100

Millimetres

10

0

DO NOT SCALE

PREPARATION NOTES:

P.1. THE FOLLOWING ACTIVITIES SHALL BE COMPLETED PRIOR TO COMMENCEMENT OF THE EARTHWORKS CONSTRUCTION.

P.2. OBTAIN ECOLOGICAL CONSENT AND IMPLEMENT MITIGATION WORKS.

P.3. OBTAIN UTILITY CONSENT FOR DIVERSION AND ISOLATION.

P.4. OBTAIN ARCHAEOLOGICAL CONSENT, ARCHAEOLOGICAL EXCAVATION TO BE COMPLETED BY OXFORD ARCHAEOLOGY.

P.5. ESTABLISH ACCESS CORRIDORS AND TEMPORARY SITE BOUNDARIES.

P.6. ESTABLISH POLLUTION MONITORING POINTS.

P.7. MONITORING WELLS WITHIN THE EARTHWORKS FOOTPRINT SHOULD BE DECOMMISSIONED IN ACCORDANCE WITH THE ENVIRONMENT AGENCY'S GOOD PRACTICE FOR DECOMMISSIONING REDUNDANT BOREHOLES AND WELLS (OCTOBER 2012) PRIOR TO THE CONSTRUCTION OF THE EARTHWORKS AND VERIFICATION RECORDS KEPT.

P.8. LOCATE AND MARKUP SERVICES, CONSTRUCT TEMPORARY SUPPORT IF NECESSARY.

P.9. CLEAR VEGETATION.

P.10. STRIP TOPSOIL AND STOCKPILE IN LOCATION TO BE AGREED. SURPLUS SUBSOIL SHOULD ALSO BE STRIPPED AND STOCKPILED FOR FUTURE USE.

P.11. KNOWN MINE UNDERGROUND MINE WORKINGS AND MINE ENTRIES ARE PRESENT ON SITE, UNKNOWN UNDERGROUND MINE WORKINGS AND ENTRIES ARE ALSO EXPECTED, REFER TO THE MINING RISK REVIEW FOR FURTHER INFORMATION.

GENERAL NOTES:

G.1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. ALL LEVELS ARE INDICATED IN METRES ABOVE ORDNANCE DATUM (mAOD). ALL CHAINAGES ARE IN METRES.

G.2. IF THE PLANS, SECTIONS OR THE NOTES COLUMN OF EACH DRAWING WITHIN THIS SERIES SHOULD CONFLICT IN ANY WAY WITH THE GENERAL NOTES UPON THIS DRAWING, THE NOTES ON THE INDIVIDUAL DRAWING SHALL TAKE PRECEDENCE OVER SUCH GENERAL NOTES WHERE THEY CONTRADICT.

G.3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, STANDARD EARTHWORK DETAILS AND NOTES, STRUCTURES DRAWINGS, DRAINAGE DRAWINGS, ROADWORKS DRAWINGS, GEOLOGICAL LONGITUDINAL SECTION, EARTHWORK SPECIFICATION, GEOTECHNICAL RISK LOG AND GEOTECHNICAL DESIGN REPORTS.

G.4. PRIOR TO COMMENCING THE WORKS, THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UNDERGROUND SERVICES AND ARRANGE AND PROVIDE FOR ANY NECESSARY DIVERSIONS WITH THE RELEVANT STATUTORY UNDERTAKER. GROUND WORKS CARRIED OUT IN THE VICINITY OF ANY SERVICES PIPES OR CABLES SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATUTORY UNDERTAKERS.

G.5. FOR REQUIREMENTS / RESTRICTIONS ON THE USE OF FILL SEE EARTHWORKS SPECIFICATION. THE DESIGN ASSUMES THAT ALL GENERAL FILL (CLASS 1) USED WITHIN THE EARTHWORKS WILL BE "SITEWON" FILL AND THE DESIGN PARAMETERS HAVE BEEN SELECTED ACCORDINGLY. IF THE CONTRACTOR PROPOSES THE USE OF IMPORTED GENERAL FILL THE SOURCE SHALL BE APPROVED IN ADVANCE BY THE DESIGNER'S SITE REPRESENTATIVE (DSR).

