



**LEGEND:**

- T-BT-D EXISTING BT
- E-LV-D EXISTING LOW VOLTAGE ELECTRIC
- D-FWS-D EXISTING FOUL SEWER
- D-SWS-D EXISTING SURFACE WATER SEWER
- D-CWS-D EXISTING COMBINED SEWER
- V-DT-D EXISTING PUBLIC WATER MAIN
- V-TR-D EXISTING TRUNK WATER MAIN
- ✕CV✕D COMBINED SEWER TO BE ABANDONED (MS SCOPE)
- D-CVS-D NEW COMBINED SEWER TO BE RELINED

**CCTV TO BE CARRIED OUT PRIOR TO INSTALLATION OF LINER/PATCHES TO CONFIRM CONDITION OF SEWER AND ANY ADDITIONAL WORKS.**

**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION**

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING:

**CONSTRUCTION**

- WORKING IN A TIDAL FLOOD ZONE
- WORKING IN A HIGHWAY
- UNKNOWN GROUND CONDITIONS

**MAINTENANCE / CLEANING / OPERATION**

**DECOMMISSIONING / DEMOLITION**

**NOTES:**

- ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE.
- ALL DIMENSIONS IN MILLIMETRES UNLESS STATED OTHERWISE.
- DRAWING TO BE READ IN CONJUNCTION WITH:
  - 5000 - SALINE INFILTRATION REMOVAL PLAN
  - 5010 - STANDARD DETAILS
- ALL WORK SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY (CESWI) 7TH EDITION SUPPLEMENTED BY THE DWR CYMRU WELSH WATER CIVIL ENGINEERING SPECIFICATION CS501A.
- NEW MANHOLE TO BE TYPE B (SDC 2001 / 002)
- ALL NEW PIPEWORK TO BE WATER INDUSTRY STANDARD 4-35-0 UNO TWINWALL PIPE TO COMPLY WITH BS EN 13476 CLASS E2 22 OF SEWERS FOR ADOPTION 7TH EDITION
- GEOTECHNICAL AND GEOENVIRONMENTAL ASSESSMENT IN PROGRESS, INFORMATION TO BE FORWARDED WHEN AVAILABLE. CONTRACTOR NEEDS TO ASSESS AND MANAGE GEO CONSTRUCTION RISKS.
- ALL WORKS ON THE BEACH TO BE UNDERTAKEN ACCORDING TO CONDITIONS IN THE MARINE LICENCE.
- ANY DISCREPANCY IN GROUND OR INVERT LEVELS NOTED ON SITE TO BE REPORTED TO THE CLIENT.
- IN WET SOILS GRANULAR MATERIAL TO BE SURROUNDED BY FILTER FABRIC.
- THE POSITIONS OF THE EXISTING SERVICES ON THIS DRAWING HAVE BEEN INTERPRETED FROM INFORMATION RECEIVED FROM THE STATUTORY AUTHORITIES.
- THIS DRAWING IS SCHEMATIC AND HAS BEEN PREPARED AS A SERVICE OVERVIEW TO DETERMINE THE ROUTES OF SEWERAGE. IT IS NOT DEFINITIVE AND THE SITE TEAM MUST REFER TO THE ORIGINAL SERVICE RECORDS FOR FULL DETAILS AND TO CONFIRM THE LOCATIONS OF EXISTING SERVICES ON SITE PRIOR TO THE WORKS BEING UNDERTAKEN.
- THE SITE TEAM SHOULD ANTICIPATE ADDITIONAL SERVICES SUCH AS: CONNECTIONS INTO EXISTING PROPERTIES, AND/OR STREET FURNITURE EG. LAMP POSTS THAT ARE NOT GENERALLY COVERED BY THE RETURNS FROM INDIVIDUAL AUTHORITIES.
- THIS DRAWING NEEDS TO BE READ IN CONJUNCTION WITH THE UTILITY INFORMATION PROVIDED SEPARATELY BY THE INDIVIDUAL UNDERTAKERS.
- A FULL LENGTH CCTV IS TO BE CARRIED OUT PRIOR TO INSTALLATION OF LINER TO CONFIRM CONDITION OF SEWER. ALL CURED-IN-PLACE LININGS SHALL BE DESIGNED, MANUFACTURED, CONSTRUCTED, TESTED, INSPECTED AND CERTIFIED IN ACCORDANCE WITH BS EN 13566-4.
- CURED-IN-PLACE LININGS FOR RESISTING INFILTRATION SHALL PASS THE LEAK TIGHTNESS TEST SET OUT IN WRC PLC REPORT CP308 'PROCEDURES FOR TESTING THE CAPABILITY OF CURED-IN-PLACE PIPE (CIPP) LINING SYSTEMS TO RESIST INFILTRATION'.
- MAXIMUM THICKNESS OF THE LINING SYSTEM IS TO BE 25mm. INTERNAL SURFACE OF THE LINING SYSTEM IS TO HAVE EQUIVALENT ROUGHNESS SIZE (Ks) OF NOT GREATER THAN 0.6mm.
- THE CONTRACTOR IS TO MAKE GOOD MANHOLE INVERTS AND WALLS BETWEEN LINED SECTIONS OF CULVERT WITH GRANOLITHIC RENDER (MAX 25mm THICK) ALL LATERAL CONNECTIONS TO BE RESTORED AFTER INSTALLATION OF LINING. POST INSTALLATION SURVEY IS TO BE UNDERTAKEN AND A RECORD OF THE SURVEY COMPRISING ELECTRONIC/HARD COPY OF THE SURVEY REPORT AND DVD VIDEO PROVIDED TO DCWW.
- LINING SYSTEM SHALL BE TYPE 2 AS DEFINED IN 'SEWERAGE REHABILITATION MANUAL 5TH EDITION' PUBLISHED BY WRC PLC. CONTRACTOR TO ADVISE WHICH LINER MATERIAL AND GROUT TO BE USED.
- CURED-IN-PLACE PATCH REPAIRS SHALL BE LEAK TIGHT AND SHALL COMPLY WITH WIS 4-34-06.
- THE MATERIALS USED TO FABRICATE THE PATCH SHALL CONFORM TO THE REQUIREMENTS OF CLAUSE 4.2 AND THE PATCH LININGS SHALL BE FABRICATED IN ACCORDANCE WITH CLAUSE 4.3 OF WIS 4-34-06:2010.
- THE MATERIAL USED FOR THE CURED-IN-PLACE PATCH REPAIRS FOR STRUCTURAL ENHANCEMENT SHALL INCORPORATE MEANS OF ANCHORAGE THAT WILL CONTINUE TO FUNCTION AFTER THE INITIAL SHRINKAGE HAS OCCURRED.

