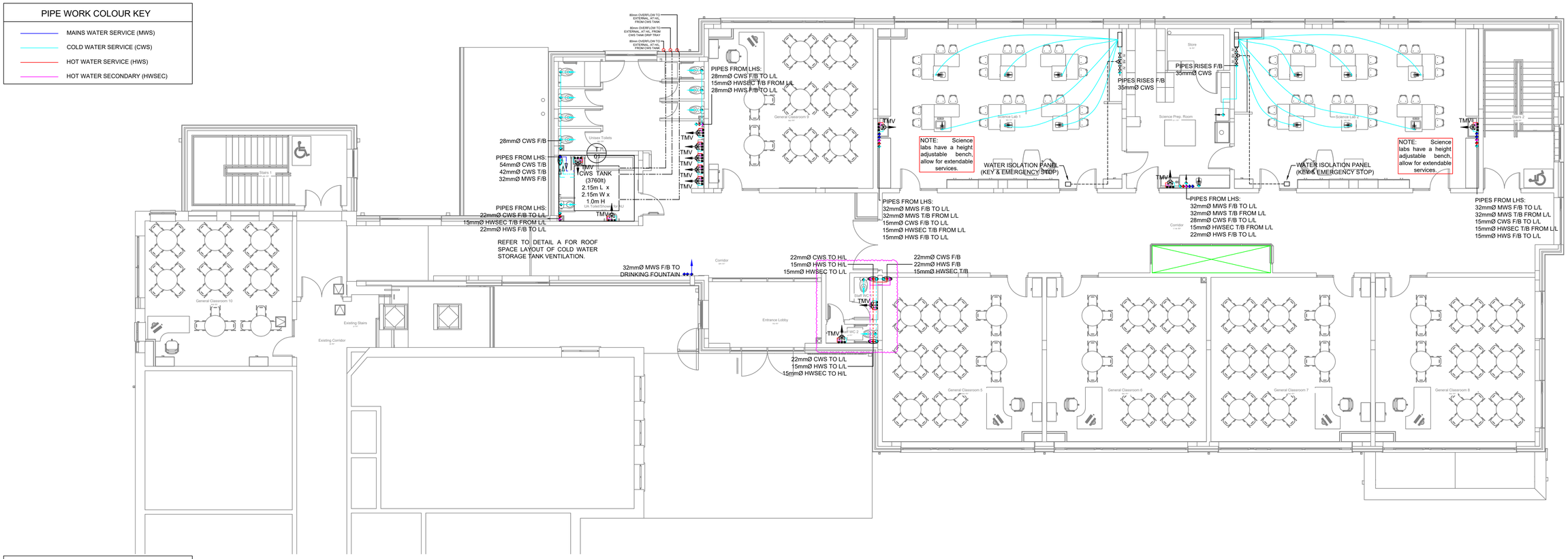
PIPEWORK KEY

- PIPEWORK RISE
- PIPEWORK DROP
- PIPEWORK CONNECTION
- PIPEWORK AT HIGH LEVEL
- PIPEWORK IN FLOOR SCREED
- PIPEWORK AT LOW LEVEL

PIPE WORK COLOUR KEY

- MAINS WATER SERVICE (MWS)
- COLD WATER SERVICE (CWS)
- HOT WATER SERVICE (HWS)
- HOT WATER SECONDARY (HWSEC)

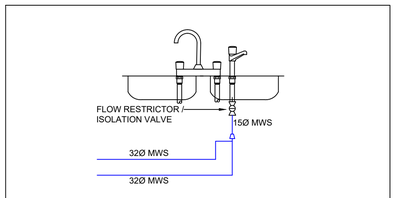


ABBREVIATIONS

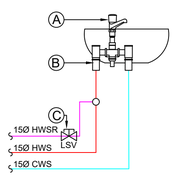
F/B	-	FROM BELOW
F/A	-	FROM ABOVE
T/A	-	TO ABOVE
T/B	-	TO BELOW
H/L	-	HIGH LEVEL
L/L	-	LOW LEVEL
RHS	-	RIGHT HAND SIDE
LHS	-	LEFT HAND SIDE
HWS	-	HOT WATER SERVICE
HWSEC	-	HOT WATER SECONDARY
CWS	-	COLD WATER SERVICE
CF	-	COLD FEED
MWS	-	MAINS WATER SERVICE
RWH	-	RAIN WATER HARVESTING
RWF	-	RAIN WATER FEED
RWS	-	RAIN WATER SERVICE
OV	-	OPEN VENT
OF	-	OVER FLOW
IV	-	ISOLATION VALVE
LSV	-	LOCK SHIELD VALVE
HWB	-	HOT WATER BOILER
TMV	-	THERMOSTATIC MIXING VALVE

