2.0 INSPECTION OF STRUCTURES

This section contains Inspection Reports for the existing structures which do not impede navigation and which are owned by the canal authority. These reports only apply to structures located in Halton and Warrington, as specified in the Brief.

The inspections were carried out in accordance with the procedures set out in the HMSO Bridge Inspection Guide and were undertaken on foot. Binoculars were used to view inaccessible areas of the structure as a 'hands on' inspection was not possible without the use of specialised inspection equipment. During each inspection basic dimensions were recorded, as there were no drawings available at the time of the inspection.

The feasibility study did not include the inspection of culverts, sewers, pipes, services or ducts passing under the canal or of any underground or enclosed chambers associated with the canal. It would be prudent for inspection of these underground features to be undertaken using specialist survey teams or CCTV surveys as appropriate to establish their structural condition, if any infiltration is occurring and to identify any particular maintenance concerns.

Structure Name: *Winwick Lock* Date of Inspection: *26 May 1995*

Structure Ref *H12* Chainage: *12,950m*

Canal Lock Inspection Report

Inspection Procedures

Buried elements of the structure were not uncovered and consequently were not inspected. Basic dimensions and details of the chamber were recorded on site. There were no drawings available for the structure at the time of the inspection.

Weather Conditions

Sunny and warm.

General Arrangement Photograph - Number 6/5

Description of Structure

This lock has been infilled and is no longer in use. At either end of the chamber the canal has also been infilled. All of the lock gates are in place but are dilapidated and inoperable. Adjacent to the east chamber wall there is a concrete bywash channel.

Principle Dimensions

Chamber Length :	26m
Chamber Width :	6.3m
Chamber Depth :	1m to ground level (infilled)

PHOTOGRAPH 6/4 - West Chamber Wall

PHOTOGRAPH 6/3 - Downstream Lock Gate

PHOTOGRAPH 6/1 - General View of Bywash Channel

PHOTOGRAPH 6/2 - Void in Concrete Channel Wall

Structure Name: *Winwick Lock* Date of Inspection: *26 May 1995*

Structure Ref *H12* Chainage: *12,950m*

Part No	Name of Part	1-5 P-G	Condition Report	Photo Ref.
1	Chamber Walls	2	The chamber walls are visible down to 1m below coping level. There are areas of brick infill but the walls are generally in reasonable condition.	6/4
2	Chamber Copings	3	The original masonry copings on the west wall are in good condition. On the east wall the masonry coping has been replaced with concrete.	6/4
3	Chamber Invert		Not visible for inspection.	
4	Lock Gate Sills		Not visible for inspection.	
5	Upstream Lock Gate	1	The lock gates are in very poor condition.	
6	Downstream Lock Gate	1	The lock gates are in very poor condition.	6/3
7	Upstream Lock Gate Sluices			
8	Downstream Lock Gate Sluices			
9	Ladders		There are no ladders in the chamber.	
10	Stop Plank Grooves		None provided.	
11	Chamber Wall Sluices			
12	Bywash Channel	3	The concrete channel is in reasonable condition. There are several small voids in the channel walls.	6/1

Structure Name: *Winwick Lock* Date of Inspection: *26 May 1995*

Structure Ref *H12* Chainage: *12,950m*

Part No	Name of Part	1-5 P-G	Condition Report	Photo Ref.
13	Bywash Weir		None provided.	
14	Upstream Approach		The canal is infilled.	
15	Downstream Approach		The canal is infilled.	
16	Parapets			
17	Towpath			
18	Condition of Masonry		See Section 1.	
19	Pointing			

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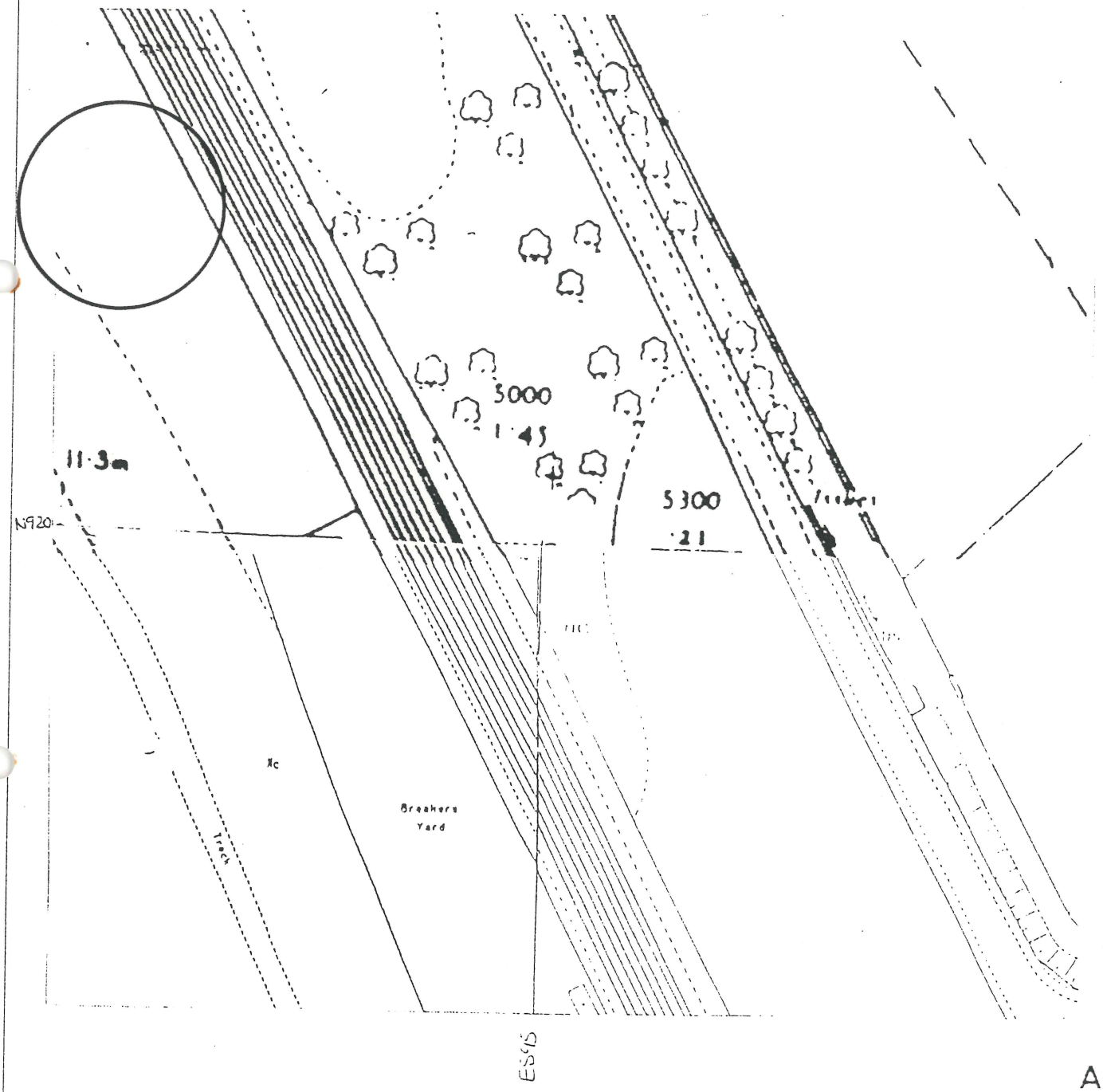

