

UNDERFLOOR HEATING INITIAL HEAT LOSS PER SPACE				
AREA	UFH SPECIALIST	UFH MANIFOLD REF.	UFH ZONE	INITIAL HEAT LOSS
STAFF ROOM	WARMAFLOOR GB LTD	MANIFOLD 1	ZONE 1	3410W
OFFICE	WARMAFLOOR GB LTD	MANIFOLD 1	ZONE 2	730W
SHOWER ROOM ONE	WARMAFLOOR GB LTD	MANIFOLD 1	ZONE 3	580W
LOCKER AREA	WARMAFLOOR GB LTD	MANIFOLD 1	ZONE 4	570W
WC	WARMAFLOOR GB LTD	MANIFOLD 1	ZONE 5	280W
SHOWER ROOM TWO	WARMAFLOOR GB LTD	MANIFOLD 1	ZONE 6	450W

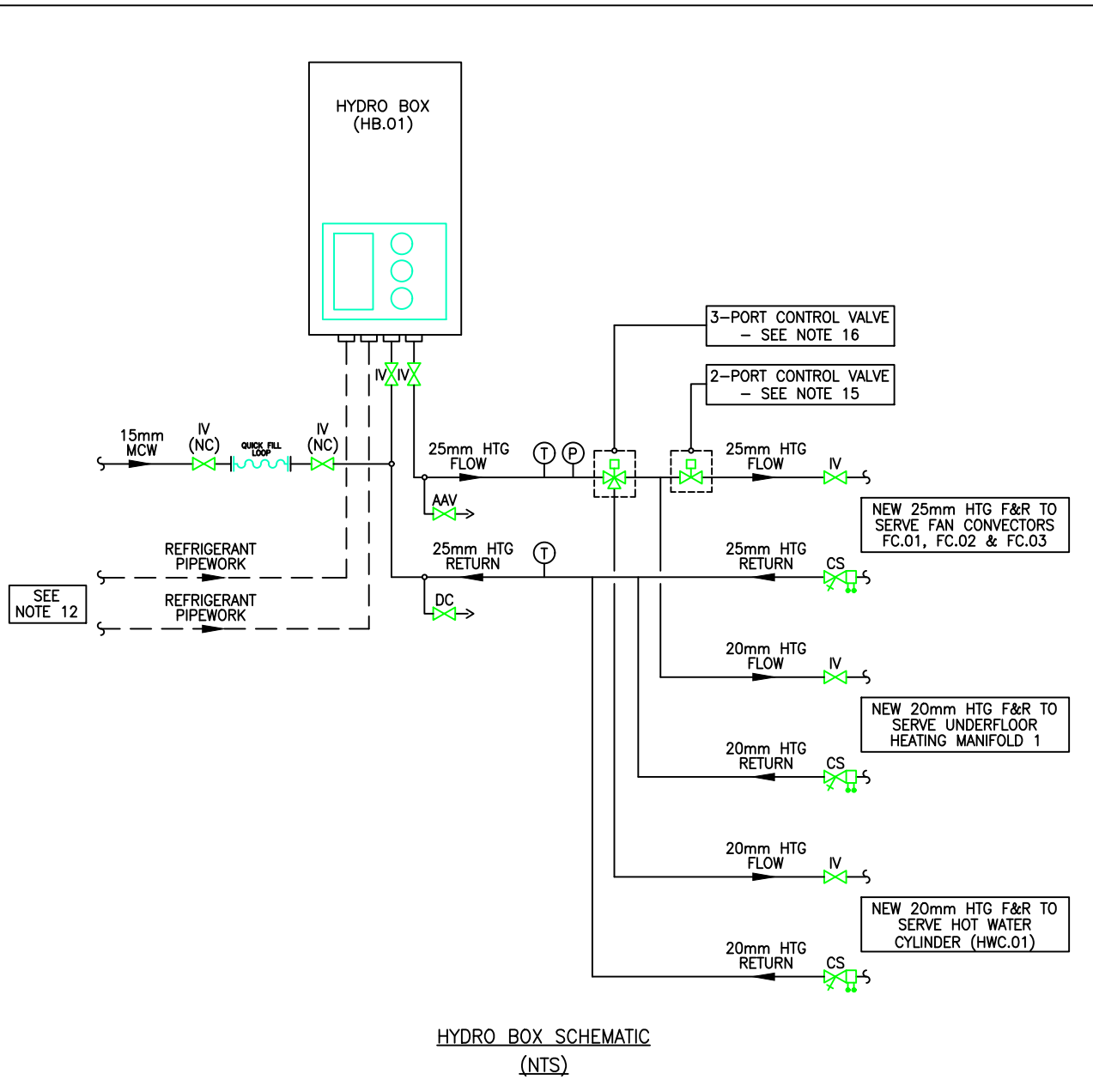
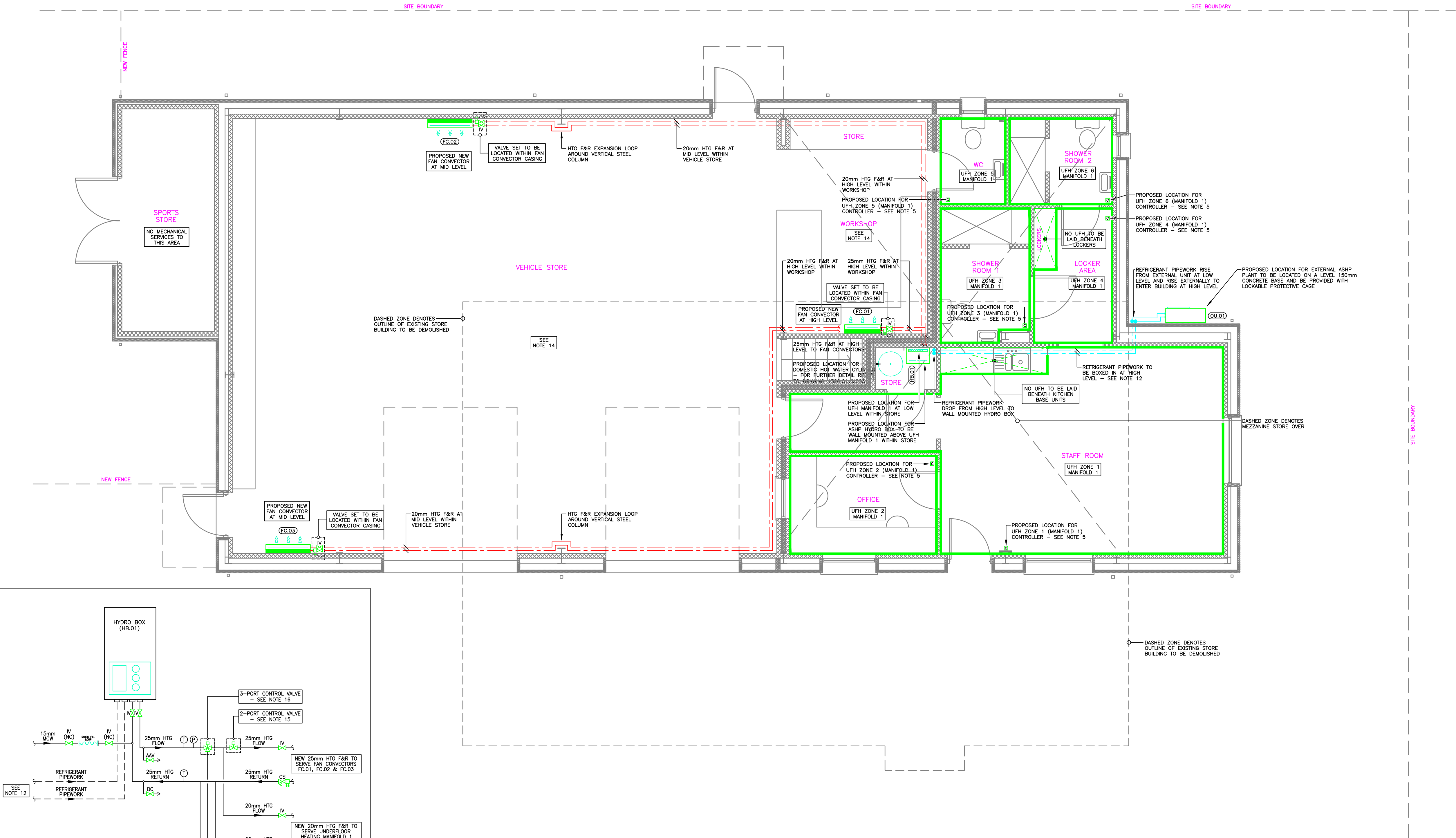
THE INITIAL HEAT LOSS FIGURES NOTED IN THE TABLE ARE FOR GUIDANCE ONLY FOR TENDER PURPOSES. IT IS THE RESPONSIBILITY OF THE SUCCESSFUL CONTRACTOR TO CARRY OUT THEIR OWN FULL HEAT LOSS CALCULATIONS FOR EACH SPACE UPON RECEIPT OF THE FINAL 'U' VALUE FIGURES. WARMAFLOOR GB LTD CAN BE CONTACTED ON TEL: 01489 581787.

