

SENIOR HOUSING DEVELOPMENT

289-293 BEAUCHAMP ROAD, MATRAVILLE NSW 2036

LEGEND

LINE TYPES

=====	EX. SANITARY DRAINAGE
=====	SANITARY DRAINAGE
- - - - -	VENT PIPE (VP)
-xcw-	EX COLD WATER (XCW)
-cw-	COLDWATER (CW)
-ww-	WARM WATER (WW)
-hw-	HOT WATER (HW)
-g-	GAS (G)

SYMBOLS

-----o	THROUGH DROPPER / RISER
----->	BEND DOWN
-----o	TEE UP
-----o	GATE VALVE (GV)
-----N	NON RETURN VALVE (NRV)
-----o	CONTROL VALVE (CV)
-----o	HOSE COCK (HC)
-----o	GAS COCK (GC)
-----o	HYDRANT VALVE (HV)
-----o	INSPECTION CHAMBER (IC)
-----o	OVERFLOW RELIEF GULLY(RG)
-----o	WATER METER (WM)
-----o	SEWER MANHOLE (SMH)
-----o	SUMP
-----o	BALCONY DRAIN
-----o	REDUCER
-----o	RISER
-----o	SERVICE NAME
-----o	SIZE
-----o	DROPPER
-----o	FLOW DIRECTION

ABBREVIATIONS

AAV	AIR ADMITTANCE VALVE
BSN	BASIN
BT/FW	BUCKET TRAP FLOOR WASTE
BTH	BATH
Cu	COPPER
CVP	CHAMBER VENT PIPE
DIOL	DUCTILE IRON CEMENT LINED
ED	ELEVATED DRAINAGE
EJ	EXPANSION JOINT
EX.	EXISTING
FW	FLOOR WASTE
IL	INVERT LEVEL
IS	INSPECTION SHAFT
HC	HOSE COCK
HHW	HOT WATER HEATER
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
RG	RELIEF GULLY
RL	RELATIVE LEVEL
SHR	SHOWER
SK	SINK
ST	STACK
STV	STACK VENT
TT	TRAPPED TUNDISH
TUB	LAUNDRY TUB
T	TUNDISH
UPVC	UNPLASTICISED POLYVINYL CHLORIDE
VP	VENT PIPE
WC	WATER CLOSET
W/M	WASHING MACHINE

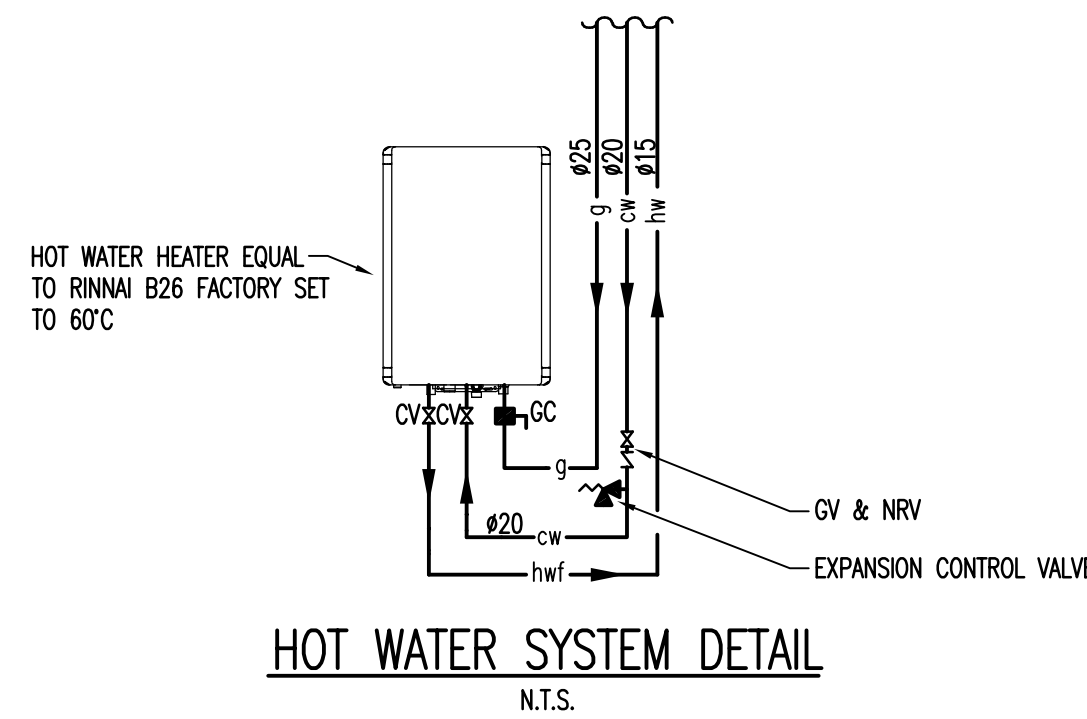
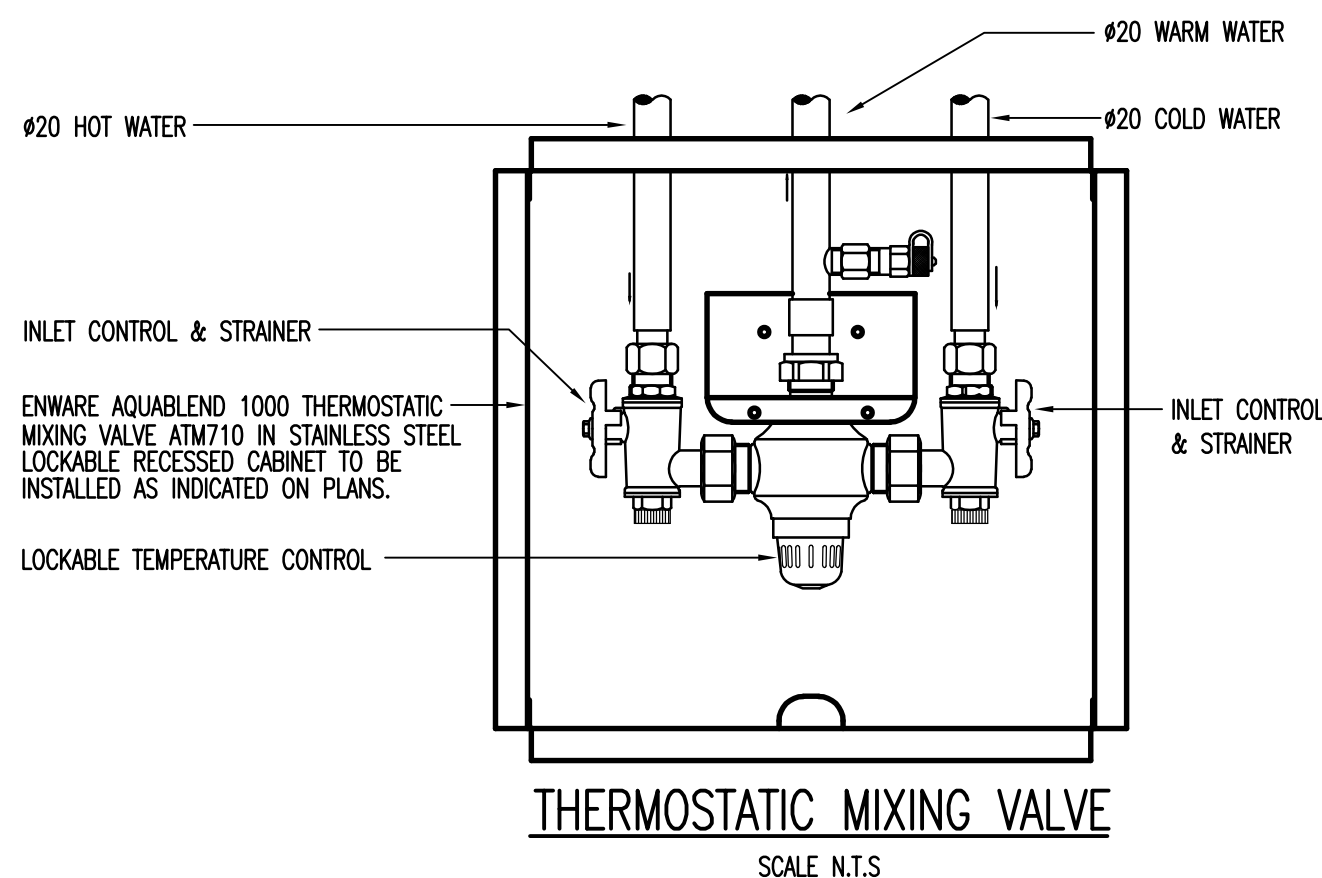
NOTES:

- ALL WORKS TO BE INSTALLED IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENTS, AS3500 NATIONAL PLUMBING & DRAINAGE CODE, & AS2419.1-2005 FIRE HYDRANT INSTALLATIONS
- THE CONTRACTOR IS TO CONFIRM LOCATION & DEPTH OF EXISTING SERVICES ON SITE PRIOR TO CONSTRUCTION. IF ANY CONFLICT EXISTS NOTIFY BUILDER IMMEDIATELY.
- THE CONTRACTOR IS TO CONFIRM EXISTING & PROPOSED SURFACE LEVELS PRIOR TO INSTALLATION OF PIPEWORK, SUMPS, MANHOLES, PITS, ETC.
- ALL PIPEWORK WHICH IS TO BE FIXED IN CEILING SPACE, ON WALLS OR SUSPENDED UNDER FLOORS SHALL BE SUPPORTED WITH 'UNISTRUT' BRACKETING SYSTEM OR EQUAL. PIPEWORK IS NOT TO BE FIXED IN DIRECT CONTACT WITH BUILDING STRUCTURE.
- BACKFILLING
BACKFILL SERVICE TRENCHES AS SOON AS POSSIBLE AFTER SERVICE HAS BEEN LAID AND BEDDED. PLACE THE BACKFILL IN LAYERS <150mm THICK AND COMPACT TO THE DENSITY WHICH APPLIES TO THE LOCATION OF THE TRENCHES TO MINIMISE SETTLEMENT.
- BACKFILL MATERIAL
GENERAL FILL WITH NO STONES GREATER THAN 25mm OCCURING WITHIN 150mm OF THE SERVICE UNDER ROADS AND PAVED AREAS AND WITHIN 4 METRES OF BUILDING: COARSE SAND, CONTROLLED LOW STRENGTH MATERIAL OR FINE CRUSHED ROCK.
- HOT & COLD WATER RETICULATION PIPEWORK TO BE COPPER TUBE TABLE B TO AS 1432
- ALL INGROUND COPPER RETICULATION PIPEWORK TO BE FITTED WITH POLYETHYLENE JACKET PRIOR TO INSTALLATION
- HOT WATER TEMPERATURE TO ALL ABLUTION FIXTURES TO BE MAX 42°C THE CONTRACTOR IS TO ALLOW FOR ALL MIXING/TEMPERING VALVES WHERE REQUIRED.
- ALL HOSE COCKS TO BE PROVIDED WITH VACUUM BREAK VALVES EQUAL TO WATTS/RMC HCVB (AQUAGUARD)
- EXPOSED PIPEWORK IN AMENITIES TO BE CHROME PLATED COPPER TUBE INCLUDING HOT & COLD WATER, WASTE PIPES AND PLUG WASTES.
- ALLOW TO CUT & REMOVE EX CONCRETE & ROAD SURFACES WHERE REQUIRED & MAKE GOOD THE SURFACE UPON COMPLETION TO MATCH EXISTING LEVELS.
- EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA, KNOX ADVANCED ENGINEERING & THE SUPERINTENDANT DO NOT GUARENTEE THEIR ACCURACY & IT IS THE PLUMBING CONTRACTORS RESPONSIBILITY TO ESTABLISH THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF ANY WORK. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT AUTHORITY. LOCATION & NUMBERS ARE TO BE VERIFIED ON SITE.
- ON COMPLETION OF PIPE INSTALLATION, ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL CONDITION INCLUDING: KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AREAS & ROAD PAVEMENTS.
- CARE SHALL BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. EXCAVATE BY HAND IN THESE AREAS.
- THE PLUMBING CONTRACTOR SHALL OBTAIN ALL AUTHORITY APPROVALS AND PAY ALL FEES
- ACCESS PANEL ARE TO BE INSTALLED WHERE REQUIRED TO ACCESS CONTROL VALVES IN WATER LINES AS REQUIRED & INSPECTION OPENINGS ON STORM & SEWER RISERS. ACCESS PANELS SHALL MATCH PROPOSED FINISH. REFER TO ARCHITECTURAL DRAWINGS FOR FINISHES.
- ALLOW TO SUBMIT A SET OF AS BUILT DWGS TO THE CLIENT IN ELECTRONIC (CAD) FORMAT AT THE COMPLETION OF THE INSTALLATION
- INSPECTION OPENINGS SHALL BE PROVIDED AT:
 - THE PROPERTY BOUNDARY
 - ON EACH WC OR BRANCH
 - AT MAX. 30m INTERVALS SPREAD EQUIDISTANT WHERE POSSIBLE
 - IMMEDIATELY UPSTREAM & DOWNSTREAM OF ALL JUMP-UPS
 - AS REQUIRED BY THE AUTHORITY FOR INSPECTION & MAINTENANCE
- CARE SHALL BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. EXCAVATE BY HAND IN THESE AREAS.
- ALL SUSPENDED SLAB PENETRATIONS & HORIZONTAL/VERTICAL PENETRATIONS BETWEEN FIRE COMPARTMENTS SHALL HAVE APPROVED FIRE ISOLATING COLLARS.
- INVERT LEVELS SHOWN ARE INDICATIVE ONLY. CONFIRM ALL LEVELS ON SITE BEFORE COMMENCING CONSTRUCTION.
- PLASTIC PIPES - PROVIDE APPROVED FIRE STOP COLLARS TO ALL HORIZONTAL AND VERTICAL SURFACES AS NECESSARY TO EQUAL THE FIRE RATING OF THE SURROUNDING STRUCTURE AND COMPLY WITH THE BCA, COUNCIL AND NSW FIRE BRIGADES REQUIREMENTS. USE APPROVED FIRE STOP COLLARS FOR THE "DRY WALL" CONSTRUCTION AND INSTALL STRICTLY TO THE MANUFACTURERS INSTRUCTIONS
- METALLIC PIPES - ALL HORIZONTAL & VERTICAL FIRE RATED SURFACE PENETRATIONS SHALL BE SEALED WITH FIRE RATED NON-SETTING MASTIC, EQUAL TO HILTI "FIRESTOP" SEALANT CP606 OR CP611A. ALLOW TO PROVIDE MINERAL ROCK WOOL INSULATION ON EACH SIDE OF FIRE WALL PETRATIONS. ENSURE PLASTERBOARD BUILD UPS ARE PROVIDED AS REQUIRED. CONTRACTOR TO ENGAGE INDEPENDENT CERTIFIER TO CERTIFY THE INSTALLATION OF ALL HORIZONTAL & VERTICAL FIRE RATED SURFACE PENETRATIONS

DRAWING LIST

HYDRAULIC SERVICES

SHEET	TITLE	SCALE
H000	DRAWING SCHEDULE AND LEGEND	AS SHOWN
H101	GROUND AND FIRST FLOOR PLAN DRAINAGE SERVICES	1:100
H102	ROOF PLAN DRAINAGE SERVICES	1:100
H201	GROUND FLOOR PLAN WATER AND GAS SITE SERVICES	1:100
H202	GROUND AND FIRST FLOOR PLAN WATER AND GAS SERVICES	1:100
H301	HOT & COLD WATER DETAILS	1:50
H401	GROUND AND FIRST FLOOR PLAN FIRE HYDRANT COVERAGE	1:100



D.A ISSUE

NO.	DATE	AMENDMENT	CHECKED
1	04/03/22	DEVELOPMENT APPLICATION ISSUE	KAE

KNOX ADVANCED ENGINEERING



MECHANICAL
ELECTRICAL
HYDRAULICS
ESD
AQUATIC
STRUCTURAL
CIVIL

Sydney
W : 02 8974 1433
M : +61 0420 485 854
Web : www.knoxadv.com.au
Email: jorgenk@knoxadv.com.au