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Project: SANKEY CANAL RESTORATION

Title: H12 WINWICK LOCK
LOCATION PLAN

Scale	Drawn	Ch'ked	Auth
1: 2500	IJ		
	Date JUNE '95	Date	Date

Drawing Number: Y2311 / 166 / 050 / 035

Rev

Purpose of issue	Auth	Date	Rev	Description	By	Date	Chk'd	Auth

Structure Name: *Footbridge Over Sluice* Date of Inspection: *22 May 1995*

Structure Ref: *K1* Chainage: *10,575m*

Bridge Inspection Report

Inspection Procedures

The General Inspections were carried out in accordance with the procedures set out in the HMSO Bridge Inspection Guide. The inspections were carried out on foot. Inaccessible parts of the bridge were inspected using binoculars. Basic dimensions and details of the bridges were recorded on site. There were no drawings available for the structure at the time of the inspection.

Weather Conditions

Sunny and very warm.

General Elevation Photograph - Number 3/21

Description of Structure

This bridge carries the towpath over a narrow drainage ditch which used to serve a sluice in the canal. This sluice is no longer in use. The bridge comprises seven longitudinal timber beams with timber decking. The structure spans between masonry walls which form the sides of the drainage ditch. The parapet is a steel post and two rail construction which is bolted onto the edge beams.

Principle Dimensions

Minimum Headroom :	4m to water level in drainage channel
Square Span :	1.55m
Skew Span :	3.1m
Width of Superstructure :	5.63m
Height of Parapet :	1.15m

Structure Name: *Footbridge Over Sluice* Date of Inspection: *22 May 1995*

Structure Ref: *K1* Chainage: *10,575m*

PHOTOGRAPH 3/22 - Timber Decking to Bridge

Structure Name: *Footbridge Over Sluice* Date of Inspection: *22 May 1995*

Structure Ref: *K1* Chainage: *10,575m*

Part No	Name of Part	1-5 P-G	Condition Report	Photo Ref.
1	Invert	1	The drainage ditch is overgrown with vegetation and the water is stagnant.	3/21
2	Aprons			
3	Foundation/Scour		Not visible for inspection.	
4	Cutwaters			
5	Piers/Columns			
6	Abutments & Bankseats	3	The masonry abutments are in reasonable condition.	3/21
7	Wingwalls			
8	Embankments			
9	Training Walls	3	The masonry training walls are in reasonable condition.	3/21
10	Drainage Substructure		None visible	
11	Parapets	3	The steel parapets are in reasonable condition with minor paint loss evident.	3/22 3/21
12	Bearings		None believed present.	

Structure Name: *Footbridge Over Sluice* Date of Inspection: *22 May 1995*

Structure Ref: *K1* Chainage: *10,575m*

Part No	Name of Part	1-5 P-G	Condition Report	Photo Ref.
13	Expansion Joints		None provided.	
14	Main Beams		The beams appear to be in good condition.	
15	Painting	3	Minor paint loss to parapets (See Section 11).	3/21
16	Troughing			
17	Jack Arches			
18	Transverse Beams & Diaphragms			
19	Waterproofing		None provided.	
20	Superstructure Drainage		None provided.	
21	Concrete Deck			
22	Arch Springing			
23	Arch Ring			
24	Voussoirs/Arch Face			

Structure Name: *Footbridge Over Sluice* Date of Inspection: *22 May 1995*

Structure Ref: *K1* Chainage: *10,575m*

Part No	Name of Part	1-5 P-G	Condition Report	Photo Ref.
25	Spandrel Walls			
26	Tie Rods			
27	Pointing	3	The pointing to the masonry walls is in reasonable condition with only minor mortar loss evident.	3/21
28	Condition of Masonry	3	The substructure masonry is in reasonable condition.	3/21
29	Surfacing	4.5	The timber decking is in good condition.	3/22
30	Footways			
31	Towpath		This is in good condition.	3/22
32	Stop Plank Grooves			
33	Canal Banks			
34	Swing Bridge Pintle			
35	Tail Rails & Wheels			
36	Hydraulics			
37	Swing Bridge Counterweights			
38	Swing Bridge Buffer			