FAN CONVECTOR SCHEDULE						
REF.	AREA SERVING	MODEL	WIDTH	HEIGHT	DEPTH	OUTPUT
FC.01	WORKSHOP	F11/915-CB	805mm	660mm	207mm	3.11kW*
FC.02	VEHICLE STORE	F11/930-CB	1055mm	660mm	207mm	6.88kW*
FC.03	VEHICLE STORE	F11/930-CB	1055mm	660mm	207mm	6.88kW*

ALL FAN CONVECTOR EQUIPMENT IS TO BE MANUFACTURED BY BIDDLE LTD.  
ALL FAN CONVECTORS ARE TO BE FROM THE FORCEFLOW CB RANGE.  
ALL FAN CONVECTORS ARE TO BE COMPLETE WITH BUILT-IN ON/OFF FAN SPEED AND SUMMER/WINTER SWITCHES.  
ALL FAN CONVECTORS ARE TO BE COMPLETE WITH THREE SPEED SETTINGS.  
ALL FAN CONVECTORS ARE TO BE COMPLETE WITH LOW TEMPERATURE CUT OUT (LTC).  
ALL FAN CONVECTORS ARE TO BE COMPLETE WITH PENCIL PROOF GRILLES AND FULLY LOCKABLE ACCESS PANELS.  
HEATING PIPEWORK CONNECTIONS TO EACH FAN CONVECTOR ARE TO BE COMPLETE WITH ISOLATION VALVE ON THE FLOW CONNECTION AND COMMISSIONING STATION ON THE RETURN CONNECTION - VALVES TO BE LOCATED WITHIN THE FAN CONVECTOR CASING.  
\*OUTPUTS SHOWN ARE BASED UPON MEDIUM FAN SPEED.



AIR SOURCE HEAT PUMP EQUIPMENT SCHEDULE						
REF.	AREA SERVING	MODEL	WIDTH	HEIGHT	DEPTH	OUTPUT
OU.01	ALL AREAS INDICATED	HWS-1404H-E1	900mm	1340mm	320mm	14.0kW
HB.01	ALL AREAS INDICATED	HWS-1404XWHM3-E1	525mm	925mm	355mm	14.0kW

ALL AIR SOURCE HEAT PUMP EQUIPMENT IS TO BE MANUFACTURED BY TOSHIBA LTD.  
THE AIR SOURCE HEAT PUMP SYSTEM IS TO BE COMPLETE WITH TOSHIBA TCB-PCM03E ESTIA EXTERNAL INPUT PCB TO GIVE REMOTE ON/OFF ETC.  
THE INDOOR HYDRO BOX UNIT IS TO BE COMPLETE WITH 3.0kW ELECTRIC 'BOOST' HEATER.  
THE AIR SOURCE HEAT PUMP INSTALLATION IS TO BE SET UP TO PROVIDE A LTHW FLOW TEMPERATURE OF 50°C AND A RETURN TEMPERATURE OF 40°C.