LEGEND

- PUMP
- DC — DRAIN COCK
- LSV — LOCK SHIELD VALVE
- STRAINER
- NON RETURN VALVE
- S.V. — SAFETY VALVE
- PRV — PRESSURE REDUCING VALVE
- IV — ISOLATION VALVE (IV)
- S.C. — STOPCOCK
- D.C.V. — DOUBLE CHECK VALVE



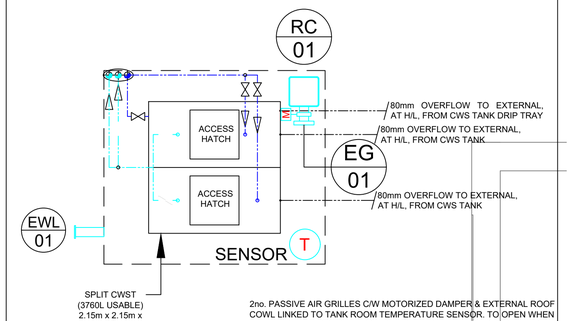
TYPICAL CLASSROOM SINK VALVE ARRANGEMENT. DEAD LEGS TO BE ELIMINATED



LEGEND	
A	MIXED FLOW PERCUSSION TAP
B	THERMOSTATIC VALVE (TVM3) COMPLETE WITH INTEGRATED BALLOFIX ISOLATION VALVES NON RETURN VALVE & STRAINER MAX OUTPUT TEMP = 43°C
C	LOCK SHIELD VALVE

TYPICAL SINGLE WASH HAND BASIN VALVE ARRANGEMENT. DEAD LEGS TO BE ELIMINATED

DETAIL A: ROOF SPACE WATER TANK ROOM 1:50



WATER SERVICES NOTES

MAINS WATER
THE MAINS WATER SERVICE SHALL BE FITTED WITH A WATER METER (PULSED); STOPCOCK; DOUBLE CHECK VALVE AND PRV AT INCOMING POINT IN BOILER HOUSE.
THE MWS PIPE WORK & FITTINGS SHALL BE NON-METALLIC - TYPE - UPONOR MLC PRESS FIT MULTI-LAYERED PIPE.

PIPE WORK TO BE MANUFACTURED IN ACCORDANCE WITH ISO9001 AND TO THE ENVIRONMENTAL OF ISO4001.
PIPE WORK TO BE WRAS APPROVED

THE MWS WATER DESIGN IS SUCH THAT THE PIPE WORK FROM THE BOILER HOUSE IS TO SERVE EACH MWS OUTLET SEQUENTIALLY AROUND THE SCHOOL AS INDICATED) PRIOR TO ITS FINAL CONNECTION WHICH WILL BE THE CWS TANK IN THE ROOF SPACE.

THIS IS TO PROMOTE WATER TURN OVER AND REDUCE STAGNATION. FINAL CONNECTION TO EACH DRINKING WATER TAP SHOULD ELIMINATE DEAD LEG. DEDICATED DRINKING WATER TAPS (INDIVIDUALLY LABELED 'DRINKING WATER') ARE TO BE LOCATED IN THE FOLLOWING LOCATIONS:
OVER CLASSROOM SINKS
MULTIPURPOSE ROOM
EXTERNAL DRINKING FOUNTAINS.
MWS CONNECTIONS ARE ALSO TO BE LINKED TO THE WATER BOILERS IN THE GP SERVERY ROOM AND THE STAFF ROOM.