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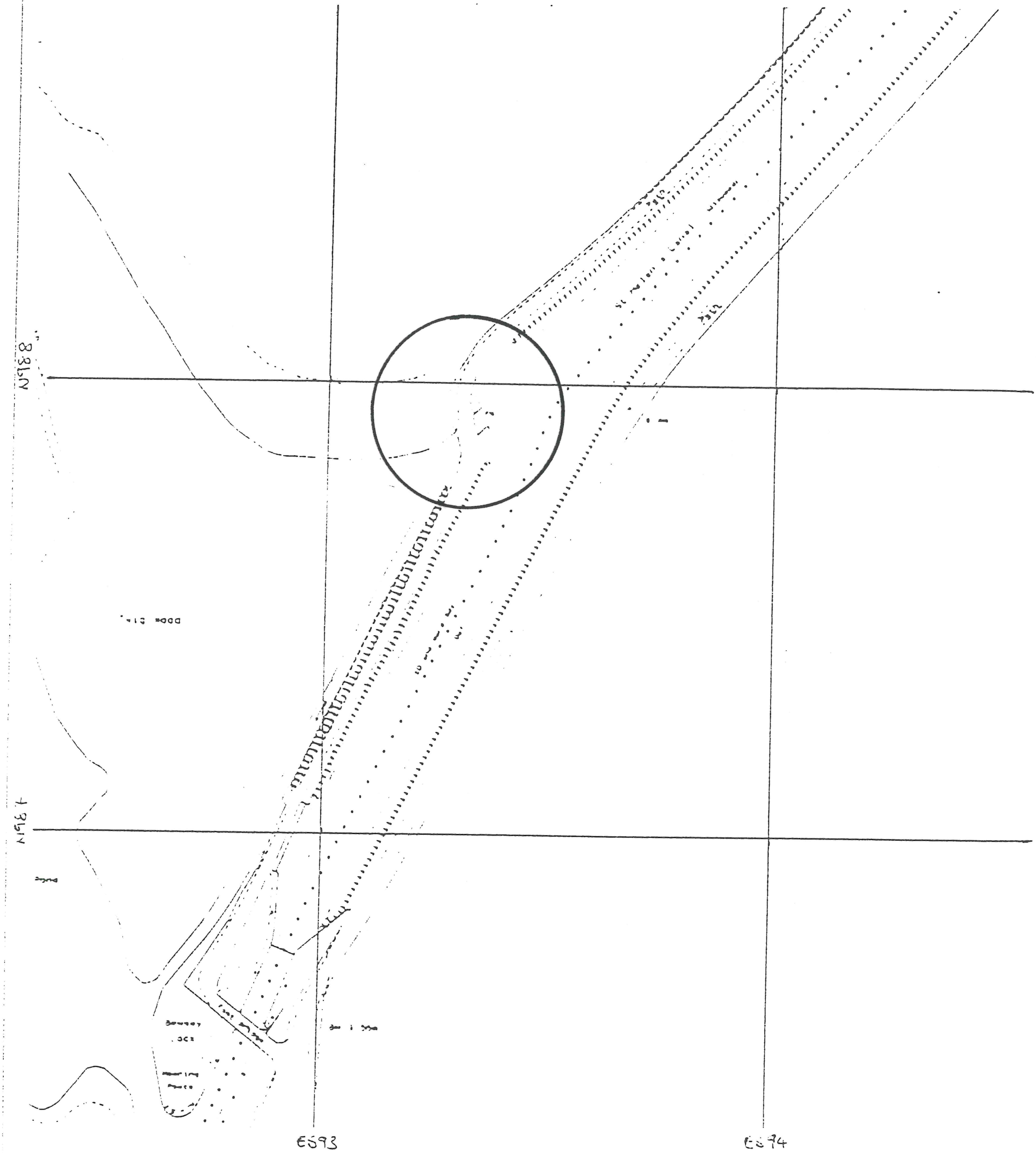

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Project: SANKEY CANAL RESTORATION

Title: K1 FOOTBRIDGE OVER SLUICE
LOCATION PLAN

Scale	Drawn	Chkd	Auth
1:1250	Date JUNE '95	Date	Date

Drawing Number: Y2311 / 166 / 050 / 043 (Job / Dept. / Sub / Unique No.)

Rev

Purpose of Issue	Auth Date	Rev	Description	By Date	Chkd Auth

Structure Name: *Canal Overflow* Date of Inspection: *22 May 1995*

Structure Ref: *K3* Chainage: *10,465m*

Miscellaneous Structures Inspection Report

Inspection Procedures

Basic dimensions and details of the structure were recorded on site. There were no drawings available for the structure at the time of the inspection.

Weather Conditions

Sunny and very warm.

General Arrangement Photograph - Number 3/19

Description of Structure

This masonry overflow weir historically allowed excess water upstream of Bewsey Lock to discharge into a large pond downstream of the lock, preventing water overtopping the lock gates. The towpath which passes over the weir, is supported by cast iron beams with a concrete deck. At the North end of the structure the towpath is supported by a single span masonry arch. A steel post and two rail parapet is provided either side of the towpath.

Principle Dimensions

None recorded on site.

Structure Name: *Canal Overflow* Date of Inspection: *22 May 1995*

Structure Ref: *K3* Chainage: *10,465m*

PHOTOGRAPH 3/20 - Cast Iron Edge Beam and Concrete Deck

Structure Name: *Canal Overflow* Date of Inspection: *22 May 1995*

Structure Ref: *K3* Chainage: *10,465m*

Part No	Name of Part	1-5 P-G	Condition Report	Photo Ref.
1	Embankments			
2	Parapets	4	The steel parapets are in good condition and appear to be fastened to the concrete slab.	3/19
3	Culvert Aprons			
4	Culvert Invert			
5	Wingwalls or Training Walls			
6	Culvert Lining			
7	Weir/Outfall Apron		The apron to the weir is severely overgrown and consequently could not be inspected.	3/19
8	Weir/Outfall Sill	4	The masonry sill to the weir is in reasonable condition with moderate vegetation growth evident in areas.	3/19
9	Weir Substructure		Not visible for inspection.	
10	Pipe Bridges			
11	Causeway			
12	Sluice Gates			
13	Towpath	4	The towpath is in good condition	
14	Sewer Pipes			

Structure Name: *Canal Overflow*

Date of Inspection: *22 May 1995*

Structure Ref: *K3*

Chainage: *10,465m*

Part No	Name of Part	1-5 P-G	Condition Report	Photo Ref.
15	Main Beams	1	The cast iron edge beam is in poor condition. The exposed areas of the edge beam are severely corroded. Other beams are not visible for inspection.	3/20 3/19
16	Arch Structure	1	The masonry arch is in poor condition with severe mortar loss evident.	
17	Concrete Deck	1	The exposed areas of the concrete deck are in poor condition with large areas spalling.	3/20
18	Waterproofing		Not exposed for inspection.	

