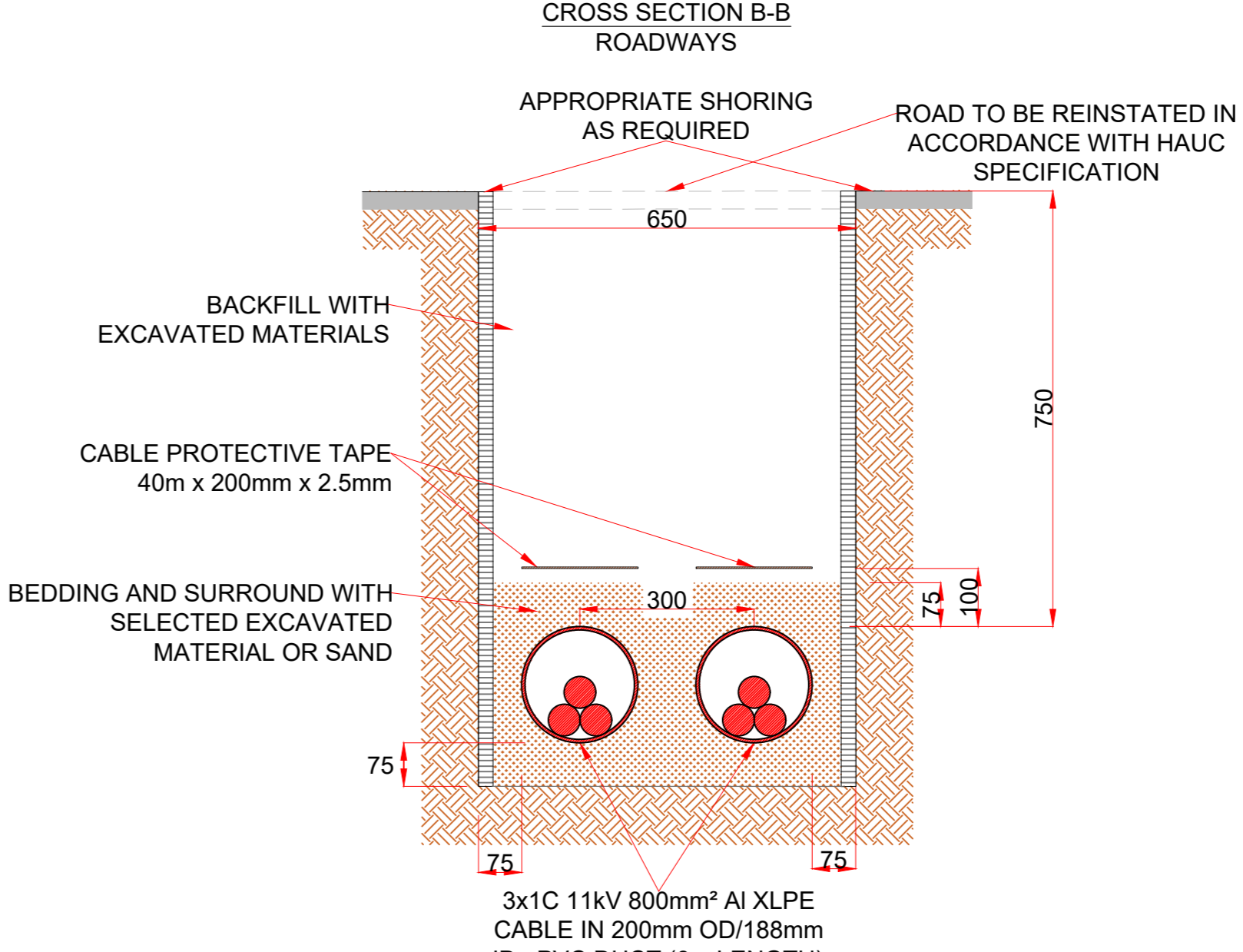
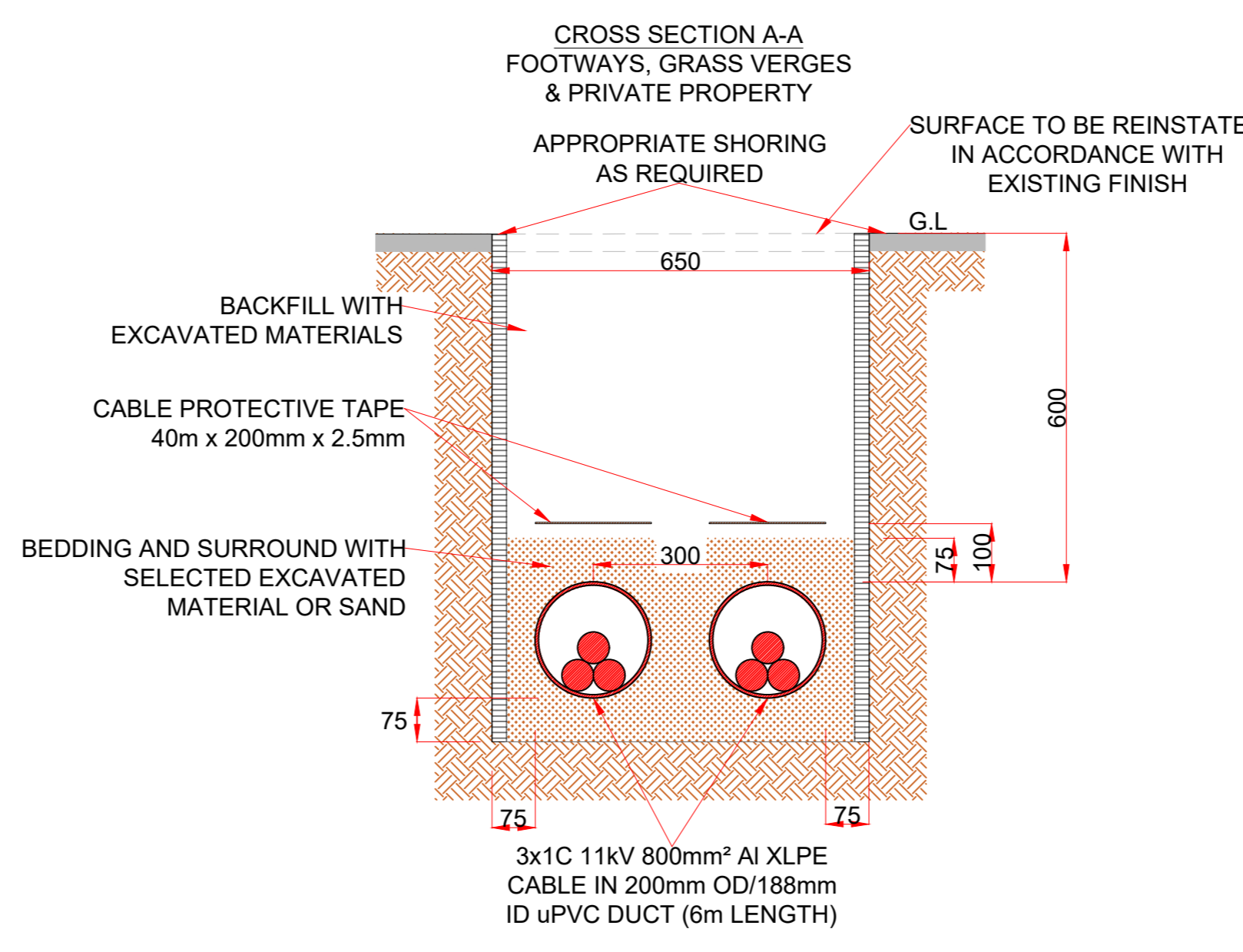
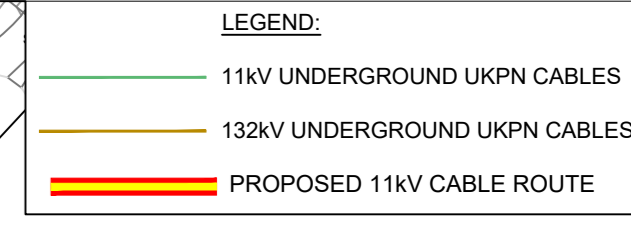


