

BCA Engineers / Adelaide 33 Rundle St, Kent Town SA 5067 PO BOX 2620, Kent Town SA 5071 T +61 8 8132 1700 enquiry@bcaengineers.com bcaengineers.com

# ENGINEER'S INSTRUCTION

Attention:	Sam Stapleton	BCA Contact:	Antony Caruso
Company:	JAA	Date:	04 June 2021
Project Ref.:	6629.4.210603.E.1	Pages:	1
Project Name:	ACHA CSSD COMPLIANCE PROJECT -	WASTE MANAGEN	IENT BUILDING EARLY WORKS
Instruction No.	E01		

The following amendments have been made to the Tender documentation for the above project. Please acknowledge receipt of this correspondence and drawings / specification revisions in offer. Adjust pricing accordingly:

### Summary of Amendments

Drawing No.	Title	Revision
6629.4-E201	<ul> <li>Power, Communications &amp; Luminaires</li> <li>Additional evacuation lighting recommended.</li> </ul>	T2

Signed:

ARCONNO

Antony Caruso BEng E&E Hons MIEAust CPEng NER RPEQ Director



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Instruction No.	G01		

The following amendments have been made to the Tender documentation for the above project. Please acknowledge receipt of this correspondence and drawings / specification revisions in offer. Adjust pricing accordingly:

Drawing No.	Title		Revision
6629 Set	Mechanical		n/a
	Nominated specialist sub		
	Trade Description	Building Management System (BMS)	
	Contact:	Frank Pergoleto	
	Company:	Schneider	
	Contact details:	P 08 8161 0942	
		M 0411 328 854	
		E Frank.pergoleto@se.com	
	Electrical		
	Nominated specialist sub	o-contractors / trade / suppliers:	
	Trade Description	Electronic Security Systems	
	Contact:	Shane Egel	
	Company:	Chubb Security	
	Contact details:	M 0401 778 331	
		E Shane.egel@chubb.com.au	
	Trade Description	Duress Alarm Systems	
	Contact:	Frank Pergoleto	
	Company:	Schneider	
	Contact details:	P 08 8161 0942	
		M 0411 328 854	
		E Frank.pergoleto@se.com	

### Summary of Amendments



Trade Description	Access Control System
Contact:	Frank Pergoleto
Company:	Schneider / Kronos
Contact details:	P 08 8161 0942
	M 0411 328 854
	E Frank.pergoleto@se.com
Trade Description	Nurse Call / Staff Intercom
Contact:	Eugene Greco
Company:	Rauland
Contact details:	M 0418 459 806
	E eugenegreco@rauland.com.au

Signed:

ARCONNO

Antony Caruso BEng E&E Hons MIEAust CPEng NER RPEQ Director



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Project Ref.:	6629.4.210603.H.1	Pages:	1
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### Summary of Amendments

Drawing No.	Title	Revision
6629.4-H201	<ul> <li>Drainage &amp; Reticulation <ul> <li>Additional level detail for new sewer drain.</li> <li>Sewer drain to be HDPE material up to connection with settling pit</li> <li>Added note for new 150mm sewer drain and connection to be at maximum depth.</li> <li>Additional note regarding water and sewer connection: The application has been started with SA Water. Hydraulic contractor to obtain approval and pay all fees for the new connections.</li> <li>Delete 50mm domestic cold-water supply to main building.</li> </ul> </li> </ul>	T2

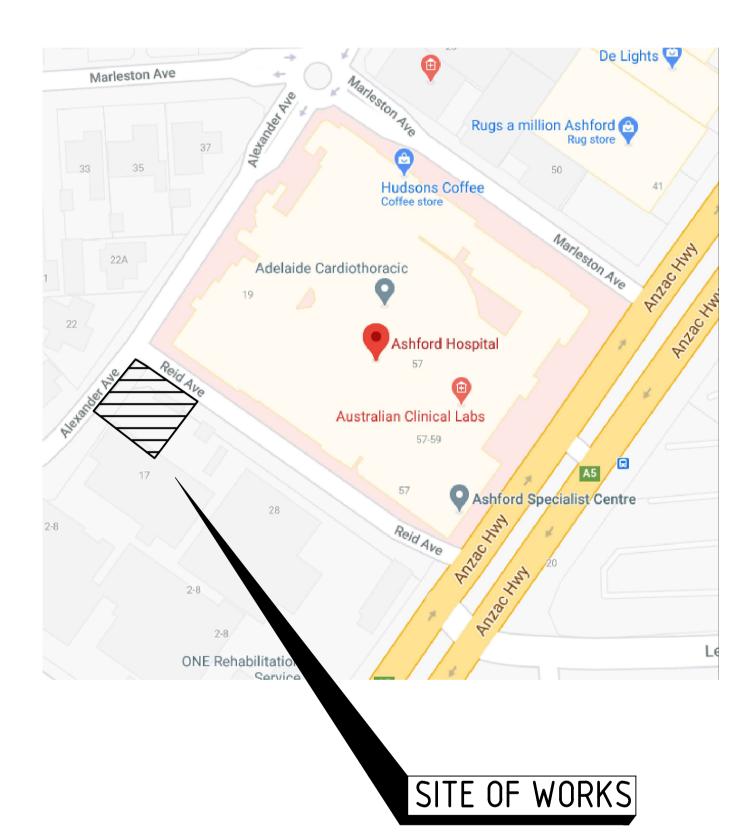
Signed,

**Gwenael Le Chenadec** Hydraulic Engineer

# ACHA NEW CSSD WASTE BUILDING EARLY WORKS ELECTRICAL SERVICES

# DRAWING INDEX

6629.4-E100	COVER SHEET, DRAWING INDEX, LOCATION PLAN & LEGEND OF SYMBOLS
6629.4-E200	SITE PLAN, EXISTING/DEMOLITION & PROPOSED ARRANGEMENT.
6629.4-E201	PROPOSED POWER, COMMUNICATIONS & LUMINAIRE
	ARRANGEMENT
6629.4-E500	ELECTRICAL SINGLE LINE DIAGRAM, COMMUNICATIONS &
	SECURITY SCHEMATIC DIAGRAMS



T2 04.06.21 FINAL DESIGN CRITERIA ISSUE MAM ARC T1 | 18.03.21 | **TENDER ISSUE** MAM ARC By Chk Rev Date Amendment Description



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# LEGEND OF SYMBOLS

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Å

DB 🗖

🖾 EP

NON

WAP

CP🖸

OnG

2G 🖛 —

PE

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RS

ML

DGP

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— сом

## POWER 10A, SINGLE PHASE, SINGLE SWITCHED SOCKET OUTLETS. (NON-ESSENTIAL POWER) 10A, SINGLE PHASE, TWIN SWITCHED SOCKET OUTLET. (NON-ESSENTIAL POWER) ELECTRICAL DISTRIBUTION BOARD. DISTRIBUTION BOARD ZONE LIGHT/POWER SUB-CIRCUIT GROUP. PROPOSED ROUTE OF NEW HIGH VOLTAGE CABLING. INDICATIVE ROUTE OF EXISTING HIGH VOLTAGE CABLING. PROPOSED ROUTE OF NEW LOW VOLTAGE CABLING. ----- LV/E----- INDICATIVE ROUTE OF EXISTING LOW VOLTAGE CABLING. — 100-DENOTES SIZE OF CONDUITS -E-ELECTRICAL, C-COMMUNICATIONS -2-DENOTES NUMBER OF CONDUITS ELECTRICAL CABLE PIT - DEDICATED EQUIPMENT AS NOTED -LIGHT/POWER DEDICATED SUB-CIRCUIT — SINGLE LINE DENOTES NON-ESSENTIAL POWER SUPPLY DOUBLE LINE DENOTES ESSENTIAL POWER SUPPLY. SUBCIRCUIT RCD PROTECTED UNLESS SHOWN OTHERWISE MECHANICAL SERVICES POWER (REFER SINGLE LINE DIAGRAM AND ELECTRICAL REQUIREMENTS APPENDIX FOR DETAILS). LOCATION OF POWER SUPPLY FOR MECHANICAL EXHAUST FAN. - IDENTIFICATION NUMBER — T-TOILET, K-KITCHEN, G-GENERAL, L-LAUNDRY, CP-CAR PARK FP-FIRE PUMP, DCW-DOMESTIC COLD WATER, RH-RANGE HOOD

COMMUNICATIONS

WIRELESS LOCAL AREA NETWORK DUAL COMMUNICATIONS OUTLET

----- PROPOSED ROUTE OF NEW COMMUNICATIONS CABLING.

---- COM/E---- INDICATIVE ROUTE OF EXISTING COMMUNICATIONS CABLING.

COMMUNICATIONS CABLE PIT.

### LIGHTING CONTROL

10A, TWO WAY LIGHT SWITCH. (nG - DENOTES NUMBER OF GANGS).

---- LIGHT SWITCHING GROUP.

LUMINAIRES SWITCHED FROM MULTI GANG SWITCH PLATE. PHOTO-ELECTRIC CELL FOR EXTERNAL LIGHTING CONTROL

## SECURITY/CCTV/ACCESS CONTROL

SECURITY MOTION DETECTOR

CARD READER.

REED SWITCH.

