

William Hodgkinson  
Team Leader  
Industry Assessments  
Planning Industry & Environment

08/11/2021

Dear Mr Hodgkinson

West Nowra Resource Recovery Park Stage 2 (SSD-9887)  
**Request for additional information**

I refer to your request for additional information from our Response to Submissions (RtS) Report regarding the disposal of treated waste water and consistency with the disposal method proposed in the EIS. Bioelektra confirms the following:

- The firewater plan dated May 2021 is preliminary in nature and subject to detailed design. As noted in the annotated plan the waste water treatment plant is based on the proposed design by Aerofloat, the comments regarding disposal of the treated waste water and plant design are superseded by the Aerofloat design report attached as Appendix D to the RtS report.
- The Aerofloat design report dated 10 August 2021 does not identify discharge to an irrigation system as part of the waste water treatment plant design.
- Bioelektra does not propose to discharge treated waste water to external landscaped areas via a pressure dosing irrigation system.
- Refer to the attached updated design drawings which show the location of fire services and note the 10,000 L settlement tank and pump out tank associated to the wastewater treatment plant. As noted in the EIS, collected rainwater from the rainwater storage tanks would be used for general use/irrigation around the site, treated wastewater would be transferred off site for disposal. The attached drawings supersede Figure H.9 and H.10 of Appendix H and the annotated site plan in Appendix J.

Yours sincerely,



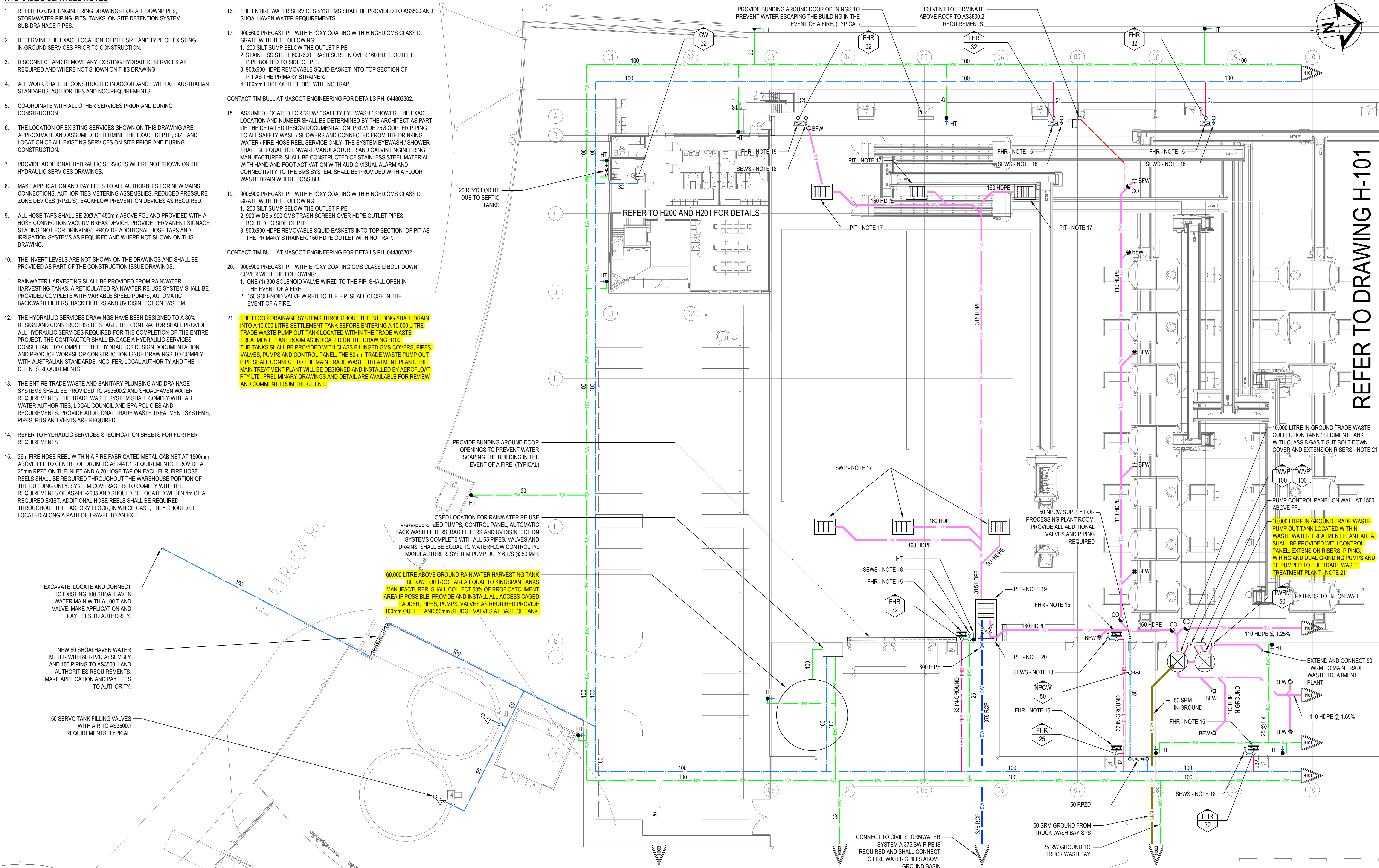
Fred Itaoui  
Managing Director  
Bioelektra Australia