**GAS GENERATION SITE**



CABLE ROUTE LENGTH PER ONE CIRCUIT WITH TERMINATIONS FROM GAS GENERATION SITE TO COLT DATA CENTRE MAIN 11kV SUBSTATION APPROX. 1085m.  
JOINT BAYS LOCATED AT 250m DISTANCE STARTING FROM GAS GENERATION SITE.

- NOTES:**
- EXTREME CAUTION IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING UNDERGROUND UTILITIES
  - CONFIRMATION OF LOCATION OF EXISTING UTILITIES IS TO BE UNDERTAKEN BY GROUND PENETRATION RADAR AND/OR TRIAL HOLES.
  - ALL UTILITIES TO BE AVOIDED BY A MINIMUM OF 300mm BETWEEN CENTRES. SPECIAL CASES ARE SHOWN ON DRAWING FOR CLARITY.
  - LOCATION OF EXISTING UTILITIES IS NOT SHOWN ON THE DRAWING.
  - ALL EXCAVATIONS MUST BE CONDUCTED IN ACCORDANCE WITH HSG47 AND NJUG.
  - CABLE TRENCHES AND JOINT BAYS SHALL BE EXCAVATED SAFELY TO DIMENSIONS SUFFICIENT TO ALLOW CABLES/DUCTS TO BE INSTALLED SAFELY TO ACHIEVE THE DEPTH AND SPACING REQUIRED. APPROPRIATE SHORING SHALL BE TEMPORARILY INSTALLED THROUGHOUT CONSTRUCTION/INSTALLATION TO SUPPORT TRENCH WALLS DUE TO DEPTH OF TRENCH OR SOFT/WEAK SOIL TYPES.
  - BEDDING MATERIAL SHALL BE CAREFULLY HAND RAMMED OVER AND AROUND THE DUCT AND CABLE.
  - WHERE APPLICABLE, THE LAYING PROFILE OF THE CABLE IS TO BE IN ACCORDANCE WITH THE CABLE MANUFACTURER'S GUIDANCE.
  - CABLE PULLING TENSION TO BE BELOW THE MAXIMUM LIMIT STATED BY THE CABLE MANUFACTURER.
  - CABLE BENDING RADIUS IS TO BE EQUAL TO/ABOVE THE MINIMUM LIMIT STATED BY THE CABLE MANUFACTURER.
  - ROLLERS ARE TO BE USED DURING CABLE INSTALLATION TO AVOID EXCESSIVE BENDING OF THE CABLE AND TO AVOID THE CABLE BEING DRAGGED OVER NATIVE SOIL AND STONES.
  - WHERE THE CABLE IS DUCTED, ALL DEBRIS AND DUST IS TO BE REMOVED BY PULLING A BRUSH AND WOODEN MANDREL THROUGH THE DUCT PRIOR TO CABLE INSTALLATION.
  - NO CABLES ARE TO BE INSTALLED IN AMBIENT CONDITIONS BELOW 0°C UNLESS SPECIAL PRECAUTIONS ARE TAKEN TO ENSURE THAT CABLE DAMAGE WILL NOT OCCUR DURING HANDLING. GENERALLY, CABLES ARE TO BE STORED IN A TEMPERATURE CONTROLLED ENVIRONMENT FOR AT LEAST 24 HOURS IMMEDIATELY PRIOR TO PULLING.
  - CABLES AND DUCTS SHALL BE BUNDLED WITH STONE FREE SOIL, SELECTED SAND OR LIMESTONE DUST.
  - SPARE CABLE DUCTS WILL BE EFFECTIVELY SEALED/CAPPED AT BOTH ENDS.
  - CLASS 1 AND CLASS 2 DUCTS SHALL BE INDENTIFY AND CLEARLY MARKED WITH 'ELECTRIC CABLE DUCT', THE CLASS OF DUCT AND MANUFACTURER'S NAME OR REFERRALS NUMBER.
  - ROAD SURFACE EXCAVATIONS ARE TO BE BACKFILLED AND REINSTATED IN ACCORDANCE WITH HAUC SPECIFICATIONS.
  - APPROPRIATE SAFETY BARRIERS ARE TO BE ERECTED TO PREVENT PUBLIC/SITE OPERATIVES FROM FALLING INTO AN OPEN CUT TRENCH.
