Waltham Abbey Royal Gunpowder Factory (Former RARDE North Site)

Bridge Report

February 1994

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ERRATUM

ALL WAP94 PHOTOGRAPH NUMBERS IN 'BRIDGE REPORT' ARE SUFFIXED WITH THE LETTER B FOR NEGATIVE LOCATION PURPOSES.

EXAMPLE:

WAP94 CP025

becomes

WAP94 CP025B

Waltham Abbey Royal Gunpowder Factory (Former RARDE North Site)

Introduction

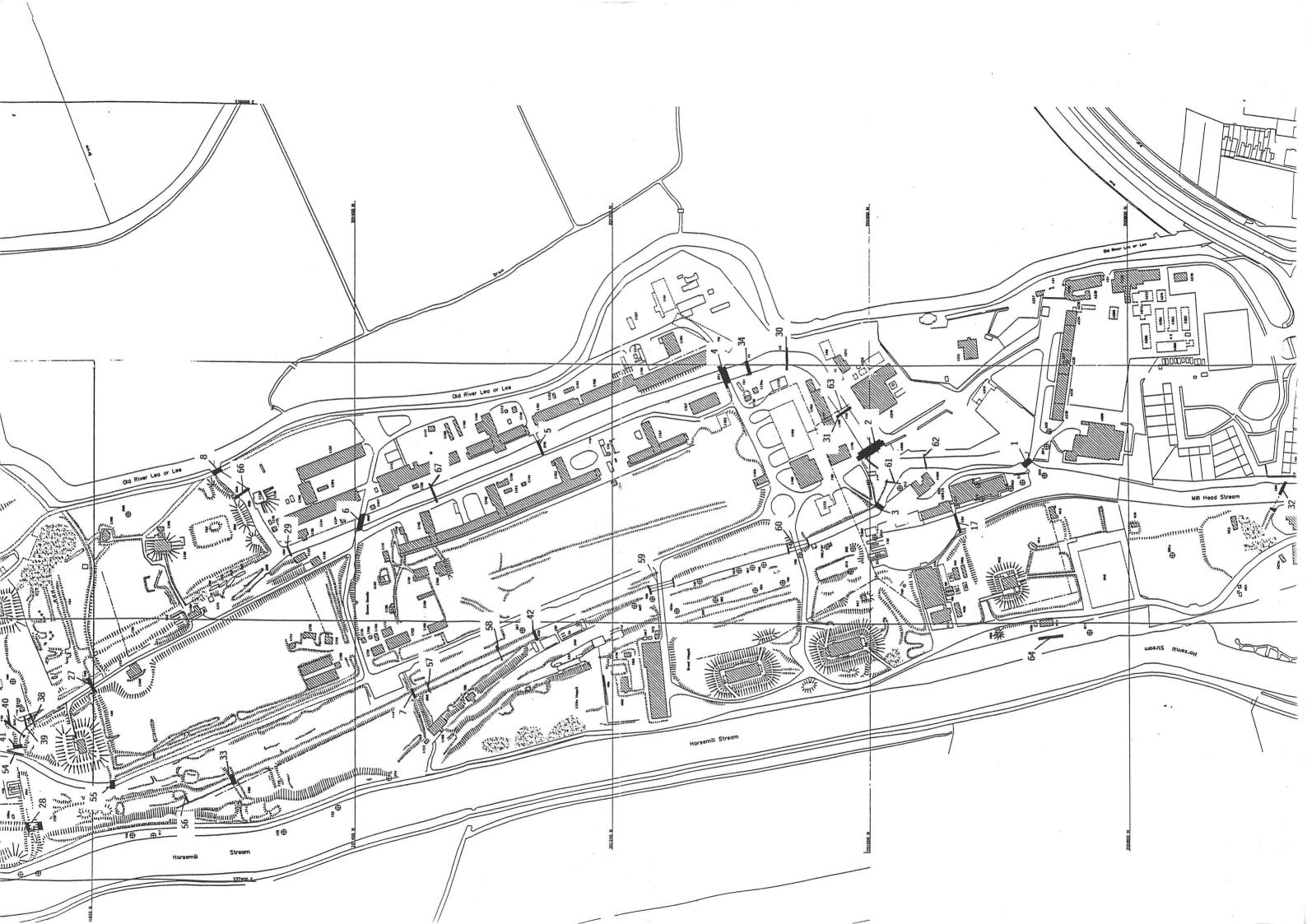
The aim of this report was to produce a record of the known bridges and service crossings on the North site which would be flexible enough to be added to, corrected and expanded in the future. It should not be regarded as a structural survey and any comments on the condition or stability of the bridges should be regarded as superficial visual impressions only.

