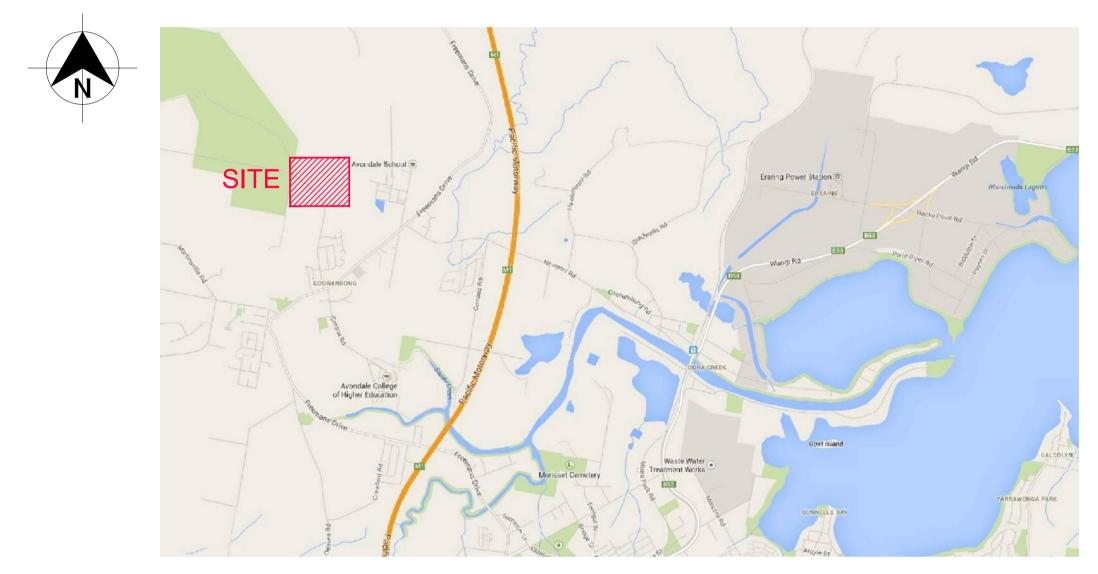
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POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION PROPOSED SUBDIVISION STAGES 2.1 & 2.2 WATAGAN PARK WHISTLER DRIVE, COORANBONG DA/307/2015



LOCALITY SKETCH NOT TO SCALE

| | DRAWING INDEX |
|---------------------------|--|
| DRAWING NUMBER | DRAWING TITLE |
| 239078(2.1 & 2.2)-WAT-001 | COVER SHEET, LOCALITY PLAN AND DRAWING INDEX |
| 239078(2.1 & 2.2)-WAT-002 | GENERAL NOTES |
| 239078(2.1 & 2.2)-WAT-003 | OVERALL SITE PLAN |
| 239078(2.1 & 2.2)-WAT-004 | POTABLE WATER DETAIL PLAN - SHEET 1 |
| 239078(2.1 & 2.2)-WAT-005 | POTABLE WATER DETAIL PLAN - SHEET 2 |
| 239078(2.1 & 2.2)-WAT-006 | POTABLE WATER DETAIL PLAN - SHEET 3 |
| 239078(2.1 & 2.2)-WAT-007 | POTABLE WATER DETAIL PLAN - SHEET 4 |
| 239078(2.1 & 2.2)-WAT-008 | POTABLE WATER DETAIL PLAN - SHEET 5 |
| 239078(2.1 & 2.2)-WAT-009 | NOT USED |
| 239078(2.1 & 2.2)-WAT-010 | NOT USED |
| 239078(2.1 & 2.2)-WAT-011 | NOT USED |
| 239078(2.1 & 2.2)-WAT-012 | RECYCLED WATER DETAIL PLAN - SHEET 1 |
| 239078(2.1 & 2.2)-WAT-013 | RECYCLED WATER DETAIL PLAN - SHEET 2 |
| 239078(2.1 & 2.2)-WAT-014 | RECYCLED WATER DETAIL PLAN - SHEET 3 |
| 239078(2.1 & 2.2)-WAT-015 | RECYCLED WATER DETAIL PLAN - SHEET 4 |
| 239078(2.1 & 2.2)-WAT-016 | RECYCLED WATER DETAIL PLAN - SHEET 5 |
| 239078(2.1 & 2.2)-WAT-017 | NOT USED |
| 239078(2.1 & 2.2)-WAT-018 | NOT USED |
| 239078(2.1 & 2.2)-WAT-019 | NOT USED |
| 239078(2.1 & 2.2)-WAT-020 | PRESSURE SEWER DETAIL PLAN - SHEET 1 |
| 239078(2.1 & 2.2)-WAT-021 | PRESSURE SEWER DETAIL PLAN - SHEET 2 |
| 239078(2.1 & 2.2)-WAT-022 | PRESSURE SEWER DETAIL PLAN - SHEET 3 |
| 239078(2.1 & 2.2)-WAT-023 | PRESSURE SEWER DETAIL PLAN - SHEET 4 |
| 239078(2.1 & 2.2)-WAT-024 | PRESSURE SEWER DETAIL PLAN - SHEET 5 |
| 239078(2.1 & 2.2)-WAT-025 | LONGITUDINAL SECTION - PRESSURE SEWER MAIN |
| 239078(2.1 & 2.2)-WAT-026 | NOT USED |
| 239078(2.1 & 2.2)-WAT-027 | NOT USED |
| 239078(2.1 & 2.2)-WAT-028 | TYPICAL PIPEWORK TRENCHING DETAILS |
| 239078(2.1 & 2.2)-WAT-029 | PIPEWORK CONNECTION DETAILS |
| 239078(2.1 & 2.2)-WAT-030 | TYPICAL SERVICE CONNECTION DETAILS |
| 239078(2.1 & 2.2)-WAT-031 | WASTEWATER COLLECTION TANK LEVEL DETAILS |
| 239078(2.1 & 2.2)-WAT-032 | ROAD CROSS SECTIONS - SHEET 1 |
| 239078(2.1 & 2.2)-WAT-033 | ROAD CROSS SECTIONS - SHEET 2 |
| 239078(2.1 & 2.2)-WAT-034 | ROAD CROSS SECTIONS - SHEET 3 |
| 239078(2.1 & 2.2)-WAT-035 | ROAD CROSS SECTIONS - SHEET 4 |
| 239078(2.1 & 2.2)-WAT-036 | THRUST BLOCK DETAILS |

WORK-AS-CONSTRUCTED

| REV. DATE AMENDMENT O 27.08.2015 CONSTRUCTION ISSUE 1 25.09.2015 AMENDED CONSTRUCTION ISSUE — RETAINING WALLS | J.N. | L.G. | J.N. L.G. | | Hunter Office Unit 7/335 Hillsharough Rd | | PROPERTY DESCRIPTION | SED CHRUNICION | | TABLE WATER, RECYCLED PRESSURE SEWER RETIC | | |
|--|------|----------------------|--------------------------------|-----------------|--|---------------------|-----------------------------|---------------------|--|--|--------------|------|
| 2 18.11.2015 AMENDED CONSTRUCTION ISSUE 3 04.03.2016 AMENDED CONSTRUCTION ISSUE - FS COMMENTS/S WAC 02.08.2016 WORK AS CONSTRUCTED - RAR | J.N. | L.G. L.G. L.G. | J.N. L.G. J.N. L.G. B.K. | adw | Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email:hunter@adwjohnson.com.au | JOHNSON PROPERTY | I WHISTER URIVE COURANBOING | | COVER SHEET, LOCALITY DRAWING INDEX | | | |
| DESIGN FILE N:\ | | | ALL DIMENSIONS ARE IN 1 | Johnson Johnson | www.adwjohnson.com.au ABN 62 129 445 398 | GROUP | SURVEYED ADW Johnson | DATUM A.H.D. | PROJECT No. 239078(2 | DISCIPLINE 1 & 2.2) - WAT | NUMBER — 001 | REV. |

GENERAL NOTES:

COMMENCEMENT.

SUPERINTENDENT.

ASSOCIATED DRAWINGS AND TECHNICAL SPECIFICATIONS.

MACQUARIE CITY COUNCIL AND SUPERINTENDENT'S SATISFACTION.

PROVIDED DURING DURATION OF CONSTRUCTION.

1. THIS DRAWING SET WAS READ IN CONJUNCTION WITH LAKE MACQUARIE CITY COUNCIL STANDARDS AND OTHER

2. THE CONTRACTOR LOCATED AND IDENTIFIED ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORK

3. ALL PRODUCTS AND MATERIALS WERE NEW, AND COMPLIED WITH THE RELEVANT AUSTRALIAN STANDARDS AND

7. MAKE SMOOTH TRANSITION TO EXISTING INFRASTRUCTURE (ROAD PAVEMENT, KERBS, FOOTPATHS, ETC.) TO LAKE

4. DURING CONSTRUCTION ALL OPEN ENDS OF PIPES WERE CAPPED TO PREVENT ENTRY OF FOREIGN MATTER.

8. SUITABLE PROTECTION TO EXISTING INFRASTRUCTURE (ROAD PAVEMENT, KERBS, FOOTPATHS, ETC.) WAS

9. CLEAR VEHICULAR ACCESS TO ADJOINING PROPERTIES WAS MAINTAINED AT ALL TIMES FOR DURATION OF

10. SERVICE CONDUITS WERE LAID AS DIRECTED BY THE SUPERINTENDENT/RELEVANT SERVICE AUTHORITY. LOCATE

11. WHERE LOT FILLING EXCEEDS 300mm, A SURVEY OF THE STRIPPED SURFACE AND FINAL FILLED SURFACE WAS

CLEAR OF VEHICULAR ACCESS LOCATIONS AND PROVIDE KERB MARKING AS PER COUNCIL REQUIREMENTS.

INFORMATION. BURIED FITTINGS WERE NOT BACKFILLED UNTIL WORK AS CONSTRUCTED DETAILS HAD BEEN

14. THE CONTRACTOR PROVIDED COORANBONG WATER AND HUNTER WATER WITH A MINIMUM OF 7 DAYS NOTICE (IN

15. ALL PIPE BEDDING MATERIAL COMPLIED WITH WSAA PRODUCT SPECIFICATION WSA-PS350 AND WSA PS351.

OBTAINED AND APPROVAL FOR BACKFILLING WAS GIVEN BY THE COORANBONG WATER REPRESENTATIVE.

CONSTRUCTION. FOR ANY WORKS IN ADJOINING PROPERTIES, PERMISSION WAS OBTAINED PRIOR TO

12. THE CONTRACTOR PROVIDED COORANBONG WATER WITH M.G.A. COORDINATED WORK AS CONSTRUCTED

13. ANY WORKS NOT COVERED BY THE SPECIFICATION OR THIS DRAWING SET WERE REFERRED TO THE

WERE SELECTED FROM THE COORANBONG WATER APPROVED PRODUCTS AND MATERIALS REGISTER.

AND REPAIRED ANY DAMAGE CAUSED TO SUCH SERVICES DURING CONSTRUCTION.

5. ALL MAINS WERE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.

6. SURFACE IDENTIFICATION MARKERS WERE PROVIDED TO COORANBONG WATER REQUIREMENTS.

UNDERTAKEN BY THE CONTRACTOR, WITH FILL DEPTHS NOTED ON W.A.C. PLANS.

WRITING) OF INTENT TO CONNECT NEW MAINS TO EXISTING INFRASTRUCTURE.

TESTING WAS IN ACCORDANCE WITH WATER SUPPLY CODE OF AUSTRALIA TABLES 16.1 AND 17.1.

21. POTABLE AND RECYCLED WATERMAIN FITTINGS ARE STAGGERED.

22. MAXIMUM JOINT DEFLECTIONS WERE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

23. EACH PROPERTY SERVICE CONNECTION WERE FLUSHED AND LOCKED FOLLOWING PRESSURE TESTING.

24. SCOUR VALVES WERE CONNECTED TO LOCAL STORMWATER SYSTEM.

26. PRESSURE TRANSMITTER IS MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM AS PER COORANBONG WATER REQUIREMENTS.

27. HYDRANT SURFACE BOXES ARE YELLOW (POTABLE WATER) AND LILAC (RECYCLED WATER).

POTABLE WATER AND RECYCLED WATER NOTES:

- 1. ALL WORKS ARE IN ACCORDANCE WITH BUT NOT LIMITED TO, WATER SUPPLY CODE OF AUSTRALIA WSA 03-2011-3.1 (SYDNEY WATER EDITION 2012) AND FLOW SYSTEMS SUPPLEMENTARY MANUAL TO WSAA.
- 2. WORKS WERE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, CONSTRUCTION SPECIFICATION, WSA 03 PART 2 — CONSTRUCTION AND WSA 03 STANDARDS DRAWINGS AND WSA STANDARD DRAWINGS (SYDNEY WATER VERSION) OR AS MODIFIED BY FLOW SYSTEMS SUPPLEMENTARY MANUAL TO WSAA, CURRENT AT THE TIME OF CONSTRUCTION.
- 3. CLEARANCES SHOWN TO OTHER PIPES HAVE BEEN CALCULATED FROM THE COLLAR.
- 4. ALL PRODUCTS AND MATERIALS WERE SELECTED FROM THE COORANBONG WATER APPROVED PRODUCTS AND MATERIALS REGISTER.
- 5. HYDRANTS, STOP VALVES AND ALL OTHER FITTINGS ARE THE SAME SIZE AS THE THROUGH WATER MAIN. ALL POTABLE & RECYCLED WATER VALVES ARE ANTI CLOCKWISE CLOSING.
- 6. HYDRANTS WERE NOT NOT BE POSITIONED IN DRIVEWAYS OR TAPPING POINTS. HYDRANTS NOMINALLY AT LEAST 5m FROM EACH BOUNDARY OR ON BOUNDARIES.
- 7. ALL PIPES AND FITTINGS ARE AT HWC PREFERRED MINIMUM COVER (WAT-1201-V).
 - FOOTWAYS 0.6m TYPE B EMBEDMENT WAT-1202.
 - ROADWAYS 0.75m TYPE L EMBEDMENT WAT-1204-V.
- 8. LAID DETECTABLE MARKING TAPE OVER ALL MAINS AND PROPERTY SERVICE LINES AS PER WAT-1854-S AND WAT-1855-S ENSURING A CONTINUOUS ELECTRICAL PATHWAY ALONG THE TRACE WIRE ON EACH SERVICE FROM PROPERTY METERS TO AND ALONG THE RELEVANT MAIN TO HYDRANTS AND VALVES.
- 9. GEOTECHNICAL CONDITIONS WERE ASSESSED DURING CONSTRUCTION BY THE CONTRACTOR IN ASSOCIATION WITH COORANBONG WATER SUPERINTENDENT TO DETERMINE MODIFICATIONS TO EMBEDMENT/TRENCH TYPE AND TRENCH DRAINAGE/BULKHEAD REQUIREMENTS.
- 10. ALL POTABLE WATERMAINS ARE PLAIN BLUE PVC-M (PN16).
- 11. ALL RECYCLED WATERMAINS ARE LILAC PVC-M (PN16).
- 12. DIFFERENTIATION OF DRINKING (POTABLE) AND NON-DRINKING (RECYCLED) WATER SYSTEMS ARE AS PER WSA 03-2011, TABLE 4.1 WITH BOTH SERVICES BEING CLASSIFIED AS WATERMAINS. RECYCLED WATERMAIN ARE LOWER THAN POTABLE WATERMAIN WITH MINIMUM 150mm VERTICAL CLEARANCE.
- 13. THRUST BLOCK DETAILS REFER TO DRG-027.
- 14. PROPERTY SERVICE CONNECTIONS WERE IN ACCORDANCE WITH WSA STANDARD DRAWINGS FOR DUAL WATER SUPPLY SYSTEMS(SYDNEY WATER VERSION)(SUPPLEMENT TO WSA 03-2011) AND FLOW SYSTEMS SUPPLEMENTARY MANUAL TO WSAA.
 - WAT-1853-S.
 - WAT-1854-FS. WAT-1855-FS.
 - WAT-1856-S.
- 15. PROPERTY SERVICE CONNECTIONS WERE INSTALLED BY A LICENSED PLUMBER AND COMPLY WITH N.S.W. CODE OF PRACTICE FOR PLUMBING AND DRAINAGE AND AS/NZ 3500.
- 16. ALL MATERIALS USED IN PROPERTY SERVICES WERE IN ACCORDANCE WITH N.S.W. CODE OF PRACTICE FOR PLUMBING AND DRAINAGE AND AS/NZ 3500 (MINIMUM PN15), PE 80 B, PN16.
- 17. ALL PROPERTY SERVICE PIPES FOR RECYCLED WATER ARE COLOURED BLACK WITH LILAC (P23) LONGITUDINAL STRIPE TO AS 2700. WHERE NOMINAL PIPE SIZE IS SPECIFIED, AN EQUIVALENT PIPE SIZE APPROPRIATE TO THE MATERIAL BEING USED AS SPECIFIED IN AS 3500, TABLE 1.1, PE 80 B, PN16. ALL PROPERY SERVICE PIPES FOR POTABLE WATER ARE COLOURED BLACK WITH BLUE LONGITUDINAL STRIPE TO A.S.2700.
- 18. MAXIMUM PIPE COVER WAS 1500mm UNLESS SPECIFIED ON THE DESIGN DRAWINGS OR APPROVAL WAS FROM THE COORANBONG WATER REPRESENTATIVE.
- 19. ALL MAINS LAID IN TRAFFICABLE CARRIAGEWAYS WERE BACKFILLED WITH 16:1 STABILISED SAND CEMENT TO SUBGRADE LEVEL ONLY.
- 20. THE MINIMUM NUMBER OF COMPACTION TESTS ARE AS FOLLOWS:
 - TRAFFICABLE
 - PIPE EMBEDMENT ZONE: 1 TEST/CROSSING.
 - TRENCHFILL ZONE: 1 TEST/CROSSING.

 - NON-TRAFFICABLE
 - PIPE EMBEDMENT ZONE: 1 TEST/100m.
 - TRENCHFILL ZONE: 1 TEST/100m.

- 25. POTABLE WATER IS TO BE UTILISED FOR FIRE FIGHTING PURPOSES.

PRESSURE SEWER NOTES:

1. ALL WORKS ARE IN ACCORDANCE WITH BUT NOT LIMITED TO PRESSURE SEWER CODE OF AUSTRALIA - WSA 07-2007, POLYETHYLENE PIPELINE CODE WSA 01-2004 AND FLOW SYSTEMS SUPPLEMENTARY MANUAL TO WSAA.

