

relinea®

Reliable, Resourceful.

AMP8 GRP Access & Platform Design Guide

A practical engineering guide to specifying GRP access systems for water and wastewater infrastructure.

DESIGNED. SUPPLIED. INSTALLED.





What is AMP8?

Asset Management Period 8

Water industry's eighth Asset Management Period (April 2025 – March 2030)

Ofwat PR24 Investment

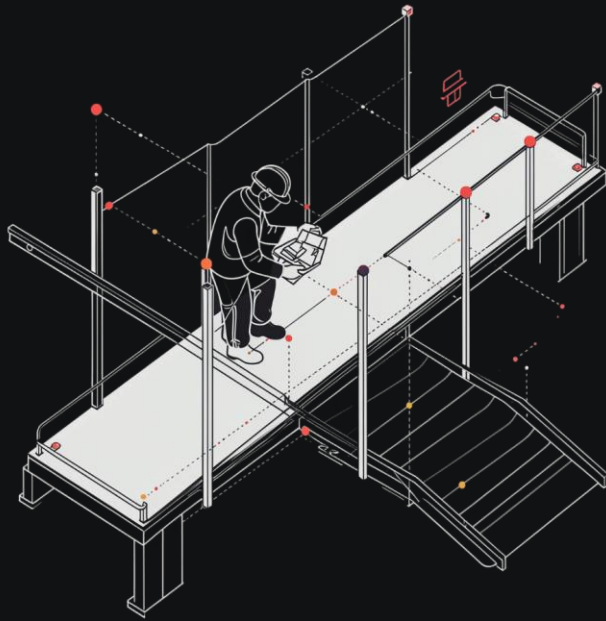
Ofwat's PR24 supports £104 billion investment over five years

England & Wales Scope

Water UK reports approximately £105 billion across England and Wales

Infrastructure Focus

Investment in wastewater treatment, storm overflow improvements, water resources and network infrastructure



Why This Matters for Access Design

- Large programmes mean thousands of individual engineering projects
- Each project creates requirements for safe access to process equipment, inspection points, tanks, pumps, screens, valves and maintenance areas
- Design teams increasingly need access solutions that can be engineered into the project, documented clearly and delivered reliably

Where GRP Fits into AMP8



Wastewater Treatment Works

Platforms, walkways, stairs, ladders and handrails around tanks, screens, pumps and process equipment



Water Treatment Works

Plant access, maintenance platforms, walkways and stairs around treatment assets



Pumping Stations

Compact platforms, ladders and handrails where corrosion and restricted space are considerations



GRP Applications

Reservoirs & Water Resources

Access to operational equipment, inspection areas and infrastructure

Existing-Asset Upgrades

Bespoke systems designed around existing steelwork, concrete, pipework and restricted footprints