Until now none of the crossings had MoD numbers and only half had RCHM numbers generated during the survey in 1993. Roughton Construction Engineers were commissioned to carry out a detailed survey of twenty of the major bridges also in 1993, this report includes those structures and continues their numbering system. The Royal Commission numbering system has been continued and RCHM component cards have been generated to expand that particular archive.

The report is in table form rather than prose for the following reasons;

- information is more accessable rather than hidden in text
- each box is expandable to accomodate new information
- new boxes or tables can be added easily
- tables can be removed and inserted to other relevant texts

It will be noticed that some bridges have no accompanying photograph. This is because the remains of those crossings are so slight that a photo would be meaningless in the context of this report. Archive photographs have been taken of these examples.





WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 01	132	Flagstaff Road Bridge
CONSTRUCTION	GRID REF.	INITIAL
DATE		CONDITION

Cast Iron ribbed bridge with 6 arched ribs set on brick abutments. The deck is concrete with hand rails on either side.

Original weight limit 2.5 tonne axle load reduced to 1.9 ton.

Refer to Roughton survey report for detail of condition and drawings.

The bridge also carries service pipes which are slung along eastern side.

PHOTO NO.	DIMENSIONS
(RCHME) WAP94 CP025 206/E/22 BB92/26065	L 7.00m W 3.90m

DOCUMENTARY SOURCES

1993 Roughton Bridge Assessment p13-20 Drg. No 1 May 1993



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 02	130	Road Bridge - Bailey Type
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
Late 1960s Early 1970s	TL 37735 01000	Good

Bailey type road bridge with 5 Tonne axle load limit. Steel structure with a timber deck with a footbridge on the eastern side, both set on concrete abutments. Refer to Roughtons survey for details of condition and drawings.

РНОТО NO.	DIMENSIONS
WAP94 CP039	L 12.37m W 4.11m Ht 1.55m

DOCUMENTARY SOURCES

1993 Roughtons <u>Bridge Assessment</u> p.21 - 29 Drg. No 02 May 1993 1993 RCHME <u>Royal Gunpowder Factory Waltham Abbey</u> Report (unpublished)



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 03	133	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
Late 1960s Early 1970s	TL 37690 00992	Good

Modern footbridge constructed of two steel RSJs supporting a timber and asphalt deck and two tubular steel handrails.

The bridge is set upon brick and concrete abutments. The bridge is flanked on either side by a number of service pipes

Refer to Roughtons survey report for details of condition and drawings.

PHOTO NO.	DIMENSIONS
(RCHME) WAP94 CP040	L 6.85m
206/E/24	W 1.64m

DOCUMENTARY SOURCES

1993 Roughtons <u>Bridge Assessment</u> p.30-36 Drg. No.03 May 1993 1993 RCHME <u>Royal Gunpowder Factory Waltham Abbey</u> Report (unpublished)



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 04	271	Road Bridge - Bailey Type
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
Mid 1950s Early 1960s	TL 37793 01115	Good

Bailey type road bridge with 5 tonne axle load limit. Similar to bridge 02. Steel structure with a timber deck and a footbridge on the north side. The abutments seem to be concrete with timber piles.

Refer to Roughtons survey report for details of condition and drawings. The bridge also carries a number of service pipes. The letters MKII are welded to either end of the bridge.

PHOTO NO.	DIMENSIONS
(RCHME) WAP94 CP023	L 12.37m
206/Q/25	W 5.43m

DOCUMENTARY SOURCES

1993 Roughtons Bridge Assessment p.37-44 Drg. No. 04 May 1993

1993 RCHME Royal Gunpowder Factory Waltham Abbey Report (unpublished)

1965 Drg. No. L-B.17 Plans and elevations of footbridge 10/9/1965



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 05	BR 05 279 Footbridge	
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1957	TL 37735 02156	Good

The footbridge is constructed of a steel frame supporting a timber deck. All set on concrete abutments and has tubular steel handrails on either side.

Refer to Roughtons survey report for details of condition and drawings.

PHOTO NO.	DIMENSIONS
WAP94 CP022	L 9.85m W 1.95m

DOCUMENTARY SOURCES

1993 Roughtons <u>Bridge Assessment</u> Drg. No. 05 May 1993 1993 RCHME <u>Royal Gunpowder Factory Waltham Abbey</u> Report (unpublished) 1957 Drg. No. L-B.10 Plans and Elevations 22/7/1957



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 06	269	Road Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1955	TL 37675 01395	Good

Reinforced concrete bridge with a concrete and asphalt deck. Bridge set on concrete abutments with rocker bearings between has tubular steel handrails on either side.