BEFORE YOU DIG

- 2. WORKS WERE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS AND FLOW SYSTEMS STANDARD
 - DRAWINGS REFERENCED IN FLOW SYSTEMS SUPPLEMENTARY MANUAL TO WSAA (TABLE 4.1)
 - FSI-1000-FS ON-LOT INFRASTRUCTURE INSTALLATION SET OUT DETAILS.
 - FSI-1001A-FS TYPICAL INFRASTRUCTURE STAGING DIAGRAM TANK IN FRONT OF PROPERTY. • FSI-1001B-FS TYPICAL INFRASTRUCTURE STAGING DIAGRAM - TANK IN REAR OF PROPERTY.
 - FSI-1002-FS TYPICAL ON-LOT WIRING DIAGRAM.
 - FSI-1003-FS TYPICAL WASTEWATER COLLECTION TANK CONTROL PANEL AND DMU ARRANGEMENT.
 - PSS-1004-FS WATER SERVICES DRAWING EXAMPLE ONLY.
 - FSI-1005-FS INFRASTRUCTURE INSTALLATION RESPONSIBILTY.
 - PSS-1015-FS TYPICAL VALVE INSTALLATION ISOLATION.
 - PSS-1016A-FS STANDARD ABOVE GROUND AIR VALVE DETAILS. • PSS-1016B-FS STANDARD BELOW GROUND AIR VALVE DETAILS TO SUIT MAINS ≤ 90mm.
 - PSS-1017-FS FLUSHING POINTS.
 - PSS-1018-FS TYPICAL BRANCH CONNECTION DETAILS.
 - PSS-1111-FS TYPICAL ON PROPERTY LAYOUT AND SANITARY DRAINAGE DETAILS.
 - PSS-1112-FS PROPERTY BOUNDARY ASSEMBLY TYPICAL INSTALLATION.
 - PSS-1113-FS WASTEWATER COLLECTION TANK INSTALLATION REQUIREMENTS. PSS-1114-FS
 POOL AND SPA DRAINAGE CONNECTION REQUIREMENTS.
 - WAT-1854-FS DUAL WATER RETICULATION SYSTEM SINGLE PROPERTY SERVICES PRE-LAID IN
 - FOOTWAYS. • WAT-1855-FS DUAL WATER RETICULATION SYSTEM SPLIT PROPERTY SERVICES PRE-LAID IN
 - FOOTWAYS.
- 3. PRESSURE SEWER MAINS ARE BLACK POLYETHYLENE (PE100 PN16) WITH A CREAM STRIPE AS PER WSA 02 - 2007.
- 4. ALL POLYETHYLENE MAINS WERE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
- 5. ALL MAINS LAID IN TRAFFICABLE CARRIAGEWAYS WERE BACKFILLED WITH 16:1 STABILISED SAND CEMENT TO
- SUBGRADE LEVEL ONLY.
- 6. ALL BENDS ARE ELECTROFUSION SWEEP BENDS
- 7. ALL HOUSE SERVICE LATERALS ARE DN40 PE 100 PN16.
- 8. DETECTABLE MARKING TAPE WAS LAID ON TOP OF THE PIPE EMBEDMENT MATERIAL BEFORE BACKFILLING AND CONNECTED TO SURFACE FITTINGS.
- 9. ALL SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (ROADWAYS, PATHS) HAVE HEAVY DUTY SURROUNDS INSTALLED.
- 10. ALL PRESSURE SEWER VALVES ARE RESILIENT SEATED SLUICE GATE VALVES (CLOCKWISE CLOSING) AND WERE RESTRAINED IN ACCORDANCE WITH WAT-1207.
- 11. ALL MAINS WERE TESTED (AS DIRECTED BY THE COORANBONG WATER REPRESENTATIVE) TO MEET CERTIFYING AUTHORITIES STANDARDS. ALL PRESSURE SEWER MAINS AND JOINTS WERE TESTED TO 1600kPa.
- 12. FOR LOTS WITH TANKS IN THE REAR.
 - PROVIDED Ø25 HEAVY DUTY ELECTRICAL CONDUIT (WITH DRAW WIRE) INSTALLED FROM THE COLLECTION
 - TANK TO THE RECYCLED WATER METER. PROVIDED Ø25 HEAVY DUTY ELECTRICAL CONDUIT (WITH DRAW WIRE) INSTALLED FROM THE COLLECTION TANK TO THE POTABLE WATER METER.
- CONDUITS WERE LAID IN COMMON TRENCH WITH PRESSURE SEWER PIPEWORK.
- (REFER TO TYPICAL CONNECTION DETAIL, DRG-030).
- 12. PRESSURE TRANSMITTER WAS INSTALLED AT SPECIFIC POINTS ARE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM AS PER COORANBONG WATER REQUIREMENTS.
- 13. CONTRACTOR ENSURED THAT AIR VALVE OFFTAKE IS LOCATED AT A HIGH POINT IN THE MAIN. (i.e. THE MAIN GRADED DOWNWARDS EITHER SIDE OF THE AIR VALVE).
- 14. FOR EMBEDMENT AND TRENCHFILL COMPACTION TEST REQUIREMENTS REFER TO THE PRESSURE SEWER CODE OF AUSTRALIA - SECTION 21.3.
- (REFER TO NOTE 9, POTABLE WATER AND RECYCLED WATER NOTES).

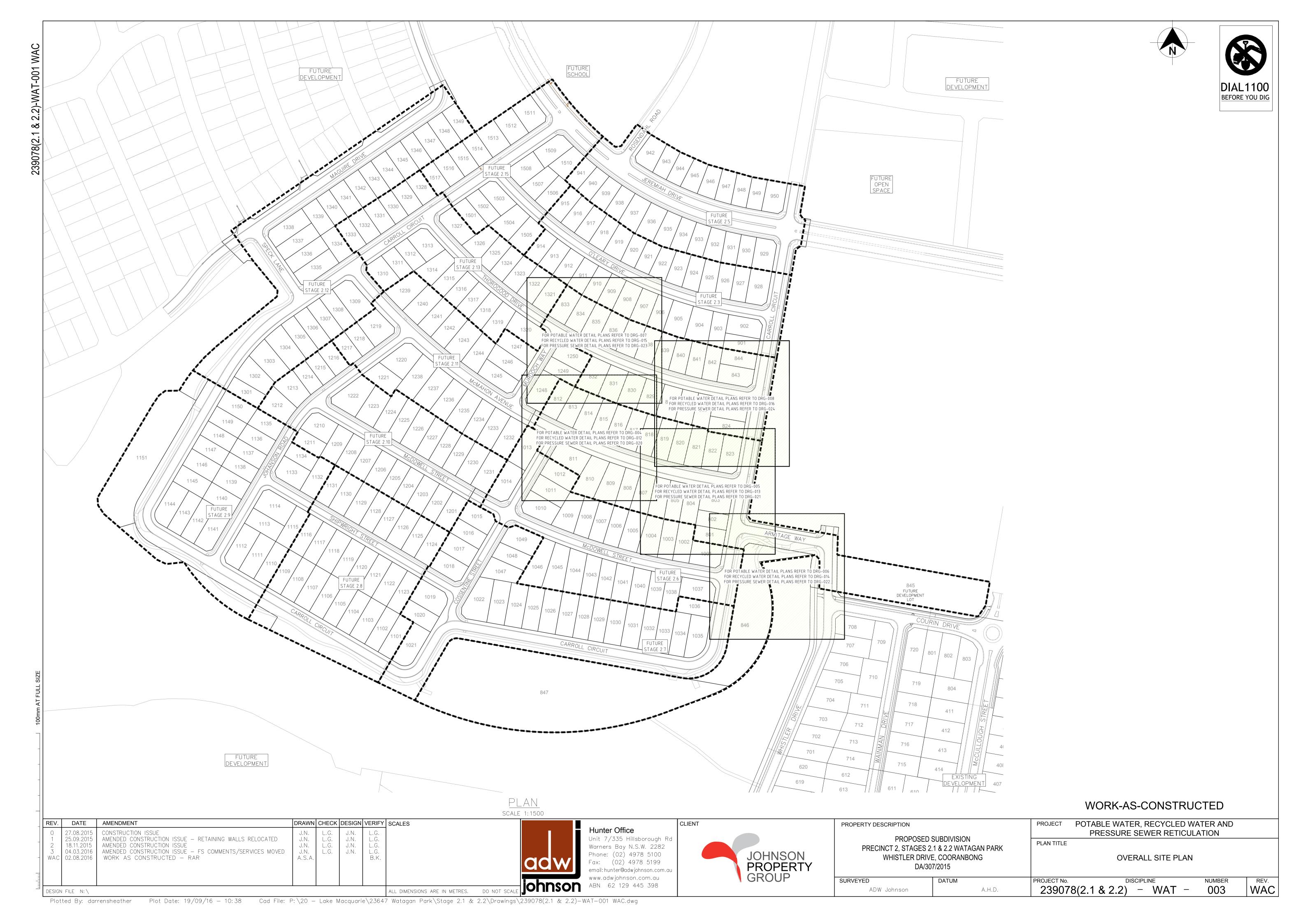
15. NOT REQUIRED

WORK-AS-CONSTRUCTED

239078(2.1 & 2.2) - WAT -

WAC

| 4 | REV. DATE | AMENDMENT | DRAWN | CHECK DESIGN VER | FY SCALES | | C | LIENT | PROPERTY DESCRIPTION | N | PROJECT | POTABLE WAT | TER, RECYCLED WA | ATER AND | |
|----|------------------------------|---|--------------|------------------|-------------------------------|----------------------|--|----------|----------------------|------------------------------|-------------|--------------|------------------|----------|------|
| | 0 27.08.2015 | CONSTRUCTION ISSUE | J.N. | L.G. J.N. L.G | ò. | | Hunter Office | | , pp. | | | PRESSUR | E SEWER RETICUL | ATION | |
| | 1 25.09.2015 2 18.11.2015 | AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED AMENDED CONSTRUCTION ISSUE | J.N. J.N. | L.G. J.N. L.(| 7. | | Unit //335 Hillsborough Rd Warners Bay N.S.W. 2282 | | I | OPOSED SUBDIVISION | PLAN TITLE | | | | |
| | 3 04.03.2016 | AMENDED CONSTRUCTION ISSUE - FS COMMENTS/SERVICES MOVED | J.N. | L.G. J.N. L.C | | | Phone: (02) 4978 5100 | JOHNSON | | TAGES 2.1 & 2.2 WATAGAN PARK | | | SENEDAL NOTES | | |
| | WAC 02.08.2016 | WORK AS CONSTRUCTED — RAR | A.S.A. | . B. | <. | adwl | Fax: (02) 4978 5199 | | WHISTL | ER DRIVE, COORANBONG | | G | SENERAL NOTES | | |
| | | | | | | aaw | email:hunter@adwjohnson.com.au | PROPERTY | | DA/307/2015 | | | | | |
| 4 | | | | | | labraar | www.adwjohnson.com.au | GROUP | SURVEYED | DATUM | PROJECT No. | [| DISCIPLINE | NUMBER | REV. |
| ╛┞ | DESIGN FILE N: \ | | - ! | | ALL DIMENSIONS ARE IN METRES. | DO NOT SCALE JOHNSON | ABN 62 129 445 398 | | ADW Johnso | n A.H.D. | 23907 | 8(2.1 & 2.2) | – WAT – | 002 | WAC |







—— PWTM —— PWTM —— DN200 PVC-M POTABLE WATER TRANSFER MAIN — — — — SP— — PE PRESSURE SEWER RETICULATION ----- PSM ------ PE PRESSURE SEWER MAIN ---- T---- T---- TELSTRA

STOP VALVE

HYDRANT

FLUSHING HYDRANT

PROPERTY SERVICE CONNECTION

LAY WATER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

SUBDIVISION STAGE BOUNDARIES

POTABLE WATER PROPERTY SERVICE CONNECTIONS

TOTAL 45 CONNECTIONS • SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V $-2 \times SHORT SIDE$

-5 x LONG SIDE •SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V $-7 \times SHORT SIDE$ $-12 \times LONG SIDE$

| POTABLE WATER PIPE DATA | | | | | |
|-------------------------|---------------|------------------|--|--|--|
| PIPE SIZE (mm) | PIPE MATERIAL | TOTAL LENGTH (m) | | | |
| DN200 | PVC-M PN16 | 119.2 | | | |
| DN100 | PVC-M PN16 | 672.6 | | | |

- NOTES:

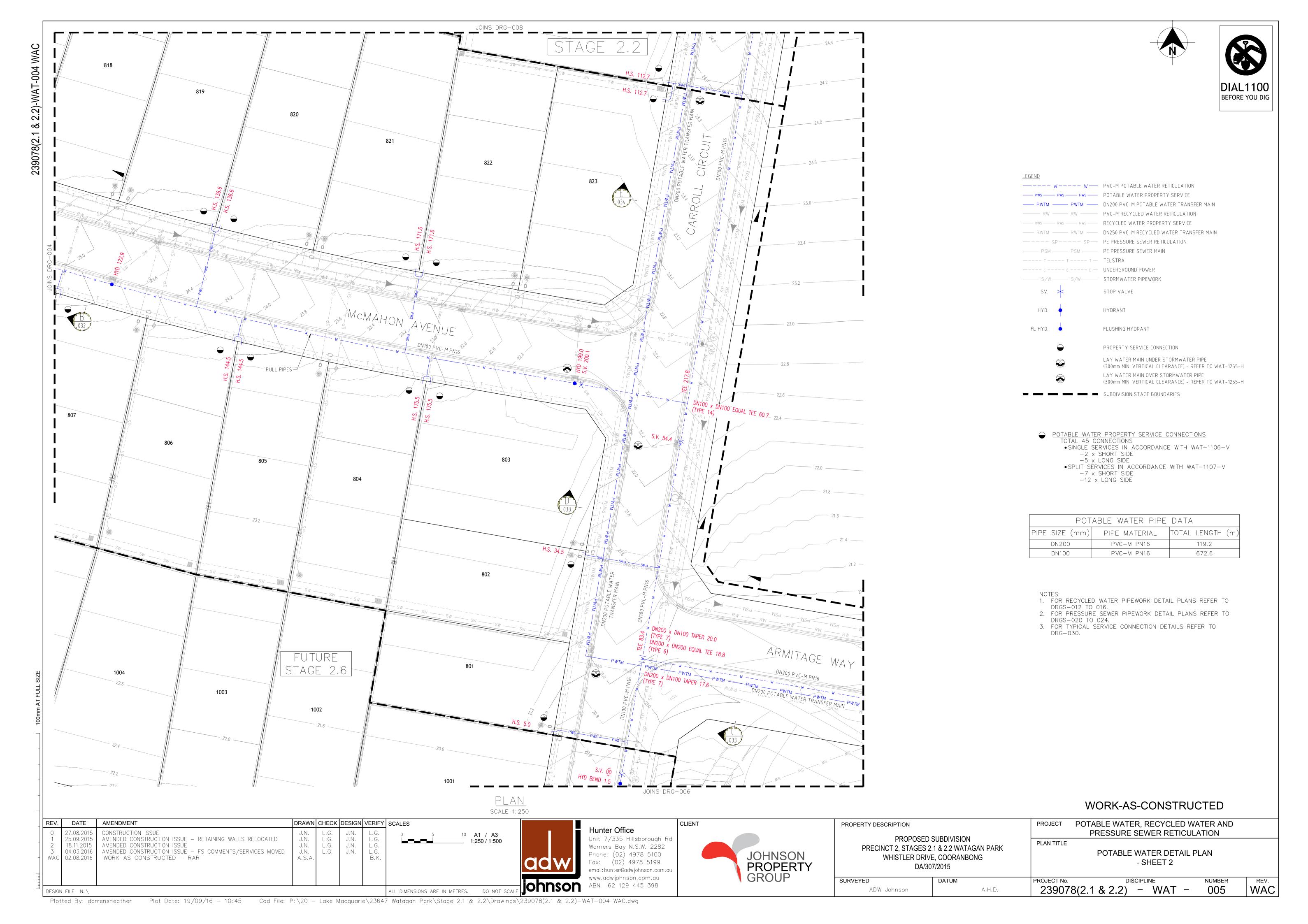
 1. FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-012 TO 016.
- 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-020 TO 024.
- 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-030.

WORK-AS-CONSTRUCTED

POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION PLAN TITLE JOHNSON PROPERTY GROUP L.G. B.K. Phone: (02) 4978 5100 POTABLE WATER DETAIL PLAN WHISTLER DRIVE, COORANBONG WORK AS CONSTRUCTED — RAR WAC 02.08.2016 - SHEET 1 Fax: (02) 4978 5199 DA/307/2015 email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED PROJECT No. DATUM NUMBER ABN 62 129 445 398 WAC A.H.D. ADW Johnson ALL DIMENSIONS ARE IN METRES. DO NOT SCAL DESIGN FILE N:\

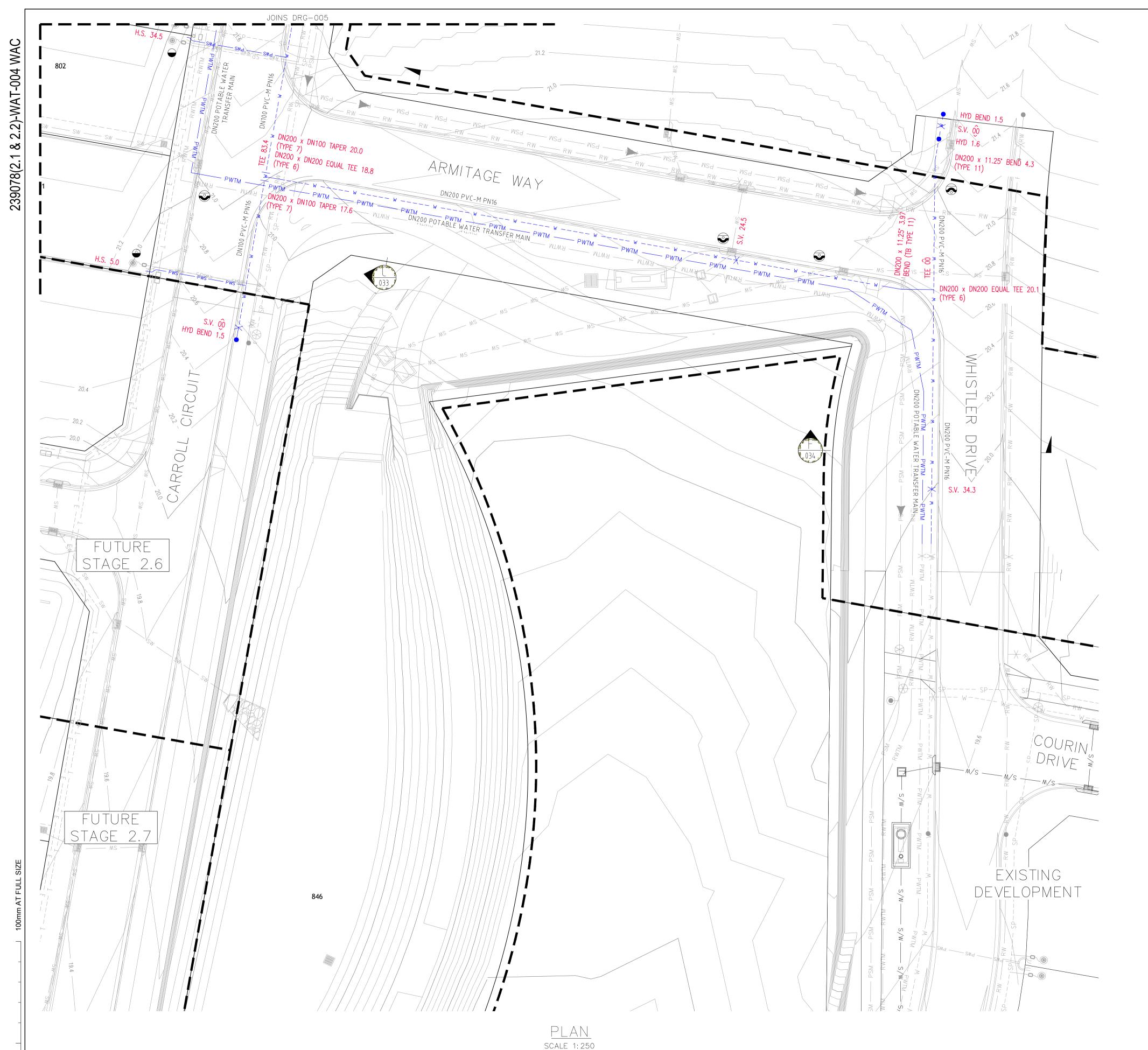
Plotted By: darrensheather Plot Date: 19/09/16 - 10:45 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-004 WAC.dwg