ELECTRO-MAGNETIC LOCK.

SECURITY DATA GATHERING PANEL.

CCTV CAMERA, COMPLETE WITH 8 OUTPUT, 5AMP, 24Vac POWER SUPPLY

# LEGEND OF SYMBOLS (Cont)

	SPECIALIST EQUIPMENT
COMP	COMPACTOR
СВ	CARDBOARD BAILER.
RD	ROLLER DOOR
HWU	HOT WATER UNIT
	ABBREVIATIONS - OUTLETS
1200	MOUNTING HEIGHT AFFL.
AB	MOUNTING HEIGHT ABOVE BENCH LEVEL (150mm).
CL	MOUNTING HEIGHT ABOVE BENCH LEVEL (150mm).
СМ	CEILING MOUNTED.
CS	MOUNTED WITHIN CEILING SPACE.
WP	WEATHERPROOF (MINIMUM IP56 RATED, UNLESS OTHERWISE NOTED)
(D)	EXISTING ITEM TO BE REMOVED.
(E)	EXISTING ITEM TO REMAIN.
(R)	EXISTING ITEM RELOCATED IN NEW POSITION.
(RE)	EXISTING ITEM TO BE REMOVED FOR RELOCATION.

# SCHEDULE OF LUMINAIRES

## LIGHTING – GENERAL L1 150W, LED, SUSPENDED LOW BAY LUMINAIRE, IP56.

L2 40W, LED, LINEAR STRIP, WALL MOUNTED LUMINAIRE IP56.

L 3 75W, LED, WALL MOUNTED, AREA LUMINAIRE, PE CELL & TIMECLOCK CONTROLLED, IP56.

L4 20W, LED, WALL MOUNTED, FLOOD LIGHT C/W INTEGRAL MOTION SENSOR, IP56.

LIGHTING – EXIT AND EMERGENCY EM1 2x3W LED, NON-MAINTAINED RECESSED CIRCULAR EMERGENCY LUMINAIRE, WHITE TRIM, C/W L10 LITHIUM IRON BATTERY PACK, IP20, CLASSIFICATION C0:D50 C90:D50

(CLEVERTRONICS 'LIFELIGHT PRO' OR EQUAL APPROVED)

EX1 1x3W LED MAINTAINED BLADE STYLE EXIT LUMINAIRE, CEILING/WALL MOUNTED AS REQUIRED, C/W PICTOGRAPH 'RUNNING MAN' INSERT AND DIRECTIONAL ARROWS AS REQUIRED, C/W L10 LITHIUM IRON BATTERY PACK, IP20, CLASSIFICATION C0:D8 C90:D3.2 (CLEVERTRONICS 'SWINGBLADE' OR EQUAL APPROVED)

**/EM** AS PER TYPE '???', EXCEPT MAINTAINED EMERGENCY VERSION, IP65.

### NOTES:

1. ALL LUMINAIRES TO BE SUPPLIED COMPLETE WITH ELECTRONIC CONTROL GEAR & '4000K' MINIMUM LAMPS UNLESS NOTED OTHERWISE.

2. ALL EXIT/EMERGENCY LUMINAIRES TO BE COMPLIANT WITH 'AS/NZS-2293'. ALL EXIT/EMERGENCY LUMINAIRES MARKED "/NX" SHALL BE SUITABLE FOR 'NEXUS LX' REMOTE MONITORING SYSTEM.

# GENERAL NOTES:

GENERAL 1. THESE ELECTRICAL DRAWINGS SHALL BE READ IN CONJUNCTION ARCHITECTURAL DRAWINGS, DETAILS AND THE PERFORMANCE B

2. ALL WORKS AND EQUIPMENT SHALL COMPLY WITH ALL RELEV CODES AND STATUTORY REQUIREMENTS IN PARTICULAR AS 300 3008, AS 2293, AS 1670, AS 2201, AS 11801, AS 1136 AND AS 1939

3. LABEL ALL EQUIPMENT AND ACCESSORIES (SWITCHES, POWER OUTLETS, COMMUNICATIONS OUTLETS ETC) WITH DISTRIBUTION E NUMBER AND CIRCUIT NUMBER.

4. LOCATIONS OF ELECTRICAL EQUIPMENT SHOWN ARE INDICATIV ONLY. CO-ORDINATE FINAL ELECTRICAL EQUIPMENT LOCATIONS V ALL OTHER SERVICES DETAILS AND TRADE DISCIPLINES ON SITE.

5. LOCATE ALL CONTROLS IN ACCESSIBLE POSITIONS. DISTRIBUTI BOARD LOCATION SHOWN IS RECOMMENDED, UNLESS OTHERWISE NOTED.

6. ALL DIMENSIONS ARE IN MILLIMETRES.

7. REFER TO ARCHITECTURAL AND JOINERY DRAWINGS FOR ALL SET-OUTS AND FINAL LOCATIONS OF ELECTRICAL EQUIPMENT AN ACCESSORIES.

8. TENDERER SHALL BECOME FAMILIAR WITH THE SITE AND EXIS EQUIPMENT AND INSTALLATION CONDITIONS. NO VARIATION WILL ENTERTAINED FOR UNKNOWN SITE CONDITIONS.

9. EXISTING EQUIPMENT SHOWN ON DEMOLITION PLANS IS INDICA ONLY. ALLOW TO INVESTIGATE ON SITE TO DETERMINE FULL EXT OF DEMOLITION WORKS. SEEK CLARIFICATION FOR ANY EXISTING NOT SHOWN TO REMAIN.

10. ALLOW TO SEAL ALL PENETRATIONS THROUGH FULL HEIGHT WALLS AND FIRE SEAL ALL PENETRATIONS THROUGH FIRE/SMOR BARRIER WALLS AND FLOORS (TO MATCH THE DESIGNED FIRE RA OF THE BUILDING STRUCTURE AND 'BCA' AND FIRE REGULATIONS APPLICABLE REQUIREMENTS).

### CABLE

1. ALL CABLES SHALL BE THERMOPLASTIC INSULATED AND SHEA MULTI – STRANDED COPPER CONDUCTORS, UNLESS OTHERWISE N

2. FINAL SUB-CIRCUIT CABLING SHALL BE MINIMUM 2.5mm<sup>2</sup> STRAN FOR LIGHTING AND 4.0mm<sup>2</sup> STRANDED FOR POWER. ALL FINAL SUB-CIRCUITS SHALL BE SIZED FOR MAXIMUM VOLTAG DROP OF 2.5% FROM THE RESPECTIVE DISTRIBUTION BOARD.

3. ENSURE ANY CABLE JOINTS DONE IN-GROUND ARE APPROPRIA SEALED USING A PROPRIETARY RESIN CABLE JOINTING KIT.

4. ALL CONDUIT JOINTS TO BE PRIMED PRIOR TO GLUING TOGETHE CIRCUIT LOADING

1. ALL LIGHTING CIRCUITS ARE TO BE CONFIGURED FOR A MAXIMU LOAD OF 75% OF CIRCUIT BREAKER RATING, BASED ON TOTAL LUMINAIRE SYSTEM POWER.

2. POWER OUTLETS AND ISOLATORS RATED ABOVE 10A ARE TO PROVIDED WITH DEDICATED CIRCUIT.

3. ALL OTHER POWER CIRCUITS ARE TO BE CONFIGURED FOR A MAXIMUM LOAD OF 75% OF CIRCUIT BREAKER RATING, BASED ON OUTLET CONTRIBUTIONS IN ACCORDANCE WITH AS 3000 TABLE C 'GUIDANCE ON THE LOADING OF POINTS PER FINAL SUBCIRCUIT'

4. POWER CIRCUITS ARE TO BE LOGICALLY ARRANGED AND NOT SUPPLY OUTLETS LOCATED IN MORE THAN THREE ADJACENT ROO

5. DEDICATED CIRCUITS ARE TO BE PROVIDED TO ALL CIRCUITED OUTLETS SHOWN ON DRAWINGS.

## CABLE WAYS

1. SEPARATE COMMUNICATIONS CABLING FROM LV POWER CABLING BY MINIMUM OF 50mm UNLESS OTHERWISE NOTED, EXCEPT WHERE ENCLOSE METAL DUCT OR METAL CONDUIT (IN COMPLIANCE WITH AS/NZS 3000 REQUIREMENTS).