HYDRAULIC SERVICES NOTES

- REFER TO CIVIL ENGINEERING DRAWINGS FOR ALL DOWNPIPES, STORMWATER PIPING, PITS, TANKS, ON-SITE DETENTION SYSTEM, SUB-DRAINAGE PIPES.
- DETERMINE THE EXACT LOCATION, DEPTH, SIZE AND TYPE OF EXISTING IN-GROUND SERVICES PRIOR TO CONSTRUCTION.
- DISCONNECT AND REMOVE ANY EXISTING HYDRAULIC SERVICES AS REQUIRED AND WHERE NOT SHOWN ON THIS DRAWING.
- ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALL AUSTRALIAN STANDARDS, AUTHORITIES AND NCC REQUIREMENTS.
- CO-ORDINATE WITH ALL OTHER SERVICES PRIOR AND DURING CONSTRUCTION.
- THE LOCATION OF EXISTING SERVICES SHOWN ON THIS DRAWING ARE APPROXIMATE AND ASSUMED. DETERMINE THE EXACT DEPTH, SIZE AND LOCATION OF ALL EXISTING SERVICES ON-SITE PRIOR AND DURING CONSTRUCTION.
- PROVIDE ADDITIONAL HYDRAULIC SERVICES WHERE NOT SHOWN ON THE HYDRAULIC SERVICES DRAWINGS.
- MAKE APPLICATION AND PAY FEES TO ALL AUTHORITIES FOR NEW MAINS CONNECTIONS, AUTHORITIES METERING ASSEMBLIES, REDUCED PRESSURE ZONE DEVICES (RPZDS), BACKFLOW PREVENTION DEVICES AS REQUIRED.
- ALL HOSE TAPS SHALL BE 200 AT 450mm ABOVE FGL AND PROVIDED WITH A HOSE CONNECTION VACUUM BREAK DEVICE. PROVIDE PERMANENT SIGNAGE STATING "NOT FOR DRINKING". PROVIDE ADDITIONAL HOSE TAPS AND IRRIGATION SYSTEMS AS REQUIRED AND WHERE NOT SHOWN ON THIS DRAWING.
- THE INVERT LEVELS ARE NOT SHOWN ON THE DRAWINGS AND SHALL BE PROVIDED AS PART OF THE CONSTRUCTION ISSUE DRAWINGS.
- RAINWATER HARVESTING SHALL BE PROVIDED FROM RAINWATER HARVESTING TANKS. A RETICULATED RAINWATER RE-USE SYSTEM SHALL BE PROVIDED COMPLETE WITH VARIABLE SPEED PUMPS, AUTOMATIC BACKWASH FILTERS, BACK FILTERS AND UV DISINFECTION SYSTEM.
- THE HYDRAULIC SERVICES DRAWINGS HAVE BEEN DESIGNED TO A 80% DESIGN AND CONSTRUCT ISSUE STAGE. THE CONTRACTOR SHALL PROVIDE ALL HYDRAULIC SERVICES REQUIRED FOR THE COMPLETION OF THE ENTIRE PROJECT. THE CONTRACTOR SHALL ENGAGE A HYDRAULIC SERVICES CONSULTANT TO COMPLETE THE HYDRAULICS DESIGN DOCUMENTATION AND PRODUCE WORKSHOP CONSTRUCTION ISSUE DRAWINGS TO COMPLY WITH AUSTRALIAN STANDARDS, NCC, FER, LOCAL AUTHORITY AND THE CLIENTS REQUIREMENTS.
- THE ENTIRE TRADE WASTE AND SANITARY PLUMBING AND DRAINAGE SYSTEMS SHALL BE PROVIDED TO AS3500.2 AND SHOALHAVEN WATER REQUIREMENTS. THE TRADE WASTE SYSTEM SHALL COMPLY WITH ALL WATER AUTHORITIES, LOCAL COUNCIL AND EPA POLICIES AND REQUIREMENTS. PROVIDE ADDITIONAL TRADE WASTE TREATMENT SYSTEMS, PIPES, PITS AND VENTS ARE REQUIRED.
- REFER TO HYDRAULIC SERVICES SPECIFICATION SHEETS FOR FURTHER REQUIREMENTS.
- 36m FIRE HOSE REEL WITHIN A FIRE FABRICATED METAL CABINET AT 1500mm ABOVE FFL TO CENTRE OF DRUM TO AS2441.1 REQUIREMENTS. PROVIDE A 25mm RPZD ON THE INLET AND A 20 HOSE TAP ON EACH FHR. FIRE HOSE REELS SHALL BE REQUIRED THROUGHOUT THE WAREHOUSE PORTION OF THE BUILDING ONLY. SYSTEM COVERAGE IS TO COMPLY WITH THE REQUIREMENTS OF AS2441-2005 AND SHOULD BE LOCATED WITHIN 4m OF A REQUIRED EXIST. ADDITIONAL HOSE REELS SHALL BE REQUIRED THROUGHOUT THE FACTORY FLOOR, IN WHICH CASE, THEY SHOULD BE LOCATED ALONG A PATH OF TRAVEL TO AN EXIT.