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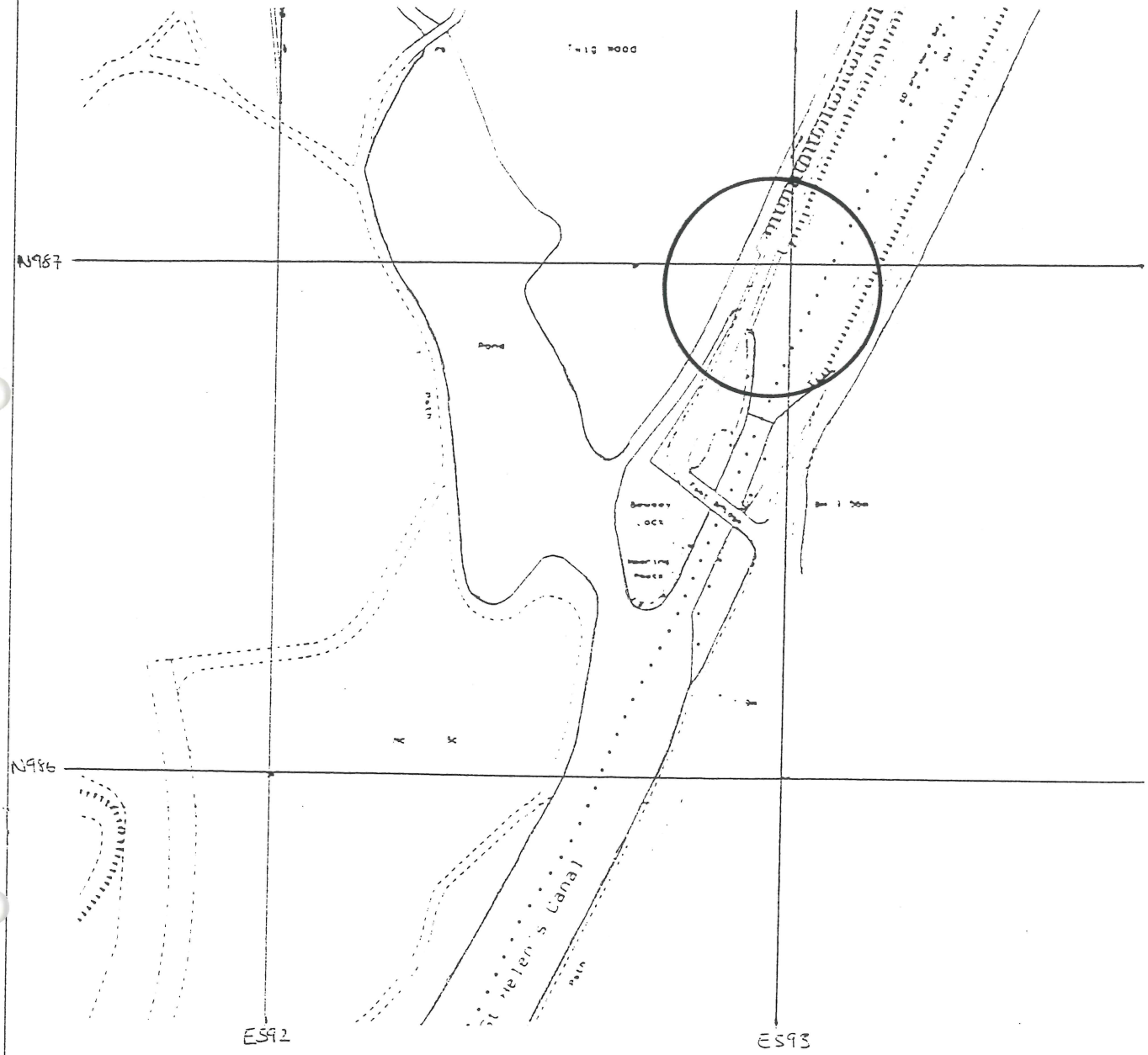

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Purpose of issue	Auth	Date	Rev	Description	By	Date	Chk'd	Auth

Project: SANKEY CANAL RESTORATION

Title: K3 CANAL OVERFLOW
LOCATION PLAN

Scale	Drawn	Ch'kea	Auth
1:1250	IJ		
	Date JUNE '95	Date	Date

Drawing Number: Y2311 / 166 / 050 / 044 Rev

Job Dept. Sub Unique No.

Structure Name: *Bewsey Lock* Date of Inspection: *22 May 1995*

Structure Ref: *K4* Chainage: *10,460m*

Canal Lock Inspection Report

Inspection Procedures

Buried elements of the structure were not uncovered and consequently were not inspected. Basic dimensions and details of the structure were recorded on site. There were no drawings available for the structure at the time of the inspection.

Weather Conditions

Sunny and very warm.

General Arrangement Photograph - Number 3/14

Description of Structure

The lock is no longer in use. The original chamber walls are visible from coping level to a depth of 2.1m. Upstream and downstream lock gates have been removed and the sills are not visible due to the water level. There is a temporary bridge spanning the lock chamber which carries the towpath across the chamber (Structure Ref K4A).

Principle Dimensions

Chamber Length : 30m
Chamber Width : 5.2m
Chamber Depth : Not known (Depth from coping to water level is 2.1m)

PHOTOGRAPH 3/16 - West Chamber Wall

PHOTOGRAPH 3/17 - Downstream Gate Quoin and Missing Gate

Structure Name: *Bewsey Lock* Date of Inspection: *22 May 1995*

Structure Ref: *K4* Chainage: *10,460m*

Part No	Name of Part	1-5 P-G	Condition Report	Photo Ref.
1	Chamber Walls	2	There is heavy vegetation growth between masonry courses and isolated areas of brick infill and sections of timber attached to the masonry.	3/16
2	Chamber Copings	4.5	The original masonry copings are generally in good condition.	3/16 3/17
3	Chamber Invert		Not visible for inspection due to the water level.	
4	Lock Gate Sills		Not visible for inspection due to the water level.	
5	Upstream Lock Gate		The lock gates are missing.	3/17
6	Downstream Lock Gate		The lock gates are missing.	3/17
7	Upstream Lock Gate Sluices		See Section 5.	
8	Downstream Lock Gate Sluices		See Section 6.	
9	Ladders		The ladders to the chamber are missing.	
10	Stop Plank Grooves	3	The stop plank grooves are partially infilled with timber and vegetation.	
11	Chamber Wall Sluices		None visible.	
12	Bywash Channel		Bywash facilities are provided by the nearby overflow weir (Structure Ref. K3).	

Structure Name: *Bewsey Lock* Date of Inspection: *22 May 1995*

Structure Ref: *K4* Chainage: *10,460m*

Part No	Name of Part	1-5 P-G	Condition Report	Photo Ref.
13	Bywash Weir		See Section 12.	
14	Upstream Approach	1	The canal upstream of the lock is heavily overgrown and is no longer open to navigation.	
15	Downstream Approach	3	The downstream approach is free from debris but the channel depth is not known.	
16	Parapets	4	The steel post and two rail parapets located between the towpath and the lock chamber are in good condition.	3/14 3/17
17	Towpath			
18	Condition of Masonry	2	See Section 2.	
19	Pointing	2	See Section 2.	

