

NOTE:

- ALL PV CABLING TO BE CLEARLY LABELLED
- COVERS/BOX-OUT TO BE PROVIDED TO CONCEAL ALL ALARM CABLES TO PIR'S
- RESIDUAL CURRENT DEVICES (RCD'S) ARE REQUIRED TO BE INSTALLED ON LIGHTING CIRCUITS
- A 25mm OD/ 20mm ID INTERNAL ROPED DUCT IS TO BE PROVIDED BETWEEN EACH ETU AND NTU

LEGEND:

- △ SINGLE SOCKET OUTLET
- 2 △ 2 GANG SWITCHED SOCKET OUTLET
- TP △ TELEPHONE POINT
- ⊥ UNSWITCHED FUSED SPUR OUTLET WITH INDICATING LAMP
- ⊥ SPUR AND EXTRACT FAN DISTRIBUTION BOARD
- SH ELECTRIC SHOWER
- HP HEAT PUMP
- CH COOKER HOOD WITH INTEGRAL MOTOR AND SWITCH
- C COOKER CONNECTION UNIT
- T TEMPERATURE STAT
- AER TERRESTRIAL AERIAL CONNECTION POINT
- TV DOUBLE TV OUTLET, ONE FEED TO ATTIC AERIAL, ONE TO CABLE TV BOX
- PV ISOLATOR FOR PV SYSTEM
- 40A COOKER SWITCH CONNECTED TO LOW LEVEL OUTLET
- 13A ISOLATION SWITCH CONNECTED TO LOW LEVEL OUTLET
- HT HEATING TIMER
- CIRCULATION PUMP
- HEAT PUMP SWITCH
- BELL
- BELL BUTTON
- 2 2 WAY SWITCH
- SWITCH WITH LED INDICATOR
- S 240V CEILING ROSE LIGHTING
- H WALL MOUNTED LIGHT FITTING OVER DOOR
- P IP54 BULKHEAD LED
- SHAVELIGHT
- SA SMOKE ALARM WITH 230V SUPPLY, BATTERY BACKUP, INTERLINKED TO OTHER ALARMS
- HA HEAT ALARM WITH 230V SUPPLY, BATTERY BACKUP, INTERLINKED TO OTHER ALARMS
- KEY FUTURE KEYPAD UNIT WIRED FOR FUTURE PIR AND FINISHED IN SMALL JUNCTION BOX
- SEC FUTURE SECURITY UNIT WIRED FOR FUTURE PIR AND FINISHED IN SMALL JUNCTION BOX
- PIR WIRED FOR FUTURE PIR AND FINISHED IN SMALL JUNCTION BOX

NOTES:

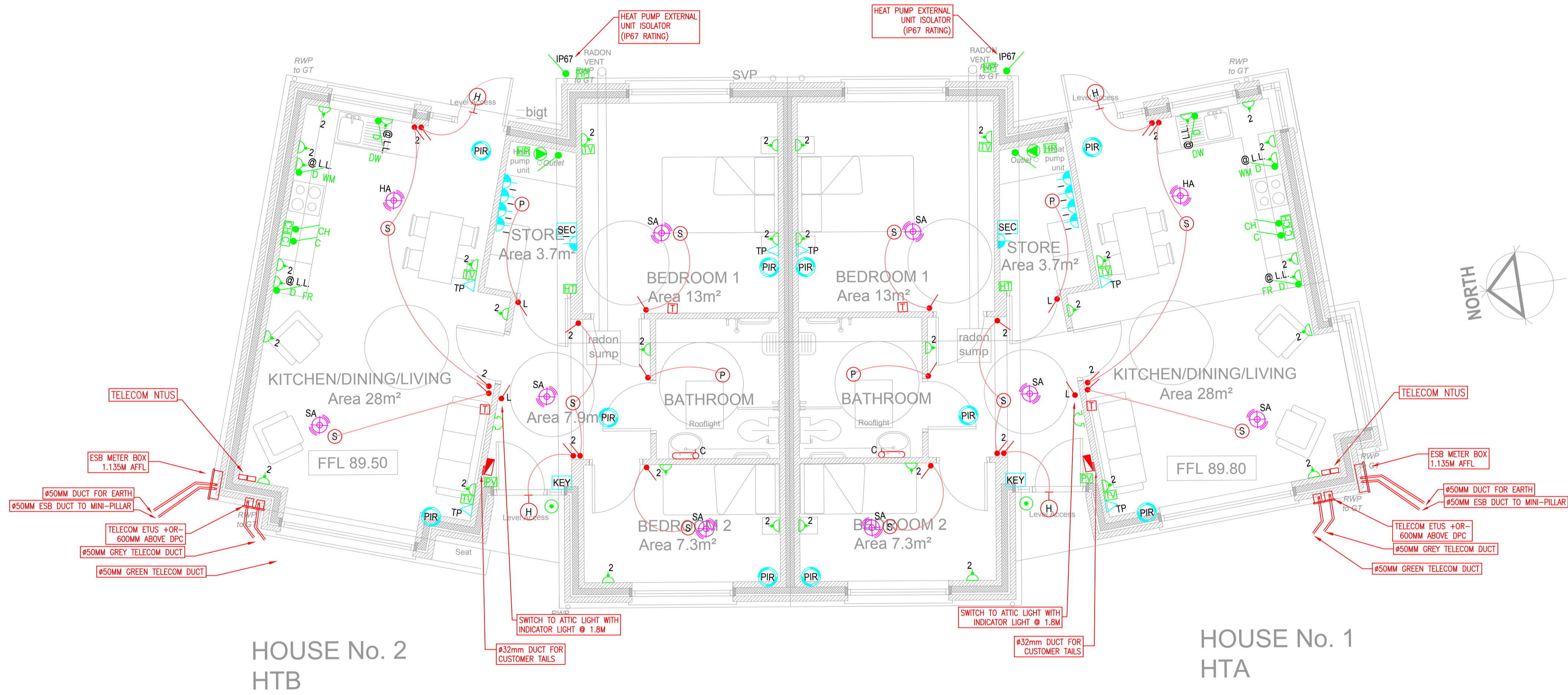
GENERAL NOTES:

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, C&S ENGINEERS DRAWINGS & SPECIFICATIONS.
2. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT BUILDING REGULATIONS.
3. DO NOT SCALE - WORK TO FIGURE DIMENSIONS ONLY.

