# HUNTLEE - PRECINCT 2

PRESSURE SEWER, POTABLE WATER & RECYCLED WATER

STAGE 16



DRAWING LIST					
SHEET 1	COVER SHEET				
SHEET 2	GENERAL NOTES				
SHEET 3	PRESSURE SEWER DETAIL PLAN				
SHEET 4	COLLECTION TANK LEVEL DETAILS				
SHEET 5	POTABLE WATER DETAIL PLAN				
SHEET 6	RECYCLED WATER DETAIL PLAN				

LOCALITY PLAN (NOT TO SCALE)

ORIGIN OF W.A.C. LEVELS PM 20029 E: 345 613, 420 N: 6 382 880, 288 RL: 77.675 GDA 2020 GRID AHD

WORK AS CONSTRUCTED THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 29/10/2020 OF THE WORK-AS-CONSTRUCTED AND HAS BEEN SURVEYED RELATIVE TO BOUNDARIES AND COMPANY ADW Johnson Pty Ltd COMPANY

MATHEW DAVID LONDON Mond DATE 18/11/2020 SIGNED REGISTERED SURVEYOR

CONSTRUCTION MANAGER

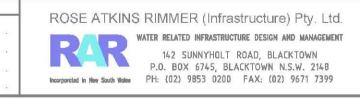
PROPERTY DESCRIPTION

SURVEYED

	***		**********************		
					4
2	PS DESIG	N REVISED WITH e0	NE TANK	D.S.	8/7/20
1	ORIGINAL ISSUE FOR APPROVAL			K.G.	19/6/20
٥.	REVISION DESCRIPTION			BY	DATE
EE	ĒΤ		SHEET 1 OI		02
		VERIFIEDE	.108 No.		
SH	EATHER	D.SHEATHER			

DIAL1100 BEFORE YOU DIG

SERVICE	DATE	REF.	WORK-AS-CONSTRUCTED CERTIFICATION
			DEVELOPER: PROJECT SUPERVISOR: CONSTRUCTOR: COMPLETED: W.A.C. PREPARED:





PLAN OF PROPOSED WATER INFRASTRUCTURE SERVICES
HUNTLEE DEVELOPMENT - PRECINCT 2 [STAGE 16]
WINE COUNTRY DRIVE, NORTH ROTHBURY
L.G.A. CESSNOCK

	_		
DRAFTED	IDESIGNED <sub>4</sub>	HE AIR MEDI	VERIFIED:
K.GAO	K.GAO	D.SHEATHER	D.SHEATHER
SCALE:	DATURE.	U.S.D. REPERENCE:	DATE OF ISSUE:
*	8	=	

DATE ...../....

39/23357/16 CONSTRUCTION ISSUE

AMENDMENT DATE DRAWN CHECK DESIGN VERIFY SCALES 18-11-2020 WORKS AS CONSTRUCTED

DESIGN FILE N:\JOBNUMBER\Design\12D\

Johnson ABN 62 129 445 398 ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SCALE

CLIENT **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

WINE COUNTRY DRIVE NORTH ROTHBURY

HUNTLEE - PRECINCT 2 (STAGE 16) PLAN SHOWING WORKS AS CONSTRUCTED POTABLE WATER, RECYCLED WATER & PRESSURE SEWER

WAC 001 240072(16) -GDA2020 M.G.A. ZONE 56 A.H.D. ADW Johnson

Plotted By: shanes Plot Date: 19/11/20 - 15:05 Cad File: N:\240072\DWG\Water & Sewer\240072(16)-WAC-001-A.dwg

