

# SCIENCE BUILDING - LINUWEL STEINER SCHOOL

## 133 MORPETH ROAD, EAST MAITLAND

### HYDRAULIC SERVICES

NOTE: THE ENTIRE PLUMBING INSTALLATION IS TO COMPLY WITH THE FULL REQUIREMENTS OF THE LOCAL REGULATORY AUTHORITY, A.S.3500 AND THE PLUMBING AND THE BUILDING CODES OF AUSTRALIA.

NOTE: THE PLUMBING CONTRACTOR MUST VISIT THE SITE DURING THE TENDERING PERIOD IN ORDER TO FAMILIARISE THEMSELVES WITH EXISTING SITE CONDITIONS AND MAKE THE NECESSARY ALLOWANCE FOR SUCH IN THE TENDER.

NOTE: THE TENDERER MUST READ THIS DRAWING IN CONJUNCTION WITH THE PROJECT DRAWINGS FROM THE ARCHITECT.

NOTE: THE NOMINAL SIZES OF PIPELINES NOTED ON THE DRAWING ARE BASED ON STANDARD COPPER PIPELINE INTERNAL BORES. IN THE EVENT OF AN ALTERNATIVE PIPELINE MATERIAL BEING ACCEPTED BY THE SUPERINTENDENT, IT IS THE PLUMBING CONTRACTORS RESPONSIBILITY TO ENSURE THAT AN EQUIVALENT INTERNAL PIPELINE BORE IS INSTALLED IN ACCORDANCE WITH TABLE 1.1 OF AS 3500.1.



**McCALLUM PFCA**  
PLUMBING & FIRE CONSULTANTS AUSTRALIA

#### LEGEND

ABBREVIATIONS	PIPELINES	SYMBOLS
AAV AIR ADMITTANCE VALVE	— EC — EC — COLD WATER - EXISTING	● FIXTURE CONNECTION
CO CLEAROUT	— C — C — COLD WATER - NEW	○ PIPEWORK DROPPER
EW EYE WASH	— T — T — TEMPERED WATER - NEW	↑ RISER
FC FUME CUPBOARD	— ES — ES — SANITARY DRAINAGE - EXISTING	→ SERVICE
GT GAS TURRET	— S — S — SANITARY DRAINAGE - NEW	○ PIPE SIZE
H HAND BASIN	— G — G — GAS SUPPLY - NEW	○ DROPPER
HDPE HIGH DENSITY POLYETHYLENE	— TW — TW — TRADEWASTE DRAINAGE - NEW	⊗ ISOLATION VALVE
LS LAB SINK		⊗ DOUBLE NON-RETURN VALVE
R REGULATOR		⊗ THERMOSTATIC MIXING VALVE (43°C)
SFW SEALED FLOOR WASTE		⊗ HOT WATER UNIT
SS SAFETY SHOWER		⊗ SOLENOID VALVE
TD TUNDISH		⊗ SANITARY RISER
TW TRADE WASTE VENT		⊗ CLEAROUT
UPVC UNPLASTICISED POLYVINYL CHLORIDE		⊗ SEALED FLOORWASTE
UR URINAL		⊗ TUNDISH
VP VENT PIPE		⊗ AIR ADMITTANCE VENT
		⊗ GAS ISOLATION VALVE
		⊗ GAS REGULATOR
		⊗ FLOOR WASTE

