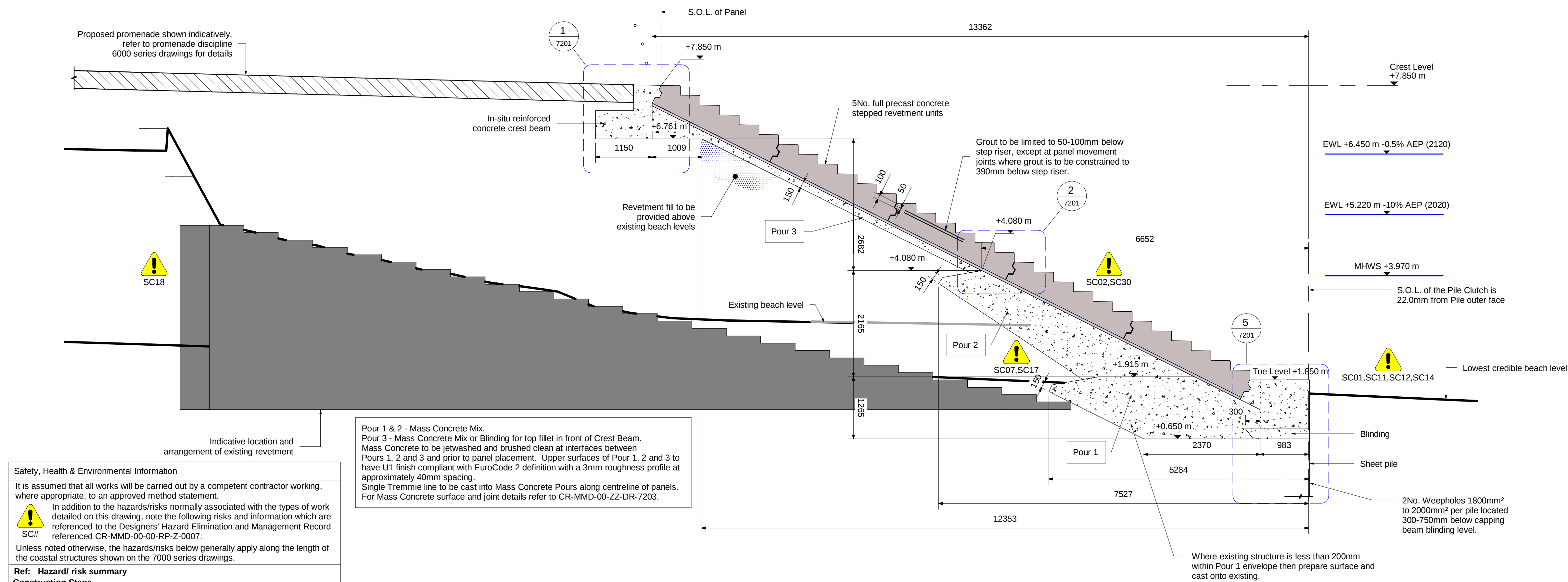




Safety, Health & Environmental Information

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.

 In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following risks and information which are referenced to the Designers' Hazard Elimination and Management Record referenced CR-MMD-00-00-RP-Z-0007:

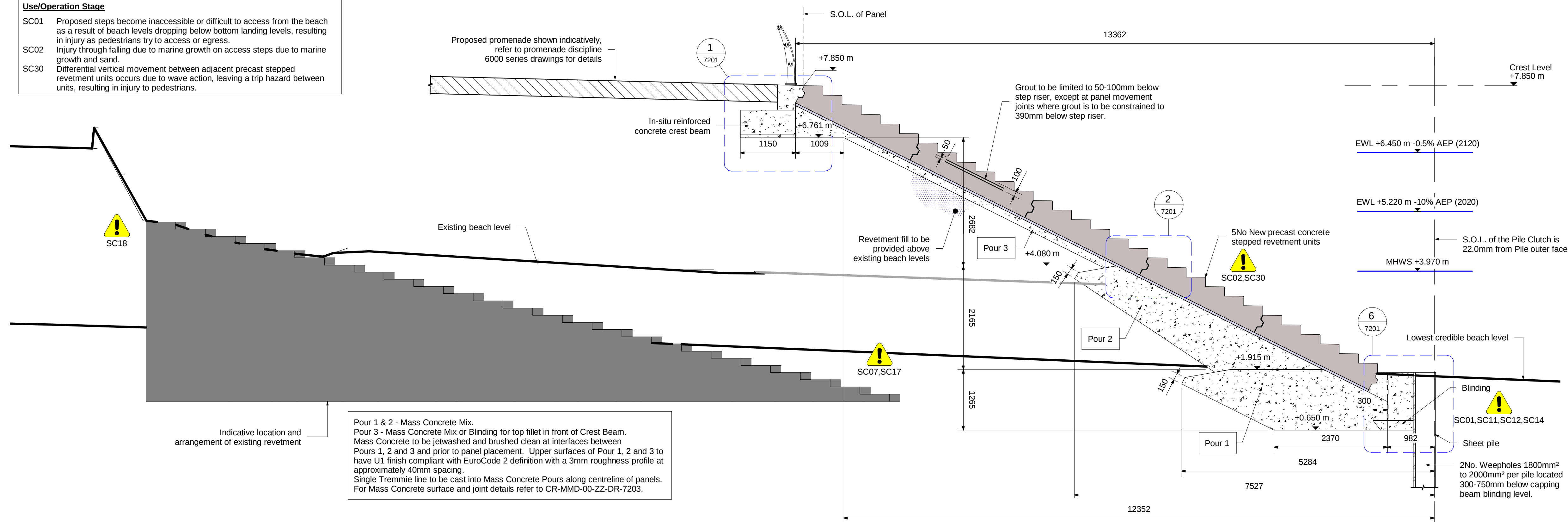
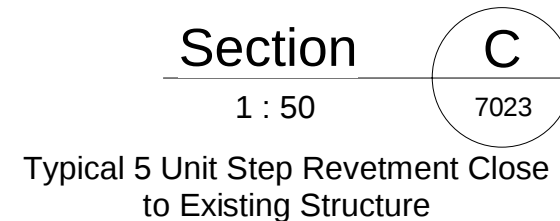
Unless noted otherwise, the hazards/risks below generally apply along the length of the coastal structures shown on the 7000 series drawings.

Ref: Hazard/ risk summary
Construction Stage

SC07	Geometry of existing structures different to existing as-built information or topographical information, or unknown if below ground, which may affect the design and delay works on site.
SC11	Excavation collapse resulting in injury to operators and/or damage to plant.
SC12	UXOs or other buried obstructions are encountered resulting in death and injury.
SC14	Damage to or clashes with existing service infrastructure particularly during excavation and sheet piling works and particularly to drainage assets
	Escalation seaward from the existing sea wall. Refer to Existing Structures Technical Note CR-MMD-00-00-TN-SC-7027.
SC17	Risk of undermining existing structures, or damage to existing structures.
SC18	Risk of existing seawall instability or collapse due to plant loading on adjacent promenade during construction.

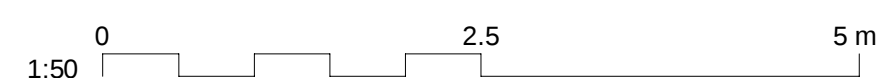
<u>Use/Operation Stage</u>	<u>Control Measure</u>	<u>Risk Rating</u>
Preparation	1. Obtain necessary permits and approvals from local authorities.	Low
Site Setup	2. Establish safety zones and barriers around the work area.	Medium
Excavation	3. Implement shoring and bracing systems to prevent collapse.	High
Foundation Work	4. Monitor ground conditions and water levels during excavation.	Medium-High
Structural Construction	5. Ensure proper reinforcement and curing of concrete structures.	Medium
Roofing	6. Use fall protection systems for workers on elevated surfaces.	Medium-High
Interior Finishing	7. Maintain clear egress routes and fire exits throughout the project.	Low-Medium
Final Inspection	8. Conduct thorough inspection and testing before occupancy.	Low