239078(2.1 & 2.2) - WAT -004









PWS PWS PWS PWS POTABLE WATER PROPERTY SERVICE

PWTM PWTM DN200 PVC-M POTABLE WATER TRANSFER MAIN

RW RW PVC-M RECYCLED WATER RETICULATION

RECYCLED WATER PROPERTY SERVICE

DN250 PVC-M RECYCLED WATER TRANSFER MAIN

PE PRESSURE SEWER RETICULATION

PSM PSM PSM PSM PE PRESSURE SEWER MAIN

TELSTRA

STOP VALVE

————— W——— PVC-M POTABLE WATER RETICULATION

---- E ---- E ---- UNDERGROUND POWER
---- S/W ---- S/W STORMWATER PIPEWORK

HYD. HYDRANT

FL HYD. • FLUSHING HYDRANT

PROPERTY SERVICE CONNECTION

LAY WATER MAIN UNDER STORMWATER PIPE
(300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

LAY WATER MAIN OVER STORMWATER PIPE
(300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

SUBDIVISION STAGE BOUNDARIES

POTABLE WATER PROPERTY SERVICE CONNECTIONS

TOTAL 45 CONNECTIONS

◆SINGLE SERVICES IN ACCORDANCE WITH WAT—1106—V

—2 x SHORT SIDE

-5 x LONG SIDE

• SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V

-7 x SHORT SIDE -12 x LONG SIDE

| POTABLE WATER PIPE DATA | | | | | | |
|-------------------------|---------------|------------------|--|--|--|--|
| PIPE SIZE (mm) | PIPE MATERIAL | TOTAL LENGTH (m) | | | | |
| DN200 | PVC-M PN16 | 119.2 | | | | |
| DN100 | PVC-M PN16 | 672.6 | | | | |

NOTES:

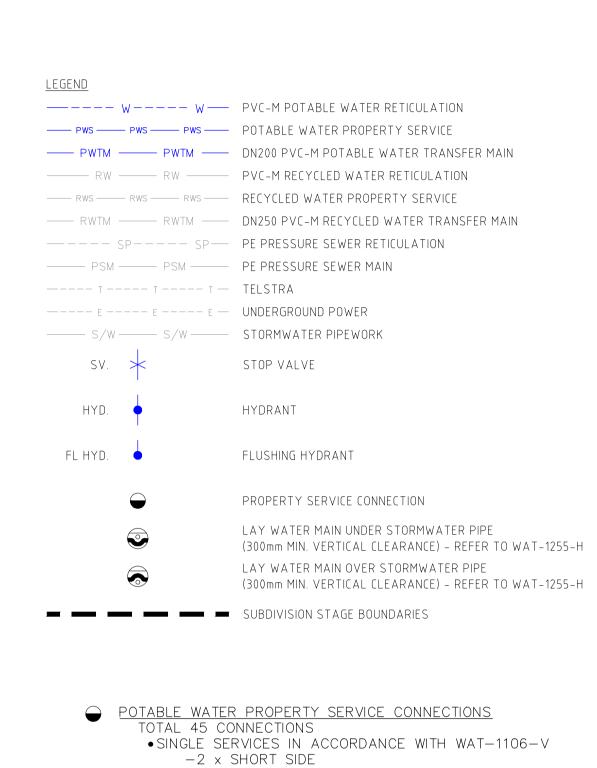
- 1. FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-012 TO 016.
- 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-020 TO 024.
- 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-030.

WORK-AS-CONSTRUCTED

DRAWN CHECK DESIGN VERIFY SCALES DATE **AMENDMENT** POTABLE WATER, RECYCLED WATER AND CLIENT PROPERTY DESCRIPTION Hunter Office PRESSURE SEWER RETICULATION CONSTRUCTION ISSUE 10 **A1** / **A3** Unit 7/335 Hillsborough Rd PROPOSED SUBDIVISION AMENDED CONSTRUCTION ISSUE - RETAINING WALLS RELOCATED J.N. J.N. J.N. 1:250 / 1:500 PLAN TITLE AMENDED CONSTRUCTION ISSUE Warners Bay N.S.W. 2282 PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK 04.03.2016 AMENDED CONSTRUCTION ISSUE - FS COMMENTS/SERVICES MOVED L.G. B.K. POTABLE WATER DETAIL PLAN JOHNSON Phone: (02) 4978 5100 WHISTLER DRIVE, COORANBONG WORK AS CONSTRUCTED — RAR WAC 02.08.2016 Fax: (02) 4978 5199 - SHEET 3 PROPERTY GROUP DA/307/2015 email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED DATUM PROJECT No. DISCIPLINE NUMBER ABN 62 129 445 398 WAC 239078(2.1 & 2.2) - WAT -006 ADW Johnson A.H.D. ALL DIMENSIONS ARE IN METRES. DO NOT SCA DESIGN FILE N:\







| POTABLE WATER PIPE DATA | | | | | |
|-------------------------|---------------|------------------|--|--|--|
| PIPE SIZE (mm) | PIPE MATERIAL | TOTAL LENGTH (m) | | | |
| DN200 | PVC-M PN16 | 119.2 | | | |
| DN100 | PVC-M PN16 | 672.6 | | | |

• SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V

- NOTES:
- 1. FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-012 TO 016.
- 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-020 TO 024.

 $-5 \times LONG SIDE$

-7 x SHORT SIDE -12 x LONG SIDE

3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-030.

WORK-AS-CONSTRUCTED

SCALE 1:250 DRAWN CHECK DESIGN VERIFY SCALES POTABLE WATER, RECYCLED WATER AND DATE **AMENDMENT** CLIENT PROPERTY DESCRIPTION **Hunter Office** PRESSURE SEWER RETICULATION CONSTRUCTION ISSUE 10 **A1 / A3** Unit 7/335 Hillsborough Rd PROPOSED SUBDIVISION AMENDED CONSTRUCTION ISSUE - RETAINING WALLS RELOCATED J.N. J.N. J.N. 5.09.2015 1:250 / 1:500 PLAN TITLE AMENDED CONSTRUCTION ISSUE Warners Bay N.S.W. 2282 PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED WORK AS CONSTRUCTED — RAR JOHNSON PROPERTY GROUP L.G. B.K. 04.03.2016 POTABLE WATER DETAIL PLAN Phone: (02) 4978 5100 WHISTLER DRIVE, COORANBONG WAC 02.08.2016 Fax: (02) 4978 5199 - SHEET 4 DA/307/2015 email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED PROJECT No. DATUM DISCIPLINE NUMBER ABN 62 129 445 398 239078(2.1 & 2.2) - WAT -007 WAC A.H.D. ADW Johnson DESIGN FILE N:\ ALL DIMENSIONS ARE IN METRES. DO NOT SCAL

908

STAGE 2.3

836

831

907

838

Plotted By: darrensheather Plot Date: 19/09/16 - 10:46 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-004 WAC.dwg

910

835

832

JOINS DRG-004

PLAN

.2)-WAT-

STAGE 2.13

833

1249

834

1321

/DN100 PVC-M PN16 —

FUTURE

STAGE 2.11



————— W——— PVC-M POTABLE WATER RETICULATION

— — — — SP— — PE PRESSURE SEWER RETICULATION

HYDRANT

----- PSM ------ PE PRESSURE SEWER MAIN ---- T---- T---- TELSTRA

---- E ---- E ---- E - UNDERGROUND POWER

STOP VALVE

FL HYD. FLUSHING HYDRANT

LAY WATER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

PROPERTY SERVICE CONNECTION

LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

SUBDIVISION STAGE BOUNDARIES

POTABLE WATER PROPERTY SERVICE CONNECTIONS

FOTAL 45 CONNECTIONS • SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V -2 x SHORT SIDE

 $-5 \times LONG SIDE$ • SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V

 $-7 \times SHORT SIDE$ $-12 \times LONG SIDE$

| POT | ABLE WATER PIPE | DATA |
|----------------|-----------------|------------------|
| PIPE SIZE (mm) | PIPE MATERIAL | TOTAL LENGTH (m) |
| DN200 | PVC-M PN16 | 119.2 |
| DN100 | PVC-M PN16 | 672.6 |

- 1. FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-012 TO 016.
- 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-020 TO 024.
- 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-030.

WORK-AS-CONSTRUCTED

POTABLE WATER, RECYCLED WATER AND

CLIENT Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 JOHNSON PROPERTY GROUP Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au

ABN 62 129 445 398

DN100 x DN100 EQUAL TEE 148.2

S.V. 141.3

PROPERTY DESCRIPTION PROPOSED SUBDIVISION PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK WHISTLER DRIVE, COORANBONG DA/307/2015

SURVEYED

ADW Johnson

PRESSURE SEWER RETICULATION PLAN TITLE POTABLE WATER DETAIL PLAN

239078(2.1 & 2.2) - WAT -

PROJECT No.

A.H.D.

- SHEET 5 NUMBER

800

WAC

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.2)-WAT

839

828

DATE

04.03.2016

AMENDMENT

CONSTRUCTION ISSUE

WAC 02.08.2016 WORK AS CONSTRUCTED - RAR

AMENDED CONSTRUCTION ISSUE

AMENDED CONSTRUCTION ISSUE - RETAINING WALLS RELOCATED

AMENDED CONSTRUCTION ISSUE - FS COMMENTS/SERVICES MOVED

ALL DIMENSIONS ARE IN METRES. DO NOT SCAL DESIGN FILE N:\

DRAWN CHECK DESIGN VERIFY SCALES

J.N. J.N. J.N.

L.G. B.K.

826

822

JOINS DRG-005

PLAN

SCALE 1:250

10 **A1 / A3**

1:250 / 1:500

STAGE 2.3

825

842

PULL PIPES —

827

844



WAC

DRAWN CHECK DESIGN VERIFY SCALES AMENDMENT DATE 27.08.2015 25.09.2015 18.11.2015 J.N. J.N. J.N. J.N. CONSTRUCTION ISSUE L.G. L.G. L.G. L.G. B.K. 25.09.2015
AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED
WAC 02.08.2016
WORK AS CONSTRUCTED — RAR J.N. L.G. J.N. L.G. ALL DIMENSIONS ARE IN METRES. DO NOT SCAL DESIGN FILE N:\

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ABN 62 129 445 398

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

CLIENT JOHNSON PROPERTY GROUP PROPERTY DESCRIPTION PROPOSED SUBDIVISION PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK WHISTLER DRIVE, COORANBONG DA/307/2015

POTABLE WATER, RECYCLED WATER AND PROJECT PRESSURE SEWER RETICULATION PLAN TITLE NOT USED

PROJECT No. DISCIPLINE SURVEYED DATUM NUMBER 239078(2.1 & 2.2) - WAT -009 ADW Johnson A.H.D.

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DRAWN CHECK DESIGN VERIFY SCALES AMENDMENT DATE 27.08.2015 25.09.2015 18.11.2015 J.N. J.N. J.N. J.N. CONSTRUCTION ISSUE L.G. L.G. L.G. L.G. B.K. 25.09.2015
AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED
WAC 02.08.2016
WORK AS CONSTRUCTED — RAR J.N. L.G. J.N. L.G. ALL DIMENSIONS ARE IN METRES. DO NOT SCAL DESIGN FILE N:\

www.adwjohnson.com.au
ABN 62 129 445 398

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



PROPERTY DESCRIPTION PROPOSED SUBDIVISION PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK WHISTLER DRIVE, COORANBONG DA/307/2015

POTABLE WATER, RECYCLED WATER AND PROJECT PRESSURE SEWER RETICULATION PLAN TITLE NOT USED

PROJECT No. DISCIPLINE SURVEYED DATUM NUMBER 239078(2.1 & 2.2) - WAT -010 WAC ADW Johnson A.H.D.



DRAWN CHECK DESIGN VERIFY SCALES AMENDMENT DATE 27.08.2015 25.09.2015 18.11.2015 J.N. J.N. J.N. J.N. CONSTRUCTION ISSUE L.G. L.G. L.G. L.G. B.K. 25.09.2015
AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED
WAC 02.08.2016
WORK AS CONSTRUCTED — RAR J.N. L.G. J.N. L.G. ALL DIMENSIONS ARE IN METRES. DO NOT SCAL DESIGN FILE N:\

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PROPERTY DESCRIPTION PROPOSED SUBDIVISION PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK WHISTLER DRIVE, COORANBONG DA/307/2015

POTABLE WATER, RECYCLED WATER AND PROJECT PRESSURE SEWER RETICULATION PLAN TITLE

NOT USED

PROJECT No. DISCIPLINE SURVEYED DATUM NUMBER 239078(2.1 & 2.2) - WAT -011 WAC ADW Johnson A.H.D.





PVC-M RECYCLED WATER RETICULATION

RWS RWS RWS RWS RECYCLED WATER PROPERTY SERVICE

DN250 PVC-M RECYCLED WATER TRANSFER MAIN

PVC-M POTABLE WATER RETICULATION

PWS PWS PWS PWS PWS PWS POTABLE WATER PROPERTY SERVICE

DN200 PVC-M POTABLE WATER TRANSFER MAIN

PPWTM PWTM DN200 PVC-M POTABLE WATER TRANSFER MAIN

PE PRESSURE SEWER RETICULATION

PSM PSM PSM PSM PE SEWER PRESSURE MAIN

TELSTRA

---- E ---- E ---- UNDERGROUND POWER

S/W S/W STORMWATER PIPEWORK

SV.

STOP VALVE

HYD. HYDRANT

FL HYD. FLUSHING HYDRANT

PROPERTY SERVICE CONNECTION

LAY WATER MAIN UNDER STORMWATER PIPE
(300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

LAY WATER MAIN OVER STORMWATER PIPE
(300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

SUBDIVISION STAGE BOUNDARIES

RECYCLED WATER PROPERTY SERVICE CONNECTIONS

TOTAL 45 CONNECTIONS

SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V

-3 x SHORT SIDE

-4 x LONG SIDE

SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V

-10 x SHORT SIDE

-9 x LONG SIDE

| RECYCLED WATER PIPE DATA | | | | |
|--------------------------|---------------|------------------|--|--|
| PIPE SIZE (mm) | PIPE MATERIAL | TOTAL LENGTH (m) | | |
| DN250 | PVC-M PN16 | 293.8 | | |
| DN100 | PVC-M PN16 | 838.0 | | |

NOTES:

1. FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO

DRGS-004 TO 008.

2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO

2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-020 TO 024.

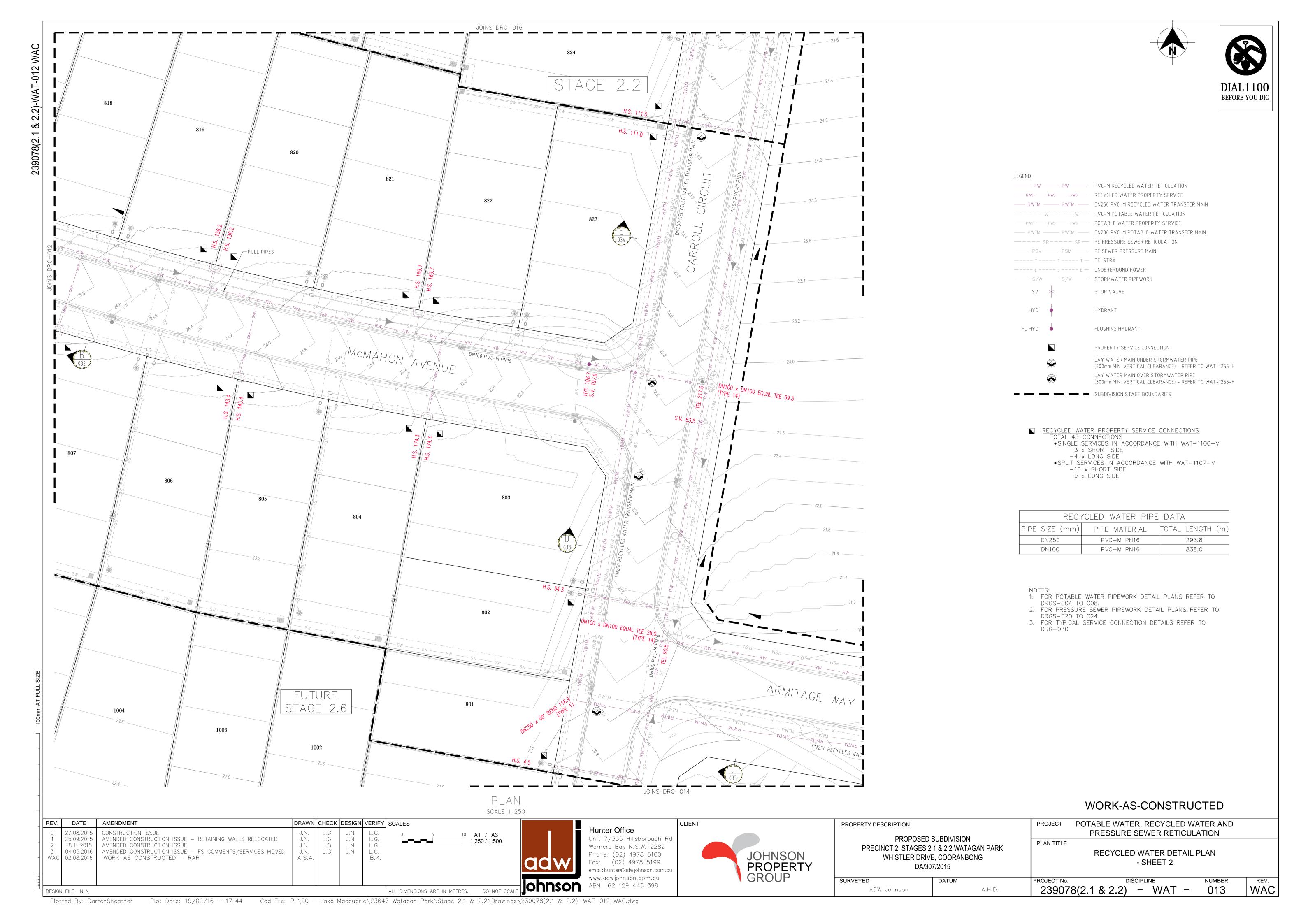
3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO

DRG-03

WORK-AS-CONSTRUCTED

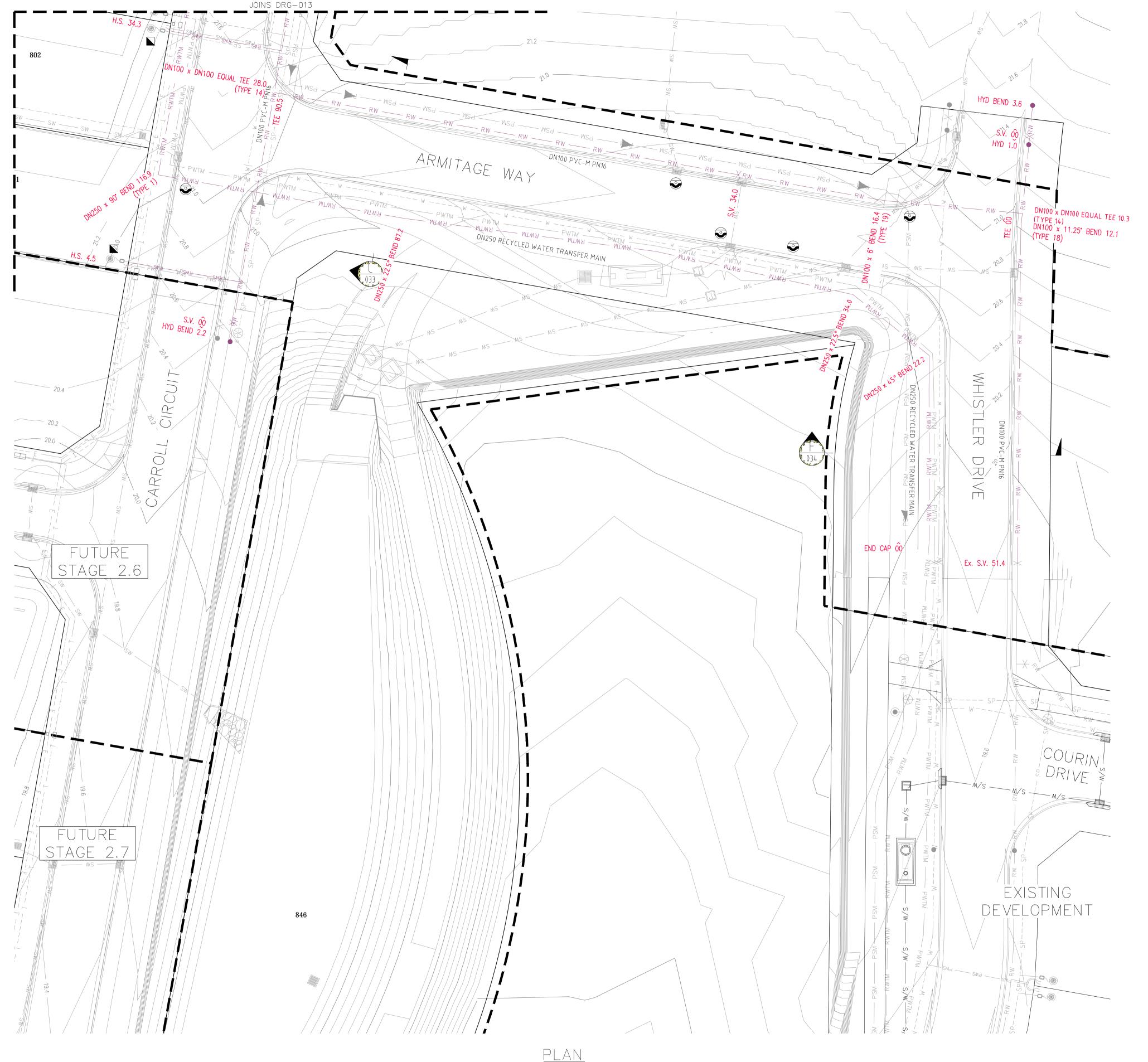
SCALE 1:250 DRAWN CHECK DESIGN VERIFY SCALES DATE **AMENDMENT** CLIENT POTABLE WATER, RECYCLED WATER AND PROPERTY DESCRIPTION PROJECT Hunter Office PRESSURE SEWER RETICULATION CONSTRUCTION ISSUE 10 **A1 / A3** Unit 7/335 Hillsborough Rd PROPOSED SUBDIVISION AMENDED CONSTRUCTION ISSUE - RETAINING WALLS RELOCATED J.N. J.N. J.N. 1:250 / 1:500 PLAN TITLE AMENDED CONSTRUCTION ISSUE Warners Bay N.S.W. 2282 PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK JOHNSON PROPERTY GROUP L.G. B.K. 04.03.2016 AMENDED CONSTRUCTION ISSUE - FS COMMENTS/SERVICES MOVED RECYCLED WATER DETAIL PLAN Phone: (02) 4978 5100 WHISTLER DRIVE, COORANBONG WORK AS CONSTRUCTED — RAR WAC 02.08.2016 Fax: (02) 4978 5199 - SHEET 1 DA/307/2015 email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED PROJECT No. DISCIPLINE DATUM NUMBER ABN 62 129 445 398 239078(2.1 & 2.2) - WAT -WAC 012 A.H.D. ADW Johnson DESIGN FILE N:\ ALL DIMENSIONS ARE IN METRES. DO NOT SCAL

Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:44 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-012 WAC.dwg









------ W---- W--- PVC-M POTABLE WATER RETICULATION — — — — SP— — PE PRESSURE SEWER RETICULATION ----- PSM ------ PE SEWER PRESSURE MAIN ———— т ———— т —— ТELSTRA

---- E ---- E ---- E -- UNDERGROUND POWER ----- S/W ----- STORMWATER PIPEWORK

STOP VALVE

HYD. HYDRANT

FL HYD. FLUSHING HYDRANT

PROPERTY SERVICE CONNECTION

LAY WATER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

SUBDIVISION STAGE BOUNDARIES

RECYCLED WATER PROPERTY SERVICE CONNECTIONS TOTAL 45 CONNECTIONS

•SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V $-3 \times SHORT SIDE$ $-4 \times LONG SIDE$

•SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V -10 x SHORT SIDE -9 x LONG SIDE

| RECYCLED WATER PIPE DATA | | | | | |
|--------------------------|---------------|------------------|--|--|--|
| PIPE SIZE (mm) | PIPE MATERIAL | TOTAL LENGTH (m) | | | |
| DN250 | PVC-M PN16 | 293.8 | | | |
| DN100 | PVC-M PN16 | 838.0 | | | |

1. FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 008.

2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO

DRGS-020 TO 024. 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO

WORK-AS-CONSTRUCTED

SCALE 1:250 DRAWN CHECK DESIGN VERIFY SCALES DATE **AMENDMENT** POTABLE WATER, RECYCLED WATER AND CLIENT PROPERTY DESCRIPTION Hunter Office PRESSURE SEWER RETICULATION CONSTRUCTION ISSUE 10 **A1 / A3** Unit 7/335 Hillsborough Rd PROPOSED SUBDIVISION AMENDED CONSTRUCTION ISSUE - RETAINING WALLS RELOCATED J.N. J.N. J.N. 1:250 / 1:500 PLAN TITLE AMENDED CONSTRUCTION ISSUE Warners Bay N.S.W. 2282 PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK JOHNSON PROPERTY GROUP 04.03.2016 AMENDED CONSTRUCTION ISSUE - FS COMMENTS/SERVICES MOVED L.G. B.K. RECYCLED WATER DETAIL PLAN Phone: (02) 4978 5100 WHISTLER DRIVE, COORANBONG WORK AS CONSTRUCTED — RAR WAC 02.08.2016 - SHEET 3 Fax: (02) 4978 5199 DA/307/2015 email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED DATUM PROJECT No. DISCIPLINE NUMBER ABN 62 129 445 398 WAC 239078(2.1 & 2.2) - WAT -014 ADW Johnson A.H.D. ALL DIMENSIONS ARE IN METRES. DO NOT SCA DESIGN FILE N:\

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-012

.2)-WAT





----- W---- W--- PVC-M POTABLE WATER RETICULATION ---- PWTM ----- PWTM ---- DN200 PVC-M POTABLE WATER TRANSFER MAIN ----- PSM ------ PE SEWER PRESSURE MAIN

---- T---- T---- TELSTRA ---- E ---- E ---- E - UNDERGROUND POWER ----- S/W ----- STORMWATER PIPEWORK

STOP VALVE

HYDRANT HYD.

FL HYD. FLUSHING HYDRANT

PROPERTY SERVICE CONNECTION

LAY WATER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

SUBDIVISION STAGE BOUNDARIES

RECYCLED WATER PROPERTY SERVICE CONNECTIONS

TOTAL 45 CONNECTIONS •SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V $-3 \times SHORT SIDE$

 $-4 \times LONG SIDE$ •SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V -10 x SHORT SIDE -9 x LONG SIDE

| REC\ | RECYCLED WATER PIPE DATA | | | | | |
|----------------|--------------------------|------------------|--|--|--|--|
| PIPE SIZE (mm) | PIPE MATERIAL | TOTAL LENGTH (m) | | | | |
| DN250 | PVC-M PN16 | 293.8 | | | | |
| DN100 | PVC-M PN16 | 838.0 | | | | |

- 1. FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 008.
- 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO
- DRGS-020 TO 024.

 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-030.

WORK-AS-CONSTRUCTED

NUMBER

015

WAC

PLAN SCALE 1:250 DRAWN CHECK DESIGN VERIFY SCALES POTABLE WATER, RECYCLED WATER AND DATE **AMENDMENT** CLIENT PROPERTY DESCRIPTION **Hunter Office** PRESSURE SEWER RETICULATION CONSTRUCTION ISSUE 10 A1 / A3 Unit 7/335 Hillsborough Rd PROPOSED SUBDIVISION AMENDED CONSTRUCTION ISSUE - RETAINING WALLS RELOCATED J.N. J.N. J.N. 5.09.2015 1:250 / 1:500 PLAN TITLE AMENDED CONSTRUCTION ISSUE Warners Bay N.S.W. 2282 PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED WORK AS CONSTRUCTED — RAR JOHNSON PROPERTY GROUP L.G. B.K. 04.03.2016 RECYCLED WATER DETAIL PLAN Phone: (02) 4978 5100 WHISTLER DRIVE, COORANBONG WAC 02.08.2016 Fax: (02) 4978 5199 - SHEET 4 DA/307/2015 email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED DISCIPLINE PROJECT No. DATUM ABN 62 129 445 398 239078(2.1 & 2.2) - WAT -A.H.D. ADW Johnson DESIGN FILE N:\ ALL DIMENSIONS ARE IN METRES. DO NOT SCAL

831

Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:44 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-012 WAC.dwg

STAGE

FUTURE

1248

STAGE 2.11

PLAN WORK-AS-CONSTRUCTED SCALE 1:250 DRAWN CHECK DESIGN VERIFY SCALES POTABLE WATER, RECYCLED WATER AND DATE **AMENDMENT** CLIENT PROPERTY DESCRIPTION Hunter Office PRESSURE SEWER RETICULATION CONSTRUCTION ISSUE 10 **A1 / A3** Unit 7/335 Hillsborough Rd PROPOSED SUBDIVISION AMENDED CONSTRUCTION ISSUE - RETAINING WALLS RELOCATED J.N. J.N. J.N. 5.09.2015 1:250 / 1:500 PLAN TITLE AMENDED CONSTRUCTION ISSUE Warners Bay N.S.W. 2282 PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED WORK AS CONSTRUCTED — RAR JOHNSON PROPERTY GROUP L.G. B.K. 04.03.2016 RECYCLED WATER DETAIL PLAN Phone: (02) 4978 5100 WHISTLER DRIVE, COORANBONG WAC 02.08.2016 - SHEET 5 Fax: (02) 4978 5199 DA/307/2015 email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED PROJECT No. DATUM DISCIPLINE NUMBER ABN 62 129 445 398 WAC 239078(2.1 & 2.2) - WAT -016 A.H.D. ADW Johnson DESIGN FILE N:\ ALL DIMENSIONS ARE IN METRES. DO NOT SCAL

RA

PULL PIPES

Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:45 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-012 WAC.dwg



DRAWN CHECK DESIGN VERIFY SCALES AMENDMENT DATE 27.08.2015 25.09.2015 18.11.2015 J.N. J.N. J.N. J.N. CONSTRUCTION ISSUE L.G. L.G. L.G. L.G. B.K. 25.09.2015
AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED
WAC 02.08.2016
WORK AS CONSTRUCTED — RAR J.N. L.G. J.N. L.G. ALL DIMENSIONS ARE IN METRES. DO NOT SCALI DESIGN FILE N:\

Johnson ABN 62 129 445 398

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



PROPERTY DESCRIPTION PROPOSED SUBDIVISION PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK WHISTLER DRIVE, COORANBONG DA/307/2015

POTABLE WATER, RECYCLED WATER AND PROJECT PRESSURE SEWER RETICULATION PLAN TITLE

NOT USED

PROJECT No. DISCIPLINE SURVEYED DATUM NUMBER 239078(2.1 & 2.2) - WAT -017 WAC ADW Johnson A.H.D.

Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:45 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-012 WAC.dwg



DRAWN CHECK DESIGN VERIFY SCALES AMENDMENT DATE 27.08.2015 25.09.2015 18.11.2015 J.N. J.N. J.N. J.N. CONSTRUCTION ISSUE L.G. L.G. L.G. L.G. B.K. 25.09.2015
AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED
WAC 02.08.2016
WORK AS CONSTRUCTED — RAR J.N. L.G. J.N. L.G. ALL DIMENSIONS ARE IN METRES. DO NOT SCAL DESIGN FILE N:\

Johnson ABN 62 129 445 398

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



PROPERTY DESCRIPTION PROPOSED SUBDIVISION PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK WHISTLER DRIVE, COORANBONG DA/307/2015

POTABLE WATER, RECYCLED WATER AND PROJECT PRESSURE SEWER RETICULATION PLAN TITLE

NOT USED

PROJECT No. DISCIPLINE SURVEYED DATUM NUMBER 239078(2.1 & 2.2) - WAT -018 WAC ADW Johnson A.H.D.

Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:45 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-012 WAC.dwg



WAC

DRAWN CHECK DESIGN VERIFY SCALES AMENDMENT DATE 27.08.2015 25.09.2015 18.11.2015 J.N. J.N. J.N. J.N. CONSTRUCTION ISSUE L.G. L.G. L.G. L.G. B.K. 25.09.2015
AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED
WAC 02.08.2016
WORK AS CONSTRUCTED — RAR J.N. L.G. J.N. L.G. ALL DIMENSIONS ARE IN METRES. DO NOT SCALI DESIGN FILE N:\

Johnson ABN 62 129 445 398

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

CLIENT JOHNSON PROPERTY GROUP PROPERTY DESCRIPTION PROPOSED SUBDIVISION PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK WHISTLER DRIVE, COORANBONG DA/307/2015

ADW Johnson

PLAN TITLE

A.H.D.

POTABLE WATER, RECYCLED WATER AND PROJECT PRESSURE SEWER RETICULATION

NOT USED

PROJECT No. DISCIPLINE SURVEYED DATUM NUMBER 239078(2.1 & 2.2) - WAT -019

Plotted By: DarrenSheather Plot Date: 19/09/16 — 17:45 Cad File: P:\20 — Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)—WAT—012 WAC.dwg

Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:48 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-020 WAC.dwg





<u>LEGEND</u>

PSM PSM PSM PSM PSWER RETICULATION

PSM PSM PSM PSM PE SEWER PRESSURE MAIN

PVC M POTABLE WATER RETICULATION

PWS PWS PWS PWS POTABLE WATER PROPERTY SERVICE

PWTM POTABLE WATER PROPERTY SERVICE

PWTM PVC M POTABLE WATER TRANSFER MAIN

RW RW PVC M RECYCLED WATER RETICULATION

RWS RWS RWS RWS RECYCLED WATER PROPERTY SERVICE

DN250 PVC M RECYCLED WATER TRANSFER MAIN

---- E ---- E ---- UNDERGROUND POWER
---- S/W ---- S/W STORMWATER PIPEWORK

IV. ISOLATION VALVE

———— т ——— т — TELSTRA

FP. FLUSHING POINT

WASTEWATER COLLECTION TANK
AND BOUNDARY KIT

PRESSURE SEWER FLOW DIRECTION

PROPERTY SERVICE CONNECTION

LAY WATER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) — REFER TO WAT—1255—H

LAY WATER MAIN OVER STORMWATER PIPE
(300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

LIMIT OF SUBDIVISION WORKS

PRESSURE SEWER PROPERTY SERVICE CONNECTIONS
TOTAL 45 CONNECTIONS

•SINGLE SERVICES -24 x SHORT SIDE -21 x LONG SIDE

| PRES | PRESSURE SEWER PIPE DATA | | | | | |
|----------------|--------------------------|------------------|--|--|--|--|
| PIPE SIZE (mm) | PIPE MATERIAL | TOTAL LENGTH (m) | | | | |
| DN280 | PE100 PN16 | 261.0 | | | | |
| DN250 | PE100 PN16 | 145.0 | | | | |
| DN90 | PE100 PN16 | 227.8 | | | | |
| DN63 | PE100 PN16 | 54.1 | | | | |
| DN50 | PE100 PN16 | 419.1 | | | | |

NOTES:

- 1. FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 008.
- FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-012 AND 016.
 FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO
- DRG-030.
- 4. FOR FLUSHING POINT TYPICAL DETAILS REFER TO STANDARD DRAWING PSS-1017-FS.
- 5. CONTRACTOR MAY BEND POLYETHYLENE PIPEWORK IN PLACE OF USING STANDARD FITTINGS WITH A MIN. BENDING RADIUS OF 20 x PIPE DIAM.
- 6. ALL BENDS WERE ELECTROFUSION SWEEP BENDS 7. DN280 AND DN250 PE PRESSURE SEWER MAIN

PROJECT

LAID TO GRADE.

8. FOR WASTEWATER COLLECTION TANK LEVEL DETAILS REFER TO DRG-031.

WORK-AS-CONSTRUCTED

POTABLE WATER, RECYCLED WATER AND

Hunter Office PRESSURE SEWER RETICULATION CONSTRUCTION ISSUE 10 **A1** / **A3** Unit 7/335 Hillsborough Rd PROPOSED SUBDIVISION J.N. J.N. J.N. AMENDED CONSTRUCTION ISSUE - RETAINING WALLS RELOCATED 5.09.2015 1:250 / 1:500 PLAN TITLE AMENDED CONSTRUCTION ISSUE Warners Bay N.S.W. 2282 PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK JOHNSON PROPERTY GROUP 04.03.2016 AMENDED CONSTRUCTION ISSUE - FS COMMENTS/SERVICES MOVED L.G. B.K. PRESSURE SEWER DETAIL PLAN Phone: (02) 4978 5100 WHISTLER DRIVE, COORANBONG WORK AS CONSTRUCTED — RAR WAC 02.08.2016 - SHEET 1 Fax: (02) 4978 5199 DA/307/2015 email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED PROJECT No. DISCIPLINE DATUM NUMBER ABN 62 129 445 398 239078(2.1 & 2.2) - WAT -WAC 020 ADW Johnson A.H.D. ALL DIMENSIONS ARE IN METRES. DO NOT SCAL DESIGN FILE N:\

Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:48 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-020 WAC.dwg





<u>LEGEND</u>

PSM PSM PSM PE PRESSURE SEWER RETICULATION
PSM PSM PSM PE SEWER PRESSURE MAIN
PVC-M POTABLE WATER RETICULATION
PWS PWS PWS PWS PWS POTABLE WATER PROPERTY SERVICE
PWTM POTABLE WATER PROPERTY SERVICE
PWTM PVC-M POTABLE WATER TRANSFER MAIN
PVC-M RECYCLED WATER RETICULATION
RWS RWS RWS RWS PVC-M RECYCLED WATER TRANSFER MAIN
PVC-M RECYCLED WATER PROPERTY SERVICE
PNTM PNTM NUMBER PROPERTY SERVICE

———— T——— T—— TELSTRA

IV. ISOLATION VALVE

P. FLUSHING POINT

WASTEWATER COLLECTION TANK
AND BOUNDARY KIT

PRESSURE SEWER FLOW DIRECTION

PROPERTY SERVICE CONNECTION

LAY WATER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) — REFER TO WAT—1255—H

LAY WATER MAIN OVER STORMWATER PIPE
(300mm MIN. VERTICAL CLEARANCE) — REFER TO WAT—1255—H

LIMIT OF SUBDIVISION WORKS

PRESSURE SEWER PROPERTY SERVICE CONNECTIONS TOTAL 45 CONNECTIONS

• SINGLE SERVICES -24 x SHORT SIDE -21 x LONG SIDE

| PRESSURE SEWER PIPE DATA | | | | | |
|--------------------------|---------------|------------------|--|--|--|
| PIPE SIZE (mm) | PIPE MATERIAL | TOTAL LENGTH (m) | | | |
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| DN250 | PE100 PN16 | 145.0 | | | |
| DN90 | PE100 PN16 | 227.8 | | | |
| DN63 | PE100 PN16 | 54.1 | | | |
| DN50 | PE100 PN16 | 419.1 | | | |

NOTES:

- 1. FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 008.
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- 5. CONTRACTOR MAY BEND POLYETHYLENE PIPEWORK IN PLACE OF USING STANDARD FITTINGS WITH A MIN. BENDING RADIUS OF 20 x PIPE DIAM.
- 6. ALL BENDS WERE ELECTROFUSION SWEEP BENDS 7. DN280 AND DN250 PE PRESSURE SEWER MAIN
- LAID TO GRADE.