- THE ENTIRE WATER SERVICES SYSTEMS SHALL BE PROVIDED TO AS3500 AND SHOALHAVEN WATER REQUIREMENTS.
  - 900x600 PRECAST PIT WITH EPOXY COATING WITH HINGED GMS CLASS D GRATE WITH THE FOLLOWING:
    - 200 SILT SUMP BELOW THE OUTLET PIPE.
    - STAINLESS STEEL 600x600 TRASH SCREEN OVER 160 HDPE OUTLET PIPE BOLTED TO SIDE OF PIT.
    - 900x600 HDPE REMOVABLE SQUID BASKET INTO TOP SECTION OF PIT AS THE PRIMARY STRAINER.
    - 160mm HDPE OUTLET PIPE WITH NO TRAP.
- CONTACT TIM BULL AT MASCOT ENGINEERING FOR DETAILS PH. 044803302.
- ASSUMED LOCATED FOR "SEWS" SAFETY EYE WASH / SHOWER. THE EXACT LOCATION AND NUMBER SHALL BE DETERMINED BY THE ARCHITECT AS PART OF THE DETAILED DESIGN DOCUMENTATION. PROVIDE 250 COPPER PIPING TO ALL SAFETY WASH / SHOWERS AND CONNECTED FROM THE DRINKING WATER / FIRE HOSE REEL SERVICE ONLY. THE SYSTEM EYEWASH / SHOWER SHALL BE EQUAL TO ENWARE MANUFACTURER AND GALVIN ENGINEERING MANUFACTURER. SHALL BE CONSTRUCTED OF STAINLESS STEEL MATERIAL WITH HAND AND FOOT ACTIVATION WITH AUDIO VISUAL ALARM AND CONNECTIVITY TO THE BMS SYSTEM. SHALL BE PROVIDED WITH A FLOOR WASTE DRAIN WHERE POSSIBLE.
  - 900x900 PRECAST PIT WITH EPOXY COATING WITH HINGED GMS CLASS D GRATE WITH THE FOLLOWING:
    - 200 SILT SUMP BELOW THE OUTLET PIPE.
    - 900 WIDE x 900 GMS TRASH SCREEN OVER HDPE OUTLET PIPES BOLTED TO SIDE OF PIT.
    - 900x900 HDPE REMOVABLE SQUID BASKETS INTO TOP SECTION OF PIT AS THE PRIMARY STRAINER. 160 HDPE OUTLET WITH NO TRAP.
- CONTACT TIM BULL AT MASCOT ENGINEERING FOR DETAILS PH. 044803302.
- 900x900 PRECAST PIT WITH EPOXY COATING GMS CLASS D BOLT DOWN COVER WITH THE FOLLOWING:
  - ONE (1) 300 SOLENOID VALVE WIRED TO THE FIP. SHALL OPEN IN THE EVENT OF A FIRE.
  - 150 SOLENOID VALVE WIRED TO THE FIP. SHALL CLOSE IN THE EVENT OF A FIRE.
- THE FLOOR DRAINAGE SYSTEMS THROUGHOUT THE BUILDING SHALL DRAIN INTO A 10,000 LITRE SETTLEMENT TANK BEFORE ENTERING A 10,000 LITRE TRADE WASTE PUMP OUT TANK LOCATED WITHIN THE TRADE WASTE TREATMENT PLANT ROOM AS INDICATED ON THE DRAWING H100. THE TANKS SHALL BE PROVIDED WITH CLASS B HINGED GMS COVERS, PIPES, VALVES, PUMPS AND CONTROL PANEL. THE 50mm TRADE WASTE PUMP OUT PIPE SHALL CONNECT TO THE MAIN TRADE WASTE TREATMENT PLANT. THE MAIN TREATMENT PLANT WILL BE DESIGNED AND INSTALLED BY AEROFLOAT PTY LTD. PRELIMINARY DRAWINGS AND DETAIL ARE AVAILABLE FOR REVIEW AND COMMENT FROM THE CLIENT.**