  - A MEANS OF SAFE ACCESS/EGRESS IS TO BE PROVIDED FOR CABLE JOINTING PITS.
  - ALL THE DIMENSIONS SHOWN ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
  - CABLE DUCTS SHALL BE BLACK IN COLOUR AND MARKED WITH THE LEGEND 'ELECTRIC CABLE DUCT' ON THE DIAMETRICALLY OPPOSITE SIDES.
  - ONE OR TWO JOINT BAYS MAY BE REQUIRED AT THE POC TO PROVIDE THE LOOP IN/LOOP OUT 11kV CABLE CIRCUIT TO THE NEW FREESTANDING SUBSTATION. THIS REQUIREMENT WILL BE CLARIFIED BY THE ICP DURING INSTALLATION WORKS.
  - ALL CABLE DUCTS AND TUBES ENTERING SUBSTATIONS OR BUILDINGS SHALL BE SEALED WITH THE APPROPRIATE RDS'S RAYFLATE @ DUCT SEAL AS SPECIFIED IN EAS 00-0002 TO PREVENT INGRESS OF GAS AND WATER EVEN IF THE DUCTS DO NOT CONTAIN A CABLE.
  - AT POSITIONS ALONG THE CABLE ROUTE WHERE THE CABLE DUCTS NEED TO TRAVERSE BENDS, THE CABLE DUCTS WILL FOLLOW A SWEEPING BEND PROFILE WHERE THE CABLE DUCT BENDING RADIUS WILL BE EQUAL TO OR EXCEED THE MINIMUM LIMIT OF THE CABLE TYPE BEING INSTALLED AS STATED BY THE MANUFACTURER.
  - AN ADDITIONAL 75mm DEPTH SHALL BE EXCAVATED AND REPLACED WITH AN APPROPRIATE SMOOTH BEDDING IF THE TRENCH BOTTOM IS NOT SMOOTH AND FREE FROM LOOSE PROTECTIVE ROCKS ETC.
  - JOINT BAYS SHALL PREFERABLY NOT BE LOCATED IN THE CARRIAGEWAY. THE FINAL POSITION OF ANY JOINT BAY SHALL BE CLARIFIED BY THE ICP BEFORE WORKS COMMENCE AND AGREED WITH UKPN.
  - ALL JOINT BAYS SHALL BE DESIGNED AND CONSTRUCTED SO THAT THEY ARE LARGE ENOUGH TO ACCOMMODATE THE SIZE AND TYPE OF JOINT TO BE INSTALLED IN THEM.
  - WHERE REASONABLY PRACTICABLE, ALL EXPOSED CABLES AND JOINTS SHALL BE BLENDED WITH SAND OR COVERED WITH SANDBAGS, BEFORE BEING ENERGISED TO PROTECT THEM AGAINST MECHANICAL DAMAGE AND TO PREVENT THE POSSIBLE SPREAD OF FIRE.
  - ASSUMED LOCATION OF CABLES IN FOOTPATH AND ARE BASED ON UKPN NETMAP RECORDS. JOINTING AND ACTUAL CABLE POSITION IN FOOTPATH TO BE DETERMINED ON SITE.
  - CABLE ROUTE DEPENDENT ON RESULTS OF TRIAL HOLES.



Client's comments incorporated			
TS	YF	PL	Date
3.0			11/08/2022
Cable route representation updated			
2.0			15/07/2022
Original			
1.0			08/07/2022
Status	Designed	Checked	Approved

**FOR APPROVAL**

**MODUS**  
skills | support | delivery

Hiltona Wharf  
28 Norman Road  
Greenwich  
SE10 9DX

Client: **Black Mountain** | Client Project Ref: **Colt DC WGC**  
Site Address: **Welwyn Garden City  
Colt Data Centre  
AL7 1QA**

Title: **Proposed Cable Route Option 1**

Scale @ A0: **1:1000** | DNO: **IGNO** | Drawn by: **AC**  
Drawing Number: **Q21062-CRP-01** | Version: **3.0**