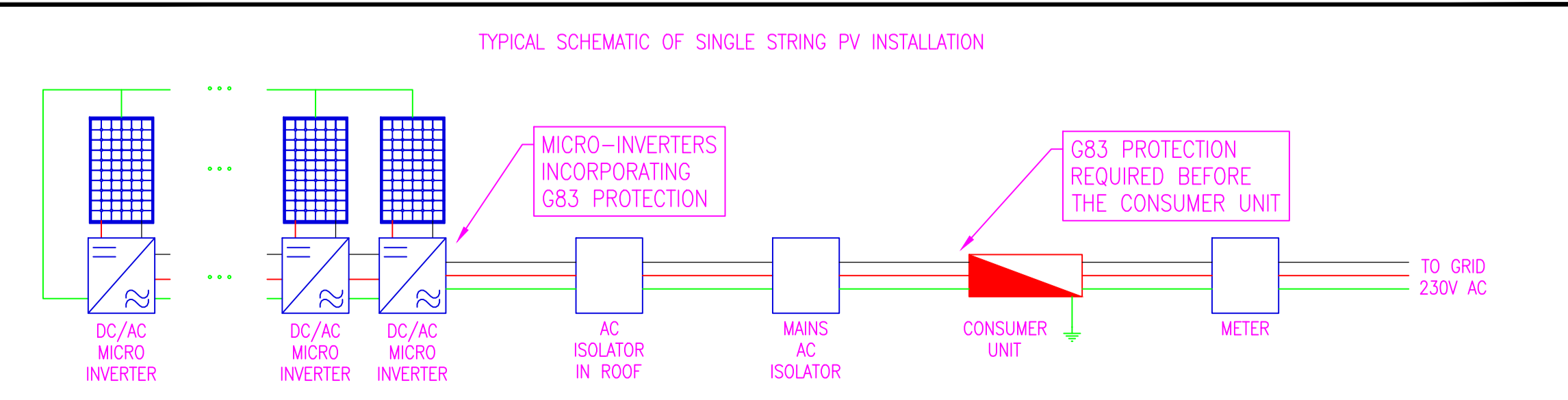
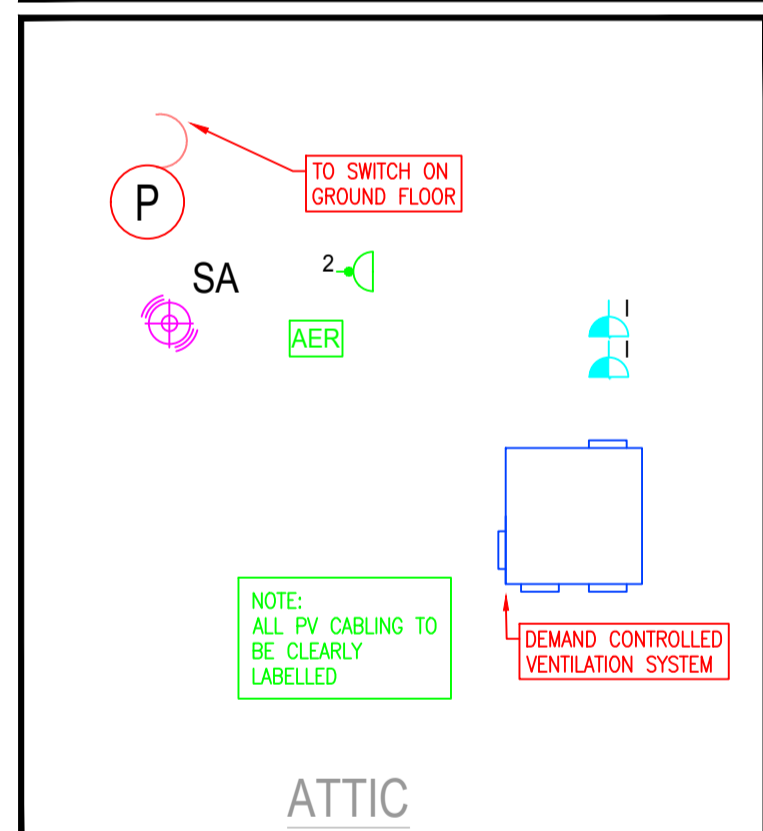
TYPICAL COMPLIANT PART L 2019 RENEWABLE ENERGY INSTALLATION - 305Wp SOLAR PHOTOVOLTAIC PANEL INSTALLATION COMPLETE WITH APPROPRIATE ROOF-MOUNTING KIT, BRACKETS, MICRO-INVERTER, CONTROLLER, ETC. AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND ESB NETWORKS CODE FOR THE INTEGRATION OF MICRO-GENERATORS. THE CONTRACTOR MAY DEMONSTRATE IF THEY SO WISH, ALTERNATIVE COMPLIANCE WITH PART L 2019 OF THE BUILDING REGULATIONS, BUT MUST BE COGNISANT OF PLANNING PERMISSION AESTHETIC IMPLICATION ETC.

IHEEM
Quality Standard ISO 9001-2015

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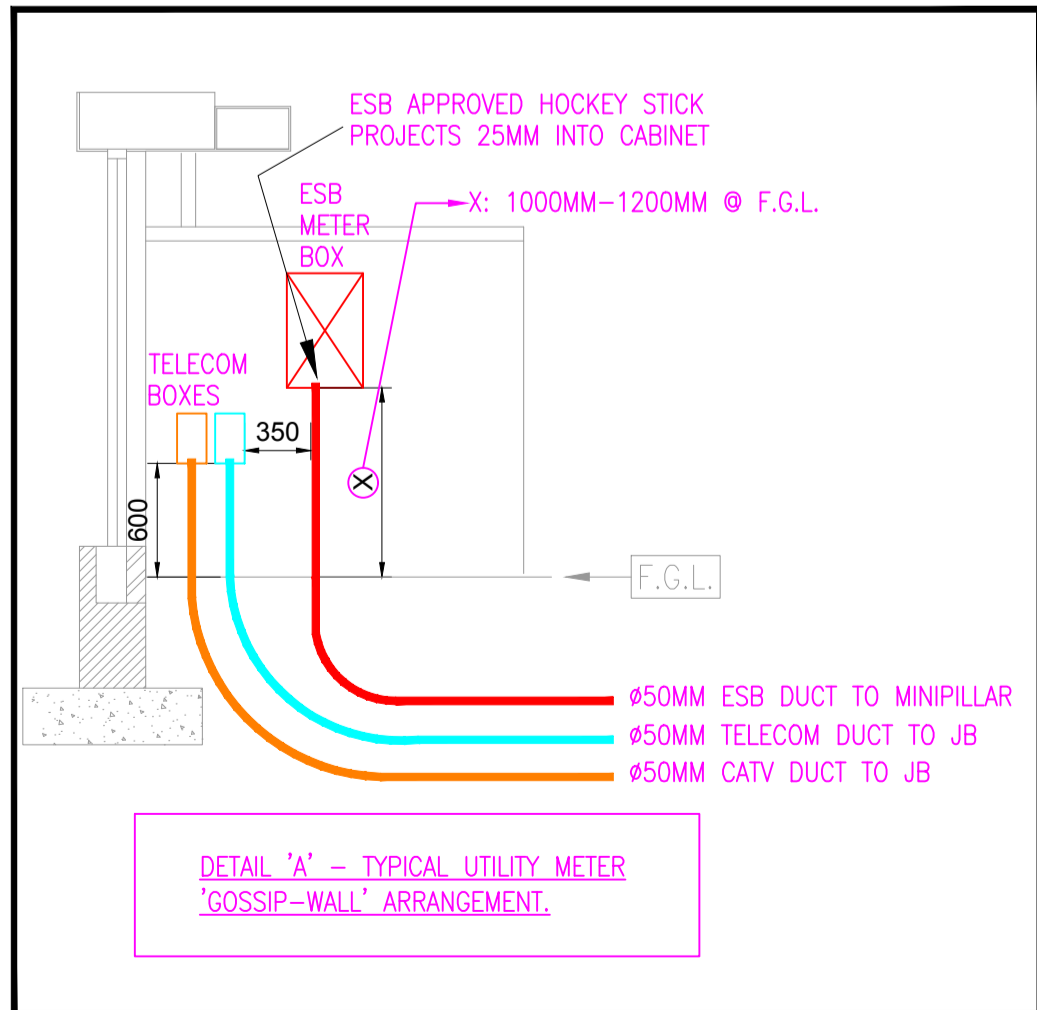


HOUSE No. 2 HTB
HOUSE No. 1 HTA
FLOOR PLAN - HOUSE TYPE A & B



ACTUAL LOCATIONS OF OUTLETS IN KITCHEN TO BE DETERMINED BY FINAL KITCHEN LAYOUTS AS PER THE TABLE BELOW:

APPLIANCE	OUTLET	LOCATION
COOKER	2 POLE COOKER ISOLATOR	ABOVE COUNTER, TO ONE SIDE OF COOKER
COOKER HOOD	SINGLE UNSWITCHED SOCKET	BELOW CEILING
COOKER HOOD SWITCH	2 POLE SWITCH	ABOVE COUNTER
FRIDGE	SINGLE UNSWITCHED SOCKET	450mm AFFL, BEHIND DISHWASHER
REMOTE SWITCH FOR FRIDGE (IF APPLICABLE)	2 POLE SWITCH	ABOVE COUNTER, NEXT TO FRIDGE
REMOTE SWITCH FOR DISHWASHER	SINGLE UNSWITCHED SOCKET	450mm AFFL, BEHIND DISHWASHER
WASHING MACHINE	2 POLE SWITCH	ABOVE COUNTER
REMOTE SWITCH FOR WASHING MACHINE	SINGLE UNSWITCHED SOCKET	450mm AFFL, BEHIND DISHWASHER
	2 POLE SWITCH	ABOVE COUNTER



Client: OFFALY COUNTY COUNCIL

Job Description: PROPOSED 4 No. OPD HOUSES AT SISTER SENANS AVENUE, EDENDERRY

Status: INFORMATION

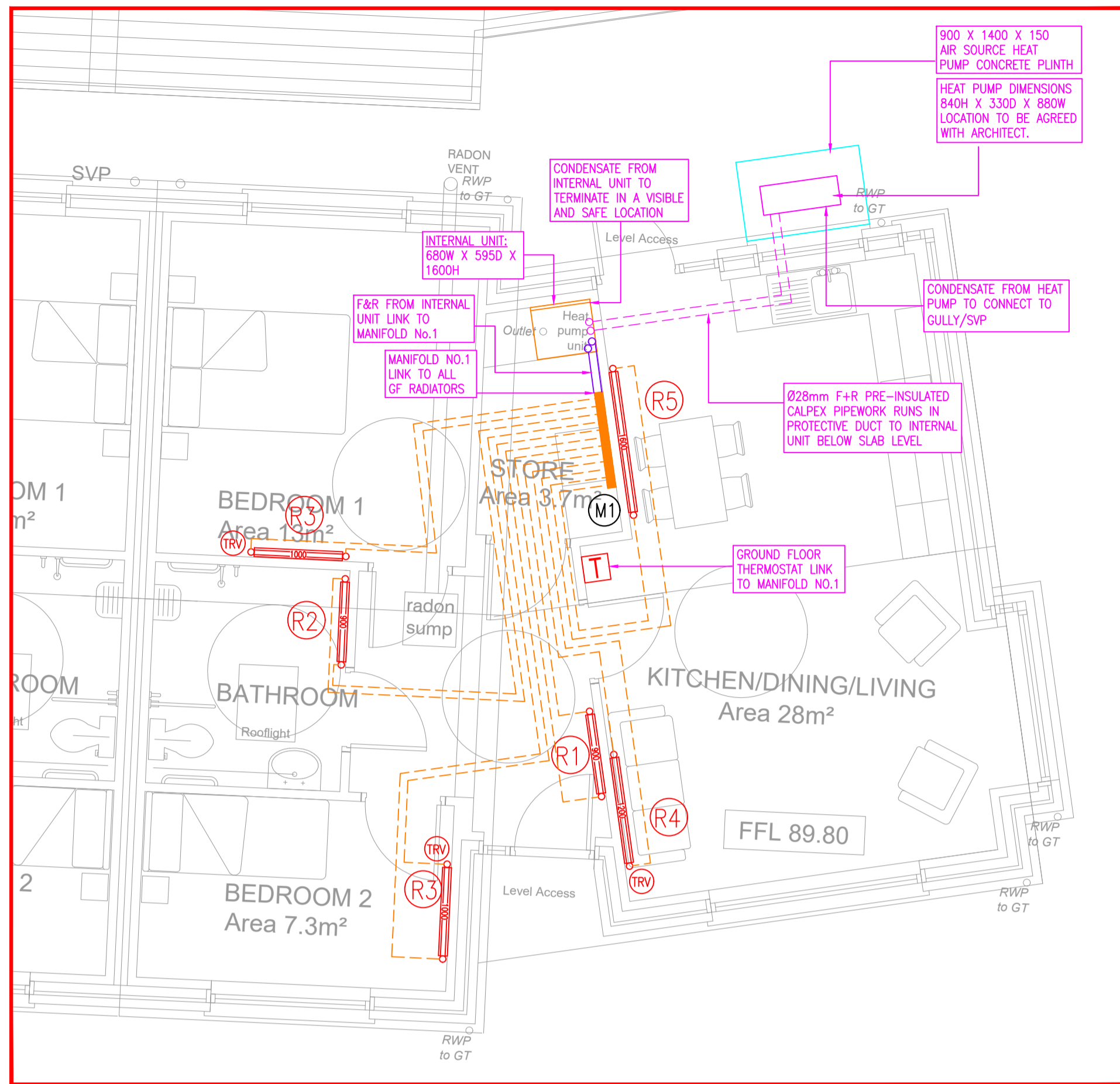
Drawing Title: ELECTRICAL SERVICES TYPES A & B

Project No: 19ME021(C) Drawing Ref: E-100 Rev: P3

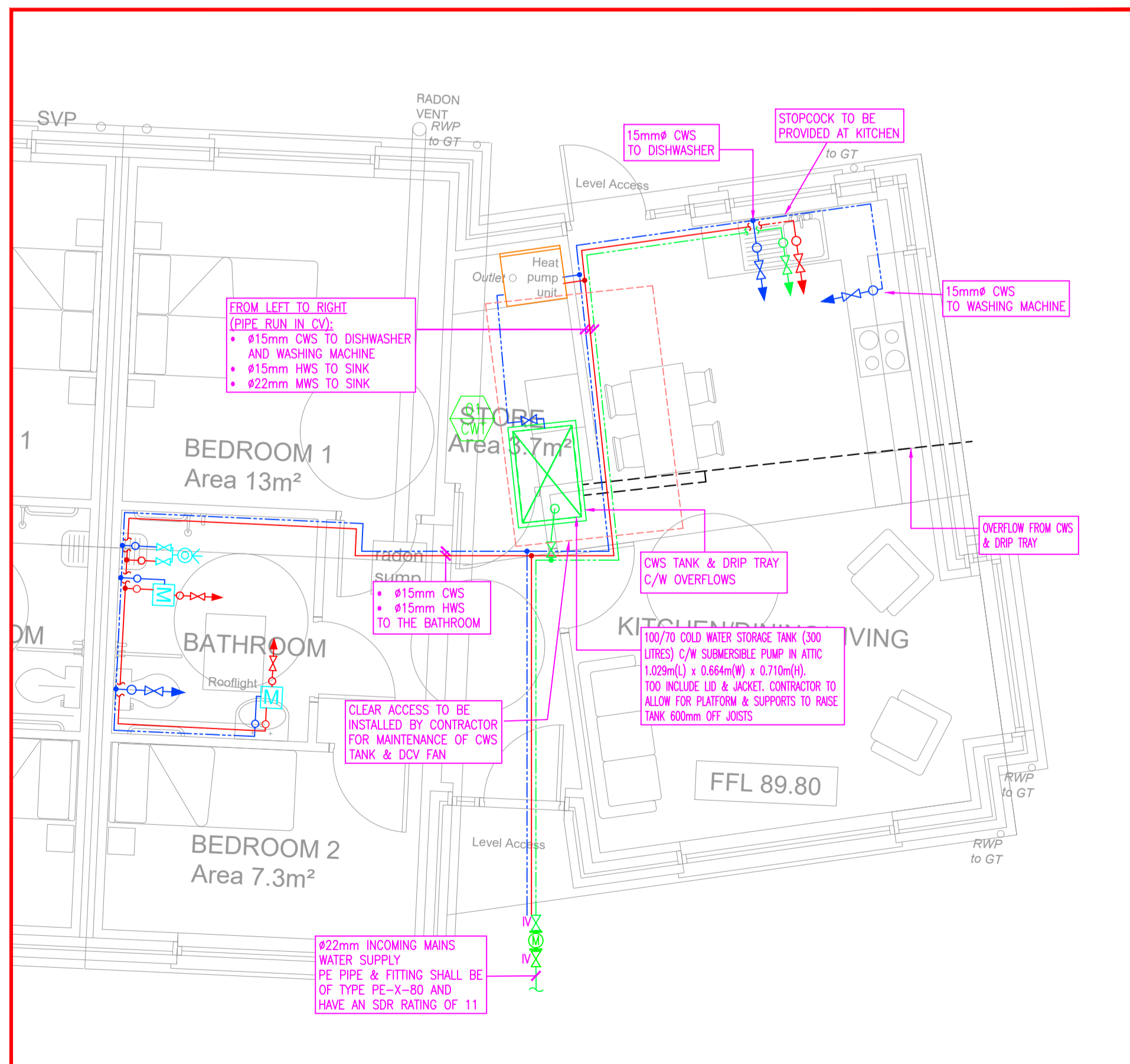
Date: 17/02/20 Scale: 1:50 @ A1 (1:100@A3)

Drawn By: H.P. Checked By: B.C. Approved By: A.W.

