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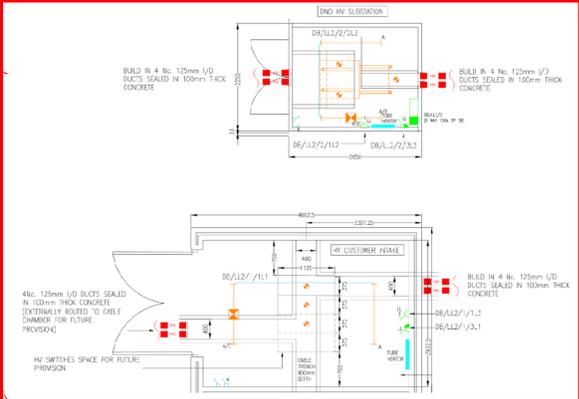
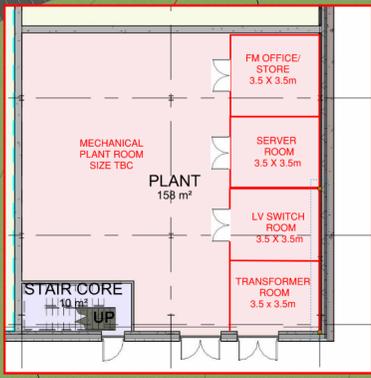
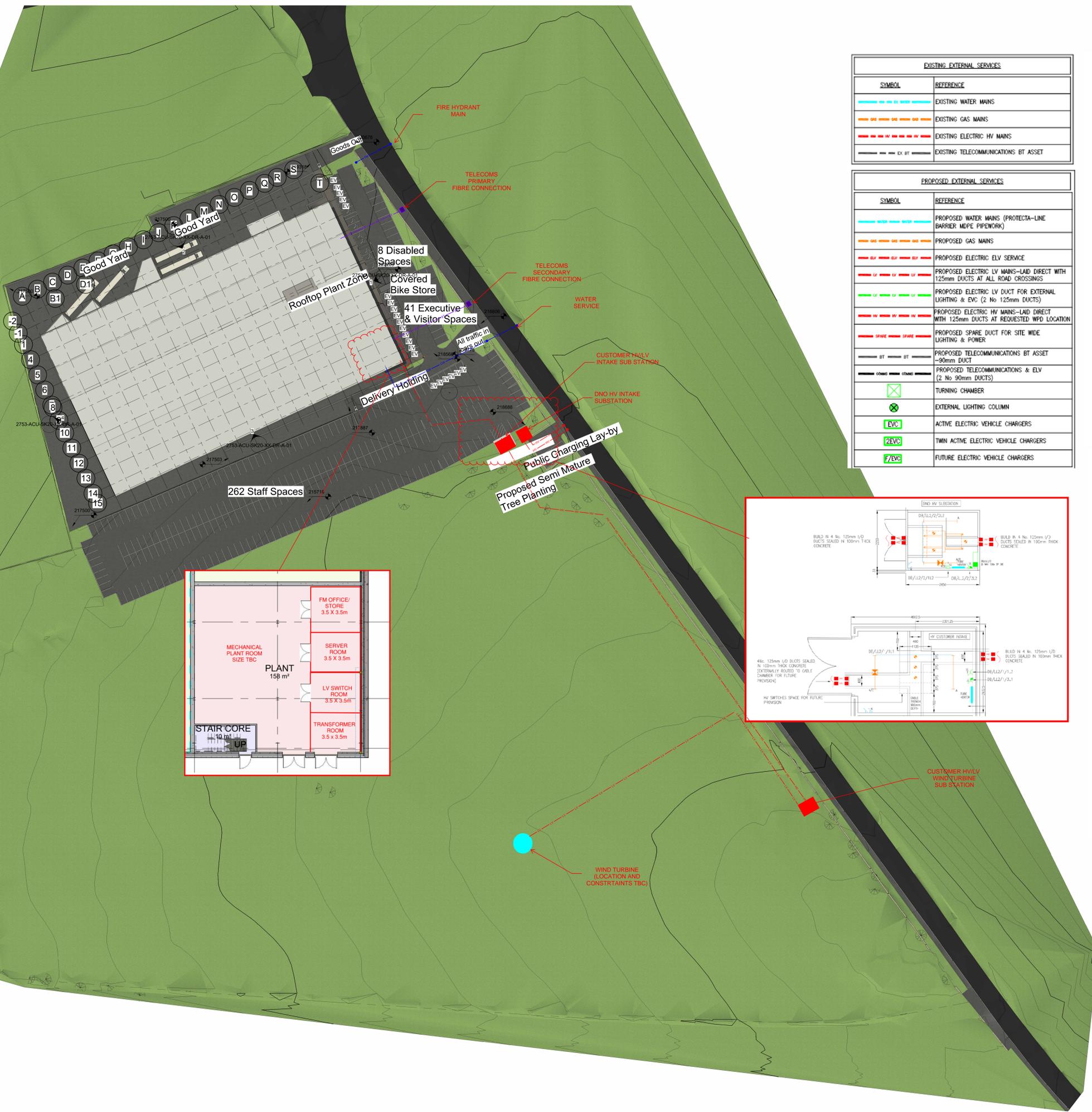
