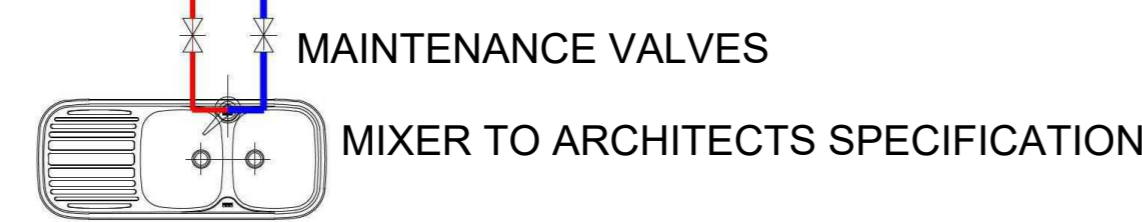
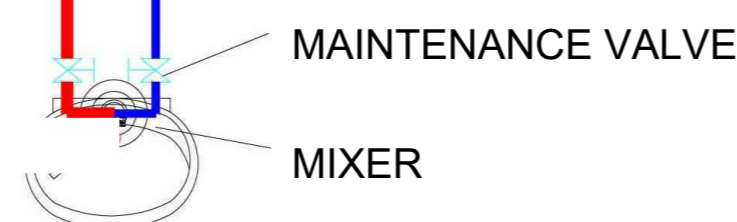


HEAT PUMP TYPICAL INSTALLATION (NTS)



TYPICAL SINK CONNECTION (NTS)



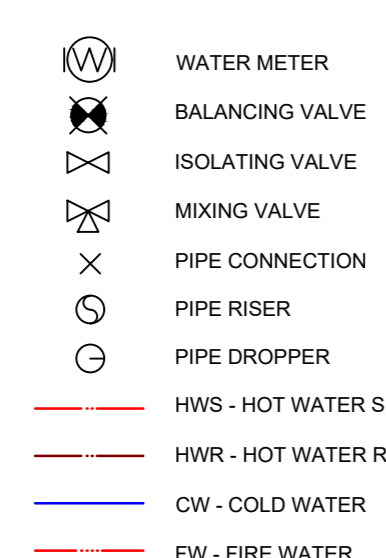
TYPICAL WASH HAND BASIN CONNECTION (NTS)

Item	Name	Model	Description	Name	Electrical	Qty
HP1	Heat Pump	3,5 kW AKRS 35B	Supply and install by Wet Services contractor	Airco or other approved	900 W	14
HP2	Heat Pump	5kW AKRS-RS 50	Supply and install by Wet Services contractor	Airco or other approved	1,28 kW	3
G1	Geyser	DSG-150	Supply and install by Wet Services contractor	Kwikot or other approved	3 kW	14
G2	Geyser	DSG-200-5	Supply and install by Wet Services contractor	Kwikot or other approved	4 kW	3
HB1	Hydroboil	2610013	Supply and install by Wet Services contractor	Zip or other approved	1,5 kW	5
UCG1	Under Counter Geyser	NRC1111-OD	Supply and install by Wet Services contractor	Kwikot or other approved	4 Amps	4

GENERAL WATER SUPPLY NOTES:

- ALL WORK TO COMPLY WITH SANS 10252 WATER SUPPLY AND DRAINAGE REGULATIONS.
- BUILDING OCCUPANCY CLASSIFICATION: A1, F2 & D4
- MAXIMUM NUMBER OF OCCUPANTS = 2723
- REFERENCE MUST BE MADE TO ARCHITECTURAL PLANS FOR SECTIONS AND ELEVATIONS
- ALL PRIMARY CO-ORDINATION TO BE THE RESPONSIBILITY OF THE PRINCIPLE AGENT
- ALL WASHING MACHINES AND KITCHEN SINK CONNECTION POINTS TO BE CAREFULLY CO-ORDINATE WITH THE ARCHITECTS BATHROOM AND KITCHEN LAYOUTS AND THE KITCHEN CUPBOARD MANUFACTURERS LAYOUTS
- ALL COLD WATER RETICULATION TO BE MULTI LAYER PEVAL (MPL) A OR SIMILAR APPROVED FOR SIZES 40mm AND SMALLER AND P-RS 200 1/4 OR EQUAL APPROVED PIPE MATERIAL FOR SIZES LARGER THAN 42mm
- THE DISTANCE BETWEEN PIPE SUPPORT BRACKETS SHALL NOT EXCEED THE FOLLOWING, ACCORDING TO SANS TABLE 21 NOMINAL DIAMETER NOMINALLY VERTICALLY
  - Ø15 TO <= 25 1000mm 3000mm
  - <= 25 TO <= 40 3700mm 3000mm
  - <= 40 TO <= 50 3000mm 3600mm
  - <= 50 TO <= 60 3000mm 4500mm
  - <= 60 TO <= 100 4000mm 4500mm
- ALL BRACKETS, SUPPORT AND FITTINGS TO BE GALVANIZED WITH RUBBER LINING SUCH AS SILICA OR SIMILAR APPROVED
- HYDRAULIC PRESSURE TESTING SHALL BE DONE TO 1.5 TIMES WORKING PRESSURE FOR A PERIOD OF 1 HOUR
- ALL WATER RETICULATION WORK INSIDE THE BUILDING SHALL CONFORM TO SANS 400
- NO HOT WATER PROVISIONS ALLOWED: HYDROBOILS INSTALLED FOR KITCHETTES
- SHOULD HOT WATER BE REQUIRED, THIS WILL BE A TENANT FIT-OUT INSTALLATION BY THE TENANT APPOINTED WET SERVICES ENGINEER
- ANCHOR TENANT FIRE LAYOUT AS PER TENANT APPOINTED WET SERVICES CONSULTANTS DESIGN
- AUTOMATIC AIR RELEASE VALVES TO BE INSTALLED AT ENDS AND HIGHEST POINTS OF WATER RETICULATION
- ALL WATER PIPING CHASES IN WALLS TO BE WRAPPED IN BROWN PAPER AND PRESSURE TESTED BEFORE PLASTERING
- INSTALLATION TO BE IN STRICT COMPLIANCE WITH WET SERVICES BY-LAWS AND DESIGNS
- ALL STEEL COMPONENTS TO BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH SANS 101502 1/601
- ALL BOLTS AND NUTS TO BE HIGH TENSILE, GRADE 8.8 AS PER SANS 10209 2/12 REGULATION
- ALL PIPE SUPPORT SPACING AS PER MANUFACTURERS RECOMMENDATIONS
- ALL PIPING TO BE HYDRAULIC PRESSURE TESTED TO 1.5 TIMES WORKING PRESSURE FOR A PERIOD OF 1 HOUR
- ALL COPPER PIPING MUST BE COPPER CLASS 1
- BELOW GROUND WATER PIPES TO BE COPPER, P.E. 100, CLASS PN12.5 PRESSURE PIPE IN ACCORDANCE WITH SANS 1903 PARTS WITH BUTT WELDED OR ELECTRIC FUSION CONNECTIONS
- ALL PLUMBING INSTALLATIONS TO CONFORM TO SANS 10254-1 AND SANS 400
- ALL BELOW GROUND PIPING TO BE INSTALLED ACCORDING TO SANS 10209 FOR TRENCHING, BEDDING AND PIPE INSTALLATIONS
- ALL BELOW GROUND PIPING TO BE A MINIMUM OF 200mm BELOW NGL
- ALL EXTERNAL BELOW GROUND VALVES TO BE INSTALLED IN VALVE CHAMBERS
- ALL PRIMARY CO-ORDINATION TO BE THE RESPONSIBILITY OF THE PRINCIPLE AGENT
- ALL DETAILS, DIMENSIONS AND SETTING OUT DETAILS TO BE CHECKED ON SITE AND WITH THE ARCHITECTURAL LAYOUTS AS REQUIRED
- AUTOMATIC AIR RELEASE VALVES TO BE INSTALLED AT ENDS AND HIGHEST POINTS OF WATER RETICULATION
- ALL SHUT OFF VALVES TO BE INSTALLED IN CEILING VOID TO ISOLATE SANITARY FIXTURES BEFORE DROPPING IN WALL
- POTABLE HOT AND COLD WATER SHALL BE MARKED IN BRIGHT GREEN (H10) SINGLE BAND, COLOUR CODE REFERENCE CORNFLOWER F29 CW DIRECTIONAL ARROWS
- COMMISSIONING AND TESTING TO BE DONE IN ACCORDANCE WITH METHODOLOGY OUTLINED IN WET SERVICES SPECIFICATION WHERE NECESSARY. THE REQUIRED CLOSE-OUT DOCUMENTATION SHALL BE FORWARDED BY THE CONTRACTOR AND ISSUED TO THE ENGINEER FOR RECORD-KEEPING
- ANY ADDITIONAL GREEN ENGINEERING ITEM SUCH AS IRRIGATION SYSTEMS, BIODIVERSITY, RAIN WATER HARVESTING, GRAY WATER SYSTEMS ETC. HAS BEEN EXCLUDED
- ALL CIVIL WORKS INCLUDING TRENCHING, BACKFILLING, SLEEVES, CURBWORK, ETC HAS BEEN EXCLUDED

