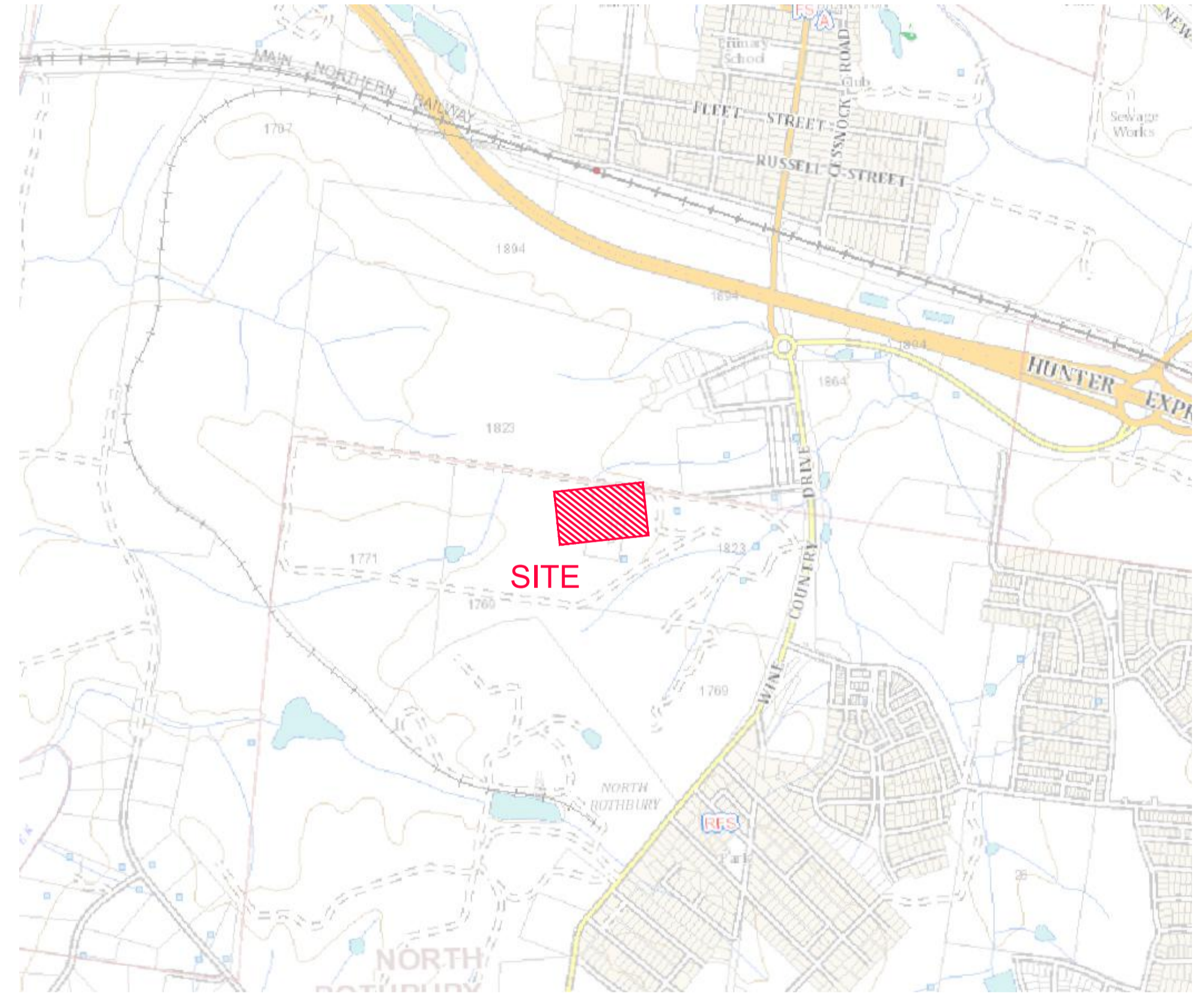
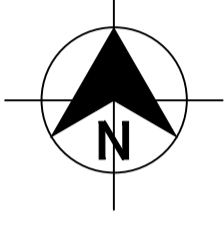


240037(TCR1)-WAC-003



# PROPOSED SUBDIVISION STAGE - TOWN CENTRE RESIDENTIAL 1 HUNTLEE



LOCALITY SKETCH  
NOT TO SCALE

DRAWING INDEX	
DRAWING NUMBER	DRAWING TITLE
240037(TC1)-WAC-001	COVER SHEET, LOCALITY PLAN & DRAWING INDEX
240037(TC1)-WAC-002	GENERAL NOTES
240037(TC1)-WAC-003	OVERALL SITE PLAN
240037(TC1)-WAC-101	POTABLE WATER DETAIL PLAN - SHEET 1
240037(TC1)-WAC-102	POTABLE WATER DETAIL PLAN - SHEET 2
240037(TC1)-WAC-201	RECYCLED WATER DETAIL PLAN - SHEET 1
240037(TC1)-WAC-202	RECYCLED WATER DETAIL PLAN - SHEET 2
240037(TC1)-WAC-301	PRESSURE SEWER DETAIL PLAN - SHEET 1
240037(TC1)-WAC-302	PRESSURE SEWER DETAIL PLAN - SHEET 2
240037(TC1)-WAC-401	TYPICAL PIPEWORK TRENCHING DETAIL
240037(TC1)-WAC-402	TYPICAL PROPERTY CONNECTION DETAILS
240037(TC1)-WAC-403	WASTE WATER COLLECTION TANK LEVEL DETAILS
240037(TC1)-WAC-404	THRUST BLOCK DETAILS
<b>240037(TC1)-WAC-405</b>	<b>FITTING DETAILS</b>

**WORK AS CONSTRUCTED**  
 THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 21-05-2024 OF THE WORK-AS-CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.  
 COMPANY ADW Johnson Pty Ltd COMPANY  
 NAME EWEN B. RANDAL NAME  
 SIGNED *E. Randal* DATE 22-05-2024 SIGNED DATE  
 REGISTERED SURVEYOR CONSTRUCTION MANAGER

**ORIGIN OF W.A.C. LEVELS**  
 PM 20029 Co-Ord System: MGA Ground  
 E: 345612.942 MGA Datum: GDA94  
 N: 6382878.917 MGA Zone: 56  
 RL: 77.675

**APPROVED FOR CONSTRUCTION**  
 BY ADW Johnson Pty Ltd  
 Date Approved: 15-09-2320

**AS CONSTRUCTED**

100mm AT FULL SIZE  
This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	17.11.2022	INITIAL ISSUE	G.S.	M-P.C.	G.S.	M-P.C.	
D	26.04.2023	NORTHROP DESIGN UPDATE	G.S.	C.S.	G.S.	C.S.	
E	02.07.2023	NORTHROP SURFACE UPDATE	G.S.	C.S.	G.S.	C.S.	
F	20.07.2023	ALTOGETHER GROUP COMMENTS	G.S.	C.H.	G.S.	C.H.	
O	01.08.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	
1	15.09.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	
2	22.05.2024	WORK AS CONSTRUCTED	G.S.	C.H.	G.S.	C.H.	

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 ABN 62 129 445 398

CLIENT

PROPERTY DESCRIPTION  
 PROPOSED SUBDIVISION  
 STAGE - TOWN CENTRE RESIDENTIAL 1  
 HUNTLEE

PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION  
 PLAN TITLE COVER SHEET, LOCALITY PLAN & DRAWING INDEX  
 PROJECT No. 240037(TCR1)- DISCIPLINE WAC NUMBER 001 REV. 2

**PRESSURE SEWER NOTES:**

- ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, ALTOGETHER SUPPLEMENTARY MANUAL TO WSA, PRESSURE SEWERAGE CODE OF AUSTRALIA - WSA 07-2007 VERSION 1.1 AND POLYETHYLENE PIPELINE CODE WSA 01-2004.
- ALL EQUIPMENT, MATERIALS AND ACCESSORIES USED IN THIS CONTRACT SHALL BE NEW AND SHALL COMPLY WITH ALTOGETHER REQUIREMENTS. BUTT FUSION FITTINGS DENOTED HEREWITH HAVE BEEN DERIVED FROM THE GEORG FISCHER PIPING SYSTEMS BUTT FUSION PRODUCT RANGE. ELECTROFUSION FITTINGS DENOTED HEREWITH HAVE BEEN DERIVED FROM THE PLASSON "POLYETHYLENE PIPING SYSTEMS" PRODUCT RANGE.
- ALL SERVICES SHOWN ARE INDICATIVE ONLY. A CURRENT SERVICES SEARCH AND SITE CHECK OF ALL EXISTING SERVICES WILL BE REQUIRED PRIOR TO COMMENCEMENT OF ANY WORKS. THE CONSTRUCTOR IS TO DETERMINE LEVELS AND LOCATIONS OF ALL EXISTING SERVICES IN THE VICINITY OF THE CONSTRUCTION SITE AND ANY CONSTRUCTED STRUCTURES FOR PROPOSED SERVICES, SUCH AS DUCTING FOR WATER OR ELECTRICITY WITHIN THE SUBDIVISION. THE CONTRACTOR MUST ENSURE ALL SERVICES ARE LOCATED BY THE RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF WORKS.
- PRESSURE SEWER MAINS SHALL BE BLACK POLYETHYLENE (PE100 PN16) WITH A CREAM STRIPE AS PER WSA 02-2007 AND ALTOGETHER SUPPLEMENTARY MANUAL TO WSA.
- ALL POLYETHYLENE MAINS ≤ DN200 SHALL BE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. ALL POLYETHYLENE MAINS ≥ DN200 SHALL BE JOINED USING BUTTWELD JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
- MAIN TO BE LAID GENERALLY AS INDICATED IN SERVICE ALLOCATION DIAGRAMS. INSTRUCTION NOTES SHALL TAKE PRECEDENCE OVER DIAGRAMS WHERE PROVIDED. 600mm HORIZONTAL CLEARANCE TO BE MAINTAINED BETWEEN ALL SEWER AND WATER MAINS. MINIMUM PIPE COVER SHALL BE 800mm IN FOOTWAYS AND 1000mm IN ROADWAYS. MAXIMUM PIPE COVER SHALL BE 1500mm. WHERE COVER FOR A TRENCHED INSTALLATION EXCEEDS 1500mm BUT LESS THAN 2500mm THE MAIN AS A MINIMUM SHALL BE EMBEDDED IN STABILISED SAND. THE CONTRACTOR SHALL ENSURE THAT ALL PRESSURE SEWER AND RECYCLED WATER MAINS HAVE SUFFICIENT VERTICAL SEPARATION AS PER THE CLEARANCE TABLE ADJACENT.
- MAINS CROSSING UNDER EXISTING DRIVEWAYS (SEALED, PAVED OR DECORATIVE) SHALL BE CONDUCTED BY UNDER BORING ONLY UNLESS PERMISSION IS GRANTED BY THE AFFECTED PROPERTY OWNER.
- MAINS WITHIN 2.0m OF ELECTRICITY OR POWER POLES SHALL BE CONDUCTED BY BORING TECHNOLOGY (UNLESS AGREED TO BY THE ALTOGETHER REPRESENTATIVE).
- ALL PIPE BEDDING MATERIAL SHALL COMPLY WITH WSA PRODUCT SPECIFICATION WSA-PS350 AND WSA-PS351.
- ALL BENDS SHALL BE ELECTROFUSION OR BUTT WELD SWEEP BENDS. FABRICATED BENDS SHALL NOT BE USED IN LIEU. KNUCKLE ELBOWS ARE NOT PERMITTED.
- MINIMUM BENDING RADIUS FOR PN16 PE100 (SDR11) SHALL BE 20 x DN.** (i.e. DN400 : R8.0m, DN250 : R5.0m, DN200 : R4.0m, DN160 : R3.2m, DN125 : R2.5m, DN90 : R1.8m, DN75 : R1.5m, DN63 : R1.3m, DN50 : R1.0m, DN40 : R0.8m).
- ALL HOUSE SERVICE LATERALS SHALL BE DN40 (PE100 PN16).
- FLUSHING PITS SHALL CONFORM WITH ALTOGETHER STANDARD DRAWINGS. REFER TO ALTOGETHER WEBSITE FOR CURRENT VERSION. SMALL MAINS (S: DN110) [http://information.altogethergroup.com.au/governance/Land\\_Housing/PSS-1017A-FS.pdf](http://information.altogethergroup.com.au/governance/Land_Housing/PSS-1017A-FS.pdf) LARGE MAINS (S: DN110) [http://information.altogethergroup.com.au/governance/Land\\_Housing/PSS-1017B-FS.pdf](http://information.altogethergroup.com.au/governance/Land_Housing/PSS-1017B-FS.pdf)
- LOCALISED DEEPENING OF MAINS MAY BE REQUIRED TO FACILITATE AIR VALVE INSTALLATION. THE CONTRACTOR SHALL ENSURE THAT THE AIR VALVE OFFTAKE IS LOCATED AT A HIGH POINT (NATURAL OR ARTIFICIAL) IN THE MAIN (I.E. MAIN SHALL GRADE DOWNWARDS EITHER SIDE OF THE AIR VALVE).
- DETECTABLE MARKING TAPE SHALL BE LAID ON TOP OF THE PIPE EMBEDMENT MATERIAL BEFORE BACKFILLING AND CONNECTED TO SURFACE FITTINGS.
- ALL SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (I.E. ROADWAYS, PATHS etc.) SHALL HAVE HEAVY DUTY SURROUNDS INSTALLED.
- DURING CONSTRUCTION, ALL OPEN ENDS OF PIPE SHALL BE CAPPED OFF TO PREVENT ENTRY OF FOREIGN MATTER.
- ALL VALVES SHALL BE RESILIENT SEATED SLUICE VALVES (ANTI-CLOCKWISE CLOSING), SHALL BE RESTRAINED IN ACCORDANCE WITH WAT-1207 AND SHALL COMPLY WITH ALTOGETHER STANDARD DRAWING PSS-1015-FS.
- ALL MAINS SHALL BE TESTED IN ACCORDANCE WITH WSA 07-2007 VERSION 1.1.
- FOR LOTS WITH TANKS IN THE REAR. 1 x #25mm INSTRUMENTATION CONDUIT (ORANGE) AND 1 x #25mm ELECTRICAL CONDUIT (ORANGE)(WITH DRAW WIRES) SHALL BE INSTALLED FROM THE COLLECTION TANK TO WATER METERS. THE CONDUITS SHALL BE LAID IN A COMMON TRENCH WITH THE SEWERAGE AND MAINTAIN A MINIMUM HORIZONTAL CLEARANCE OF 400mm. (REFER TO ALTOGETHER STANDARD DRAWINGS FOR SETOUT DIMENSIONS).
- THE CONSTRUCTOR SHALL PROVIDE ALTOGETHER WITH MINIMUM OF 7 DAYS NOTICE IN WRITING OF INTENT TO CONNECT NEW MAINS TO EXISTING INFRASTRUCTURE. CONNECTIONS ARE NOT PERMITTED UNTIL COMPLIANT TEST RESULTS HAVE BEEN PROVIDED AND CONFIRMATION IS PROVIDED BY THE ALTOGETHER REPRESENTATIVE.
- UPON COMPLETION OF WORKS, ALL SURFACES MUST BE RESTORED AS CLOSE AS POSSIBLE, TO THE CONDITION HAT EXISTED PRIOR TO COMMENCEMENT OF WORKS.
- PERMISSION OF ENTRY MUST BE OBTAINED BY THE CONTRACTOR FROM THE OWNER/OCCUPIER PRIOR TO COMMENCEMENT OF WORK IN PRIVATE PROPERTY.
- BURIED FITTINGS ARE NOT TO BE BACKFILLED UNTIL W.A.C. DETAILS HAVE BEEN OBTAINED AND APPROVAL FOR BACKFILLING GIVEN BY THE ALTOGETHER REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE M.G.A. COORDINATED WORK-AS-CONSTRUCTED INFORMATION REGARDING THE INSTALLATION OF ALL BURIED FITTINGS.
- THE MINIMUM NUMBER OF COMPACTION TESTS REQUIRED TO SATISFY THE PRESSURE SEWER CODE OF AUSTRALIA (CLAUSE 213.4) ARE:  
**TRAFFICABLE**  
PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST/300mm LAYER OF FILL AT EACH ROAD CROSSING.  
**NON-TRAFFICABLE**  
PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST/900mm OF FILL AND EACH 100 LINEAL METRES OF PIPE.
- BOUNDARY KITS (COMPLETE) SHALL BE NOV SUPPLIED (NOV PSS-BK4). e one COLLECTION TANK (ESD 20-0032/ESD 20-0033) SHALL BE INSTALLED WITH BOUNDARY KIT (REFER ALTOGETHER STANDARD DRAWINGS PSS-1112-FS AND PSS-1113-FS). PUMP TO BE INSTALLED BY OTHERS.
- ALL MAINS (UP TO THE BOUNDARY KIT) SHALL BE PRESSURE TESTED TO 1600 kPa. ALL LINES FROM THE WASTEWATER COLLECTION TANK TO THE MANUAL ISOLATION VALVE WITHIN THE BOUNDARY KIT TO BE PRESSURE TESTED TO 1000kPa.
- ALL MAINS SHALL BE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.
- SURFACE IDENTIFICATION MARKERS ARE TO BE PROVIDED TO ALTOGETHER REQUIREMENTS.
- ROPE OFF ALL PRESSURE SEWER UNITS AND FLUSHING POINTS TO LIMIT DAMAGE DURING CONSTRUCTION.
- PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM PER ALTOGETHER REQUIREMENTS.
- WORK-AS-CONSTRUCTED DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR STRICTLY IN ACCORDANCE WITH THE ALTOGETHER Q.A. SUBMISSION CHECKLIST.
- ELECTRICAL GLAND CONNECTION SUPPLIED LOOSE WITH EACH SEWER POT IS TO BE INSTALLED BY THE CIVIL CONTRACTOR AND ELECTRICAL CONDUIT ATTACHED TO THE TANK FOR FUTURE ELECTRICAL WIRING.