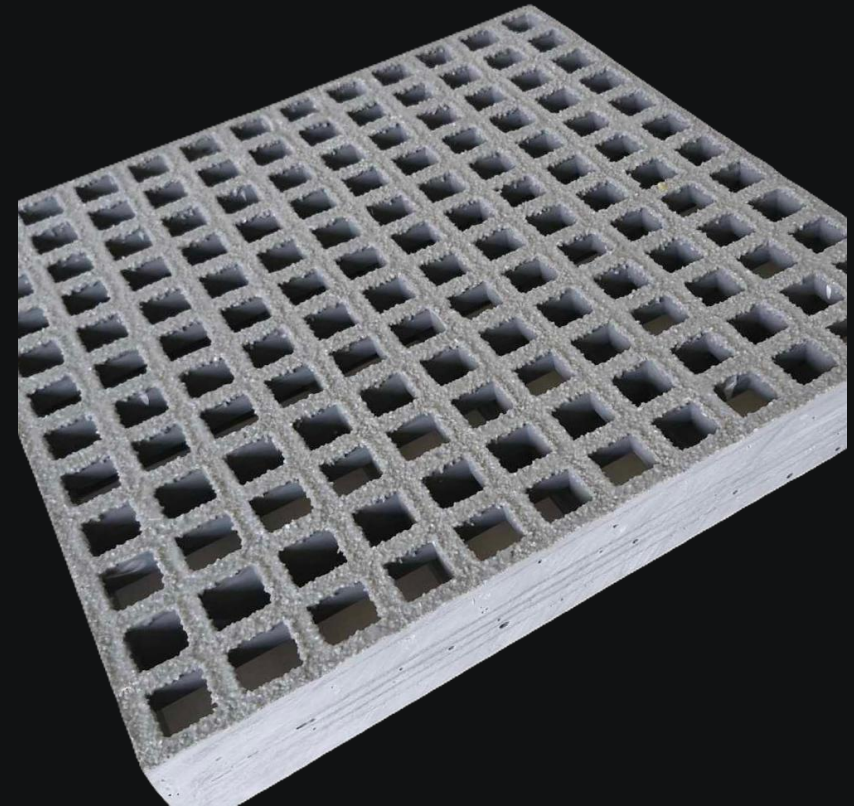
New-Build Infrastructure

Access designed alongside process and structural layout so supports, clearances and installation are resolved early

Why Material Selection Matters

- **Corrosion resistance:** GRP provides strong resistance to many corrosive environments compared with conventional metallic access systems
- **Lifecycle:** A durable access system can reduce disruption and maintenance demands over the asset lifecycle
- **Weight and installation:** Low weight useful where lifting, handling and installation around existing/live assets influences construction method

□ Where non-conductive access is relevant, electrical properties should be considered within the project's overall electrical and safety assessment.



Material Selection: Key Questions

1

Exposure Environment

What is the exposure environment?

2

Chemical Processes

What chemicals or cleaning processes are present?

3

Service Life

What service life is required?

4

Installation Method

How will the system be installed?

Platform Design Considerations

Loads

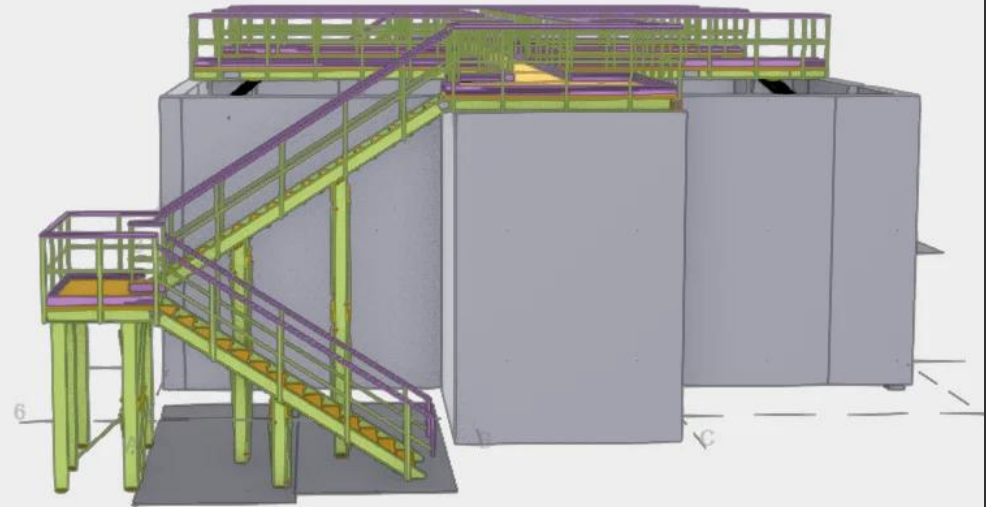
Confirm imposed loads, point loads, equipment loads and project-specific actions

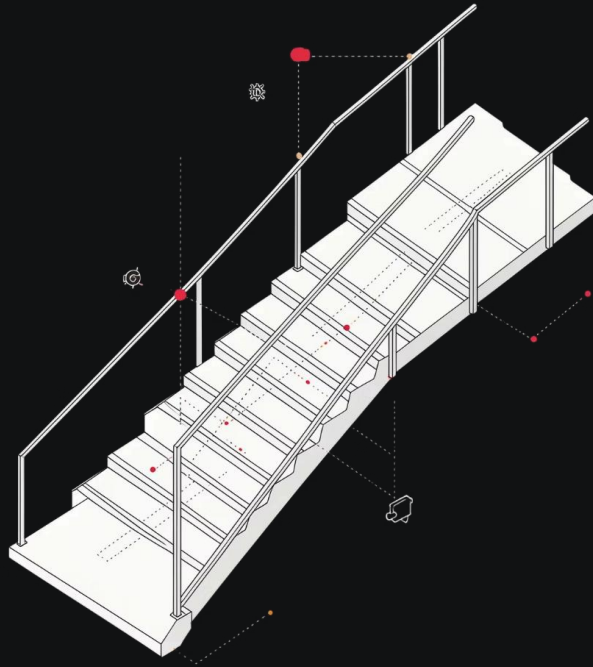
Spans & Supports

Support positions should be resolved early; existing structures may limit load transfer

