

Safety Health & Environmental Information

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following risks and information.

Risks listed here are not exhaustive. Refer to Designer's Risk Assessment and pre-construction phase plan.

CONSTRUCTION

C1

Managing flow & stage levels in River Exe

-Monitor flow levels & flood warnings.

-Check adequacy of cut-off & stability of cofferdams, if used.

C2

Managing seepage flows through weir

-Monitor seepage

-Check stability of cut face in weir and assess permeability of formation material.

-Check adequacy of cut-off & stability of cofferdams

C3

Working near water

-Avoid working near water where possible

-Allow provision for fixed edge protection to eliminate falls into water

-Allow provision for systems for work positioning and fall arrest

-Assess bank stability / conditions considering access for personnel and machinery

-Wear appropriate PPE

C4

Risk of falls from height

-Check depth of excavations

-Allow provision for fixed guard rails to eliminate falls from height and appropriate means of access not involving ladders

-Allow provision for systems for work positioning and fall arrest

C5

Lifting

-Check craneage lifting facilities & constraints

-Check access weight & size restrictions for craneage at bridge crossings along access route to site

C6

Services

-Check for identified & unidentified services. Clearly highlight and services that may affect works

C7

Interface with public & other site operations

-Assess risk to public on site

-Check adequate warning signs and fencing in place

DEMOLITION

ENVIRONMENTAL

E1

Pollution of Watercourse

-Create a suitable dry working area

-Refer to 'Guidance for Pollution Prevention 2019'

-Produce a Site Waste Management Plan

-Produce a a Site Environmental Emergency Plan

-Have a suitable incident Response Plan in place

OPERATION & MAINTENANCE

For information relating to Use, Cleaning and Maintenance see the Health and Safety File

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

NOTES:

1. DIMENSIONS:

- Are in millimetres unless otherwise stated.
- Marked thus (*) are approximate.
- All levels are in metres to Site Datum.

2. SPECIFICATION:

All works to be carried out in accordance with the Environment Agency Minimum Technical Requirements which shall be the Civil Engineering Specification for the Water Industry (CESWI). All technical requirements clauses apply unless stated as deleted, amended or augmented in accordance with the EA WEM Contract Works Information documentation.

3. DRAWING INFORMATION

Site plans from topographical survey by the Westcountry Rivers Trust, August 2020. Contractor to check critical levels before setting out.

4. ALUMINIUM:

All structural aluminium alloys to BS 8118.

All aluminium components to be Alloy 6082T6, or similar approved.

All aluminium welds to be 10mm fillet unless otherwise indicated. All welds to be continuous unless otherwise indicated.

5. BOLTS:

All stainless steel to BS5950.

All fasteners to be stainless steel A2 (304) set screws, M12 unless otherwise indicated in 14mm dia holes.

All fastness to have white nylon washers to isolate stainless steel fasteners from aluminium alloy extrusions & plates.

Washers to be M12 21mm x 2mm unless otherwise indicated to suit set screw dia.

All nuts to be nylon nuts.

Supporting structure to avoid bottom connector plates (& bolted fixings).

6. FABRICATION:

Fabrication drawings to be prepared by the fabricator.

All fabricated structural steelwork & aluminium structures executed to conform to BS EN 1090-2.

All structural material components, used within the fabricated and executed structure, to conform to BS EN 1090-2 including NSSS V5 CE Marking Version.

Size of connection plates & bolt hole positions to suit fabrication tolerances and checked for fit prior to deliver to site.

Existing weir profile to be surveyed prior to commencement of fabrication.

7. ASSEMBLY:

All bolted connection plates to receive bead line of Sika-flex.

8. MASS CONCRETE

All concrete to comply with BS 8500-2.

Concrete to have a minimum strength class of C40 / 50.

Designated Mix REQUIREMENTS:

- RC 40 / 50
- 20mm max. aggregate size
- S3 consistency class

Minimum cover to reinforcement C_{min} = 60mm.

All exposed edges to have 25mm chamfer, with exception to abutting joints.

