

# Designer's Risk Assessment



**CROUCH  
WATERFALL**

|                   |                                                                  |         |           |               |                                 |              |     |
|-------------------|------------------------------------------------------------------|---------|-----------|---------------|---------------------------------|--------------|-----|
| Title of Scheme   | Rhuddlan Marsh Embankment                                        |         |           | Document Ref  | 23047W-RAR-001                  | Revision     | B02 |
| Location          | Rhuddlan Marsh Embankment, Sandbank Rd, Towyn, Abergele LL22 9LB |         |           | Date of Issue | 04 <sup>th</sup> September 2024 |              |     |
| ELR – Staircase 1 | CNH3                                                             | Mileage | 211m 79ch | O.S Grid Ref  | SH 96696 79701                  | Structure No | -   |
| ELR – Staircase 2 | CNH3                                                             | Mileage | 211m 55ch | O.S Grid Ref  | SH 97050 79872                  | Structure No | -   |
| ELR – Staircase 3 | CNH3                                                             | Mileage | 211m 32ch | O.S Grid Ref  | SH 97486 80126                  | Structure No | -   |

## Normal Hazards:

It is assumed that normal site-based risks will be identified and addressed by a competent contractor with experience of undertaking construction in a railway environment. These hazards include, but are not restricted to, injury from falling, tripping, lifting materials, contact with substances hazardous to health, etc.

| Ref No | Activity / Element                      | Potential Hazards                                                          | Population at Risk | Risk Rating |   |   | Action at Design Stage                                                                                                                            | Possible Control Options (Contractors)                                                                                                                                                | Initial | Date  | Residual Risk |   |   |
|--------|-----------------------------------------|----------------------------------------------------------------------------|--------------------|-------------|---|---|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------|---------------|---|---|
|        |                                         |                                                                            |                    | L           | S | R |                                                                                                                                                   |                                                                                                                                                                                       |         |       | L             | S | R |
| 1      | Working on or near Railway              | Death or serious injury to construction operatives.                        | Workers            | L           | M | M | Work identified as being away from live railway.<br>Work does not need to be carried out under railway possessions.<br>No design action required. | Contractor to note location of railway and arrange appropriate safe working procedures if at all required.                                                                            | CW      | 11/23 | L             | M | M |
| 2      | Working near changing tidal conditions. | Personal injury / fatality to operatives.                                  | Workers            | H           | M | H | No design action required.                                                                                                                        | Competent contractor to ensure the following:<br>Safe systems of work and PPE to be implemented.<br>Tidal conditions to be noted prior to works and work shifts arranged accordingly. | CW      | 11/23 | L             | L | L |
| 3      | Manual Handling                         | Personal injury to operatives when guiding new staircase units into place. | Workers            | H           | M | H | Weight of components to be considered prior to works.<br>Lifting arrangements for components heavier than 25kg to be addressed in RAMS.           | Competent contractor to ensure safe system of work. If required, Safe and Safety briefs to be produced prior to commencing the installation works - WPP.                              | CW      | 11/23 | L             | M | M |

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| Ref No | Activity / Element     | Potential Hazards                                                                                     | Population at Risk             | Risk Rating |   |   | Action at Design Stage                                                                                                                                                                                                                                                                                                                                                               | Possible Control Options (Contractors)                                                                                                                                                                                                                                 | Initial | Date  | Residual Risk |   |   |
|--------|------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------|-------------|---|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------|---------------|---|---|
|        |                        |                                                                                                       |                                | L           | S | R |                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                        |         |       | L             | S | R |
| 4      | Lifting operations     | Dropping of tools, steelwork etc.<br>Lifting equipment failure.<br>Approximate unit weight is 1020kg. | Workers, Members of the Public | H           | M | H | Lifting equipment to be certified and visually checked before use.<br>Competent Slinger/ Signaller employed for any lifting operations.<br>Any lifting will be covered by Lift / lowering Plans; ensure all personnel are informed.<br>No person is allowed to walk under a suspended load. An exclusion zone will be maintained by Slinger/Signaller.<br>No design action required. | Contractor to ensure public access to the construction area is always restricted using hoardings / barriers and clearly signed walking routes.<br>Loads to be lifted inside the fenced area and never above public.<br>Safe systems of work and PPE to be implemented. | CW      | 11/23 | L             | M | M |
| 5      | Noise & dust pollution | Damage to hearing.<br>Local area disturbance.<br>Surrounding wildlife disturbance.                    | Workers                        | H           | M | H | Personnel in high noise areas to be provided with the correct hearing protection.<br>No design action required.                                                                                                                                                                                                                                                                      | Ecology surveys to be undertaken if required.<br>Works to be programmed to be minimise disturbance as required. Area is considered rural.<br>Safe systems of work and PPE to be implemented.                                                                           | CW      | 11/23 | L             | M | M |

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|--------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------|---|---|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------|---------------|---|---|
|        |                                          |                                                                                                                                 |                                   | L           | S | R |                            |                                                                                                                                                                                                                                                               |         |       | L             | S | R |
| 6      | Working with power tools to cut or drill | Personal injury / fatality to operatives.                                                                                       | Workers                           | H           | M | H | No design action required. | Competent contractor to ensure the following:<br>Safe system of work. Safety briefs to be produced prior to commencing works.<br>Relevant PPE to be worn including FP3 standard dust masks when breaking concrete.<br>HAVs register to be kept by contractor. | CW      | 11/23 | L             | M | M |
| 7      | Public disturbance/ vandalism            | Interruption caused by public members.<br>Damage to equipment/ tools.<br>Equipment lost/stolen.<br>Vandalism to proposed works. | Workers,<br>Members of the Public | H           | M | H | No design action required. | Contractor to ensure public access to the construction area is always restricted using hoardings / barriers and clearly signed walking routes.<br><br>Contractor to ensure no tools are left out on site when not in use.                                     | CW      | 11/23 | L             | L | L |

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## Normal Hazards:

Are hazards inherent in site work such as injury from falling, tripping, lifting materials, Contact with substances hazardous to health etc. Any competent contractor will address these.

## Key:

**L** = Likelihood (Low, Medium, High)  
**S** = Severity (Low, Medium, High)  
**R** = Risk (Likelihood x Severity)

| Risk Matrix |   | Severity |   |   |
|-------------|---|----------|---|---|
|             |   | L        | M | H |
| Likelihood  | L | L        | M | M |
|             | M | M        | M | H |
|             | H | M        | H | H |