**POTABLE WATER AND RECYCLED WATER NOTES:**

- ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, ALTOGETHER SUPPLEMENTARY MANUAL TO WSA AND WSA 03-2011-3.1 (SYDNEY WATER EDITION 2014).
  - POTABLE WATER SHALL BE UTILISED FOR FIRE FIGHTING PURPOSES.
  - ALL EQUIPMENT, MATERIALS AND ACCESSORIES USED IN THIS CONTRACT SHALL BE NEW, SHALL CONFORM TO THE APPROPRIATE CURRENT AUSTRALIAN STANDARDS AND SHALL COMPLY WITH ALTOGETHER REQUIREMENTS.
  - ALL SERVICES SHOWN ARE INDICATIVE ONLY. A CURRENT SERVICES SEARCH AND SITE CHECK OF ALL EXISTING SERVICES WILL BE REQUIRED PRIOR TO COMMENCEMENT OF ANY WORKS. THE CONSTRUCTOR IS TO DETERMINE LEVELS AND LOCATIONS OF ALL EXISTING SERVICES IN THE VICINITY OF THE CONSTRUCTION SITE AND ANY CONSTRUCTED STRUCTURES FOR PROPOSED SERVICES, SUCH AS DUCTING FOR WATER OR ELECTRICITY WITHIN THE SUBDIVISION. THE CONTRACTOR MUST ENSURE ALL SERVICES ARE LOCATED BY THE RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF WORKS.
  - THE CONSTRUCTOR SHALL VERIFY WITH THE SITE SUPERVISOR THE POSITION AND LEVEL OF ALL EXISTING AND PROPOSED BOUNDARIES PERTINENT TO THE INFRASTRUCTURE INSTALLATIONS.
  - MAIN TO BE LAID GENERALLY AS INDICATED IN SERVICE ALLOCATION DIAGRAMS. INSTRUCTION NOTES SHALL TAKE PRECEDENCE OVER DIAGRAMS WHERE PROVIDED. 600mm HORIZONTAL CLEARANCE TO BE MAINTAINED BETWEEN ALL SEWER AND WATER MAINS. MINIMUM PIPE COVER SHALL BE 600mm IN FOOTWAYS (TYPE B EMBEDMENT: WAT-1202-V) AND 800mm IN ROADWAYS (TYPE L EMBEDMENT: WAT-1204-V). MAXIMUM PIPE COVER SHALL BE 1500mm. WHERE COVER FOR A TRENCHED INSTALLATION EXCEEDS 1500mm BUT LESS THAN 2500mm THE MAIN AS A MINIMUM SHALL BE EMBEDDED IN STABILISED SAND. THE CONTRACTOR SHALL ENSURE THAT ALL RECYCLED WATER MAINS AND PRESSURE SEWER MAINS HAVE SUFFICIENT VERTICAL SEPARATION AS PER THE CLEARANCE TABLE ADJACENT.
  - ALL POTABLE WATERMANS TO BE BLUE PVC-M (PN16). ALL RECYCLED WATERMANS SHALL BE LILAC PVC-M (PN16). DIFFERENTIATION OF POTABLE AND RECYCLED WATER SYSTEMS SHALL BE AS PER TABLE 4.1 WSA03-2011 WITH BOTH SERVICES BEING CLASSIFIED AS WATER MAINS. RECYCLED WATER MAINS SHALL ALWAYS BE LOWER THAN POTABLE WATER MAINS. 150mm VERTICAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER MAINS SHALL BE PROVIDED.
  - MAXIMUM JOINT DEFLECTIONS TO BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
  - LOCALLY LOWER PIPEWORK IN VICINITY OF STOP VALVES TO ENSURE SUFFICIENT COVER IS MAINTAINED OVER VALVES. LOWERING OF PIPEWORK SHALL BE ACHIEVED OVER A NUMBER OF PIPE LENGTHS EITHER SIDE OF VALVES TO ELIMINATE ANY SHARP DEFLECTIONS.
  - ALL PIPE BEDDING MATERIAL SHALL COMPLY WITH WSA PRODUCT SPECIFICATION PS-350, 368 AND 369. GEOTECHNICAL CONDITIONS SHOULD BE ASSESSED DURING CONSTRUCTION BY THE CONTRACTOR IN ASSOCIATION WITH THE ALTOGETHER REPRESENTATIVE TO DETERMINE THE NEED TO MODIFY EMBEDMENT/TRENCH FILL TYPE AND THE NEED FOR TRENCH DRAINAGE/BULKHEADS.
  - DURING CONSTRUCTION, ALL OPEN ENDS OF PIPES SHALL BE CAPPED OFF TO PREVENT ENTRY OF FOREIGN MATTER.
  - HYDRANTS, STOP VALVES AND ALL OTHER FITTINGS TO BE THE SAME SIZE AS THE THROUGH WATER MAIN AND ANTI CLOCKWISE CLOSING.
  - HYDRANTS MUST NOT BE INSTALLED IN POTENTIAL DRIVEWAY LOCATIONS. HYDRANTS AND WATER SERVICES SHALL BE NOMINALLY AT LEAST 5.0m FROM EACH BOUNDARY OR ON BOUNDARIES. WHERE POSSIBLE, FITTINGS SHALL BE LOCATED BEHIND KERB INLET PITS.
  - THRUST BLOCKS SHALL BE INSTALLED IN ACCORDANCE WITH WAT-1205.
  - ALL PROPERTY (MAIN TO METER) SERVICE CONNECTIONS SHALL BE CONSTRUCTED STRICTLY IN ACCORDANCE WITH ALTOGETHER REQUIREMENTS. REFER TO ALTOGETHER WEBSITE FOR CURRENT VERSION. SINGLE SERVICE: [http://information.altogethergroup.com.au/governance/Land\\_Housing/WAT-1854-FS.pdf](http://information.altogethergroup.com.au/governance/Land_Housing/WAT-1854-FS.pdf) DUAL SERVICE: [http://information.altogethergroup.com.au/governance/Land\\_Housing/WAT-1855-FS.pdf](http://information.altogethergroup.com.au/governance/Land_Housing/WAT-1855-FS.pdf)
  - PROPERTY SERVICE CONNECTION IS SHALL BE FLUSHED AND LOCKED (BY THE ALTOGETHER REPRESENTATIVE) FOLLOWING SUCCESSFUL PRESSURE TESTING.
  - SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (I.E. ROADWAYS, PATHS etc.) SHALL HAVE HEAVY DUTY SURROUNDS INSTALLED.
  - ALL MAINS SHALL BE PRESSURE TESTED TO 1500kPa IN ACCORDANCE WITH CLAUSE 19.4 OF WSA03-2011 (SYDNEY WATER EDITION 2014).
  - ALL MAINS SHALL BE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.
  - WATER QUALITY TESTING SHALL BE IN ACCORDANCE WITH WSA 03-2011-3.1(SYDNEY WATER EDITION-2014. CLAUSE 19.7).
  - THE CONSTRUCTOR SHALL PROVIDE HUNTLEE WATER WITH MINIMUM OF 7 DAYS NOTICE IN WRITING OF INTENT TO CONNECT NEW MAINS TO EXISTING INFRASTRUCTURE. CONNECTIONS ARE NOT PERMITTED UNTIL COMPLIANT TEST RESULTS HAVE BEEN PROVIDED AND CONFIRMATION IS PROVIDED BY THE ALTOGETHER REPRESENTATIVE.
  - UPON COMPLETION OF WORKS, ALL SURFACES MUST BE RESTORED AS CLOSE AS POSSIBLE, TO THE CONDITION HAT EXISTED PRIOR TO COMMENCEMENT OF WORKS.
  - PERMISSION OF ENTRY MUST BE OBTAINED BY THE CONTRACTOR FROM THE OWNER/OCCUPIER PRIOR TO COMMENCEMENT OF WORK IN PRIVATE PROPERTY.
  - BURIED FITTINGS ARE NOT TO BE BACKFILLED UNTIL W.A.C. DETAILS HAVE BEEN OBTAINED AND APPROVAL FOR BACKFILLING GIVEN BY THE ALTOGETHER REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE M.G.A. COORDINATED WORK-AS-CONSTRUCTED INFORMATION REGARDING THE INSTALLATION OF ALL BURIED FITTINGS.
  - MINIMUM NUMBER OF COMPACTION TESTS REQUIRED TO SATISFY WSA03-2011 (SYDNEY WATER EDITION 2014) (CLAUSE 19.3.5):  
**TRAFFICABLE**  
PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST/300mm LAYER OF FILL AT EACH ROAD CROSSING.  
**NON-TRAFFICABLE**  
PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST/900MM OF FILL AND EACH 100 LINEAL METERS OF PIPE.  
**PROPERTY SERVICES**  
TEST 1 OF EVERY 5 PROPERTY SERVICE TRENCHES. TESTING SHALL BE IN ACCORDANCE WITH TABLE 16.1 AND 17.1 OF THE WATER SUPPLY CODE OF AUSTRALIA.
  - SURFACE IDENTIFICATION MARKERS ARE TO BE PROVIDED TO ALTOGETHER REQUIREMENTS.
  - PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM PER ALTOGETHER REQUIREMENTS.
  - WORK-AS-CONSTRUCTED DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR STRICTLY IN ACCORDANCE WITH THE ALTOGETHER Q.A. SUBMISSION CHECKLIST.
  - WHERE THE PIPE GRADE EXCEEDS 5% , TRENCHSTOPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH WAT-1209 AND WAT-1210 AT THE SPACING OF 100/M GRADE%. WHERE PIPE GRADES EXCEED 15%, CONCRETE BULKHEADS WILL BE CONSTRUCTED AT SPACING AS PER TABLE 7.5 OF WSA03-2001 SYDNEY WATER EDITION 2014.
- ALTOGETHER STANDARD DRAWINGS CAN BE FOUND AT THE FOLLOWING ADDRESS:  
<https://askus.altogethergroup.com.au/hc/en-us/articles/90004827263-Standard-drawings-for-land-developers->

**GENERAL NOTES:**

- THIS DRAWING SET SHALL BE READ IN CONJUNCTION WITH CESSNOCK CITY COUNCIL STANDARDS, ALTOGETHER SUPPLEMENTARY MANUAL TO WSA AND OTHER ASSOCIATED DRAWINGS AND TECHNICAL SPECIFICATIONS.
- THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORK AND SHALL REPAIR ANY DAMAGE CAUSED TO SUCH SERVICES DURING THE COURSE OF WORKS. ANY SERVICE LOCATIONS SHOWN IN THIS DRAWING SET ARE INDICATIVE ONLY.
- MAKE SMOOTH TRANSITION TO EXISTING WORKS (I.E. ROAD PAVEMENT AND FOOTPATHS) TO P.C.A. AND SUPERINTENDENT'S REQUIREMENTS.
- SUITABLE PROTECTION TO EXISTING ROAD PAVEMENT, KERB AND GUTTER, FOOTPATHS AND ANY EXISTING FEATURES SHALL BE PROVIDED UNTIL THE CONSTRUCTION WORKS ARE COMPLETED.

**CLEARANCES BETWEEN PIPELINES AND UNDERGROUND SERVICES**

UTILITY (EXISTING OR PROPOSED SERVICE)	MINIMUM HORIZONTAL CLEARANCE (mm)		MINIMUM VERTICAL CLEARANCE (mm)
	NEW MAIN SIZE		
	≤ DN200	≥ DN200	
WATER MAINS > DN375	600	600	300
WATER MAINS < DN375	300*	600	150
GAS MAINS	300*	600	150
TELECOMMUNICATION CONDUITS AND CABLES	300*	600	150
ELECTRICITY CONDUITS AND CONDUITS	200	1000	225*
STORMWATER DRAINS	300*	600	150*
SEWERS (GRAVITY)	1000* / 600	1000* / 600	500*
SEWERS (PRESSURE AND VACUUM)	600	600	300*
KERBS	150	600*	150 (WHERE POSSIBLE)

**NOTES:**

- VERTICAL CLEARANCES APPLY WHERE PIPELINES CROSS OTHER UTILITY SERVICES, EXCEPT IN THE CASE OF WATER/SEWER MAINS WHEN A VERTICAL SEPARATION SHALL ALWAYS BE MAINTAINED, EVEN WHEN THE PRESSURE SEWER AND WATER MAIN ARE PARALLEL. THE PRESSURE SEWER SHOULD ALWAYS BE LOCATED BELOW THE WATER MAIN TO MINIMISE THE POSSIBILITY OF BACKFLOW CONTAMINATION IN THE EVENT OF A PRESSURE MAIN BREAK.
- WATER MAINS INCLUDES MAINS SUPPLYING BOTH POTABLE AND RECYCLED WATER.
- FOR AREAS WITH EXISTING WATER RETICULATION, CLEARANCES CAN BE FURTHER REDUCED TO 600mm WITH THE APPROVAL OF THE WATER AUTHORITY.
- CLEARANCES CAN BE FURTHER REDUCED TO 150mm FOR DISTANCES UP TO 2.0m WHEN PASSING INSTALLATIONS SUCH AS POLES, PITS, AND SMALL STRUCTURES, PROVIDING THE STRUCTURE IS NOT DE-STABILISED IN THE PROCESS.
- CLEARANCES FROM KERBS SHALL BE MEASURED FROM THE NEAREST POINT OF THE KERB. FOR WATER/SEWER < DN 375, CLEARANCES FROM KERBS CAN BE PROGRESSIVELY REDUCED UNTIL THE MINIMUM OF 150mm IS REACHED FOR WATER/SEWER < DN200.
- WHERE A PARALLEL SEWER IS AT MINIMUM VERTICAL CLEARANCE LOWER THAN THE WATER MAIN (500mm), MAINTAIN A MINIMUM HORIZONTAL OF 1000mm. THIS MINIMUM CLEARANCE CAN BE PROGRESSIVELY REDUCED TO 600mm AS THE VERTICAL CLEARANCE IS INCREASED TO 750mm.
- FOR PRESSURE SEWER LATERALS, MINIMUM VERTICAL CLEARANCES MAY BE REDUCED TO 150mm PROVIDING THERE IS NO JOINT IN THE LATERAL WITHIN 500mm OF EITHER SIDE OF THE SERVICE BEING CROSSED.
- AN ADDITIONAL CLEARANCE FROM HIGH VOLTAGE ELECTRICAL INSTALLATIONS SHOULD BE MAINTAINED ABOVE THE CONDUITS OR CABLES TO ALLOW FOR A PROTECTIVE BARRIER AND MARKING TO BE PROVIDED.
- WATER MAINS SHOULD ALWAYS CROSS OVER SEWERS AND STORMWATER DRAINS. FOR CASES WHERE THERE IS NO ALTERNATIVE AND THE MAIN MUST CROSS UNDER THE SEWER, THE DESIGN SHALL NOMINATE AN APPROPRIATE PROTECTION TREATMENT (JOINT-FREE IN THE VICINITY OF THE SEWER).