HOT & COLD WATER SERVICES
CONTRACTOR SHALL INSTALL PIPE WORK TO ALL APPLIANCES AND OUTLETS AS INDICATED. GENERAL PIPE WORK SHALL BE COPPER TABLE X PART 1 TO BS 2871. PIPE WORK WITHIN FLOOR SCREED SHALL BE PIPE IN PIPE; REFER TO PARTICULAR SPECIFICATION.
WATER SERVICE PIPE WORK BRANCHES SHALL BE FITTED WITH QUARTER TURN BALL VALVES FOR MAINTENANCE AND ISOLATION PURPOSES.
ALL PIPE WORK PASSING THROUGH FIRE COMPARTMENTS SHALL BE FIRE STOPPED WITH SUITABLE INTUMESCENT COMPOUND. FIRE STOPPING SHALL BE COMPLETED TO THE SATISFACTION OF THE FIRE OFFICER.

CONNECTION SIZES
WHB 15mm CWS, 15mm HWS & 15mm HWSEC
WC 15mm CWS
SINK 15mm MWS, 15mm CWS, 15mm HWS & 15mm HWSEC
SHOWER 15mm CWS, 15mm HWS & 15mm HWSEC

ALL APPLIANCES SHALL BE FITTED WITH BALL VALVES TO ASSIST WITH MAINTENANCE.

INSULATION
CONTRACTOR SHALL INSULATE ALL WATER SERVICES PIPE WORK.
ROOF SPACE 25mm CLASS 0
FLOOR TRENCH 9mm CLASS 1
BOILER ROOM 25mm CLASS 0

HOT WATER SECONDARY RETURN
CONTRACTOR SHALL PROVIDE AND INSTALL HOT WATER SECONDARY RETURN PIPE WORK SYSTEM. CONTRACTOR SHALL FIT HWSEC RETURN PIPE WORK WITH BALANCING VALVES TO ENSURE TOTAL CIRCULATION WITHIN THE HOT WATER SERVICE PIPE WORK.

THERMOSTATIC MIXING VALVES
ALL WASH HAND BASINS (OR GROUP OF BASINS) SHALL BE FITTED WITH THERMOSTATIC MIXING VALVES TO CONTROL OUTLET TEMPERATURES TO 43°C.

GENERAL NOTES
CONTRACTOR SHALL COORDINATE WATER SERVICE PIPE WORK WITH DUCTWORK, ELECTRICAL AND HEATING SERVICES. ALL PIPE WORK WORK SERVICES SHALL BE CONCEALED WITHIN THE BUILDING FABRIC, ANY EXPOSED PIPE WORK SERVICES SHALL BE CHROME PLATED COPPER.

COMMISSIONING & TESTING
CONTRACTOR SHALL COMMISSION AND TEST ALL SYSTEMS UNDER THIS CONTRACT PRIOR TO HANDOVER.

COLD WATER STORAGE
THE WATER STORAGE TANKS SHALL BE POSITIONED AS DETAILED ON THE DRAWINGS AND AS OUTLINED IN THE SCHEDULE IN THE SPECIFICATION. TANKS SHALL BE PROVIDED WITH ALL NECESSARY ISOLATION VALVES TO ASSIST ISOLATION. TANKS SHALL BE PROVIDED WITH DRIP TRAYS & INDIVIDUAL OVERFLOWS EXTENDING TO OUTSIDE.
TANKS SHALL BE:
1. PRE-INSULATED
2. ADEQUATELY SUPPORTED
3. FULLY ACCESSIBLE

REV	DESCRIPTION	DATE

SCALE 1:100
0m 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m

STAGE 2B

THESE DRAWINGS ARE TO BE USED TO FACILITATE AN UNDERSTANDING OF THE SCOPE AND CONTENT OF THE WORKS AND FOR PRICING PURPOSES. THE DRAWINGS ARE SUBJECT TO THE CONTRACTORS DETAILED DESIGN FOLLOWING THE DESIGN INTENT IN THE PERFORMANCE SPECIFICATIONS. THE DRAWINGS ARE NOT TO BE USED AS THE BASIS FOR CONSTRUCTION.

patrick mccaul
environmental consulting engineers ltd.

JOB DESCRIPTION	CARRICK-ON-SHANNON COMMUNITY SCHOOL CO. LEITRIM
DWG TITLE	PROPOSED WATER SERVICES INSTALLATION FIRST FLOOR

SCALE:	1:100	DRAWN BY:	NP	I/c ENG:	PMcC	DATE:	JUL '26

DRAWING No. 2860-M-04
REVISION -