DATE

18-11-2020

#### SEWER NOTES

- 1. ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS. FLOW SYSTEMS SUPPLEMENTARY MANUAL TO W.S.A.A., PRESSURE SEWERAGE CODE OF AUSTRALIA WSA 07-2007 VERSION 1.1 & POLYETHYLENE PIPELINE CODE WSA 01-2004.
- 2. ALL EQUIPMENT, MATERIALS & ACCESSORIES USED IN THIS CONTRACT SHALL BE NEW & SHALL COMPLY WITH FLOW SYSTEMS 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.
- 3. ALL SERVICES SHOWN ARE INDICATIVE ONLY, A CURRENT SERVICES SEARCH & SITE CHECK OF ALL EXISTING SERVICES WILL BE REQUIRED PRIOR TO COMMENCEMENT OF ANY WORKS. THE CONSTRUCTOR IS TO DETERMINE LEVELS & LOCATIONS 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
- 4. PRESSURE SEWER MAINS SHALL BE BLACK POLYETHYLENE (PE100 PN16) WITH A CREAM STRIPE AS PER WSA 07-2007 & FLOW SYSTEMS SUPPLEMENTARY MANUAL TO W.S.A.A.
- 5. ALL POLYETHYLENE MAINS ≤DN200 SHALL BE JOINED BY ELECTROFUSION TECHNIQUES IN ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS. ALL POLYETHYLENE MAINS > DN200 SHALL BE JOINED BY BUTTWELD TECHNIQUES IN ACCORDANCE WITH THE MANUFACTURERS
- 6. 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 & WATER MAINS. MINIMUM PIPE COVER SHALL BE 800mm IN FOOTWAYS & 1.0m FOR ROADWAYS. MAXIMUM PIPE COVER SHALL GENERALLY BE 1.5m. WHERE COVER FOR A TRENCHED INSTALLATION EXCEEDS 1.5m, BUT LESS THAN 2.5m, THE MAIN AS A MINIMUM SHALL BE EMBEDDED IN STABILISED SAND. THE CONTRACTOR SHALL ENSURE THAT ALL PRESSURE SEWER & RECYCLED WATER MAINS HAVE SUFFICIENT VERTICAL SEPARATION AS PER THE CLEARANCE TABLE ADJACENT.
- 7. MAINS CROSSING UNDER EXISTING DRIVEWAYS (SEALED, PAVED OR DECORATIVE) SHALL BE CONDUCTED BY UNDER BORING ONLY UNLESS PERMISSION IS GRANTED BY THE AFFECTED
- 8. MAINS WITHIN 2m OF ELECTRICITY OR POWER POLES SHALL BE CONDUCTED BY BORING TECHNOLOGY (UNLESS AGREED TO BY THE HUNTLEE WATER REPRESENTATIVE).
- 9. ALL PIPE BEDDING MATERIAL SHALL COMPLY WITH WSAA PRODUCT SPECIFICATION WSA-PS350
- 10. ALL BENDS SHALL BE ELECTROFUSION OR BUTTWELD SWEEP BENDS. FABRICATED BENDS SHALL NOT BE USED IN LIEU. KNUCKLE ELBOWS ARE NOT PERMITTED.
- 11. MINIMUM BENDING RADIUS FOR PN16 PE100 (SDR11) SHALL BE 20 x DN. (ie. 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
- 12. ALL HOUSE SERVICE LATERALS SHALL BE DN40 (PE100 PN16).
- 13. FLUSHING PITS SHALL CONFORM WITH FLOW SYSTEMS STANDARD DRAWINGS. REFER TO FLOW SYSTEMS WEBSITE FOR CURRENT VERSION.
- http://flowsystems.com.au/governance/Land\_Housing/PSS-1017A-FS.pdf LARGE MAINS (>DN110) http://flowsystems.com.au/governance/Land\_Housing/PSS-1017B-FS.pdf
- 14. LOCALISED DEEPENING OF MAINS MAY BE REQUIRED TO FACILITATE AIR VALVE INSTALLATION. THE CONTRACTOR SHALL ENSURE THAT THE AIR VALVE DFFTAKE IS LOCATED AT A HIGH POINT (NATURAL OR ARTIFICIAL) IN THE MAIN (i.e. MAIN SHALL GRADE DOWNWARDS EITHER SIDE OF
- 15. DETECTABLE MARKING TAPE SHALL BE LAID ON TOP OF THE PIPE EMBEDMENT MATERIAL BEFORE BACKFILLING & CONNECTED TO SURFACE VALVES.
- 16. ALL SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (ie ROADWAYS, PATHS etc.) SHALL HAVE HEAVY DUTY SURROUNDS INSTALLED.
- 17. DURING CONSTRUCTION, ALL OPEN ENDS OF PIPE SHALL BE CAPPED OFF TO PREVENT ENTRY OF FOREIGN MATTER.
- 18. ALL VALVES SHALL BE RESILIENT SEATED SLUICE VALVES (CLOCKWISE CLOSING), SHALL BE RESTRAINED IN ACCORDANCE WITH WAT-1207 & SHALL COMPLY WITH FLOW SYSTEMS STANDARD DRAWING PSS-1015-FS.
- 19. ALL MAINS SHALL BE TESTED IN ACCORDANCE WITH WSA 07-2007 Version 1.1.
- 20. 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 FLOW SYSTEMS STANDARD DRAWINGS FOR SETOUT DIMENSIONS).
- 21. 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 & CONFIRMATION IS PROVIDED BY THE HUNTLEE WATER REPRESENTATIVE.
- 22. UPON COMPLETION OF WORKS, ALL SURFACES MUST BE RESTORED AS CLOSE AS POSSIBLE, TO THE CONDITION THAT EXISTED PRIOR TO COMMENCEMENT OF WORK.
- 23. PERMISSION OF ENTRY MUST BE OBTAINED BY THE CONTRACTOR FROM THE DWNER/OCCUPIER PRIOR TO COMMENCEMENT OF WORK IN PRIVATE PROPERTY.
- 24. BURIED FITTINGS ARE NOT TO BE BACKFILLED UNTIL W.A.C. DETAILS HAVE BEEN OBTAINED & APPROVAL FOR BACKFILLING GIVEN BY THE HUNTLEE WATER REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE M.G.A. COORDINATED WORK-AS-CONSTRUCTED INFORMATION REGARDING THE INSTALLATION OF ALL BURIED FITTINGS.
- 25. THE MINIMUM NUMBER OF COMPACTION TESTS REQUIRED TO SATISFY THE PRESSURE SEWER CODE OF AUSTRALIA (CLAUSE 21.3.4) ARE:

PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST / CROSSING (4 Tests) NON-TRAFFICABLE:

TRAFFICABLE

OTHERS.

- PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST / 100m (7 Tests) 26. BOUNDARY KITS SHALL BE CONE SUPPLIED (NA0331P02), COMPLETE WITH 1-1/4" BSPT TO EF TRANSITION COUPLINGS. PONE COLLECTION TANKS SHALL BE INSTALLED WITH BOUNDARY KIT
- 27. ALL MAINS (UP TO THE BOUNDARY KIT) SHALL BE PRESSURE TESTED TO 1600 kPa.
- 28. ALL MAINS SHALL BE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.

(REFER FLOW SYSTEMS STANDARD DRAWINGS PSS-1112-FS). PUMP TO BE INSTALLED BY

- 29. SURFACE IDENTIFICATION MARKERS ARE TO BE PROVIDED TO HUNTLEE WATER REQUIREMENTS.
- 30. ROPE OFF ALL PRESSURE SEWER UNITS & FLUSHING POINTS TO LIMIT DAMAGE DURING CONSTRUCTION.
- 31. PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM PER FLOW SYSTEMS REQUIREMENTS.
- 32. WORK-AS-CONSTRUCTED DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR STRICTLY IN ACCORDANCE WITH THE FLOW SYSTEMS Q.A. SUBMISSION CHECKLIST.

