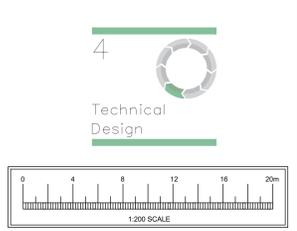


- PROTECTED BY UK COPYRIGHT LAW
 DO NOT SCALE OFF THIS DRAWING
 DESIGNER'S RISK ASSESSMENT
 Under section 11, 18 - Construction (Design and Management) Regulations 2015
- SAFETY, HEALTH & ENVIRONMENTAL INFORMATION
 There are no significant, unusual or location specific risks which are not obvious to a competent contractor or likely to be difficult to manage
- NOTES
- ALL PERSONS INVOLVED IN EXCAVATIONS SHOULD CONSULT HSE 47 'AVOIDING DANGER FROM UNDERGROUND SERVICES'.
 - ALL UNDERGROUND SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH NICE - GUIDELINES ON THE POSITIONING AND COLOUR CODING OF UTILITIES APPARATUS.
 - THE DIMENSIONS SHOWN REPRESENT THE PREFERRED ARRANGEMENTS, VARIATIONS MAY BE NECESSARY AT CURVES AND CHANGES OF DIRECTION.
 - THE UTILITIES SERVICES SHOULD BE Laid AT A MINIMUM DEPTH AS FOLLOWS (UNLESS ADVISED OTHERWISE BY UTILITY SERVICES PROVIDERS):
 - CARRIAGEWAYS
 - WATER - 900mm
 - ELECTRICITY - 500mm
 - TELECOMMS - 600mm
 - GAS - 750mm
 - NON-CARRIAGEWAYS
 - WATER - 750mm
 - ELECTRICITY - 450mm
 - TELECOMMS - 500mm
 - GAS - 600mm
 - ALL SERVICES TO BE CONTAINED IN DUCTS WHERE THEY CROSS THE ACCESS ROAD AS FOLLOWS:
 - WATER - RIGID DUCT (BLUE)
 - ELECTRIC - RIGID DUCT (BLACK)
 - CAS - RIGID DUCT (YELLOW)
 - BT TELECOMMS - RIGID DUCT (GREY)
 - EXTERNAL LIGHTING - RIGID DUCT (BLACK)
 - PRIVATE CABLES - RIGID DUCT (GREEN)
 - SERVICE DUCTS AND DRAIN PITS ARE TO BE INSTALLED TO UTILITY PROVIDERS SPECIFICATION/DETAILS. I.E. SPECIFICATION, SIZE, MATERIAL, TYPE, COLOUR ETC.
 - MARKER/WARNING TAPES SHALL BE INSTALLED FOLLOWING INSTALLATION OF SERVICES.
 - ALL WORKS AND MATERIALS SPECIFICATIONS TO BE INSTALLED STRICTLY IN ACCORDANCE WITH THE UTILITY SERVICES PROVIDERS REQUIREMENTS.
 - THIS LAYOUT IS TO BE READ IN CONJUNCTION WITH THE EXISTING RECORD DRAWINGS AND BELOW GROUND DRAINAGE DESIGN.
 - ALL DUCTS TO HAVE SLOW 30 DEGREE RADIUS BENDS AND TO BE PROVIDED WITH DRAIN ROPES. ALL DUCTS TO BE SMOOTH BORE WITH NO PROTRUSIONS AND THE DUCTWORK.
 - IT IS RECOMMENDED THAT A OPES SCAN IS CARRIED OUT OF THE SITE BY A SPECIALIST SURVEY COMPANY TO IDENTIFY ANY UNKNOWN SERVICES TO DETAIL ON THE UTILITY SERVICES LAYOUTS. TO BE INCLUDED IN CONTRACTORS TENDER.
 - ON COMPLETION ALL DUCTS SHALL BE SEALED AGAINST MOISTURE AND VERMIN INGRESS.
 - MANHOLES LOCATED IN HARD STANDING AREAS WHEREVER POSSIBLE, MANHOLES IN ROADWAYS AND ROUTES OF HEAVY TRAFFIC TO HAVE HEAVY DUTY COVERS.
 - MANHOLES TO BE FITTED WITH SOAK AWAY DRAIN IN THE BASE TO ASSIST WITH DRAINAGE.
 - ANY NEW TRENCHING IN THE PROXIMITY OF EXISTING SERVICES TO BE SUITABLY IDENTIFIED VIA TRIP PITS AND CUT SIGNS AND HAZARD DUE TO WORK DAMAGE BY MACHINERY/PLANT ETC.
 - ONLY ACCEPTABLE BEDDING AND BACK FILL MATERIAL TO BE USED IN SERVICE TRENCHES I.E. SAND, GRAVEL, WASHED SAND, GRAVEL, STONE (SMALLER THAN 20MM) OR SAND/GRAVEL MIX, STRICTLY IN ACCORDANCE WITH UTILITY SERVICES PROVIDERS SPECIFICATION/REQUIREMENTS.
 - SERVICE ROUTES SHOWN ON THE DRAWING IS PROVISIONAL, BASED ON THE INFORMATION RECEIVED FROM THE SERVICE PROVIDER. DEVELOPER/CONTRACTOR SHALL FINALISE THE ROUTES WITH ALL UTILITY PROVIDERS PRIOR TO INSTALLATION.
 - REFER TO BT OPERATIONAL DRAWING QUOTATION AND DESIGN PROPOSAL FOR INCOMING DETAILS.
 - REFER TO WFO QUOTATION AND DESIGN PROPOSAL FOR HV & LV INCOMING POINT OF CONNECTION DETAILS.
 - REFER TO CABENT QUOTATION AND DESIGN PROPOSAL FOR GAS INCOMING POINT OF CONNECTION DETAILS.
 - REFER TO SEWEN TREAT WATER QUOTATION AND DESIGN PROPOSAL FOR WATER INCOMING POINT OF CONNECTION DETAILS.
 - CONTRACTOR SHALL LIAISE WITH THE STRUCTURAL ENGINEER FOR THE CABLE ENTRY THE BUILDING UNDER THE GROUND FLOOR STRUCTURAL SLAB.
 - ALL ADD POP-UP CONNECTIONS SHALL BE 100% UNLESS OTHERWISE INDICATED.
 - SPLIT TRENCHES AND UTILITY MARKING OUT, TO BE CARRIED OUT AT THE NEW SITE ENTRANCE/ACCESS LOCATIONS.