 8. FOR WASTEWATER COLLECTION TANK LEVEL DETAILS REFER TO DRG-031.

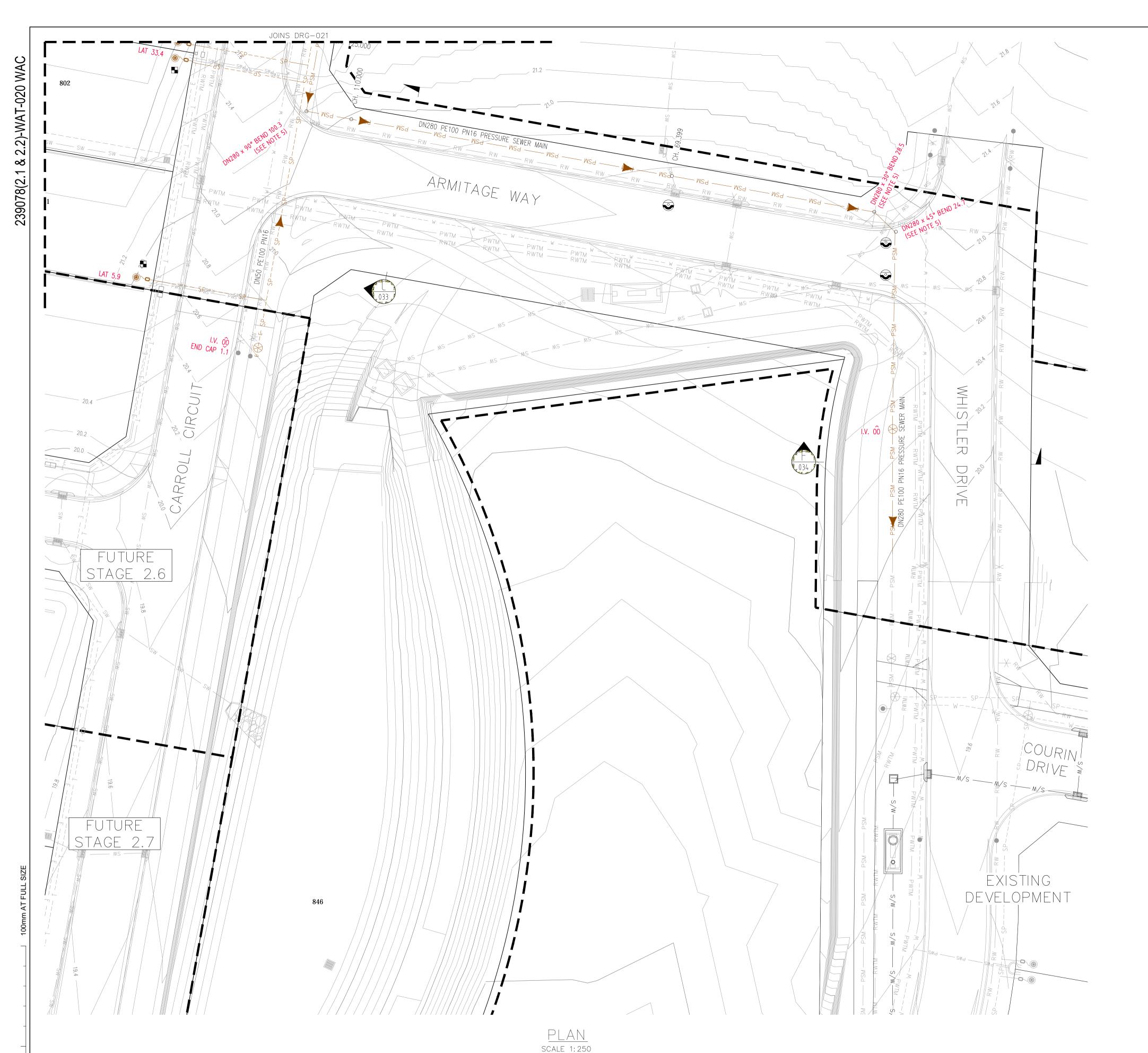
WORK-AS-CONSTRUCTED

POTABLE WATER, RECYCLED WATER AND

PRESSURE SEWER RETICULATION CONSTRUCTION ISSUE 10 **A1 / A3** Unit 7/335 Hillsborough Rd PROPOSED SUBDIVISION AMENDED CONSTRUCTION ISSUE - RETAINING WALLS RELOCATED J.N. J.N. J.N. 5.09.2015 1:250 / 1:500 PLAN TITLE AMENDED CONSTRUCTION ISSUE Warners Bay N.S.W. 2282 PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK AMENDED CONSTRUCTION ISSUE - FS COMMENTS/SERVICES MOVED L.G. B.K. PRESSURE SEWER DETAIL PLAN JOHNSON Phone: (02) 4978 5100 WHISTLER DRIVE, COORANBONG WORK AS CONSTRUCTED — RAR WAC 02.08.2016 - SHEET 2 Fax: (02) 4978 5199 PROPERTY GROUP DA/307/2015 email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED PROJECT No. DATUM DISCIPLINE NUMBER ABN 62 129 445 398 239078(2.1 & 2.2) - WAT -WAC 021 ADW Johnson A.H.D. DESIGN FILE N:\ ALL DIMENSIONS ARE IN METRES. DO NOT SCA







PSM PSM PSM PVC-M POTABLE WATER RETICULATION

PWS PWS PWS PWS PWS POTABLE WATER PROPERTY SERVICE

PWTM PWTM DN250 PVC-M POTABLE WATER TRANSFER MAIN

RW PVC-M RECYCLED WATER RETICULATION

RECYCLED WATER PROPERTY SERVICE

ISOLATION VALVE

---- E ---- E ---- UNDERGROUND POWER
---- S/W ---- S/W STORMWATER PIPEWORK

FP. FLUSHING POINT

WASTEWATER COLLECTION TANK
AND BOUNDARY KIT

PRESSURE SEWER FLOW DIRECTION

PROPERTY SERVICE CONNECTION

LAY WATER MAIN UNDER STORMWATER PIPE
(300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

LAY WATER MAIN OVER STORMWATER PIPE
(300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

LIMIT OF SUBDIVISION WORKS

PRESSURE SEWER PROPERTY SERVICE CONNECTIONS
TOTAL 45 CONNECTIONS

• SINGLE SERVICES -24 x SHORT SIDE -21 x LONG SIDE

| PRES | SSURE SEWER PIPE | DATA |
|----------------|------------------|------------------|
| PIPE SIZE (mm) | PIPE MATERIAL | TOTAL LENGTH (m) |
| DN280 | PE100 PN16 | 261.0 |
| DN250 | PE100 PN16 | 145.0 |
| DN90 | PE100 PN16 | 227.8 |
| DN63 | PE100 PN16 | 54.1 |
| DN50 | PE100 PN16 | 419.1 |

NOTES:

- 1. FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 008.
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- 5. CONTRACTOR MAY BEND POLYETHYLENE PIPEWORK IN PLACE OF USING STANDARD FITTINGS WITH A MIN. BENDING RADIUS OF 20 x PIPE DIAM.
- 6. ALL BENDS WERE ELECTROFUSION SWEEP BENDS 7. DN280 AND DN250 PE PRESSURE SEWER MAIN
- LAID TO GRADE.

 8. FOR WASTEWATER COLLECTION TANK LEVEL DETAILS REFER TO DRG-031.

WORK-AS-CONSTRUCTED

POTABLE WATER, RECYCLED WATER AND

adw iohnson

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
PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK
WHISTLER DRIVE, COORANBONG
DA/307/2015

PLAN TITLE

PRESSURE SEWER RETICULATION

PRESSURE SEWER DETAIL PLAN
- SHEET 3

SURVEYED DATUM PROJECT No. DISCIPLINE NUMBER REV. 239078(2.1 & 2.2) - WAT - 022 WAC

DESIGN FILE N:\
Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:48 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-020 WAC.dwg





PSM PSM PSM PSM PSM PSWER RETICULATION
PE SEWER PRESSURE MAIN
PVC-M POTABLE WATER RETICULATION
PWS PWS PWS PWS PWS POTABLE WATER PROPERTY SERVICE
PWTM POTABLE WATER PROPERTY SERVICE
PWTM PWTM PWTM PWTM PVC-M POTABLE WATER TRANSFER MAIN
PVC-M RECYCLED WATER RETICULATION
RWS RWS RWS RWS RECYCLED WATER PROPERTY SERVICE
PRUTM RWTM DN250 PVC-M RECYCLED WATER TRANSFER MAIN

——— S/W ——— S/W ——— S/W ——— S/W ——— S/W ——— S/W ——— STORMWATER PIPEWORK

— — — т — — т — TELSTRA

FP. FLUSHING POINT

WASTEWATER COLLECTION TANK
AND BOUNDARY KIT

ISOLATION VALVE

■ PROPERTY SERVICE CONNECTION

LAY WATER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) — REFER TO WAT-1255-H

LAY WATER MAIN OVER STORMWATER PIPE
(300mm MIN. VERTICAL CLEARANCE) — REFER TO WAT-1255-H

PRESSURE SEWER FLOW DIRECTION

LIMIT OF SUBDIVISION WORKS

PRESSURE SEWER PROPERTY SERVICE CONNECTIONS
TOTAL 45 CONNECTIONS

◆SINGLE SERVICES -24 x SHORT SIDE -21 x LONG SIDE

| PRES | SSURE SEWER PIPE | DATA |
|----------------|------------------|------------------|
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- LAID TO GRADE.

 8. FOR WASTEWATER COLLECTION TANK LEVEL DETAILS REFER TO DRG-031.

WORK-AS-CONSTRUCTED

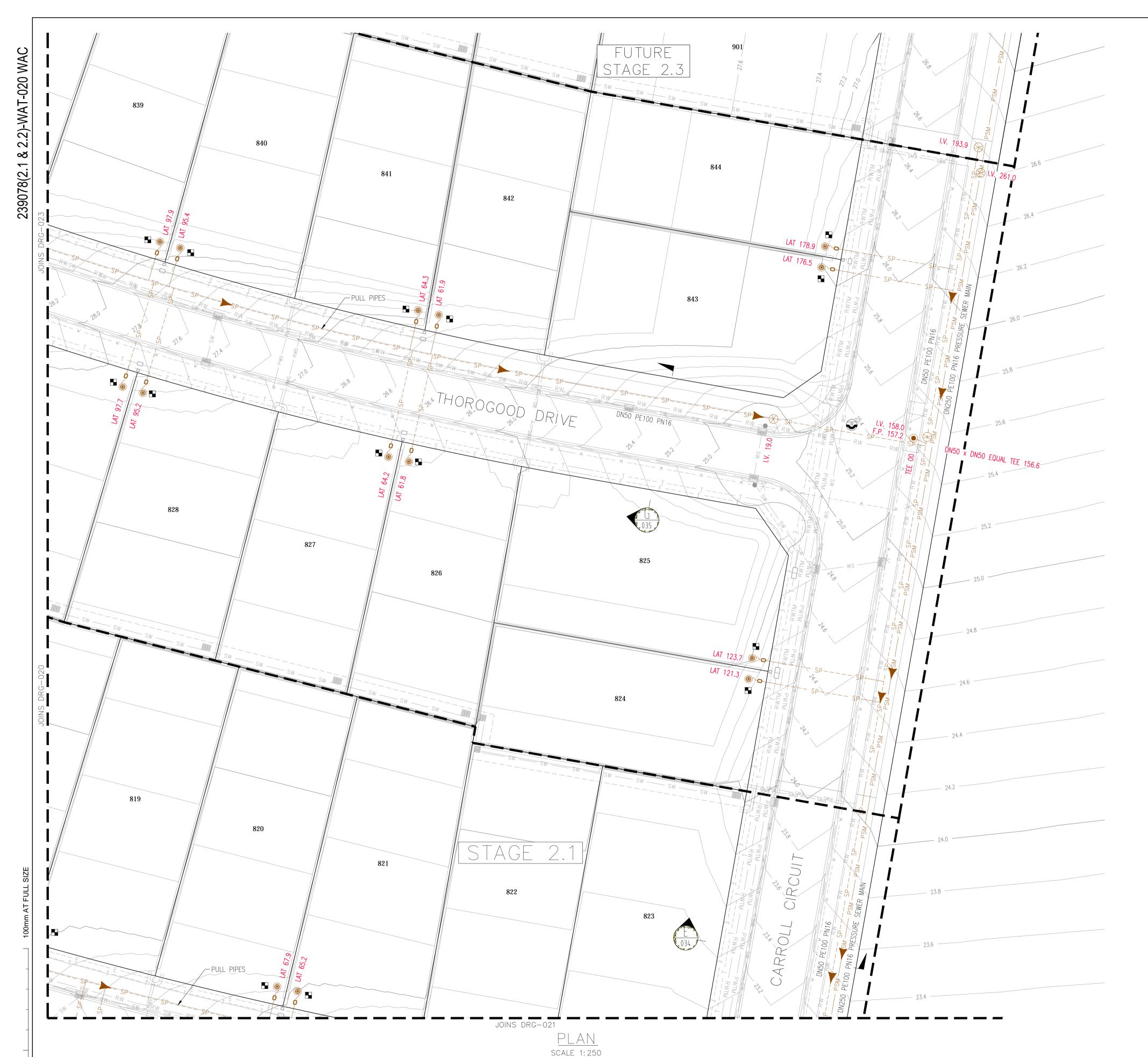
SCALE 1:250 DRAWN CHECK DESIGN VERIFY SCALES DATE AMENDMENT CLIENT POTABLE WATER, RECYCLED WATER AND PROPERTY DESCRIPTION Hunter Office PRESSURE SEWER RETICULATION CONSTRUCTION ISSUE 10 **A1** / **A3** Unit 7/335 Hillsborough Rd PROPOSED SUBDIVISION AMENDED CONSTRUCTION ISSUE - RETAINING WALLS RELOCATED J.N. J.N. J.N. 5.09.2015 1:250 / 1:500 PLAN TITLE AMENDED CONSTRUCTION ISSUE Warners Bay N.S.W. 2282 PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK JOHNSON PROPERTY GROUP L.G. B.K. 04.03.2016 AMENDED CONSTRUCTION ISSUE - FS COMMENTS/SERVICES MOVED PRESSURE SEWER DETAIL PLAN Phone: (02) 4978 5100 WHISTLER DRIVE, COORANBONG WORK AS CONSTRUCTED — RAR WAC 02.08.2016 - SHEET 4 Fax: (02) 4978 5199 DA/307/2015 email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED PROJECT No. DATUM DISCIPLINE NUMBER ABN 62 129 445 398 239078(2.1 & 2.2) - WAT -WAC 023 ADW Johnson A.H.D. ALL DIMENSIONS ARE IN METRES. DO NOT SCA DESIGN FILE N:\

Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:48 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-020 WAC.dwg

.2)-WAT-







----- PSM ------ PE SEWER PRESSURE MAIN ----- W---- W--- PVC-M POTABLE WATER RETICULATION

----- RW ------ RW ------ PVC-M RECYCLED WATER RETICULATION RWS ---- RWS ---- RWS ---- RECYCLED WATER PROPERTY SERVICE

---- RWTM ----- RWTM ---- DN250 PVC-M RECYCLED WATER TRANSFER MAIN ———— T——— T—— TELSTRA

ISOLATION VALVE

———— E ——— E —— UNDERGROUND POWER ------ S/W ------ STORMWATER PIPEWORK

FLUSHING POINT

WASTEWATER COLLECTION TANK AND BOUNDARY KIT

PROPERTY SERVICE CONNECTION

LAY WATER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

LAY WATER MAIN OVER STORMWATER PIPE

PRESSURE SEWER FLOW DIRECTION

(300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H

LIMIT OF SUBDIVISION WORKS

PRESSURE SEWER PROPERTY SERVICE CONNECTIONS TOTAL 45 CONNECTIONS

• SINGLE SERVICES

-24 × SHORT SIDE

-21 × LONG SIDE

| PRES | SSURE SEWER PIPE | DATA |
|----------------|------------------|------------------|
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- LAID TO GRADE. 8. FOR WASTEWATER COLLECTION TANK LEVEL DETAILS REFER TO DRG-031.