#### WATER & RECYCLED WATER NOTES

- 1. ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, FLOW SYSTEMS SUPPLEMENTARY MANUAL TO W.S.A.A. & WSA 03-2011-3.1 (SYDNEY WATER WATER
- 2. POTABLE WATER SHALL BE UTILISED FOR FIRE FIGHTING PURPOSES.
- 3. ALL EQUIPMENT, MATERIALS & ACCESSORIES USED IN THIS CONTRACT SHALL BE NEW, SHALL CONFORM WITH THE APPROPRIATE CURRENT AUSTRALIAN STANDARDS & SHALL COMPLY WITH FLOW SYSTEMS REQUIREMENTS.
- 4. ALL SERVICES SHOWN ARE INDICATIVE ONLY. A CURRENT SERVICES SEARCH & SITE CHECK OF ALL EXISTING SERVICES WILL BE REQUIRED PRIOR TO COMMENCEMENT OF ANY WORKS. THE CONSTRUCTOR IS TO DETERMINE LEVELS & LOCATIONS 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
- 5. THE CONSTRUCTOR SHALL VERIFY WITH THE SITE SURVEYOR THE POSITION & LEVEL OF ALL EXISTING & PROPOSED BOUNDARIES PERTINENT TO THE INFRASTRUCTURE INSTALLATIONS.
- 6. MAINS 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 & WATER MAINS. MINIMUM PIPE COVER SHALL BE 600mm IN FOOTWAYS (TYPE B EMBEDMENT: WAT-1202-V) & 800mm FOR ROADWAYS (TYPE L EMBEDMENT: WAT-1204-V), MAXIMUM PIPE COVER SHALL GENERALLY BE 1.5m. WHERE COVER FOR A TRENCHED INSTALLATION EXCEEDS 1.5m, BUT IS LESS THAN 2.5m, THE MAIN AS A MINIMUM SHALL BE EMBEDDED IN STABILISED SAND. THE CONTRACTOR SHALL ENSURE THAT ALL RECYCLED WATER & PRESSURE SEWER MAINS HAVE SUFFICIENT VERTICAL SEPARATION AS PER THE CLEARANCE TABLE ADJACENT.
- 7. ALL RECYCLED WATER MAINS SHALL BE LILAC mPVC (PN16), DIFFERENTIATION OF POTABLE & RECYCLED WATER SYSTEMS SHALL BE AS PER TABLE 4.1 WSA03-2011 WITH BOTH SERVICES BEING CLASSIFIED AS WATERMAINS RECYCLED WATER MAINS SHALL ALWAYS BE LOWER THAN POTABLE MAINS. 150mm VERTICAL CLEARANCE BETWEEN POTABLE WATER & RECYCLED WATER MAINS SHALL BE PROVIDED.
- 8. MAXIMUM JOINT DEFLECTION SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
- 9. LOCALLY LOWER PIPEWORK IN VICINITY OF STOP VALVES TO ENSURE SUFFICIENT COVER IS MAINTAINED OVER VALVES. LOWERING OF PIPEWORK SHALL ACHIEVED OVER A NUMBER OF PIPE LENGTHS EITHER SIDE OF VALVES TO ELIMINATE ANY SHARP DEFLECTIONS.
- 10. ALL PIPE BEDDING MATERIAL SHALL COMPLY WITH WSAA PRODUCT SPECIFICATION PS-350, 368 & 369. GEOTECHNICAL CONDITIONS SHOULD BE ASSESSED DURING CONSTRUCTION BY THE CONTRACTOR IN ASSOCIATION WITH THE HUNTLEE WATER REPRESENTATIVE TO DETERMINE THE NEED TO MODIFY EMBEDMENT/TRENCHFILL TYPE & THE ROAD FOR TRENCH DRAINAGE/BULKHEADS
- 11. DURING CONSTRUCTION, ALL OPEN ENDS OF PIPES SHALL BE CAPPED OFF TO PREVENT ENTRY
- 12. HYDRANTS, STOP VALVES & ALL OTHER FITTINGS SHALL BE THE SAME SIZE AS THROUGH WATER MAIN & ANTICLOCKWISE CLOSING.
- 13. HYDRANTS MUST NOT BE INSTALLED IN POTENTIAL DRIVEWAY LOCATIONS. HYDRANTS & WATER SERVICES SHALL BE NOMINALLY AT LEAST 5m FROM EACH BOUNDARY OR ON BOUNDARIES. WHERE POSSIBLE, FITTINGS SHALL BE LOCATED BEHIND KERB INLET PITS.
- 14. THRUST BLOCKS SHALL BE INSTALLED IN ACCORDANCE WITH WAT-1205.
- 15. ALL PROPERTY (MAIN TO METER) SERVICE CONNECTIONS SHALL BE CONSTRUCTED STRICTLY IN ACCORDANCE FLOW SYSTEMS REQUIREMENTS. REFER TO FLOW SYSTEMS WEBSITE FOR SINGLE SERVICE http://flowsystems.com.au/governance/Land\_Housing/WAT-1854-FS.pdf
- DUAL SERVICE http://flowsystems.com.au/governance/Land Housing/WAT-1855-FS.pdf 16. PROPERTY SERVICE CONNECTIONS SHALL BE FLUSHED & LOCKED (BY THE HUNTLEE WATER REPRESENTATIVE) FOLLOWING SUCCESSFUL PRESSURE TESTING.
- 17. SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (ie ROADWAYS, PATHS etc.) SHALL HAVE HEAVY DUTY SURROUNDS INSTALLED.
- 18. ALL MAINS SHALL BE TESTED IN ACCORDANCE WITH WSA 03-2011-3.1 (SYDNEY WATER EDITION
- 19. ALL MAINS SHALL BE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.
- 20. WATER QUALITY TESTING SHALL BE IN ACCORDANCE WITH WSA 03-2011-3.1 (SYDNEY WATER EDITION - 2014: CLAUSE 19.7).
- 21. 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 & CONFIRMATION IS PROVIDED BY THE HUNTLEE WATER REPRESENTATIVE.
- 22. UPON COMPLETION OF WORKS, ALL SURFACES MUST BE RESTORED AS CLOSE AS POSSIBLE, TO THE CONDITION THAT EXISTED PRIOR TO COMMENCEMENT OF WORK.
- 23. PERMISSION OF ENTRY MUST BE OBTAINED BY THE CONTRACTOR FROM THE OWNER/OCCUPIER PRIOR TO COMMENCEMENT OF WORK IN PRIVATE PROPERTY.
- 24. BURIED FITTINGS ARE NOT TO BE BACKFILLED UNTIL W.A.C. DETAILS HAVE BEEN OBTAINED & APPROVAL FOR BACKFILLING GIVEN BY THE HUNTLEE WATER REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE M.G.A. COORDINATED WORK-AS-CONSTRUCTED INFORMATION REGARDING THE INSTALLATION OF ALL BURIED FITTINGS.
- 25. THE MINIMUM NUMBER OF COMPACTION TESTS REQUIRED TO SATISFY THE WATER SUPPLY CODE OF AUSTRALIA ARE:

TRAFFICABLE: PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST / CROSSING (4 Tests) NON-TRAFFICABLE: PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST / 100m (4 Tests)

TESTING SHALL BE IN ACCORDANCE WITH TABLE 16.1 & 17.1 OF THE WATER SUPPLY CODE OF AUSTRALIA

- 26. SURFACE IDENTIFICATION MARKERS ARE TO BE PROVIDED TO HUNTLEE WATER REQUIREMENTS.
- 27. PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM PER FLOW SYSTEMS REQUIREMENTS.
- 28. WORK-AS-CONSTRUCTED DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR STRICTLY IN ACCORDANCE WITH THE FLOW SYSTEMS Q.A. SUBMISSION CHECKLIST.

FLOW SYSTEMS STANDARD DRAWINGS CAN BE FOUND AT THE FOLLOWING ADDRESS:

https://askus.flowsystems.com.au/hc/en-us/articles/210615383--Standard-Drawings

#### GENERAL NOTES

- 1. THIS DRAWING SET SHALL BE READ IN CONJUNCTION WITH CESSNOCK CITY COUNCIL STANDARDS, FLOW SYSTEMS SUPPLEMENTARY MANUAL TO W.S.A.A. & OTHER ASSOCIATED DRAWINGS AND TECHNICAL SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORKS AND SHALL REPAIR ANY DAMAGE CAUSED TO SUCH SERVICES DURING THE COURSE OF WORKS. ANY SERVICE LOCATIONS ON THE FOLLOWING DRAWINGS ARE
- 3. MAKE SMOOTH TRANSITION TO EXISTING WORKS (i.e. ROAD PAVEMENTS AND FOOTPATHS TO P.C.A. AND SUPERINTENDENTS REQUIREMENTS.
- 4. SUITABLE PROTECTION OF EXISTING ROAD PAVEMENT, KERB AND GUTTER, FOOTPATHS AND ANY EXISTING FEATURES SHALL BE PROVIDED UNTIL THE CONSTRUCTION WORKS ARE

ORIGIN OF W.A.C. LEVELS

ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd.

Incorporated in New South Notes PH: (02) 9853 0200 FAX: (02) 9671 7399

WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT

142 SUNNYHOLT ROAD, BLACKTOWN

P.O. BOX 6745, BLACKTOWN N.S.W. 2148

PM 20029 E: 345 613, 420

N: 6 382 880, 288 RL: 77.675

GDA 2020 GRID AHD

## WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 29/10/2020 OF THE WORK-AS-CONSTRUCTED AND HAS BEEN SURVEYED RELATIVE TO BOUNDARIES AND EASEMENTS.

COMPANY ADWJohnson Pty Ltd COMPANY MATHEW DAVID LONDON

Mand DATE 18/11/2020 SIGNED REGISTERED SURVEYOR

DATE ...../..../... CONSTRUCTION MANAGER

#### CLEARANCES BETWEEN PIPELINES & UNDERGROUND SERVICES

Utility (Existing or proposed service)	Minimum horiz m		Minimum vertical clearance ' mm
	New m	ain size	
	≤DN200	>DN200	
Water mains <sup>2</sup> > DN375	600	600	300
Water mains <sup>1</sup> « DN375	300 4	600	150
Gas mains	300 4	600	150
Telecommunication conduits and cables	300 *	600	150
Electricity conduits and cables	500	1000	225 <sup>8</sup>
Stormwater drains	300 <sup>4</sup>	600	150 *
Sewers - gravity	1000 4 / 600	1000 4 / 600	500 °
Sewers - pressure and vacuum	600	600	300 °
Kerbs	150	600 s	150 (where possible)

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.

  4. Clearances can be further reduced to 150mm for distances up to 2m when passing installations such as poles, pits, and small structures, providing the structures is not destabilised in the process.

  5. Clearances from kerbs shall be measured from the nearest point of the kerb. For water/sewer <0N375, clearances from kerbs shall be measured from the nearest point of the kerb. For water/sewer <0N200.

  6. 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
- 1. For pressure sever tareras, minimum verrical clearances may be reduced to isome providing rivere is no joint in the lateral within 500mm of either side of the service being crossed.

  8. 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.

  9. Water mains should always cross over severs and stormwater drains. For cases where this is no alterative and the main must cross under the sever, the design shall nominate an appropriate protection treatment (joint-free in the vicinity of the sever).

\* SHOULD THE RECOMMENDED CLEARANCES NOT BE ACHIEVED, NOTIFICATION SHALL BE CONVEYED TO THE HUNTLEE WATER REPRESENTATIVE IN WRITING.