- NOTES:
- DO NOT SCALE FROM THIS DRAWING.
  - THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS, TOLERANCES, AND REFERENCES ON SITE PRIOR TO COMMENCEMENT OF THE WORKS.
  - THE CONTRACTOR IS TO CONSULT THE LATEST ASBESTOS REGISTER AND ANY OTHER ASBESTOS REPORTS THAT MAY HAVE BEEN PRODUCED FOR THIS PROJECT PRIOR TO COMMENCEMENT OF THE WORKS.
  - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE WRITTEN SPECIFICATION AND ALL OTHER SPECIFIC PROJECT/ DESIGN DOCUMENTATION.
  - FINAL POSITIONS OF ALL CONTROLLERS AND SENSORS ARE TO BE AGREED ON SITE PRIOR TO COMMENCEMENT OF THE WORKS.
  - FINAL LOCATIONS AND QUANTITIES OF DISHWASHERS AND REFRIGERATORS ETC. ARE TO BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF THE WORKS.
  - PRODUCT TYPE AND MANUFACTURER FOR PROPOSED UNDER-FLOOR HEATING INSTALLATIONS ARE EQUAL AND APPROVED. AS PART OF THEIR TENDER SUBMISSION THE CONTRACTOR MUST STATE WHICH UNDERFLOOR HEATING SPECIALIST AND WHICH PRODUCT TYPE ARE PROPOSED.
  - ALL HIGH POINTS OF THE HEATING FLOW & RETURN PIPEWORK AND UNDERFLOOR HEATING MANIFOLDS ARE TO BE COMPLETE WITH AIR VENTS.
  - ALL LOW POINTS OF THE HEATING FLOW & RETURN PIPEWORK AND UNDERFLOOR HEATING MANIFOLDS ARE TO BE COMPLETE WITH DRAIN COCKS.
  - HEATING PIPEWORK CONNECTIONS TO UNDERFLOOR HEATING MANIFOLD TO BE COMPLETE WITH ISOLATION VALVE ON FLOW CONNECTION AND DOUBLE REGULATING VALVE ON THE RETURN CONNECTION.
  - UNDERFLOOR HEATING MANIFOLD TO BE COMPLETE WITH INTEGRAL CIRCULATING PUMP AND ASSOCIATED BYPASS.
  - THE CONTRACTOR IS TO CONFIRM SIZES OF ALL REFRIGERANT PIPEWORK WITH THE ASHP MANUFACTURER AT THE TIME OF PLACING THE ORDER FOR THE EQUIPMENT.
  - ALL HEATING PIPEWORK CONNECTIONS TO FAN CONVECTORS TO BE 20mmØ FLOW AND RETURN.
  - FAN CONVECTORS SERVING VEHICLE STORE AND WORKSHOP ARE TO BE CONTROLLED TO ENSURE THEY ARE ONLY OPERATED WHEN THE INTERNAL SPACE TEMPERATURE DROPS TO +10°C - ALSO REFER TO NOTE 15.
  - FAN CONVECTOR HEATING CIRCUIT TO BE COMPLETE WITH A 2-PORT CONTROL VALVE SO AS TO HOLD OFF THE HEATING TO THIS CIRCUIT WHEN THE UNDERFLOOR HEATING CIRCUIT IS CALLING FOR HEAT.
  - 3-PORT CONTROL VALVE IS TO BE WIRED TO THE STAT LOCATED ON THE HOT WATER CYLINDER (HWC.01).