Job Name
**SENIOR HOUSING DEVELOPMENT
MATRAVILLE BSW 2036
LOT 8 & 9, DP 36253**

Sheet Title
DRAWING SCHEDULE AND LEGEND

Date
MAR 2022

Drawn
KAE

Checked
KAE

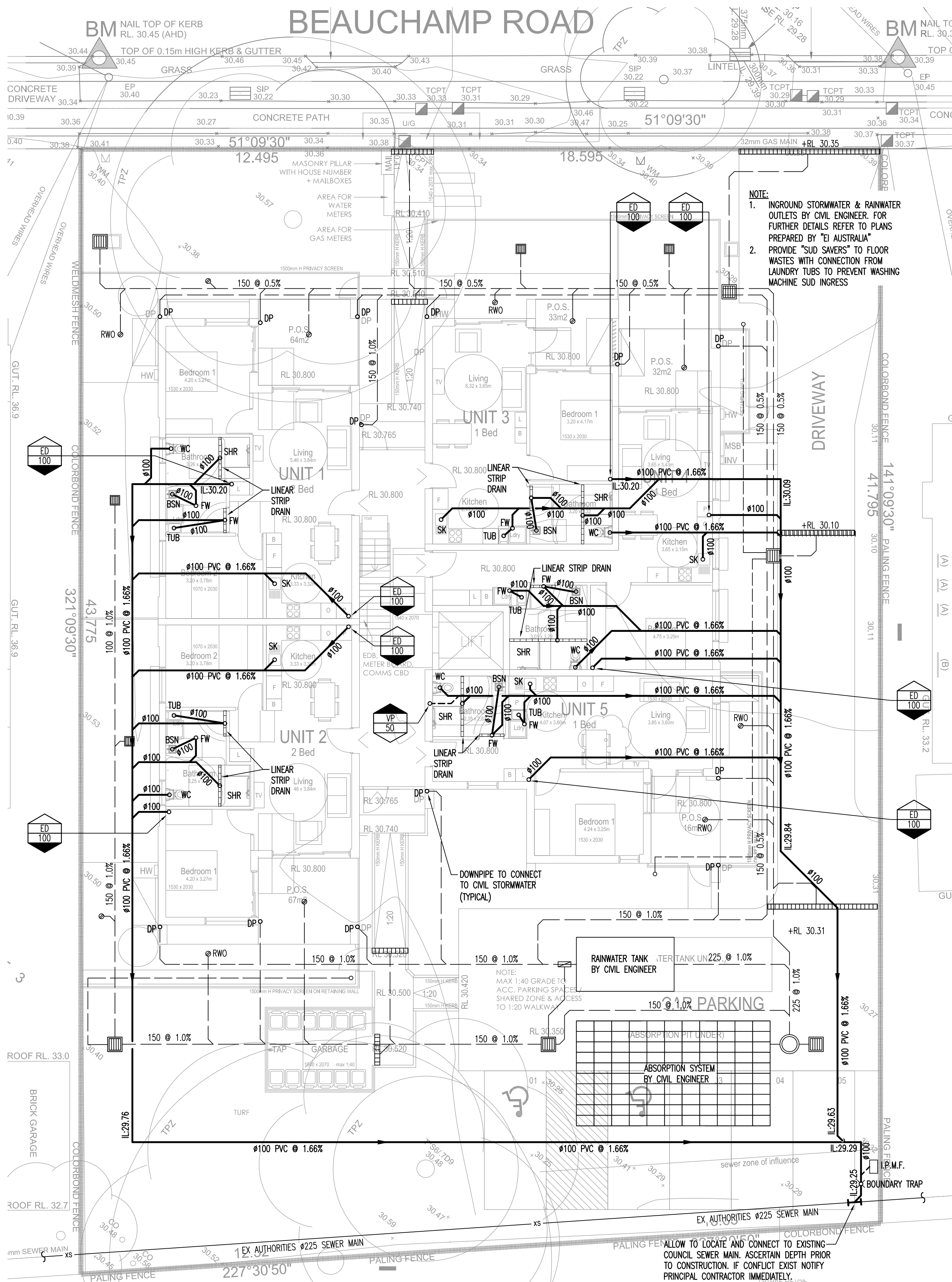
Authorised
KAE

Scales
A/S @ A1

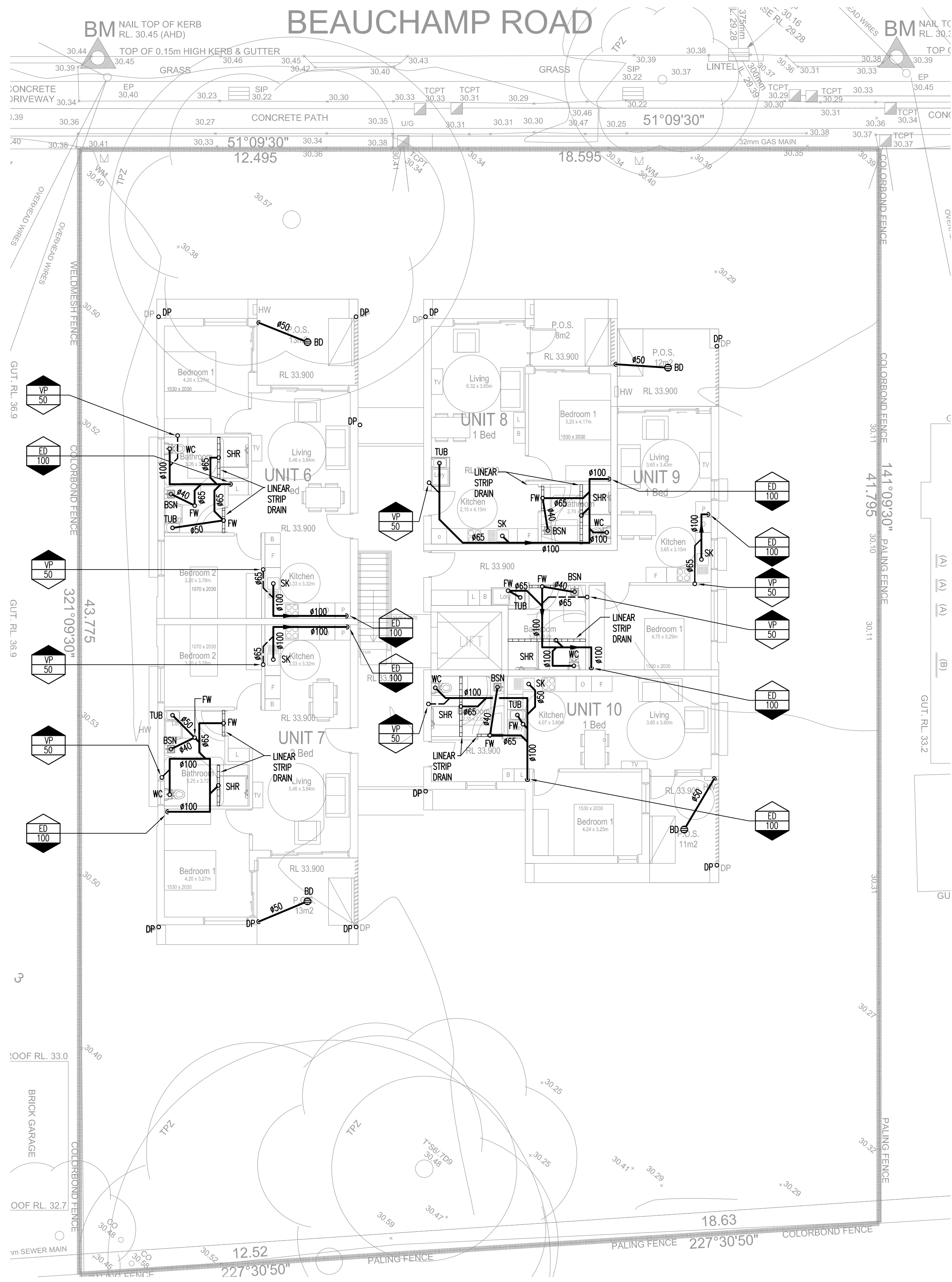
Job No.
21.131

No. in set
1

Sheet No.
H000



GROUND FLOOR PLAN – DRAINAGE SERVICES
SCALE 1:100

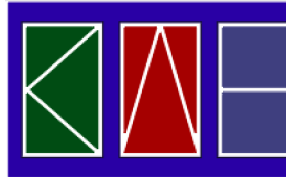


FIRST FLOOR PLAN – DRAINAGE SERVICES
SCALE 1:100

D.A ISSUE

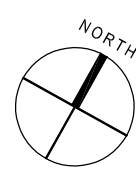
NO.	DATE	AMENDMENT	CHECKED
1	04/03/22	DEVELOPMENT APPLICATION ISSUE	KAE

KNOX ADVANCED ENGINEERING



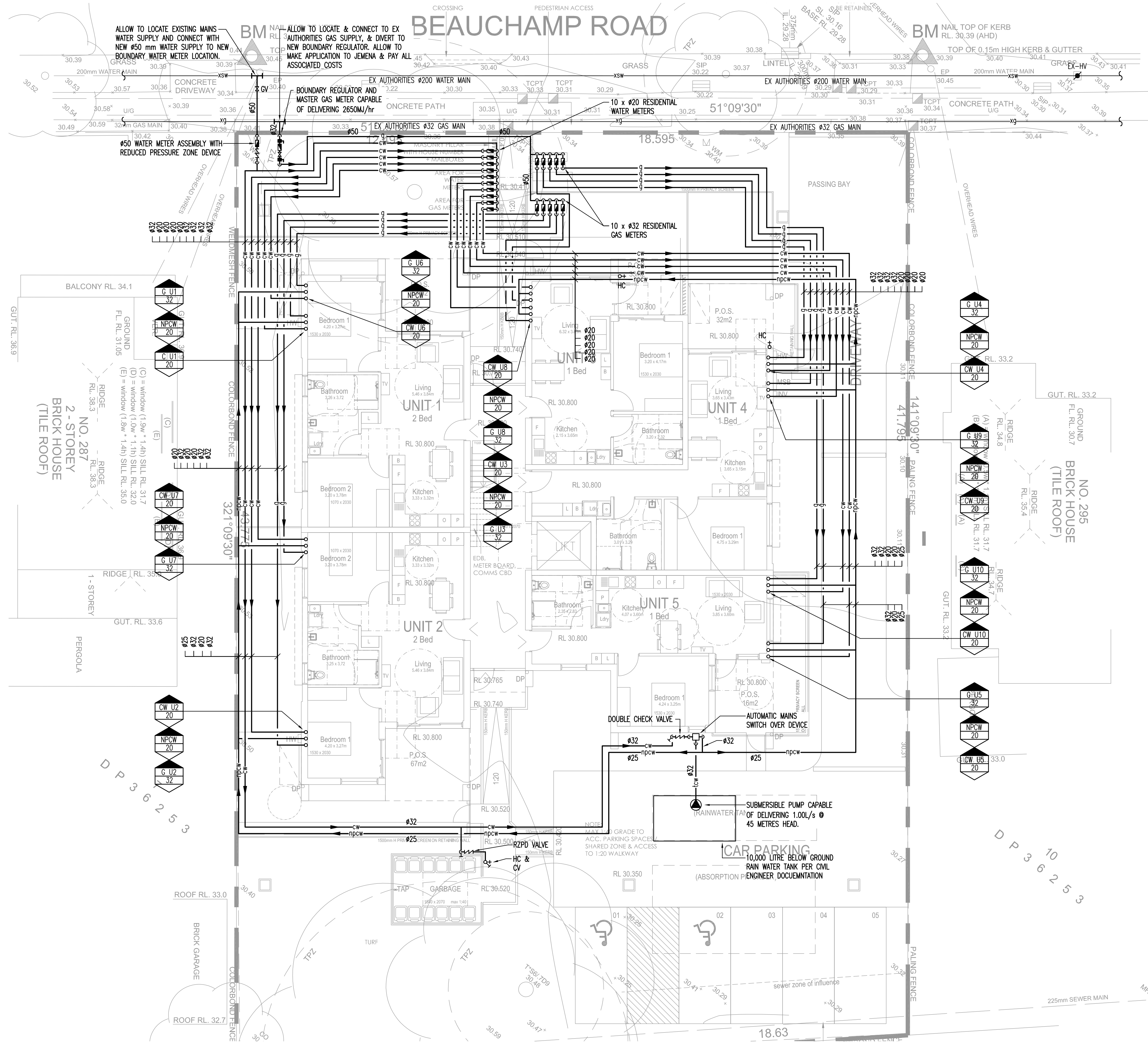
MECHANICAL
ELECTRICAL
HYDRAULICS
SOUND
AQUATIC
STRUCTURAL
CIVIL

Sydney
W : 02 8974 1433
M : +61 0420 485 854