Clearances

Check access around pipework, valves, instruments, motors, pumps and covers





Walkways and Stairs

- **Walkways:** Coordinate width and route with equipment layout; provide logical access to inspection and maintenance points
- **Stairs and ladders:** Select access type based on frequency and nature of use; coordinate landings and transitions with platforms
- **Think in routes:** Review the full access system from where the operator starts to where the maintenance task ends

Bespoke Structures

Appropriate where existing steelwork or concrete controls support locations, pipework creates unusual geometry, or access must pass around multiple assets.

Objective is a documented, controlled engineering solution—not a one-off site improvisation.



**General
Arrangement
Drawings**

**Detailed
Fabrication
Drawings**

**Structural
Calculations**

Fixing Details

**Material
Schedules**

**Installation
Information**

Specification Checklist

01

Asset & Application

Asset and application description; environmental exposure and operating conditions

02

Access Route & Geometry

Required access route and access type; platform/walkway/stair/ladder geometry

03

Design Loads

Design loads and relevant load combinations; span and support arrangement

04

Protection & Surface Requirements

Handrail, and edge protection requirements; surface and anti-slip requirements



At Relinea, precision engineering starts with precise data. Our 3D laser scanning service harnesses state-of-the-art Faro Focus technology to deliver ultra-accurate digital site captures, empowering your design, planning, fabrication, and installation teams with detailed insights from day one.

Technical Documentation

A well-engineered access system should be supported by a technical package that allows the design team, contractor and client to review what is being supplied.

Design Basis

Application, loading, environment, interfaces and design criteria. Site survey and 3D scan.

Drawings

General arrangement, sections, details, fixing/interface details and fabrication information as required.

The final documentation schedule should be agreed with the client, designer and contractor and aligned with the project approval process.

Calculations

Project-specific structural calculations demonstrating the relevant design checks.

Material Information

Product data, material specifications, certificates and traceability appropriate to the project.

Fire Information

Relevant fire-performance information where required by the project.

Installation Information

Installation sequence, handling, fixings, inspection and project-specific method information.

Handover Information

As-built information, quality records and other agreed handover documentation.



Macroom Wastewater Treatment, Co. Cork, Ireland

Client

Glanua

Glanua, working in partnership with Uisce Éireann, is upgrading the Macroom wastewater treatment plant to support compliance with national and EU environmental regulations and protect water quality in the Sullane River.

Location

Macroom, Cork, Ireland

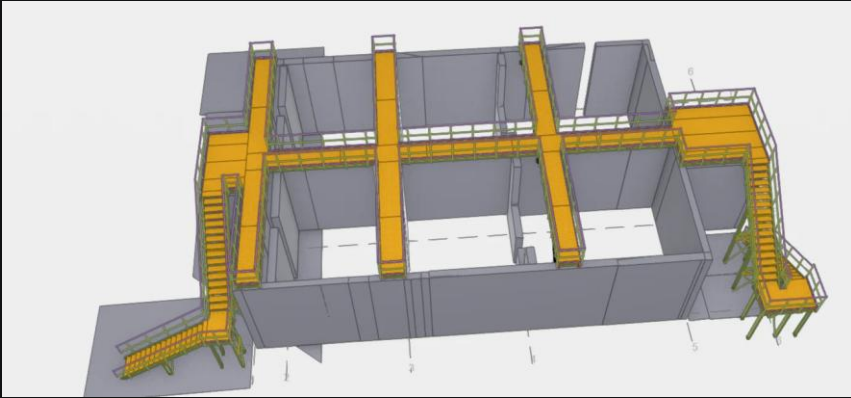
Services

Design, installation, supply

Products

Access platforms, handrails, stairs, walkway

The Challenge



The project required a cost-effective, anti-corrosive and safe solution for handrails, staircases and access platforms exposed to continuous moisture and chemicals.