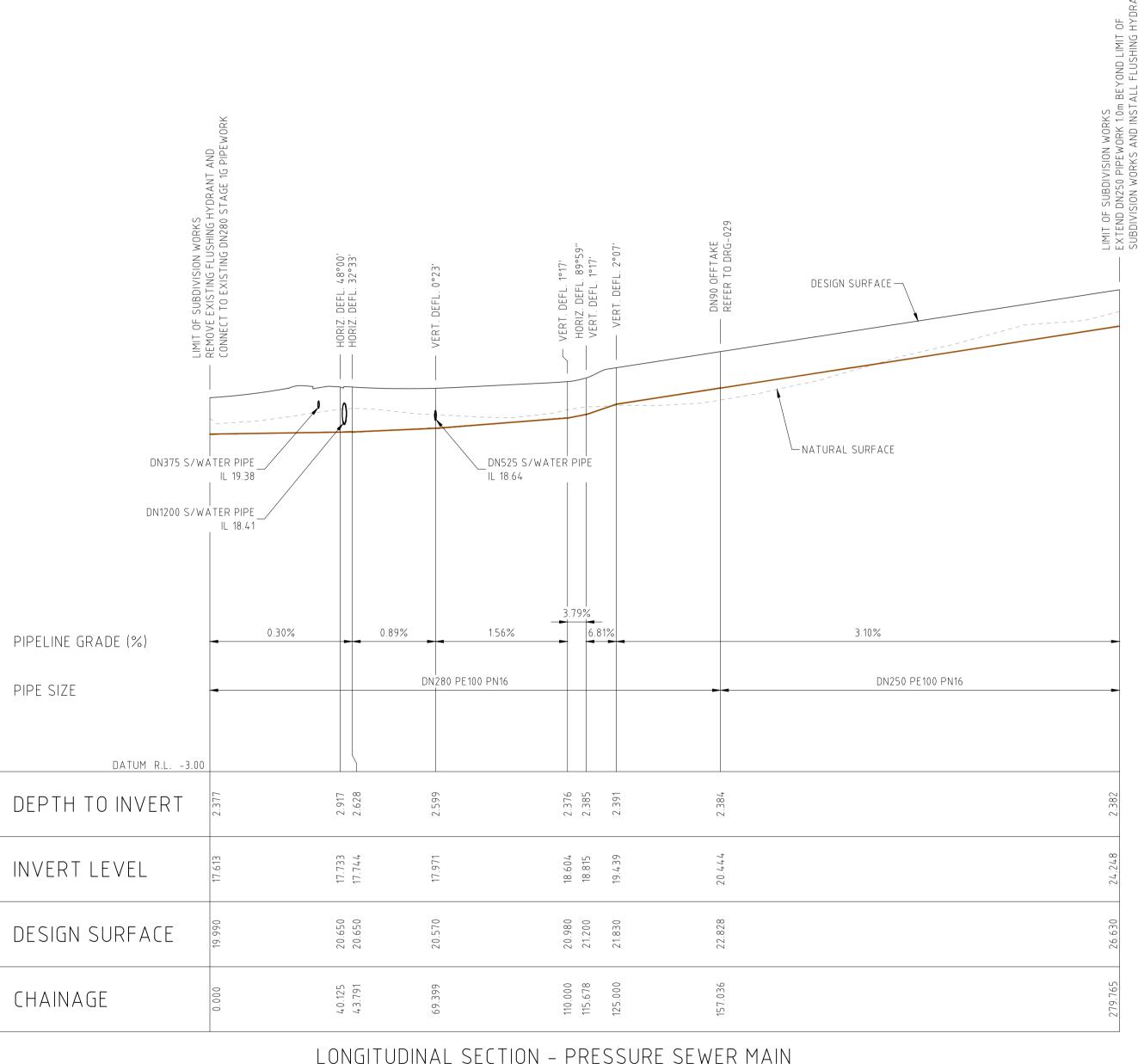
WORK-AS-CONSTRUCTED

DRAWN CHECK DESIGN VERIFY SCALES DATE AMENDMENT CLIENT PROPERTY DESCRIPTION Hunter Office CONSTRUCTION ISSUE 10 **A1** / **A3** Unit 7/335 Hillsborough Rd AMENDED CONSTRUCTION ISSUE - RETAINING WALLS RELOCATED J.N. J.N. J.N. 1:250 / 1:500 AMENDED CONSTRUCTION ISSUE Warners Bay N.S.W. 2282 AMENDED CONSTRUCTION ISSUE - FS COMMENTS/SERVICES MOVED L.G. B.K. JOHNSON Phone: (02) 4978 5100 WORK AS CONSTRUCTED — RAR WAC 02.08.2016 Fax: (02) 4978 5199 PROPERTY GROUP DA/307/2015 email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED DATUM ABN 62 129 445 398 ALL DIMENSIONS ARE IN METRES. DO NOT SCAL

POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION PROPOSED SUBDIVISION PLAN TITLE PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK PRESSURE SEWER DETAIL PLAN WHISTLER DRIVE, COORANBONG - SHEET 5

PROJECT No. NUMBER WAC 239078(2.1 & 2.2) - WAT -024 ADW Johnson A.H.D.

DESIGN FILE N:\ Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:48 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-020 WAC.dwg



LONGITUDINAL SECTION - PRESSURE SEWER MAIN HORIZONTAL SCALE 1:1000 VERTICAL SCALE 1:200

WORK-AS-CONSTRUCTED

| REV. DATE AMENDMENT | DRAWN | CHECK | DESIGN | VERIFY SCALES | | Lluntor Office | CLIENT | PROPERTY DESCRIPTION | | | ABLE WATER, RECYCLED | | |
|--|--|--------------|--------------|----------------------------|----------------------------------|---|---------------------|------------------------------|--|-------------|-------------------------------------|----------|------|
| 0 27.08.2015 CONSTRUCTION ISSUE 1 25.09.2015 AMENDED CONSTRUCTION | J.N. SSUE — RETAINING WALLS RELOCATED J.N. | L.G. L.G. | J.N. J.N. | L.G. L.G. | | Hunter Office Unit 7/335 Hillsborough Rd | | PROPO | SED SUBDIVISION | | PRESSURE SEWER RETION | CULATION | |
| 2 3 04.03.2016 AMENDED CONSTRUCTION AMENDED CONSTRUCTION WAC 02.08.2016 WORK AS CONSTRUCTE | SSUE SSUE - FS COMMENTS/SERVICES MOVED J.N. J.N. A.S.A | L.G. L.G. | J.N. J.N. | L.G. L.G. B.K. | adw | Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email:hunter@adwjohnson.com.au | JOHNSON PROPERTY | PRECINCT 2, STAC WHISTLER | GES 2.1 & 2.2 WATAGAN PARK DRIVE, COORANBONG DA/307/2015 | PLAN TITLE | LONGITUDINAL SECT PRESSURE SEWER | | |
| | | | | | lebpser | www.adwjohnson.com.au | GROUP | SURVEYED | DATUM | PROJECT No. | DISCIPLINE | NUMBER | REV. |
| DESIGN FILE N:\ | • | • | | ALL DIMENSIONS ARE IN METR | res. do not scale johnsor | ABN 62 129 445 398 | | ADW Johnson | A.H.D. | 239078(2. | 1 & 2.2) - WAT | - 025 | WAC |



DRAWN CHECK DESIGN VERIFY SCALES AMENDMENT DATE 27.08.2015 25.09.2015 18.11.2015 J.N. J.N. J.N. J.N. CONSTRUCTION ISSUE L.G. L.G. L.G. L.G. B.K. 25.09.2015
AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED
WAC 02.08.2016
WORK AS CONSTRUCTED — RAR J.N. L.G. J.N. L.G. ALL DIMENSIONS ARE IN METRES. DO NOT SCALI DESIGN FILE N:\

Johnson ABN 62 129 445 398

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



PROPERTY DESCRIPTION PROPOSED SUBDIVISION PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK WHISTLER DRIVE, COORANBONG DA/307/2015

DATUM

A.H.D.

SURVEYED

ADW Johnson

POTABLE WATER, RECYCLED WATER AND PROJECT PRESSURE SEWER RETICULATION PLAN TITLE

PROJECT No.

NOT USED DISCIPLINE NUMBER

239078(2.1 & 2.2) - WAT -

WAC

026

Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:49 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-020 WAC.dwg



WAC

DRAWN CHECK DESIGN VERIFY SCALES AMENDMENT DATE 27.08.2015 25.09.2015 18.11.2015 J.N. J.N. J.N. J.N. CONSTRUCTION ISSUE L.G. L.G. L.G. L.G. B.K. 25.09.2015
AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED
WAC 02.08.2016
WORK AS CONSTRUCTED — RAR J.N. L.G. J.N. L.G. ALL DIMENSIONS ARE IN METRES. DO NOT SCALI DESIGN FILE N:\

Johnson ABN 62 129 445 398

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



PROPERTY DESCRIPTION PROPOSED SUBDIVISION PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK WHISTLER DRIVE, COORANBONG

SURVEYED

ADW Johnson

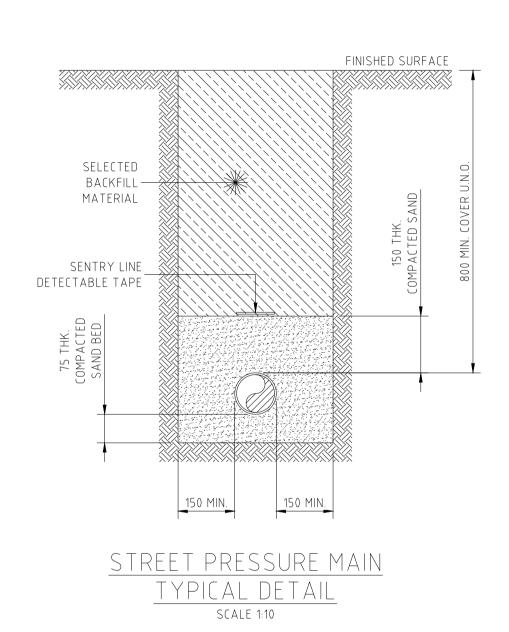
POTABLE WATER, RECYCLED WATER AND PROJECT PRESSURE SEWER RETICULATION PLAN TITLE NOT USED

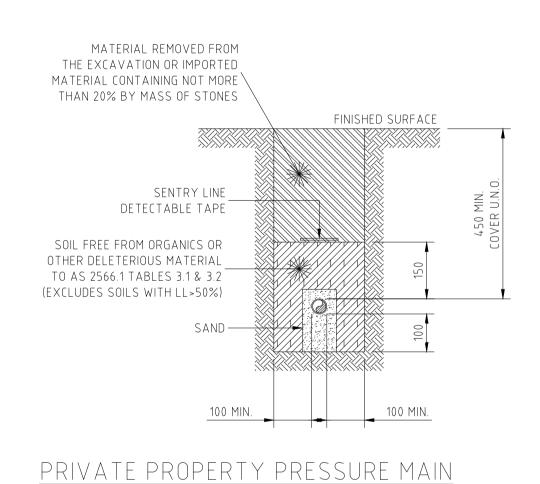
DA/307/2015 PROJECT No. DISCIPLINE DATUM NUMBER 239078(2.1 & 2.2) - WAT -027

A.H.D.

Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:49 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-020 WAC.dwg







TYPICAL DETAIL
SCALE 1:10

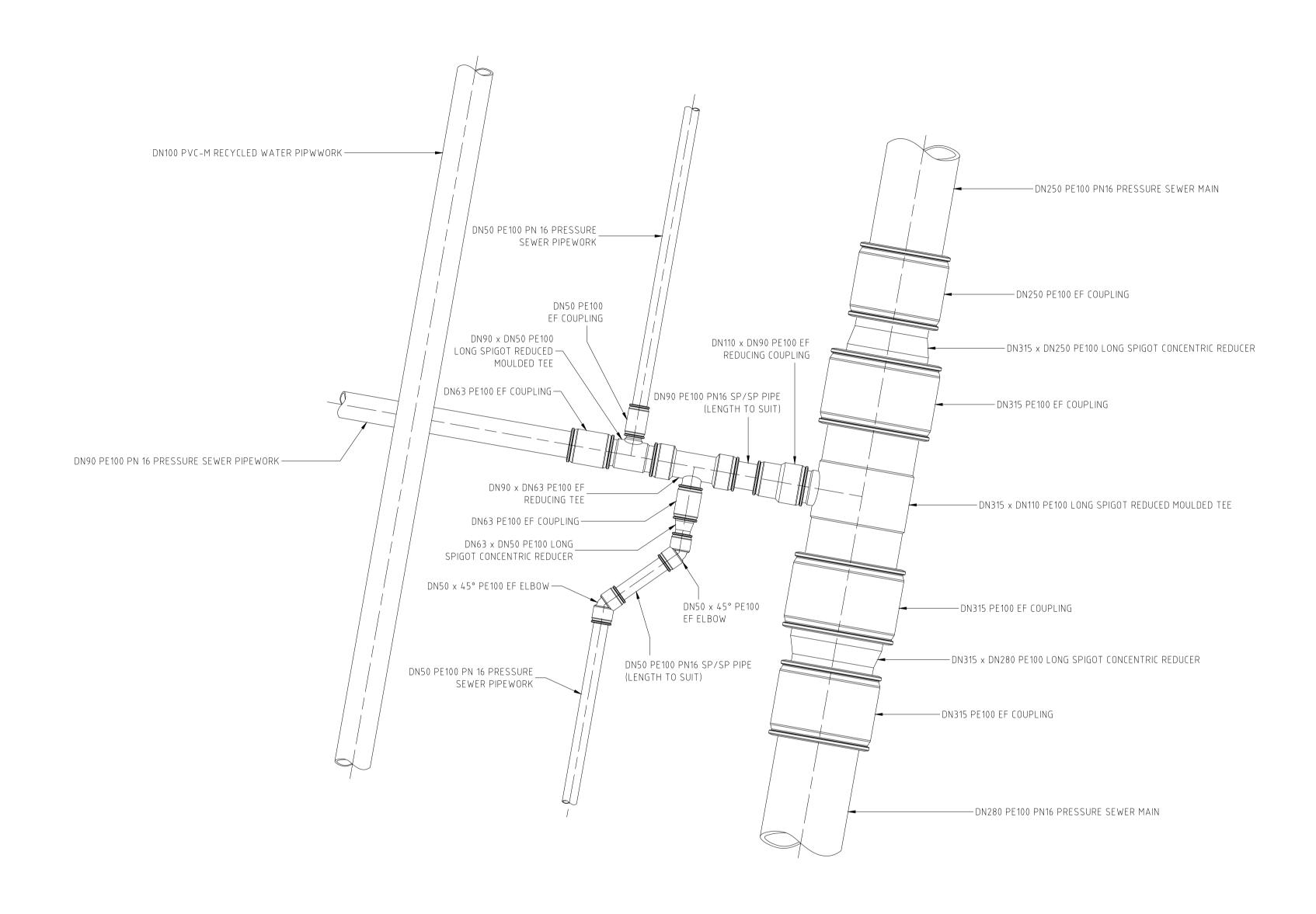
NOTES:

1. ALL POLYETHYLENE FITTINGS WERE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. ROTATE BENDS AS NECESSARY.

WORK-AS-CONSTRUCTED

| REV. D | DATE AMENDMENT 27.08.2015 CONSTRUCTION ISSUE 1 25.09.2015 AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED | | DRAWN CHECK DESIGN VERIFY SCALES J.N. L.G. J.N. L.G. 0 0.1 0.2 0.3 0.4 A1 / A3 | | Hunter Office | | PROPERTY DESCRIPTION PROPOSED SUBDIVISION | | PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION | | | | |
|--|---|--|--|----------------|--|---------------------|--|--|---|----------------------|---------------|-----|--|
| 2 18.1 2 18.1 3 04.0 WAC 02.0 | 03.2016 | AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED WORK AS CONSTRUCTED — RAR | J.N. L.G. J.N. L.G. J.N. L.G. J.N. L.G. L.G. L.G. L.G. A.S.A. B.K. | adw | Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email:hunter@adwjohnson.com.au | JOHNSON PROPERTY | PRECINCT 2, STAGES WHISTLER DR | D SUBDIVISION 5 2.1 & 2.2 WATAGAN PARK IVE, COORANBONG 307/2015 | PLAN TITLE TYPICA | AL PIPEWORK TRENCHIN | IG DETAILS | | |
| DESIGN FILE | N:\ | | ALL DIMENSIONS ARE IN METRES. DO NOT SC | Johnson | www.adwjohnson.com.au ABN 62 129 445 398 | GROUP | SURVEYED ADW Johnson | DATUM A.H.D. | PROJECT No. 239078(2.1 & | 3 2.2) - WAT - | NUMBER 028 | WAC | |





DETAIL (1)

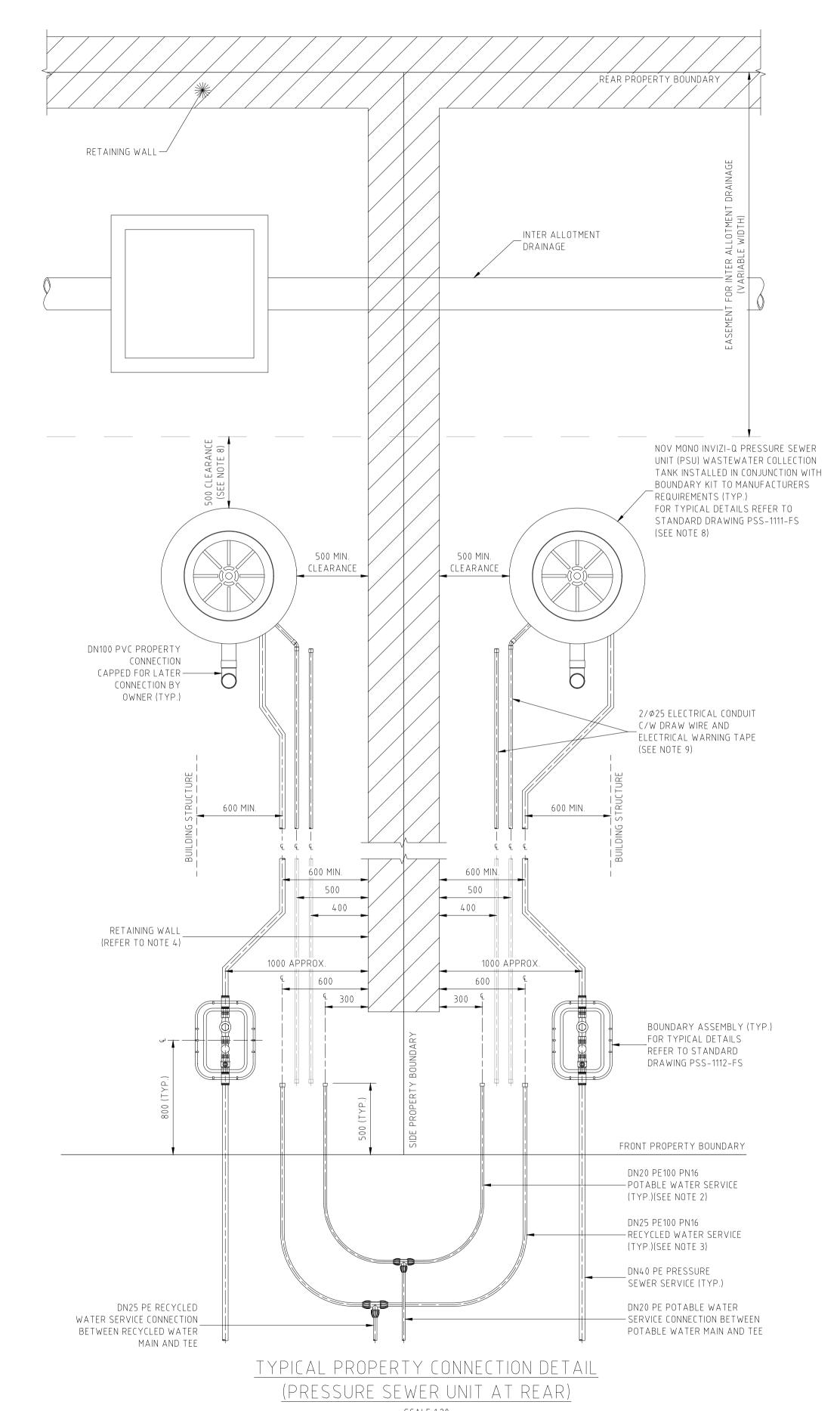
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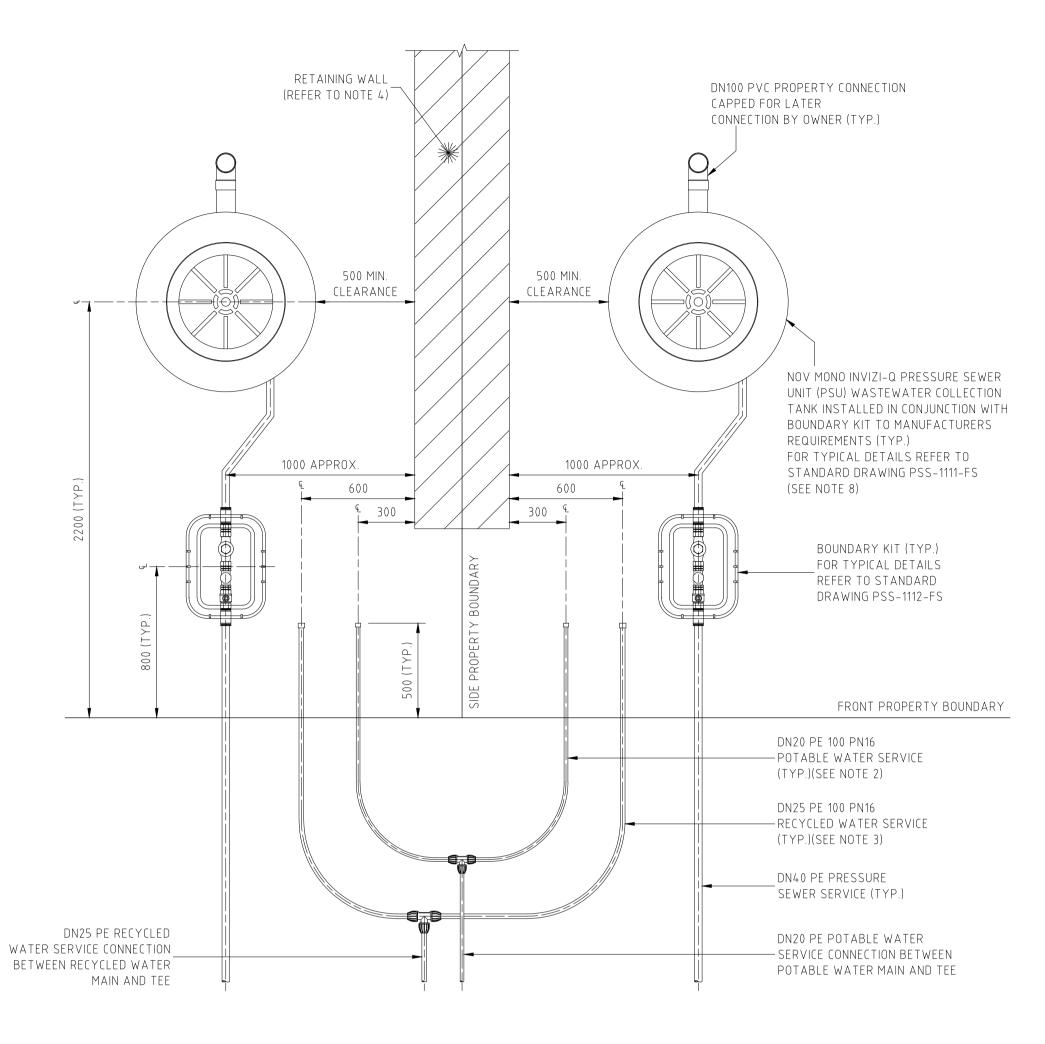
1. ALL POLYETHYLENE FITTINGS WERE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. ROTATE BENDS AS NECESSARY.