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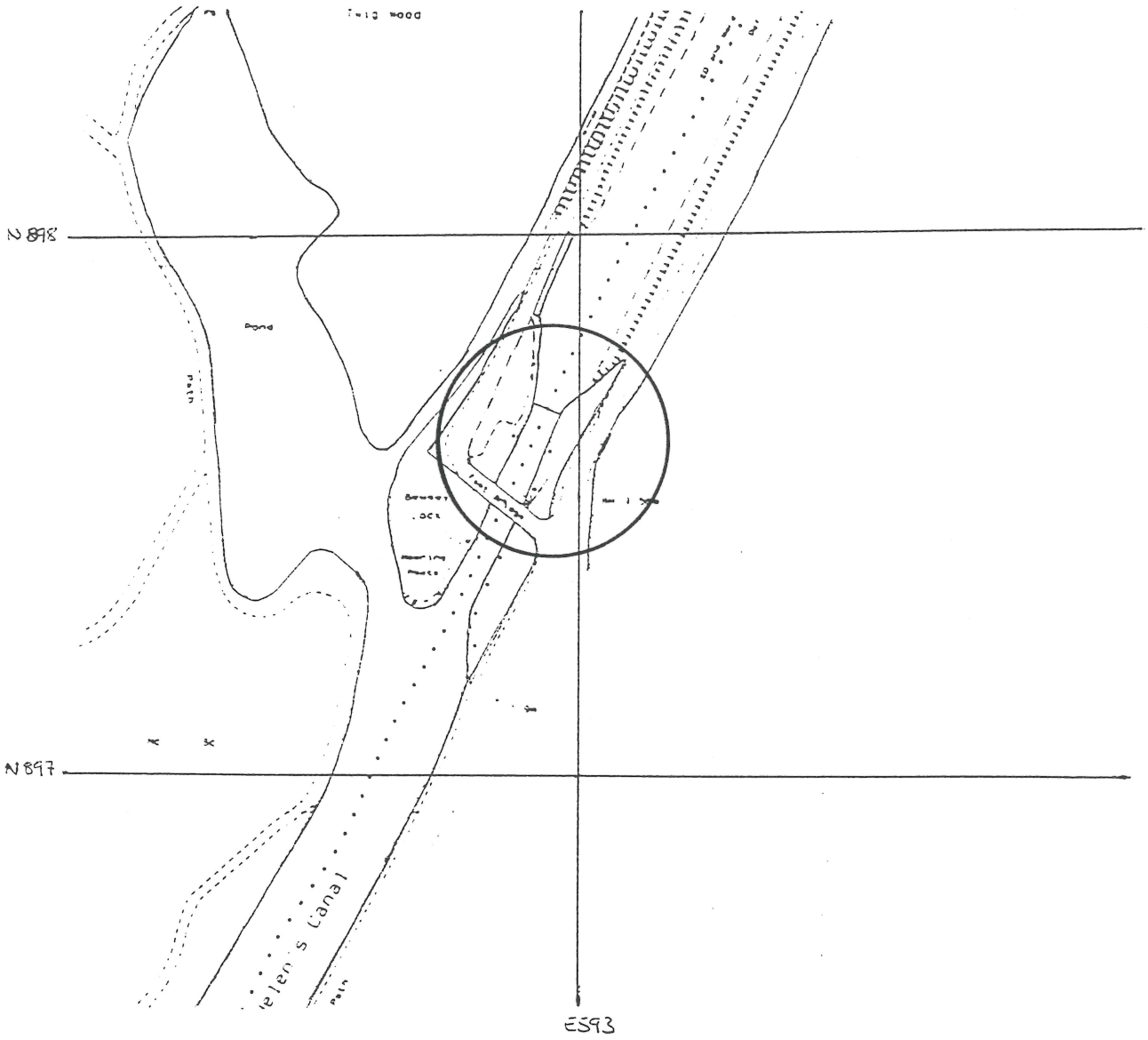

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Project: SANKEY CANAL RESTORATION

Title: K4 BEWSEY LOCK
LOCATION PLAN

Scale	Drawn	Ch'ked	Auth
1:1250	IJ		
	Date JUNE '95	Date	Date

Drawing Number: Y2311 / 166 / 050 / 045

Rev

Purpose of issue	Auth	Date	Rev	Description	By	Date	Chk'd	Auth

Structure Name: *Sankey Lock* Date of Inspection: *22 May 1995*

Structure Ref: *L5* Chainage: *7,965m*

Canal Lock Inspection Report

Inspection Procedures

Buried elements of the structure were not uncovered and consequently were not inspected. There were no drawings available for the structure at the time of the inspection.

Weather Conditions

Sunny and warm.

General Arrangement Photograph

No photographs taken.

Description of Structure

This lock was abandoned around 1762 when the canal was extended to Fiddlers Ferry. The area around Sankey Lock is now infilled and heavily overgrown. Access to the site of the lock is difficult and the structure is no longer visible. Consequently a detailed inspection was not undertaken and no remedial proposals were made.

Principle Dimensions

None recorded.

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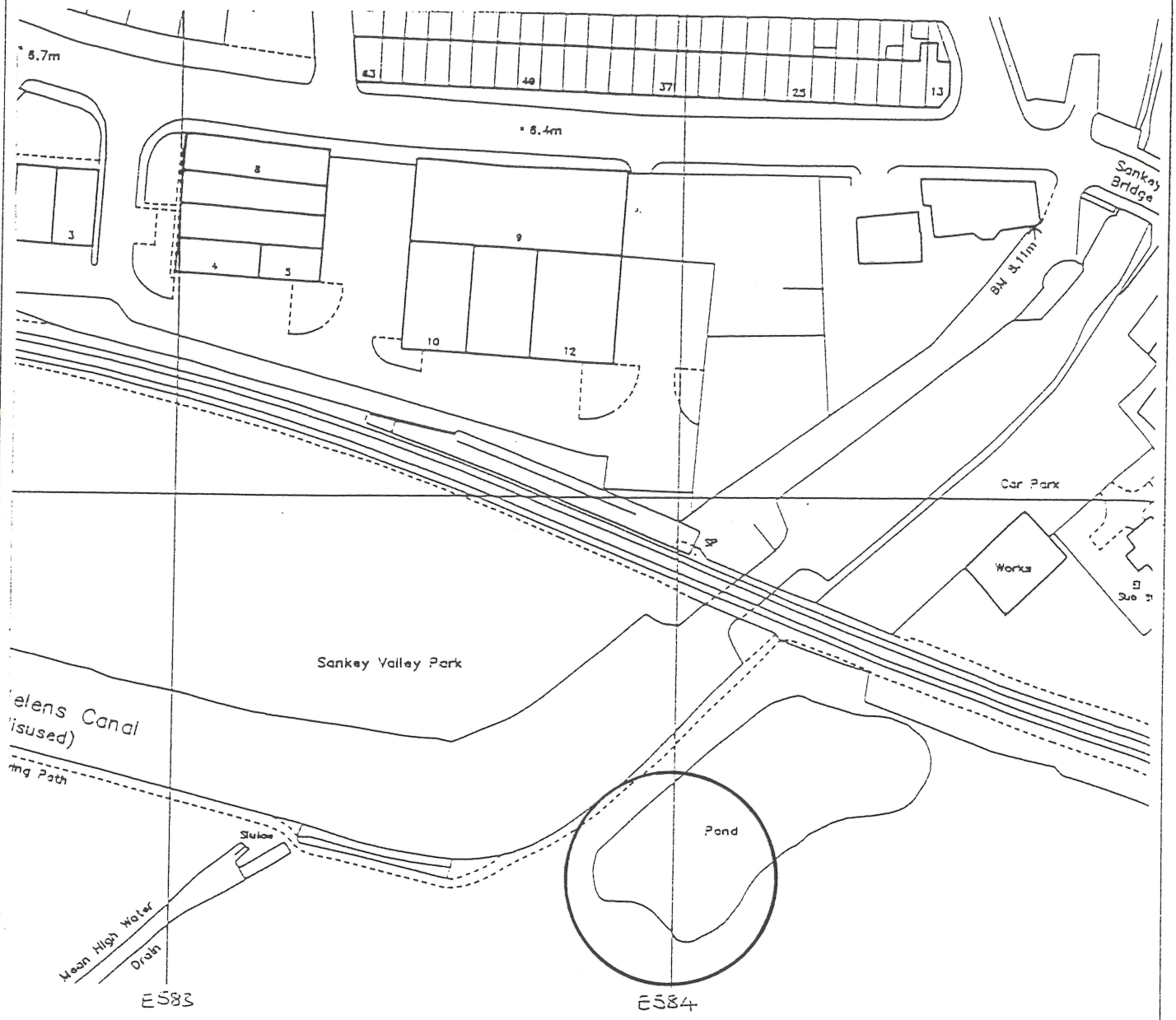