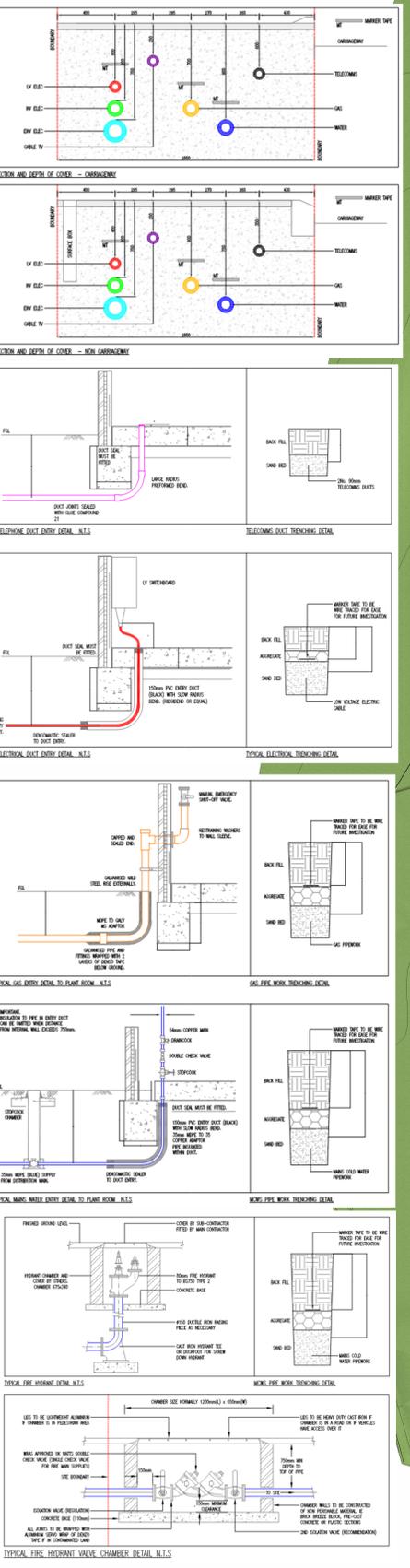
EXISTING EXTERNAL SERVICES	
SYMBOL	REFERENCE
	EXISTING WATER MAINS
	EXISTING GAS MAINS
	EXISTING ELECTRIC HV MAINS
	EXISTING TELECOMMUNICATIONS BT ASSET