REFER TO DRAWING H-101

| AMENDMENTS/REVISIONS |                        |          |          |
|----------------------|------------------------|----------|----------|
| Rev                  | Description            | Initials | Date     |
| 01                   | PRELIMINARY ISSUE      | JC       | 13.08.21 |
| 02                   | 70% D & C TENDER ISSUE | JC       | 20.08.21 |
| 03                   | DRAINAGE SYSTEMS ADDED | JC       | 26.08.21 |
| 04                   | 80% D & C TENDER ISSUE | JC       | 22.10.21 |

| AMENDMENTS/REVISIONS |             |          |      |
|----------------------|-------------|----------|------|
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|                      |             |          |      |
|                      |             |          |      |
|                      |             |          |      |

CLIENT

**Bioelektra AUSTRALIA**  
WHERE WASTE IS A RESOURCE

ARCHITECT

**JOHN R. BROGAN & ASSOCIATES**  
PTY. LIMITED  
ARCHITECTS, PLANNERS & COMMERCIAL INTERIOR DESIGNERS

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CONSULTANT

**IGS INTEGRATED GROUP SERVICES**

Phone +61 2 8488 4600 Fax +61 2 9475 4588  
Address Suite 1.11, 75 Mary St, St Peters, NSW 2044 Australia  
Web www.igs.com.au