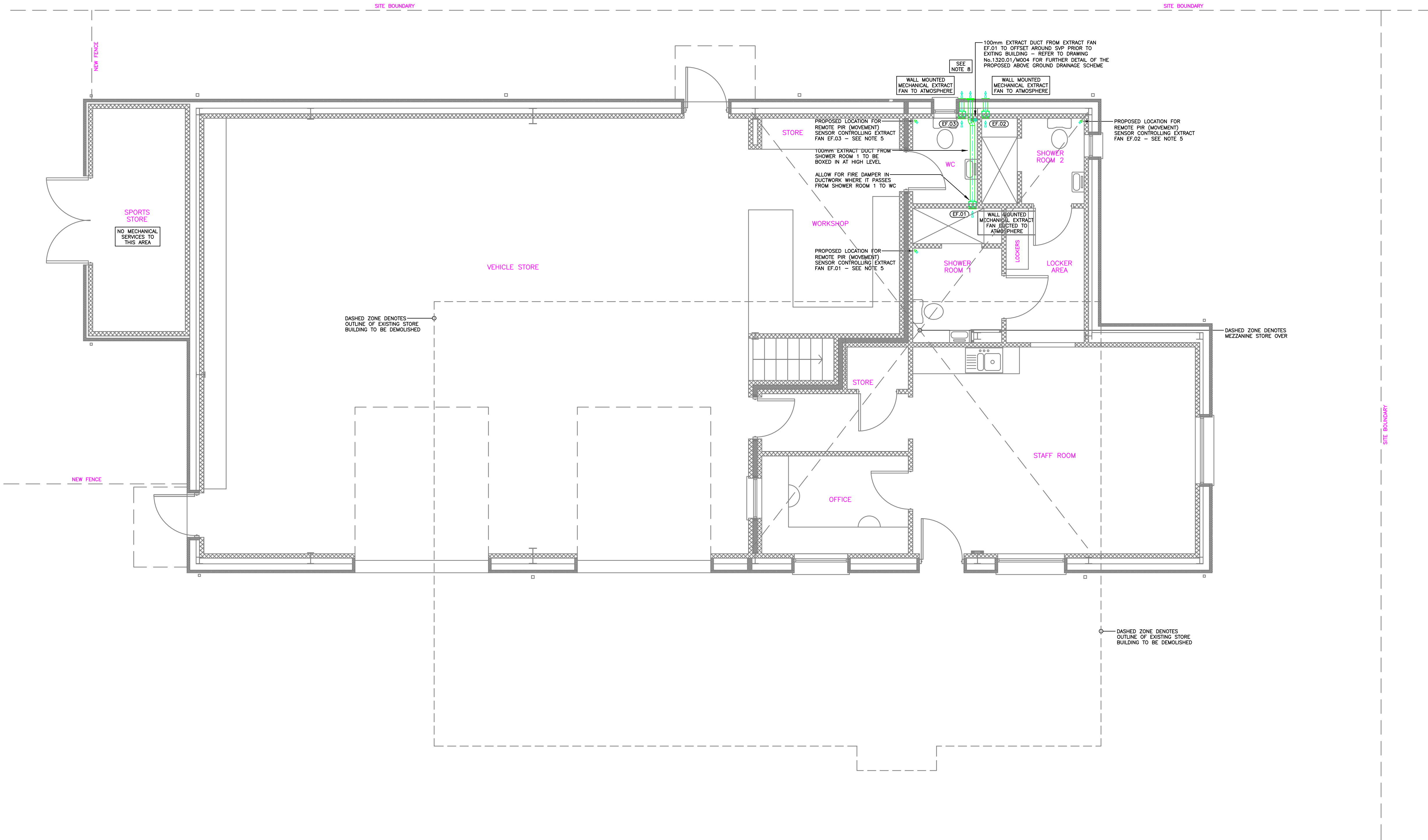
MECHANICAL LEGEND	
HTG	- HEATING
F&R	- FLOW AND RETURN
LTHW	- LOW TEMPERATURE HOT WATER
IV	- ISOLATION VALVE
CS	- COMMISSIONING STATION
LSV	- LOCK SHIELD VALVE
NRV	- NON RETURN VALVE
AAV	- AUTOMATIC AIR VENT
DC	- DRAIN COCK
	- PROPOSED NEW FAN CONVECTOR
	- LTHW UNDERFLOOR HEATING ZONE LAID WITHIN FLOOR SCREED - SEE NOTE 7
	- PROPOSED LOCATION FOR UNDERFLOOR HEATING ZONE CONTROLLER - SEE NOTE 5

T	27.02.18	TENDER ISSUE	PSB			
REV	DATE	AMMENDMENTS	APP			
<div>PSB Consulting Engineers (Oxford) Ltd</div>		<div>SUITE 4 MERCHANT HOUSE 5 EAST ST HELEN STREET ABINGDON OXFORDSHIRE OX14 3EG TEL: 01235 428625 EMAIL: info@psbconsulting.co.uk WWW: psbconsulting.co.uk</div>				
CLIENT						
<div> Didcot Town Council</div>						
ARCHITECT						
<div></div>						
PROJECT						
<div>EDMONDS PARK OUTDOOR SERVICES DEPOT</div>						
TITLE						
<div>PROPOSED HEATING LAYOUT</div>						
DRAWING NUMBER: 1320.01/M001/T						
SCALE	SIZE	DWN	CKD	APP	DATE	REV
1:50	A1	JQ	PQ	PSB	27.02.2018	T