Web : www.knoxadv.com.au
Email: jorgenk@knoxadv.com.au



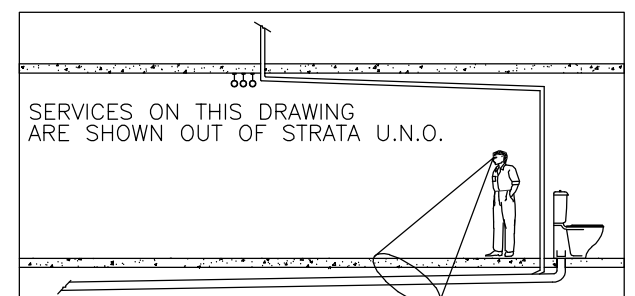
Job Name	SENIOR HOUSING DEVELOPMENT MATRAVILLE BSW 2036 LOT 8 & 9, DP 36253
Sheet Title	GROUND AND FIRST FLOOR DRAINAGE SERVICES

Date	MAR 2022	Scales	1:100 @ A1
Drawn	KAE	Job No.	21.131
Checked	KAE	No. in set	2
Authorised	KAE	Sheet No.	H101



GROUND FLOOR PLAN – WATER AND GAS SITE SERVICES
SCALE 1:100

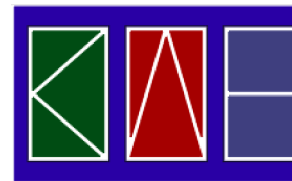
PLEASE NOTE:



D.A ISSUE

NO.	DATE	AMENDMENT	CHECKED
1	07/03/22	DEVELOPMENT APPLICATION ISSUE	KAE

KNOX ADVANCED ENGINEERING



MECHANICAL
ELECTRICAL
HYDRAULICS
SD
AQUATIC
STRUCTURAL
CIVIL

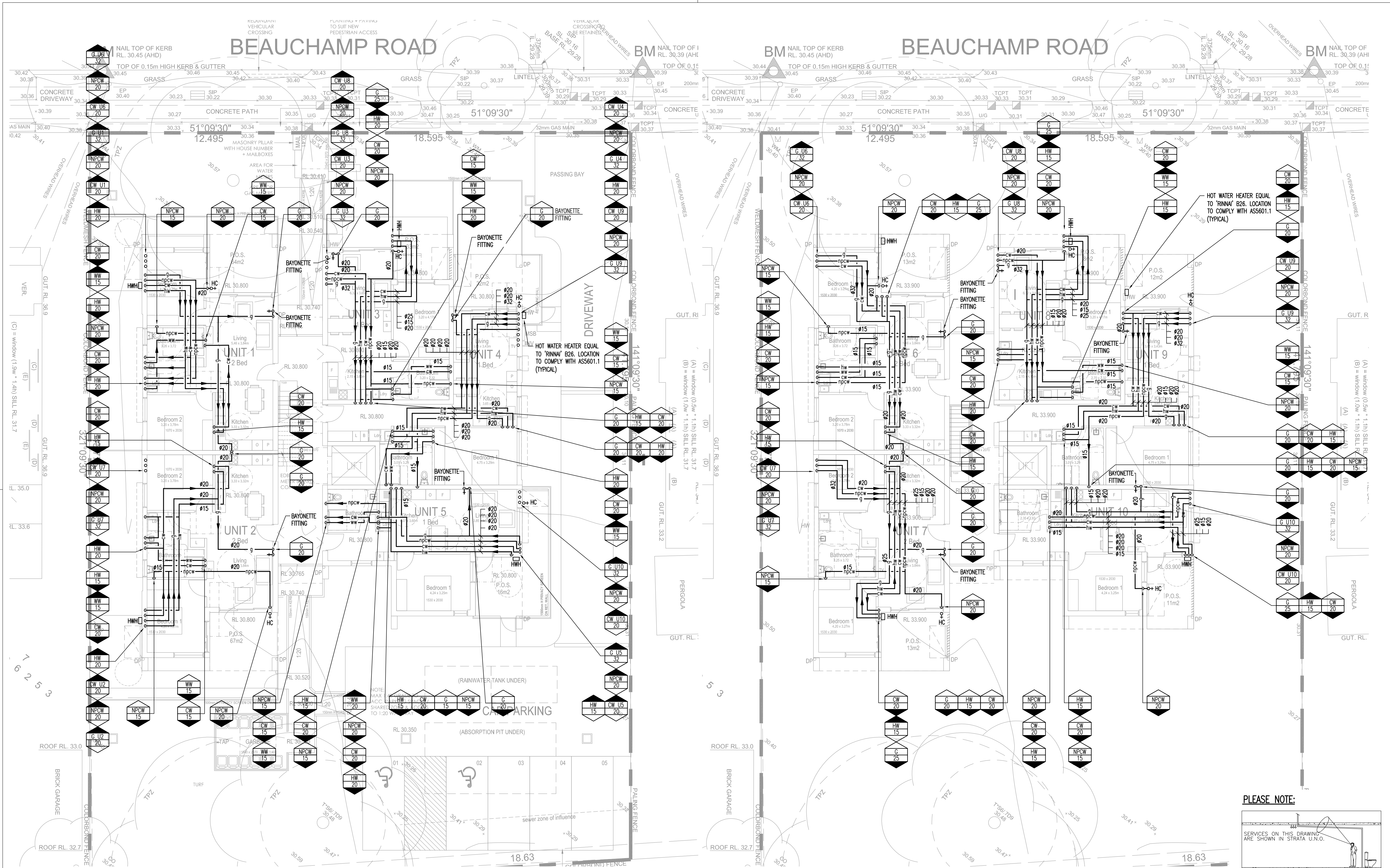
Sydney
W : 02 8974 1433
W : +61 0420 465 854
Web : www.knoxadv.com.au
Email: jorgenk@knoxadv.com.au