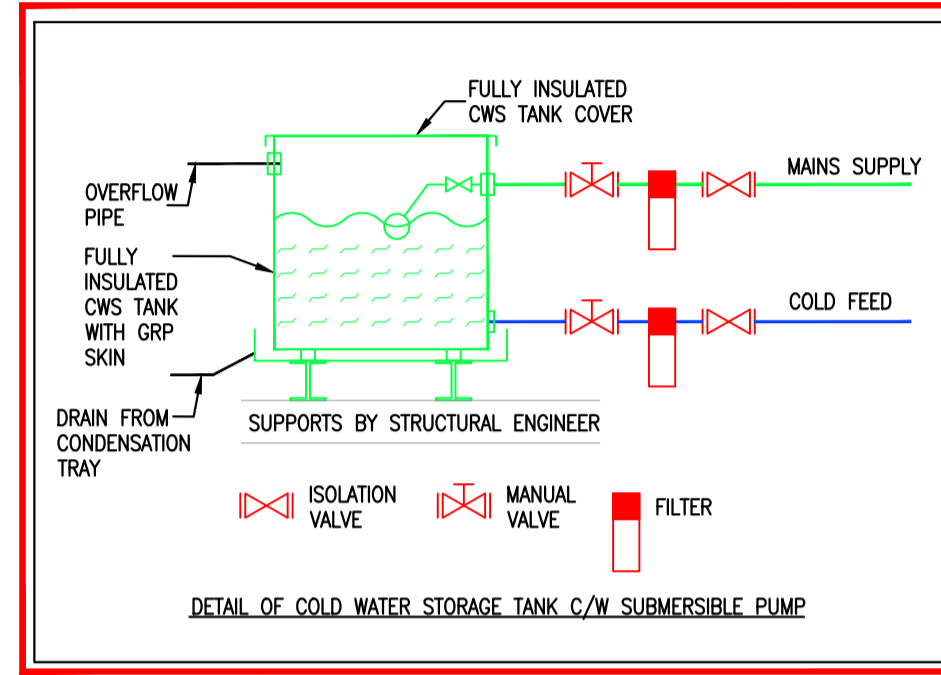
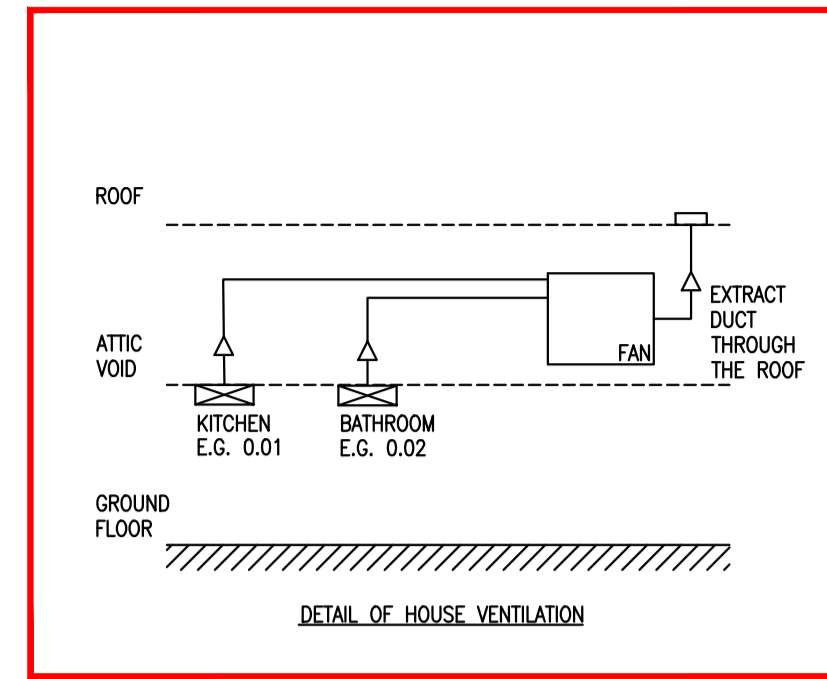
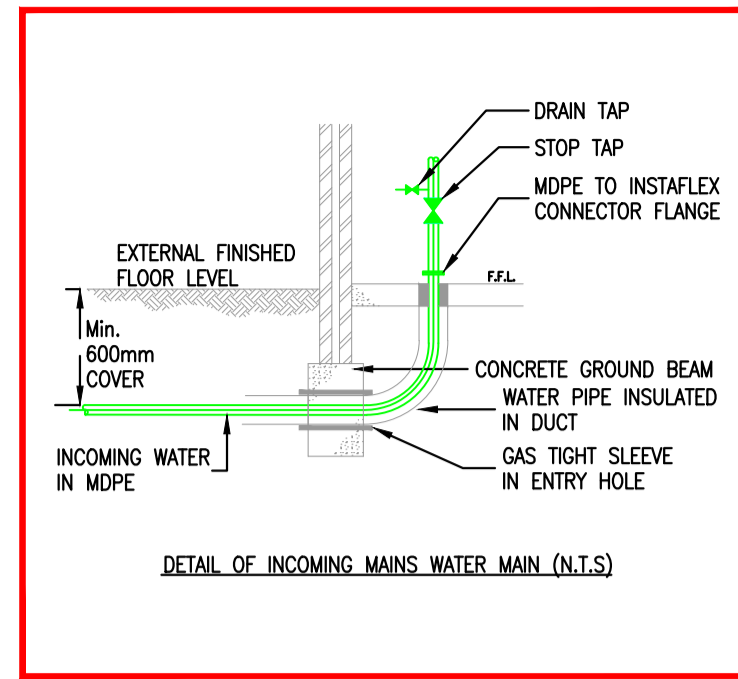
Hayes Higgins Partnership
Gas House Lane, Kilkenny.