G.6. TOPSOIL STRIPPING SHALL BE CARRIED OUT OVER THE FULL EXTENT OF ALL EARTHWORK FOUNDATIONS UNLESS OTHERWISE INDICATED ON THE DRAWINGS AND PRIOR AGREEMENT WITH THE DESIGNER. ALL AREAS OF EMBANKMENT FOUNDATIONS SHALL BE PROOF-ROLLED (AS DEFINED IN SECTION 50 OF THE EARTHWORK SPECIFICATION). ANY SOFT SPOTS (Cu ≤ 40kPa) SHALL BE EXCAVATED AND BACKFILLED IN ACCORDANCE WITH STANDARD EARTHWORK DETAIL SED 607.

G.7. WHERE THE SLOPE OF EXISTING GROUND (INCLUDING EXISTING EMBANKMENTS) BELOW EMBANKMENTS EXCEEDS 1V : 5H, BENCHING SHALL BE CARRIED OUT IN ACCORDANCE WITH STANDARD EARTHWORK DETAIL SED 605.

G.8. THE CONTRACTOR SHALL NOTIFY THE DESIGNER OF ANY SEEPAGE PRESENT IN EARTHWORKS. IF REQUIRED THE CONTRACTOR SHALL PROVIDE ADDITIONAL DRAINAGE MEASURES TO INTERCEPT AND DISCHARGE SEEPAGE. IF REQUIRED THE LOCATION OF BATTER SLOPE DRAINS SHALL BE DETERMINED WITH THE DESIGNER IN CONJUNCTION WITH THE DSR.

G.9. GEOTEXTILE SEPARATORS USED IN EARTHWORKS SHALL BE PROVIDED: AT LOCATIONS WHERE INDICATED ON THE EARTHWORK DRAWINGS, OR WHERE REQUIRED BY THE STANDARD EARTHWORK DETAILS OR WHERE DEEMED TO BE REQUIRED BY THE SUPERVISOR, AND SHALL COMPLY WITH CLAUSE 609 OF THE SPECIFICATION FOR HIGHWAYS WORKS (SHW). ALL JOINTS IN GEOTEXTILE SEPARATOR LAYERS SHALL OVERLAP BY 300mm MINIMUM, AND WHERE PLACED ON SLOPING GROUND THE BOTTOM LAYER SHALL BE TAKEN UP SLOPE AND LAPPED UNDER THE TOP LAYER.

G.10. INSTRUMENTATION AND MONITORING SHALL COMPLY WITH THE SPECIFICATION FOR INSTRUMENTATION AND MONITORING. INSTRUMENTATION PROTECTION MEASURES ARE TO BE CONFIRMED ON SITE BY THE DESIGNER'S SITE REPRESENTATIVE.

G.11. CUTTING SLOPES IN SOIL SHALL BE CONSTRUCTED AT 1 V : 2.5 H (22°). CUTTING SLOPES IN ROCK ARE NOT ANTICIPATED, HOWEVER IF REQUIRED SHALL BE CONSTRUCTED AT 1.73 V : 1 H (60°), UNLESS OTHERWISE STATED ON THE EARTHWORKS DRAWINGS. A 3m WIDE BERM TO BE PROVIDED WHEN TRANSITIONING FROM ROCK TO SOIL IN CUTTINGS.

G.12. EMBANKMENT SLOPES SHALL BE CONSTRUCTED AT 1 V : 2.5 H (22°), UNLESS INDICATED OTHERWISE ON THE EARTHWORK DRAWINGS.

G.13. FOR TRANSITION ZONES ALONG AN EARTHWORK WHERE ADJACENT SLOPE BATTERS DIFFER THEN THE SLOPE ANGLE SHALL VARY BETWEEN THEM TO GIVE A SMOOTH TRANSITION FROM ONE GRADIENT TO THE OTHER.

G.14. INSTALLATION OF ANY DRAIN OR SERVICE AT TOE OF CUTTING OR EMBANKMENT SLOPE SHALL BE UNDERTAKEN WITHOUT DETRIMENTAL IMPACT ON THE ADJACENT EARTHWORK. THIS SHALL INCLUDE RESTRICTION OF OPEN LENGTH OF OPERATIONAL EXCAVATION (SEE EARTHWORK SPECIFICATION) AS REQUIRED TO SUIT SITE CONDITIONS AND WORKING METHODS.