SHOULD THE RECOMMENDED CLEARANCES NOT BE ACHIEVED, NOTIFICATION SHALL BE CONVEYED TO THE ALTOGETHER REPRESENTATIVE IN WRITING.

**WORK AS CONSTRUCTED**

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 21-05-2024 OF THE WORK-AS-CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.

COMPANY ADW Johnson Pty Ltd COMPANY  
 NAME EWEN B. RANDAL NAME  
 SIGNED *[Signature]* DATE 22-05-2024 SIGNED \_\_\_\_\_ DATE \_\_\_\_\_  
 REGISTERED SURVEYOR CONSTRUCTION MANAGER

**ORIGIN OF W.A.C. LEVELS**

PM 20029 Co-Ord System: MGA Ground  
 E: 345612.942 MGA Datum: GDA94  
 N: 6382878.917 MGA Zone: 56  
 RL: 77.675

**APPROVED FOR CONSTRUCTION  
 BY ADW Johnson Pty Ltd**

Date Approved: 15-09-2320

**AS CONSTRUCTED**

240037(TCR1)-WAC-003

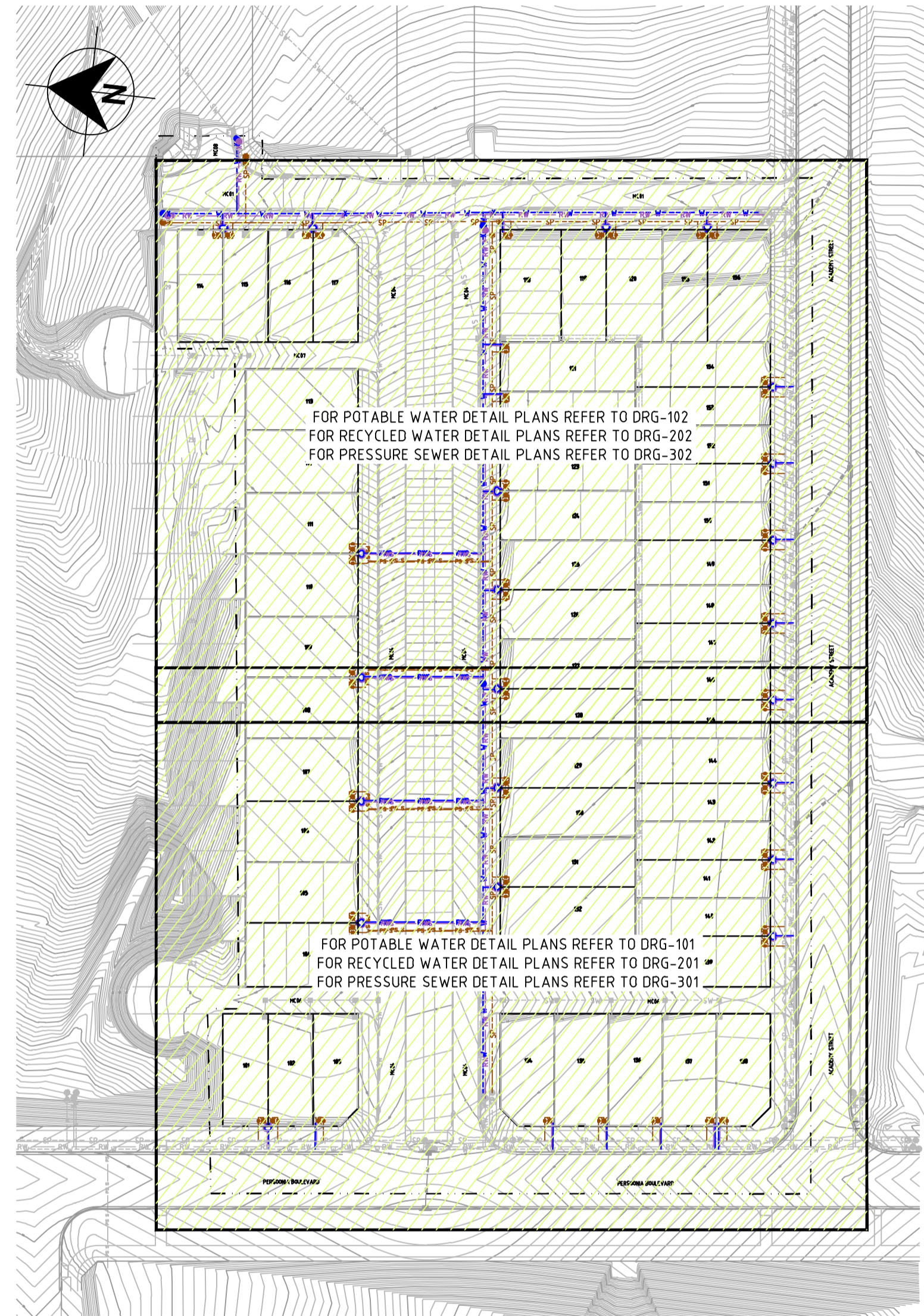
100mm AT FULL SIZE  
 This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT	PROPERTY DESCRIPTION	PROJECT	PLAN TITLE	DISCIPLINE	NUMBER	REV.			
A	17.11.2022	INITIAL ISSUE	G.S.	M-P.C.	G.S.	M-P.C.		Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohanson.com.au www.adwjohanson.com.au ABN 62 129 445 398	PROPOSED SUBDIVISION STAGE - TOWN CENTRE RESIDENTIAL 1 HUNTLEE	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	GENERAL NOTES						
D	26.04.2023	NORTHROP DESIGN UPDATE	G.S.	C.S.	G.S.	C.S.											
E	02.07.2023	NORTHROP SURFACE UPDATE	G.S.	C.S.	G.S.	C.S.											
F	20.07.2023	ALTOGETHER GROUP COMMENTS	G.S.	C.H.	G.S.	C.H.											
O	01.08.2023	FOR CONSTRUCTION	G.S.	F.H.	G.S.	C.H.											
1	15.09.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.											
2	22.05.2024	WORK AS CONSTRUCTED	G.S.	C.H.	G.S.	C.H.											
DESIGN FILE N:\240037\DWG\Water & Sewer\Stage TC 1\240037(TC 1)-HUNTLEE-DESIGN.dwg								ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SCALE		PROJECT No. 240037(TCR1)-		DISCIPLINE WAC		NUMBER 002		REV. 2	

Plotted By: glenns Plot Date: 22/05/24 - 16:44 Cad File: N:\240072\DWG\Water & Sewer\STAGE TCR 1 WAC\240037(TCR1)-WAC-003.dwg

240037(TCR1)-WAC-003

100mm AT FULL SIZE  
This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.



**WORK AS CONSTRUCTED**  
 THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 21-05-2024 OF THE WORK-AS-CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.

COMPANY ADW Johnson Pty Ltd      COMPANY  
 NAME EWEN B. RANDAL      NAME  
 SIGNED *E. Randal*      DATE 22-05-2024      SIGNED      DATE  
 REGISTERED SURVEYOR      CONSTRUCTION MANAGER

**ORIGIN OF W.A.C. LEVELS**

PM 20029      Co-Ord System: MGA Ground  
 E: 345612.942      MGA Datum: GDA94  
 N: 6382878.917      MGA Zone: 56  
 RL: 77.675

**APPROVED FOR CONSTRUCTION**  
 BY ADW Johnson Pty Ltd  
 Date Approved: 15-09-2320

**AS CONSTRUCTED**

PLAN  
 SCALE 1:1000

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	17.11.2022	INITIAL ISSUE	G.S.	M-P.C.	G.S.	M-P.C.	
D	26.04.2023	NORTHROP DESIGN UPDATE	G.S.	C.S.	G.S.	C.S.	
E	02.07.2023	NORTHROP SURFACE UPDATE	G.S.	C.S.	G.S.	C.S.	
F	20.07.2023	ALTOGETHER GROUP COMMENTS	G.S.	C.H.	G.S.	C.H.	
O	01.08.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	
1	15.09.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	
2	22.05.2024	WORK AS CONSTRUCTED	G.S.	C.H.	G.S.	C.H.	

**adw Johnson**  
 Hunter Office  
 Unit 7/335 Hillsborough Rd  
 Warners Bay N.S.W. 2282  
 Phone: (02) 4978 5100  
 Fax: (02) 4978 5199  
 email: hunter@adwjohnson.com.au  
 www.adwjohnson.com.au  
 ABN 62 129 445 398

CLIENT

PROPERTY DESCRIPTION  
 PROPOSED SUBDIVISION  
 STAGE - TOWN CENTRE RESIDENTIAL 1  
 HUNTLEE

PROJECT	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION				
PLAN TITLE	OVERALL SITE PLAN				
SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
Daly.Smith Pty Ltd	GDA94 M.G.A. ZONE 56 A.H.D.	240037(TCR1)-	WAC	003	2

240037(TCR1)-WAC-102

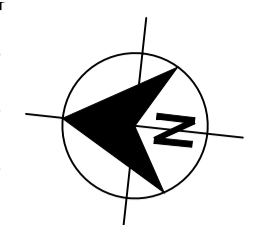
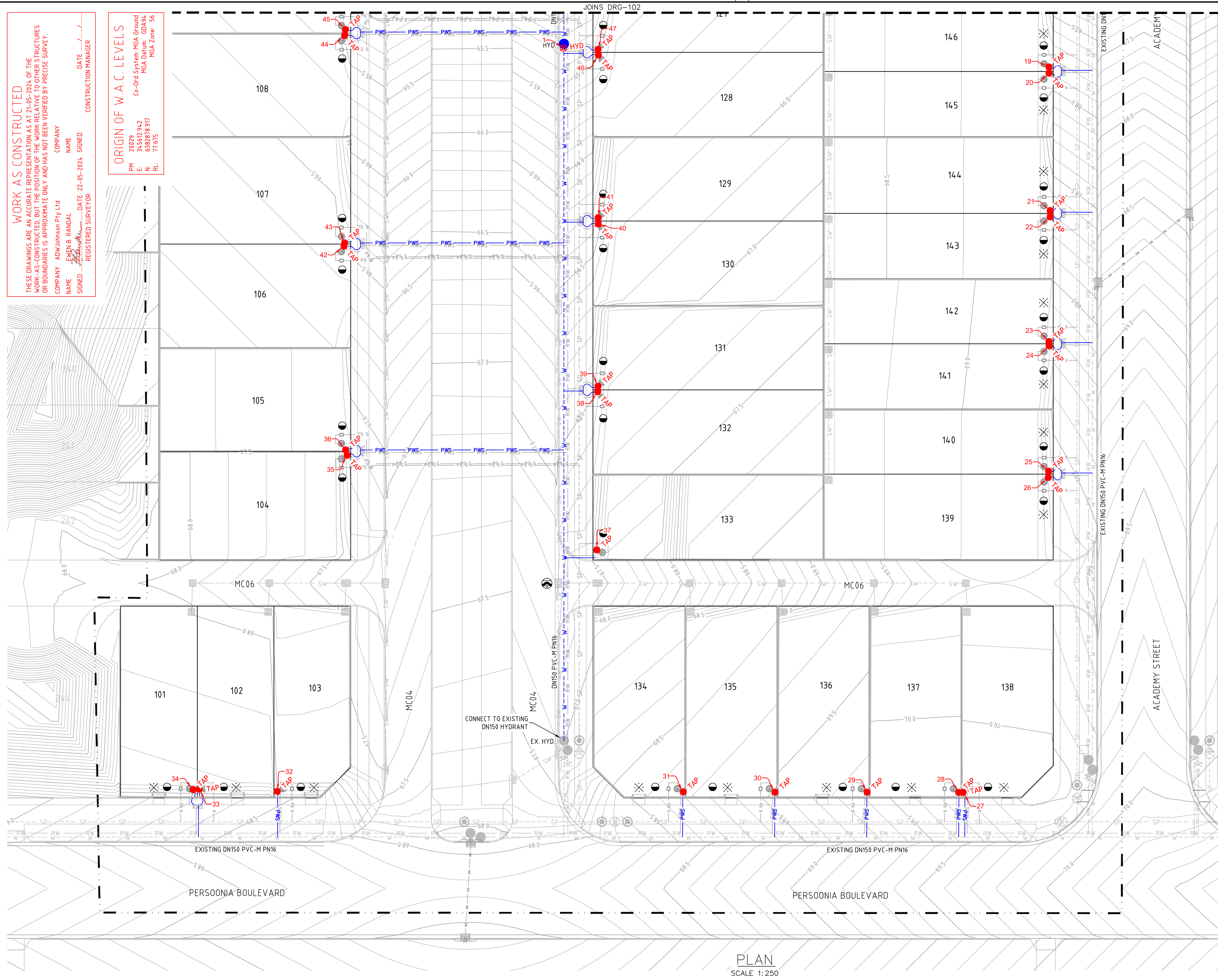
**WORK AS CONSTRUCTED**  
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**ORIGIN OF W.A.C. LEVELS**  
 Co-Ord System: MGA GDA94  
 MGA E: 638278.917  
 MGA N: 717675

DATE: 22-05-2024  
 SIGNED: [Signature]  
 REGISTERED SURVEYOR

COMPANY: ADW Johnson Pty Ltd  
 NAME: EMEN B. RANDAL  
 DATE: 22-05-2024  
 SIGNED: [Signature]  
 REGISTERED SURVEYOR

100mm AT FULL SIZE  
 This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.



- LEGEND**
- W --- W PVC-M POTABLE WATER RETICULATION
  - PWS --- PWS POTABLE WATER PROPERTY SERVICE
  - RW --- RW PVC-M RECYCLED WATER RETICULATION
  - RWS --- RWS RECYCLED WATER PROPERTY SERVICE
  - SP --- SP PE PRESSURE SEWER RETICULATION
  - PS S --- PS S PE PRESSURE SEWER PROPERTY SERVICE
  - EX PW --- EX PW EXISTING POTABLE WATER RETICULATION
  - EX RW --- EX RW EXISTING RECYCLED WATER RETICULATION
  - EX PS --- EX PS EXISTING PRESSURE SEWER RETICULATION
  - SW --- SW STORMWATER PIPEWORK
  - SV --- SV STOP VALVE
  - HYD. --- HYD. HYDRANT
  - FL HYD. --- FL HYD. FLUSHING HYDRANT
  - --- ○ PROPERTY SERVICE CONNECTION
  - --- ○ LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
  - 1125° 22.5° 65° 90° --- HORIZONTAL BEND ANGLE IN MAIN
  - - - - - SUBDIVISION STAGE BOUNDARY
  - ⊗ --- PROPERTY SERVICE CONNECTION. DENOTES PROPERTY LATERAL TO BE INSTALLED ON EXISTING MAIN IF APPLICABLE. LATERAL CONNECTIONS TO EXISTING MAIN SHALL BE TREATED AS A NEW RETICULATION MAIN (i.e. ADVANCED NOTICE FOR CONNECTION, PRESSURE TESTING etc.). CONNECTION TO BE MADE TO EXISTING MAIN WITH PLASSON TAPPING SADDLE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS (REFER WAT-1108-V).

- POTABLE WATER PROPERTY SERVICE CONNECTIONS**  
 TOTAL 56 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
    - 4 x SHORT SIDE
    - 0 x LONG SIDE
  - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
    - 21 x SHORT SIDE
    - 5 x LONG SIDE

POTABLE WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN150	PVC-M PN16	328
DN20 (LATERAL)	PE100 PN16	341

- NOTES:**
1. LOCALLY PULL PIPES TO AVOID ANY POTENTIAL CLASH WITH STORMWATER PIT.
  2. FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-201 TO 202.
  3. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-301 TO 302.
  4. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-402.

**APPROVED FOR CONSTRUCTION**  
 BY ADW Johnson Pty Ltd  
 Date Approved: 15-09-2320

**AS CONSTRUCTED**

PLAN  
 SCALE 1:250

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	17.11.2022	INITIAL ISSUE	G.S.	M-P.C.	G.S.	M-P.C.	0 5.0 10.0 12.5m SCALE: 1:250 (FULL)
D	26.04.2023	NORTHROP DESIGN UPDATE	G.S.	C.S.	G.S.	C.S.	
E	02.07.2023	NORTHROP SURFACE UPDATE	G.S.	C.S.	G.S.	C.S.	
F	20.07.2023	ALTOGETHER GROUP COMMENTS	G.S.	C.H.	G.S.	C.H.	
0	01.08.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	
1	15.09.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	
2	22.05.2024	WORK AS CONSTRUCTED	G.S.	C.H.	G.S.	C.H.	

ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SCALE

**adw Johnson**  
 Hunter Office  
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 Phone: (02) 4978 5100  
 Fax: (02) 4978 5199  
 email: hunter@adwjohnson.com.au  
 www.adwjohnson.com.au  
 ABN 62 129 445 398

**altogether.**

CLIENT  
 PROPOSED SUBDIVISION  
 STAGE - TOWN CENTRE RESIDENTIAL 1  
 HUNTLÉE

PROJECT		POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	
PLAN TITLE			
POTABLE WATER DETAIL PLAN - SHEET 1			
SURVEYED	DATUM	PROJECT No.	DISCIPLINE
Daly,Smith Pty Ltd	GDA94 M.G.A. ZONE 56 A.H.D.	240037(TCR1)-	WAC
NUMBER	REV.	101	2

240037(TCR1)-WAC-102

100mm AT FULL SIZE  
This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.

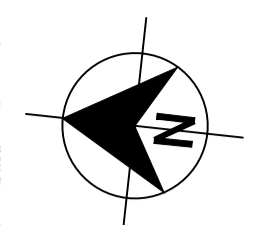
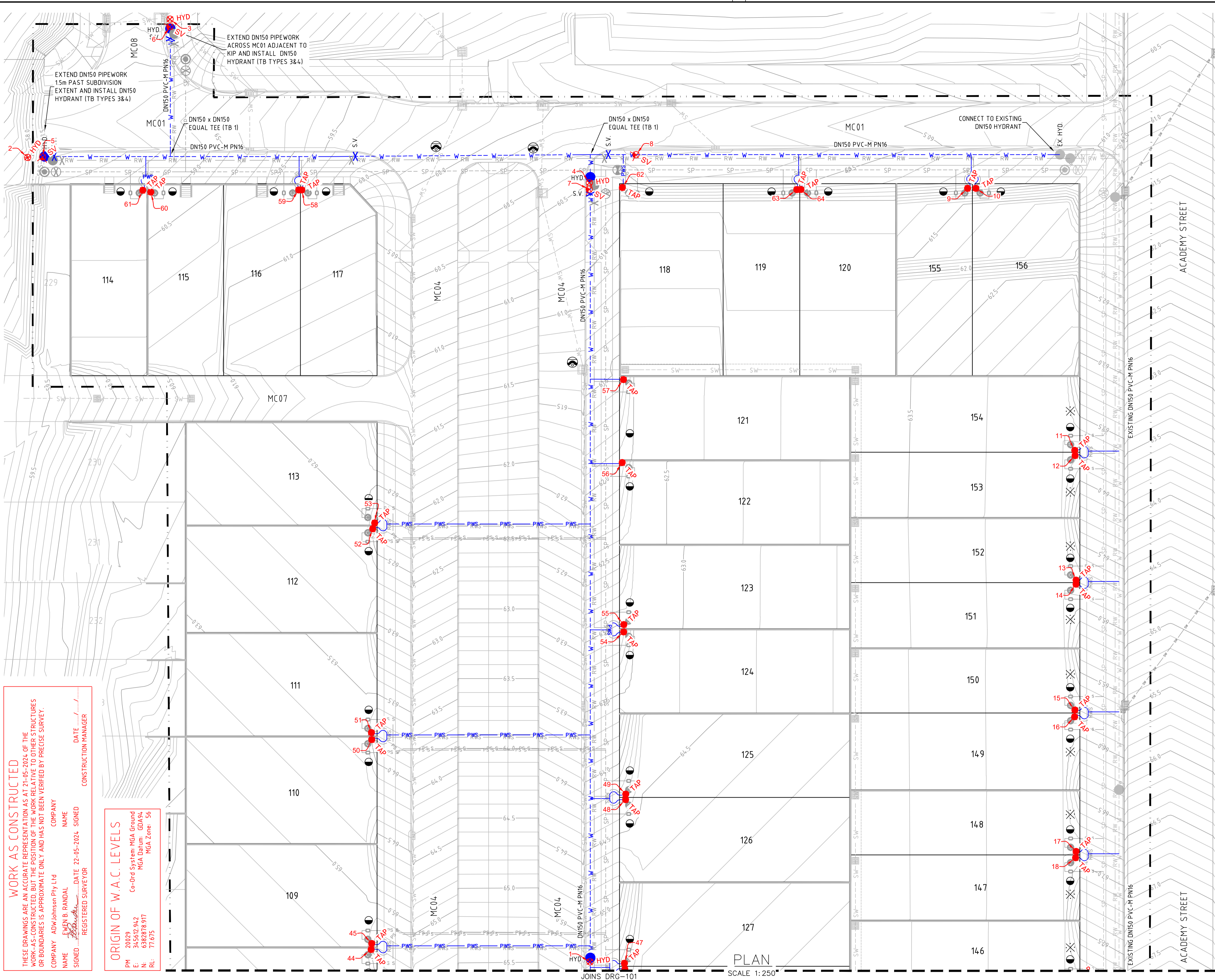
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COMPANY: ADW Johnson Pty Ltd  
NAME: LEVIN B. RANDAL  
SIGNED: [Signature]  
DATE: 22-05-2024  
REGISTERED SURVEYOR

DATE: .....  
CONSTRUCTION MANAGER

**ORIGIN OF W.A.C. LEVELS**  
PM: 20029  
E: 345612942  
N: 6382878917  
RL: 77.075

Co-Ord System: MGA Geocoid  
MGA Datum: GDA94  
MGA Zone: 56



- LEGEND**
- W --- W --- PVC-M POTABLE WATER RETICULATION
  - PWS --- PWS --- POTABLE WATER PROPERTY SERVICE
  - RW --- RW --- PVC-M RECYCLED WATER RETICULATION
  - RWS --- RWS --- RECYCLED WATER PROPERTY SERVICE
  - SP --- SP --- PE PRESSURE SEWER RETICULATION
  - PS S --- PS S --- PE PRESSURE SEWER PROPERTY SERVICE
  - EX PW --- EX PW --- EXISTING POTABLE WATER RETICULATION
  - EX RW --- EX RW --- EXISTING RECYCLED WATER RETICULATION
  - EX PS --- EX PS --- EXISTING PRESSURE SEWER RETICULATION
  - SW --- SW --- STORMWATER PIPEWORK
  - SV --- SV --- STOP VALVE
  - HYD --- HYD --- HYDRANT
  - FL HYD --- FL HYD --- FLUSHING HYDRANT
  - --- PROPERTY SERVICE CONNECTION
  - --- LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
  - 1125° 22.5° 65° 90° --- HORIZONTAL BEND ANGLE IN MAIN
  - --- SUBDIVISION STAGE BOUNDARY
  - ⊗ --- PROPERTY SERVICE CONNECTION. DENOTES PROPERTY LATERAL TO BE INSTALLED ON EXISTING MAIN IF APPLICABLE. LATERAL CONNECTIONS TO EXISTING MAIN SHALL BE TREATED AS A NEW RETICULATION MAIN (i.e. ADVANCED NOTICE FOR CONNECTION, PRESSURE TESTING etc.). CONNECTION TO BE MADE TO EXISTING MAIN WITH PLASSON TAPPING SADDLE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS (REFER WAT-1108-V).

- POTABLE WATER PROPERTY SERVICE CONNECTIONS**  
TOTAL 56 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
    - 4 x SHORT SIDE
    - 0 x LONG SIDE
  - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
    - 21 x SHORT SIDE
    - 5 x LONG SIDE

POTABLE WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN150	PVC-M PN16	328
DN20 (LATERAL)	PE100 PN16	341

- NOTES:**
1. LOCALLY PULL PIPES TO AVOID ANY POTENTIAL CLASH WITH STORMWATER PIT.
  2. FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-201 TO 202.
  3. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-301 TO 302.
  4. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-402.

**APPROVED FOR CONSTRUCTION**  
BY ADW Johnson Pty Ltd  
Date Approved: 15-09-2320

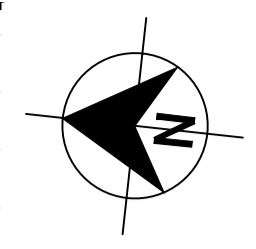
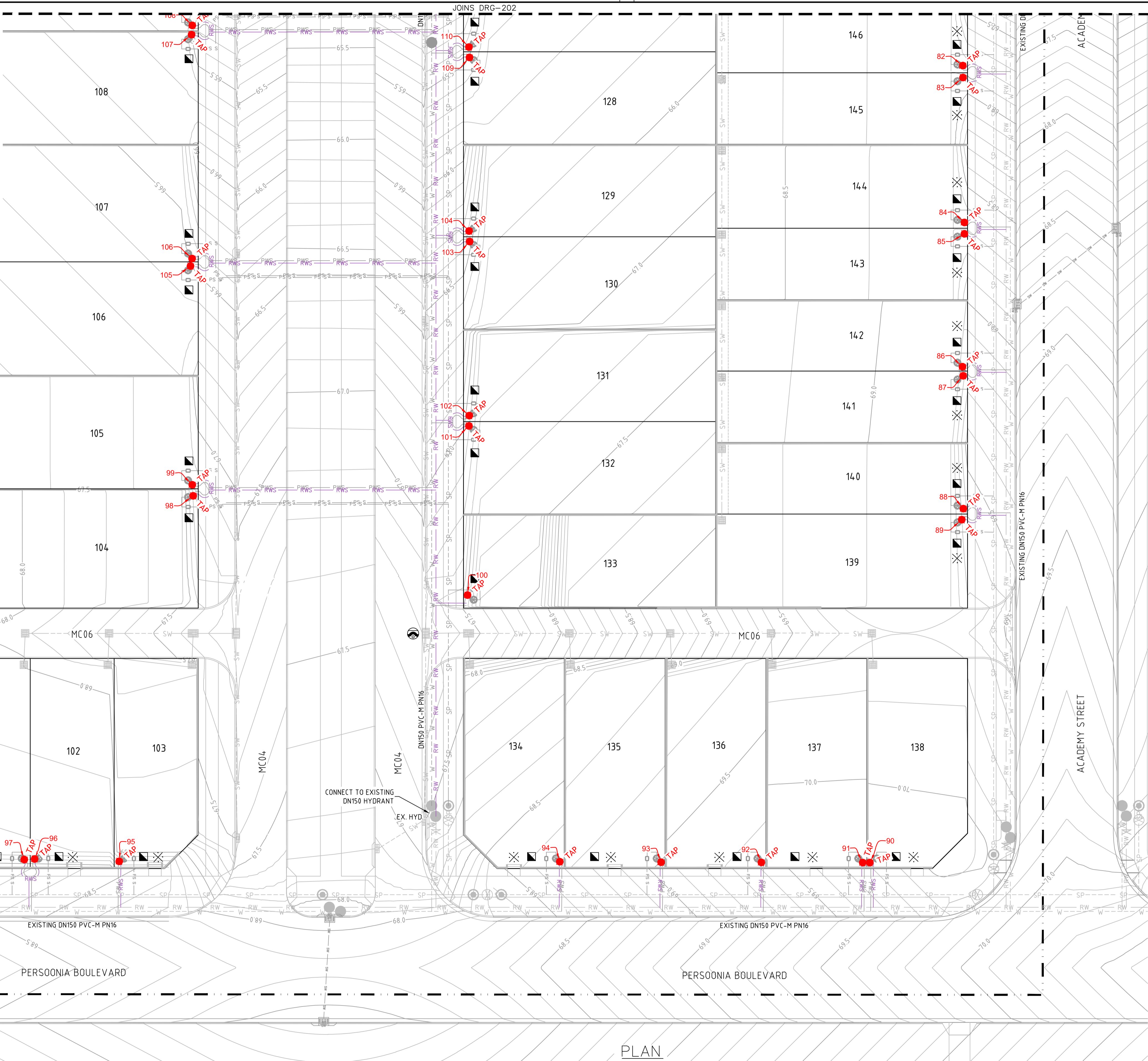
**AS CONSTRUCTED**

<table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>AMENDMENT</th> <th>DRAWN</th> <th>CHECK</th> <th>DESIGN</th> <th>VERIFY</th> <th>SCALES</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>17.11.2022</td> <td>INITIAL ISSUE</td> <td>G.S.</td> <td>M-P.C.</td> <td>G.S.</td> <td>M-P.C.</td> <td rowspan="7"> </td> </tr> <tr> <td>D</td> <td>26.04.2023</td> <td>NORTHROP DESIGN UPDATE</td> <td>G.S.</td> <td>C.S.</td> <td>G.S.</td> <td>C.S.</td> </tr> <tr> <td>F</td> <td>02.07.2023</td> <td>NORTHROP SURFACE UPDATE</td> <td>G.S.</td> <td>C.S.</td> <td>G.S.</td> <td>C.S.</td> </tr> <tr> <td>F</td> <td>20.07.2023</td> <td>ALTOGETHER GROUP COMMENTS</td> <td>G.S.</td> <td>C.H.</td> <td>G.S.</td> <td>C.H.</td> </tr> <tr> <td>O</td> <td>01.08.2023</td> <td>FOR CONSTRUCTION</td> <td>G.S.</td> <td>C.H.</td> <td>G.S.</td> <td>C.H.</td> </tr> <tr> <td>1</td> <td>15.09.2023</td> <td>FOR CONSTRUCTION</td> <td>G.S.</td> <td>C.H.</td> <td>G.S.</td> <td>C.H.</td> </tr> <tr> <td>2</td> <td>22.05.2024</td> <td>WORK AS CONSTRUCTED</td> <td>G.S.</td> <td>C.H.</td> <td>G.S.</td> <td>C.H.</td> </tr> </tbody> </table>	REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	A	17.11.2022	INITIAL ISSUE	G.S.	M-P.C.	G.S.	M-P.C.		D	26.04.2023	NORTHROP DESIGN UPDATE	G.S.	C.S.	G.S.	C.S.	F	02.07.2023	NORTHROP SURFACE UPDATE	G.S.	C.S.	G.S.	C.S.	F	20.07.2023	ALTOGETHER GROUP COMMENTS	G.S.	C.H.	G.S.	C.H.	O	01.08.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	1	15.09.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	2	22.05.2024	WORK AS CONSTRUCTED	G.S.	C.H.	G.S.	C.H.	<p>DESIGN FILE: N:\240037\DWG\Water &amp; Sewer\Stage TC 1\240037(TC 1)-HUNTLER-DESIGN.dwg</p> <p>Plotted By: glenns Plot Date: 22/05/24 - 16:44 Cod File: N:\240072\DWG\Water &amp; Sewer\STAGE TCR 1 WAC\240037(TCR1)-WAC-102.dwg</p>	<p>ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SCALE</p>	<p>Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398</p>	<p>CLIENT</p>	<p>PROPERTY DESCRIPTION</p> <p>PROPOSED SUBDIVISION STAGE - TOWN CENTRE RESIDENTIAL 1 HUNTLER</p>	<p>PROJECT</p> <p>POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION</p> <p>PLAN TITLE</p> <p>POTABLE WATER DETAIL PLAN - SHEET 2</p>	<table border="1"> <tr> <th>PROJECT No.</th> <th>DISCIPLINE</th> <th>NUMBER</th> <th>REV.</th> </tr> <tr> <td>240037(TCR1)-</td> <td>WAC</td> <td>102</td> <td>2</td> </tr> </table>	PROJECT No.	DISCIPLINE	NUMBER	REV.	240037(TCR1)-	WAC	102	2
REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES																																																																		
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**ORIGIN OF W.A.C. LEVELS**  
PM: 20029  
E: 345612.942  
N: 638278.917  
RL: 71.675  
Co-Ord System: MGA Zone 56  
GDA94  
MGA Zone 56

DATE: 22-05-2024  
SIGNED: [Signature]  
REGISTERED SURVEYOR  
NAME: EMEN B. RANDAL  
COMPANY: ADW Johnson Pty Ltd  
CONSTRUCTION MANAGER



- LEGEND**
- W --- W --- W --- PVC-M POTABLE WATER RETICULATION
  - PWS --- PWS --- PWS --- PE POTABLE WATER PROPERTY SERVICE
  - RW --- RW --- RW --- PVC-M RECYCLED WATER RETICULATION
  - RWS --- RWS --- RWS --- PE RECYCLED WATER PROPERTY SERVICE
  - SP --- SP --- SP --- PE PRESSURE SEWER RETICULATION
  - PS S --- PS S --- PS S --- PE PRESSURE SEWER PROPERTY SERVICE
  - SW --- SW --- SW --- STORMWATER PIPEWORK
- S.V. [Symbol] STOP VALVE
  - S.V. N.C. [Symbol] STOP VALVE NORMALLY CLOSED
  - HYD. [Symbol] HYDRANT
  - FL. HYD. [Symbol] FLUSHING HYDRANT
  - [Symbol] PROPERTY SERVICE CONNECTION
  - [Symbol] LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
  - [Symbol] HORIZONTAL BEND ANGLE IN MAIN (11.25°, 22.5°, 45°, 90°)
  - LIMIT OF SUBDIVISION WORKS
  - [Symbol] PROPERTY SERVICE CONNECTION, DENOTES PROPERTY LATERAL TO BE INSTALLED ON EXISTING MAIN IF APPLICABLE. LATERAL CONNECTIONS TO EXISTING MAIN SHALL BE TREATED AS A NEW RETICULATION MAIN (i.e. ADVANCED NOTICE FOR CONNECTION, PRESSURE TESTING etc.). CONNECTION TO BE MADE TO EXISTING MAIN WITH PLASSON TAPPING SADDLE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS (REFER WAT-1108-V).