Job Name	SENIOR HOUSING DEVELOPMENT MATRAVILLE BSW 2036 LOT 8 & 9, DP 36253
Sheet Title	GROUND FLOOR PLAN WATER AND GAS SITE SERVICES

Date	MAR 2022
Drawn	KAE
Checked	KAE
Authorised	KAE

Scales	1:100 @ A1
Job No.	21.131
No. in set	4
Sheet No.	H201



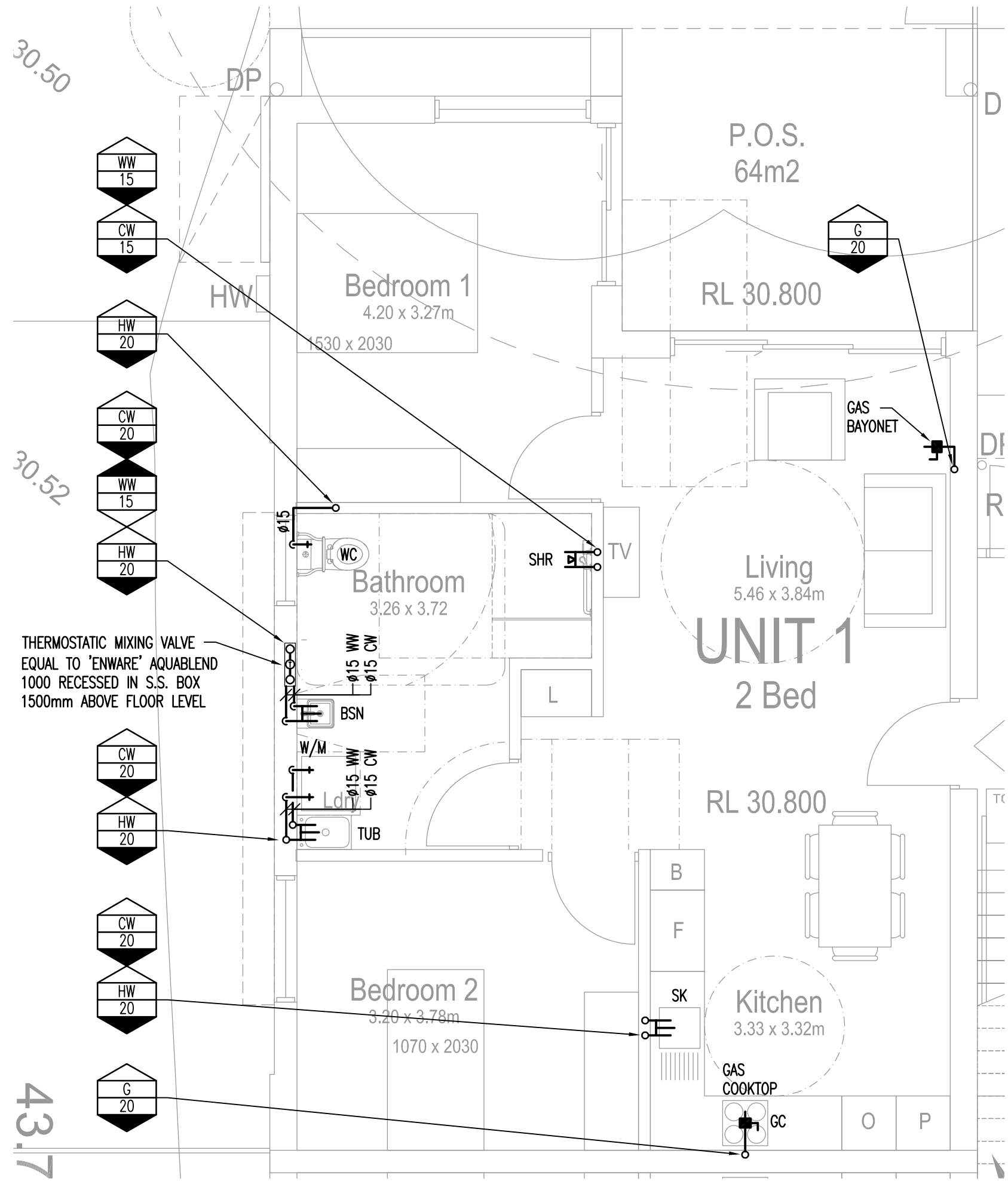
GROUND FLOOR PLAN – WATER AND GAS SERVICES
SCALE 1:100

FIRST FLOOR PLAN – WATER AND GAS SERVICES
SCALE 1:100

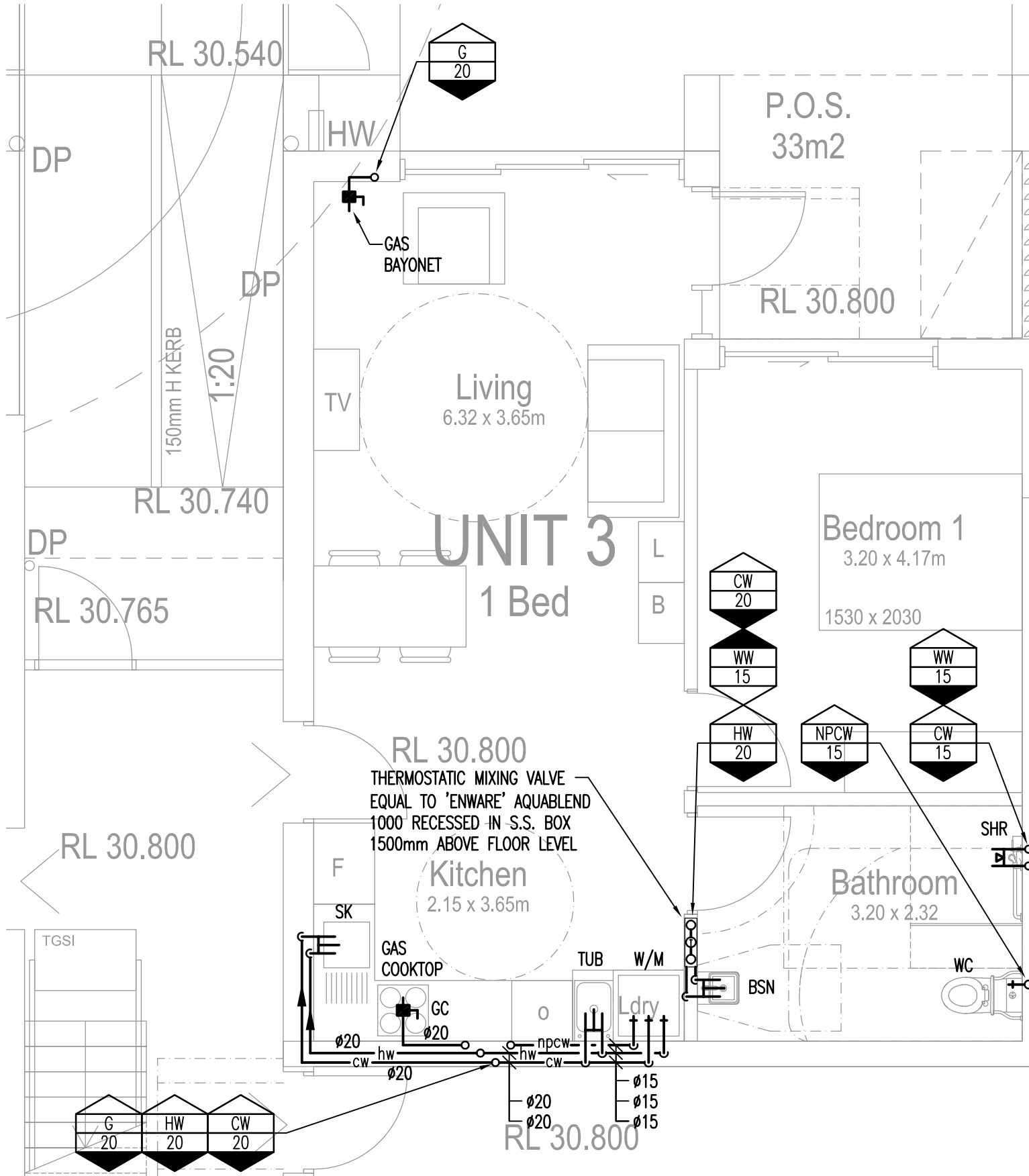
PLEASE NOTE:
SERVICES ON THIS DRAWING ARE SHOWN IN STRATA U.N.O.