PROJECT

**WEST NOWRA RESOURCE RECOVERY PARK**  
120 FLATROCK ROAD  
MUNDAMIA NSW 2540

DRAWING TITLE

**HYDRAULIC SERVICES**  
GROUND FLOOR SOUTH

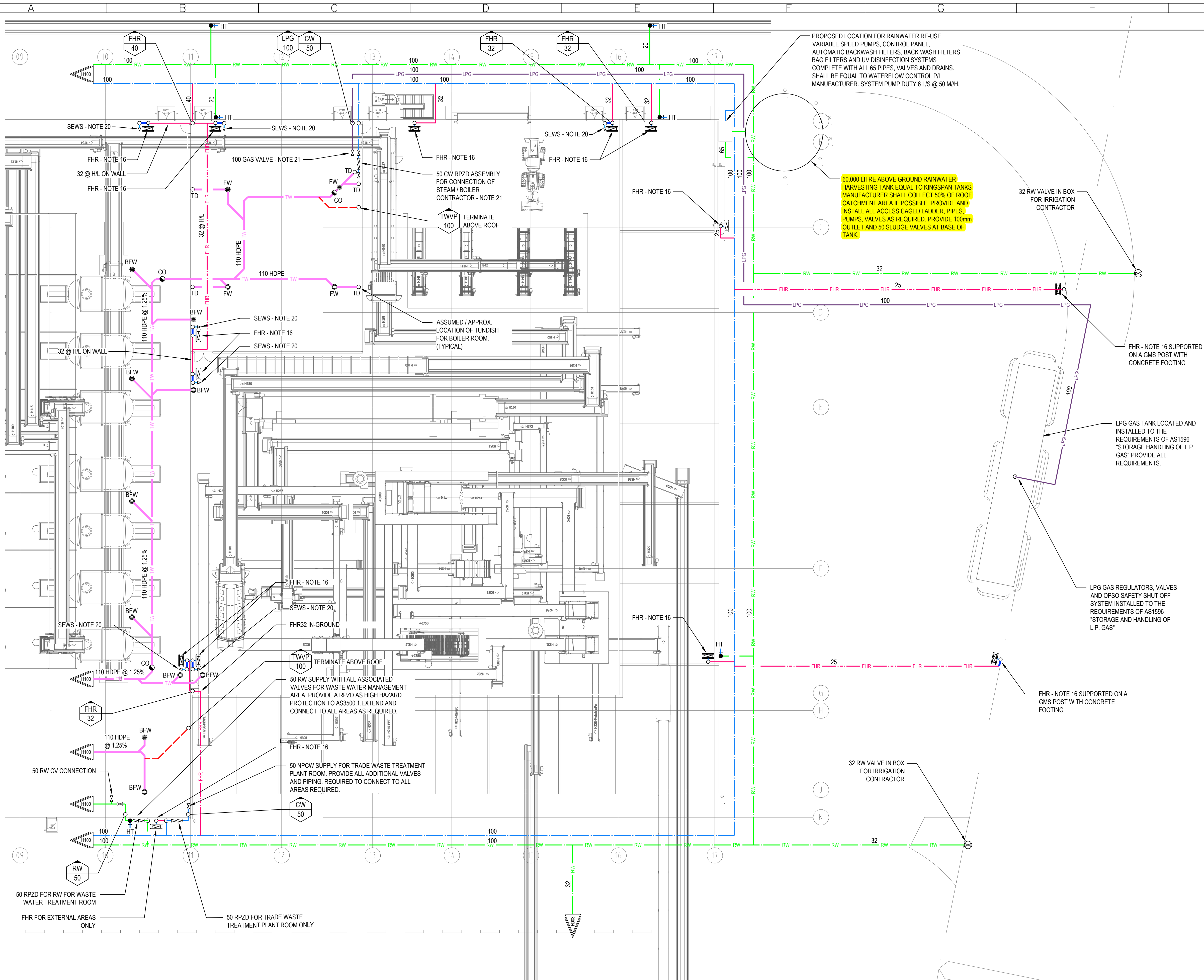
PRELIMINARY  
NOT TO BE USED FOR CONSTRUCTION PURPOSES

|       |          |         |                      |        |
|-------|----------|---------|----------------------|--------|
| DRAWN | DESIGNED | CHECKED | SCALE (AT FULL SIZE) | DATE   |
| SD    | JC       | MC      | 1:200 @ A1           | Aug-21 |