PROPOSED EXTERNAL SERVICES	
SYMBOL	REFERENCE
	PROPOSED WATER MAINS (PROTECTA-LINE BARRIER MDPE PIPEWORK)
	PROPOSED GAS MAINS
	PROPOSED ELECTRIC ELV SERVICE
	PROPOSED ELECTRIC LV MAINS-LAID DIRECT WITH 125mm DUCTS AT ALL ROAD CROSSINGS
	PROPOSED ELECTRIC HV MAINS-LAID DIRECT WITH 125mm DUCTS AT REQUESTED WPD LOCATION
	PROPOSED SPARE DUCT FOR SITE WIDE LIGHTING & POWER
	PROPOSED TELECOMMUNICATIONS BT ASSET - 90mm DUCT
	PROPOSED TELECOMMUNICATIONS & ELV (2 No 90mm DUCTS)
	TURNING CHAMBER
	EXTERNAL LIGHTING COLUMN
	ACTIVE ELECTRIC VEHICLE CHARGERS
	TWIN ACTIVE ELECTRIC VEHICLE CHARGERS
	FUTURE ELECTRIC VEHICLE CHARGERS

- NOTES:
- ALL PERSONS INVOLVED IN EXCAVATIONS SHOULD CONSULT HSG 47 "AVOIDING DANGER FROM UNDERGROUND SERVICES".
 - ALL UNDERGROUND SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH NJUG - GUIDELINES ON THE POSITIONING AND COLOUR CODING OF UTILITIES APPARATUS.
 - THE DIMENSIONS SHOWN REPRESENT THE PREFERRED ARRANGEMENT, VARIATIONS MAY BE NECESSARY AT CURVES AND CHANGES OF DIRECTION.
 - THE UTILITY SERVICES SHOULD BE LAID AT A MINIMUM DEPTH AS FOLLOWS (UNLESS ADVISED OTHERWISE BY UTILITY SERVICES PROVIDERS):

CARRIAGEWAYS	
WATER	- 900mm
ELECTRICITY	- 600mm
TELECOMMS	- 600mm
GAS	- 700mm
NON CARRIAGEWAYS	
WATER	- 750mm
ELECTRICITY	- 450mm
TELECOMMS	- 350mm
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)
GAS	- RIGID DUCT (YELLOW)
BT TELECOMMS	- RIGID DUCT (GREY)
EXTERNAL LIGHTING	- RIGID DUCT (BLACK)
PRIVATE COMMS	- RIGID DUCT (GREEN)
 - SERVICE DUCTS AND DRAW 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 SERVICE 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 DRAW ROPES. ALL DUCTS TO BE SMOOTH BORE WITH NO PROTRUSIONS INTO THE DUCTWORK.
 - IT IS RECOMMENDED THAT A GPRS 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 TRIAL PITS AND CAT SCANS AND HAND DUG TO AVOID DAMAGE BY MACHINERY/PLANT ETC.
 - ONLY ACCEPTABLE BEDDING AND BACK FILL MATERIAL TO BE USED IN SERVICE TRENCHES I.E. PEA GRAVEL, WASHED SHARP SAND, CRUSHED 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 OPENREACH DRAWING QUOTATION AND DESIGN PROPOSAL FOR INCOMING DETAILS.
 - REFER TO WPD QUOTATION AND DESIGN PROPOSAL FOR HV & LV INCOMING POINT OF CONNECTION DETAILS.
 - REFER TO CADENT QUOTATION AND DESIGN PROPOSAL FOR GAS INCOMING POINT OF CONNECTION DETAILS.
 - REFER TO SEVERN TRENT WATER QUOTATION AND DESIGN PROPOSAL FOR WATER INCOMING POINT OF CONNECTION DETAILS.
 - CONTRACTOR SHALL LIASE WITH THE STRUCTURAL ENGINEER FOR THE CABLE ENTRY THE BUILDING UNDER THE GROUND FLOOR STRUCTURAL SLAB.
 - ALL AGD POP-UP CONNECTIONS SHALL BE 100# UNLESS OTHERWISE INDICATED.
 - SLIT TRENCHES AND UTILITY MARKING OUT, TO BE CARRIED OUT AT THE NEW SITE ENTRANCE/EGRESS LOCATIONS.



GP	GP	18.01.2023
STA	REV	DESCRIPTION
PURPOSE OF ISSUE		
PRELIMINARY ISSUE		
NOVO Integration Ltd		
CLIENT		
pcspecialist		
PROJECT		
GRANGE MOOR WAKEFIELD		
TITLE		
EXTERNAL SERVICES UTILITY LAYOUT		
SCALE	ORIGINAL SIZE	DATE
1:200	A1	JAN '23
DRAWN	DESIGNED	CHECKED
GP	GP	GP
PROJECT ORIGINATOR ZONE LEVEL TYPE ROLE CLASS NUMBER	REVISION	
P1948-NOV-XX-00-DR-ME -960	P01	

EXTERNAL SERVICES