P1.02 FOR INFORMATION	LOB	RS	AG	XX.XX.23
Rev.	Description	Drawn	Chkd	Appd. Issue Date

**Capital Delivery Alliance**  
**Cynghrair Cyflawni Cyfalaf**

**Ty Awon, Spooner Close, Coed Kernew, Newport, NP108FZ**

Project Name:  
MENAI SHELLFISH

Drawing Title:  
GLANDWR ROAD SEWER REHABILITATION

Suitability:	Suitability Code:
FOR INFORMATION	S2
Internal Project Number:	Scale:
275282	AS SHOWN
Drawing Number:	Rev.
B16888-102503-01-BG-DR-CA-C15008	P01.02

**NOTES ABOUT STATUTORY UTILITY PROVIDERS RETURNS**

- THE POSITIONS OF THE EXISTING SERVICES ON THIS DRAWING HAVE BEEN INTERPRETED FROM INFORMATION RECEIVED FROM THE STATUTORY LOCAL AUTHORITIES.
- THIS DRAWING IS DIAGRAMMATIC AND HAS BEEN PREPARED AS AN OVERVIEW TO DETERMINE THE ROUTES OF SEWERAGE. IT IS NOT DEFINITIVE AND THE SITE TEAM MUST REFER TO THE ORIGINAL RECORDS FOR FULL DETAILS AND TO CONFIRM THE LOCATIONS OF EXISTING SERVICES ON SITE PRIOR TO THE WORKS BEING UNDERTAKEN.
- THE SITE TEAM SHOULD ANTICIPATE ADDITIONAL SERVICES CONNECTING TO THE PROPERTIES AND / OR STREET FURNITURE SUCH AS LAMPPOSTS THAT ARE NOT GENERALLY COVERED BY THE RETURNS FROM INDIVIDUAL STATUTORY AUTHORITIES
- EXACT LOCATION OF UTILITIES SHOULD BE CONFIRMED ON SITE.