G.15. ALL EMBANKMENT FACES SHALL BE OVERFILLED 0.5m BEYOND FINISH EARTHWORKS LEVEL AND TRIMMED BACK TO ENSURE GOOD COMPACTION. THIS REQUIREMENT IS TO ENSURE ADEQUATE COMPACTION AT SLOPE FACE.

G.16. THE FINAL EARTHWORKS PLATEAU FORMATION LEVEL (I.E. TOP OF EMBANKMENT AND BASE OF CUTTING) HAS BEEN DESIGNED TO BE 560 mm BELOW THE LOWEST TRACK LEVEL (AS DESIGNED BY ARCADIS). THIS FORMATION LEVEL (EARTHWORKS PLATEAU EAST OF THE ONLLWYN OVERBRIDGE) SHALL BE TESTED USING PLATE LOAD TEST TO CONFIRM A MINIMUM FORMATION STATIC MODULUS (Ev2) VALUE OF 20 MN/m^2 IS ACHIEVED IN ACCORDANCE WITH TABLE 3 OF NR/L2/TRK/2102 ISSUE 10. A 250 mm PROTECTION LAYER ABOVE THE FINAL FORMATION LEVEL OF THE EARTHWORKS PLATEAU SHALL BE BUILT WITH ENGINEERED FILL AND COMPACTED AS SPECIFIED FOR THE PERMANENT EMBANKMENT.

G.17. THE CONTRACTOR SHALL NOTIFY THE DESIGNER OF THE PROPOSED PROGRAMME FOR EXCAVATION OF ALL SLOPES AND TOPSOILING. SLOPES ARE TO BE HYDROSEEDED IMMEDIATELY ON ACHIEVEMENT OF EARTHWORKS OUTLINE AND AFTER INSPECTION AND INSTALLATION OF ANY FACE DRAINAGE.

G.18. NO EXCAVATION DEEPER THAN 1.2m SHALL BE LEFT OPEN OR UNSUPPORTED FOR >24 HOURS.TEMPORARY WORKS ASSESSMENT SHALL BE UNDERTAKEN BY THE CONTRACTOR.

G.19. EXISTING PAVED AREAS BENEATH EMBANKMENTS AND OTHER AREAS OF FILL SHALL BE EXCAVATED DOWN TO THE UNDERSIDE OF THE BOUND LAYERS OR PERFORATED AND LEFT IN PLACE UNLESS SHOWN OTHERWISE ON THE DRAWINGS, OR AS DIRECTED BY THE DESIGNER.

G.20. WHERE OVER THE EDGE DRAINAGE IS CONSTRUCTED, THE SLOPE SHALL BE TOPSOILED AND SEEDED OR HYDROSEEDED AS EARLY DURING CONSTRUCTION AS POSSIBLE TO ALLOW VEGETATION GROWTH TO TAKE PLACE TO PREVENT EROSION.

G.21. UNLINED DITCHES SHALL BE SEEDED OR HYDROSEEDED MINIMUM 2 WEEKS FROM EXCAVATION TO PREVENT UNDESIRABLE VEGETATION GROWTH.

G.22. WHERE CONFIRMATORY GROUND INVESTIGATION IS PROPOSED TO INFORM DESIGN AND / OR CONSTRUCTION, MAIN CONSTRUCTION WORKS SHALL NOT COMMENCE UNTIL THE FACTUAL GI DATA HAS BEEN REVIEWED BY THE DESIGNER.

G.23. THE DESIGNER OR DESIGNER'S SITE REPRESENTATIVE SHALL PROVIDE ADDITIONAL DETAILS AS APPROPRIATE, TO THE LOCATION & EXTENT OF THE STANDARD EARTHWORKS DETAILS FOLLOWING SITE INSPECTION AND EXPOSURE OF EARTHWORKS FOUNDATION / SLOPES.