> RAR (Infrastructure) Pty Ltd Date: 09 / 07 / 2020 ISSUED FOR CONSTRUCTION



SHEET 2 OF 6

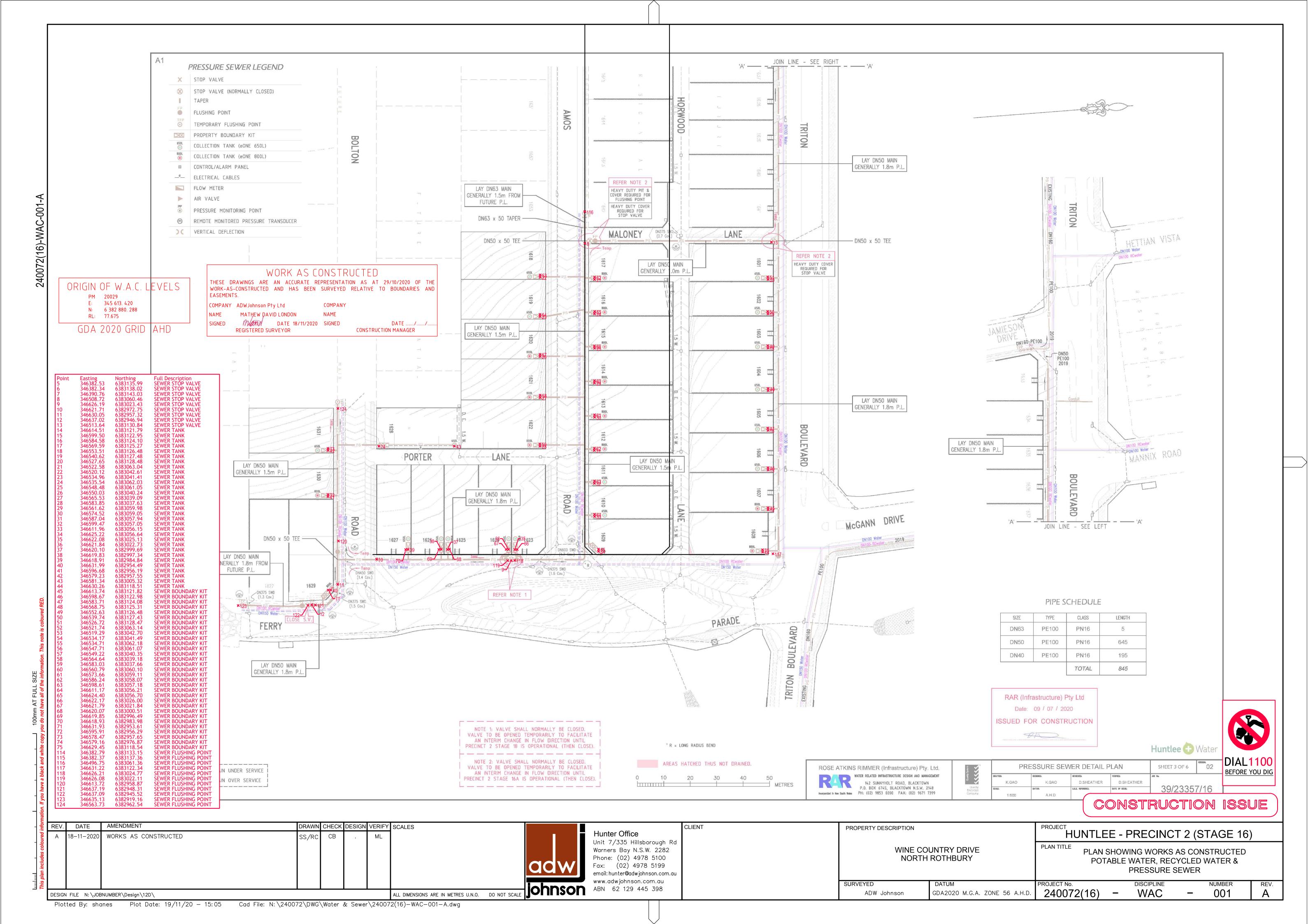
**GENERAL NOTES** KGAO K GAO D.SHEATHER D.SHEATHER 39/23357/16

CONSTRUCTION ISSUE

RAWN CHECK DESIGN VERIFY SCALES AMENDMENT CLIENT PROPERTY DESCRIPTION HUNTLEE - PRECINCT 2 (STAGE 16) Hunter Office WORKS AS CONSTRUCTED CB

**BEFORE YOU DIG** 

Unit 7/335 Hillsborough Rd PLAN TITLE Warners Bay N.S.W. 2282 WINE COUNTRY DRIVE PLAN SHOWING WORKS AS CONSTRUCTED Phone: (02) 4978 5100 NORTH ROTHBURY POTABLE WATER, RECYCLED WATER & Fax: (02) 4978 5199 PRESSURE SEWER email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED ROJECT No. DISCIPLINE NUMBER REV. ABN 62 129 445 398 240072(16) ADW Johnson GDA2020 M.G.A. ZONE 56 A.H.D ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SCAL 