Refer to Roughtons survey report for details of condition and drawings.

PHOTO NO.	DIMENSIONS
(RCHME) WAP94 CP021	L 12.53m
206/Q/20	W 4.26m

DOCUMENTARY SOURCES

1993 Roughtons <u>Bridge Assessment</u> p.50-57 Drg. No. 06 June 1993 1993 RCHME <u>Royal Gunpowder Factory Waltham Abbey</u> Report (unpublished) 1954 Drg No. L- B.05 (XD1/2)



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 07	507	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1960s	TL 37545 01345	Good

The bridge is constructed with a thick timber plank deck supported by two RSJ which in turn rest upon concrete abutments.

Refer to Roughtons survey report for details of condition and drawings. Tubular steel handrails fitted are on either side.

PHOTO NO.	DIMENSIONS
WAP94 CP020	L 6.80m W 1.30m

DOCUMENTARY SOURCES

1993 Roughtons Bridge Assessment p.58-64 Drg No. 07 June 1993



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 08	228	Road Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
Late 1960s early 1970s	TL 37680 02106	Good

The bridge is constructed of concrete and steel. The deck, made up of concrete and asphalt is supported by RSJs which in turn lie on concrete abutments. Handrails are fitted to either side of the bridge with the outer security fence attached to the eastern side.

Refer to Roughtons survey report for details of condition and drawings.

PHOTO NO.	DIMENSIONS
WAP94 CP018	L 7.50m W 3.05m

DOCUMENTARY SOURCES

1993 Roughtons <u>Bridge Assessment</u> p.63-71 Drg. No. 08 April 1993 1993 RCHME Royal Gunpowder Factory Waltham Abbey Report (unpublished)



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 09	151	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
Late 1960s Early 1970s	TL 37725 01675	Fair/Poor

The footbridge is made of timber and steel similar in construction to 07. The timber plank deck is supported by two RSJs which rest on concrete abutments. Handrail present on the northern side with the outer security fence attached to the southern edge.

Refer to Roughtons survey report for details of condition and drawings.

PHOTO NO.	DIMENSIONS
WAP94 CP017	L 11.60m W 1.60m

DOCUMENTARY SOURCES

1993 Roughtons Bridge Assessment p.72-77 Drg. No. 09 April 1993



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 10	117	Brick Arch Bridge
CONSTRUCTION	GRID REF.	INITIAL
DATE		CONDITION

The bridge is a brick arch supported to concrete abutments. It is constructed of blue engineers bricks and red/yellow stocks. The parapets, also of brick, have stone plaques set in either side with RGPF VR 1878 inscribed.

Refer to Roughtons survey report for details of condition and drawings. 5 tonne axle load limit.

	PHOTO NO.	DIMENSIONS
(RCHME) 206/J/3	WAP94 CP016	L 10.50m W 3.80m Ht 4.40m (parapet to water)

DOCUMENTARY SOURCES

1993 Roughtons <u>Bridge Assessment</u> p.78-84 Drg. No. 10/1-2 April 1993 1993 RCHME <u>Royal Gunpowder Factory Waltham Abbey</u> Report (unpublished)



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 11	238	Road Bridge - Bailey Type
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1971	TL 37715 02041	Good

Bailey type bridge constructed of five steel panels which support a timber plank deck. The bridge is set on brick and timber abutments.

Refer to Roughtons survey report for details of condition and drawings. "MKII" has been welded onto either end of the bridge.

PHOTO NO.	DIMENSIONS
WAP94 CP014	L 15.41m W 4.13m

DOCUMENTARY SOURCES

1993 Roughtons Bridge Assessment p.85-91 Drg. No. 11 May 1993

1993 RCHME Royal Gunpowder Factory Waltham Abbey Report (unpublished)

1971 Drg. No. S- B.49 22/6/1971



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 12 New BR 12	506	Steel Trough Road Bridge Concrete Box Culvert
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1972 (demolished Oct 1993) Rebuilt Dec 1993	TL 37653 02251	Demolished

For Old Bridge refer to Roughtons survey report for details of condition and drawings.

The new crossing is a box section concrete culvert. See documentary sources for drawings.