GROUND FLOOR LEVEL HEATING SERVICES LAYOUT



GROUND FLOOR LEVEL WATER SERVICES LAYOUT

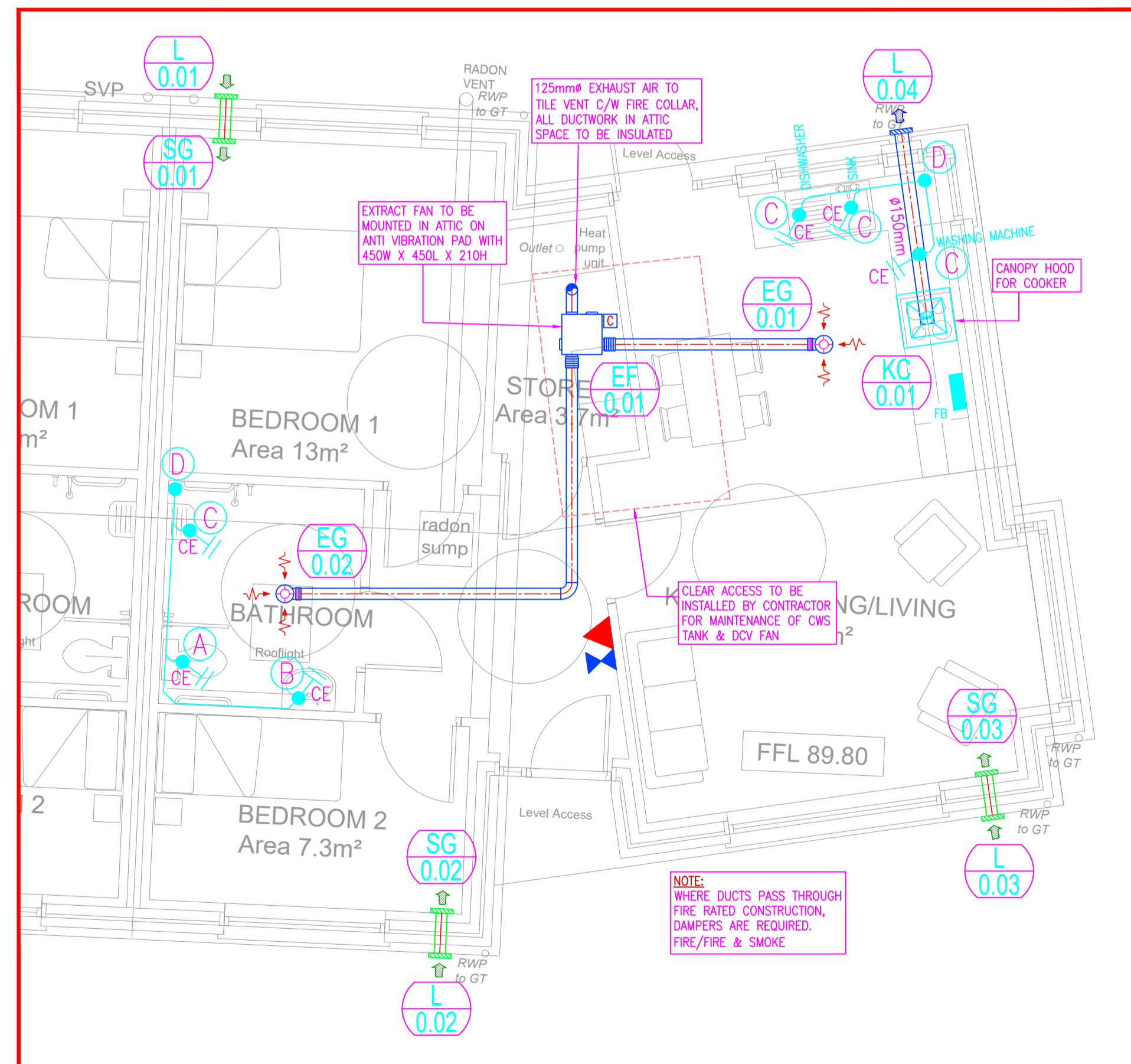


RADIATORS SCHEDULE

SYMBOL	TAG	LENGTH (L)	HEIGHT (H)	DEPTH (D)	OUTPUT (W)
	R1	900 mm	638 mm	92 mm	1659
	R2	900 mm	780 mm	128 mm	2062
	R3	1000 mm	780 mm	60 mm	1212
	R4	1200 mm	709 mm	92 mm	2323
	R5	1600 mm	709 mm	92 mm	3098

HEATING SERVICES LEGEND:

- OUTPUTS BASED ON AT OF 50°C
- DEPTHS INCLUSIVE OF MOUNTING BRACKET
- HEAT PUMP FLOW/ RETURN TEMPERATURES WILL BE 40/30°C SO RADIATOR CORRECTION FACTORS HAVE BEEN APPLIED TO HEAT LOADS.
- GROUND FLOOR CIRCUIT No.1 (PIPEWORK IN SCREED)
- BOILER CIRCUIT TO HOT PRESS
- TEMPERATURE STAT
- THERMOSTATIC RADIATOR VALVE
- MANIFOLD No.1 (CIRCUIT No.1)



GROUND FLOOR LEVEL SOILS / WASTES, VENTILATION & FIRE PROTECTION LAYOUT

GENERAL SERVICES LEGEND:

PIPE LEVEL RUN LINE TYPES:

- CEILING VOID/ATTIC PIPE RUNS
- HIGH LEVEL PIPE RUNS
- LOW LEVEL PIPE RUNS/ PIPE IN FLOOR
- PIPE RUNS IN CV FLOOR BELOW

FA/TB FROM ABOVE TO BELOW
TA TO ABOVE
TB TO BELOW

HEATING SERVICES LEGEND:

- RADIATOR REFERENCE
- RADIATORS
- HEATING PIPE RISE OR DROP
- ISOLATION VALVE
- DOUBLE REGULATION VALVE
- NON RETURN VALVE
- TEMPERATURE STAT
- THERMOSTATIC RADIATOR VALVE
- ACCESS HATCH

WATER SERVICES LEGEND:

- HOT WATER DRAW OFF POINT
- HOT WATER RETURN DRAW OFF POINT
- COLD WATER DRAW OFF POINT
- MAINS WATER DRAW OFF POINT
- RAIN WATER DRAW OFF POINT
- THERMOSTATIC BLENDING VALVE (TMB3) MAX OUTPUT TEMP - 45° COMPLETE WITH INTEGRAL NON-RETURN VALVES & STRAINERS
- THERMOSTATIC SHOWER WATER MIXING VALVE, TOP CONNECTIONS AND INTEGRAL CHECK VALVES AND STRAINERS C/W ADJUSTABLE SHOWER HEAD.
- PIPEWORK RISE / DROP
- ISOLATION VALVE
- CWS COLD WATER SUPPLY
- HWS HOT WATER SUPPLY
- HWSR HOT WATER SUPPLY RETURN
- MWS MAIN WATER SUPPLY
- RWS RAIN WATER SUPPLY

VENTILATION SERVICES LEGEND:

- EXTRACT GRILLE REFERENCE
- CANOPY HOOD EXTRACT FOR COOKER REFERENCE
- SUPPLY GRILLE REFERENCE
- EXTRACT FAN REFERENCE
- LOUVER REFERENCE
- SUPPLY VENT
- EXTRACT GRILLE
- RISING DUCT
- EXTRACT FAN
- FLEXIBLE DUCT
- FIRE DAMPER
- VOLUME CONTROL DAMPER
- CANOPY

SOIL & WASTE SERVICES LEGEND:

- 100mm# WASTE DROP FROM WC TO BUILDERS FLOOR SOCKET
- 32mm# WASTE DROP FROM WHB TO BUILDERS FLOOR SOCKET
- 40mm# WASTE DROP FROM SINK TO BUILDERS FLOOR SOCKET
- 100mm# SVP DROP TO BUILDER'S FLOOR SOCKET
- CLEANING EYE

FIRE PROTECTION SERVICES LEGEND:

- FIRE BLANKET
- 2KG Co2
- 6 LITRE FOG SPRAY WATER

NOTES:

GENERAL NOTES:

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND STRUCTURAL ENGINEERS CONSTRUCTION ISSUE DRAWINGS, FIRE CERTIFICATE & FIRE DRAWINGS, ALONG WITH THE CONSULTANTS MECHANICAL AND ELECTRICAL SPECIFICATIONS AND ANY OTHER DOCUMENTATION.
- DO NOT SCALE FROM THIS DRAWING. THIS DRAWING IS REPRESENTATIVE ONLY. ALL DIMENSIONS ARE IN MILLIMETERS (mm), UNLESS OTHERWISE STATED. USE THE FIGURED DIMENSIONS WHEN SHOWN.
- THE EXACT LOCATION OF SERVICES AND FITTINGS TO BE AGREED ON SITE WITH THE ARCHITECT AND/OR MECHANICAL OR STRUCTURAL ENGINEER PRIOR TO THEIR INSTALLATION.
- THE MECHANICAL AND ELECTRICAL SERVICES ARE TO BE CO-ORDINATED WITH ALL OTHER TRADES AND TO BE AGREED ON SITE PRIOR TO THEIR INSTALLATION. THE CONTRACTOR SHALL ALLOW FOR THE SETTING OUT AND INSTALLATION AROUND ALL OBSTRUCTIONS. ADDITIONAL COSTS INCURRED BY THE CONTRACTOR DUE TO THE LACK OF CO-ORDINATION WILL NOT BE ENTERAINED.
- FIRE/ SMOKE DAMPERS, FIRE COLLAR/ SLEEVES, INTUMESCENT PUTTY AND FIRE BARRIERS ARE TO BE INSTALLED WHERE DUCTING, PIPEWORK, CABLES, CONTAINMENT AND ANY OTHER SERVICES PASS THROUGH A FIRE WALL/ COMPARTMENT OR FLOOR.
- INSTALLATION/ CONSTRUCTION/ AS-BUILT DRAWINGS TO BE PREPARED WITH REFERENCE TO THE LATEST ARCHITECTS AND STRUCTURAL ENGINEERS CONSTRUCTION ISSUE DRAWINGS AND LATEST FIRE CERTIFICATE DRAWINGS.
- ALL WORKS TO COMPLY WITH THE NATIONAL CODE OF PRACTICE FOR CUSTOMER INTERFACE 4th EDITION 2008.

References:

- IHEEM
- Qualitas Veritas ISO 9001-2015
- ENGINEERS IRELAND
- cpd ACCREDITED COMPANY

Issue Register:

Rev.	Date	Description	Drawn	Chk'd	Appr'd
#1	17/02/20	INFORMATION	JM	BC	AW
#2	10/03/20	INFORMATION	JM	BC	AW
#3	11/09/20	INFORMATION	RS	BC	AW

Client: OFFALY COUNTY COUNCIL

Job Description: PROPOSED 4 No. OPD HOUSES AT SISTER SENANS AVENUE, EDENDERRY

Status: INFORMATION

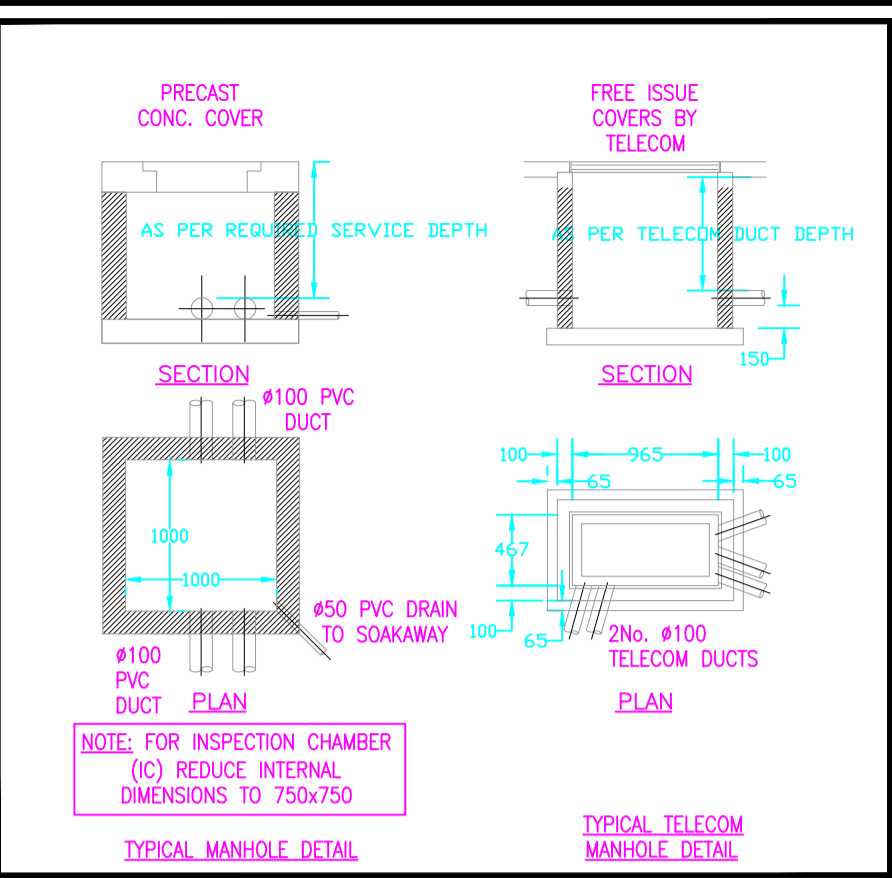
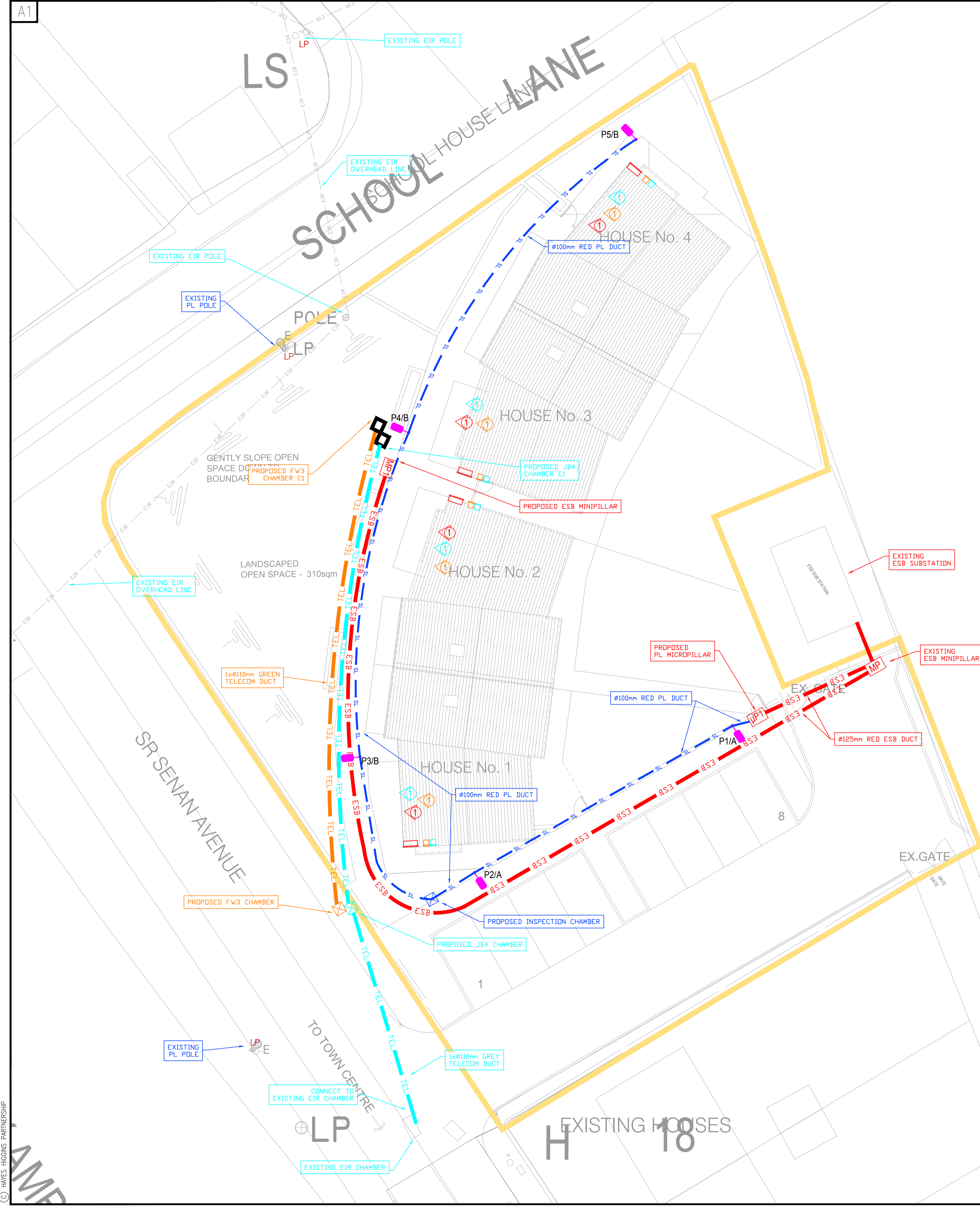
Project No: 19ME021(C) **Drawing Ref:** M-100 **Rev:** P3