**NOTES: SANITARY DRAINAGE**

- DRAINS BELOW GROUND UNDER BUILDINGS MAY BE LAID WITH LESS THAN THE MINIMUM COVER OF 450mm PROVIDED THAT 25mm OF OVERLAY SEPARATES THE DRAIN FROM THE REINFORCED CONCRETE SLAB.
- DRAINS PASSING THROUGH WALLS AND FOOTINGS SHALL BE INSTALLED WITH AN ANNULAR SPACE OF NOT LESS THAN 25mm.
- COORDINATE THE INSTALLATION OF SANITARY SERVICES WITH OTHER SERVICES.
- LOCATE, EXCAVATE AND VERIFY THE SUITABILITY OF THE LEVEL OF THE EXISTING DRAINAGE PIPELINE FOR CONNECTION PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE INSTALLATION WORKS.
- CONTRACTORS ARE TO ALLOW FOR ALL BENDS, OFFSETS, RISERS AND DROPPERS TO ALL OF THE PIPEWORK NECESSARY TO ACHIEVE A FULLY FUNCTIONING, COORDINATED COMPLIANT INSTALLATION.
- ALL INGROUND PIPEWORK IS TO BE ENCASED IN 7-10mm GRAVEL WITH DETECTABLE MARKER TAPE AND SAND LAID OVER.
- ALL HAND BASIN WASTES ARE TO BE P-TRAP TYPE WITH DROPPERS CONCEALED WITHIN THE WALL.
- ALL SANITARY DRAINAGE IS TO BE CONSTRUCTED IN THE MATERIAL NOMINATED ON THE DRAWINGS AND TO THE REQUIREMENTS OF THE RELEVANT CODES AND AUTHORITIES. MINIMUM GRADE SHALL BE OF 1 IN 60 (1.65%) OR AS OTHERWISE SPECIFIED.
- WHERE DRAINAGE LEVELS PERMIT, ALL BRANCH LINES SHALL BE GRADED AND/OR LOWERED TO AVOID PENETRATING FOOTING BEAMS UNLESS SHOWN OTHERWISE. THE CONTRACTOR SHALL ALLOW FOR ADDITIONAL PIPE LENGTHS AND WORK DURING CONSTRUCTION INCLUDING ADDITIONAL INSPECTION OPENINGS IN THE SYSTEM AS REQUIRED.
- PROVIDE INSPECTION OPENINGS IN THE SYSTEM AS REQUIRED BY A.S3500.2.2 SEC 4.7 OR AS REQUIRED BY THE RELEVANT AUTHORITY.
- ALL VENTS ARE TO BE TERMINATED WITH A VENT COWL AND OVER FLASHING ABOVE THE ROOF LEVEL. ROOF TO BE LEFT WATERTIGHT.
- ALL PIPEWORK TO BE TESTED TO AS 3500 REQUIREMENTS.
- ALL VENTS SHALL BE OFFSET IN THE ROOF SPACE A MINIMUM OF 600mm FROM EAVES AND BOX GUTTERS OR AS SHOWN ON DRAWINGS.
- ALL EXPOSED FIXTURE CONNECTION PIPELINES WITHIN THE BUILDING CONNECTING TO FIXTURES ARE TO BE CHROME PLATED.