PROJECT No. **EN-N21\_099** DRAWING No. **H100** REVISION **04**



REFER TO DRAWING H-100



#### HYDRAULIC SERVICES NOTES

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- THE ENTIRE TRADE WASTE AND SANITARY PLUMBING AND DRAINAGE SYSTEMS SHALL BE PROVIDED TO AS3500.2 AND SHOALHAVEN WATER REQUIREMENTS.
- REFER TO HYDRAULIC SERVICES SPECIFICATION SHEETS FOR FURTHER REQUIREMENTS.
- REFER TO FIRE SERVICES DRAWINGS FOR THE DESIGN AND DOCUMENTATION OF THE FIRE HYDRANT SERVICE. SYDNEY WATER PRESSURE AND FLOW STATEMENT DATED 09-07-2021 CONFIRMS A MINIMUM PRESSURE OF 52 METERS FOR FIRE HOSE REEL PROTECTION. WATER BOOSTER PUMPS ARE NOT REQUIRED.
- THE HYDRAULIC SERVICES DRAWINGS HAVE BEEN DESIGNED TO A 80% DESIGN AND CONSTRUCT ISSUE STAGE. THE CONTRACTOR SHALL PROVIDE ALL HYDRAULIC SERVICES REQUIRED FOR THE COMPLETION OF THE ENTIRE PROJECT. THE CONTRACTOR SHALL ENGAGE A HYDRAULIC SERVICES CONSULTANT TO COMPLETE THE HYDRAULICS DESIGN DOCUMENTATION AND PRODUCE WORKSHOP CONSTRUCTION ISSUE DRAWINGS TO COMPLY WITH AUSTRALIAN STANDARDS, NCC, FER, LOCAL AUTHORITY AND THE CLIENTS REQUIREMENTS.
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- THE ENTIRE FIRE HOSE REEL SYSTEMS SHALL BE PROVIDED TO AS2441 AND SHOALHAVEN WATER REQUIREMENTS.
- THE ENTIRE LP GAS SYSTEMS SHALL BE PROVIDED TO AS5601 AND AS1596 REQUIREMENTS.
- ASSUMED LOCATED FOR "SEWS" SAFETY EYE WASH / SHOWER. THE EXACT LOCATION AND NUMBER SHALL BE DETERMINED BY THE ARCHITECT AS PART OF THE DETAILED DESIGN DOCUMENTATION. PROVIDE 250 COPPER PIPING TO ALL SAFETY WASH / SHOWERS AND CONNECTED FROM THE DRINKING WATER / FIRE HOSE REEL SERVICE ONLY. THE SYSTEM EYEWASH / SHOWER SHALL BE EQUAL TO ENWARE MANUFACTURER AND GALVIN ENGINEERING MANUFACTURER. SHALL BE CONSTRUCTED OF STAINLESS STEEL MATERIAL WITH HAND AND FOOT ACTIVATION WITH AUDIO VISUAL ALARM AND CONNECTIVITY TO THE BMS SYSTEM. SHALL BE PROVIDED WITH A FLOOR WASTE DRAIN WHERE POSSIBLE.
- PROVIDE 50 CW AND 100 GAS VALVE FOR BOILER ROOM. CONNECTION BY BOILER CONTRACTOR. REFER TO STEAM / BOILER PLANT DRAWINGS AND SPECIFICATION PREPARED BY GASCO MELBOURNE AUSTRALIA. REF No. Q12901 - REV 0 DATED OCTOBER 2020. GAS VALVE TRAIN BY BOILER MANUFACTURER.
- THE FLOOR DRAINAGE SYSTEMS THROUGHOUT THE BUILDING SHALL DRAIN INTO A 10,000 LITRE SETTLEMENT TANK BEFORE ENTERING A 10,000 LITRE TRADE WASTE PUMP OUT TANK LOCATED WITHIN THE TRADE WASTE TREATMENT PLANT ROOM AS INDICATED ON THE DRAWING H100. THE TANKS SHALL BE PROVIDED WITH CLASS 8 HINGED GMS COVERS, PIPES, VALVES, PUMPS AND CONTROL PANEL. THE 50mm TRADE WASTE PUMP OUT PIPE SHALL CONNECT TO THE MAIN TRADE WASTE TREATMENT PLANT. THE MAIN TREATMENT PLANT WILL BE DESIGNED AND INSTALLED BY AEROFLOAT PTY LTD. PRELIMINARY DRAWINGS AND DETAIL ARE AVAILABLE FOR REVIEW AND COMMENT FROM THE CLIENT.

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| 04                   | 80% D & C TENDER ISSUE | JC       | 22.10.21 |                      |             |          |      |



PROJECT  
WEST NOWRA RESOURCE RECOVERY PARK  
120 FLATROCK ROAD  
MUNDAMIA NSW 2540

DRAWING TITLE  
HYDRAULIC SERVICES  
GROUND FLOOR NORTH

| PRELIMINARY<br>NOT TO BE USED FOR CONSTRUCTION PURPOSES |          |             |                      |          |
|---------------------------------------------------------|----------|-------------|----------------------|----------|
| DRAWN                                                   | DESIGNED | CHECKED     | SCALE (AT FULL SIZE) | DATE     |
| SD                                                      | JC       | MC          | 1:200 @ A1           | Aug-21   |
| PROJECT No.                                             |          | DRAWING No. |                      | REVISION |
| EN-N21_099                                              |          | H101        |                      | 04       |