WORK-AS-CONSTRUCTED

| REV. DATE | AMENDMENT | DRAWN | CHECK | DESIGN | VERIFY SCALES | | | | CLIENT | PROPERTY DESCRIPTION | | PROJECT POT | ABLE WATER, RECYCLED V | VATER AND | |
|--|---|------------------------------|------------------------------|------------------------------|------------------------------|-------------------------------|----------------|--|------------------------------|----------------------|--|-------------|------------------------|-----------|------|
| 0 27.08.20 1 25.09.20 2 18.11.20 3 04.03.20 | CONSTRUCTION ISSUE AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED AMENDED CONSTRUCTION ISSUE AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED | J.N. J.N. J.N. J.N. | L.G. L.G. L.G. L.G. | J.N. J.N. J.N. J.N. | L.G. L.G. L.G. L.G. | .4 0.8 A1 / A3 1:20 / 1:40 | | Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 | IOLINICONI | PRECINCT 2, STAG | SED SUBDIVISION ES 2.1 & 2.2 WATAGAN PARK | PLAN TITLE | PRESSURE SEWER RETICU | | |
| WAC 02.08.20 | 016 WORK AS CONSTRUCTED — RAR | A.S.A | | | B.K. | | adw | Fax: (02) 4978 5100 email: hunter@adwjohnson.com.au | JOHNSON PROPERTY GROUP | | RIVE, COORANBONG A/307/2015 | ! | PIPEWORK CONNECTION D | DETAILS | |
| | | | | | | | iohnsor | ABN 62 129 445 398 | GROUP | SURVEYED | DATUM | PROJECT No. | DISCIPLINE | NUMBER | REV. |
| DESIGN FILE N: \ Plotted By: | DarrenSheather Plot Date: 19/09/16 - 17:53 Cad File: | P:\20 | _ Lake | Macquai | | RE IN METRES. DO NOT SCA | | | | ADW Johnson | A.H.D. | 239078(2.1 | 1 & 2.2) - WAT - | 029 | WAC |







TYPICAL PROPERTY CONNECTION DETAIL SCALE 1:20

NOTES:

- 1. PROPERTY SERVICE CONNECTIONS WERE IN ACCORDANCE WITH WSA STANDARD DRAWINGS FOR DUAL WATER SUPPLY SYSTEMS (SYDNEY WATER VERSION)(SUPPLEMENT TO WSA 03-2011).
- 2. DN20 PE100 PN16 POTABLE WATER SERVICE TO EXTEND 500mm BEYOND PROPERTY BOUNDARY AND CAPPED FOR LATER CONNECTION BY PROPERTY OWNER.
- 3. DN25 PE100 PN16 RECYCLED WATER SERVICE EXTENDED 500mm BEYOND PROPERTY BOUNDARY AND CAPPED FOR LATER CONNECTION BY PROPERTY OWNER.
- 4. FOR PROPERTY CONNECTIONS WHERE A RETAINING WALL IS NOT PRESENT, SERVICES ARE OFFSET FROM THE PROPERTY
- 5. WHERE SERVICE CONNECTIONS ARE LOCATED ADJACENT TO TELSTRA PITS/ELECTRICAL PILLARS, A MINIMUM CLEARANCE OF 200mm BETWEEN PITS AND SERVICE PIPEWORK IS MAINTAINED.
- 6. MINIMUM BENDING RADIUS FOR PE PIPEWORK IS 20 x PIPE DIAMETER.
- 7. ALL POLYETHYLENE FITTINGS WERE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. ROTATE BENDS AS NECESSARY.
- 8. 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.
- 9. Ø25 ELECTRICAL CONDUIT IS TO EXTEND FROM CONNECTION WITH PRESSURE SEWER UNIT (PSU) TO NOM. 500mm INSIDE FRONT PROPERTY BOUNDARY AND CAPPED. ELECTRICAL CONDUIT IS HEAVY DUTY ORANGE. ALL CONDUIT BENDS ARE LARGE RADIUS SWEEP BENDS.
- 10. FOR MORE INFORMATION REFER TO FLOW SYSTEMS STANDARD DRAWING FSI-1000-FS.

WORK-AS-CONSTRUCTED

| | REV. DATE AMENDMENT O 27.08.2015 CONSTRUCTION ISSUE DRAWN CHECK DESIGN J.N. L.G. J.N. | | | I CHECK DESIGN VERIFY | SCALES | _ | Hunter Office | CLIENT | PROPERTY DESCRIPTION | PROJECT | POTABLE WATER, RECYCLED | | |
|---------------|--|---|--|--|--|---------|---|---------------------|---|-------------|--|--------|------|
| | 0 27.08.2015 1 25.09.2015 2 18.11.2015 3 04.03.2016 WAC 02.08.2016 | AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED AMENDED CONSTRUCTION ISSUE AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED WORK AS CONSTRUCTED — RAR | J.N. J.N. J.N. J.N. A.S.A. | L.G. J.N. L.G. L.G. J.N. L.G. L.G. J.N. L.G. L.G. J.N. B.K. | 0 0.1 0.2 0.3 0.4 A1 / A3 1:10 / 1:20 0 0.4 0.8 A1 / A3 1:20 / 1:40 | adw | Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email:hunter@adwjohnson.com.au | JOHNSON PROPERTY | PROPOSED SUBDIVISION PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK WHISTLER DRIVE, COORANBONG DA/307/2015 | PLAN TITLE | PRESSURE SEWER RETION TYPICAL SERVICE CONNECT | | |
| $\frac{1}{2}$ | | | | | | Johnson | www.adwjohnson.com.au ABN 62 129 445 398 | GROUP | SURVEYED DATUM | PROJECT No. | | NUMBER | REV. |
| ∃ [| DESIGN FILE N:\ | | | | ALL DIMENSIONS ARE IN METRES. DO NOT SCALE | johnson | ADN 02 123 443 330 | | ADW Johnson A.H.D. | 23907 | '8(2.1 & 2.2) - WAT | - 030 | WAC |

| - | |
|---|-------------------------|
| - | |
| 1 | REV. |
| - | 0 1 2 3 WAC |
| - | WAC |
| 1 | |

Plotted By: DarrenSheather

WN CHECK DESIGN VERIFY SCALES 27.08.2015
27.08.2015
25.09.2015
AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED
AMENDED CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE
04.03.2016
02.08.2016
WORK AS CONSTRUCTED — RAR L.G. L.G. L.G. L.G. J.N. J.N. J.N. J.N. DESIGN FILE N:\

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



PROPERTY DESCRIPTION PROPOSED SUBDIVISION PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK WHISTLER DRIVE, COORANBONG

PLAN TITLE

A.H.D.

LEVEL DETAILS

WASTEWATER COLLECTION TANK

WAC

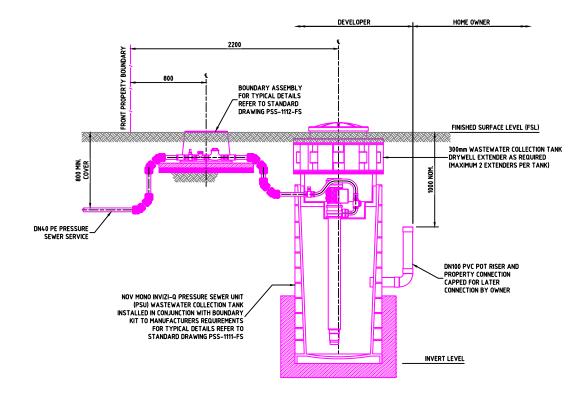
DA/307/2015 239078(2.1 & 2.2) - WAT 031

PROJECT

WASTEWATER COLLECTION TANK LEVEL DETAILS FINISHED SURFACE NUMBER OF DRYWELL INVERT LEVEL (IL) LOT NUMBER LEVEL (FSL) **EXTENDERS** 801 20.99 18.84 802 21.93 19.78 0 803 21.98 19.83 0 804 22.51 20.36 0 805 23.65 20.90 2 806 23.51 21.36 0 807 24.64 21.89 808 24.51 22.36 0 809 25.64 22.89 2 810 25.44 23.29 0 811 27.31 24.86 812 28.65 26.50 0 813 28.38 26.23 0 814 27.56 25.41 815 27.06 24.91 0 816 26.34 24.19 0 817 23.90 26.05 818 25.31 23.16 0 819 22.89 25.04 0 820 24.27 22.12 0 821 23.99 21.84 0 822 23.09 20.94 0 823 22.81 20.66 0 824 24.69 22.54 0 825 25.09 22.94 0 826 26.51 23.76 2 827 26.65 24.20 828 27.57 24.82 2 25.08 829 27.83 2 830 27.80 25.65 0 831 29.24 26.79 832 30.50 27.30 2 833 32.51 30.36 0 834 32.23 30.08 835 31.31 29.16 0 836 30.81 28.66 0 837 29.79 27.64 0 838 29.29 27.14 0 839 28.40 26.25 0 840 28.11 25.96 0 841 27.23 25.08 0 842 26.74 24.59 0 843 23.85 26.00 0 844 24.30 1248 (FUTURE) 29.16 27.01 0

WASTEWATER COLLECTION TANK PLACED IN REAR OF LOT

WASTEWATER COLLECTION TANK PLACED IN FRONT OF LOT ON LOW SIDE



PRESSURE SEWER SERVICE CONNECTION TYPICAL SECTIONAL ELEVATION

SCALE 1:20
(SHOWN AS FRONT OF LOT SERVICE CONNECTION WITH 1 DRYWELL EXTENDER)

- NOTE:

 1. WASTEWATER COLLECTION TANK INVERT LEVEL(IL)=FINISHED SURFACE LEVEL(FSL)

 MINUS 2150 FOR 0 DRYWELL EXTENDERS

 MINUS 2450 FOR 1 DRYWELL EXTENDERS

 MINUS 2750 FOR 2 DRYWELL EXTENDERS

 FOR FURTHER DETAILS REFER TO STANDARD DRAWING PSS-1113-FS.

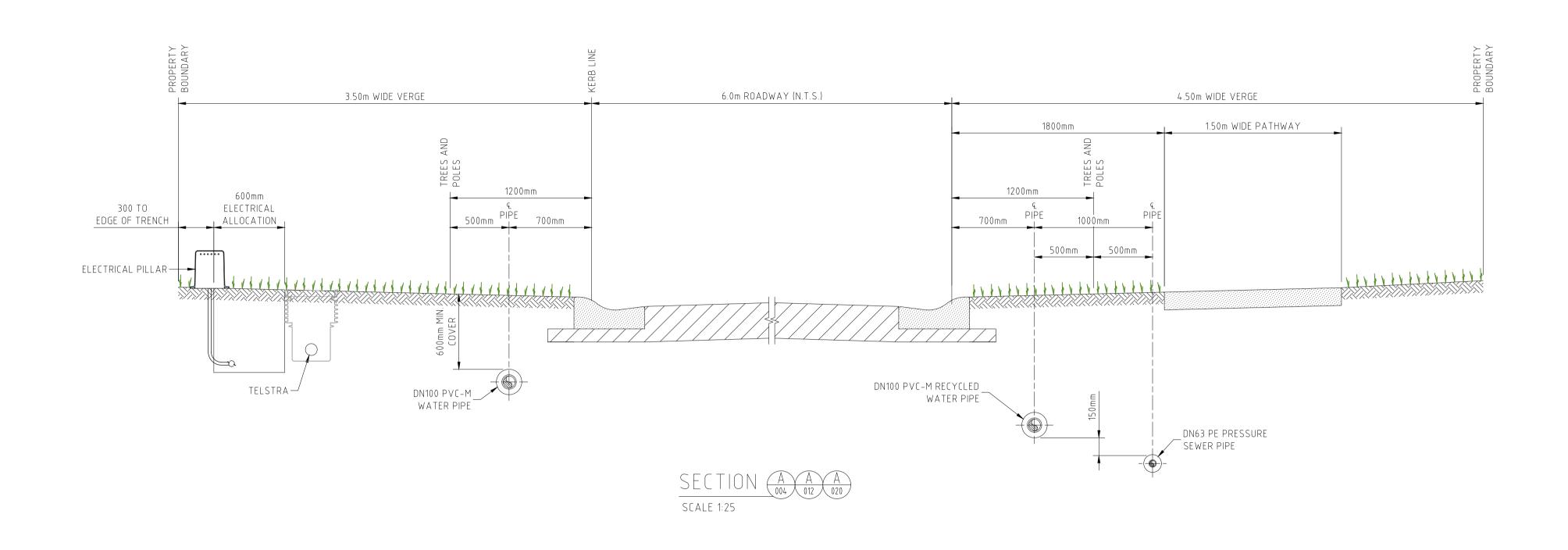
ADW Johnson

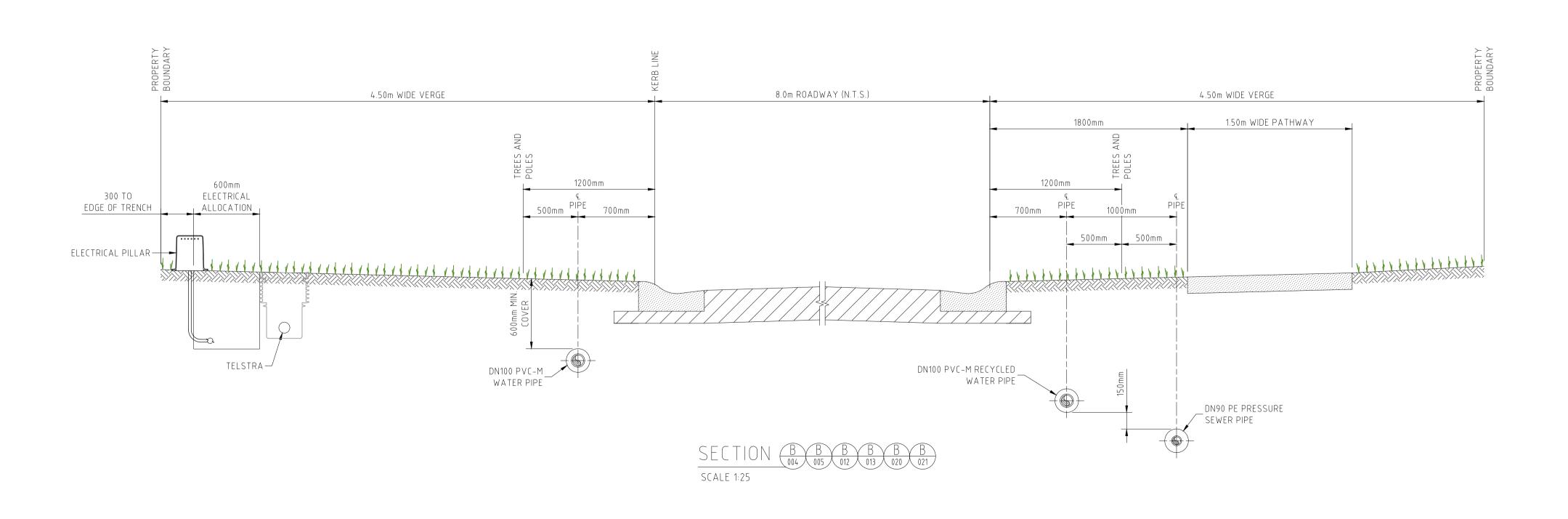
WORK-AS-CONSTRUCTED POTABLE WATER, RECYCLED WATER AND

PRESSURE SEWER RETICULATION

ALL DIMENSIONS ARE IN METRES. DO NOT SCALE JOHNSON ABN 62 129 445 398







Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:57 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-032 WAC.dwg

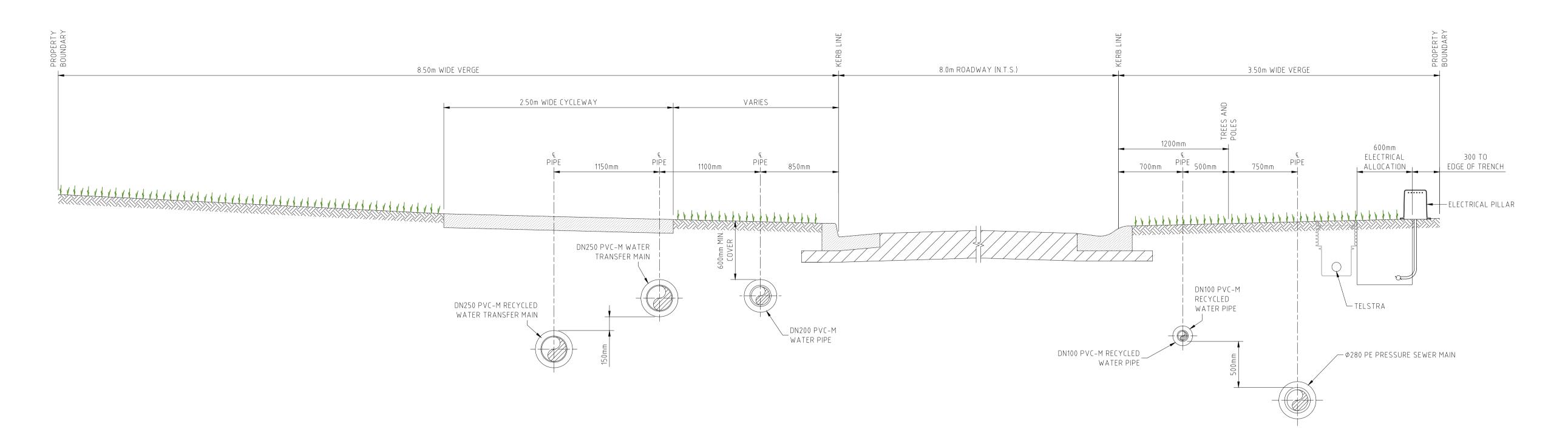
NOTE:

 FOR MINIMUM VERTICAL AND HORIZONTAL CLEARANCES REFER TO WATER SUPPLY CODE OF AUSTRALIA WSA 03-2011-3.1. (SYDNEY WATER EDITION 2012).