Exposed formed concrete to have fair worked finish.

Exposed unformed concrete to have wood float finish.

Nominal 100mm layer of mass concrete blinding for pours.

P02	03/06/21	Detailed Design - For Tender	AF	ML	TC				
P01	25/05/21	Detailed Design - For Comment	AF	ML	TC				
Rev	Date	Description	Auth	Chkd	Appr				

Detailed Design		
Scales	As shown	Current Issue Signatures
Original Size	A1	Author A. Frampton
Datum	N/A	Checker M.Lakin
Grid	N/A	Approver T.Coe
Copyright reserved		

Filename:

Client:

PROJECT		
Bridgetown Weir		
TITLE		
Smolt Chute Sections & Details		
Drawing No.	Project No.	Revision
106	02900	P02

SAFETY HEALTH & ENVIRONMENTAL INFORMATION

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 - Allow provision for systems for work positioning and fall arrest
- C5

Lifting

 - Check crane lifting facilities & constraints
 - Check access weight & size restrictions for craneage at bridge crossings along access route to site
- C6

Services

 - Check for identified & unidentified services. Clearly highlight and services that may affect works
- C7

Interface with public & other site operations

 - Assess risk to public on site
 - Check adequate warning signs and fencing in place

DEMOLITION

ENVIRONMENTAL

- E1

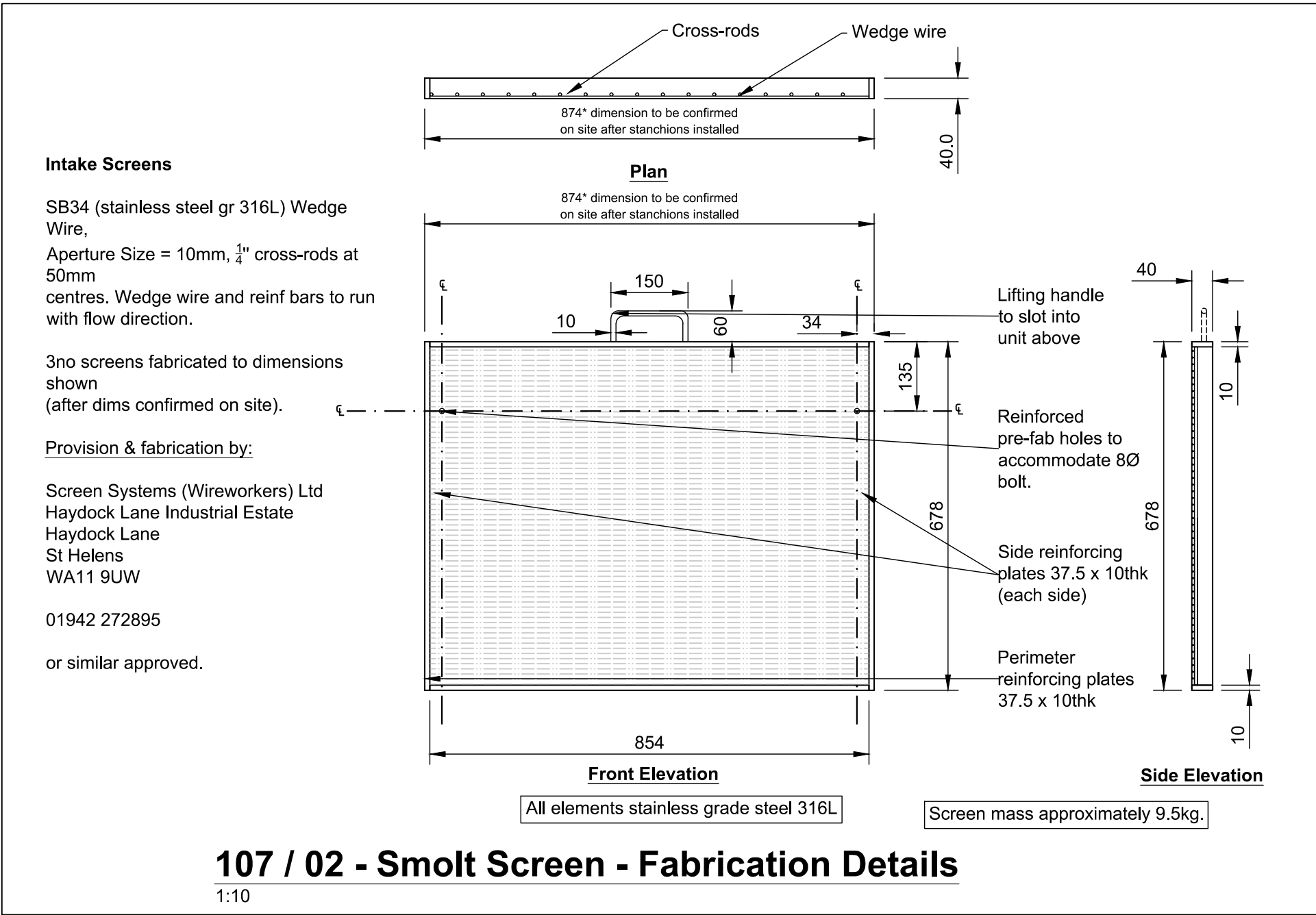
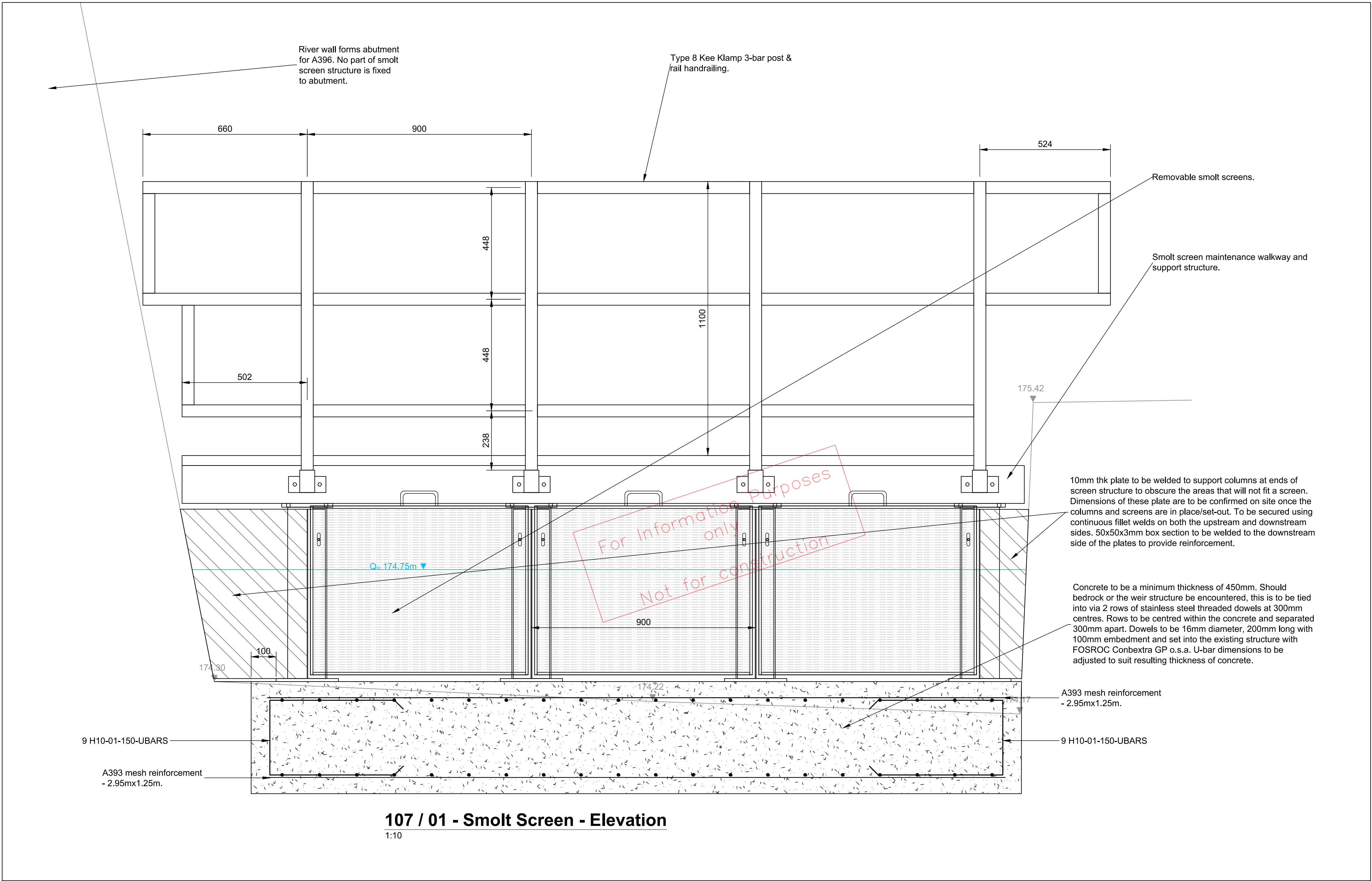
Pollution of Watercourse