**NOTES: GAS SERVICES**

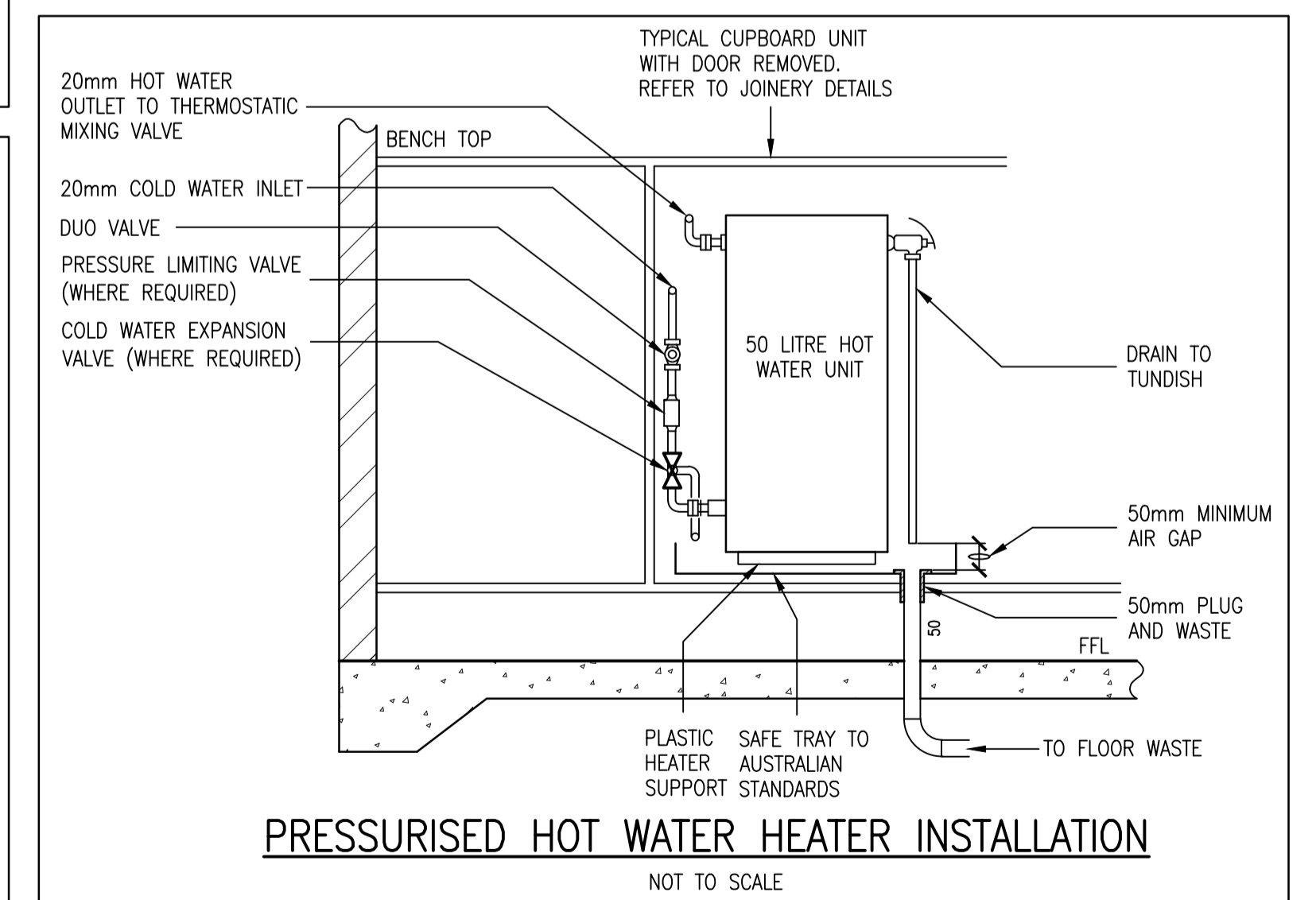
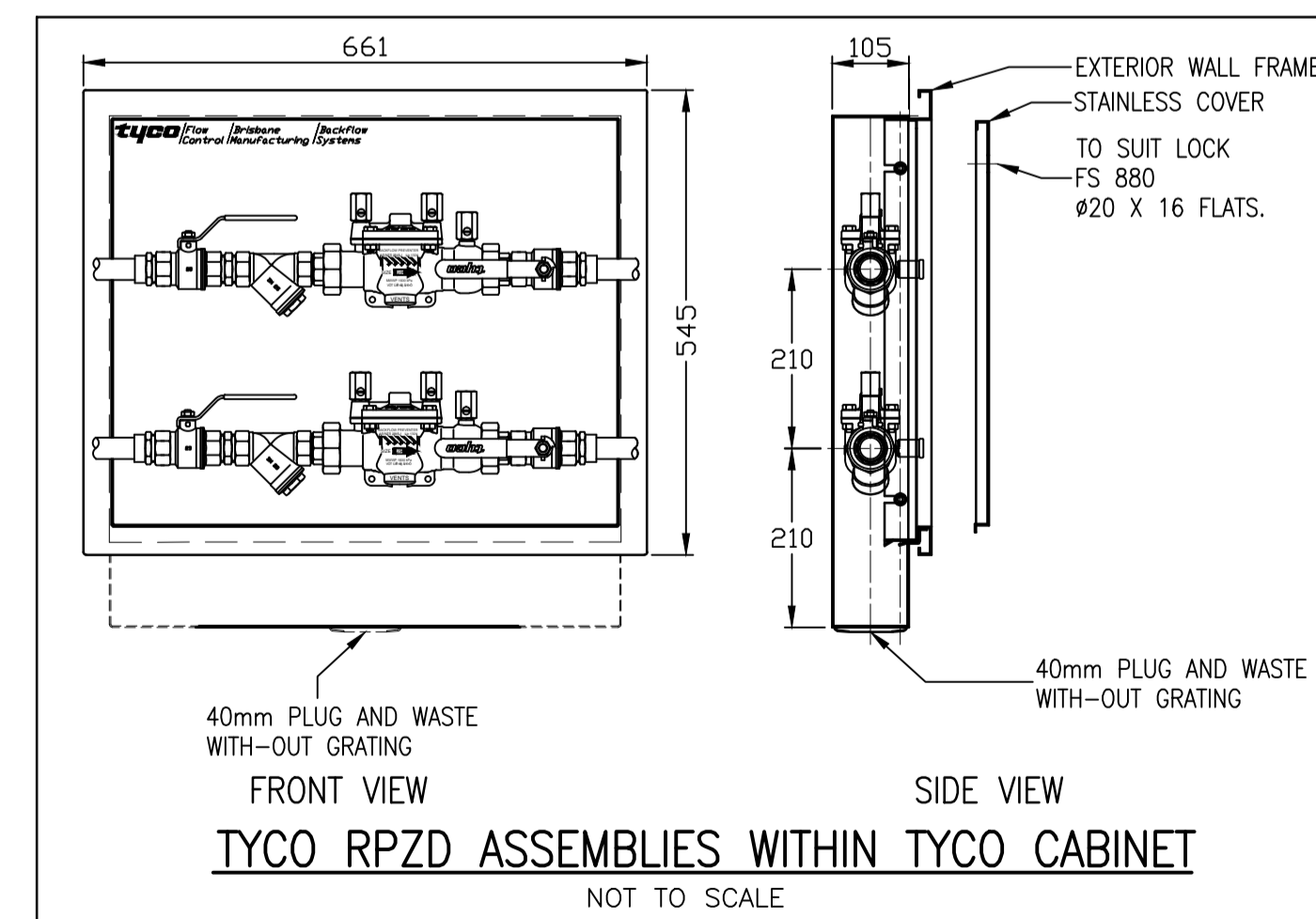
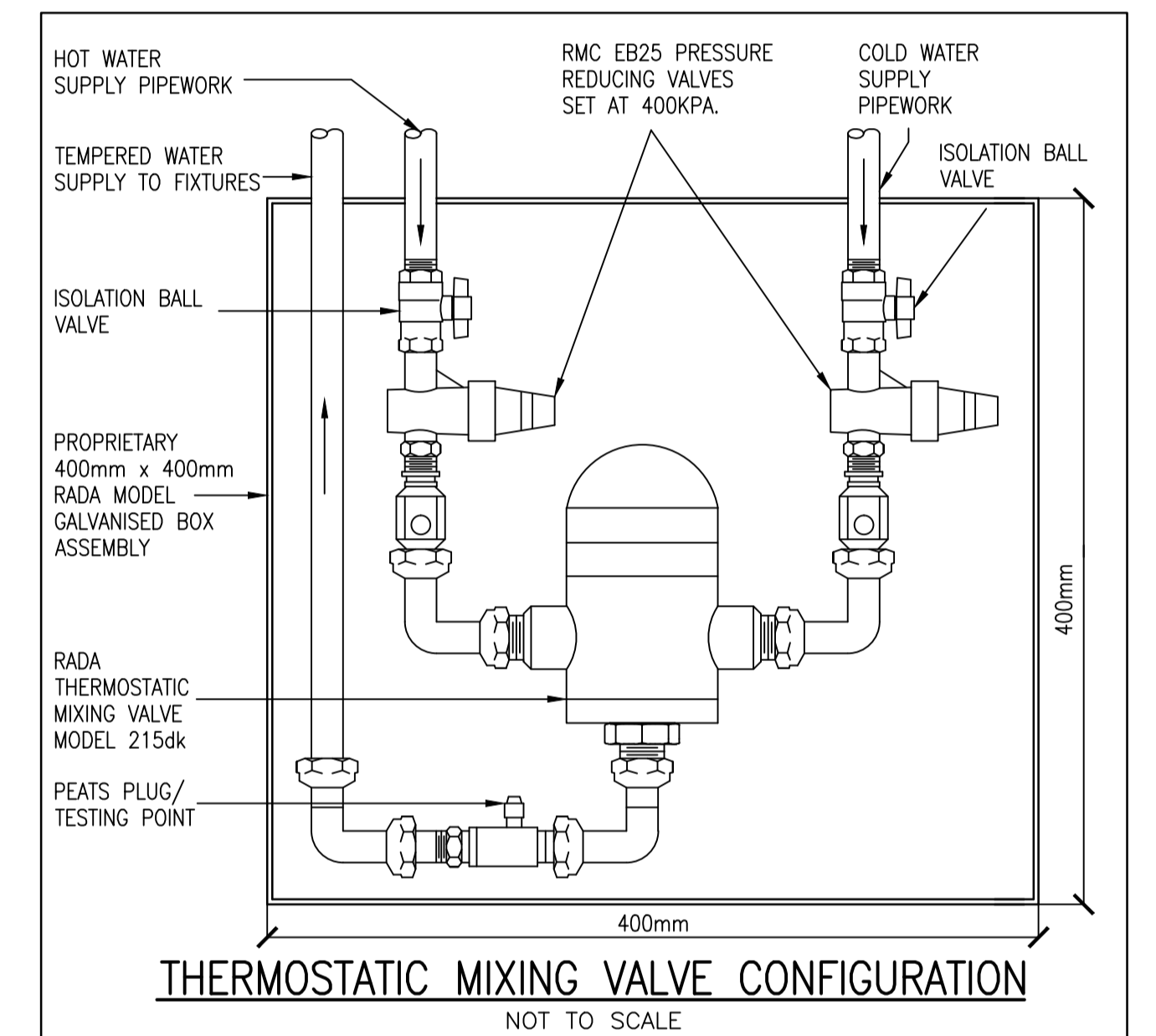
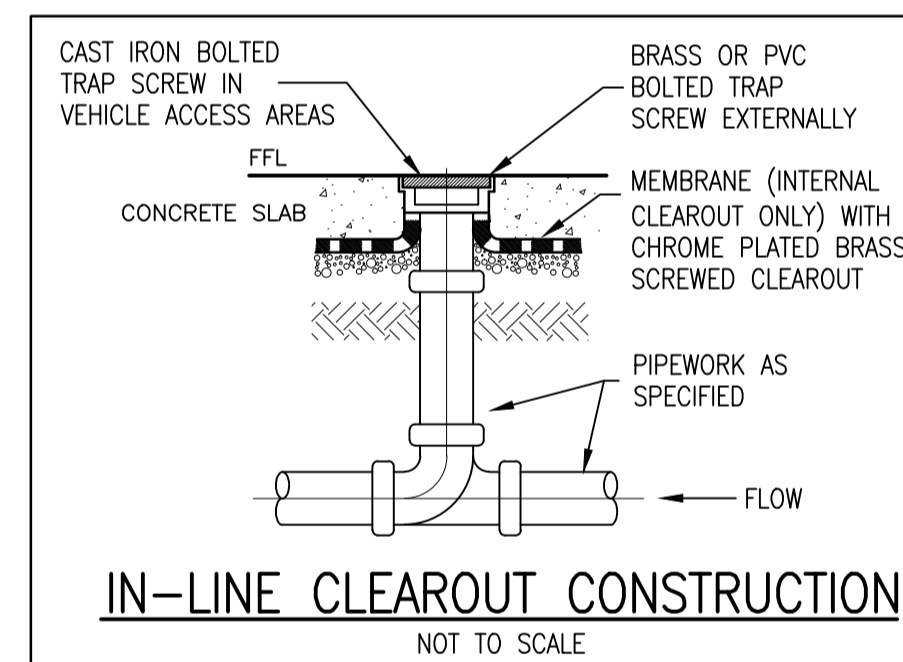
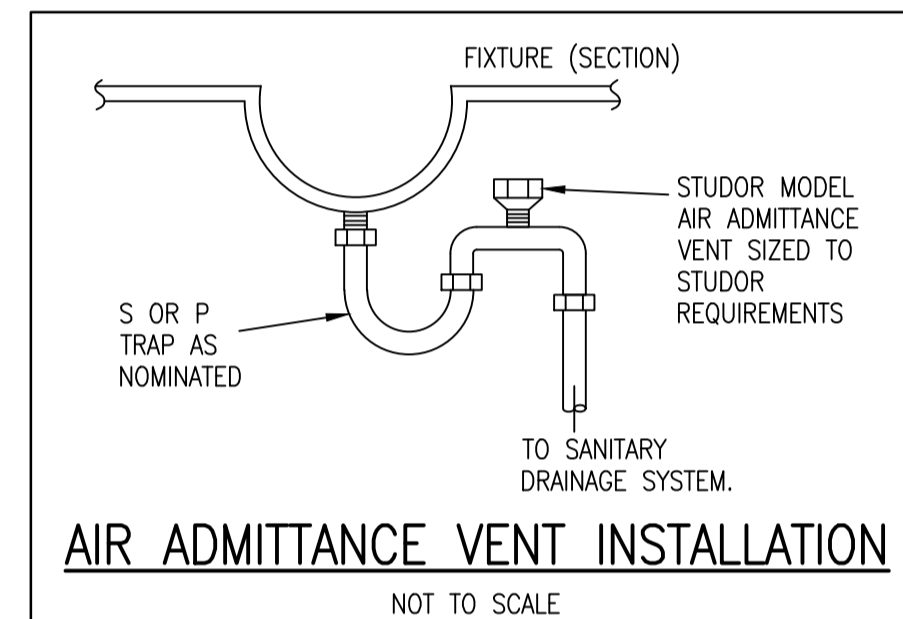
- COORDINATE THE INSTALLATION OF THE GAS SUPPLY