PHOTO NO.	DIMENSIONS
WAP94 CP011	

DOCUMENTARY SOURCES

1993 Roughtons Bridge Assessment p.91-98 Drg. No. S- B.53

1971 Drg. No. S - B. 53 Plans and Elevations

1993 Drg. No. 2247/101/102 Control Structure



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 13	106	Aqueduct
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1940 TL 37546 01935 Good/ Fair		Good/ Fair

Concrete aqueduct constructed of 5 concrete pipes overlain with poured concrete. At present no canal runs over the structure although the embankments and tow path still exist.

Refer to Roughtons survey report for details of condition and drawings.

PHOTO NO.	DIMENSIONS
(RCHME) WAP94 CP005 206/H/35 206/T/11	L 10.97m W 15.55m

DOCUMENTARY SOURCES

1993 Roughtons Bridge Assessment p.98-105 Drg. No. 13 1-2



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 14	112	Cast Iron Aqueduct
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1878/9 TL 37565 01800 Good		

The aqueduct is constructed of cast iron panels. Each side piece is a single panel and the trough base is of iron plates bolted to the side sections. The aqueduct sits on brick abutments, the remains of a timber walkway exists on either side. Refer to Roughtons survey report for details of condition and drawings.

PHOTO NO.	DIMENSIONS
(RCHME) WAP94 CP015 206/D/17, 206/D/18 206/H/23, BB92/26105 BB92/26168, BB92/26169 BB92/26491	L 9.32m W 3.25m Dp 1.3m

DOCUMENTARY SOURCES

1993 Roughtons <u>Bridge Assessment</u> p.105-111 Drg. No. 14 April 1993 1993 RCHME <u>Royal Gunpowder Factory Waltham Abbey</u> Report (unpublished)



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 15	214	Cast Iron Aqueduct/Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1878/9 1944?(bridge)	TL 37584 02131	Good/ Fair

Originally a cast iron aqueduct similar to 14. Later adapted to become a footbridge. The structure was also used to suspend a pipe across the Old River Lea. Refer to Roughtons survey report for details of condition and drawings.

РНОТО NO.	DIMENSIONS
WAP94 CP008	L 9.80m W 3.10m Dp 1.45m

DOCUMENTARY SOURCES

1903 WASC 901/198 27/5/03 Aqueduct No.5 (corrected to No.2)

1903 WASC 901/199 3/6/03 Aqueduct No.5

1993 Roughtons Bridge Assessment p.111-118 Drg. No. 15 April 1993



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 16	113	Brick Arch Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION

This brick arch bridge is similar in design to 10 with blue engineers bricks and red/yellow stocks.

Refer to Roughtons survey report for details of condition and drawings.

A stone plaque inset into the parapet reads," RGPF VR 1878"

PHOTO NO.	DIMENSIONS
(RCHME) 206/H/24 206/Q/26 BB92/26104 BB92/26459 WAP94 CP003	L 7.30m W 3.10m Ht 4.75m (parapet to canal base)

DOCUMENTARY SOURCES

1993 Roughtons <u>Bridge Assessment</u> p.119-126 Drg. No. 16/ 1-2 May 1993 1993 RCHME <u>Royal Gunpowder Factory Waltham Abbey</u> Report (unpublished)



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 17	134	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
pre 1947 TL 37676 00931 Fair		Fair

The footbridge is constructed of steel trusses rivetted together supporting a timber deck. To the west the abutment is concrete, to the east the bridge is set upon a brick pier.

Refer to Roughtons survey report for details of condition and drawings. The bridge also supports a number of pipes and cables.

	PHOTO NO.	DIMENSIONS
(RCHME) 206/K/6 206/S/33 206/S/34	WAP94 CP024	L 12.60m W 1.30m

DOCUMENTARY SOURCES

1993 Roughton <u>Bridge Assessment</u> p.127-136 Drg. No. 17 April 1993 1993 RCHME <u>Royal Gunpowder Factory Waltham Abbey Report</u> (unpublished)



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 18	508	Culvert Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
unknown TL 37476 01783 Poor		Poor

The structure consists of a single vitrified pipe running under Long Walk with brick head walls east and west.

Refer to Roughtons survey report for details of condition and drawings.

PHOTO NO.	DIMENSIONS
WAP94 CP004	L 6.60m W 0.45m

DOCUMENTARY SOURCES

1993 Roughton Bridge Assessment p.137-140 Drg. No. 18 April 1993



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 19	230	Road Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1878? repair ?	TL 37516 01795	Poor

This bridge displays various phases of construction. It was originally a brick and masonary arch and was subsequently extensively repaired with concrete.