- RECYCLED WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 56 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
    - 4 x SHORT SIDE
    - 0 x LONG SIDE
  - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
    - 21 x SHORT SIDE
    - 5 x LONG SIDE

RECYCLED WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN150	PVC-M PN16	347
DN25 (LATERAL)	PE100 PN16	341

- NOTES:**
- LOCALLY PULL PIPES TO AVOID ANY POTENTIAL CLASH WITH STORMWATER PIT.
  - FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-101 TO 102.
  - FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-301 TO 302.
  - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-402.

**APPROVED FOR CONSTRUCTION**  
BY ADW Johnson Pty Ltd  
Date Approved: 15-09-2320

**AS CONSTRUCTED**

PLAN  
SCALE 1:250

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	17.11.2022	INITIAL ISSUE	G.S.	M-P.C.	G.S.	M-P.C.	 SCALE: 1:250 (FULL)
D	26.04.2023	NORTHROP DESIGN UPDATE	G.S.	C.S.	G.S.	C.S.	
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1	15.09.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	
2	22.05.2024	WORK AS CONSTRUCTED	G.S.	C.H.	G.S.	C.H.	

**adw Johnson**

Hunter Office  
Unit 7/335 Hillsborough Rd  
Warners Bay N.S.W. 2282  
Phone: (02) 4978 5100  
Fax: (02) 4978 5199  
email: hunter@adwjohnson.com.au  
www.adwjohnson.com.au  
ABN 62 129 445 398

CLIENT

**altogether.**

PROPERTY DESCRIPTION

PROPOSED SUBDIVISION  
STAGE - TOWN CENTRE RESIDENTIAL 1  
HUNTLEE

SURVEYED  
Daly,Smith Pty Ltd

DATUM  
GDA94 M.G.A. ZONE 56

A.H.D.

PROJECT	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION		
PLAN TITLE	RECYCLED WATER DETAIL PLAN - SHEET 1		
PROJECT No.	DISCIPLINE	NUMBER	REV.
240037(TCR1)-	WAC	201	2

240037(TCR1)-WAC-202

100mm AT FULL SIZE  
This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.

**WORK AS CONSTRUCTED**

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 21-05-2024 OF THE WORK-AS-CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.

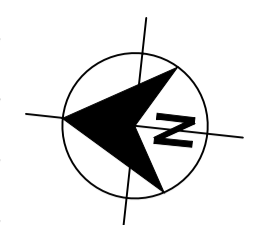
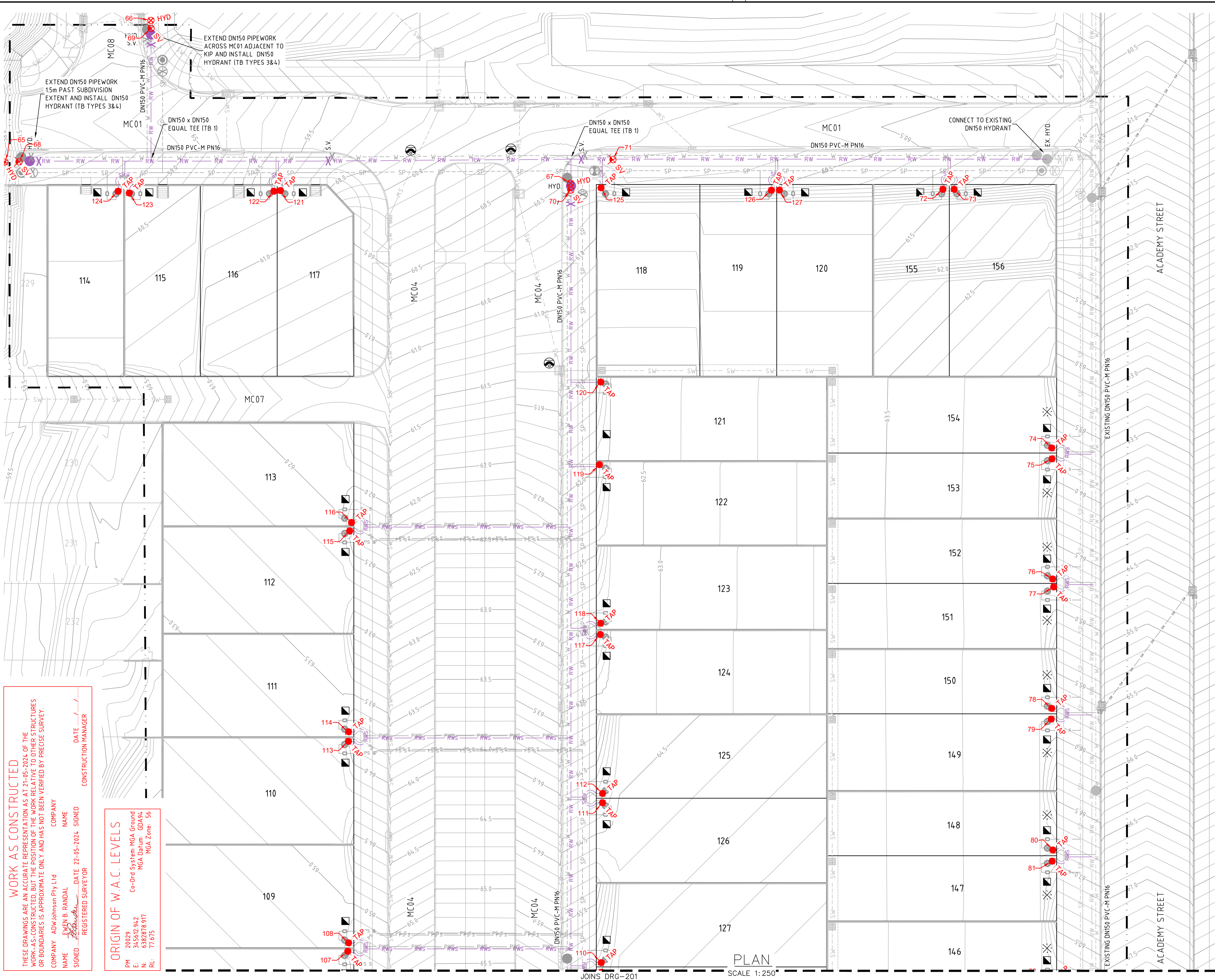
COMPANY: ADW Johnson Pty Ltd  
NAME: LEVIN B. RANDAL  
SIGNED: [Signature]  
REGISTERED SURVEYOR

DATE: 22-05-2024  
SIGNED: [Signature]  
CONSTRUCTION MANAGER

**ORIGIN OF W.A.C. LEVELS**

PM: 20029  
E: 3456162942  
N: 6382878317  
RL: 77.675

Co-Ord System: MEA Geocoid  
MGA Datum: GDA84  
MGA Zone: 56



- LEGEND**
- W - W - W - PVC-M POTABLE WATER RETICULATION
  - PWS - PWS - PWS - PE POTABLE WATER PROPERTY SERVICE
  - RW - RW - RW - PVC-M RECYCLED WATER RETICULATION
  - RWS - RWS - RWS - PE RECYCLED WATER PROPERTY SERVICE
  - SP - SP - SP - PE PRESSURE SEWER RETICULATION
  - PS - PS - PS - PE PRESSURE SEWER PROPERTY SERVICE
  - SW - SW - SW - STORMWATER PIPEWORK
- S.V. - STOP VALVE
  - S.V. N.C. - STOP VALVE NORMALLY CLOSED
  - HYD. - HYDRANT
  - FL. HYD. - FLUSHING HYDRANT
  - - PROPERTY SERVICE CONNECTION
  - - LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
  - 11.25° 22.5° 45° 90° - HORIZONTAL BEND ANGLE IN MAIN
  - - - - - LIMIT OF SUBDIVISION WORKS
  - ⊗ - PROPERTY SERVICE CONNECTION, DENOTES PROPERTY LATERAL TO BE INSTALLED ON EXISTING MAIN IF APPLICABLE. LATERAL CONNECTIONS TO EXISTING MAIN SHALL BE TREATED AS A NEW RETICULATION MAIN (i.e. ADVANCED NOTICE FOR CONNECTION, PRESSURE TESTING etc.). CONNECTION TO BE MADE TO EXISTING MAIN WITH PLASSON TAPPING SADDLE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS (REFER WAT-1108-V).

- RECYCLED WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 56 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
    - 4 x SHORT SIDE
    - 0 x LONG SIDE
  - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
    - 21 x SHORT SIDE
    - 5 x LONG SIDE

RECYCLED WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN150	PVC-M PN16	347
DN25 (LATERAL)	PE100 PN16	341

- NOTES:**
1. LOCALLY PULL PIPES TO AVOID ANY POTENTIAL CLASH WITH STORMWATER PIT.
  2. FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-101 TO 102.
  3. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-301 TO 302.
  4. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-402.

**APPROVED FOR CONSTRUCTION**  
BY ADW Johnson Pty Ltd  
Date Approved: 15-09-2320

**AS CONSTRUCTED**

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	17.11.2022	INITIAL ISSUE	G.S.	M-P.C.	G.S.	M-P.C.	0 5.0 10.0 12.5m SCALE: 1:250 (FULL)
D	26.04.2023	NORTHROP DESIGN UPDATE	G.S.	C.S.	G.S.	C.S.	
F	02.07.2023	NORTHROP SURFACE UPDATE	G.S.	C.S.	G.S.	C.S.	
F	20.07.2023	ALTOGETHER GROUP COMMENTS	G.S.	C.H.	G.S.	C.H.	
0	01.08.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	
1	15.09.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	
2	22.05.2024	WORK AS CONSTRUCTED	G.S.	C.H.	G.S.	C.H.	

**adw Johnson**

Hunter Office  
Unit 7/335 Hillsborough Rd  
Warners Bay N.S.W. 2282  
Phone: (02) 4978 5100  
Fax: (02) 4978 5199  
email: hunter@adwjohnson.com.au  
www.adwjohnson.com.au  
ABN 62 129 445 398

CLIENT

**altogether.**

PROPERTY DESCRIPTION

PROPOSED SUBDIVISION  
STAGE - TOWN CENTRE RESIDENTIAL 1  
HUNTLEE

SURVEYED: Daly,Smith Pty Ltd  
DATUM: GDA94 M.G.A. ZONE 56 A.H.D.

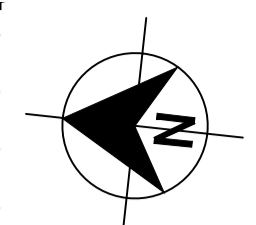
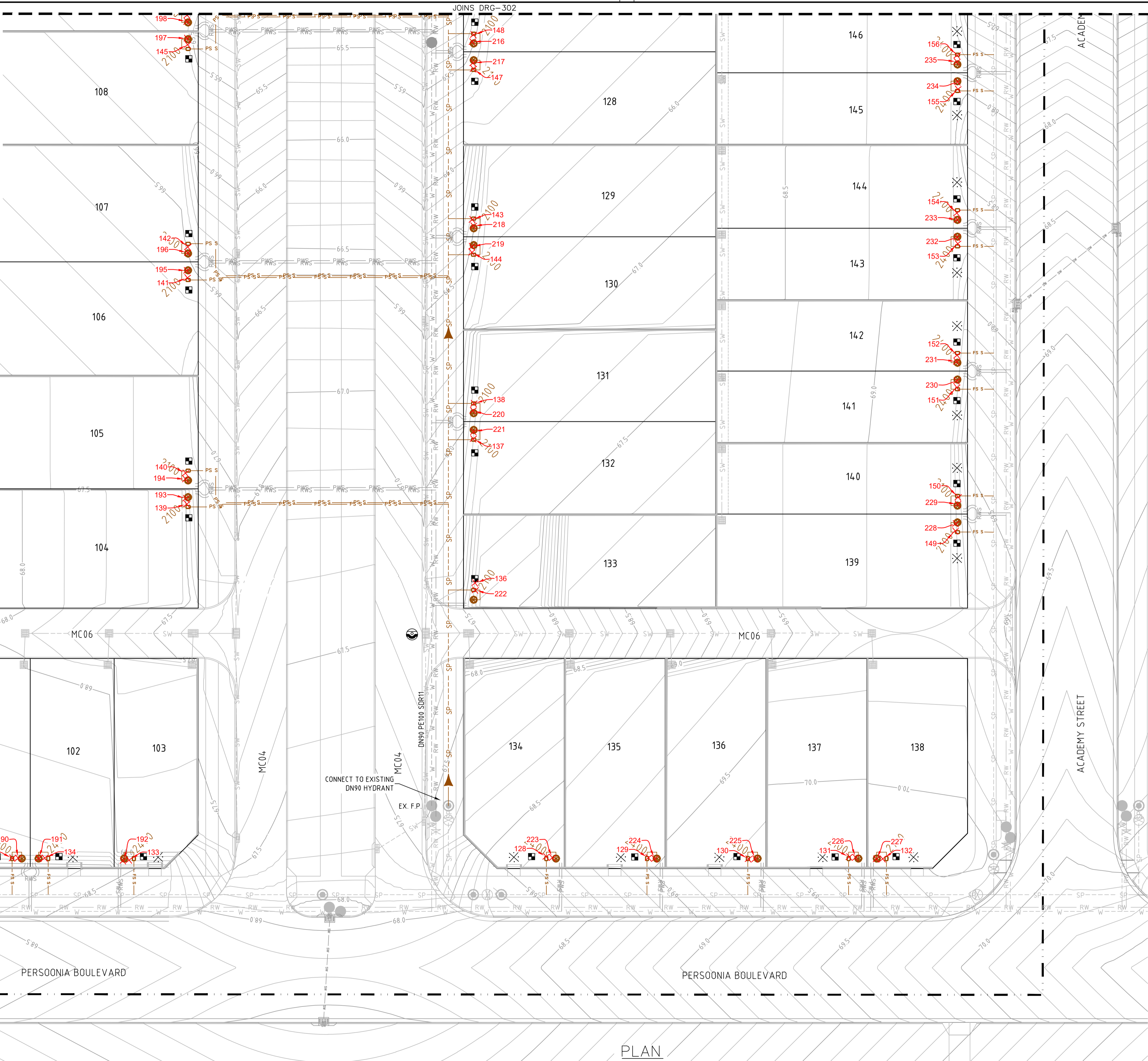
PROJECT: POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION

PLAN TITLE: RECYCLED WATER DETAIL PLAN - SHEET 2

PROJECT No.	DISCIPLINE	NUMBER	REV.
240037(TCR1)-	WAC	202	2

**WORK AS CONSTRUCTED**  
THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 21-05-2024 OF THE WORK AS CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.  
COMPANY: ADW Johnson Pty Ltd  
NAME: EMILY B. RANDAL  
SIGNED: [Signature] DATE: 22-05-2024  
REGISTERED SURVEYOR

**ORIGIN OF W.A.C. LEVELS**  
Co-Ord System: MGA GDA94  
MGA EPSG: 5608  
MGA Zone: 56  
PM: 20029  
E: 345612.942  
N: 638278.917  
RL: 71.675



- LEGEND**
- W --- W --- W --- PVC-M POTABLE WATER RETICULATION
  - PWS --- PWS --- PWS --- PE POTABLE WATER PROPERTY SERVICE
  - RW --- RW --- RW --- PVC-M RECYCLED WATER RETICULATION
  - RWS --- RWS --- RWS --- PE RECYCLED WATER PROPERTY SERVICE
  - SP --- SP --- SP --- PE PRESSURE SEWER RETICULATION
  - PS S --- PS S --- PS S --- PE PRESSURE SEWER PROPERTY SERVICE
  - SW --- SW --- SW --- STORMWATER PIPEWORK
  - TRW --- TRW --- TRW --- RECYCLED WATER TRANSFER MAIN
  - I.V. [Symbol] ISOLATION VALVE
  - I.V. (N.C.) [Symbol] ISOLATION VALVE (NORMALLY CLOSED)
  - F.P. [Symbol] FLUSHING POINT
  - [Symbol] WASTEWATER COLLECTION TANK AND BOUNDARY KIT
  - [Symbol] PRESSURE SEWER FLOW DIRECTION
  - [Symbol] PRESSURE SEWER TEMPORARY FLOW DIRECTION
  - [Symbol] PROPERTY SERVICE CONNECTION
  - [Symbol] LAY PRESSURE SEWER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-V
  - --- LIMIT OF SUBDIVISION WORKS
  - [Symbol] PROPERTY SERVICE CONNECTION. DENOTES PROPERTY LATERAL TO BE INSTALLED ON EXISTING MAIN. LATERAL CONNECTIONS TO EXISTING MAIN SHALL BE TREATED AS A NEW RETICULATION MAIN (i.e. ADVANCED NOTICE FOR CONNECTION, PRESSURE TESTING etc.). CONNECTION TO BE MADE TO EXISTING MAIN WITH PLASSON TAPPING SADDLE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS (REFER WAT-1108-V).