SERVICE WITH OTHER SERVICES. PLUMBING CONTRACTORS ARE TO LIAISE WITH THE GAS AUTHORITY FOR THE CONNECTION OF GAS TO THE SITE AND THE INSTALLATION OF THE LP GAS METER.
- INGROUND GAS PIPEWORK IS TO BE ENCASED IN CLEAN FILL SAND WITH DETECTABLE MARKER TAPE LAID OVER.
- ALL PIPEWORK IS TO BE TYPE B COPPER TUBE TO AS1432. (EXCEPT FOR PIPE TO BE ENCASED IN CONCRETE).
- ALL PIPEWORK INSTALLED WITHIN A CONCRETE SLAB IS TO BE PEXAL PIPING SYSTEM IN CONTINUOUS LENGTHS
- CONCEAL ALL PIPEWORK IN WALLS, CEILING VOIDS, COLUMNS AND SERVICE DUCTS.
- ALL GAS RETICULATION WORK TO BE IN ACCORDANCE WITH AS5601 AND THE RELEVANT GAS AUTHORITY REQUIREMENTS.
- THE CONTRACTOR IS TO ALLOW FOR A SEPARATE ISOLATION VALVE FOR EACH FIXTURE AND WHERE REQUIRED A SECOND STAGE APPLIANCE REGULATOR.
- ALL PIPELINES TO BE TESTED TO AUSTRALIAN STANDARDS REQUIREMENTS.