DRAWING NUMBER	**TITLE**
GENERAL ARRANGEMENTS AND SECTIONS	
GCRE001-AWJV-EW-XX-DR-CE-00001	DEPOT PHASE EARTHWORKS GENERAL NOTES
GCRE001-AWJV-EW-XX-DR-CE-00003	DEPOT PHASE EARTHWORKS: GENERAL ARRANGEMENT
GCRE001-AWJV-EW-XX-DR-CE-00004	DEPOT PHASE EARTHWORKS PLATEAU: CUT & FILL PLAN
GCRE001-AWJV-EW-XX-DR-CE-03001	DEPOT PHASE EARTHWORKS: CROSS-SECTIONS
GCRE001-AWJV-EW-XX-DR-CE-03002	DEPOT PHASE EARTHWORKS: LONGITUDINAL-SECTIONS, SHEET 1 OF 2
GCRE001-AWJV-EW-XX-DR-CE-03003	DEPOT PHASE EARTHWORKS: LONGITUDINAL-SECTIONS, SHEET 2 OF 2
EARTHWORK STANDARD DETAILS	
GCRE001-AWJV-EW-XX-DR-CE-05001	DEPOT PHASE EARTHWORKS: STANDARD DETAILS, SHEET 1 OF 2
GCRE001-AWJV-EW-XX-DR-CE-05002	DEPOT PHASE EARTHWORKS: STANDARD DETAILS, SHEET 2 OF 2
INSTRUMENTATION AND MONITORING PLAN & DETAILS	
GCRE001-AWJV-EW-XX-DR-CE-00020	DEPOT PHASE INSTRUMENTATION AND MONITORING: PLAN LAYOUT
GCRE001-AWJV-EW-XX-DR-CE-05005	DEPOT PHASE EARTHWORKS: INSTRUMENTATION AND MONITORING, INSTALLATION DETAILS
EARTHWORK DOCUMENTS	
GCRE001-AWJV-EW-XX-RP-GE-00011	GEOTECHNICAL DESIGN REPORT
GCRE001-AWJV-EW-XX-RP-GE-00006	EARTHWORKS SPECIFICATION
GCRE001-AWJB-EW-XX-SP-GE-00005	SPECIFICATION FOR INSTRUMENTATION AND MONITORING
DRAINAGE LAYOUT DRAWINGS	
GCRE001-AWJV-XX-XX-DR-DH-01012	DETAILED ENGINEERING LAYOUT
GCRE001-AWJV-XX-XX-DR-DH-01013	DETAILED ENGINEERING LAYOUT
GCRE001-AWJV-XX-XX-DR-DH-01014	DETAILED ENGINEERING LAYOUT
GCRE001-AWJV-XX-XX-DR-DH-01015	DETAILED ENGINEERING LAYOUT
GCRE001-AWJV-XX-XX-DR-DH-01016	GENERAL ENGINEERING LAYOUT
GCRE001-AWJV-XX-XX-DR-DH-01017	GENERAL ENGINEERING LAYOUT
GCRE001-AWJV-XX-XX-DR-DH-01018	DETAILED ENGINEERING LAYOUT
MINING RISK DOCUMENTS	
GCRE001-AWJV-EW-XX-RP-GE-00014	MINING RISK REVIEW
MINING RISK REMEDIATION DRAWINGS	
GCRE001-AWJV-EW-XX-DR-GE-04007	MINING WORKINGS REMEDIATION PLAN AND PROFILE SHEET 7 OF 8
GCRE001-AWJV-EW-XX-DR-GE-04008	MINING WORKINGS REMEDIATION PLAN AND PROFILE SHEET 8 OF 8

Rev.	Date	Description	By	Chk'd	App'd
P03	03/05/24	FOR COMMENT	JH	DC	PN
P02	02/06/23	FOR COMMENT	ST	JT	RH
P01	---	PRELIMINARY	RH	JT	RH

Drawing Status
Suitable for review and comment
Suitability
S3

WALTERS | AtkinsRéalis

Client
GCRE
Global Centre of Rail Excellence
Canolfan Fyd-Eang Rhagoriaeth Rheilffyrdd

Project Title
GLOBAL CENTRE OF RAIL EXCELLENCE

Drawing Title
DEPOT PHASE EARTHWORKS
GENERAL NOTES

Scale	Drawn	Checked	Approved	Authorised
N/A	JH	DC	PN	SH
Original Size	Date	Date	Date	Date
A1	03/05/2024	03/05/2024	03/05/2024	03/05/2024

Drawing Number
GCRE001-AWJV-EW-XX-DR-CE-00001
Revision
P03

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