GDA 2020 GRID AHD REGISTERED SURVEYOR AMENDMENT DATE DRAWN CHECK DESIGN VERIFY SCALES 18-11-2020 WORKS AS CONSTRUCTED CB DESIGN FILE N:\JOBNUMBER\Design\12D\ ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SCAL

Mand DATE 18/11/2020 SIGNED

**Hunter Office** Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199

Unit 7/335 Hillsborough Rd email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398

DATE ...../...

CLIENT

CONSTRUCTION MANAGER

PROPERTY DESCRIPTION

ADW Johnson

SURVEYED

WINE COUNTRY DRIVE NORTH ROTHBURY

GDA2020 M.G.A. ZONE 56 A.H.D.

HUNTLEE - PRECINCT 2 (STAGE 16) PLAN TITLE PLAN SHOWING WORKS AS CONSTRUCTED

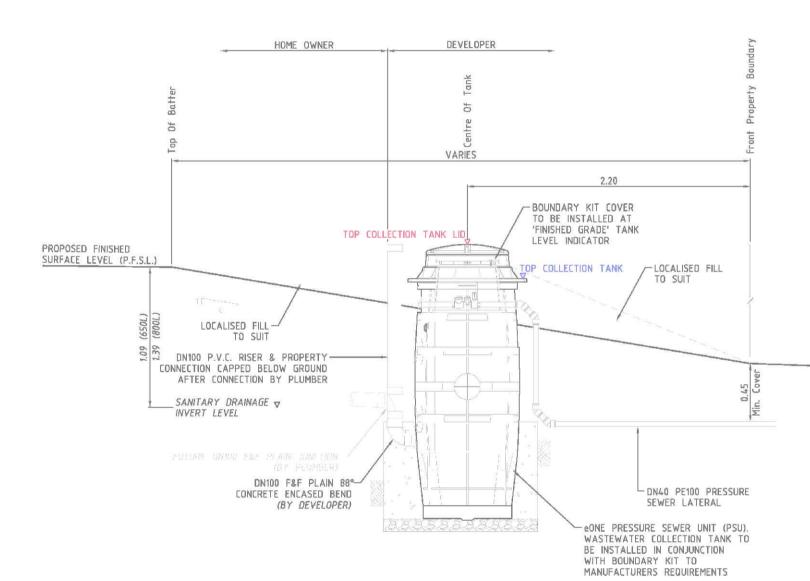
POTABLE WATER, RECYCLED WATER & PRESSURE SEWER PROJECT No. DISCIPLINE 240072(16) WAC

1.20 Centre Of Tank

### TYPICAL INFRASTRUCTURE SETOUT DIMENSIONS

SCALE 1:25

Property Boundary



## **COLLECTION TANK SECTIONAL ELEVATION**

SCALE 1:25

## COLLECTION TANK NOTES

- 1. DESIGN SURFACE LEVELS WERE ELECTRONICALLY EXTRACTED FROM DIGITAL DATA SUPPLIED BY NORTHROP CONSULTING ENGINEERS 27/3/20 (200327 NL150007 ST16 DESIGN DATA 12daz) and 23/8/18 (180726 EXISTING DATA - STAGE 168.12daz).
- 2. DESIGN LEVELS CAN ONLY BE ASSUMED AS CURRENT AT TIME OF EXTRACTION. ALL LEVELS SHALL BE CONFIRMED WITH THE SITE SUPERINTENDENT PRIOR TO INSTALLATION OF TANKS. SHOULD THE PROPOSED FINISHED SURFACE LEVEL (P.F.S.L.) DIFFER FROM DESIGN BY MORE THAN 100mm, THE CONSTRUCTOR SHALL CONTACT THE DESIGNER IMMEDIATELY.
- 3. COLLECTION TANK SETOUT SHALL BE COMPLIANT WITH FSI-1000-FS & FSI-SK03A-FS. COLLECTION TANK INSTALLATION LEVELS DOCUMENTED ADJACENT SHALL SUPERSEDE ANY LEVELS ADVISED ON DRAWING FSI-SK03A-FS.
- 4. R.A.R. ACCEPT NO RESPONSIBILITY FOR INCONSISTENCIES IN EXTRACTED LEVELS RESULTING FROM CHANGES TO THE MODEL (SURFACE LEVEL) INFORMATION POST DATA EXTRACTION DATE.



