WIBERG

INDUSTRIAL ACCESS & SAFETY

Stair treads - handrails - ladders - platforms - walkways - safety systems

03 | SOLUTION GUIDE | 2026

ONE COORDINATED ROUTE FROM GROUND LEVEL TO THE WORK ZONE

SOLUTION THESIS

Safe access is one continuous system

Every interface matters: entry, movement, landing, work zone, edge and exit.

01	ENTER	Gate / clear route
02	ASCEND	Stair or ladder
03	TRANSFER	Landing / transition
04	WORK	Platform / walkway
05	PROTECT	Rail / toe plate

The package is engineered around the route - not around isolated products.

Five decisions from route to RFQ

01	ROUTE	Levels, access frequency, process obstructions
02	MOVEMENT	Stair, ladder, landing and transition
03	WORK ZONE	Platform, walkway and maintenance envelope
04	PROTECTION	Rails, toe plates, gates and openings
05	DELIVERY	Drawings, finish, installation and inspection

STAIRS 07-13 | EDGE 14-18 | LADDERS 19-21 | PLATFORMS 22-26 | DELIVERY 27-32

Select from the operating need

Resolve the route first. Product selection follows from elevation, duty and environment.

01

ROUTE

Who uses it?
How often?
What is carried?

02

ELEVATION

Level change
Headroom
Landing points

03

DUTY

Pedestrian load
Maintenance load
Emergency use

04

ENVIRONMENT

Wet / oily
Coastal / chemical
Indoor / outdoor

OUTPUT

Access concept + package boundary + project inputs

Five systems. One coordinated route.

01	02	03	04	05
STAIR	**PLATFORM**	**WALKWAY**	**LADDER**	**EDGE PROTECTION**
Comfortable repeated access	Stable maintenance zone	Horizontal connection	Compact vertical access	Control exposed edges

COORDINATED INTERFACES

Shared geometry - matched finish - clear handover points

Specify for the environment - then align the whole route

Material selection is preliminary until process chemistry, temperature and project standards are confirmed.

ENVIRONMENT	TYPICAL FRAME	HARDWARE DIRECTION	ENGINEERING CHECK
General outdoor	Hot-dip galvanized steel	HDG / stainless review	Coating system and repair
Wet washdown	304 / 316L review	Stainless	Drainage and crevices
Coastal / marine	316L or reviewed HDG	316L	Salt exposure and isolation
Chemical process	FRP / 316L review	Compatible alloy	Chemistry and temperature
Project colour	Painted / duplex system	Matched / isolated	RAL and coating spec

US EN AS ISO OWNER SPEC

Confirm the applicable standard and current revision for every project.

01

STAIRS

Move people between levels without breaking the load path.

SYSTEM FIRST

PROJECT SPECIFIC

DRAWING LED

Choose the tread by fixing method and surface condition

T2 **WELDED**
Permanent steel stair

T4 **BOLTED**
Replaceable side-plate detail

S **SERRATED**
Wet, oily or outdoor duty

C **CUSTOM**
Width, nosing, side plate, finish

Specify tread width, bearing-bar direction, nosing, side-plate holes and finish together.

The tread is a small assembly with a complete load path

01 NOSING
Visibility + slip resistance

02 GRATING
Walking surface + drainage

03 SIDE PLATE
Load transfer to stringer

04 FIXING
Bolted replacement or welded permanence

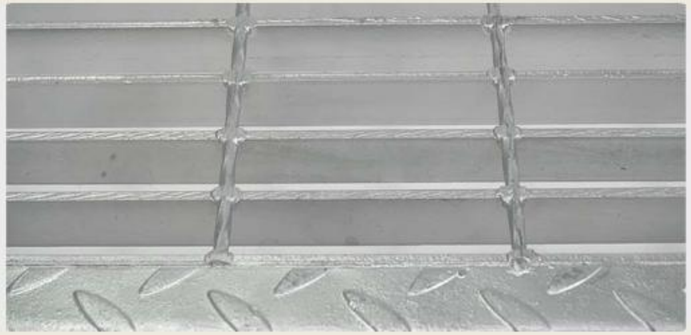
Match the walking surface to the exposure

Selection is based on contamination, drainage, visibility and cleaning - not appearance alone.

CONDITION	SURFACE DIRECTION	NOSING DIRECTION	PROJECT CHECK
Dry indoor	Plain or serrated	Standard / contrast option	Footwear and traffic
Wet outdoor	Serrated open grating	High-visibility option	Drainage and icing
Oily process	Aggressive serration review	Abrasive / contrast review	Contaminant control
Washdown	Open area for drainage	Corrosion-compatible	Cleaning access
Public / mixed use	Project-specific surface	High visibility	Local code and comfort

Final slip-resistance requirement and test method must be defined by the project.