SUPPLY & EXTRACT FAN SCHEDULE						
REF.	AREA SERVING	MODEL	WIDTH	HEIGHT	DEPTH	DUTY
EF.01	SHOWER ROOM 1	GENIE-DCE-12	173mm	200mm	126mm	23l/s @ 41Pa*
EF.02	SHOWER ROOM 2	GENIE-DCE-12	173mm	200mm	126mm	25l/s @ 27Pa*
EF.03	WC	GENIE-DCE-12	173mm	200mm	126mm	22l/s @ 43Pa*

ALL EXTRACT FANS ARE TO BE MANUFACTURED BY NUAIRE LTD, CONTACT MR JIM COLLINGS, TEL: 07767 298249.  
ALL EXTRACT FANS ARE TO BE CONTROLLED VIA REMOTE PIR (MOVEMENT) SENSOR AND BE COMPLETE WITH ADJUSTABLE OVERRUN TIMER.  
EXTRACT FANS EF.01 & EF.02 ARE TO BE 12V LOW WATT TYPE SUITABLE FOR INSTALLATION WITHIN SHOWER AREAS.  
ALL EXTRACT FANS ARE TO TERMINATE AT SUITABLY SIZED EXTERNAL LOUVRES COMPLETE WITH ANTI-BACK DRAUGHT SHUTTERS.  
FINAL SPECIFICATION OF ALL EXTRACT FANS ARE TO BE CONFIRMED WITH THE CLIENT AND ARCHITECT PRIOR TO PLACING THE ORDER WITH THE MANUFACTURER.  
\*DUTIES SHOWN ARE ACTUAL DUTIES.



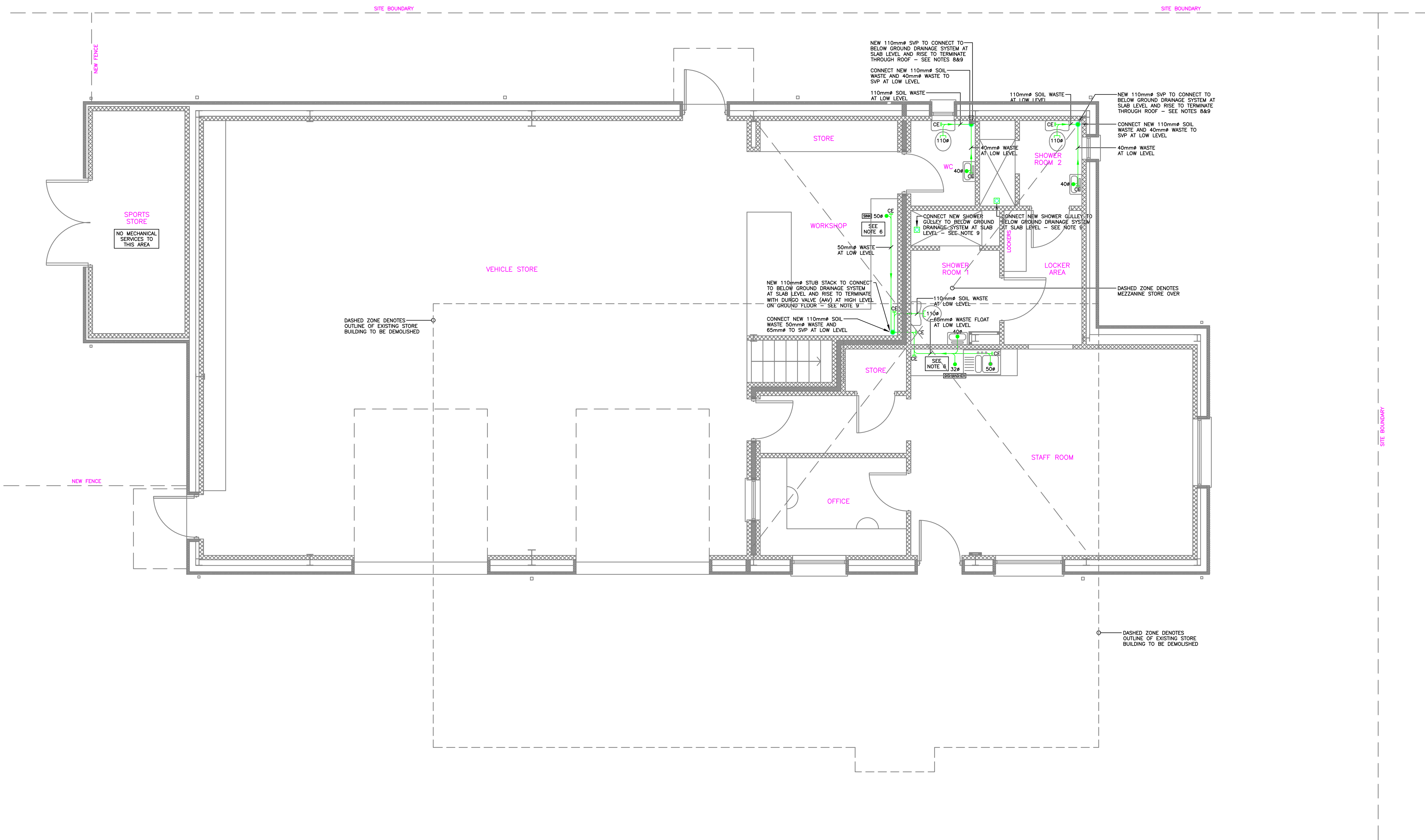
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  - FINAL POSITIONS OF ALL CONTROLLERS AND SENSORS ARE TO BE AGREED ON SITE PRIOR TO COMMENCEMENT OF THE WORKS.
  - PROVISION OF FIRE DAMPERS SHOWN ON THE DRAWING IS FOR TENDER PURPOSES ONLY FINAL PROVISION IS TO BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF THE WORKS AND UPON RECEIPT OF THE ARCHITECTS FIRE STRATEGY DRAWING.
  - THE USE OF FLAT DUCT TO BE USED IN LIEU OF CIRCULAR DUCT DEPENDANT UPON SPACE AVAILABLE WITHIN WHICH TO ROUTE THE EXTRACT DUCTWORK.
  - EACH DUCTWORK TERMINATION POINT THROUGH THE EXTERNAL WALL IS TO BE COMPLETE WITH FAN MANUFACTURERS OWN ANTI-BACK DRAUGHT LOUVRE.