PROPOSED EXTERNAL SERVICES	
SYMBOL	REFERENCE
	PROPOSED FIRE HYDRANT MAIN
	PROPOSED BT DUCT (100% SMOOTH INTERNAL BORE DUCTS)
	PROPOSED WATER MAINS
	PROPOSED HV DUCT (125# SMOOTH INTERNAL BORE DUCTS)
	PROPOSED LV DUCT (125# SMOOTH INTERNAL BORE DUCTS)
	PROPOSED ELV DUCT (100% SMOOTH INTERNAL BORE DUCTS)
	TURNING CHAMBER
	EXTERNAL LIGHTING COLUMN
	ACTIVE ELECTRIC VEHICLE CHARGERS (BOLEE 20kW)
	TWIN ACTIVE ELECTRIC VEHICLE CHARGERS (BOLEE 7kW x 2 = 20kW 36)
	TWIN ACTIVE ELECTRIC VEHICLE CHARGERS (BOLEE FAST CHARGE 60-80kW/150A 36)



T02	CLIENT COMMENTS INCORPORATED	MH	EP	16.06.25	
T01	TENDER ISSUE	MH	EP	30.05.25	
P01	PRELIMINARY ISSUE	MH	GP	31.03.23	
STA	REV	DESCRIPTION	DES	(CHD)	DATE

PURPOSE OF ISSUE
 TENDER

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CLIENT
pcspecialist

PROJECT
 GRANGE MOOR WAKEFIELD

TITLE
 PROPOSED EXTERNAL INFRASTRUCTURE LAYOUT

SCALE	1:200	ORIGINAL SIZE	A0	DATE	MAR '23
DRAWN	MH	DESIGNED	MH	CHECKED	GP
PROJECT ORIGINATOR ZONE LEVEL TYPE ROLE CLASS NUMBER	P1948-NOV-XX-EX-DR-E-9606				
REVISION	T02				