 - Create a suitable dry working area
 - Refer to 'Guidance for Pollution Prevention 2019'
 - Produce a Site Waste Management Plan
 - Produce a a Site Environmental Emergency Plan
 - Have a suitable incident Response Plan in place

OPERATION & MAINTENANCE

For information relating to Use, Cleaning and Maintenance see the Health and Safety File

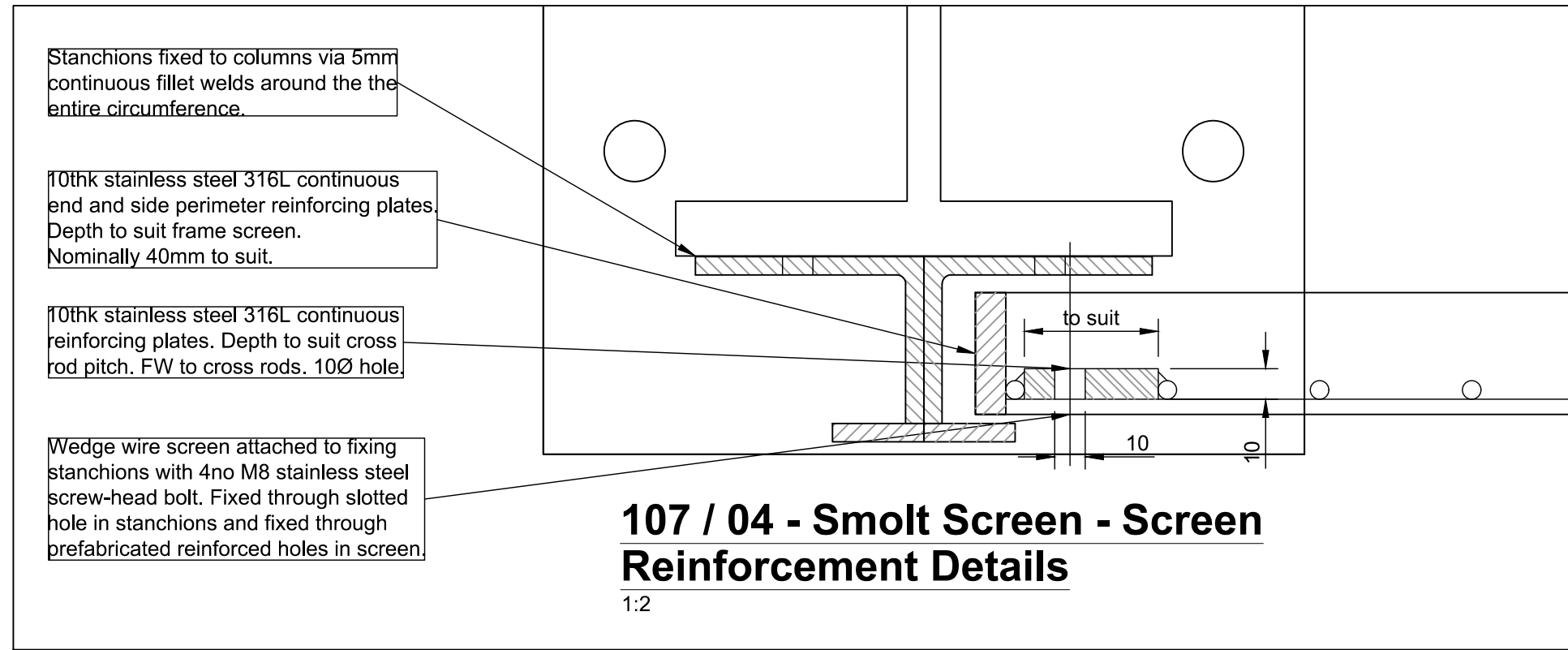
It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement



Member	Bar mark	Type and size	No. of mbrs	No. of bars in each	Total no.	Length of each bar ↑ mm	Shape code	A * mm	B * mm	C * mm	D * mm	E/R * mm	Rev letter
Bridgetown Weir Walkway slab	01	H 10	58	1	58	1375	21	550	310	550			
	02	A 393	2	1				3.69m2 each - 7.38m2 total					

107 / 03 - Smolt Screen - Slab Reinforcement Schedule

N/A



- NOTES:
- DIMENSIONS:**
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 - DRAWING INFORMATION**

Site plans from topographical survey by the Westcountry Rivers Trust, August 2020. Contractor to check critical levels before setting out.
 - REINFORCED & MASS CONCRETE**

All concrete to comply with BS 8500-2.

Mass concrete and reinforced concrete of the same mix. Concrete to have a minimum strength class of C40 / 50.

Designated Mix REQUIREMENTS:

 - RC 40 / 50
 - 20mm max. aggregate size
 - S3 consistency class

Reinforcement: All steel reinforcement shall be deformed Type 2 and shall be cut and bent to BS4466 or BS4449. Minimum cover to reinforcement C_{min} = 60mm. All exposed edges to have 25mm chamfer, with exception to abutting joints.

Exposed formed concrete to have fair worked finish. Exposed unformed concrete to have wood float finish.
 - STAINLESS STEEL**

All structural stainless steel alloys to BS EN 10088-2:2014. All stainless steel components to be Alloy 316/1.4401, or similar approved.

All stainless steel welds to be 10mm fillet unless otherwise indicated. All welds to be continuous unless otherwise indicated.
 - BOLTS:**

All stainless steel to BS5950.

All fasteners to be stainless steel A2 (304) set screws, M12 unless otherwise indicated in 14mm dia holes.

All fastness to have white nylon washers to isolate stainless steel fasteners from aluminium alloy extrusions & plates. Washers to be M12 21mm x 2mm unless otherwise indicated to suit set screw dia.

All nuts to be nyloc nuts.

Supporting structure to avoid bottom connector plates (& bolted fixings).
 - FABRICATION:**

Fabrication drawings to be prepared by the fabricator.

All fabricated structural steelwork & aluminium structures executed to conform to BS EN 1090-2.

All structural material components, used within the fabricated and executed structure, to conform to BS EN 1090-2 including NSSS V5 CE Marking Version.

Size of connection plates & bolt hole positions to suit fabrication tolerances and checked for fit prior to deliver to site.

Existing weir profile to be surveyed prior to commencement of fabrication.
 - ASSEMBLY:**

All bolted connection plates to receive bead line of Sika-flex.

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Status		
Detailed Design		
Scales	As shown	Current Issue Signatures
		Author A. Frampton
Original Size	A1	Checker M.Lakin
Datum	N/A	Approver T.Coe
Grid	N/A	Copyright reserved

Filename:



PROJECT

Bridgetown Weir

TITLE

Smolt Screen Details

Drawing No.	Project No.	Revision
107	02900	P02