⚠ Platforms over the IFAS chamber also had to span unsupported distances of up to **six metres** while integrating staircases and handrails around the tank area.

The Solution



Complete GRP Access System

Relinea provided a complete GRP access solution comprising platforms, handrails and staircases tailored to the site requirements.



Integral Grit Finish

Corrosion resistance and integral grit finish provided slip resistance across all access surfaces.



Lightweight & Durable

The lightweight, durable material simplified installation while delivering long-term performance in wet and chemical-prone areas.



50+ Year Design Life

The case study states a design life of over fifty years, ensuring long-term value for the asset.

The Result

The GRP system supported a modern, safe wastewater treatment facility with long-term reliability and reduced maintenance requirements. Its corrosion-resistant properties remove the need for ongoing painting or repairs described in the case study.





Ballycotton Waste Water Treatment Plant, Co. Cork, Ireland

Client

Glanua

Location

Ballycotton, Ireland

Services

Design, installation, manufacture

Products

Access platforms, handrails, stairs

Glanua spearheaded a **€16 million investment project** in Ballycotton, East Cork, to construct a new wastewater treatment plant, two pumping stations, 1.4 km of pipeline and a secure outfall pipe for treated wastewater discharge into Ballycotton Bay.

The Challenge



The coastal location created a demanding environment for access components. Traditional materials such as steel were considered unsuitable because of their susceptibility to corrosion and associated maintenance costs.

The project needed a cost-effective, anti-corrosive and safe solution for handrails, stairs and access platforms.

The Solution

1

Tailored GRP Specification

Relinea proposed GRP handrails, stairs and access platforms tailored to the water and sewage treatment environment.

2

Coastal Corrosion Resistance

GRP's corrosion resistance was highlighted as a key advantage in the demanding coastal setting.

3

Cost-Effective vs Steel

Cost-effectiveness compared with steel and contribution to a safer working environment were central to the proposal.

The Result

The GRP solution addressed the coastal corrosion challenge while supporting durability, safety and cost-effectiveness. The wider project marked a **significant milestone** in ending the discharge of raw sewage into Ballycotton Bay.

- ✓ A landmark outcome for environmental compliance and coastal water quality in East Cork.



Start with the Access Problem

If you have an AMP8 project where access is complex, exposed to a demanding environment, constrained by existing infrastructure or likely to require a bespoke solution, involve the specialist early.

SEND RELINEA:

- Asset / project description
- GA drawing or sketch if available
- Location and environment
- Required access route
- Known loads / equipment
- Programme and design stage
- Client / contractor / consultant requirements

We can then assess the requirement and advise on the most appropriate design and delivery route.

For engineering practices and project teams, a technical presentation or design review can be arranged around the types of access problems commonly encountered on water and wastewater assets. The aim is practical: identify the access requirement, establish the design basis and determine the appropriate route to a compliant, buildable solution.

Example specification structure

The following structure can be adapted into a project specification. It should be reviewed against the project's governing standards and client requirements.

01

Scope

Design, manufacture, supply and, where required, installation of GRP access platforms, walkways, stairs, ladders, handrails and associated bespoke structures.

03

Technical submittals

Submit drawings, calculations, material information, fixing details and other documentation required by the project approval process.

05

Installation

Where included, install the system in accordance with the approved installation information and coordinate with the principal contractor and other trades.

02

Design

The supplier shall develop the access arrangement in accordance with the project design criteria, confirmed loading, environmental conditions and support/interface requirements.

04

Manufacture

Manufacture components to the approved drawings and agreed material/system requirements with appropriate quality controls and traceability.

06

Handover

Provide agreed as-built, quality and technical records at completion.

Why work with Relinea?

Relinea combines GRP supply with engineering and project delivery capability.

1

Engineering-led

We start with the access problem and the project requirements, then develop the appropriate solution.

2

Design capability

After a site survey and 3D scan, we can provide design input, drawings and structural calculations to support project development and approval.

3

Technical documentation

We provide the technical information required to support review, specification and delivery, subject to project requirements.