**PROPERTY SERVICE CONNECTIONS**  
TOTAL 56 CONNECTIONS  
• SINGLE SERVICES  
-46 x SHORT SIDE  
-10 x LONG SIDE

PRESSURE SEWER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN90	PE PN16	264
DN50	PE PN16	79
DN40 (LATERAL)	PE PN16	468

- NOTES:**
- FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-101 TO 102.
  - FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-201 TO 202.
  - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-402.
  - FOR FLUSHING POINT TYPICAL DETAILS REFER TO STANDARD DRAWING PSS-1017-FS.
  - FOR FLOW MONITORING POINT TYPICAL DETAILS REFER TO STANDARD DRAWING PSS-1115-FS.
  - CONTRACTOR MAY BEND POLYETHYLENE PIPEWORK IN PLACE OF USING STANDARD FITTINGS WITH A MIN. BENDING RADIUS OF 20 x PIPE DIAM.
  - ALL BENDS SHALL BE ELECTROFUSION SWEEP BENDS (FABRICATED BENDS SHALL NOT BE USED).
  - ALL PRESSURE SEWER TANKS HAVE A SETBACK OF 1.2m. FROM THEIR RESPECTIVE LOT'S FRONT BOUNDARY TO THE CENTRE OF THE TANK. OFFSET FROM THE SIDE BOUNDARY IS AS PER STD. SEE DRG. 402 FOR DETAILS.

**APPROVED FOR CONSTRUCTION**  
BY ADW Johnson Pty Ltd  
Date Approved: 15-09-2320

**AS CONSTRUCTED**

PLAN  
SCALE 1:250

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	17.11.2022	INITIAL ISSUE	G.S.	M-P.C.	G.S.	M-P.C.	
D	26.04.2023	NORTHROP DESIGN UPDATE	G.S.	C.S.	G.S.	C.S.	
E	02.07.2023	NORTHROP SURFACE UPDATE	G.S.	C.S.	G.S.	C.S.	
F	20.07.2023	ALTOGETHER GROUP COMMENTS	G.S.	C.H.	G.S.	C.H.	
O	01.08.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	
1	15.09.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	
2	22.05.2024	WORK AS CONSTRUCTED	G.S.	C.H.	G.S.	C.H.	

DESIGN FILE	ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SCALE
N:\240037\DWG\Water & Sewer\Stage TC 1\X-240037(TC 1)-HUNTLER-DESIGN.dwg	

**adw Johnson**  
Hunter Office  
Unit 7/335 Hillsborough Rd  
Warners Bay N.S.W. 2282  
Phone: (02) 4978 5100  
Fax: (02) 4978 5199  
email: hunter@adwjohnson.com.au  
www.adwjohnson.com.au  
ABN 62 129 445 398

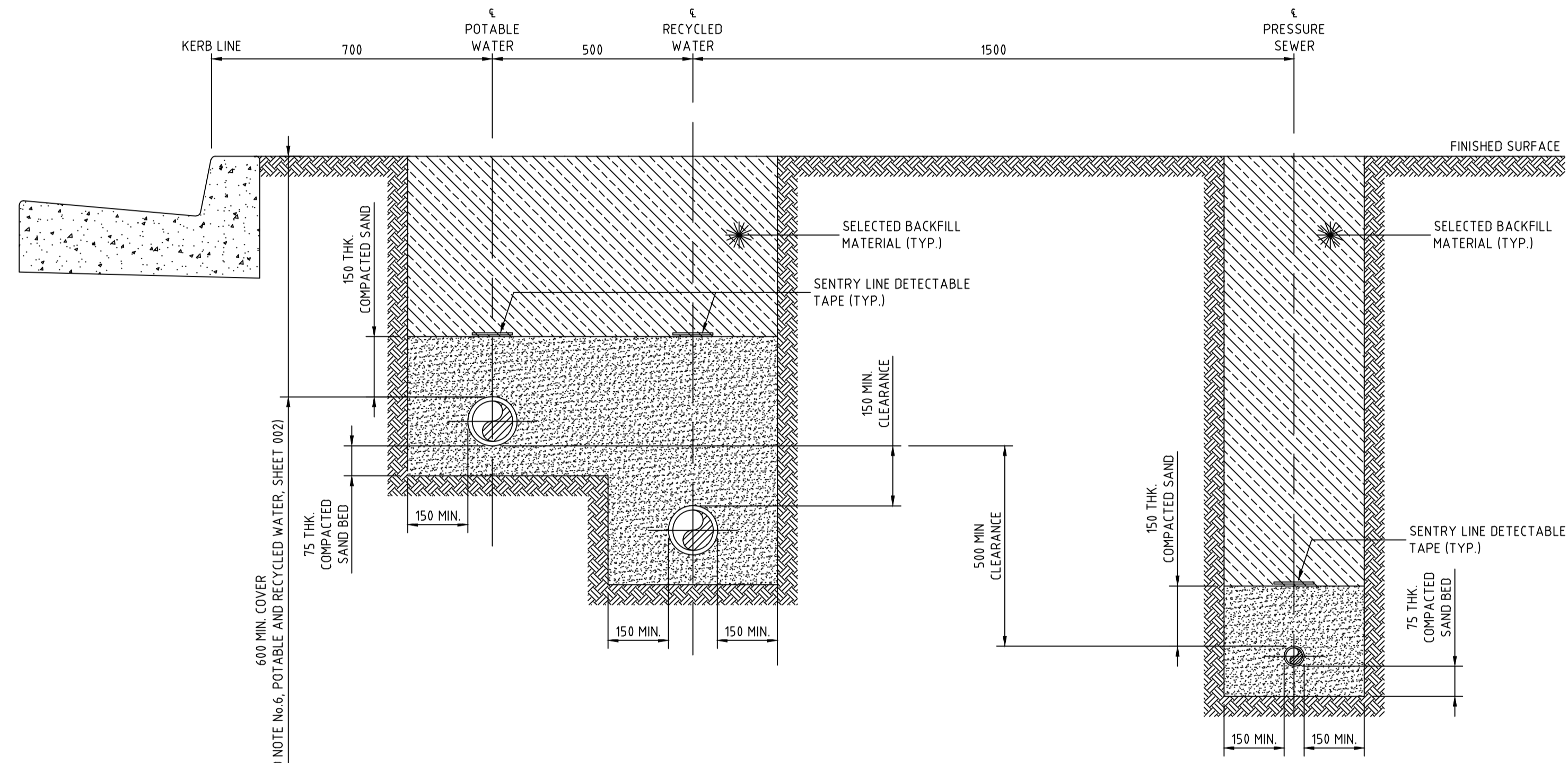
**altogether.**

CLIENT		PROPERTY DESCRIPTION	
Daly,Smith Pty Ltd		PROPOSED SUBDIVISION STAGE - TOWN CENTRE RESIDENTIAL 1 HUNTLER	

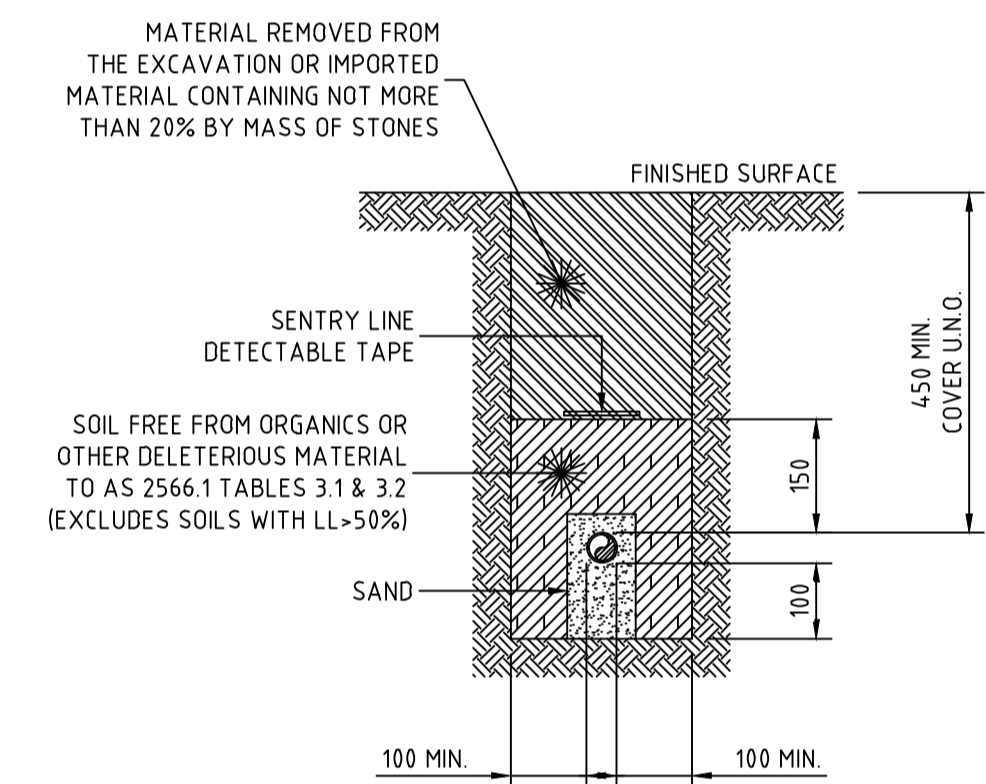
PROJECT		DISCIPLINE		NUMBER	REV.
POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION		WAC		301	2
PLAN TITLE PRESSURE SEWER DETAIL PLAN - SHEET 1					
PROJECT No. 240037(TCR1)-		DISCIPLINE WAC		NUMBER 301	REV. 2







STREET PRESSURE MAIN  
TYPICAL DETAIL  
SCALE 1:10



PRIVATE PROPERTY PRESSURE MAIN  
TYPICAL DETAIL  
SCALE 1:10

**WORK AS CONSTRUCTED**  
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 COMPANY ADW Johnson Pty Ltd  
 NAME EWEN B. RANDAL  
 SIGNED [Signature] DATE 22-05-2024 REGISTERED SURVEYOR  
 NAME [Blank]  
 SIGNED [Blank] DATE [Blank] CONSTRUCTION MANAGER

**ORIGIN OF W.A.C. LEVELS**  
 PM 20029  
 E: 345612.942  
 N: 6382878.917  
 RL: 77.675  
 Co-Ord System: MGA Ground  
 MGA Datum: GDA94  
 MGA Zone: 56

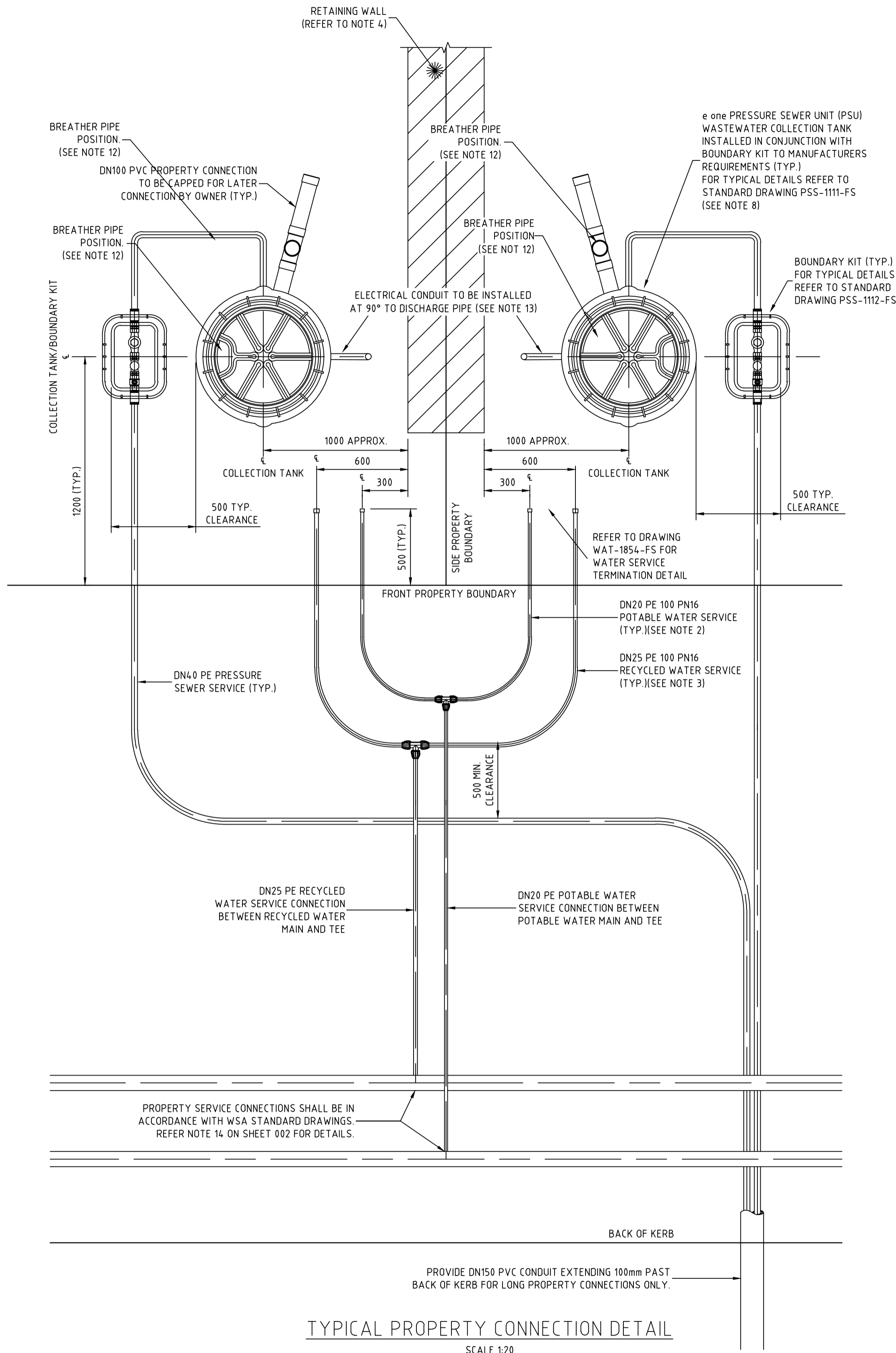
**APPROVED FOR CONSTRUCTION**  
 BY ADW Johnson Pty Ltd  
 Date Approved: 15-09-2320

**AS CONSTRUCTED**

- NOTES:**
- ALL POLYETHYLENE FITTINGS SHALL BE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. ROTATE BENDS AS NECESSARY.

100mm AT FULL SIZE  
 This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured red.

