE.

PRELIMINARY







MESH & GRAVEL INLET FILTER CONSTRUCTION NOTES:

2. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.

4. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.

PIT AND FILL IT WITH 25mm TO 50mm GRAVEL

BETWEEN.

MAINTAIN THE OPENING WITH SPACER BLOCKS.

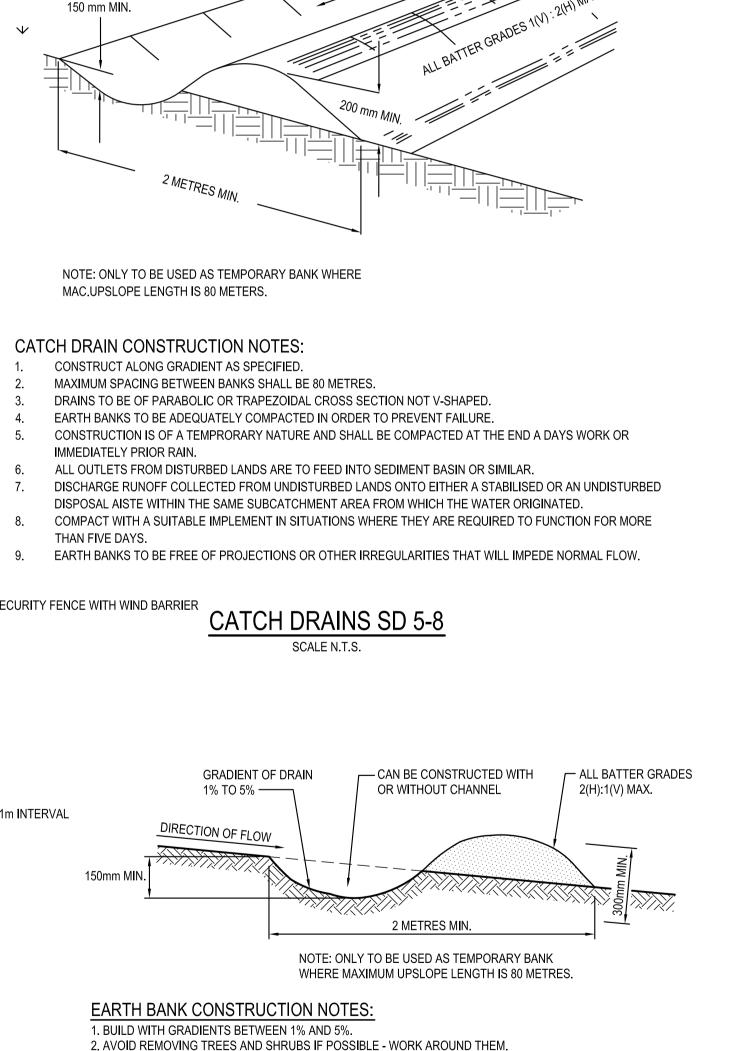
1. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET

3. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET.

5. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE

PLACED SO THAT THEY CAN FIRMLY ABUT EACH OTHER AND SEDIMENT / LADEN WATERS CANNOT PASS

MESH & GRAVEL INLET FILTER



3. ENSURE THE STRUCTURES ARE FREE OF PROJECTIONS OR OTHER

5. ENSURE BANKS ARE PROPERLY COMPACTED TO PREVENT FAILURE.

6. COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS

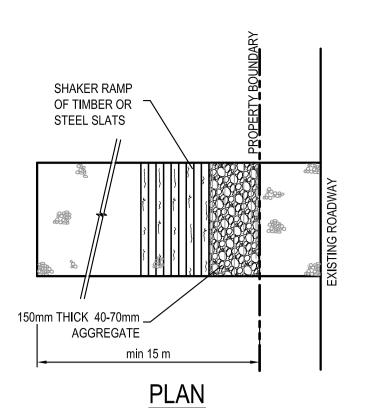
EARTH BANK (LOW FLOW) SCALE N.T.S.

4. BUILD THE DRAINS WITH CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS-

IRREGULARITIES THAT COULD IMPEDE WATER FLOW.

SECTIONS, NOT "V" SHAPED.

OF CONSTRUCTION.



STABILISED SITE ACCESS WITH SHAKER RAMP

CONSTRUCTION SITE DGB 20 ROAD BASE OR 30mm AGGREGATE. 150mm THICK MIN TO BE PLACED OVER GEOTEXTILE FABRIC RUNOFF DIRECTED TO SEDIMENT TRAP/ FENCE GEOTEXTILE FABRIC DESIGNED TO PREVENT INTERMIXING OF SUB GRADE AND BASE MATERIALS AND TO MAINTAIN GOOD PROPERTIES OF THE SUB-BASE LAYERS. GEOTEXTILE MAY BE A WOVEN OR NEEDLE PUNCHED PRODUCT WITH A MINIMUM CBR

STABILISED SITE ACCESS WITH SHAKER RAMP

BURST STRENGTH (AS3706.4-90) OF 2500 N

NOTES:

— STABILISE STOCKPILE SURFACE

SEDIMENT FENCE —

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION,

3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.