WORK-AS-CONSTRUCTED

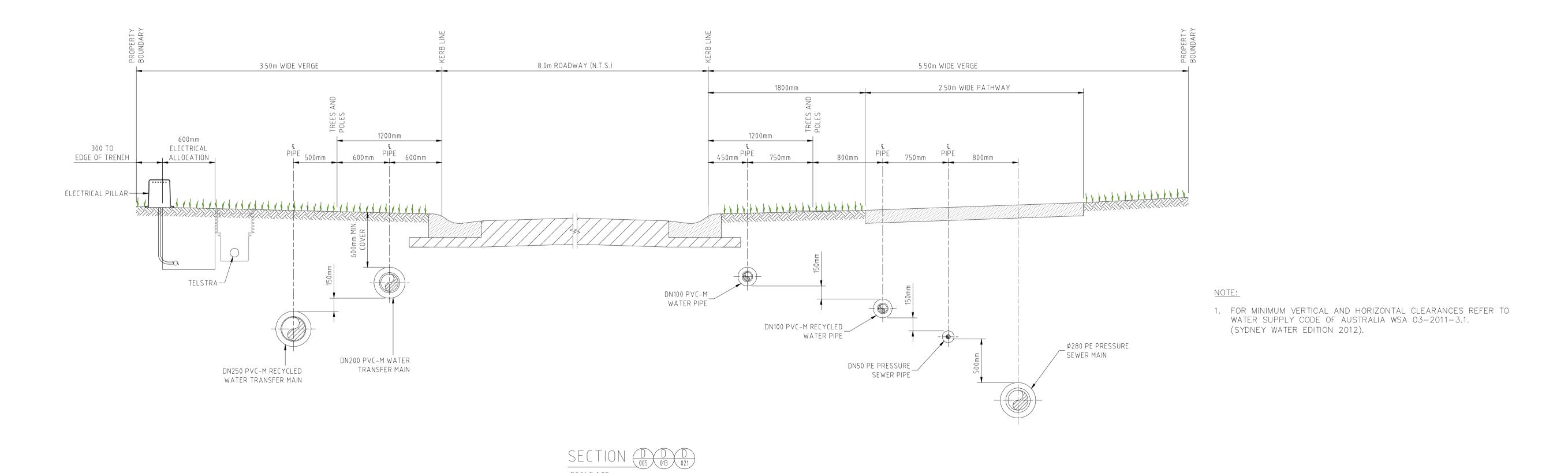
| RE | V. | DATE | AMENDMENT | DRAWI | CHECK | DESIGN VERIFY SCALES | | CLIENT | PROPERTY DESCRIPTION | | PROJECT POTABLE WATER, RECYCLE | D WATER AND | |
|---------------|-------------------------------------|---|--|---------------------------------------|------------------------------|---|---------|--|------------------------------------|--|--|-------------------|-----|
| - CO 1 2 3 W/ | 27 25 28 18 04 AC 02 | 7.08.2015 5.09.2015 3.11.2015 4.03.2016 2.08.2016 | CONSTRUCTION ISSUE AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED AMENDED CONSTRUCTION ISSUE AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED WORK AS CONSTRUCTED — RAR | J.N. J.N. J.N. J.N. A.S.A | L.G. L.G. L.G. L.G. | J.N. L.G. J.N. L.G. J.N. L.G. L.G. J.N. L.G. B.K. | adw | 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 | PRECINCT 2, STAGES WHISTLER DRI | O SUBDIVISION 2.1 & 2.2 WATAGAN PARK VE, COORANBONG 07/2015 | PRESSURE SEWER RETI | CULATION | |
| DES | SIGN FIL | _E N: \ | | | | ALL DIMENSIONS ARE IN METRES. DO NOT SCALE | johnson | www.adwjohnson.com.au ABN 62 129 445 398 | SURVEYED ADW Johnson | DATUM A.H.D. | PROJECT No. DISCIPLINE 239078(2.1 & 2.2) - WAT | - NUMBER - 032 | WAC |





SECTION (005 006 013 014 021 022)

SCALE 1:25



WORK-AS-CONSTRUCTED

| REV. | DATE | AMENDMENT | DRAWN CHECK DESIGN VERIFY SCALES | | CLIEN | NT | PROPERTY DESCRIPTION | | | ABLE WATER, RECYCLED | | |
|--------------|--|--|--|---------|--|---------------------|-----------------------|---|------------------------|-----------------------------|------------|-----|
| 0 1 | 27.08.2015 25.09.2015 18.11.2015 | CONSTRUCTION ISSUE AMENDED CONSTRUCTION ISSUE — RETAINING WALLS RELOCATED AMENDED CONSTRUCTION ISSUE | J.N. L.G. J.N. L.G. 0 0.5 1 A1 / A3 J.N. L.G. L.G. 1:25 / 1:50 | | Hunter Office Unit 7/335 Hillsborough Rd | | | ED SUBDIVISION | PLAN TITLE | PRESSURE SEWER RETIC | JLATION | |
| - 3 WAC | 04.03.2016 02.08.2016 | AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED WORK AS CONSTRUCTED — RAR | D J.N. L.G. J.N. L.G. B.K. | adw | Phone: (02) 4978 5100 Fax: (02) 4978 5199 email:hunter@adwjohnson.com.au | JOHNSON PROPERTY | WHISTLER D | ES 2.1 & 2.2 WATAGAN PARK RIVE, COORANBONG A/307/2015 | | ROAD CROSS SECTIONS - | SHEET 2 | |
| DESIGN | FILE N:\ | | ALL DIMENSIONS ARE IN METRES. DO NOT SCAL | johnsor | www.adwjohnson.com.au ABN 62 129 445 398 | GROUP | SURVEYED ADW Johnson | DATUM A.H.D. | PROJECT No. 239078(2.1 | DISCIPLINE 1 & 2.2) - WAT - | NUMBER 033 | WAC |

Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:57 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-032 WAC.dwg

www.adwjohnson.com.au

ABN 62 129 445 398

SURVEYED

ADW Johnson

DATUM

A.H.D.

PROJECT No.

DISCIPLINE

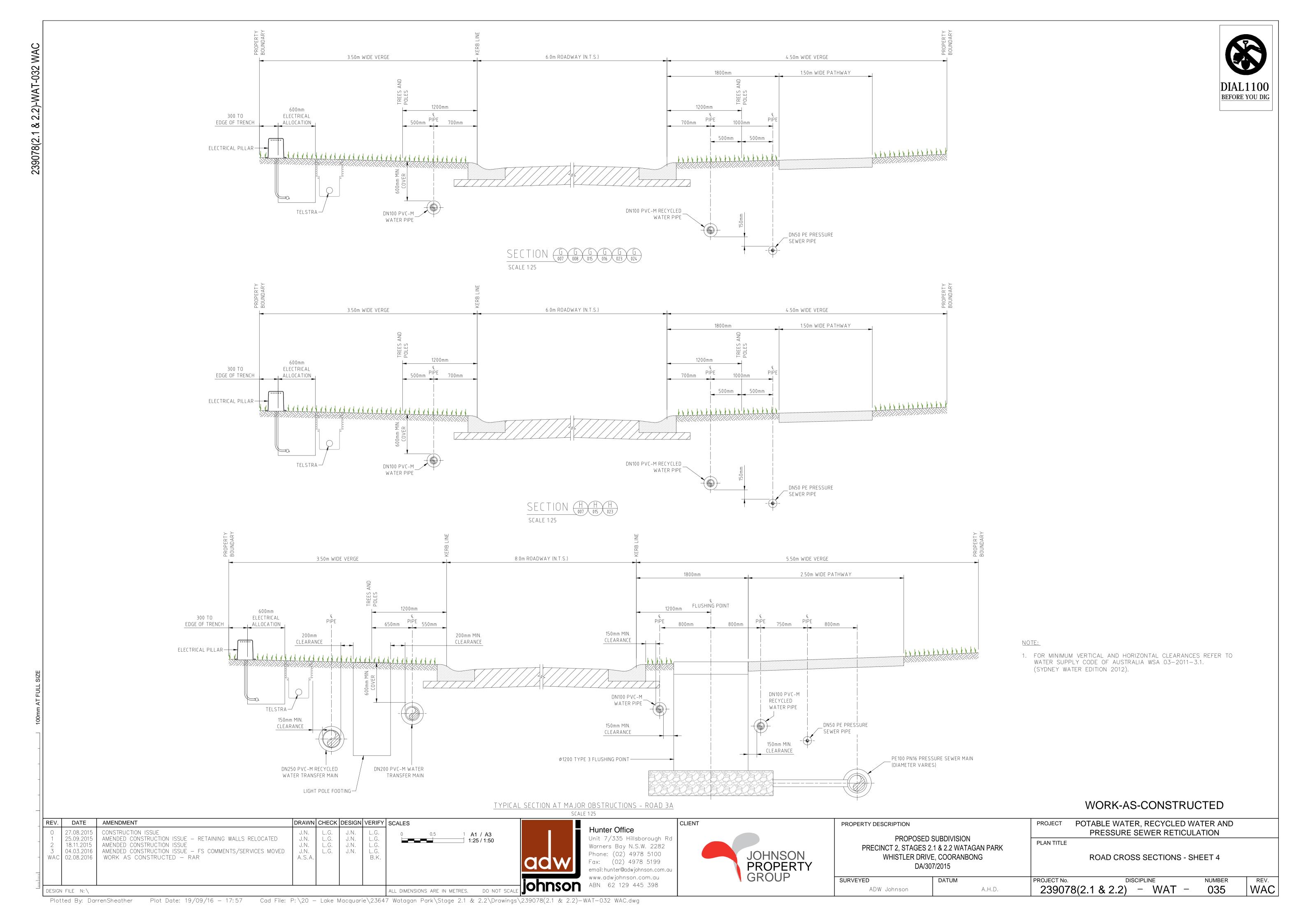
239078(2.1 & 2.2) - WAT -

NUMBER

034

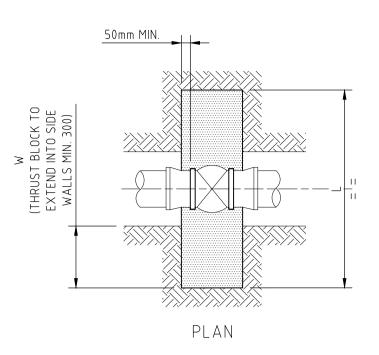
WAC

DESIGN FILE N:\ ALL DIMENSIONS ARE IN METRES. DO NOT SCAL Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:57 Cad File: P:\20 - Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)-WAT-032 WAC.dwg

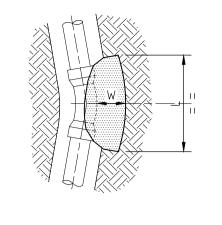


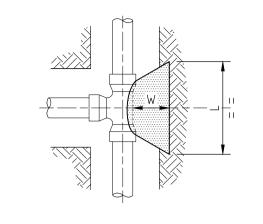






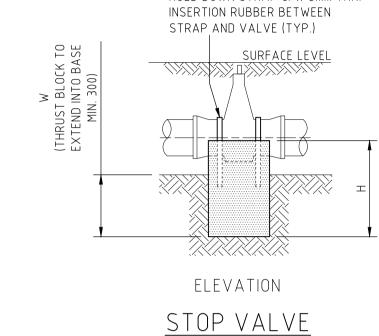
HOLD DOWN STRAP C/W 3mm THK.



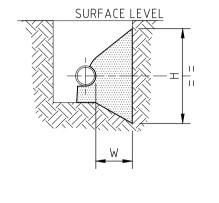


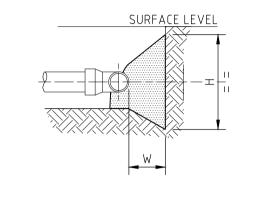
PLAN





N.T.S.





HOLD DOWN STRAP MATERIAL: 316 STAINLESS STEEL N.T.S.

DIAMETER TO

— 50 x 6 FL.

ELEVATION HORIZONTAL BEND N.T.S.

ELEVATION TEE, FLUSHING HYDRANT AND CAP N.T.S.

| ТҮРЕ | FITTING | Soil | Design | Thrust | TA (m2) | Length | Height | Width |
|------|-------------------------|------------|-----------|--------|---------|------------|--------|-------|
| | | AHBP (Kpa) | STP (Kpa) | | | (L) | (H) | (W) |
| 1 | DN250 x 90° BEND | 100 | 1000 | 91.00 | 0.91 | 1.00 | 0.91 | 0.40 |
| 2 | DN250 x 45° BEND | 100 | 1000 | 51.00 | 0.51 | 0.75 | 0.68 | 0.40 |
| 3 | DN250 x 22.5° BEND | 100 | 1000 | 26.00 | 0.26 | 0.55 | 0.47 | 0.40 |
| 4 | DN250 x 11.25° BEND | 100 | 1000 | 13.00 | 0.13 | 0.40 | 0.33 | 0.40 |
| 5 | DN250 FLUSHING HYDRANT | 100 | 1000 | 65.00 | 0.65 | 0.85 | 0.76 | 0.40 |
| 6 | DN200 x DN200 EQUAL TEE | 100 | 1000 | 43.00 | 0.43 | 0.70 | 0.61 | 0.30 |
| 7 | DN200 x DN100 TAPER | 100 | 1000 | 31.00 | 0.31 | 0.60 | 0.52 | 0.30 |
| 8 | DN200 x 90° BEND | 100 | 1000 | 60.00 | 0.60 | 0.80 | 0.75 | 0.30 |
| 9 | DN200 x 45° BEND | 100 | 1000 | 33.00 | 0.33 | 0.60 | 0.55 | 0.30 |
| 10 | DN200 x 22.5° BEND | 100 | 1000 | 17.00 | 0.17 | 0.45 | 0.38 | 0.30 |
| 11 | DN200 x 11.25° BEND | 100 | 1000 | 8.10 | 0.08 | 0.30 | 0.30 | 0.30 |
| 12 | DN200 STOP VALVE | 100 | 1000 | 43.00 | 0.43 | 1.20 | 0.52 | 0.30 |
| 13 | DN200 FLUSHING HYDRANT | 100 | 1000 | 53.00 | 0.53 | 0.75 | 0.71 | 0.40 |
| 14 | DN100 x DN100 EQUAL TEE | 100 | 1000 | 12.00 | 0.12 | 0.40 | 0.30 | 0.30 |
| 15 | DN100 x 90° BEND | 100 | 1000 | 17.00 | 0.17 | 0.45 | 0.38 | 0.30 |
| 16 | DN100 x 45° BEND | 100 | 1000 | 8.80 | 0.09 | 0.30 | 0.30 | 0.30 |
| 17 | DN100 x 22.5° BEND | 100 | 1000 | 4.50 | 0.05 | 0.30 | 0.30 | 0.30 |
| 18 | DN100 x 11.25° BEND | 100 | 1000 | 2.20 | 0.02 | 0.30 | 0.30 | 0.30 |
| 19 | DN100 x 6° BEND | 100 | 1000 | 2.20 | 0.02 | 0.30 | 0.30 | 0.30 |
| 20 | DN100 STOP VALVE | 100 | 1000 | 12.00 | 0.12 | 1.05 | 0.44 | 0.30 |
| 21 | DN100 FLUSHING HYDRANT | 100 | 1000 | 12.00 | 0.12 | 0.40 | 0.30 | 0.40 |

THRUST BLOCK NOTES:

- 1. CONCRETE THRUST BLOCKS WERE PROVIDED FOR ALL FITTINGS IN ACCORDANCE WITH TABLE.
- 2. THRUST BLOCK DIMENSIONS WERE BASED ON THE MINIMUM ALLOWABLE HORIZONTAL BEARING PRESSURES OF THE SOIL AS SHOWN.
- 3. THRUST BLOCKS WERE CONSTRUCTED SUCH THAT THEY TRANSFER THE THRUST ONTO UNDISTURBED GROUND. THRUST BLOCKS DID NOT INTERFERE WITH OTHER SERVICES.
- 4. 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 (N). MAXIMUM ENCASEMENT 180°.
- 5. CONCRETE FOR THE THRUST BLOCKS WERE GRADE S25 USING CEMENT TYPE "SR" TO AS3972. CONCRETE WAS MECHANICALLY VIBRATED.
- 6. CONCRETE THRUST BLOCKS WERE CURED FOR A MINIMUM OF 7 DAYS BEFORE BEING SUBJECTED TO ANY THRUST LOAD.
- 7. REFER TO WAT-1205-V FOR GENERAL FITTING THRUST BLOCK ARRANGEMENTS.
- 8. REFER TO WAT-1207-V FOR GENERAL VALVE AND VERTICAL BEND THRUST BLOCK ARRANGEMENTS.

WORK-AS-CONSTRUCTED

DRAWN CHECK DESIGN VERIFY SCALES AMENDMENT DATE CLIENT PROPERTY DESCRIPTION POTABLE WATER, RECYCLED WATER AND **Hunter Office** PRESSURE SEWER RETICULATION CONSTRUCTION ISSUE J.N. J.N. Unit 7/335 Hillsborough Rd 25.09.2015 AMENDED CONSTRUCTION ISSUE - RETAINING WALLS RELOCATED PROPOSED SUBDIVISION PLAN TITLE 18.11.2015 AMENDED CONSTRUCTION ISSUE Warners Bay N.S.W. 2282 PRECINCT 2, STAGES 2.1 & 2.2 WATAGAN PARK AMENDED CONSTRUCTION ISSUE — FS COMMENTS/SERVICES MOVED WORK AS CONSTRUCTED — RAR J.N. L.G. B.K. 04.03.2016 L.G. JOHNSON Phone: (02) 4978 5100 WHISTLER DRIVE, COORANBONG THRUST BLOCK DETAILS WAC 02.08.2016 Fax: (02) 4978 5199 PROPERTY GROUP DA/307/2015 email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED DATUM PROJECT No. DISCIPLINE NUMBER Johnson ABN 62 129 445 398 239078(2.1 & 2.2) - WAT -036 WAC ADW Johnson A.H.D. DESIGN FILE N:\ ALL DIMENSIONS ARE IN METRES. DO NOT SCAL Plotted By: DarrenSheather Plot Date: 19/09/16 - 17:57 Cad File: P:\20 — Lake Macquarie\23647 Watagan Park\Stage 2.1 & 2.2\Drawings\239078(2.1 & 2.2)—WAT—032 WAC.dwg