LEGEND

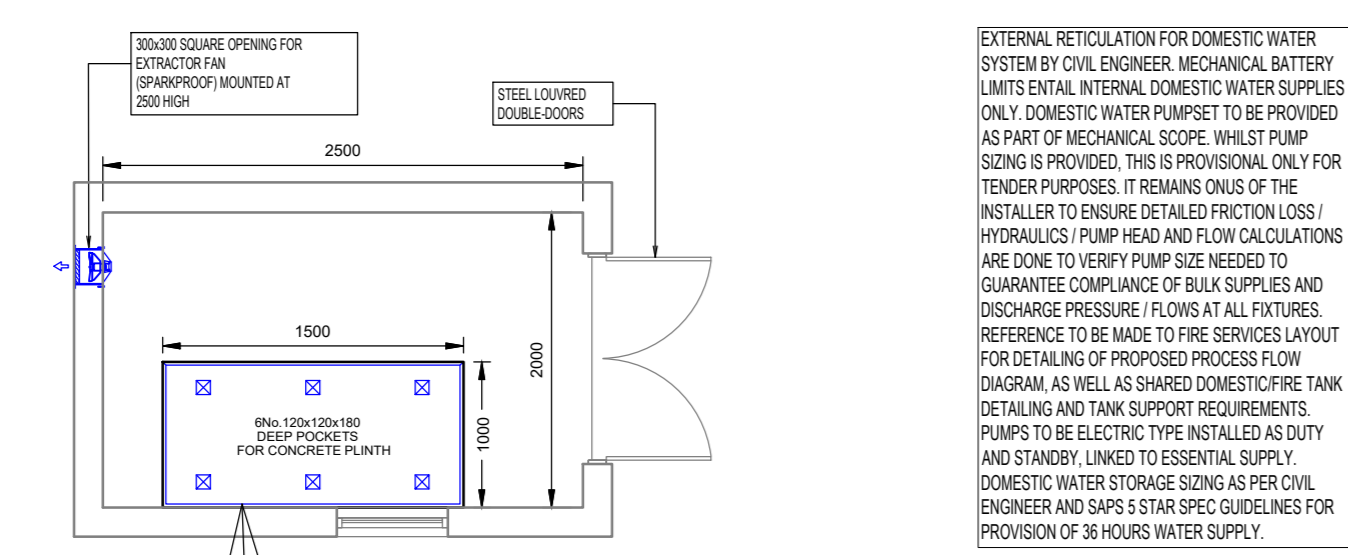


NOTES:

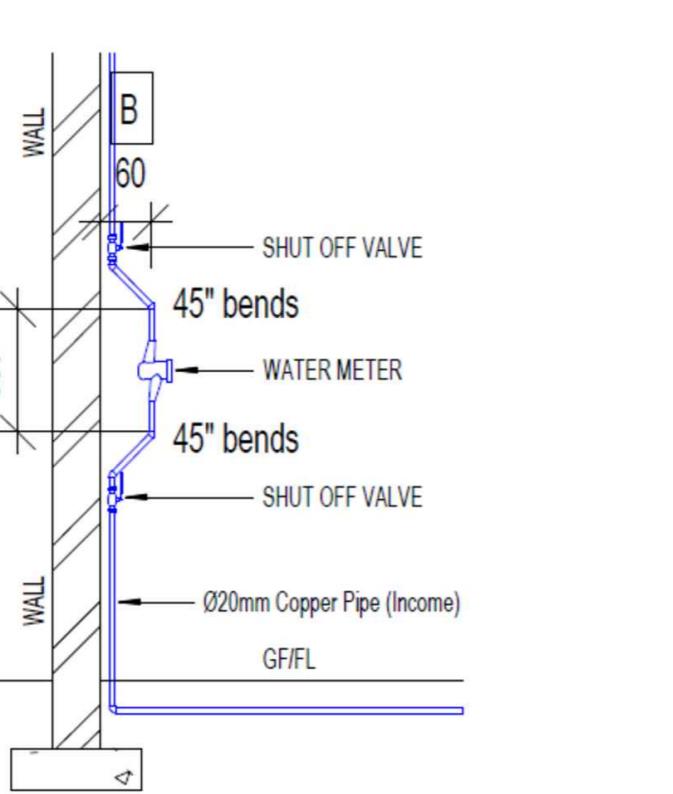
- METER PIPING CAN BE VERTICAL OR HORIZONTAL
- LEVEL BALL VALVE IS PREFERRED OVER ONLY METAL HAND OPERATED BALL VALVES WHICH MUST BE SABS OR JASWIC APPROVED
- PIREWORK MUST HAVE PASSED PRESSURE TEST IN ACCORDANCE WITH SABS STANDARDS AND CHARGED PRIOR TO METER INSTALLATION COMMENCING
- DISTANCE <= 800mm
- DISTANCE <= 200mm METERS <= 120mm
- WALL MOUNTABLE BOX = 600mm
- COPPER CLASS 1 OR 2
- PIREWORK ABOVE GROUND TO BE COPPER CLASS Ø1 OR 2
- PIREWORK TO BE MARKED WITH CORRECT UNIT NUMBER

HOT WATER SYSTEM NOTES:

- INSTALLATION TO BE IN STRICT COMPLIANCE WITH HOT WATER GENERATION STALLATION SPECIFICATIONS
- ALL HOT WATER RETICULATION TO BE COPPER CLASS 1
- ALL COPPER WATER PIPING CHASES IN WALLS TO BE WRAPPED IN BROWN PAPER AND PRESSURE TESTED BEFORE PLASTERING
- ALL HOT WATER GENERATION TO COMPLY WITH SANS 10400 PART XA
- WATER HEATERS TO BE INSTALLED ACCORDING TO SANS 10254 GEYSER INSTALLATION REGULATIONS
- AUTOMATIC AIR RELEASE VALVES TO BE INSTALLED AT ENDS AND HIGHEST POINTS OF HOT WATER RETICULATION
- ALL HOT WATER AND HOT WATER RETURN PIPEWORK TO BE INSULATED. REFER TO HOT WATER GENERATION TENDER SPECIFICATION DOCUMENT FOR MINIMUM R-VALUE RELEVANT TO THE DIFFERENT PIPE SIZES
- WHERE APPLICABLE, HOT WATER RETURN PIPING TO BE INSULATED WITH 25mm ARMALEX OR SIMILAR APPROVED INSULATION WITH R-VALUE GREATER THAN 1
- AS PER SANS 10400-XA ALL HOT WATER AND HOT WATER RETURN CIRCULATION PIPING AND PIPE WORK SHALL BE INSULATED WITH INSULATION (WHERE PIPING WITH AN INTERNAL DIAMETER OF 80MM OR LESS WILL HAVE AN R-VALUE (THERMAL RESISTANCE) M2 KW/EQUAL TO OR EXCEEDING 1 AND PIPING WITH AN INTERNAL DIAMETER EXCEEDING 80MM SHALL HAVE AN R-VALUE EQUAL TO OR EXCEEDING 1.5 WITH AN COP-01 MINIMUM THICKNESS OF INSULATION 25MM FOR PIPING UP TO 200MM
- HYDRAULIC PRESSURE TESTING SHALL BE DONE TO 1.5 TIMES WORKING PRESSURE FOR A PERIOD OF 1 HOUR INSIDE THE BUILDING SHALL CONFORM TO SANS 400
- EXPANSION LOOPS TO BE INSTALLED EVERY 8M ON ALL HOT WATER PIPES
- ALL EXTERNAL PIPING TO HAVE APPROVED INSULATION WITH Ø 6mm GMS CLADDING
- ALL SHUT OFF VALVES TO BE INSTALLED IN CEILING VOID TO ISOLATE SANITARY FIXTURES BEFORE DROPPING IN WALL
- ALL PIPING TO BE MARKED IN ACCORDANCE WITH SANS 10150-3
- POTABLE HOT AND COLD WATER SHALL BE MARKED IN BRIGHT GREEN (H10) SINGLE BAND, COLOUR CODE REFERENCE CORNFLOWER F29 CW DIRECTIONAL ARROWS