COLLECTION TANK LEVEL DETAILS ROSE ATKINS RIMMER (Infrastructure) Pty. Ltd. WATER RELATED INFRASTRUCTURE DESIGN AND MANAGEMENT D.SHEATHER D.SHEATHER K.GAO K.GAO

142 SUNNYHOLT ROAD, BLACKTOWN P.O. BOX 6745, BLACKTOWN N.S.W. 2148 39/23357/16 Incorporated in New South Woles PH: (02) 9853 0200 FAX: (02) 9671 7399

CONSTRUCTION ISSUE

COMPANY ADWJohnson Pty Ltd

MATHEW DAVID LONDON

PRESSURE SEWER COLLECTION TANK LEVEL DETAILS

TOP OF COLLECTION TANK

[Design R.L.]

57.86

57.36

56.56

56.06

55.56

55.06

54.06

55.16

55.66

56.66

57.16

57.96

58.46

58.96

59.46

60.36

60.82

60.11

59.51

58.77

57.05

57.43

58.03

59.35

56.91

58.71

59.94

RAR (Infrastructure) Pty Ltd

Date: 09 / 07 / 2020

ISSUED FOR CONSTRUCTION

DEVELOPMENT - STAGE 16

DRAINAGE INVERT LEVEL

56.86

56.36

55.56

55.06

54.56

53.76

52.76

54.66

55.66

55.86

56.66

57.16

57.66

58.16

59.06

59.82

59.11

58.21

57.47

56.43

57.03

58.35

55.61

57.41

58.94

DESIGN SANITARY TOP OF COLLECTION TANK CALCULATED SANITARY WAC v's DESIGN INVERT

DRAINAGE INVERT LEVEL

57.64

56.83

56.29

55.03

54.56

53.72

52.71

53.88

54.65

55.65

55.85

56.66

57.15

57.65

58.16

59.07

59.78

59.08

58.18

57.47

55.48

55.86

56.01

56.38

57.00

58.30

55.57

57.34

58.87

LEVEL COMPARISON

-0.02

-0.03

-0.08

-0.05

-0.04

-0.01

-0.04

-0.05

0.02

-0.02

-0.02

-0.02

0.00

-0.01

-0.01

0.00

0.01

-0.05

-0.03

-0.03

-0.05

-0.05

-0.05

-0.04

-0.05

-0.04

-0.05

-0.04

-0.07

-0.07

LID

[Work-As-Constructed]

58.09

57.55

56.77

56.29

55.82

55.28

54.27

55.44

55.91

56.91

57.41

58.22

58.71

59.21

59.72

60.63

61.04

60.34

59.74

59.03

56.74

57.12

57.27

57.64

58.26

59.56

57.13

58.90

60.13

WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 29/10/2020 OF THE

WORK-AS-CONSTRUCTED AND HAS BEEN SURVEYED RELATIVE TO BOUNDARIES AND

COMPANY

HUNTLEE

TANK SIZE

[650L / 800L]

650L

650L

650L

650L

800L

800L

650L

800L

800L

800L

650L

800L

650L

650L

650L

800L

800L

PFSL AT TANK

LOCATION

57.90

57.40

56.60

56.10

55.60

55.10

54.10

55.20

55.70

56.70

57.20

58.00

58.50

59.00

59.50

60.40

60.86

60.11

59.41

57.09

57.47

58.07

59.39

56.73

58.60

59.98

COLLECTION TANK

LOCATION

[FRONT / REAR]

FRONT FLAT

FRONTFLAT

**FRONT FLAT** 

FRONTFLAT

FRONTFLAT

FRONT FLAT

FRONT FLAT

FRONT FLAT

FRONT FLAT

**FRONT FLAT** 

FRONT FLAT

FRONT FLAT

FRONTFLAT

FRONTFLAT

FRONTFLAT

FRONTFLAT

FRONT FLAT

FRONTFLAT

FRONT BATTER

FRONT BATTER

FRONT BATTER

FRONT BATTER

FRONTFLAT

FRONTFLAT

**FRONT FLAT** 

FRONT FLAT

FRONTFLAT

REAR

FRONT BATTER

FRONT BATTER

FRONTFLAT

LOT NUMBER

1602

1603

1604

1605

1606

1607

1608

1609

1610

1611

1612

1613

1614

1615

1616

1617

1618

1619

1620

1623

1624

1625

1626

1627

1628

1629

1630

1631

ORIGIN OF W.A.C. LEVELS

E: 345 613. 420

N: 6 382 880. 288

RL: 77.675

Plotted By: shanes Plot Date: 19/11/20 - 15:05 Cad File: N:\240072\DWG\Water & Sewer\240072(16)-WAC-001-A.dwg

BEFORE YOU DIG

REV.