D.A ISSUE

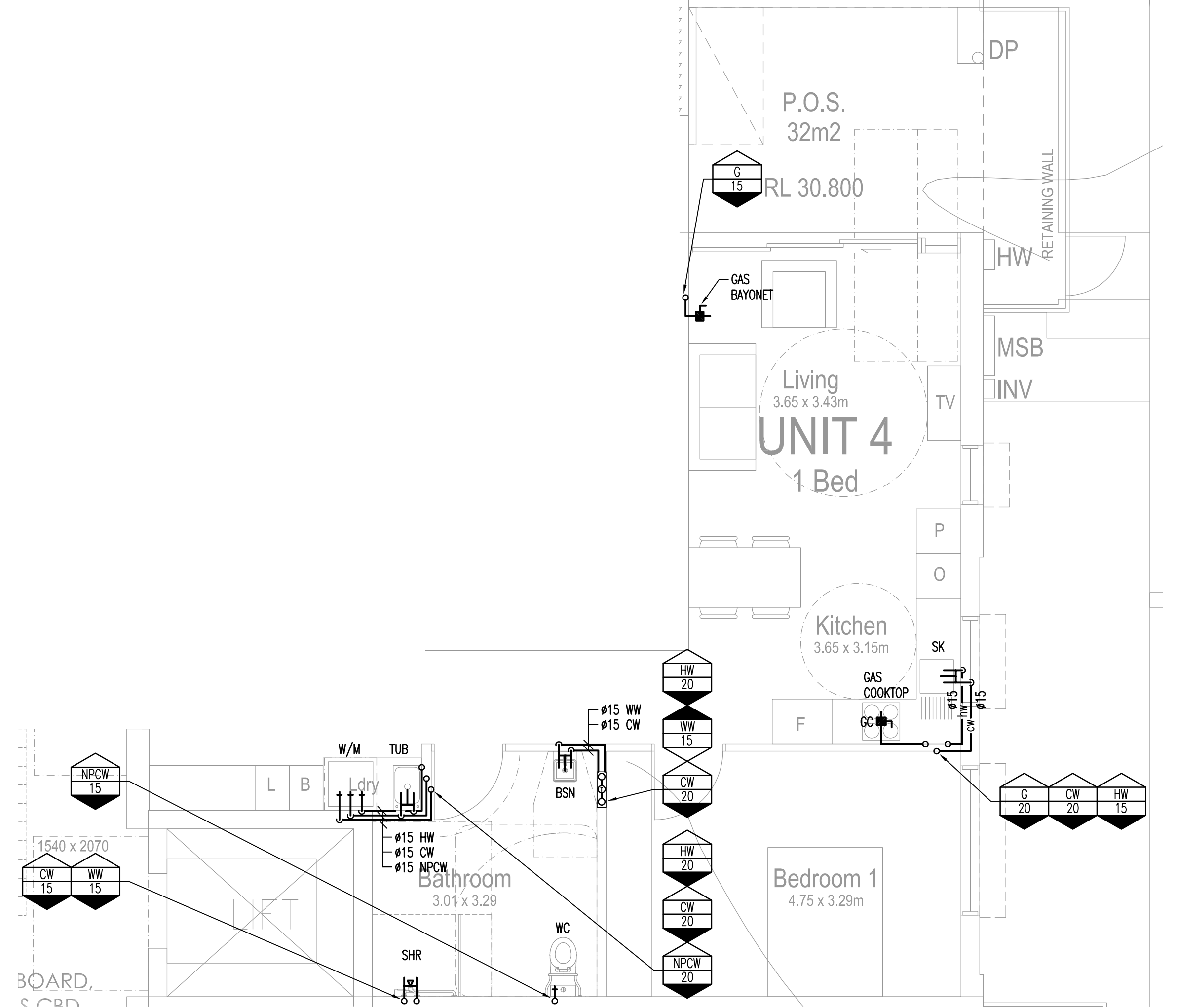
NO. DATE		AMENDMENT	CHECKED	KNOX ADVANCED ENGINEERING		CM+A		Job Name		Date	Scale
1	04/03/22	DEVELOPMENT APPLICATION ISSUE	KAE	 MECHANICAL ELECTRICAL HYDRAULICS SPECIALIST STRUCTURAL CIVIL		 COLLARD MAXWELL ARCHITECTS		SENIOR HOUSING DEVELOPMENT MATRAVILLE BSW 2036 LOT 8 & 9, DP 36253		MAR 2022	1:100 @ A1
				Sydney W : 02 8974 1433 M : +61 0420 465 854 Web : www.knoxadv.com.au Email: jorgenk@knoxadv.com.au		 Planning, Industry & Environment		Sheet Title		Checked	Job No.
								GROUND AND FIRST FLOOR WATER AND GAS SERVICES		KAE	21.131
								Authorised		KAE	No. In set
											5
											Sheet No.
											H202