Resolve the tread, stringer and landing as one interface



SIDE PLATE	Hole pattern, edge distance, replacement access
STRINGER	Slope, member depth, local stiffness
LANDING	Flush transition, drainage, clear opening
FIXING	Bolt grade / weld procedure / coating repair
TOLERANCE	Shop drawing coordinates and site survey

A complete stair package closes the interfaces

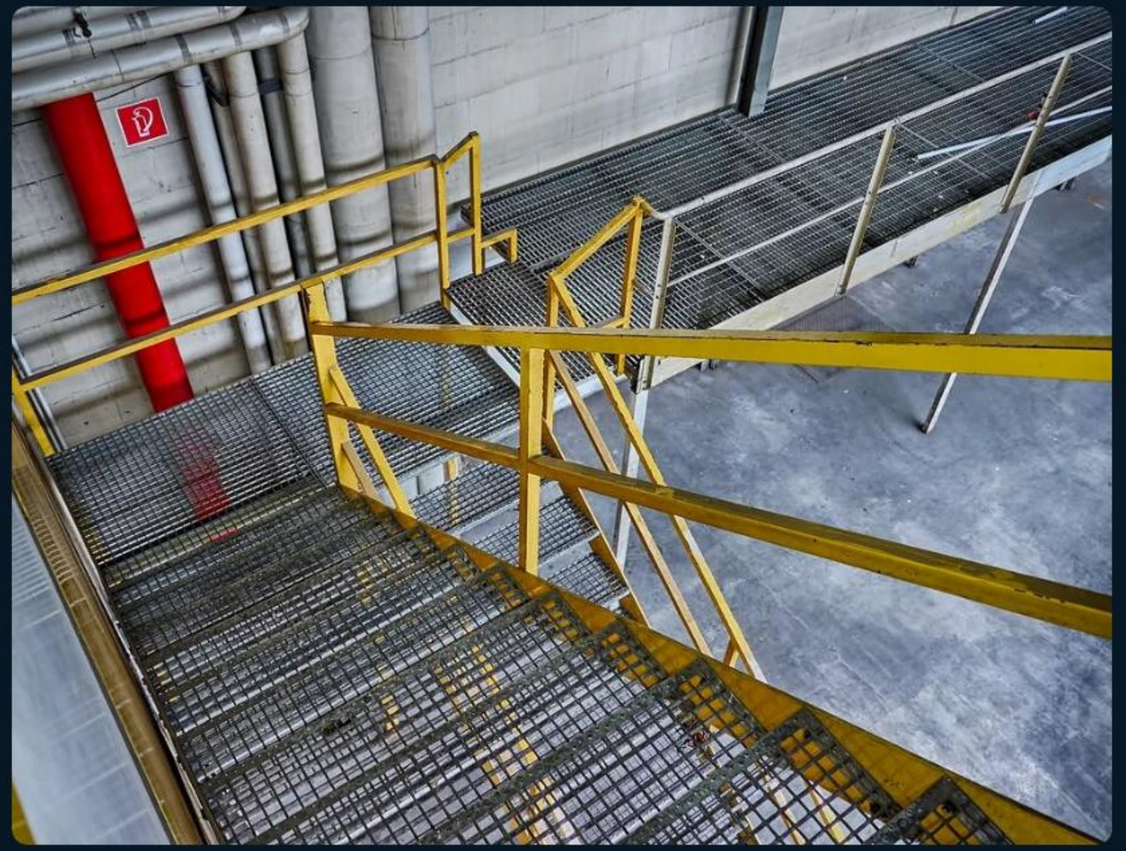
01 TREADS
Surface, nosing, side plates

02 STRINGERS
Geometry, supports, finish

03 LANDINGS
Grating, frame, edge band

04 RAILS
Sloped transition, posts, toe plate

05 CONNECTIONS
Base plates, bolts, welds, anchors



Stair RFQ - define the route before the tread count

01 LAYOUT

Plan, elevation, levels, clear width

02 GEOMETRY

Total rise, available run, landings

03 DUTY

Traffic, carried items, design loads

04 SURFACE

Wet / oily / outdoor, nosing

05 INTERFACES

Structure, doors, equipment, handover

06 SPECIFICATION

Material, finish, standard, scope

02

EDGE PROTECTION

Protect every exposed edge, opening and transition.

SYSTEM FIRST

PROJECT SPECIFIC

DRAWING LED

Treat guardrails as a continuous barrier system

Geometry is set by the applicable project standard and approved drawings.