MECHANICAL LEGEND	
VCD	- VOLUME CONTROL DAMPER
AD	- ACCESS DOOR
FD	- FIRE DAMPER
ATT	- ATTENUATOR
CTA	- CROSS TALK ATTENUATOR
DS	- DUMMY SECTION

T	20.10.17	TENDER ISSUE	PSB			
REV	DATE	AMMENDMENTS	APP			
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ARCHITECT						
<div></div>						
PROJECT						
EDMONDS PARK OUTDOOR SERVICES DEPOT						
TITLE						
PROPOSED VENTILATION LAYOUT						
DRAWING NUMBER: 1320.01/M002/T						
SCALE	SIZE	DWN	CKD	APP	DATE	REV
1:50	A1	JQ	PQ	PSB	27.02.2018	T



DRAWING NUMBER: 1320.01/M003/T						
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  - EACH CHANGE OF DIRECTION IN ABOVE GROUND DRAINAGE PIPEWORK IS TO BE COMPLETE WITH CLEANING EYE TO FACILITATE FUTURE CLEANING AND MAINTENANCE OF THE SYSTEM.
  - SOIL VENT PIPE TO TERMINATE THROUGH ROOF TO BE COMPLETE WITH LEAF/BIRD GUARD.
  - EXACT FINAL CONNECTION POINT TO BELOW GROUND DRAINAGE SYSTEM IS TO BE CO-ORDINATED WITH THE CIVIL ENGINEERS DESIGN PACKAGE.
  - STUB STACK TO BE COMPLETE WITH DURGO VALVE.

LEGEND	
CE	CLEANING EYE
SVP	SOIL VENT PIPE
●	CONNECTION POINT TO BELOW GROUND DRAINAGE
—	EXISTING SVP
—	PROPOSED SVP

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TITLE						
PROPOSED ABOVE GROUND DRAINAGE LAYOUT						
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SCALE	SIZE	DWN	CKD	APP	DATE	REV
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