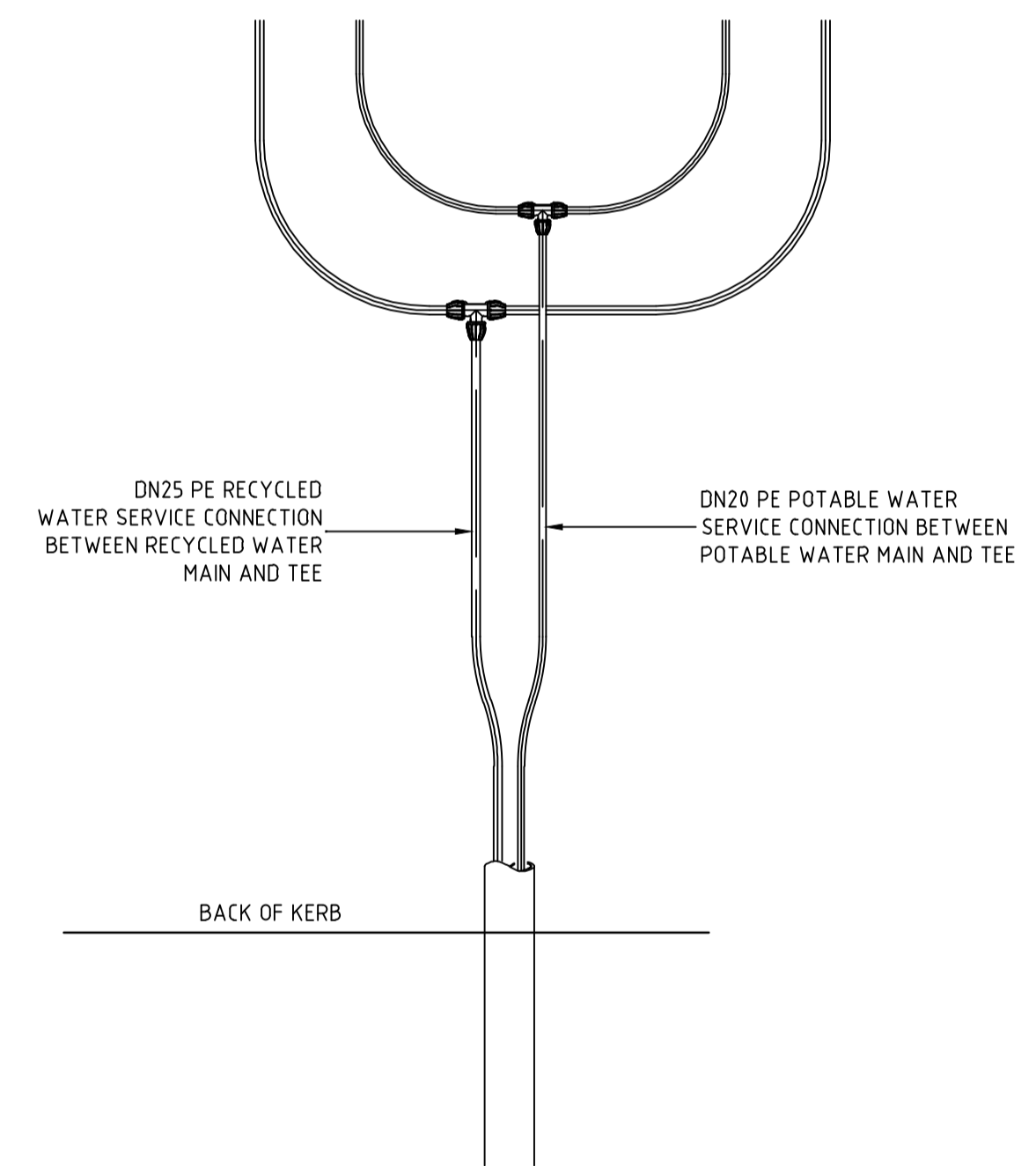
REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT	PROPERTY DESCRIPTION	PROJECT	PLAN TITLE	PROJECT No.	DISCIPLINE	NUMBER	REV.
A	17.11.2022	INITIAL ISSUE	G.S.	M-P.C.	G.S.	M-P.C.	0 0.1 0.2 0.3 0.4 A1 / A3 1:10 / 1:20	Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398	PROPOSED SUBDIVISION STAGE - TOWN CENTRE RESIDENTIAL 1 HUNTLEE	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	TYPICAL PIPEWORK TRENCHING DETAIL	240037(TCR1)-	WAC	401	2
D	26.04.2023	NORTHROP DESIGN UPDATE	G.S.	C.S.	G.S.	C.S.									
E	02.07.2023	NORTHROP SURFACE UPDATE	G.S.	C.S.	G.S.	C.S.									
F	20.07.2023	ALTOGETHER GROUP COMMENTS	G.S.	C.H.	G.S.	C.H.									
O	01.08.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.									
1	15.09.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.									
2	22.05.2024	WORK AS CONSTRUCTED	G.S.	C.H.	G.S.	C.H.									



TYPICAL PROPERTY CONNECTION DETAIL  
SCALE 1:20

NOTES:

- PROPERTY SERVICE CONNECTIONS SHALL BE IN ACCORDANCE WITH WSA STANDARD DRAWINGS FOR DUAL WATER SUPPLY SYSTEMS (SYDNEY WATER VERSION)(SUPPLEMENT TO WSA 03-2011).
- DN20 PE100 PN16 POTABLE WATER SERVICE TO EXTEND 500mm BEYOND PROPERTY BOUNDARY AND BE CAPPED FOR LATER CONNECTION BY PROPERTY OWNER.
- DN25 PE100 PN16 RECYCLED WATER SERVICE TO EXTEND 500mm BEYOND PROPERTY BOUNDARY AND BE CAPPED FOR LATER CONNECTION BY PROPERTY OWNER.
- FOR PROPERTY CONNECTIONS WHERE A RETAINING WALL IS NOT PRESENT, SERVICES ARE TO BE OFFSET FROM THE PROPERTY BOUNDARY.
- WHERE SERVICE CONNECTIONS ARE LOCATED ADJACENT TO TELSTRA PITS/ELECTRICAL PILLARS, A MINIMUM CLEARANCE OF 200mm BETWEEN PITS AND SERVICE PIPEWORK IS TO BE MAINTAINED.
- MINIMUM BENDING RADIUS FOR PE PIPEWORK IS TO BE 20 x PIPE DIAMETER.
- ALL POLYETHYLENE FITTINGS SHALL BE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. ROTATE BENDS AS NECESSARY.
- PRESSURE SEWER UNIT (PSU) IS TO HAVE 500mm CLEARANCE FROM INTER ALLOTMENT DRAINAGE EASEMENT (IF PRESENT), REAR PROPERTY BOUNDARY RETAINING WALL (IF PRESENT) OR REAR PROPERTY BOUNDARY. PRESSURE SEWER UNIT (PSU) IS TO HAVE 2150mm CLEARANCE FROM BUILDING STRUCTURES.
- Ø25 ELECTRICAL CONDUIT IS TO EXTEND FROM CONNECTION WITH PRESSURE SEWER UNIT (PSU) TO NOM. 500mm INSIDE FRONT PROPERTY BOUNDARY AND BE CAPPED. ELECTRICAL CONDUIT IS TO BE HEAVY DUTY ORANGE. ALL CONDUIT BENDS ARE TO BE LARGE RADIUS SWEEP BENDS.
- FOR MORE INFORMATION REFER TO FLOW SYSTEMS STANDARD DRAWING FSI-1000-FS.
- FOR ALTERNATE TANK AND BOUNDARY CONFIGURATIONS, AND DETAILS FOR TANKS INSTALLED ON PROPERTIES WITH BATTERS AND RETAINING WALLS, REFER TO FLOW SYSTEMS STANDARD DRAWINGS FSI-SK03A-FS AND FSI-SK03B-FS.
- POSITION TANK LID SUCH THAT BREATHER PIPE LOCATION IS ON THE DOWNSLOPE SIDE OF THE BLOCK WHERE POSSIBLE.
- CONTRACTOR TO INSTALL ELECTRICAL CONDUIT CONNECTION (CONDUIT AT 90° FROM DISCHARGE PIPE) IN ACCORDANCE WITH AS3000 AT MIN 500mm COVER. ELECTRICAL GROMMET SUPPLIED WITH TANK AND LOCATED LOOSE WITHIN TANK. Ø25 CONDUIT TO BE PROVIDED WITH LONG RADIUS SWEEP BEND INTO THE VERTICAL POSITION AND LEFT CAPPED ABOVE GROUND LEVEL FOR FUTURE ELECTRICAL CONNECTION BY ELECTRICIAN ONCE DWELLING IS CONSTRUCTED.



TYPICAL POTABLE WATER AND RECYCLED WATER CONDUIT DETAIL (LONG SIDE)  
SCALE 1:20



**WORK AS CONSTRUCTED**  
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COMPANY ADW Johnson Pty Ltd  
NAME EWEN B. RANDAL  
SIGNED [Signature] DATE 22-05-2024 REGISTERED SURVEYOR  
NAME  
SIGNED DATE  
CONSTRUCTION MANAGER

**ORIGIN OF W.A.C. LEVELS**  
PM 20029  
E: 345612.942  
N: 6382878.917  
RL: 77.675  
Co-Ord System: MGA Ground  
MGA Datum: GDA94  
MGA Zone: 56

**APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd**  
Date Approved: 15-09-2320

**AS CONSTRUCTED**

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT	PROPERTY DESCRIPTION	PROJECT	PLAN TITLE	PROJECT No.	DISCIPLINE	NUMBER	REV.
A	17.11.2022	INITIAL ISSUE	G.S.	M-P.C.	G.S.	M-P.C.		Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398	PROPOSED SUBDIVISION STAGE - TOWN CENTRE RESIDENTIAL 1 HUNTLEE	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	TYPICAL PROPERTY CONNECTION DETAILS	240037(TCR1)-	WAC	402	2
D	26.04.2023	NORTHROP DESIGN UPDATE	G.S.	C.S.	G.S.	C.S.					PROJECT No. 240037(TCR1)- DISCIPLINE WAC NUMBER 402 REV. 2				
E	02.07.2023	NORTHROP SURFACE UPDATE	G.S.	C.S.	G.S.	C.S.									
F	20.07.2023	ALTOGETHER GROUP COMMENTS	G.S.	C.H.	G.S.	C.H.									
O	01.08.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.									
1	15.09.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.									
2	22.05.2024	WORK AS CONSTRUCTED	G.S.	C.H.	G.S.	C.H.									



DIAL1100 BEFORE YOU DIG

240037(TCR1)-WAC-403

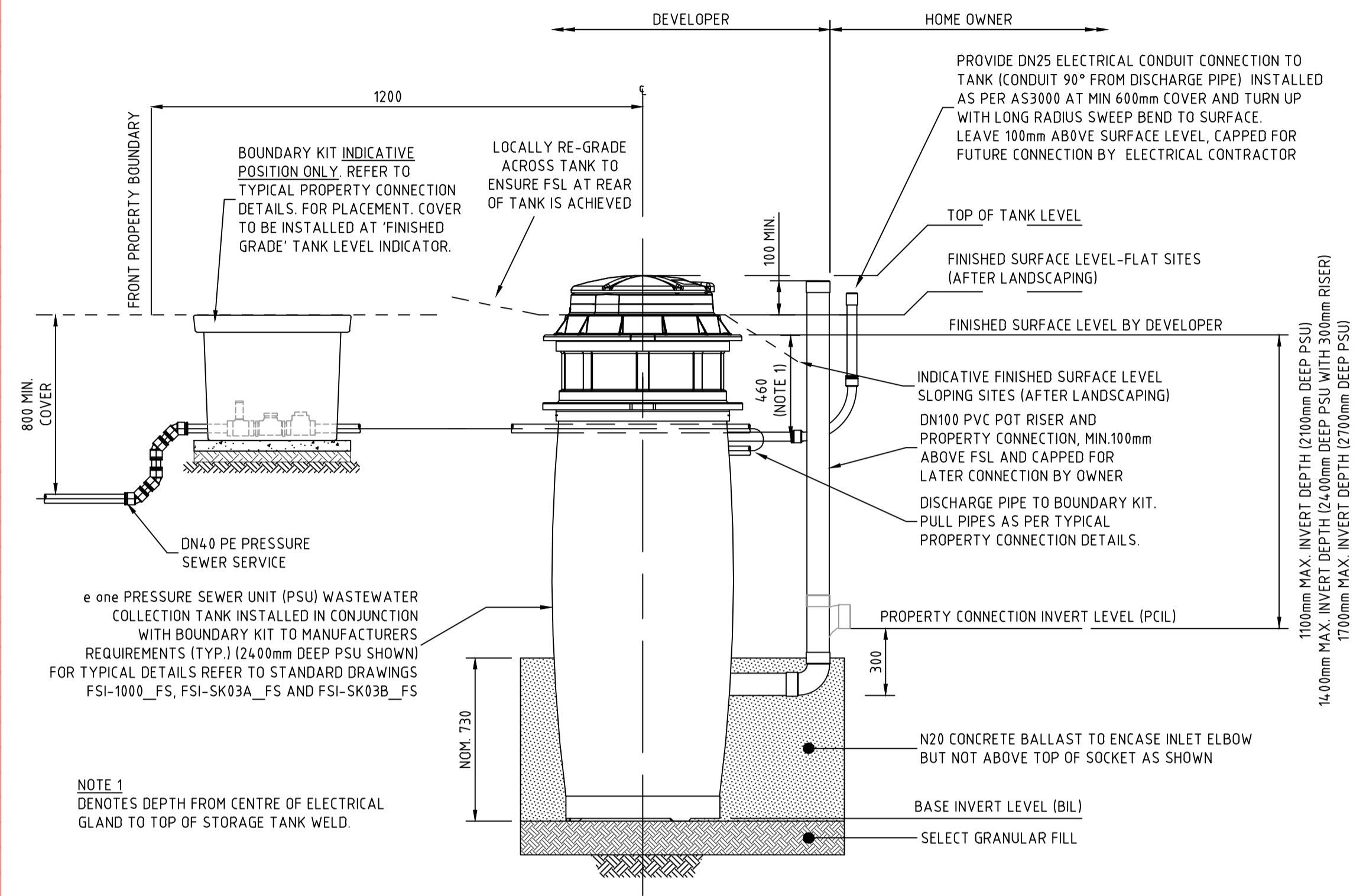
100mm AT FULL SIZE  
This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.

WASTEWATER COLLECTION TANK DETAILS

Table with columns: LOT NUMBER, TOP OF TANK, TANK FSL, BASE IL, CONNECTION IL, TANK HEIGHT, TANK LOCATION, EASTING, NORTHING, TOP OF COLLECTION TANK LID, CALCULATED WAC SANITARY DRAINAGE INVERT LEVEL, WAC V's DESIGN INVERT LEVEL COMPARISON. Rows 101-156.

WASTEWATER COLLECTION TANK COUNT

Table with columns: TANK SIZE, NUMBER OF. Rows: 2100 (39), 2400 (17), 2700 (0).



PRESSURE SEWER SERVICE CONNECTION TYPICAL SECTIONAL ELEVATION SCALE 1:20

WORK AS CONSTRUCTED  
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COMPANY ADW Johnson Pty Ltd COMPANY  
NAME EWEN B. RANDAL NAME  
SIGNED [Signature] DATE 22-05-2024 SIGNED [Signature] DATE  
REGISTERED SURVEYOR CONSTRUCTION MANAGER

ORIGIN OF W.A.C. LEVELS  
PM 20029 Co-Ord System: MGA Ground  
E: 345612.942 MGA Datum: GDA94  
N: 6382878.917 MGA Zone: 56  
RL: 77.675

APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd  
Date Approved: 15-09-2320

AS CONSTRUCTED

Project information block including: REV. (17.11.2022 INITIAL ISSUE), DRAWN (G.S.), CHECK (M-P.C.), DESIGN (G.S.), VERIFY (M-P.C.), SCALES (1:10 / 1:20), CLIENT (Hunter Office), PROPERTY DESCRIPTION (PROPOSED SUBDIVISION STAGE - TOWN CENTRE RESIDENTIAL 1 HUNTLEE), PROJECT (POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION), PLAN TITLE (WASTE WATER COLLECTION TANK LEVEL DETAILS), SURVEYED (Daly Smith Pty Ltd), DATUM (GDA94 M.G.A. ZONE 56 A.H.D.), PROJECT No. (240037(TCR1)-), DISCIPLINE (WAC), NUMBER (403), REV. (2).