TOP RAIL	Continuous hand support
MID RAIL	Controls intermediate opening
POST	Transfers barrier load
TOE PLATE	Controls dropped objects
BASE / SIDE FIX	Transfers load to structure

STRAIGHT | SLOPED | CORNER | REMOVABLE

Connection families make the system buildable

BASE PLATE

Post to deck / structure

90 DEG ELBOW

Direction change

TEE

Rail intersection

POST FAMILY

Straight, corner, end

Connection selection follows loading, installation access, corrosion strategy and removability.

Protect openings with a self-closing gate

Use at ladder and stair openings where the route creates a temporary gap in the barrier.

LOCATION	Ladder exit / stair opening
ACTION	Self-closing return
OPENING	Match clear width and swing
MOUNT	Post / rail interface
FINISH	Match or isolate materials
CHECK	No clash with user or equipment

03

VERTICAL ACCESS

Choose ladders where the route is vertical and access is controlled.

SYSTEM FIRST

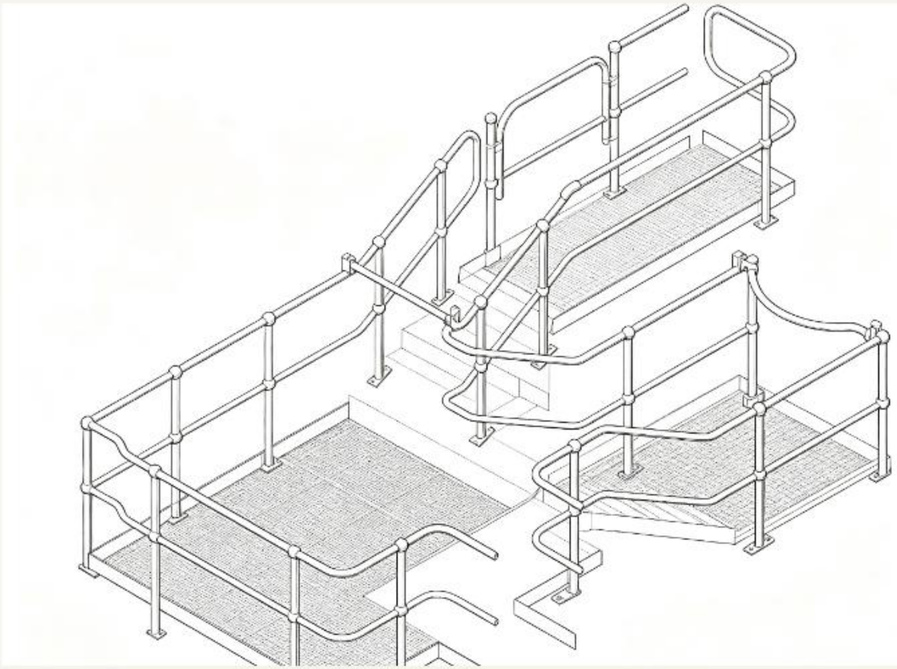
PROJECT SPECIFIC

DRAWING LED

Transitions are where gaps appear

Coordinate slopes, corners, removable bays and structure joints before fabrication.

01	SLOPE	Stair rail meets level guardrail
02	CORNER	Post location preserves clear width
03	REMOVABLE BAY	Equipment access without permanent gap
04	STRUCTURE JOINT	Barrier continuity across movement
05	FINISH BREAK	Repair or isolate at field work



Select the ladder from access frequency and landing condition

TYPE	BEST FIT	REVIEW
Fixed ladder	Infrequent controlled access	Height, clearances, fall protection
Cage ladder	Project-defined protected climb	Current local rule and project standard
Ladder + gate	Platform opening	Exit direction and barrier continuity
Stair instead	Frequent access / carried tools	Space, comfort and emergency use

The applicable standard and site risk assessment decide the final protection system.

Design the ladder exit as a complete landing interface

01 STAND-OFF
Structure clearance and bracket load

02 TOP EXIT
Side-rail extension and step-through

03 LANDING
Clear, drained, unobstructed zone

04 BARRIER
Guardrail transition and self-closing gate

05 HANDOVER
Anchor, weld and coating inspection

04

PLATFORMS & WALKWAYS

Turn isolated equipment into a maintainable route.

SYSTEM FIRST

PROJECT SPECIFIC

DRAWING LED

A platform is a coordinated maintenance envelope

01	FRAME	Primary and secondary steel
02	DECK	Grating, drainage, removable panels
03	EDGE	Guardrails, toe plates, gates
04	ACCESS	Stair or ladder interface
05	EQUIPMENT	Clearances, lifting and maintenance zones
06	CONNECTION	Anchors, splices, site tolerance

Three walkway configurations - one selection logic

ELEVATED

Between structures or equipment

MULTI-LEVEL

Connected maintenance galleries

ROOFTOP / SERVICE

Controlled route across services

For each route confirm width, support spacing, drainage, edge protection, access points and obstructions.