Date: 17/02/20 **Scale:** 1:50 @ A1 (1:100@A3)

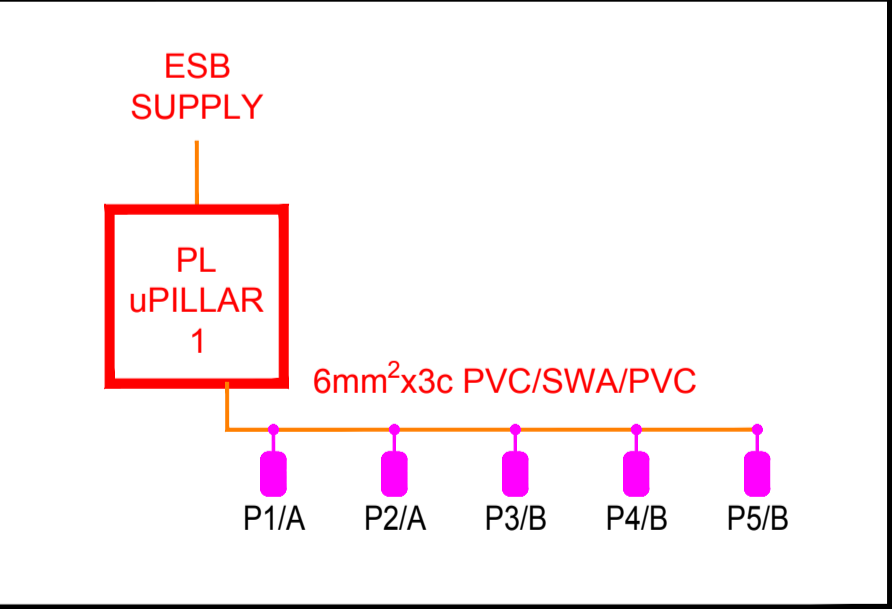
Drawn By: R.S. **Checked By:** B.C. **Approved By:** A.W.

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 The Open House, 11 Oke Lane, Sarsfield, (01) 6612321 (01) 6612504 admin@hayeshiggins.ie
 Issue 7