# DESIGN AND CONSTRUCT

# wiltshire swain

28 Crowther Street Adelaide SA 5000 08 7324 2812 | architects@wiltshireswain.com.au

ON WITH BRIEF.	2. SEPARATE POWER CABLING FF 100mm UNLESS OTHERWISE NOTE REQUIREMENTS).						
VANT 00, AS 39.	3. SEPARATE COMMUNICATIONS ( WATER PIPEWORK BY MINIMUM O EXCEPT AT CROSSINGS WHERE S COMPLIANCE WITH AS/CA S009 F	F 150mm UNLES EPARATED BY A	S OTHERWISE NOTE	D,			
R BOARD	4. SEPARATE COMMUNICATIONS ( MINIMUM OF 50mm UNLESS OTHEF CONDUIT (IN COMPLIANCE WITH A	RWISE NOTED, E	CEPT WHERE ENCL				
VE WITH E. TION	5. SEPARATE COMMUNICATIONS ( MINIMUM OF 450mm UNLESS OTHE S009 REQUIREMENTS).						
E	6. UNDERGROUND SERVICES TO B AS/NZS 3000 AND AS/CA S009 F NOTED.						
ND	LIGHTING 1. MOUNT ALL LIGHT SWITCHES OTHERWISE NOTED.	5 AT 1000mm A	FFL TO CENTRE U	INLESS			
STING .L BE	2. MULTIPLE LIGHT SWITCHES FROM EACH OTHER.	TO BE ALIGNE	) WITH 25mm SPA	CING			
ATIVE TENT 5 ITEMS	3. INSTALL COMBINED RCD/CIR SUBCIRCUITS. UNLESS OTHERV		FOR ALL LIGHTIN	IG			
- DKE ATING S	4. DISPOSE OF ALL REDUNDAN ALLOWANCE FOR DISPOSAL OF AND CONFIRM ON SITE.						
S ATHED NOTED.	5. SEISMIC RESTRAINTS – SUS ANCHORS FOR SUSPENDED LUI RATED TO SUPPORT TWO TIMI CABLES ARE TO BE ANCHORED THE CEILING.	MINAIRES AND ES THE TOTAL	THE LIKE ARE TO WEIGHT. SUSPEN	) BE SION			
ANDED AGE	POWER 1. WHERE OUTLET HEIGHTS NO ELEVATION DRAWINGS OR REG WRITING.						
ATELY HER.	2. MOUNT OUTLETS LOCATED I "DAMP AREAS RESTRICTED ZO						
1UM 0 BE	<ul> <li>3. INSTALL COMBINED RCD/CIR UNLESS OTHERWISE NOTED.</li> <li>ALL CIRCUITS TO BE RCD PROT</li> <li>IT IS A LPD CIRCUIT REQULPD 10MA PROTECTION</li> <li>EXEMPTIONS LISTED WIT</li> </ul>	FECTED UNLES	S: S/NZS3003 WITH				
N C9	4. WHERE AN OUTLET/ CIRCUI EQUIPMENT, THE OUTLET LOCA WITH THE RESPECTIVE EQUIPM	ATION TO BE CO					
Т	5. ALL IN-SLAB REINFORCING I BONDED TO AS.3000.	N WET WET AF	REAS TO BE EART	Н			
OOMS. D	FIRE AND SMOKE WAL 1. ALLOW TO FIRE SEAL/STOP SMOKE WALLS USING APPROV AUSTRALIAN STANDARDS.	ALL PENETRA					
Y ISED IN	DOOR HARDWARE 1. REFER TO ARCHITECTURAL I ELECTRONIC DOOR HARDWARE		RE SCHEDULE FOI	2			
	ACHA CSS	D – W,		7 ALEX	ANE	DER ,	
ELEC	TRICAL SERVICES						TENDER
COVER	SHEET, DRAWING INDEX,	LOCATION	I PLAN & LE(	GEND OF SYN	1BOLS		
Drawing No.		Revision		Scale @ A1 NI / A		Drawn	MAM

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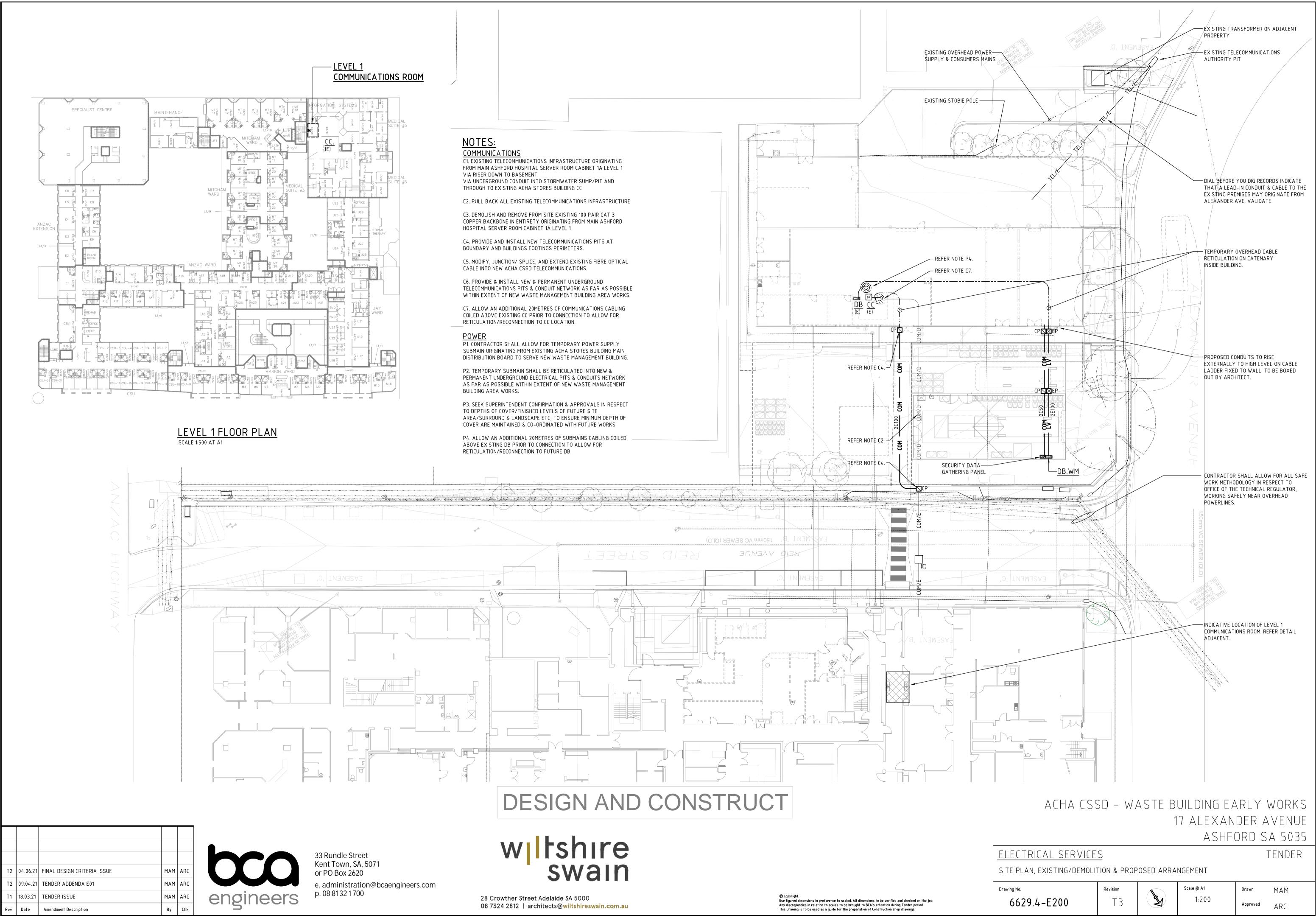
T2