4

Manufacture and supply

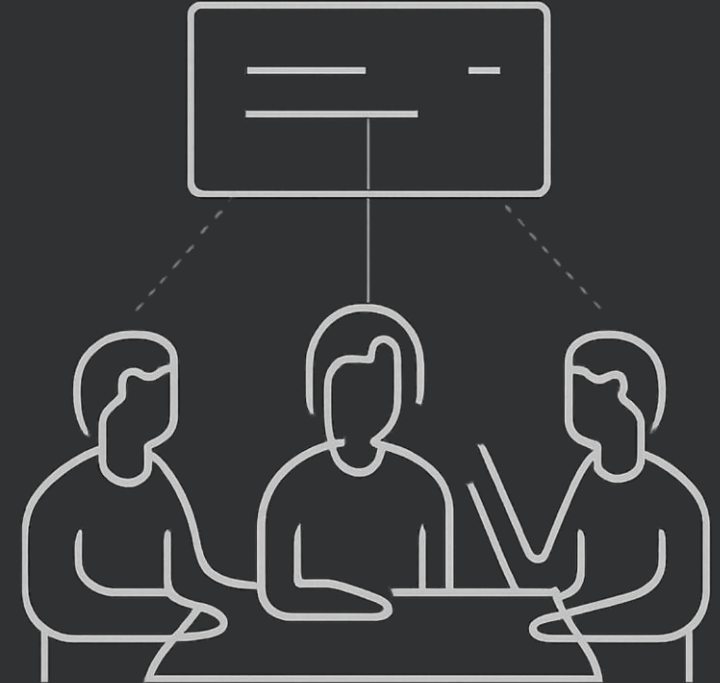
GRP systems are manufactured to the agreed design and specification with appropriate quality documentation.

5

Installation

We use our own, highly skilled installation teams. Knowledgeable and experienced, our crew is highly skilled in the installation of GRP structures across a wide variety of industries.

The result: A specialist partner that can stay involved from the first access discussion through to the completed installation.



Design review questions

Use these questions at concept, developed design or technical review stage.

- What maintenance task is the access system enabling?
- Where does the operator start and finish the access route?
- What loads must the system carry?
- Where can those loads be transferred safely?
- What is the exposure environment?
- What equipment must remain accessible?
- Is the system new-build or around an existing asset?
- Are there electrical, fire or other specialist requirements?
- How will components reach the installation area?
- What calculations and drawings are required for approval?
- What client standards apply?
- Who is responsible for design, supply and installation?

If several of these questions remain unanswered, early specialist input can help establish the design basis before procurement.

Design access early

The earlier access is considered, the more options the project team has. At concept and developed design stages, access can be coordinated with the process and structural design rather than retrofitted around finished layouts.

Early design review can resolve:

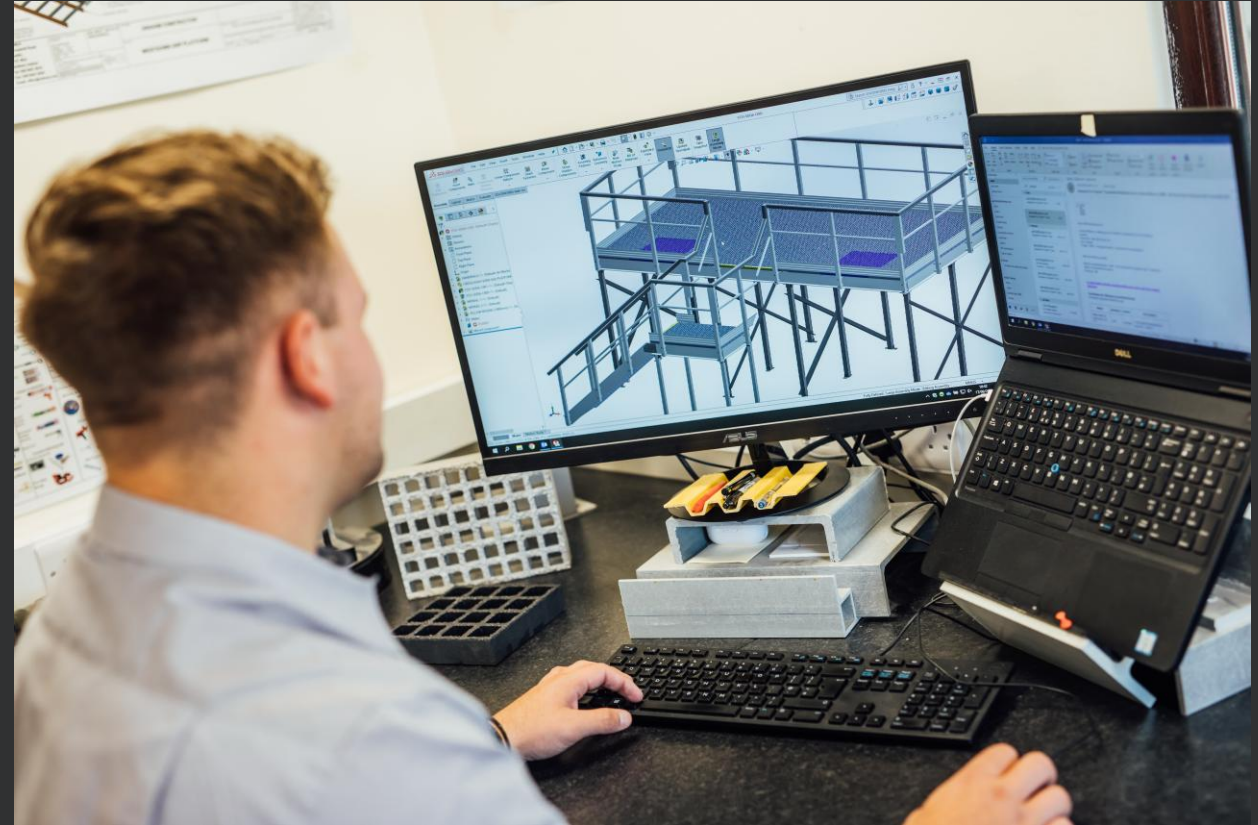
- equipment layout
- support positions
- access routes
- platform geometry
- structural interfaces
- maintenance clearances
- material selection
- fixing strategy
- installation sequence

For consultants and engineers

Bring the access specialist into the design while the geometry and interfaces can still be changed. This is particularly valuable for complex existing assets and bespoke structures.

For contractors

Engage early where access can affect programme, temporary works, lifting, sequencing or interfaces with process equipment.



Access around common water assets

The access requirement changes with the asset. The following prompts can help structure an early review.



Screens, inlet works and channels

Consider wet environments, cleaning access, inspection routes, equipment removal and safe transitions.



Pumps and pumping equipment

Consider motor/pump access, lifting routes, valve access, compact geometry and interfaces with existing structures.



Tanks and treatment processes

Consider perimeter access, process equipment, instrumentation, inspection and maintenance routes.



Chemical/process areas

Consider the actual chemical exposure, cleaning regime, material compatibility and project-specific safety requirements.



Reservoir and water-resource assets

Consider remote access, inspection, environmental exposure, operational equipment and installation logistics.

From problem to installation

Relinea can support the full access-system journey, from early engineering discussion through to supply and installation.

01

Problem

Understand the asset, access requirement, environment and constraints.

03

Calculation

Produce project-specific calculations and technical documentation as required.

05

Supply

Coordinate delivery, documentation and programme requirements.

02

Design

Develop the access arrangement and coordinate geometry, supports, interfaces and maintenance routes.

04

Manufacture

Manufacture the specified GRP system with appropriate quality control and traceability.

06

Installation

Where included in scope, install the system so design, supply and installation remain coordinated.

Start Your AMP8 Access Project

To get started, send us the following project information and we will assess your requirement and advise on the most appropriate design and delivery route.

- Asset description and location
- General arrangement drawing
- Environment and exposure conditions
- Access routes and loading requirements
- Programme stage

One Coordinated Scope

A single point of responsibility across design, manufacture and installation simplifies interfaces, reduces risk and keeps your programme on track.



One coordinated scope simplifies interfaces between design, manufacture and installation.

We work with engineers and consultants at every project stage — from early feasibility through to construction issue. The earlier we are involved, the more value we can add.

Engineering-Led

Structural analysis and full technical documentation

Bespoke Design

Tailored to your asset, environment and constraints

Turnkey Delivery

Design through installation under one scope



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