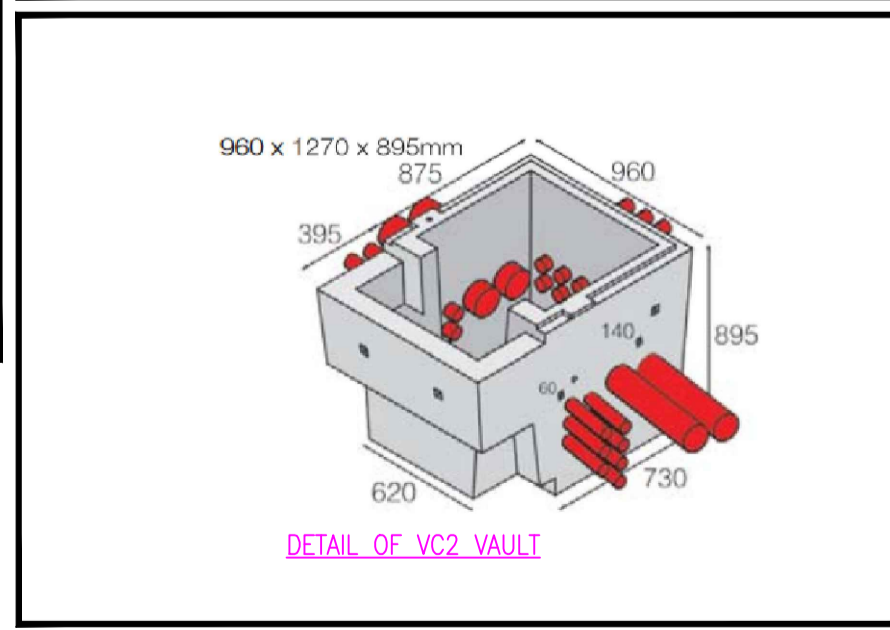
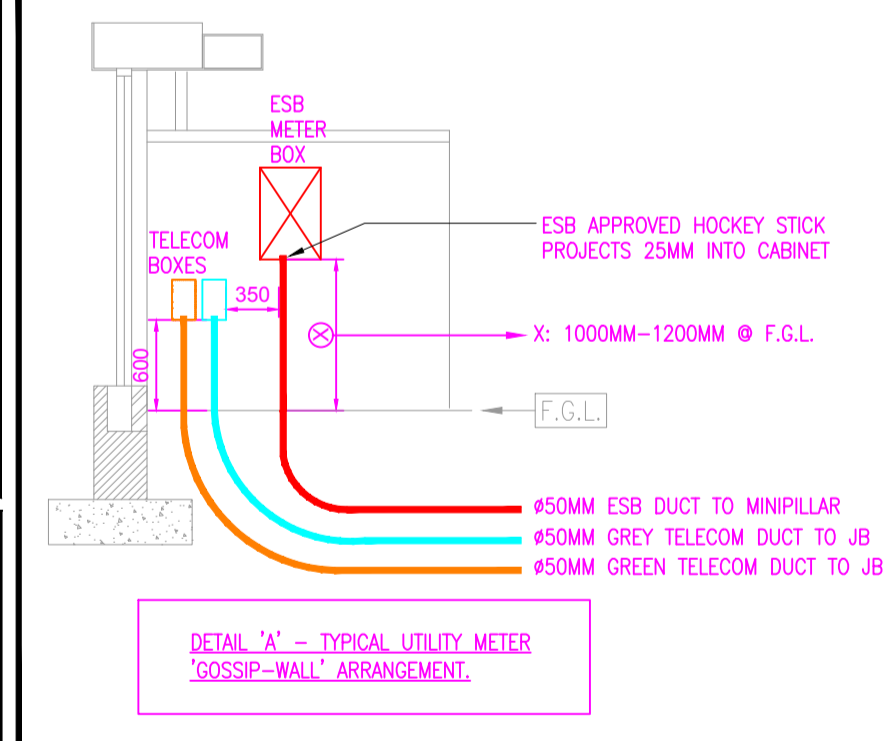
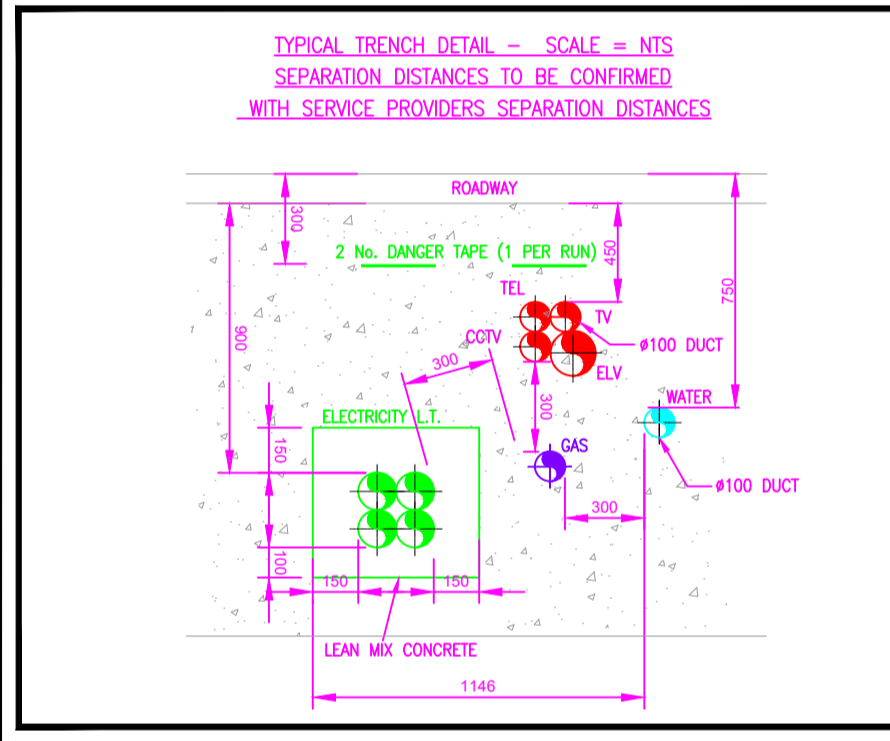
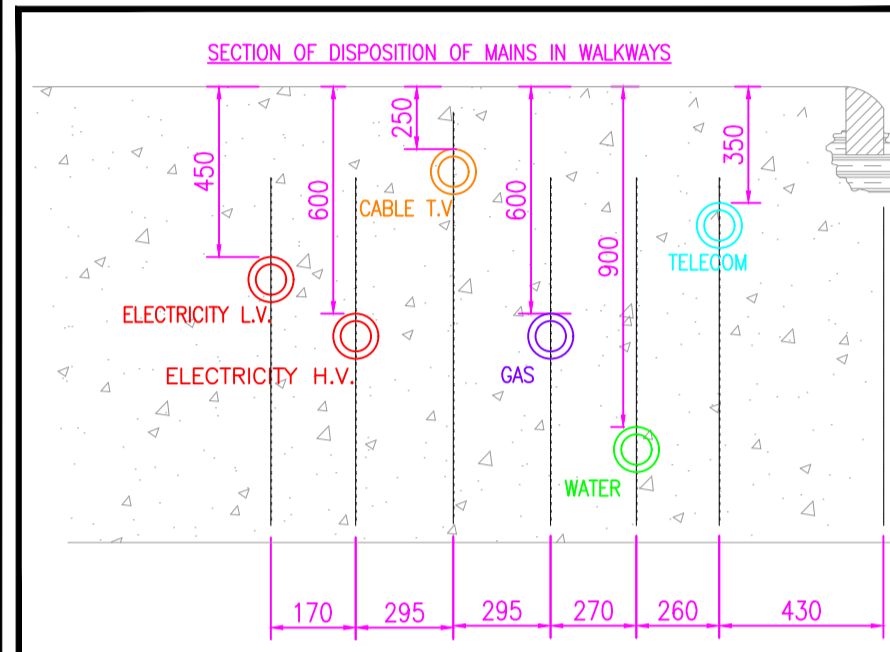
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- LEGEND**
- ESb — PROPOSED ESb LV LINE
 - EX ESb — EXISTING ESb LINE
 - ⊗ MANHOLE FOR DRAWING WIRES, ACCESS AND MAINTENANCE.
 - uPn ESb MINIPILLAR "n", C/W VC2 VAULT IMMEDIATELY IN FRONT
 - ⊕ ⅆ50mm RED DUCT TO MINIPILLAR "n"
 - ⊕ ESb METER BOX & TELECOM ETUs
 - TEL TELECOM GREY DUCTS
⊕110mm MAINS TO CHAMBERS AND ⅆ50mm FROM CHAMBERS TO ETU'S
 - TEL TELECOM GREEN DUCTS
⊕110mm MAINS TO CHAMBERS AND ⅆ50mm FROM CHAMBERS TO ETU'S
 - EIR — EXISTING EIR DUCT
 - ⊗ MANHOLE FOR DRAWING WIRES, ACCESS AND MAINTENANCE.
 - En TELECOM 1 JB "n"
 - Cn TELECOM 2 JB "n"
 - ⊕ ⅆ50mm GREY DUCT TO JB "n"
 - ⊕ ⅆ50mm GREEN DUCT TO JB "n"
 - ⊕ TP EIR TELECOM POLE
 - SL — EXTERNAL LIGHTING DUCT ⅆ100mm (RED)
 - Pn/A LED LANTERN, 22W, 3400lm, 4000K, DX70 DISTRIBUTION ON 6m POLE
 - Pn/B LED LANTERN, 9W, 1400lm, 4000K, DX70 DISTRIBUTION ON 6m HINGED POLE
 - E EXISTING LUMINAIRE
 - ⊗ MANHOLE FOR DRAWING WIRES, ACCESS AND MAINTENANCE.
 - uPn PL MICROPIILLAR "n"



- NOTES:**
- USE ONLY SOLID WALL HIGH IMPACT RESISTANCE ESb NETWORKS APPROVED RED DUCTING TO IS 370 COLOUR STANDARD AND ESb NETWORKS SPECIFICATION 16113 (3.8MM MINIMUM WALL THICKNESS uPVC FOR 125MM DUCTS). DISCOLOURED DUCT NOT ACCEPTABLE.
 - LIGHTWEIGHT, FLEXIBLE CORRUGATED TWIN WALL DUCTING IS NOT ACCEPTABLE TO ESb NETWORKS IRRESPECTIVE OF MANUFACTURER
 - DUCTS SHALL BE LAID WITH THE LEGEND FACING UPWARDS, IN A STRAIGHT LINE, ROPED USING 12MM POLYPROPYLENE ROPE WITH CERTIFIED SAFE BREAKING LOAD OF 1.5 TONS.
 - THE INSTALLATION SHALL COMPLY WITH THE ESb'S "STANDARD SPECIFICATION FOR ESb NETWORKS MV/LV NETWORKS DUCTING".
 - THE THERMAL RESISTIVITY OF THE DUCT SURROUND MATERIAL MUST BE MAXIMUM 1.0K/M/WATT @80% MOISTURE CONTENT. ONLY ESb NETWORKS APPROVED UNWASHED SAND GRADED TO BS882 STANDARD OR EQUIVALENT ESb NETWORKS APPROVED MATERIAL IS ACCEPTABLE. PEA GRAVEL AND FOAM CONCRETE ARE UNACCEPTABLE.
 - AN IDENTIFYING RED TAPE MUST BE PLACED ON TOP OF THE SAND AND A YELLOW 300mm FROM THE SURFACE.
 - A MINIMUM DEPTH OF 450MM IS REQUIRED IN ESTABLISHED FOOTWAYS, 600MM IN NEW HOUSING ESTATE CARRIAGEWAYS & FOOTWAYS AND ALL GRASSED AREAS. 750MM ALL NON-HOUSING ESTATE CARRIAGEWAYS.



- NOTES:**
- GENERAL NOTES:**
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ISO 9001-2015

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P2	10/03/20	INFORMATION	HP	BC	AW
P3	11/09/20	INFORMATION	HP	BC	AW

Client: OFFALY COUNTY COUNCIL

Job Description: PROPOSED 4 No. OPD HOUSES AT SISTER SENANS AVENUE, EDENDERRY

Status: INFORMATION

Drawing Title: PROPOSED SITE SERVICES LAYOUT

Project No: 19ME021(C) Drawing Ref: ME-1000 Rev: P3

Date: 17/02/2020 Scale: 1:125 @ A1 (1:250@A3)

Drawn By: HP Checked By: BC Approved By: AW

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Issue 7

A.3.4