**NOTES: COLD WATER**

- COORDINATE THE INSTALLATION OF COLD WATER SUPPLY WITH OTHER SERVICES.
- PIPEWORK PASSING THROUGH CONCRETE SLABS OR PATHS SHALL BE INSTALLED WITH AN ANNULAR SPACE OF 6mm FOR THE FULL DEPTH OF SLAB PENETRATION.
- INGROUND PIPEWORK IS TO BE ENCASED IN CLEAN FILL SAND WITH DETECTABLE MARKER TAPE LAID OVER.
- CONTRACTORS ARE TO ALLOW FOR ALL BENDS, OFFSETS, RISERS AND DROPPERS TO ALL OF THE PIPEWORK NECESSARY TO ACHIEVE A FULLY FUNCTIONING, COORDINATED COMPLIANT INSTALLATION.
- PIPEWORK PASSING THROUGH FIRE RATED WALLS, FLOORS, CEILING VOIDS AND WHERE REQUIRED TO BE FIRE RATED TO AS4072 OR AS SPECIFIED.
- ALL FIXTURES ARE REQUIRED TO HAVE SEPARATE ISOLATION VALVES INSTALLED DIRECTLY UNDER UNLESS OTHERWISE SPECIFIED.
- CONCEAL ALL PIPEWORK IN WALLS, DUCTS AND CEILING VOIDS WHERE PRACTICABLE.
- ALL PIPELINES TO BE TESTED TO AS3500 REQUIREMENTS.

**NOTES: HOT/WARM WATER**

- ALL HOT AND WARM WATER PIPING IS TO BE INSULATED WITH THERMOTEC POLYTUBE (13mm MINIMUM IN ORDER TO COMPLY WITH BCA PART J 7.2) IN WALLS, CEILING AND WHERE EXPOSED UNLESS SPECIFIED OTHERWISE.
- CONTRACTORS ARE TO ALLOW FOR ALL BENDS, OFFSETS, RISERS AND DROPPERS TO ALL OF THE PIPEWORK NECESSARY TO ACHIEVE FULLY FUNCTIONING COORDINATED COMPLIANT INSTALLATION.
- COORDINATE THE INSTALLATION OF HOT/WARM WATER SUPPLY WITH OTHER SERVICES.
- CONCEAL ALL PIPEWORK IN WALLS, DUCTS AND CEILING VOIDS WHERE PRACTICABLE.
- ALL FIXTURES ARE TO HAVE SEPARATE ISOLATING VALVES INSTALLED DIRECTLY UNDER UNLESS OTHERWISE SPECIFIED.
- PIPEWORK PASSING THROUGH FIRE RATED WALLS, FLOORS, CEILING VOIDS AND WHERE REQUIRED IS TO BE FIRE RATED TO AS4072 OR AS SPECIFIED.
- ALL PIPELINES TO BE TESTED TO AS3500 REQUIREMENTS.



**GENERAL NOTES:**

- THIS DRAWING IS DIAGRAMMATIC. DO NOT SCALE. USE FIGURED DIMENSIONS ONLY. REFER TO ARCHITECTURAL DRAWINGS WHERE APPROPRIATE FOR EXACT LOCATION OF FIXTURES, DUCTS AND THE LIKE. THE DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DOCUMENTS FORMING THE PROJECT DOCUMENTATION PACKAGE.
- CONFIRM ALL LEVELS AND DIMENSIONS AS ACCURATE ON SITE PRIOR TO INSTALLATION. REPORT ALL DISCREPANCIES TO THE SUPERINTENDENT IMMEDIATELY.
- THIS DRAWING HAS BEEN ISSUED IN CONFIDENCE AND REMAINS THE PROPERTY OF McCALLUM PLUMBING & FIRE CONSULTANTS AUSTRALIA. DISTRIBUTION OR REPRODUCTION OF THE WHOLE OR PART OF THIS DRAWING WITHOUT THE EXPRESS PERMISSION OF McCALLUM PLUMBING & FIRE CONSULTANTS AUSTRALIA IS A BREACH OF THE COMMONWEALTH COPYRIGHT ACT.

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ARCHITECT:	ROGER ACKLAND ARCHITECTS
CLIENT:	LINUWEL STEINER SCHOOL
PROJECT:	SCIENCE BUILDING LINUWEL STEINER SCHOOL 133 MORPETH ROAD, EAST MAITLAND TITLE, LEGEND, NOTES AND DETAIL SHEET

Drawn	L.NOLAN	<b>FOR CONSTRUCTION</b>		Size	A1
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Approved	R.McCALLUM	DRG. No.	H-01	No. in Set	2
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