**WORK AS CONSTRUCTED**

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COMPANY ADW Johnson Pty Ltd      COMPANY  
 NAME Ewen B. Randal      NAME  
 SIGNED *E. Randal*      DATE 22-05-2024      SIGNED      DATE  
 REGISTERED SURVEYOR      CONSTRUCTION MANAGER

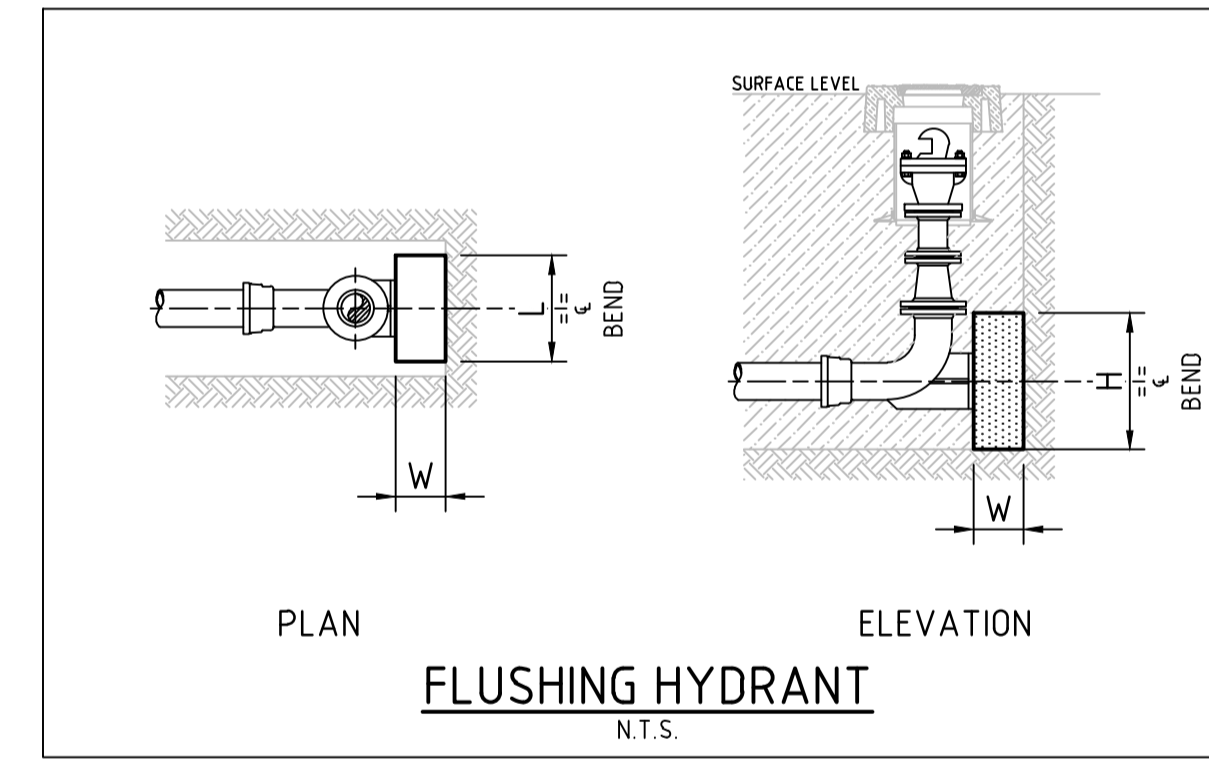
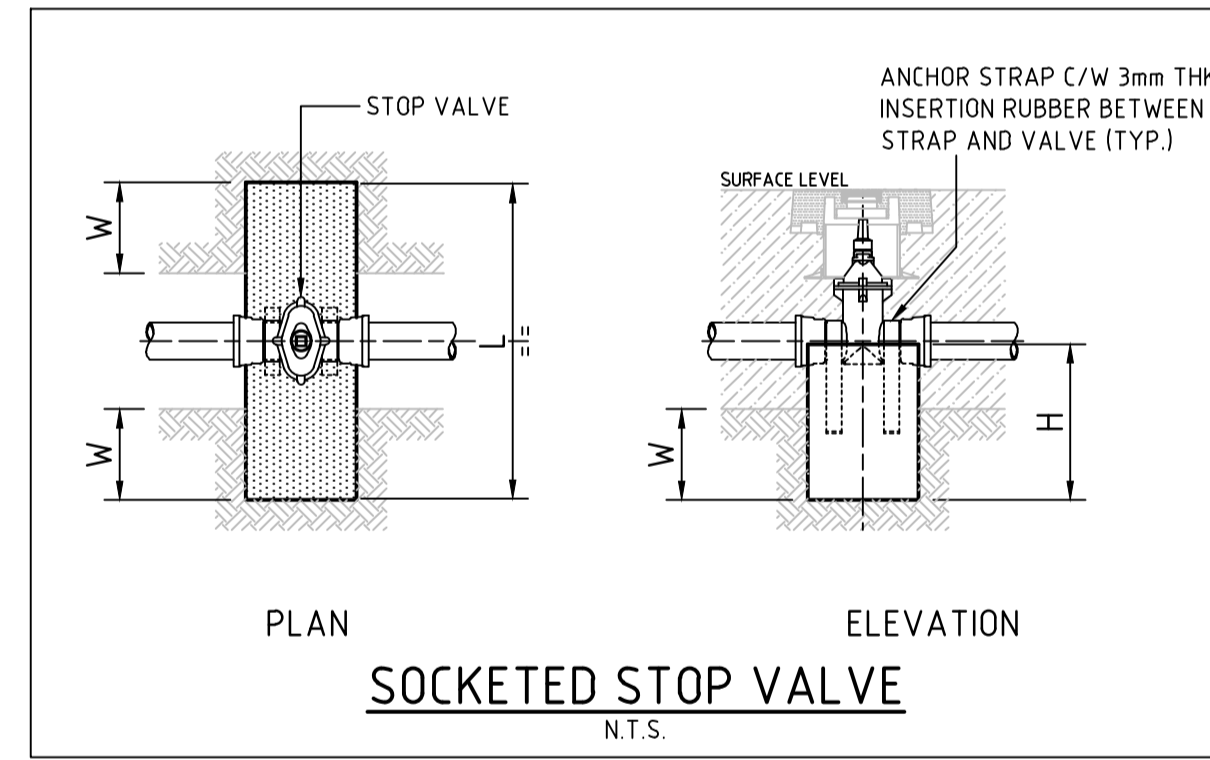
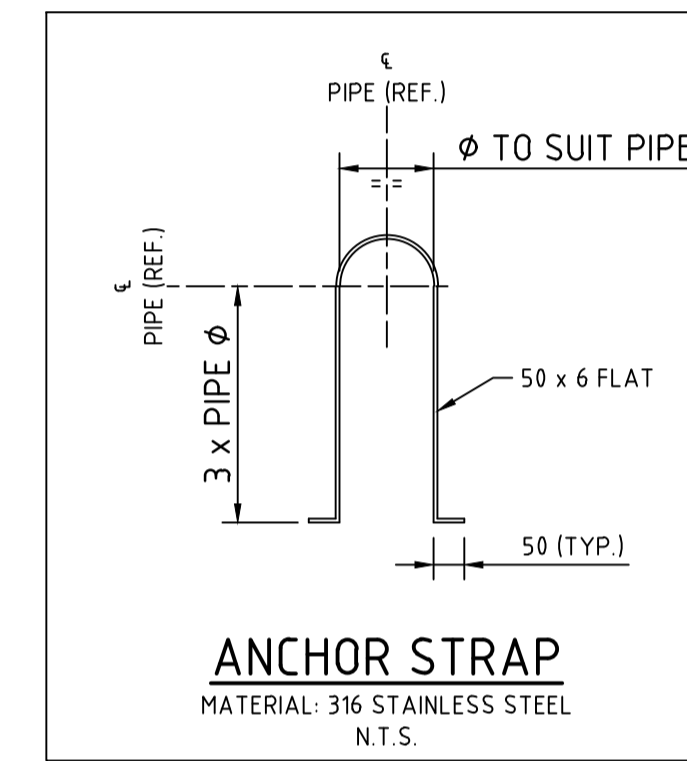
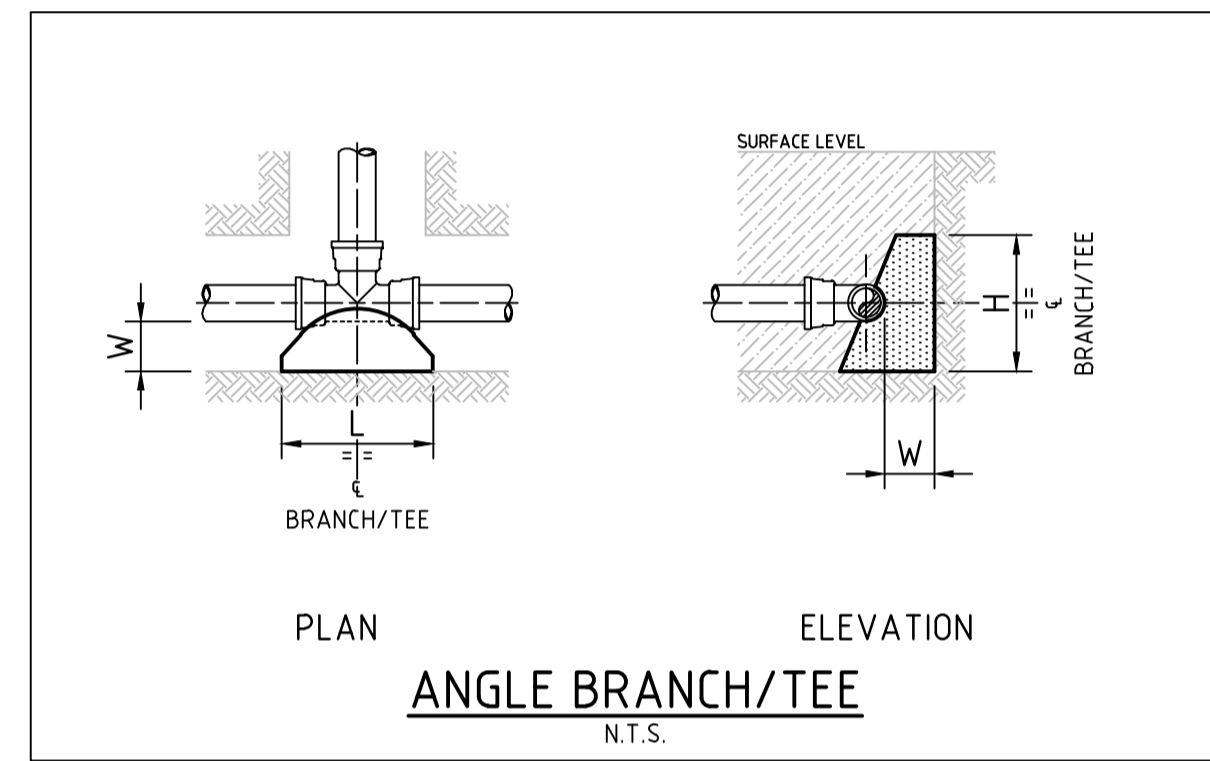
**ORIGIN OF W.A.C. LEVELS**

PM 20029      Co-Ord System: MGA Ground  
 E: 345612.942      MGA Datum: GDA94  
 N: 6382878.917      MGA Zone: 56  
 RL: 77.675

**THRUST BLOCK NOTES:**

- "N" DENOTES NOMINAL THRUST AREA TO BE ACHIEVED BY POURING CONCRETE THE FULL LENGTH OF THE FITTING AND EXTENDING FROM THE FLOOR OF THE TRENCH TO NOM. 100mm ABOVE THE FITTING.
- CONCRETE THRUST BLOCKS ARE TO BE PROVIDED FOR ALL FITTINGS IN ACCORDANCE WITH TABLE.
- THRUST BLOCK DIMENSIONS ARE BASED ON THE MINIMUM ALLOWABLE HORIZONTAL BEARING PRESSURES OF THE SOIL AS SHOWN. IF GROUND CONDITIONS ENCOUNTERED INDICATE THAT THESE BEARING PRESSURES MAY NOT BE ACHIEVED, THRUST BLOCK DESIGN IS TO BE REVISED.
- THRUST BLOCKS ARE TO BE CONSTRUCTED SUCH THAT THEY TRANSFER THE THRUST ONTO UNDISTURBED GROUND. THRUST BLOCKS ARE NOT TO INTERFERE WITH OTHER SERVICES.
- FINISH THRUST BLOCKS APPROXIMATELY 100mm ABOVE THE TOP OF THE FITTING OR BEARING PAD AND EXTEND TO THE FLOOR OF THE TRENCH OR DEEPER IF NECESSARY TO ACHIEVE THE REQUIRED THRUST AREA. MAXIMUM ENCASEMENT TO BE 180°.
- CONCRETE FOR THE THRUST BLOCKS TO BE GRADE S25 USING CEMENT TYPE "SR" TO AS3972. CONCRETE TO BE MECHANICALLY VIBRATED.
- CONCRETE THRUST BLOCKS ARE TO BE CURED FOR A MINIMUM OF 7 DAYS BEFORE BEING SUBJECTED TO ANY THRUST LOAD.
- REFER TO WAT-1205-V FOR GENERAL FITTING THRUST BLOCK ARRANGEMENTS.
- REFER TO WAT-1207-V FOR GENERAL VALVE AND VERTICAL BEND THRUST BLOCK ARRANGEMENTS.
- THRUST BLOCK TO EXTEND 300mm MINIMUM INTO BASE AND SIDE WALLS OF TRENCH.
- PROVIDE 3mm THK. INSERTION RUBBER BETWEEN ANCHOR STRAP AND PIPE BARREL.

TYPE	FITTING	SOIL AHBP (kPa)	DESIGN STP (kPa)	THRUST	TA (m <sup>2</sup> )	LENGTH (L)	HEIGHT (H)	WIDTH (W)
1	DN150 x DN150 EQUAL TEE	100	1500	37.50	0.38	0.05	0.75	0.30
2	DN150 x 6° & 11.25° HORIZONTAL BEND	100	1500	7.50	0.08	N	N	0.30
3	DN150 SOCKETED STOP VALVE	100	1500	37.50	0.38	1.05	0.46	0.30
4	DN150 FLUSHING HYDRANT	100	1500	37.50	0.38	0.50	0.76	0.30
5	DN150 x 90° HORIZONTAL BEND	100	1500	52.50	0.53	0.60	0.88	0.30
6	DN150 END CAP	100	1500	37.50	0.38	0.50	0.76	0.30
7	DN150 x 22.5° HORIZONTAL BEND	100	1500	15.00	0.15	0.34	0.45	0.30
8	DN150 x 45° HORIZONTAL BEND	100	1500	28.50	0.29	0.45	0.64	0.30



**APPROVED FOR CONSTRUCTION**  
BY ADW Johnson Pty Ltd  
Date Approved: 15-09-2320

**AS CONSTRUCTED**

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	17.11.2022	INITIAL ISSUE	G.S.	M-P.C.	G.S.	M-P.C.	
D	26.04.2023	NORTHROP DESIGN UPDATE	G.S.	C.S.	G.S.	C.S.	
E	02.07.2023	NORTHROP SURFACE UPDATE	G.S.	C.S.	G.S.	C.S.	
F	20.07.2023	ALTOGETHER GROUP COMMENTS	G.S.	C.H.	G.S.	C.H.	
0	01.08.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	
1	15.09.2023	FOR CONSTRUCTION	G.S.	C.H.	G.S.	C.H.	
2	22.05.2024	WORK AS CONSTRUCTED	G.S.	C.H.	G.S.	C.H.	

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 ABN 62 129 445 398

**CLIENT**

**PROPERTY DESCRIPTION**  
 PROPOSED SUBDIVISION  
 STAGE - TOWN CENTRE RESIDENTIAL 1  
 HUNTLEE

**PROJECT** POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION

**PLAN TITLE** THRUST BLOCK DETAILS

SURVEYED Daly,Smith Pty Ltd	DATUM GDA94 M.G.A. ZONE 56 A.H.D.	PROJECT No. 240037(TCR1)-	DISCIPLINE WAC	NUMBER 404	REV. 2
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240037(TCR1)-WAC-405

Point Table with columns: Point #, Eastings, Northings, Levels, Codes. Contains 50 rows of survey data.

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100mm AT FULL SIZE This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.

WORK AS CONSTRUCTED THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 21-05-2024 OF THE WORK-AS-CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.

ORIGIN OF W.A.C. LEVELS PM 20029 345612 942 Co-Ord System: MGA Ground E: 6382878 917 MGA Datum: GDA94 N: 77.675 MGA Zone: 56 RL: 77.675

APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd Date Approved: 15-09-2320

AS CONSTRUCTED

Table with columns: REV., DATE, AMENDMENT, DRAWN, CHECK, DESIGN, VERIFY, SCALES, CLIENT, PROPERTY DESCRIPTION, PROJECT, PLAN TITLE, SURVEYED, DATUM, PROJECT No., DISCIPLINE, NUMBER, REV.