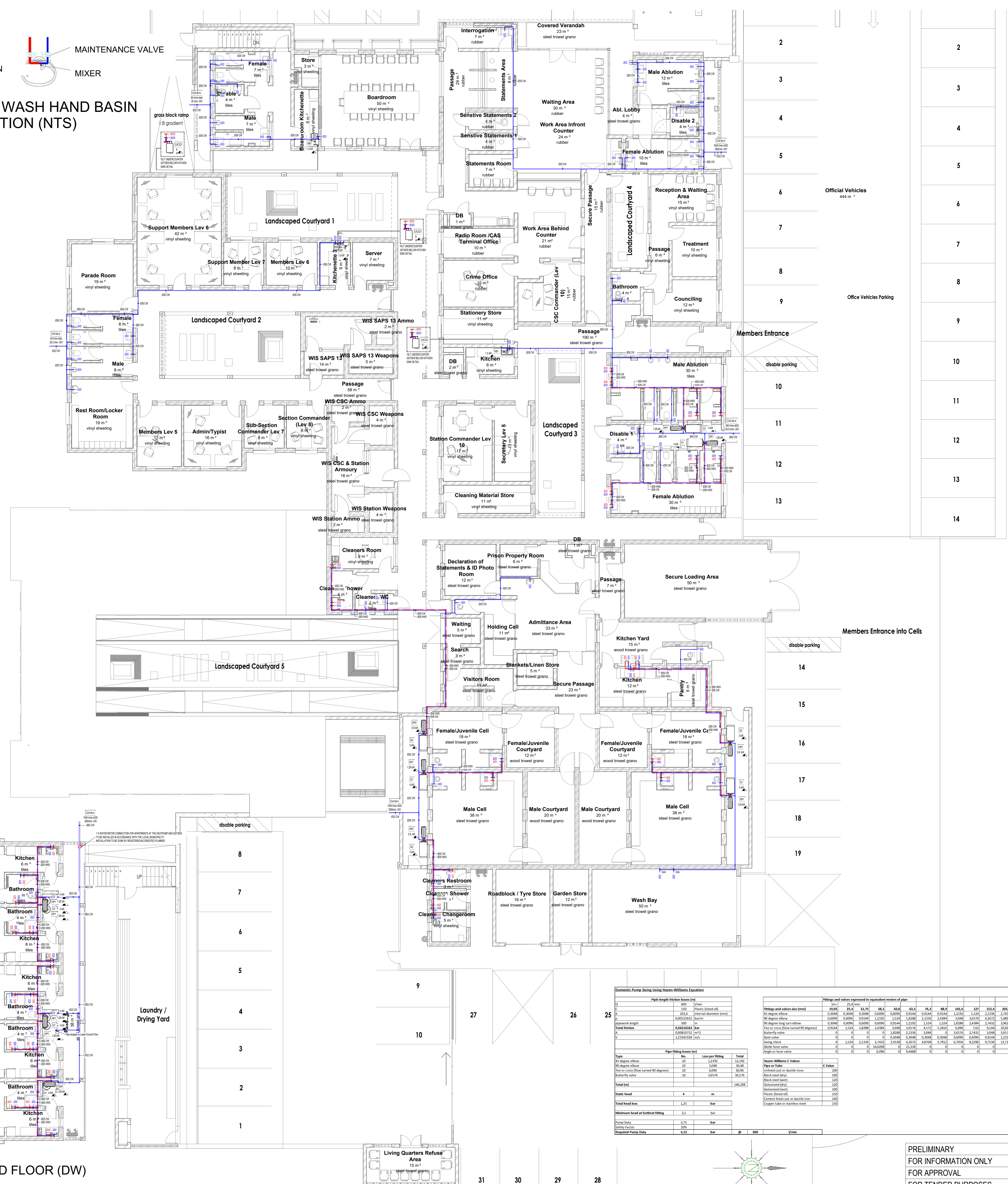


DOMESTIC BOOSTER PUMPSET 1 : 100



TYPICAL WATER METER CONNECTIONS 1 : 100

01-GROUND FLOOR (DW) 1 : 100



Domestic Pump Sizing Using Whittle's Equation	
Pipe length friction losses (m)	
0	0.000
10	0.000
20	0.000
30	0.000
40	0.000
50	0.000
60	0.000
70	0.000
80	0.000
90	0.000
100	0.000
110	0.000
120	0.000
130	0.000
140	0.000
150	0.000
160	0.000
170	0.000
180	0.000
190	0.000
200	0.000
210	0.000
220	0.000
230	0.000
240	0.000
250	0.000
260	0.000
270	0.000
280	0.000
290	0.000
300	0.000
310	0.000
320	0.000
330	0.000
340	0.000
350	0.000
360	0.000
370	0.000
380	0.000
390	0.000
400	0.000
410	0.000
420	0.000
430	0.000
440	0.000
450	0.000
460	0.000
470	0.000
480	0.000
490	0.000
500	0.000

- FOR GENERAL NOTES REFER TO DRAWING
- DRAWINGS ARE NOT TO BE SCALED. ALL LEVELS AND DIMENSIONS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS, SCHEDULES AND SPECIFICATIONS RELATED TO THIS PROJECT