The critical design work happens between systems

STAIR TO LANDING | LANDING TO PLATFORM | PLATFORM TO WALKWAY | WALKWAY TO LADDER / GATE

Coordinate clear width, barrier continuity, level transition and mounting access at every handover.

Design out common route failures

01 SLIP

Surface, nosing, contamination control

SERRATION + CLEANING

02 WATER

Drainage, slope, trapped debris

OPEN AREA + OUTLETS

03 VISIBILITY

Edges, changes in level, lighting

CONTRAST + LIGHT

04 OBSTRUCTION

Pipes, valves, doors, lifting paths

SURVEY + CLEAR ZONE

05 DROPPED OBJECTS

Open edges and removable panels

TOE PLATE + RETENTION

06 CORROSION

Finish breaks and dissimilar metals

MATERIAL + ISOLATION

A professional package is controlled through six gates

01	02	03	04	05	06
SURVEY	DESIGN BASIS	SHOP DRAWINGS	FABRICATION	INSTALLATION	HANDOVER
Levels, interfaces, obstructions	Loads, environment, standards	Route, nodes, part schedule	Fit-up, welding, finish	Sequence, access, coating repair	Inspection records and maintenance

Client hold points can be inserted at design basis, drawing approval, finish inspection and handover.

Inspection protects the route after handover

Intervals depend on environment, traffic, vibration, owner requirements and local regulation.

ZONE	CHECK	TYPICAL ACTION	RECORD
Walking surface	Damage, looseness, contamination	Clean, secure, replace	Area and condition
Stairs / ladders	Treads, rungs, brackets, clearances	Repair or isolate route	Location and severity
Rails / gates	Posts, joints, closure and latch	Tighten, adjust, replace	Function test
Frames / anchors	Corrosion, movement, weld / bolt condition	Engineer review if movement	Photo and measurement
Coating / isolation	Zinc damage, paint break, galvanic interface	Restore approved system	Material and repair batch

INSTALLATION INSPECTION | ROUTINE WALKDOWN | EVENT-BASED REVIEW | REPAIR CLOSEOUT

Agree the design basis before detailed engineering starts

A signed-off input register prevents late redesign and unclear responsibility.

WORKSTREAM	CLIENT / CONSULTANT INPUT	WIBERG ENGINEERING OUTPUT
Route	Levels, access frequency, clearances	Coordinated access layout
Loads	Design loads, combinations, deflection criteria	Member selection and connection reactions
Standards	Governing code, owner standard, current revision	Compliance matrix and deviation register
Environment	Corrosion exposure, temperature, process chemistry	Material and finish schedule
Interfaces	Structure, equipment, doors, pipes and openings	Interface schedule and node drawings
Scope	Design, supply, installation and inspection boundaries	Scope matrix, deliverables and exclusions

HOLD POINT - DESIGN BASIS APPROVAL **Release detailed engineering only after inputs, standards and scope are confirmed.**

Make the supply package traceable from raw material to handover

The final document register follows the purchase order, approved drawings and inspection plan.

01	**MATERIAL**	Certificates, heat / lot identity
02	**FABRICATION**	Welding and process records where specified
03	**DIMENSIONS**	Key geometry and fit-up inspection
04	**FINISH**	Galvanizing / coating records where specified
05	**FUNCTION**	Visual checks, gate closure, removable items
06	**HANDOVER**	Packing marks, final drawings, maintenance guidance

TYPICAL DOCUMENT REGISTER

01	**Approved shop drawings**
02	Material certificates
03	Welding records where required
04	Coating / galvanizing records
05	Dimensional and final inspection report
06	Packing list and item marks
07	Maintenance recommendations

SUBMITTAL STATUS **For approval - for construction - as-built**

Send the route, loads and interfaces - we will coordinate the package

ROUTE	Plan, elevations, levels and access points
LOADS	Pedestrian, maintenance, equipment and barrier loads
ENVIRONMENT	Indoor, outdoor, coastal, washdown or chemical
INTERFACES	Structure, equipment, doors, pipes and openings
SPECIFICATION	Material, finish, current standard and owner requirements
SCOPE	Design, supply, installation, drawings and inspection

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BUILD THE
SAFE ROUTE

Stairs, platforms, walkways, ladders and edge protection - coordinated as one project-ready package.

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