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Project: SANKEY CANAL RESTORATION

Title: L5 SANKEY LOCK LOCATION PLAN

Scale	Drawn	Ch'ked	Auth
1:1250	IJ		
	Date JUNE '95	Date	Date

Drawing Number: Y2311 / 166 / 050 / 057

Rev

Purpose of issue	Auth	Date	Rev	Description	By	Date	Chk'd	Auth

Dept Sub Unique No

Structure Name: *Sankey Brook Overflow* Date of Inspection: *22 May 1995*

Structure Ref: *L6* Chainage: *7,955m*

Miscellaneous Structures Inspection Report

Inspection Procedures

Basic dimensions and details of the structure were recorded on site. There were no drawings available for the structure at the time of the inspection.

Weather Conditions

Sunny and warm.

General Arrangement Photograph - Number 2/11

Description of Structure

This concrete overflow allows excess water to discharge from the canal into Sankey Brook. Behind the concrete weir, which forms the canal bank, there is an open concrete channel which carries water into a drainage channel which in turn discharges into Sankey Brook. There is a simply supported concrete slab which spans the open channel and carries the towpath over the structure. There is a tubular steel pedestrian parapet adjacent to the towpath which is bolted to the concrete channel wall.

Principle Dimensions

Height of weir above water level :	0.10m
Depth of concrete slab under towpath :	0.30m
Square span of concrete slab :	1.50m

PHOTOGRAPH 2/12 - Concrete Channel Behind the Overflow Weir

PHOTOGRAPH 2/13 - Concrete Slab Bridge

Structure Name: *Sankey Brook Overflow* Date of Inspection: *22 May 1995*

Structure Ref: *L6* Chainage: *7,955m*

Part No	Name of Part	1-5 P-G	Condition Report	Photo Ref.
1	Embankments			
2	Parapets		The bottom rail of the parapet is damaged at the east end. There is minor corrosion to the steelwork.	2/11 2/12
3	Culvert Aprons			
4	Culvert Invert			
5	Wingwalls or Training Walls	5	The culvert training walls are in good condition.	2/13
6	Culvert Lining			
7	Weir/Outfall Apron		Not visible for inspection.	
8	Weir/Outfall Sill	4.5	The sill is in good condition with minor vegetation growth at the west end.	2/12
9	Weir Substructure	5	The concrete channel is in good condition with only minor debris evident.	2/12
10	Pipe Bridges			
11	Causeway			
12	Sluice Gates	3	The sluice gate, which is west of the overflow, is in reasonable condition although there is minor leakage evident.	2/12
13	Towpath		This is in good condition.	
14	Sewer Pipes			

Structure Name: *Sankey Brook Overflow* Date of Inspection: *22 May 1995*

Structure Ref: *L6* Chainage: *7,955m*

Part No	Name of Part	1-5 P-G	Condition Report	Photo Ref.
15	Concrete Slab/Bridge	4	This is in good condition with only minor spalling to the South edge.	2/13

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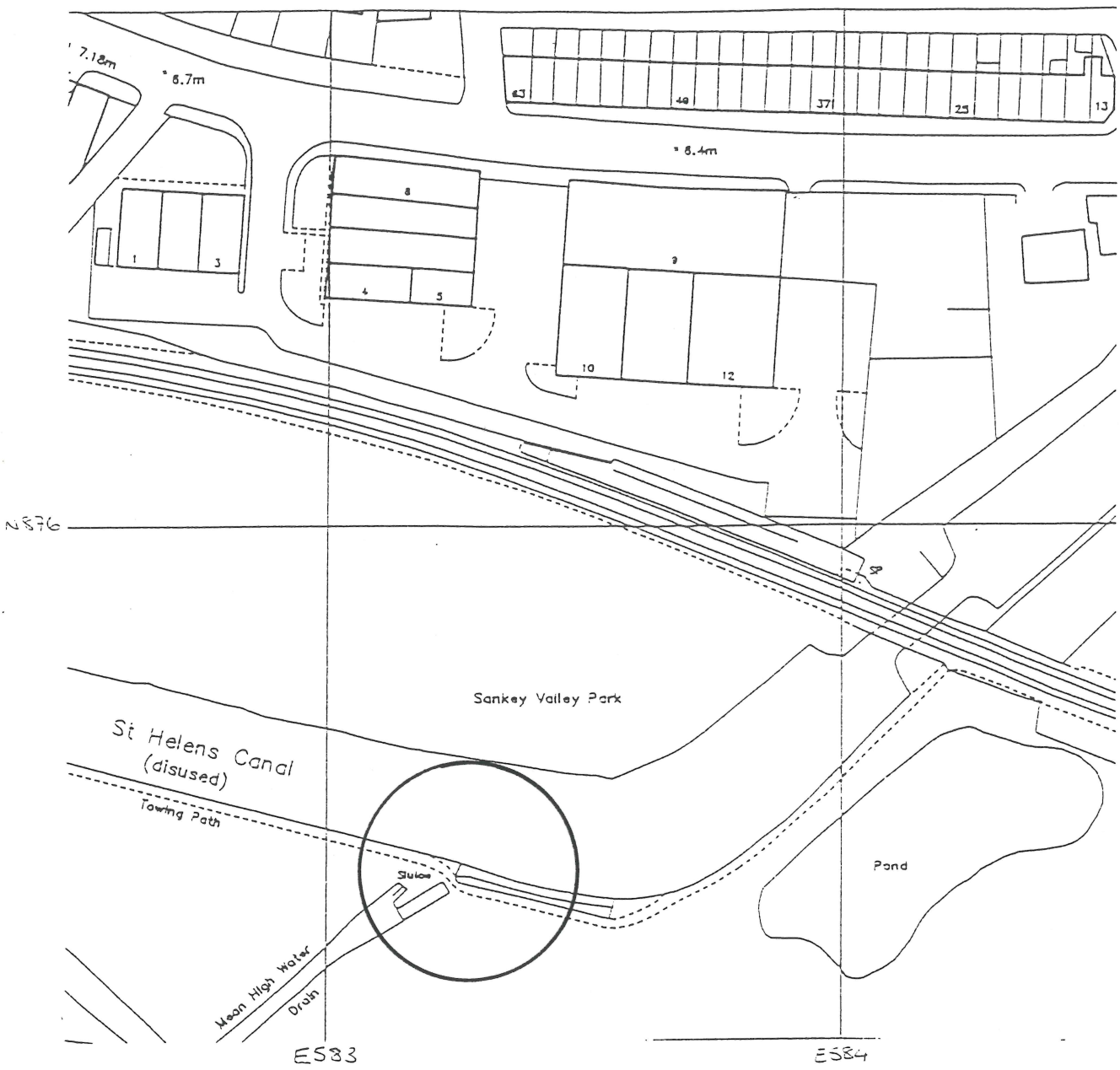