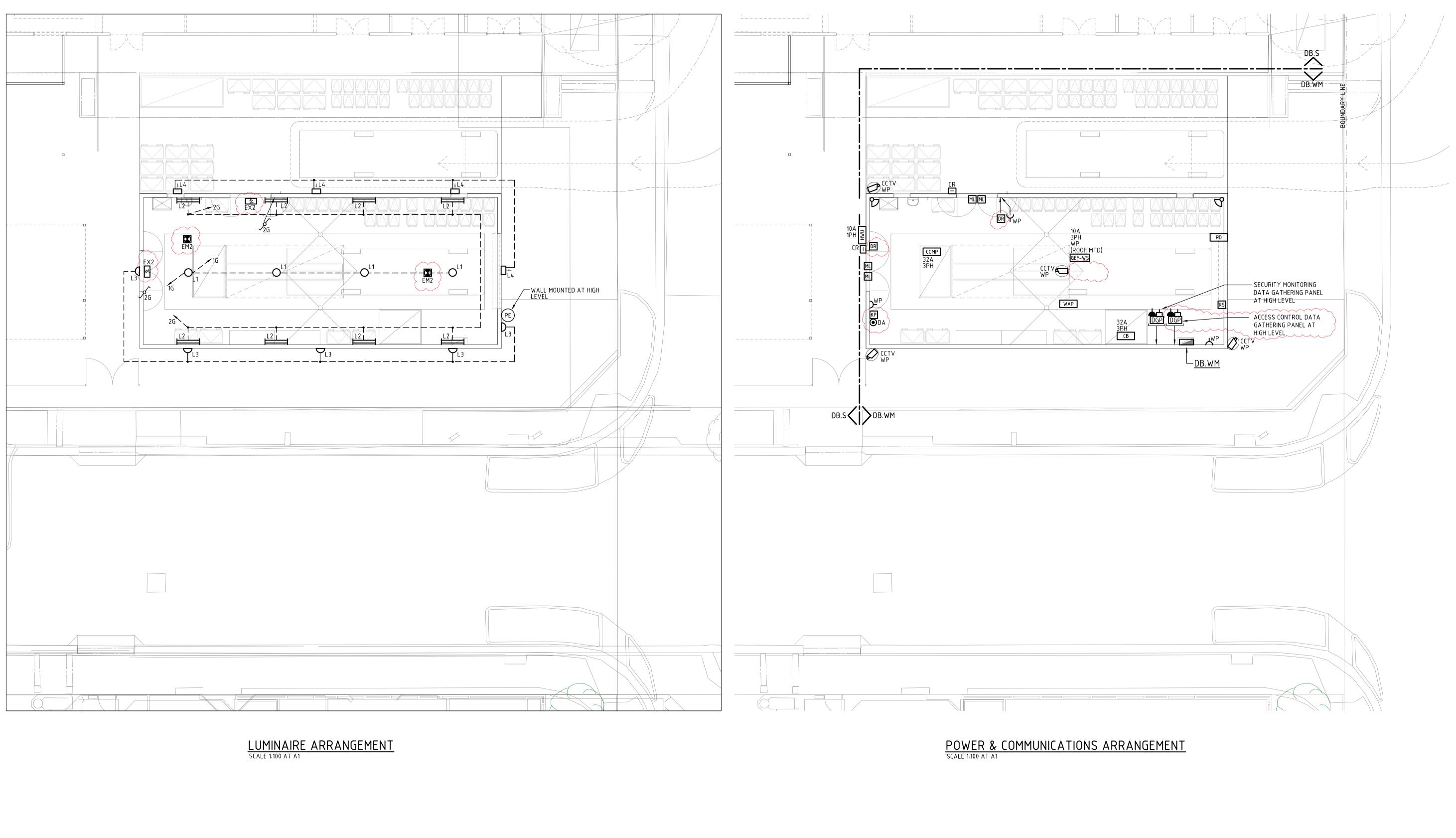
6629.4-E100

N/A

Approved

ARC





Т2	04.06.21	FINAL DESIGN CRITERIA ISSUE	MAM	ARC
T1	18.03.21	TENDER ISSUE	MAM	ARC
Rev	Date	Amendment Description	Ву	Chk



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DESIGN AND CONSTRUCT

# wiltshire swain

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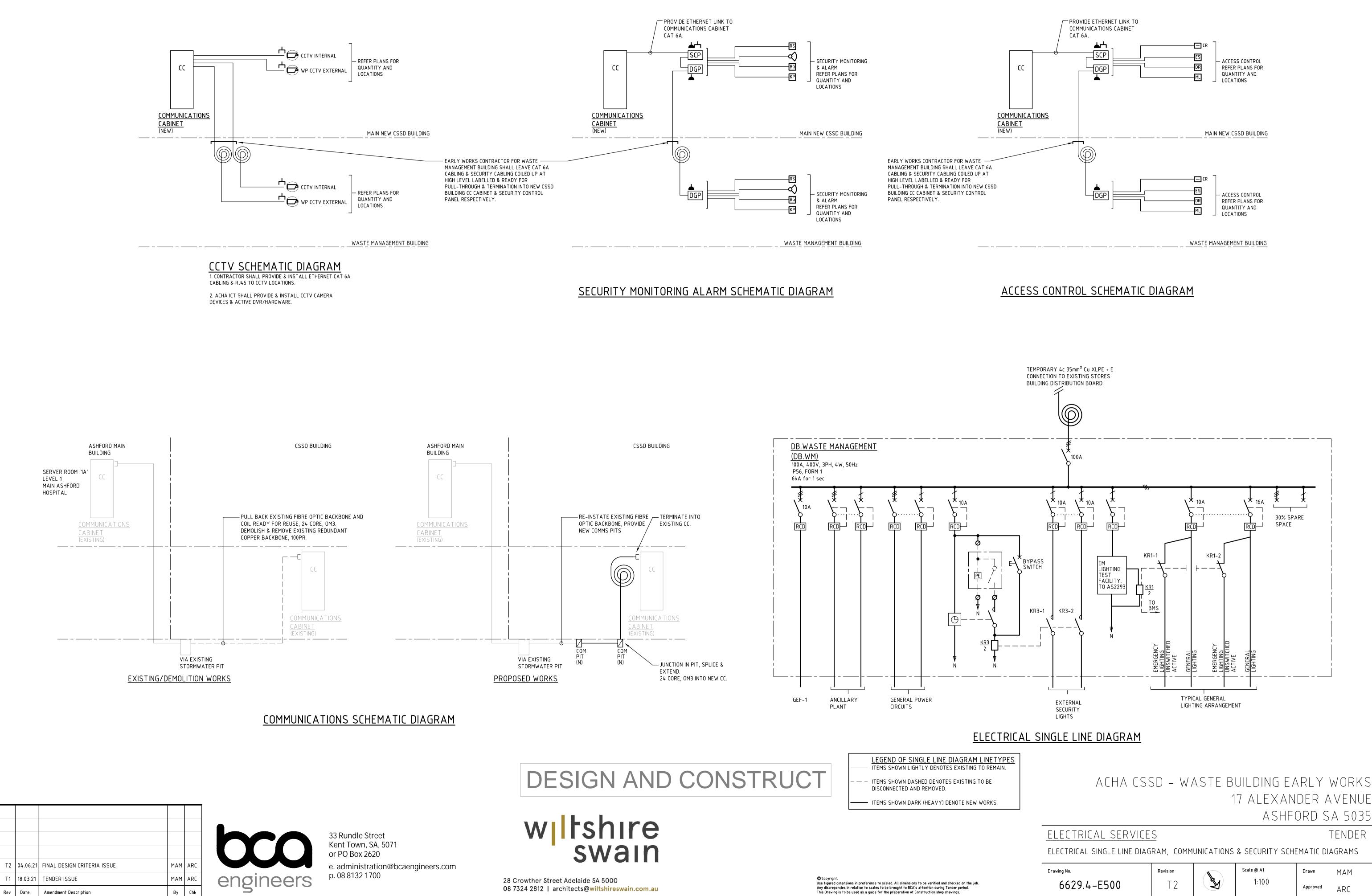
# ACHA CSSD – WASTE BUILDING EARLY WORKS 17 ALEXANDER AVENUE ASHFORD SA 5035

TENDER

ELECTRICAL SERVICES

PROPOSED POWER, COMMUNICATIONS & LUMINAIRE ARRANGEMENT

Drawing No.	Revision		Scale @ A1	Drawn	MAM
6629.4-E201	Τ2	and the second s	1:100	Approved	ARC



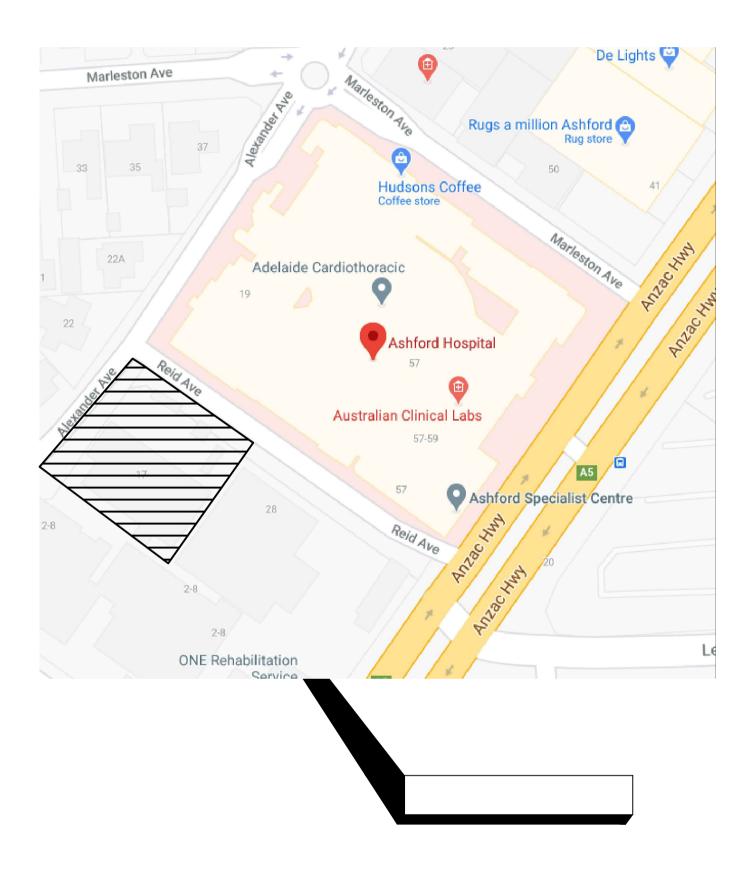
Any discrepancies in relation to scales to be brought to BCA's attention during Tender period. This Drawing is to be used as a guide for the preparation of Construction shop drawings.

# ACHA NEW CSSD WASTE BUILDING EARLY WORKS FIRE PROTECTION SERVICES

# DRAWING INDEX

6629.4-F200

DRAWING INDEX, LOCATION PLAN, WASTE BUILDING PART PLAN & LEGEND OF SYMBOLS



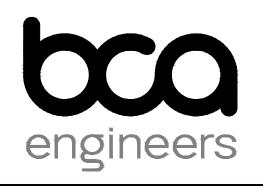
FUTURE FIRE INDICATOR PANEL WITH -MAIN CSSD BUILDING (FINAL LOCATION TO BE CONFIRMED).

PACKAGE.