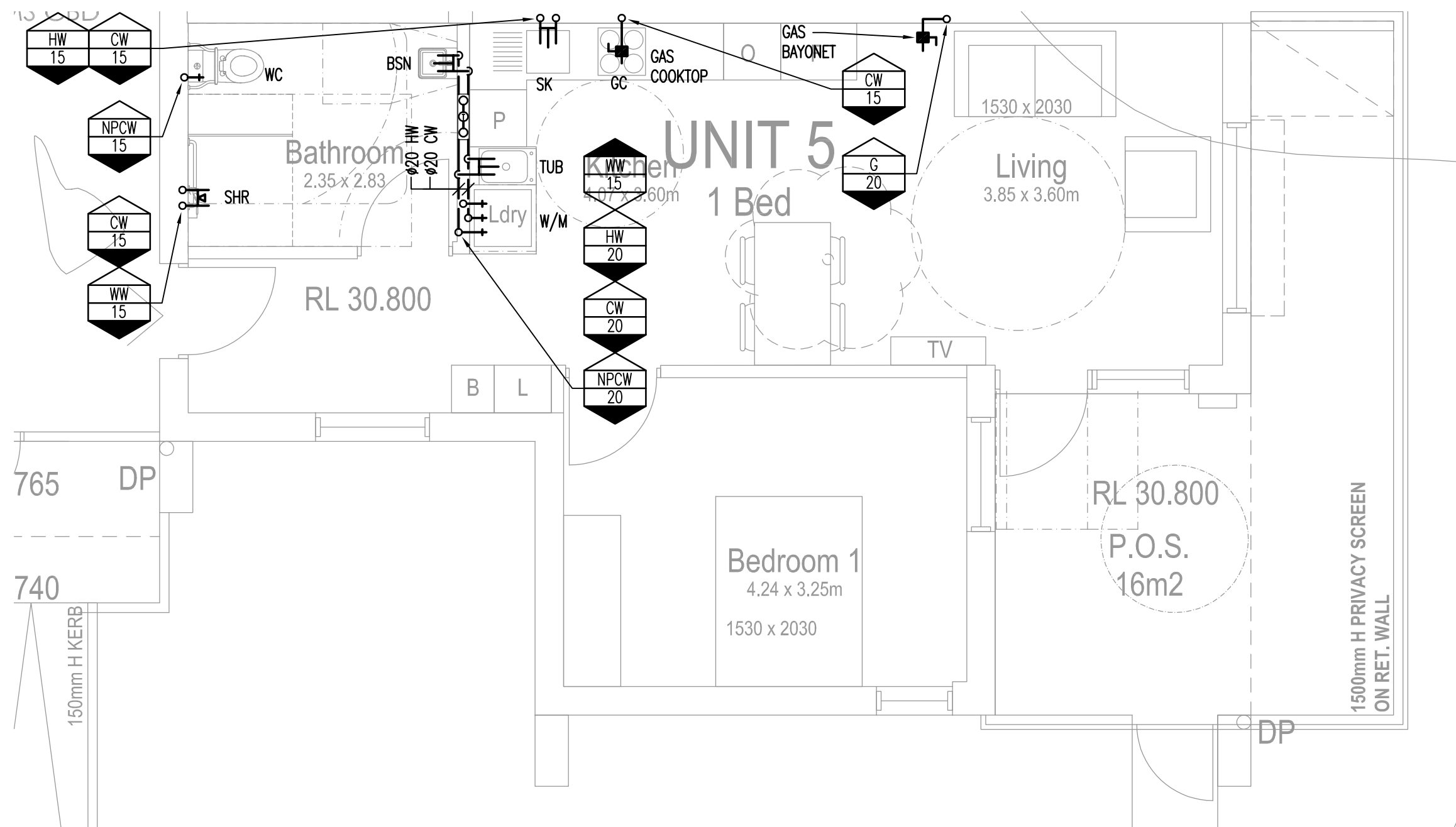
UNIT 1 HOT & COLD DETAILS
(UNIT 2 MIRROR)
(UNIT 6 SIMILAR)
SCALE 1:50



UNIT 3 HOT & COLD DETAILS
(UNIT 8 SIMILAR)
SCALE 1:50



UNIT 4 HOT & COLD DETAILS
(UNIT 9 SIMILAR)
SCALE 1:50

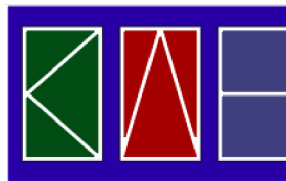


UNIT 5 HOT & COLD DETAILS
(UNIT 10 SIMILAR)
SCALE 1:50

D.A ISSUE

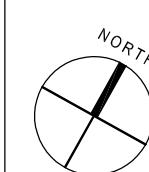
NO.	DATE	AMENDMENT	CHECKED
1	04/03/22	DEVELOPMENT APPLICATION ISSUE	KAE

KNOX ADVANCED ENGINEERING



MECHANICAL
ELECTRICAL
HYDRAULICS
ESD
AQUATIC
STRUCTURAL
CIVIL

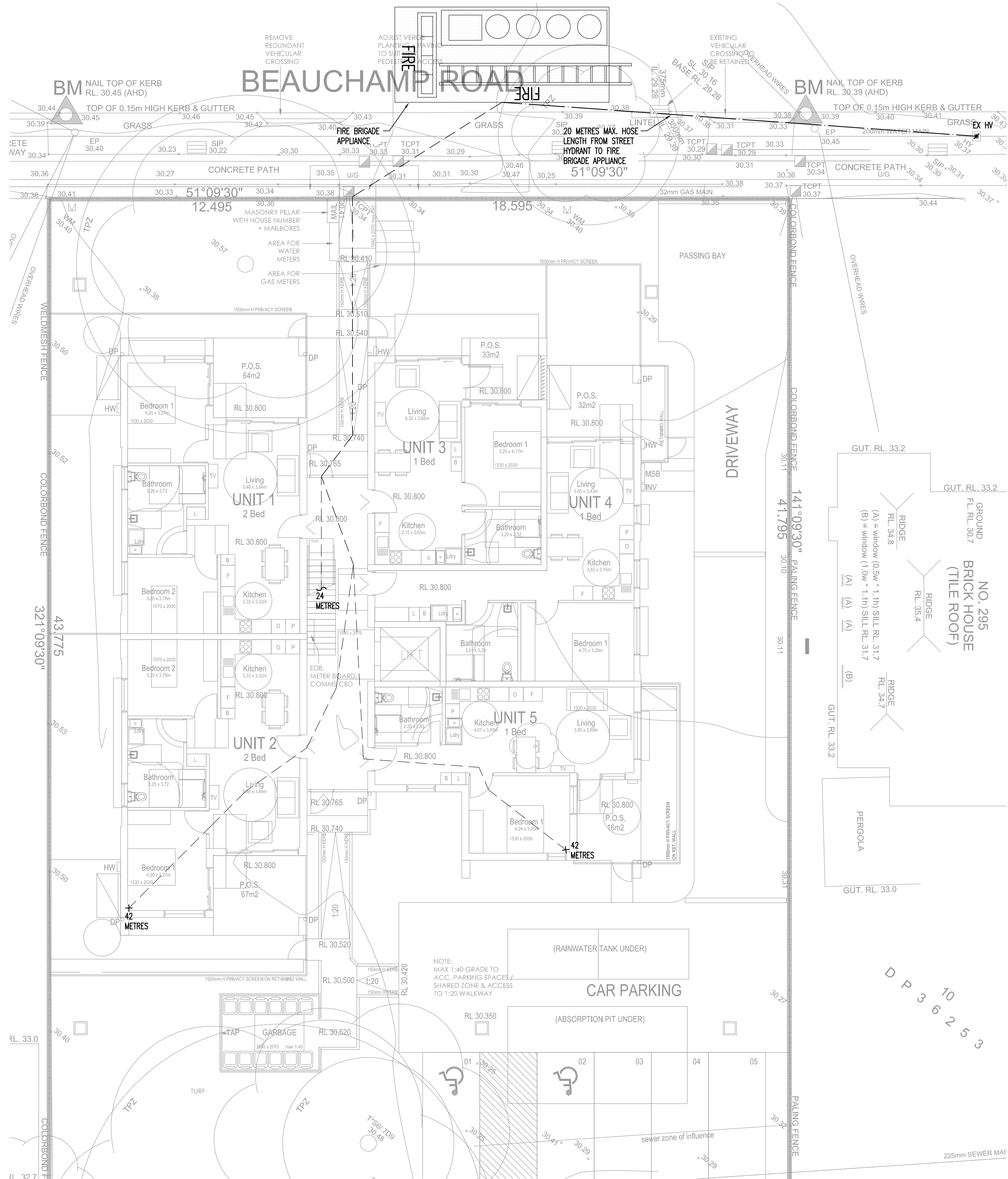
Sydney
W : 02 8974 1433
M : +61 0420 485 854
Web : www.knoxadv.com.au
Email: jorgenk@knoxadv.com.au