- ALL BUILDING WORK AND MATERIALS ARE TO COMPLY WITH LOCAL AUTHORITY'S REQUIREMENTS AND ARE TO BE IN ACCORDANCE WITH SANS 10400 NATIONAL BUILDING REGULATIONS

PROFESSIONAL APPROVAL CONSULTANT  
 Name: Wessel Johannes Jacobus Roux Date: 2025/11/28  
 Signature: [Signature] Pr no: 20120210

PROFESSIONAL DESIGN CONSULTANT  
 Name: Ozayr Adam Date: 2025/11/28  
 Signature: [Signature] Pr no: 203301456

NO	DATE	DESCRIPTION	DRN BY
A	2024/08/28	ISSUED FOR APPROVAL	JMN
D	2025/09/02	ISSUED FOR TENDER	JMN
01	2025/11/28	ISSUED FOR TENDER	JMN

CLIENT NAME:  
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MECHANICAL

PROJECT NAME:  
 MSINSINI POLICE STATION

SHEET TITLE:  
 GROUND STOREY DOMESTIC WATER PLAN

DATE: 2025/11/28 REF NO: 3924

PAPER SIZE: A0 DESIGNED BY: OJA

SCALE: As Indicated DRAWN BY: JMN CHECKED BY: RL

DRAWING NUMBER: D3924-DW-A0-02 REV: 01

Stamped by Plans Approval Committee

PRELIMINARY FOR INFORMATION ONLY FOR APPROVAL FOR TENDER PURPOSES FOR CONSTRUCTION