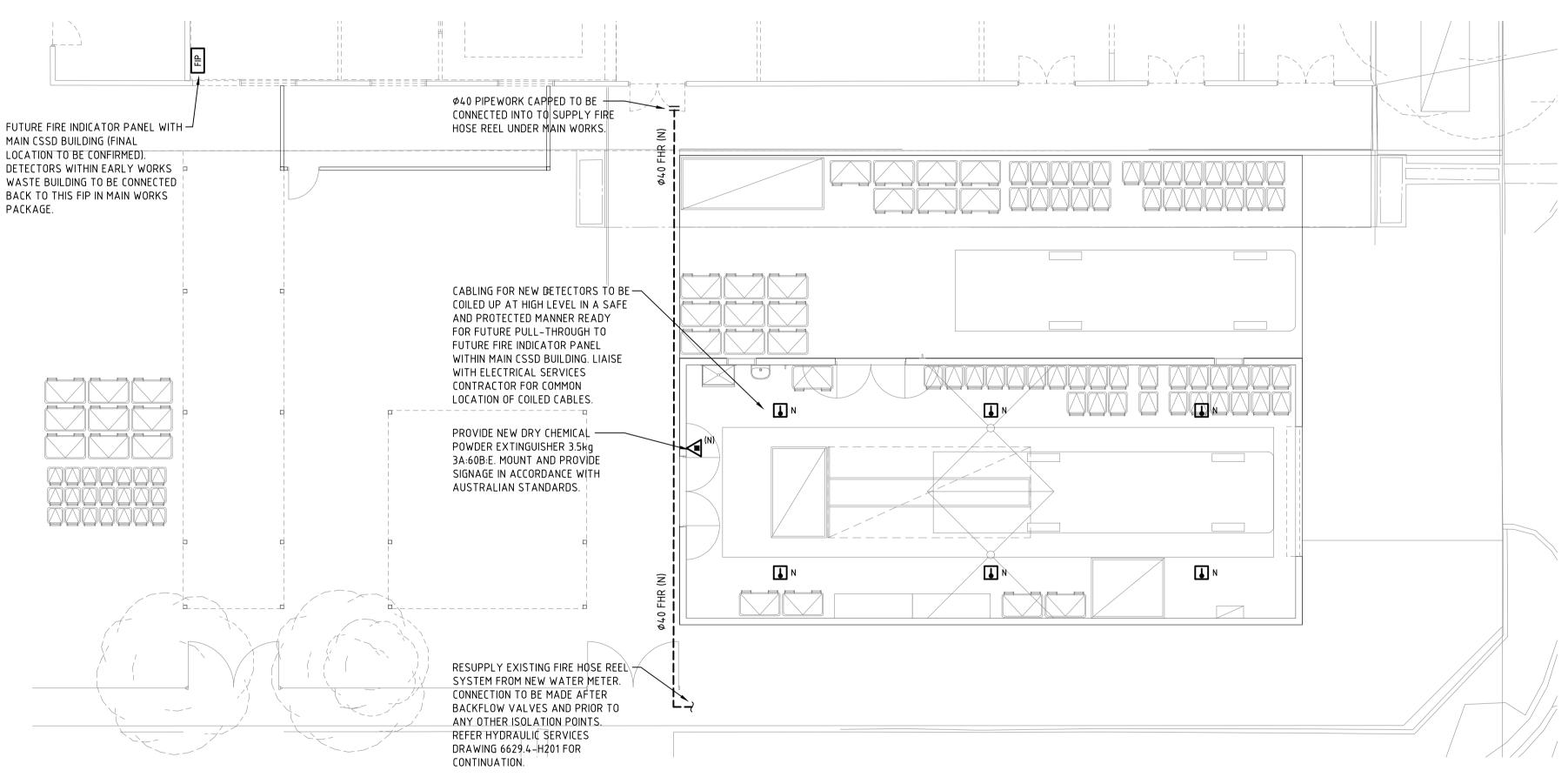
# LEGEND OF SYMBOLS

- GENERAL NOTATION
- (D) DENOTES DELETE/REMOVE DENOTE EXISTING TO REMAIN (E)
- (N) DENOTES NEW
- (R) DENOTES RELOCATE TO NEW LOCATION (RE) EXISTING ITEM TO BE REMOVED FOR RELOCATION
- DOUBLE HEADED FIRE HYDRANT WITH BOLLARDS
- WATER EXTINGUISHER
- CO2 EXTINGUISHER
- DRY CHEMICAL POWDER EXTINGUISHER
- FIRE BLANKET А
- FIRE HOSE REEL
- $\mathbf{\Sigma}$ SMOKE DETECTOR
- ┢ THERMAL DETECTOR

Т2	04.06.21	FINAL DESIGN CRITERIA ISSUE	RJS	ACM
T1	18.03.21	TENDER ISSUE	RJS	ACM
Rev	Date	Amendment Description	Ву	Chk



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WASTE BUILDING PART PLAN



# wiltshire swain

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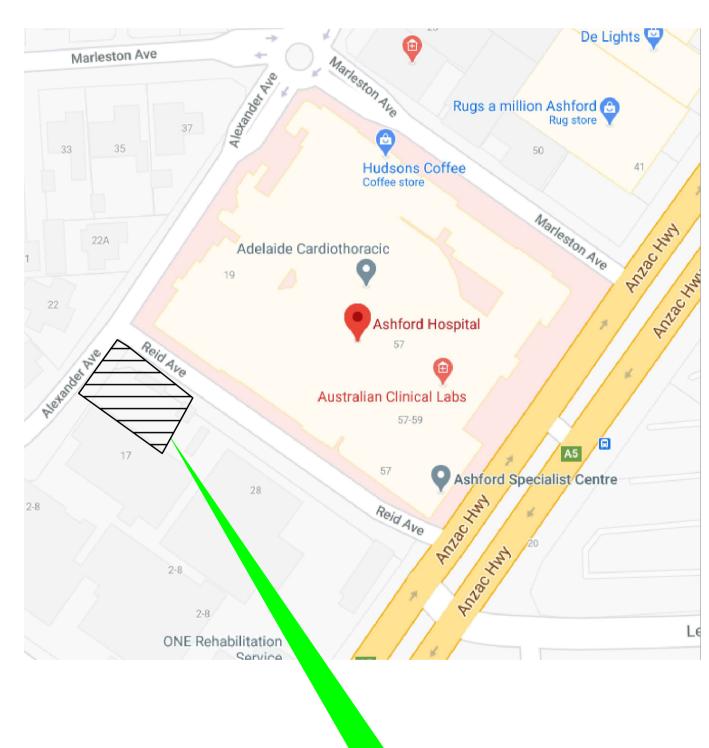
# ACHA CSSD - WASTE BUILDING EARLY WORKS 17 ALEXANDER AVENUE ASHFORD SA 5035

FIRE PROTECTION SERVICES TENDER DRAWING INDEX, LOCATION PLAN, WASTE BUILDING PART PLAN & LEGEND OF SYMBOLS

Drawing No.	Revision		Scale @ A1	Drawn	RJS
6629.4-F200	Τ2	A A A A A A A A A A A A A A A A A A A	1:100	Approved	ACM

# ACHA NEW CSSD WASTE BUILDING EARLY WORKS HYDRAULIC SERVICES

	DRAWING INDEX
6629.4-H100	COVER SHEET, DRAWING INDEX, LOCATION PLAN, GENERAL NOTES & LEGEND OF SYMBOLS
6629.4-H200	SITE PLAN: EXISTING / DEMOLITION HYDRAULIC ARRANGEMENT
6629.4-H201	SITE PLAN: PROPOSED HYDRAULIC ARRANGEMENT



# SITE OF WORKS

Т2	04.06.21	FINAL DESIGN CRITERIA ISSUE	LMM	G
T1	18.03.21	TENDER ISSUE	LMM	G
Rev	Date	Amendment Description	Ву	(



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## GENERAL NOTES

THE SCOPE OF WORKS COMPRISES OF THE DEMOLITION, SUPPLY, INSTALLATION, TESTING, COMMISSIONING, MAINTENANCE & DEFECTS LIABILITY, PROVISION OF MATERIALS, LABOUR AND EQUIPMENT FOR THE COMPLETE HYDRAULIC SERVICES WORKS AS SHOWN ON THE PROJECT DRAWINGS AND AS FOLLOWS:

THE WHOLE OF THE PLUMBING SANITARY DRAINAGE, TRADE WASTE, COLD, HOT & WARM WATER RETICULATION SHALL BE CARRIED OUT BY A FULLY REGISTERED PLUMBING CONTRACTOR, IN STRICT ACCORDANCE WITH THE REGULATIONS AND DIRECTIONS OF THE LOCAL WATER AUTHORITY & COMPLIANCE WITH THE APPLICABLE AUSTRALIAN STANDARDS & CODES; NOTABLY AS/NZS 3500.

3. PAY ALL ASSOCIATED FEES, GIVE NOTICES AND MAKE ALL APPLICATIONS FOR THE PROVISION OF THESE WORKS.

4. PRIOR TO THE COMMENCEMENT OF WORKS, LOCATE ALL EXISTING SERVICES & ENSURE THE PROPOSED LAYOUT DOES NOT CONFLICT. ENSURE THE CONTINUITY OF ALL EXISTING CONNECTIONS UNDER THE PROPOSED LAYOUT.