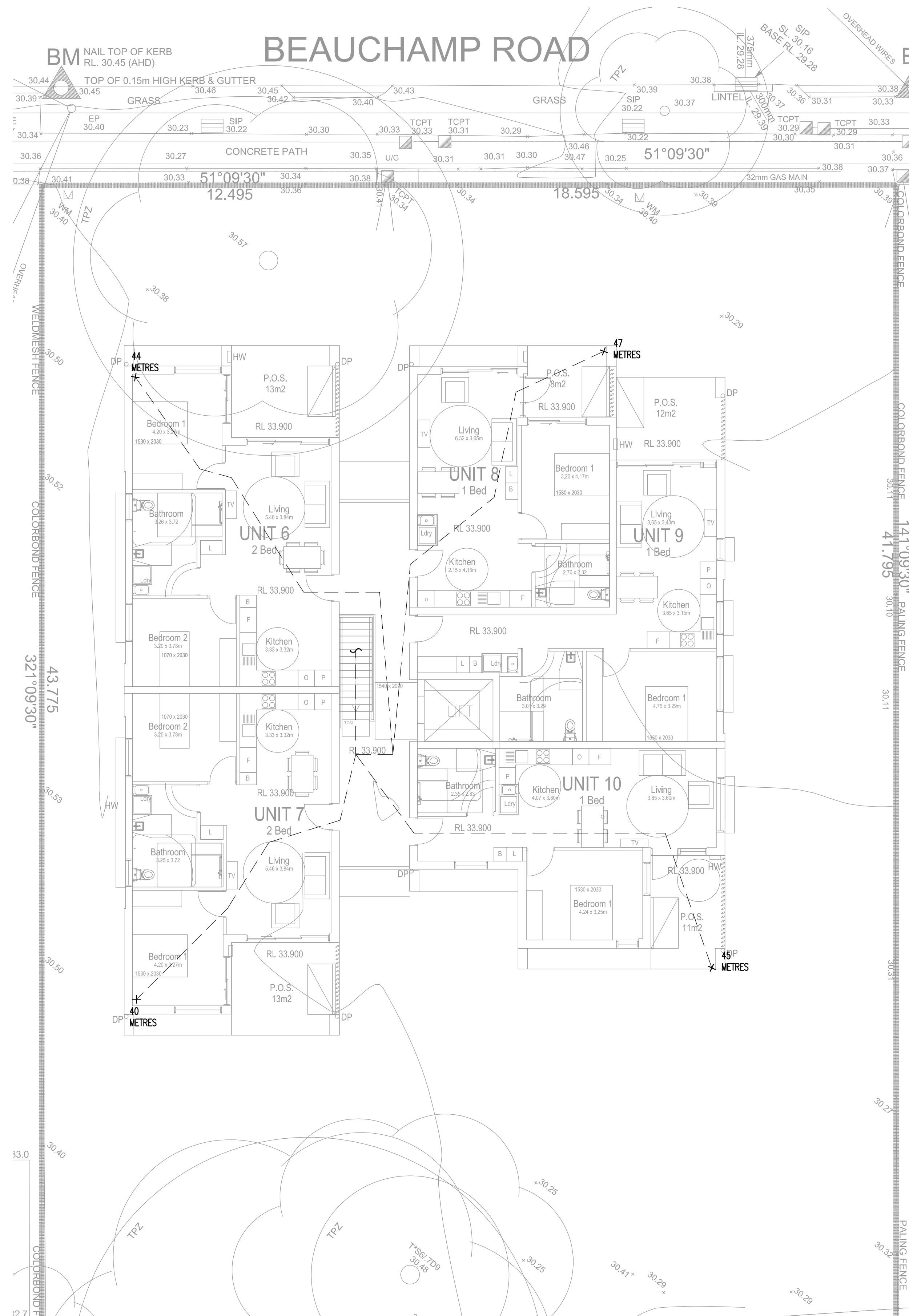
Job Name	SENIOR HOUSING DEVELOPMENT MATRAVILLE BSW 2036 LOT 8 & 9, DP 36253
Sheet Title	HOT & COLD WATER DETAILS

Date	MAR 2022
Drawn	KAE
Checked	KAE
Authorised	KAE

Scales	1:50 @ A1
Job No.	21.131
No. in set	6
Sheet No.	H301



GROUND FLOOR PLAN – FIRE HYDRANT COVERAGE
SCALE 1:100

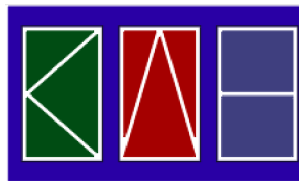


FIRST FLOOR PLAN – FIRE HYDRANT COVERAGE
SCALE 1:100

D.A ISSUE

NO.	DATE	AMENDMENT	CHECKED
1	04/03/22	DEVELOPMENT APPLICATION ISSUE	KAE

KNOX ADVANCED ENGINEERING



MECHANICAL
ELECTRICAL
HYDRAULICS
ESD
AQUATIC
STRUCTURAL
CIVIL

Sydney
W : 02 8974 1433
M : +61 0420 485 854
Web : www.knoxadv.com.au
Email: jorgenk@knoxadv.com.au



Job Name	SENIOR HOUSING DEVELOPMENT MATRAVILLE BSW 2036 LOT 8 & 9, DP 36253
Sheet Title	GROUND AND FIRST FLOOR FIRE HYDRANT COVERAGE

Date	MAR 2022
Drawn	KAE
Checked	KAE
Authorised	KAE

Scales	1:100 @ A1
Job No.	21.131
No. in set	7
Sheet No.	H401

Statement of Available Pressure and Flow

Glenn Haig

Attention: Glenn Haig

Date: 22/02/2022

Pressure & Flow Application Number: 1351314

Your Pressure Inquiry Dated: 2022-02-17

Property Address: 289 Beauchamp Road, Matraville 2036

The expected maximum and minimum pressures available in the water main given below relate to modelled existing demand conditions, either with or without extra flows for emergency fire fighting, and are not to be construed as availability for normal domestic supply for any proposed development.

ASSUMED CONNECTION DETAILS

Street Name: Beauchamp Road	Side of Street: South
Distance & Direction from Nearest Cross Street	85 metres East from Eastern Road
Approximate Ground Level (AHD):	31 metres
Nominal Size of Water Main (DN):	200 mm (Target Point as per sketch provided)

EXPECTED WATER MAIN PRESSURES AT CONNECTION POINT

Normal Supply Conditions	
Maximum Pressure	43 metre head
Minimum Pressure	34 metre head

WITH PROPERTY FIRE PREVENTION SYSTEM DEMANDS	Flow l/s	Pressure head m
Fire Hose Reel Installations (Two hose reels simultaneously)	0.66	34
Fire Hydrant / Sprinkler Installations (Pressure expected to be maintained for 95% of the time)	10	35
	15	35
	20	34
	25	33
	30	33
	40	31
	50	29
Fire Installations based on peak demand (Pressure expected to be maintained with flows combined with peak demand in the water main)	60	26
	10	33
	15	32
	20	32
	25	31
	30	30
	40	28
Maximum Permissible Flow	50	25
	60	23
	109	4

(Please refer to reverse side for Notes)

For any further inquiries regarding this application please email :

swtapin@sydneywater.com.au

General Notes

This report is provided on the understanding that (i) the applicant has fully and correctly supplied the information necessary to produce and deliver the report and (ii) the following information is to be read and understood in conjunction with the results provided.

1. Under its Act and Operating Licence, Sydney Water is not required to design the water supply specifically for fire fighting. The applicant is therefore required to ensure that the actual performance of a fire fighting system, drawing water from the supply, satisfies the fire fighting requirements.
2. Due to short-term unavoidable operational incidents, such as main breaks, the regular supply and pressure may not be available all of the time.
3. To improve supply and/or water quality in the water supply system, limited areas are occasionally removed from the primary water supply zone and put onto another zone for short periods or even indefinitely. This could affect the supply pressures and flows given in this letter. This ongoing possibility of supply zone changes etc, means that the validity of this report is limited to one (1) year from the date of issue. It is the property owner's responsibility to periodically reassess the capability of the hydraulic systems of the building to determine whether they continue to meet their original design requirements.
4. Sydney Water will provide a pressure report to applicants regardless of whether there is or will be an approved connection. Apparent suitable pressures are not in any way an indication that a connection would be approved without developer funded improvements to the water supply system. These improvements are implemented under the Sydney Water 'Urban Development Process'.
5. Pumps that are to be directly connected to the water supply require approval of both the pump and the connection. Applications are to be lodged online via Sydney Water Tap in™ system - Sydney Water Website – www.sydneywater.com.au/tapin/index.htm. Where possible, on-site recycling tanks are recommended for pump testing to reduce water waste and allow higher pump test rates.
6. Periodic testing of boosted fire fighting installations is a requirement of the Australian Standards. To avoid the risk of a possible 'breach' of the Operating Licence, flows generated during testing of fire fighting installations are to be limited so that the pressure in Sydney Water's System is not reduced below 15 metres. Pumps that can cause a breach of the Operating Licence anywhere in the supply zone during testing will not be approved. This requirement should be carefully considered for installed pumps that can be tested to 150% of rated flow.

Notes on Models

1. Calibrated computer models are used to simulate maximum demand conditions experienced in each supply zone. Results have not been determined by customised field measurement and testing at the particular location of the application.
2. Regular updates of the models are conducted to account for issues such as urban consolidation, demand management or zone change.
3. Demand factors are selected to suit the type of fire-fighting installation. Factor 1 indicates pressures due to system demands as required under Australian Standards for fire hydrant installations. Factor 2 indicates pressures due to peak system demands.
4. When fire-fighting flows are included in the report, they are added to the applicable demand factor at the nominated location during a customised model run for a single fire. If adjacent properties become involved with a coincident fire, the pressures quoted may be substantially reduced.
5. Modelling of the requested fire fighting flows may indicate that local system capacity is exceeded and that negative pressures may occur in the supply system. Due to the risk of water contamination and the endangering of public health, Sydney Water reserves the right to refuse or limit the amount of flow requested in the report and, as a consequence, limit the size of connection and/or pump.
6. The pressures indicated by the modelling, at the specified location, are provided without consideration of pressure losses due to the connection method to Sydney Water's mains.