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Project: SANKEY CANAL RESTORATION

Title: L6 SANKEY BROOK OVERFLOW LOCATION PLAN

Scale	Drawn	Ch'ked	Auth
1:1250	Date JUNE '95	Date	Date

Drawing Number: Y2311 / 166 / 050 / 058

Rev

Purpose of issue	Auth	Date	Revl	Description	By	Date	Chk'd	Auth

Job Dept. Sub

Structure Name: *Swing Footbridge* Date of Inspection: *10 May 1995*

Structure Ref: *L18* Chainage: *5,620m*

Bridge Inspection Report

Inspection Procedures

The General Inspections were carried out in accordance with the procedures set out in the HMSO Bridge Inspection Guide. The inspections were carried out on foot. Inaccessible parts of the bridge were inspected using binoculars. Basic dimensions and details of the bridges were recorded on site. There were no drawings available for the structure at the time of the inspection.

Weather Conditions

Overcast but dry.

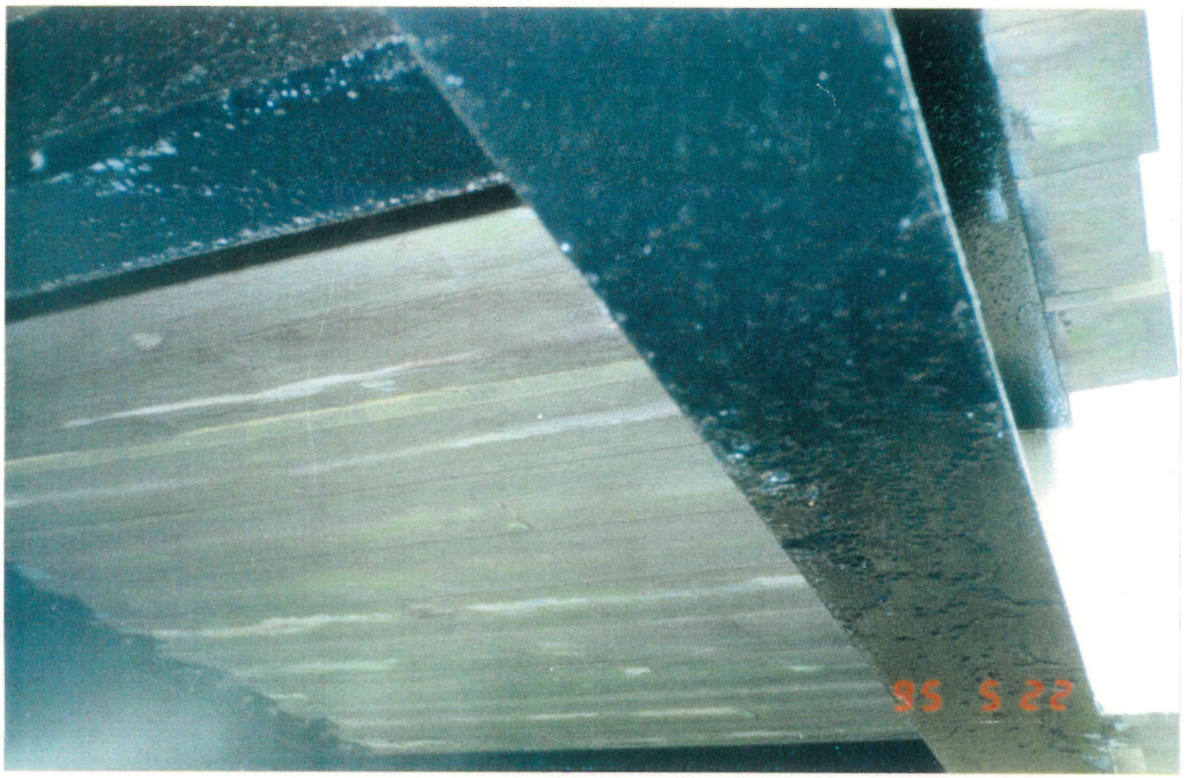
General Elevation Photograph - Number 1/33

Description of Structure

This swing bridge provides pedestrian access to the west canal bank. It comprises two longitudinal steel beams with four steel cross beams and timber decking. The substructure consist of reinforced concrete abutments which have steps formed in them to provide access for pedestrians. The swing mechanism is located on the east bank of the canal and is operated manually.