5. THE TENDERER SHALL ATTEND SITE TO FAMILIARISE THEMSELVES WITH SITE FEATURES, NO VARIATIONS WILL BE CONSIDERED BY NEGLECT OF THIS REQUIREMENT

6. ARRANGE TO SHUT DOWN THE EXISTING SERVICES AT A TIME IN CONSULTATION WITH THE PROJECT MANAGER AND HOSPITAL REPRESENTATIVE.

7. ALL PIPEWORK TO BE INSTALLED TO MANUFACTURERS RECOMMENDATIONS AND SUITABLY LABELLED IN ACCORDANCE WITH AS1345.

 MATERIALS USED SHALL BE NEW AND THE BEST OF THEIR RESPECTIVE KINDS, MANUFACTURED IN ACCORDANCE WITH THE RELEVANT CURRENT AUSTRALIAN STANDARDS AND CODES. WHERE REQUIRED, MATERIALS, FITTINGS AND ACCESSORIES SHALL BE TESTED AND STAMPED WITH A RECOGNISED WATER MARK

9. SOIL AND WASTE PIPEWORK TO BE UPVC MATERIA, COPPER WHERE EXPOSED, VENTILATION PIPEWORK SHALL BE DWV GRADE UPVC MATERIAL. ALL TRADE WASTE PIPEWORK SHALL BE HDPE MATERIAL.

10. PROVISION OF POINT OF USE ISOLATION VALVES AT FIXTURES IN THE FORM OF CHROME PLATED MINI CISTERN COCKS.

11. PROVIDE THERMAL INSULATION TO ALL EXPOSED COLD. HOT & WARM WATER PIPE WORK, PROVIDE THERMAL INSULATION TO ALL HOT WATER PIPE WORK.

12. WATER SERVICES IN GROUND SHALL BE COPPER TYPE B OR MDPE (BLUE LINE) UNLESS OTHERWISE NOTED COPPER TO BE DENSO WRAPPED WHEN INSTALLED BELOW GROUND. SUSPENDED WATER SERVICES SHALL BE COPPER TYPE B OR CROSS LINKED POLYETHYLENE (REHAU ONLY) UNLESS OTHERWISE NOTED. THE JOINTING METHOD FOR REHAU SHALL BE MECHANICAL COMPRESSION FITTING & SOLDER FOR COPPER. PIPEWORK IS TO BE CHROME PLATED WHERE EXPOSED.

13. GAS SERVICES IN GROUND SHALL BE MDPE (TIGER LINE) OR COPPER (DENSO WRAPPED). SUSPENDED GAS SERVICES SHALL BE COPPER TYPE B OR REHAU (PEX).

14. COMMISSIONING, TESTING AND 52 WEEK DEFECTS LIABILITY PERIOD.

15. REMOVE ALL EXCAVATED SOIL FROM SITE.

16. ALLOW FOR 3-OFF SOIL COMPACTION TESTS OF BACKFILLING OF TRENCHES

17. MARK OUT AND OBTAIN APPROVAL FROM A STRUCTURAL ENGINEER PRIOR TO SAW CUTTING, CORING OR REMOVAL OF EXISTING SLAB OR OTHER STRUCTURAL ELEMENTS; MAKING GOOD BY BUILDER.

18. PROVIDE FIRE STOPPING ACROSS FIRE RATED BUILDING ELEMENTS IN ACCORDANCE WITH THE BCA.

19. PROVIDE 3 COPIES OF 'AS-INSTALLED' DRAWINGS IN PRINT AND AUTOCAD FORMAT, CERTIFICATES OF COMPLIANCE, TECHNICAL DATA, COMMISSIONING RESULTS, WARRANTEES AND OTHER APPROVALS FOR INCLUSION INTO THE 'HYDRAULIC SERVICES OPERATION AND MAINTENANCE MANUALS'. DRAWINGS TO BE IN AUTOCAD FORMAT, VERSION 2013 OR LATER. COMPLETION WILL NOT BE ACHIEVED UNTIL CERTIFICATES AND COMPLETE OPERATION AND MAINTENANCE MANUALS ARE RECEIVED AND APPROVED.

20. PIPE BEDDING MATERIAL SHALL BE DS 4B SAND (OR SIMILAR APPROVED), FOR A MINIMUM DEPTH OF 100MM BENEATH THE BASE OF THE PIPE COLLARS. PIPE SURROUND MATERIAL SHALL BE DS 4B SAND (OR SIMILAR APPROVED). INSTALLED TO A MINIMUM DEPTH OF 150mm ABOVE THE CROWN OF THE PIPE. ALL TRENCHES BENEATH ALL BUILDINGS, PATHS, PAVED AREAS AND ROADWAYS SHALL BE BACKFILLED WITH PM21 (OR SIMILAR APPROVED) QUARRY RUBBLE COMPACTED TO 95% MDD. ALL TRENCHES BENEATH LAWN AREAS AND GARDEN AREAS SHALL BE BACKFILLED WITH APPROVED EXCAVATED MATERIAL COMPACTED TO 96% STANDARD.

(AS APPLICA	BLE)
—— EX —— DCW ——	COLD WATER (EXISTING)
—— EX —— DHW ——	HOT WATER (EXISTING)
—— EX —— NG ——	NATURAL GAS (EXISTING)
—— EX —— NDCW ——	COLD WATER (EXISTING NON DRINKABLE)
NDCW	COLD WATER (NON DRINKABLE)
DCW	COLD WATER (DRINKABLE)
DHW	HOT WATER (DRINKABLE)
DWW	WARM WATER (DRINKABLE)
SW	SOFTENED WATER
NG	NATURAL GAS
R0	REVERSE OSMOSIS
—]	PIPEWORK CAPPED
	PENETRATION
	CHANGE SIZE
20¢	ISOLATING BALL VALVE
25ø	ISOLATING VALVE IN VALVE BOX C/W
B	BALANCING VALVE
© ►	WATER OUTLET POINT
0	RISER
•	DROPPER
●TMV●	THERMOSTATIC MIXING VALVE (TMV)
Ū	TEMPERING VALVE
	SOLENOID VALVE
N X	BACKFLOW PREVENTION VALVE
Ø	TRAP PRIMER
$\bigcirc$	RECIRCULATING PUMP
ь	FILTER/STRAINER
٣	PRESSURE TEMP RELIEF VALVE
←	SCREW NOSE BIBCOCK
	GAS REGULATOR
ъ	GAS OUTLET SINGLE
¢	GAS OUTLET DOUBLE
	REFER TO NOTE OF SAME DESIGNATION.
	WATER METER
••	GAS METER
	PRESSURE LIMITING VALVE
Ø	PRESSURE GAUGE
	CEILING ACCESS PANEL BY BUILDER NOMINALLY 300 x 300 – UNLESS NOTED OTHERWISE
FC M	EXPANSION ALLOWANCE BELOW GROUND (FLEXIBLE COUPLING)

PLUMBING RETICULATION LEGEND

# DESIGN AND CONSTRUCT

# wiltshire swain

28 Crowther Street Adelaide SA 5000 08 7324 2812 | architects@wiltshireswain.com.au

# ( PLUMBING DRAINAGE LEGEND (AS APPLICABLE)

	<u>·····</u>
—— EX —— SD ——	SD (EXISTING)
—— EX —— TWD ——	TWD (EXISTING)
—— EX —— TW ——	TW (EXISTING)
—— EX —— CD ——	CD (EXISTING)
—— EX —— SW ——	SW (EXISTING)
SD	SD
TWD	TWD
TW	TW
CD	CD
	RM
SW	SW
	PIPEWORK CAPPED
	CHANGE SIZE
	CHANGE MATERIAL
та	KNUCKLE JOINT
SDH HSD	SET DOWN
<u>_</u>	CONTINUATION
	PENETRATION
<u> </u>	SEWER ACCESS GATE
	SEWER ACCESS GATE
10S 🔘	INSPECTION OPENING SURFACED - INTERNAL
10S 🗖	INSPECTION OPENING SURFACED - EXTERNAL
▶	VERTICAL INSPECTION OPENING
GIP 🔘	GOVERNMENT INSPECTION POINT
0	WASTE DRAIN RISER
୦୬	P-TRAP
GT 🛞	EXTERNAL GULLY TRAP
80×65 ⊘	FLOOR WASTE GULLY
ORG 🛞	OVERFLOW RELIEF GULLY
Ŷ	ROLL OVER FROM BELOW
Ø	SEALED FLOOR WASTE GULLY
sg 🌑	SEALED DISCONNECTOR GULLY
$\bigcirc$	MAN HOLE
®	REFLUX VALVE
$\odot$	SOIL DRAINAGE SHOP RISER
$\odot$	TRADE WASTE SHOP RISER
8	SILT/BUCKET TRAP
Ø	SOIL STACK
TD	TUNDISH
	IN-WALL S/S TUNDISH WITH WATERLESS TRAP
AAV	AIR ADMITTANCE VALVE
-	DIRECTION OF FLOW
SP	SOAKAGE PIT
©	ROOF PENETRATION
(Ô	FIRE STOPPED PENETRATION
-	