4. WHERE THEY ARE TO BE PLACED FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED

5. CONSTRUCT EARTH BANKS ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND

SCALE N.T.S.

EARTH BANK -

STOCKPILE CONSTRUCTION NOTES:

SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.

CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.

2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS

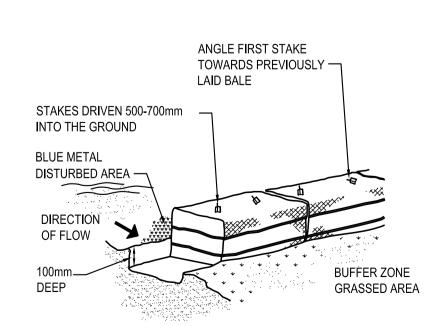
E.S.C.P. OR S.W.M.P. TO REDUCE THE C-FACTOR TO LESS THAN 0.10.

- 1. THIS DEVICE IS TO BE LOCATED AT ALL EXITS FROM CONSTRUCTION SITE.
- 2. THIS DEVICE IS TO BE REGULARLY CLEANED OF DEPOSITED MATERIAL SO AS TO MAINTAIN A 50mm DEEP SPACE BETWEEN PLANKS.
- 3. ANY UNSEALED ROAD BETWEEN THIS DEVICE AND NEAREST ROADWAY IS TO BE TOPPED WITH 100mm THICK 40-70mm SIZE AGGREGATE.
- 4. ALTERNATIVELY, THREE(3) PRECAST CONCRETE CATTLE GRIDS (AS MANUFACTURED BY "HUMES CONCRETE MAY BE USED. 1, 2 & 3 ABOVE ALSO

CONSTRUCTION SEQUENCE

WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:

- 1. INSTALL SEDIMENT FENCING AND CUT DRAINS TO MEET THE REQUIREMENTS OF THE SEDIMENT AND EROSION CONTROL PLAN. WASTE COLLECTION BINS SHALL BE INSTALLED ADJACENT TO SITE OFFICE.
- 2. CONSTRUCT STABILISED SITE ACCESS IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL'S REQUIREMENTS.
- 3. REDIRECT CLEAN WATER AROUND THE CONSTRUCTION SITE.
- 4. INSTALL SEDIMENT CONTROL PROTECTION MEASURES AT ALL NATURAL AND MAN-MADE DRAINAGE STRUCTURES. MAINTAIN UNTIL ALL THE DISTURBED AREAS ARE STABILISED.
- 5. CLEAR AND STRIP THE WORK AREAS. MINIMISE THE DAMAGE TO THE GRASS AND LOW GROUND COVER OF NON-DISTURBED AREAS.
- 6. ANY DISTURBED AREAS, OTHER THAN BUILDING PAD AREAS, SHALL IMMEDIATELY BE COVERED WITH SITE TOPSOIL WITHIN 7 DAYS OF CLEARING. BUILDING PAD AREAS SHALL BE COVERED WITH BITUMEN EMULSION AS SPECIFIED.
- 7. APPLY PERMANENT STABILISATION TO SITE (LANDSCAPING).



HAYBALE BARRIERS

Facsimile

SEDIMENT BASIN SIZING

THE SEDIMENT BASIN SHALL BE CONSTRUCTED ON A RATE PER HECTARE BASIS AND HAS BEEN IN ACCORDANCE WITH THE REQUIREMENTS OF THE LANDCOM MANUAL "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION", FOR SEDIMENTATION TYPE D SOILS. THE DISTURBED AREA WITHIN THIS CATCHMENT AT ANY ONE TIME SHOULD BE LIMITED TO AN AREA FOR WHICH EACH SEDIMENT BASIN CAN HANDLE. EACH BASIN SHALL BE SIZED IN ACCORDANCE WITH THE TABLE BELOW.

SEDIMENT BASIN SIZING TYPE D SOILS		
VOLUMETRIC RUNOFF COEFFICIENT, CV	0.5 (APPENDIX F - TABLE F2)	
75TH PERCENTILE 5 DAY TOTAL RAINFALL DEPTH, R	19.30 mm	
CATCHMENT AREA, A	1 Ha (UNIT AREA)	
SETTLING ZONE VOLUME (PER HECTARE) 10 CV A R	96.50 m³	
DISTURBED CATCHMENT AREA	1 Ha (UNIT AREA)	
RKLSPC	73 m³	
SEDIMENT ZONE VOLUME (0.17 A (R K LS P C)/1.3	9.4m³ < 50% SETTLING VOL.ADOPT 48.3 m³ PER HECTARE	
TOTAL SEDIMENT BASIN VOLUME REQUIRED :	144.8 m³/Ha	

* (LANDCOM MANAGING URBAN STORMWATER MANUAL REFERENCE)

THE FOLLOWING DESIGN PARAMETERS HAVE BEEN ASSESSED FOR THE SITE:

CONSTRAINT	VALUE	(SOURCE)*
RAINFALL EROSIVITY (R-FACTOR)	2250	APPENDIX B
LENGTH/SLOPE GRADIENT FACTOR, LS	0.65	APPENDIX A - TABLE A1
SOIL ERODIBILITY (K-FACTOR)	0.038	(ASSUMED BASED ON SOIL TYPE)
EROSION CONTROL PRACTICE FACTOR (P-FACTOR)	1.3 (COMPACTED)	APPENDIX A - TABLE A2
COVER FACTOR (C-FACTOR)	1.0 (DURING EARTHWORKS)	APPENDIX A - FIGURE A5
CALCULATED SOIL LOSS, A (RUSLE EQUATION)	73 t/Ha/YR	A = R K LS P C
SOIL HYDROLOGIC GROUP	GROUP C	(ASSUMED BASED ON SOIL TYPE)
SEDIMENT TYPE	TYPE D	(ASSUMED BASED ON SOIL TYPE)
75TH PERCENTILE 5-DAY RAINFALL EVENT	19.3 mm (CAMDEN)	TABLE 6.3A

* (LANDCOM MANAGING URBAN STORMWATER MANUAL REFERENCE)

BASIN MANAGEMENT

- THE CAPTURED STORMWATER IN THE SETTLING ZONE SHOULD BE DRAINED TO MEET THE MINIMUM STORAGE CAPACITY REQUIRED WITHIN A FIVE (5) DAY PERIOD FOLLOWING RAINFALL, PROVIDED THE ACCEPTABLE WATER QUALITY (NFR) AND TURBIDITY HAVE BEEN
- 2. CHEMICAL FLOCCULENT SUCH AS GYPSUM MAY BE DOSED TO AID SETTLING WITHIN 24 HOURS OF CONCLUSION OF EACH STORM. THE APPLIED DOSING RATES SHOULD ACHIEVE THE TARGET QUALITY WITHIN 36 TO 72 HOURS OF THE STORM EVEN
- INSPECT THE SEDIMENT BASINS AFTER EACH RAINFALL EVENT AND/OR WEEKLY. ENSURE THAT ALL SEDIMENT IS REMOVED ONCE THE SEDIMENT STORAGE ZONE IS FULL (REFER TO PEGS INSTALLED IN BASINS IN ACCORDANCE WITH THE SWMP). ENSURE THAT OUTLET AND EMERGENCY SPILLWAY WORKS ARE MAINTAINED IN A FULLY OPERATIONAL CONDITION AT ALL TIMES.

SOWING SEASON	SEED MIX		
AUTUMN/WINTER	OATS@40KG/Ha + JAPANESE MILLET@10kg/Ha		
SPRING/SUMMER	OATS@20kg/Ha + JAPANESE MILLET@20kg/Ha		

NOTE: THESE PLANT SPECIES ARE FOR TEMPORARY REVEGETATION ONLY. THEY WILL ONLY PROVIDE PROTECTION FROM EROSION FOR SIX MONTHS. WHERE THE LOTS ARE TO BE LEFT UNDEVELOPED FOR A LONGER PERIOD, THE CONTRACTOR SHALL SEEK ADVICE FROM THE SITE SUPERINTENDENT AS TO MORE APPROPRIATE REVEGETATION METHODS.

REVEGETATION IN ACCORDANCE WITH THE ABOVE TABLE WILL BE ENHANCED BY ADDING LIME AT A RATE OF 4kg/TONNE OF TOPSOIL AND 7.5kg/TONNE OF SUBSOIL.

4. THE LONG TERM GROUND COVER FACTORS FOR THE CONSTRUCTION WORKS IS NOT TO EXCEED THE FOLLOWING LIMITS:

LAND	MAXIMUM C-FACTOR	REMARKS	
WATERWAYS AND OTHER AREAS OF CONCENTRATED FLOWS, POST CONSTRUCTION	0.05	APPLIES AFTER TEN WORKING DAYS OF COMPLETION OF FORMATION AND BEFORE CONCENTRATED FLOWS ARE APPLIED. FOOT AND VEHICULAR TRAFFIC IS PROHIBITED IN THIS AREA AND 70% GROUND COVER IS REQUIRED.	
STOCKPILES, POST CONSTRUCTION	0.10	APPLIES AFTER TEN WORKING DAYS FROM COMPLETION OF FORMATION. 60% GROUND COVER IS REQUIRED.	
ALL LANDS, INCLUDING WATERWAYS AND STOCKPILES, DURING CONSTRUCTION.	0.15	APPLIES AFTER 20 DAYS OF INACTIVITY, EVEN THOUGH WORKS MAY BE INCOMPLETE 50% GROUND COVER IS	

PRELIMINARY

INCOMPLETE. 50% GROUND COVER IS

REQUIRED.

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										GREENFIELDS DEVELOPMENT COMPANY	Le ^o
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										Architect	1
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	02	PRELIMINARY	MC	JG	20.10.2017					ALLEN JACK - COTTILIN	
	01	PRELIMINARY	MC	JG	06.10.2017					This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.	
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Project
PROPOSED COMMERCIAL BUILDING
ORAN PARK DRIVE, ORAN PARK NSV

Drawn	Designed	Date
J.Knight	J.Gormly	AUG 2017
Checked	Approved	Scale
A.Francis	A.Francis	NTS

SEDIMENT AND EROSION CONTROL DETAILS 17689a_DA_SE02 02