Principle Dimensions

Minimum Headroom :	1.370m
Square Span :	3.94m
Skew :	Zero
Main Beam Type and Size :	Universal Steel Beams 310mm Deep and 170mm Wide
Transverse Beam Type and Size :	Universal Beams size unknown
Deck Type and Size :	Timber Decking 200mm x 50mm deep
Width of Superstructure :	1.76m
Height of Parapet :	1.01m



PHOTOGRAPH 1/34 - Underside of the Bridge Deck

Structure Name: *Swing Footbridge* Date of Inspection: *10 May 1995*

Structure Ref: *L18* Chainage: *5,620m*

Part No	Name of Part	1-5 P-G	Condition Report	Photo Ref.
1	Invert		The canal invert is free from debris but the channel depth was not established.	
2	Aprons			
3	Foundation/Scour		The foundations were not exposed for inspection.	
4	Cutwaters			
5	Piers/Columns			
6	Abutments & Bankseats	5	The concrete abutments are in good condition.	1/33
7	Wingwalls			
8	Embankments			
9	Training Walls			
10	Drainage Substructure		None visible.	
11	Parapets	5	The steel parapet is in good condition with no paint loss evident.	1/34
12	Bearings	5	The west abutment bearings are in good condition.	2/6

Part No	Name of Part	1-5 P-G	Condition Report	Photo Ref.
13	Expansion Joints		Not applicable.	
14	Main Beams	5	The main beams are in good condition.	1/34
15	Painting	5	See Sections 11 and 14.	
16	Troughing			
17	Jack Arches			
18	Transverse Beams & Diaphragms	5	The transverse beams are in good condition.	1/34
19	Waterproofing		None provided.	
20	Superstructure Drainage		None provided.	
21	Concrete Deck			
22	Arch Springing			
23	Arch Ring			
24	Voussoirs/Arch Face			

Structure Name: *Swing Footbridge* Date of Inspection: *10 May 1995*

Structure Ref: *L18* Chainage: *5,620m*

Part No	Name of Part	1-5 P-G	Condition Report	Photo Ref.
25	Spandrel Walls			
26	Tie Rods			
27	Pointing			
28	Condition of Masonry			
29	Surfacing	2	The timber decking is loose in several areas.	
30	Footways			
31	Towpath			
32	Stop Plank Grooves		None provided.	
33	Canal Banks		The canal banks adjacent to the structure have been refurbished recently and are in good condition.	
34	Swing Bridge Pintle	4	The pintle appears to be in good condition.	
35	Tail Rails & Wheels		Not visible for inspection.	
36	Hydraulics		The swing bridge is operated manually.	
37	Swing Bridge Counterweights		Not visible for inspection.	
38	Swing Bridge Buffer			

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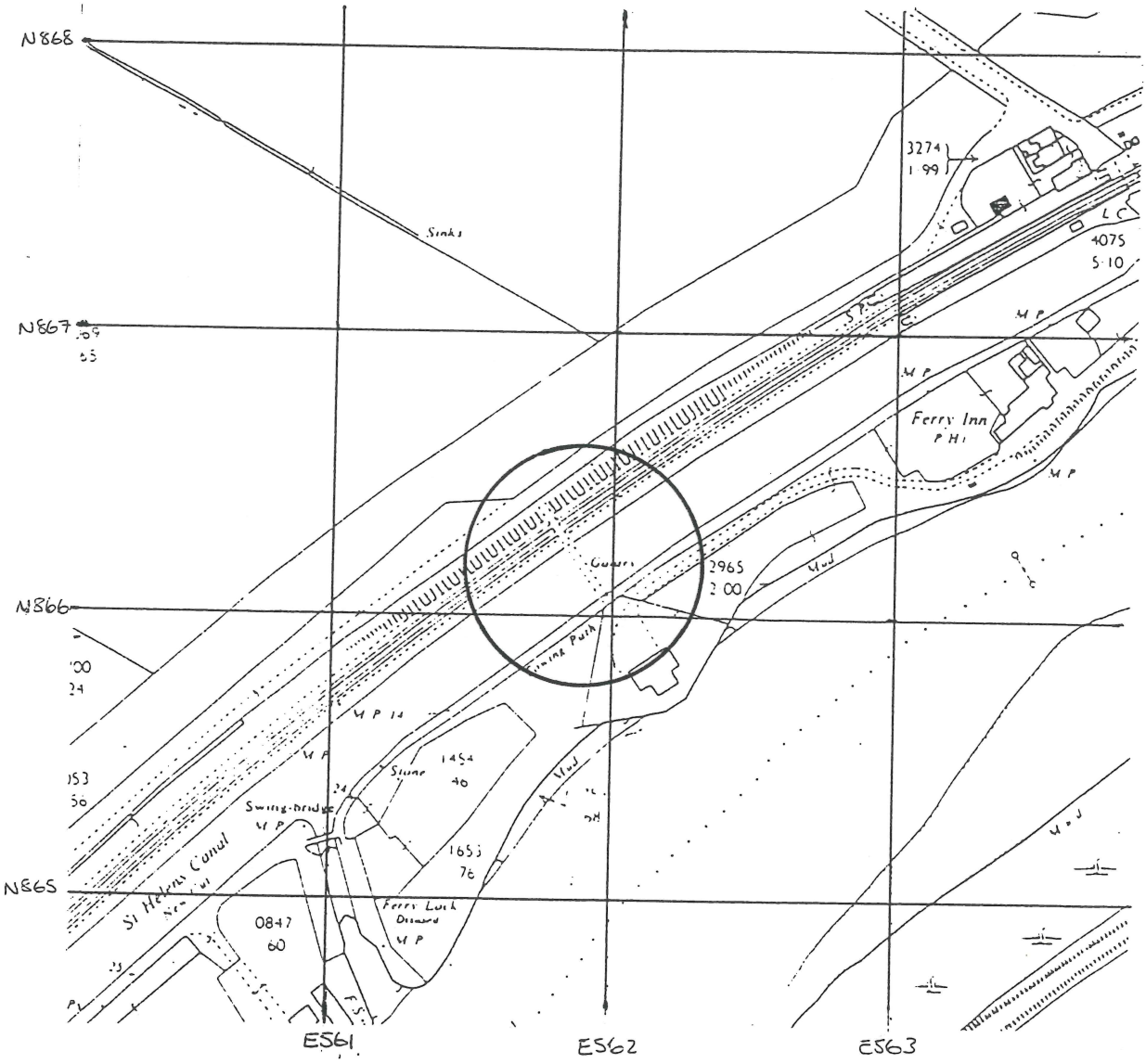

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Purpose of issue	Auth	Date	Rev	Description	By	Date	Chk'd	Auth

Project
SANKEY CANAL RESTORATION

Title
L18 SWING FOOTBRIDGE
LOCATION PLAN

Scale	Drawn	Ch'ked	Auth
1: 2500	IJ		
	Date JUNE '95	Date	Date

Drawing Number
Y2311 / 166 / 050 / 063

Rev