PLUN	1BING
	REVIATIONS
1	APPLICABLE)
<u>A/C</u>	
AFL	ABOVE FLOOR LEVEL
BV	BREATHER VENT
CO	CEILING OVER
CV C/W	CHAMBER VENT COMPLETE WITH
EXG	EXISTING
FFL	FINISHED FLOOR LEVEL
IL	INVERT LEVEL
PD	PUMPED DISCHARGE
(R)	REDUNDANT REMOVE FROM SITE
(S)	SEAL
SD	SOIL DRAIN
SS	SOIL STACK
S/S	STAINLESS STEEL
SU	SUSPENDED
SV	SOIL VENT
FA	FROM ABOVE
FB	FROM BELOW
TA	TO ABOVE
ТВ	TO BELOW
TWD	TRADE WASTE DRAIN
TWV	TRADE WASTE VENT
T&W	TRAP & WASTE
NG	NATURAL GAS
LPG	LIQUID PETROLEUM GAS
TDC	TESTABLE DOUBLE CHECK
DCV	DUAL CHECK VALVE
COS	CONFIRM ON SITE
RPZD	REDUCED PRESSURE ZONE DEVICE
	(REFER SPECIFICATION)
<u>S</u> S	RISER TYPE
(40,T] 4	WASTE/SOIL PIPE SIZE