SC01	Proposed steps become inaccessible or difficult to access from the beach as a result of beach levels dropping below bottom landing levels, resulting in injury as pedestrians try to access or egress.
SC02	Injury through falling due to marine growth on access steps due to marine growth and sand.
SC30	Differential vertical movement between adjacent precast stepped revetment units occurs due to wave action, leaving a trip hazard between units, resulting in injury to pedestrians.



Section D
1 : 50 7022

Typical 5 Unit Step Revetment Wide
to Existing Structure



Notes

1. This drawing is intended to be used as the basis for the target cost development for the Central Rhyl Coastal Defences Scheme, and it should not be used for any other purpose. It represents the proposed coastal structures.
2. This drawing shall be read in conjunction with all discipline information. Any discrepancies shall be referred to Mott MacDonald before proceeding.
3. Unless noted otherwise, all dimensions are in millimetres, all levels in metres above ordnance datum (AOD). Do not scale from drawing, if in doubt ask Mott MacDonald.
4. Mott MacDonald has followed accepted procedure in providing the services but given the residual risk associated with any prediction and the variability which can be experienced in flood conditions, Mott MacDonald takes no liability for and gives no warranty against actual flooding of any property (clients or third party) or the consequences of flooding in relation to the performance of the service.
5. Existing street furniture, guardrails, buildings, features and outfall information are taken from the topographical survey obtained in 2020.
6. Drawings do not show extent and location of services. See utility plans / statutory undertakers plans for service information. Contractor to undertake pre-construction survey to determine full extent of services present in area.
7. Existing structures are shown indicatively based on available information. Exact toe level, number of steps and depth of foundations of existing structure may vary on site.
8. Tide levels are extracted from Welsh Government: Adapting to Climate Change Guidance, 2017.
9. For reinforcement drawings refer to 7800 drawings series.
10. All exposed concrete edges to have 20mm chamfer unless noted otherwise.
11. During construction, a maximum surcharge of 10kPa shall be applied on the seaward side of the pile. Level differences between seaward and landward sides of pile shall not exceed 1.7m, with the seaward level maximum at the top of the pile. This shall be adhered to until Pour 1 is cured.

Do not use for construction

Key to symbols

 Existing structure
  In-situ concrete

 New precast concrete step panels
  Revetment fill

Reference drawings

CR-MMD-00-ZZ-DR-SC-7201 Revetment Details Sheet 1
CR-MMD-00-ZZ-DR-SC-7202 Revetment Details Sheet 2
CR-MMD-00-ZZ-DR-SC-7203 Mass Concrete Details

[illegible]

P03	20.12.22	MS	Issued for review & comment	NC	ZH
C01	29.06.22	CB	For Target Cost Development	NC	ZH
P02	01.04.22	RDK	Issued for stage approval	NC	ZH
P01	19.11.21	RDK	Issued for review & comment	NC	ZH
Rev	Date	Drawn	Description	Ch'k'd	App'd

Status Stamp

Detailed Design Review and Comment

M **M**
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Balfour Beatty

Cyngor
sir ddinbych
denbighshire
County Council



Title	Central Rhyl Coastal Defences COASTAL STRUCTURES Stepped Revetment Sections
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Sheet 2 of 2

Designed	P.Kacperek	PK	Eng check	A.Douglas	AD
Drawn	R.Kette	RDK	Coordination	N.Clarke	NC
Dwg check	N.Clarke	NC	Approved	Z.Hutchison	ZH
MMD Project Number 100420823		Scale at A1 As indicated			Security STD
Suitability Description Suitable for Review and Comment					Suit. Code S3
Drawing Number CR-MMD-00-ZZ-DR-SC-7102					Revision P03