ACHA CSSD – WASTE BUILDING EARLY WORKS

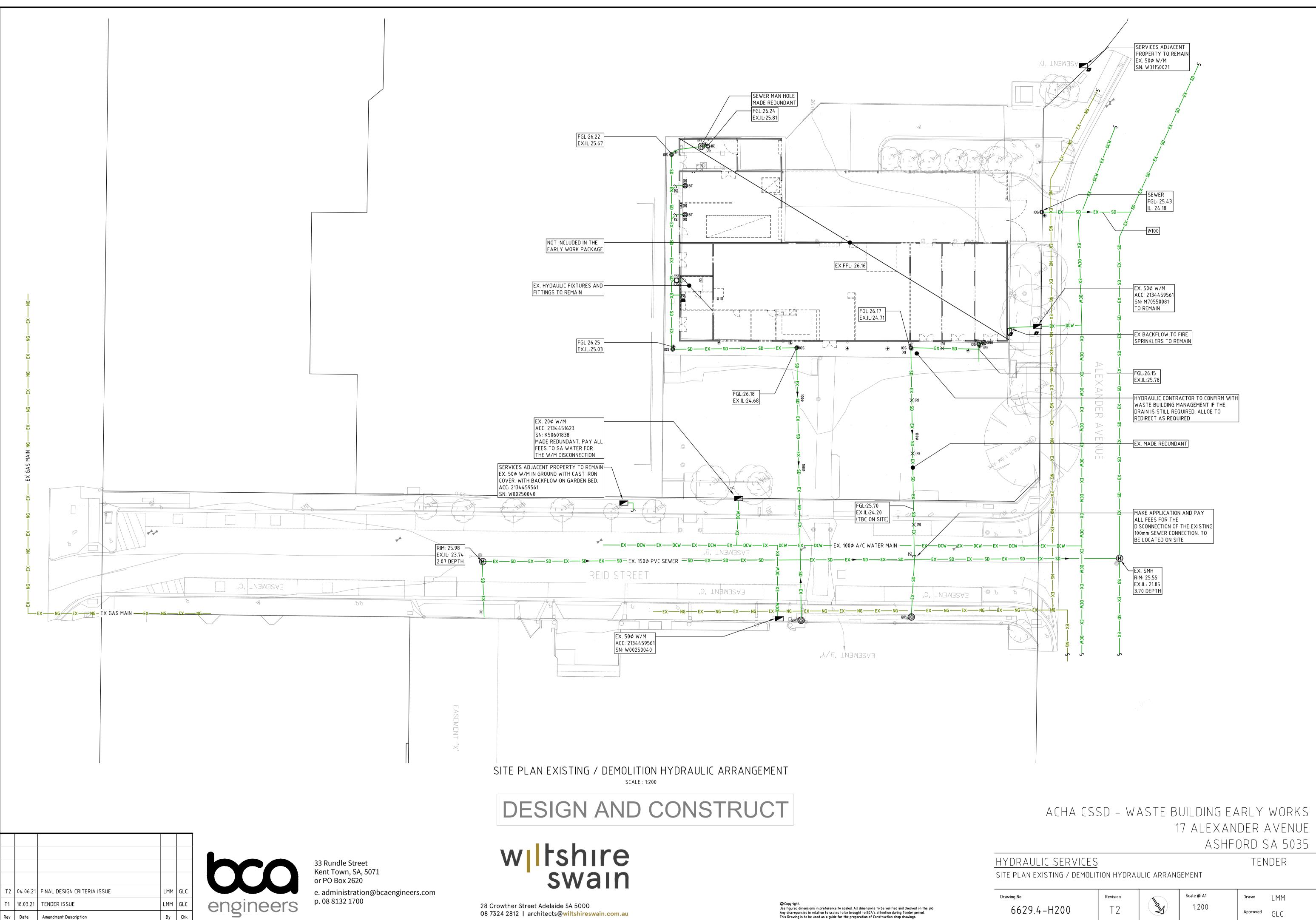
17 ALEXANDER AVENUE

ASHFORD SA 5035

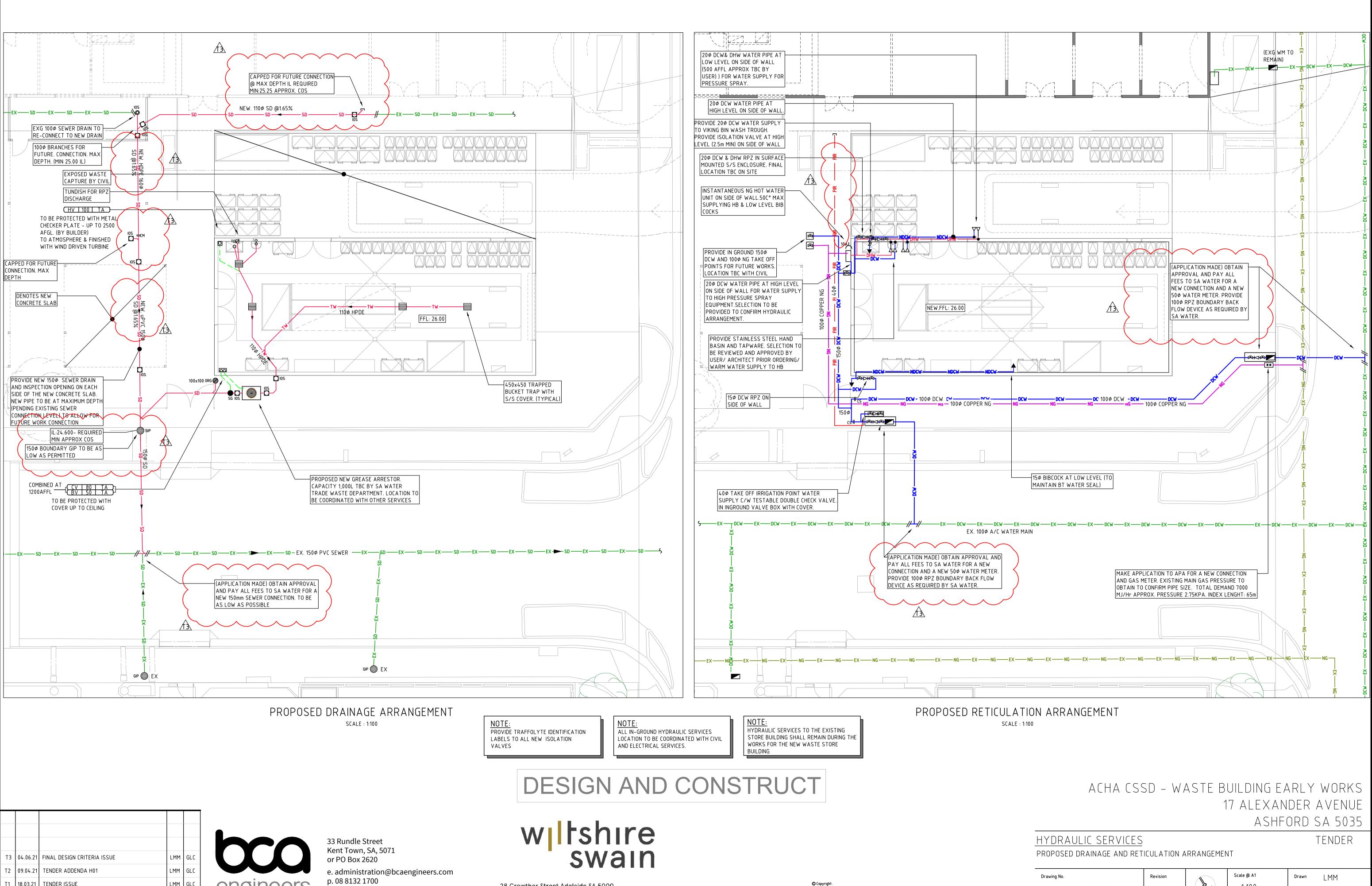
TENDER

HYDRAULIC SERVICES COVER SHEET, DRAWING INDEX, LOCATION PLAN, GENERAL NOTES & LEGEND OF SYMBOLS

Scale @ A1 Drawing No. Revision Drawn LMM 1:100 6629.4-H100 X Τ2 Approved GLC



nm AT FULL SIZE



18.03.21

**TENDER ISSUE** 

Amendment Description

engineers

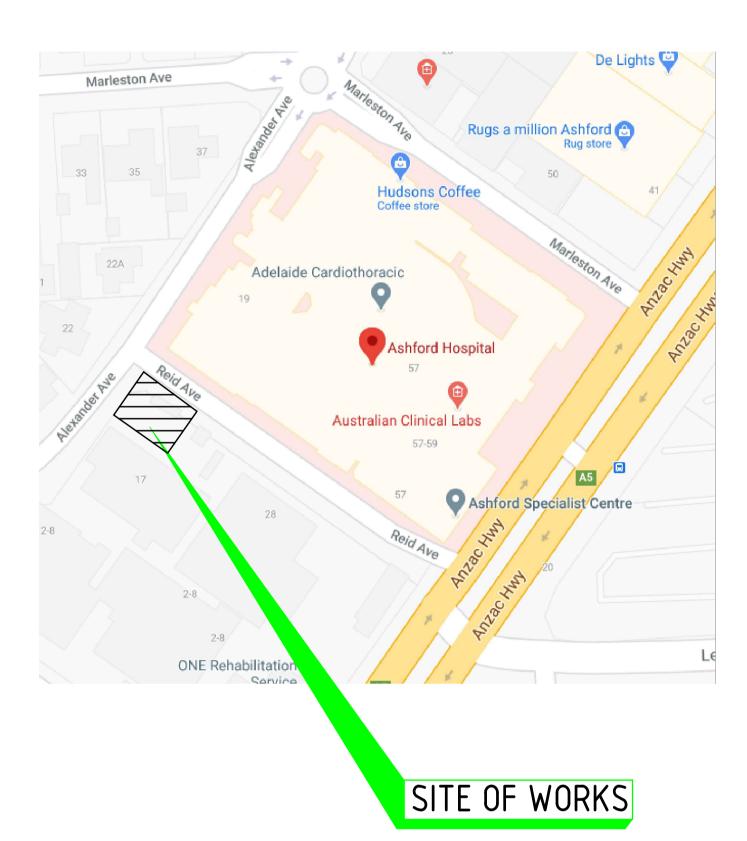
LMM GLC

By Chk

Drawing No.	Revision		Scale @ A1	Drawn	LMM
6629.4-H201	Τ3	-M	1:100	Approved	GLC

## DRAWING INDEX

6629.4-M200 DRAWING INDEX, LOCATION PLAN, LEGEND OF SYMBOLS & VENTILATION ARRANGEMENT



# LEGEND OF SYMBOLS

A
•

GENERAL EXHAUST FAN

OPPOSED BLADE DAMPER LITRES PER SECOND AIR DIFFUSION – SUPPLY AIR DIFFUSER, EXHAUST AIR GRILLE, RETURN AIR GRILLE ATG SUPPLY AIR GRILLE, AIR RELIEF GRILLE, OUTSIDE AIR GRILLE, AIR TRANSFER GRILLE ABOVE FLOOR LEVEL NEW GALVANISED SHEET METAL DUCT NEW SHEET METAL DUCTWORK WITH ACOUSTIC INSULATION INTERNAL 50mm THICK DUCT RISER DUCT AIR WAY DIMENSIONS IN mm. FIRST DIMENSION IS THE VISIBLE SIDE SECOND DIMENSION IS NON-VISIBLE SIDE.

DOUBLE THICKNESS TURNING VANES

OPPOSED BLADE DAMPER (PLAN VIEW & ELEVATION)

EXHAUST/ RETURN/ AIR RELIEF/ GRILLE, LENGTH x WIDTH AS SHOWN

DIRECTION OF FLOW: S/A = SUPPLY AIR R/A = RETURN AIR

0/A = OUTSIDE AIR

E/A = EXHAUST AIR

CONTROL PANEL

DENOTES ASSOCIATED BUILDERS WORKS

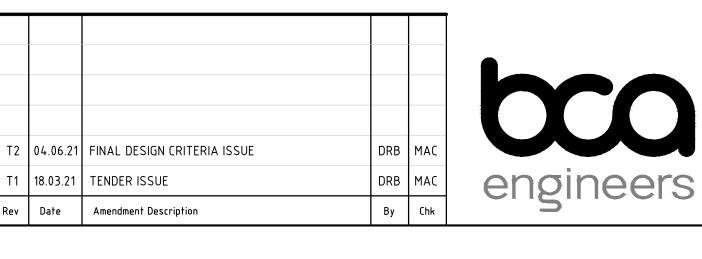
THREE PHASE ISOLATOR BY MECHANICAL SERVICES CONTRACTOR

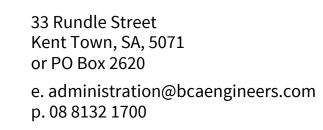
XXX XXXX XXX Ø

SIZE

100mm AT FULL

ROOF MOUNTED FAN/COWL



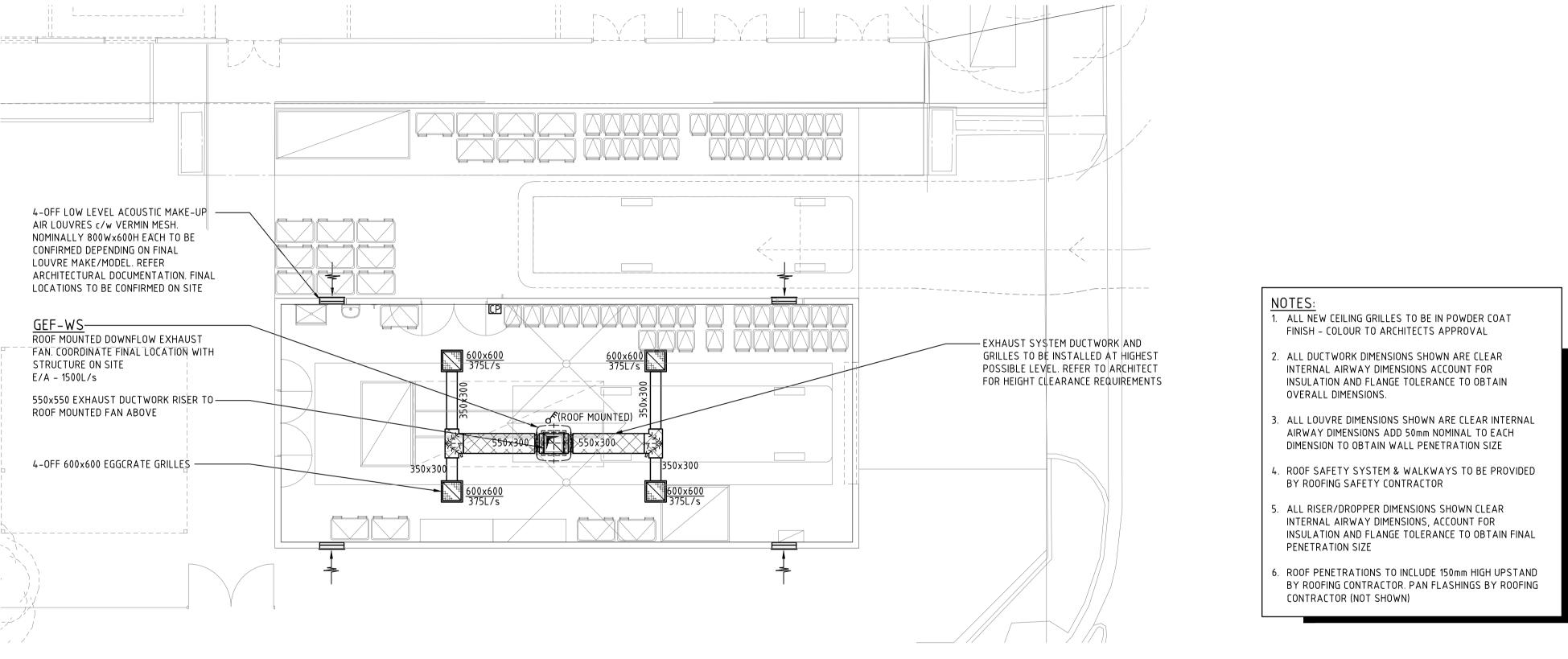


E/A – 1500L/s

# wiltshire swain

# DESIGN AND CONSTRUCT

# WASTE BUILDING PART PLAN SCALE 1:100 @ A1



# ACHA CSSD - WASTE BUILDING EARLY WORKS 17 ALEXANDER AVENUE ASHFORD SA 5035

MECHANICAL SERVICES

DRAWING INDEX, LOCATION PLAN, LEGEND OF SYMBOLS & VENTILATION ARRANGEMENT

Drawing No. 6629.4-M200



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Scale @ A1 AS SHOWN	Drawn	DRB
AS SHOWN	Approved	ΜΑር

TENDER