Refer to Roughtons survey report for details of condition and drawings.

PHOTO NO.	DIMENSIONS
WAP93 CP015	L 4.80m W 3.15m Ht 2.50m

DOCUMENTARY SOURCES

1993 Roughton Bridge Assessment p.140-142



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 20	250	Cast Iron Aqueduct
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1914?	TL 37610 02175	Poor(damaged)

This is a later example of a cast iron aqueduct. The sides of the trough are made up of smaller panels of cast iron which are bolted together, as was the trough base. Most of the base is missing and a number of the side panels are severely damaged. Refer to Roughtons survey report for details of condition and drawings.

PHOTO NO.	DIMENSIONS
(RCHME) 206/O/24 206/O/25 206/O/29 BB92/26289 WAP94 CP009	L 14.00m W 3.80m Ht 1.30m

DOCUMENTARY SOURCES

1993 Roughton <u>Bridge Assessment</u> p.143-149 Drg. No. 20 May 1993 1993 RCHME <u>Royal Gunpowder Factory Waltham Abbey</u> Report (unpublished)



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 21	264	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1880s?	TL 37545 02370	Poor/Fair

The bridge is constructed of an angle iron frame forming a semi circular arch with timber steps and deck. The bridge is attached to brick and concrete abutments by means of vertical bolts set into sandstone blocks. A boot scraper is situated on the south west corner of the bridge. The steel frame although corroded appears sound as do the abutments. The main problem as in many cases is with vegetative damage caused by young trees.

	PHOTO NO.	DIMENSIONS
(RCHME) 206/Q/4	WAP94 CP007	L 9.45m W 0.97m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	SITE NO. RCHME NO. BR	
BR 22	182	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION

This footbridge is built from angle irons which once supported steps and a timber deck both have long since rotten away. A number of the iron members are severely corroded and extensive damage has been caused by the encroaching trees.

	PHOTO NO.	DIMENSIONS
(RCHME) 206/B/33	WAP93 CP033	L 10.95m W 1.59m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 23	255	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1880s?	TL 37507 02235	Fair/Poor

This bridge is very similar in construction to 21; semi circular arch built of angle irons and timber. The supporting piers are also similar. The timber has all but gone leaving a fairly stable frame.

	PHOTO NO.	DIMENSIONS
(RCHME) 206/O/31 206/O/32	WAP93 CPO46	L 9.48m W 0.97m Ht 3.60m(above canal base)

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 24	254	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION

This bridge is similar to 21 and 23 in construction and condition. Less affected by tree damage.

	PHOTO NO.	DIMENSIONS
(RCHME) 206/O/30 BB92/26287	WAP93 CP039	L 9.48m W 0.98m Ht 3.60m(above canal base)

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 25	102	Pipebridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1940	TL 37575 01973	Fair/Poor

This bridge carried an acid pipe, compressed air pipe and a steam main from the acid factory to the new nitroglycerine plant on New Hill over the Cornmill Stream. It is believed that the acid pipe was never used. The bridge is constructed of angle irons forming a single span. Although corroded the main supporting member appear to be sound.

	PHOTO NO.	DIMENSIONS
(RCHME) 206/I/20 206/N/7	WAP93 CP038	L 14.00m W 1.80m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO. RCHME NO. B		BRIDGE TYPE
BR 26	103	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1904? TL 37602 01884 Fair/Po		Fair/Poor

This Bridge is another example of the semi circular arched footbridges. As with the others the timber decking and steps have decayed but the angle iron frame appears to be intact.

PHOTO NO.	DIMENSIONS
(RCHME) WAP93 CP043 206/I/24 206/T/15 BB92/26170	L 9.40m W 1.73m Ht 2.3m(above Canal Base)

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 27	180	Aqueduct
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1878 TL 37552 01598 Poor/		Poor/Fair

The aqueduct is constructed of brick with brick head walls which have tie-rods running through its length.

The over lying canal has been completely filled in, the lower canal has silted up. The western head wall is collapsing outward.

PHOTO NO.	DIMENSIONS
WAP93 CP027	L 2.80m W 12.10m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 28	170	Aqueduct
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1806-27	TL 37442 01640	Good/ Fair

This aqueduct is constructed of brick and has earth embankments to carry the main press house canal over a lower drain. Although both waterways are redundant the brick head walls and earth embankments are in reasonable condition. Concrete blocks on the tow path perhaps represent the position of a footbridge.

PHOTO NO.	DIMENSIONS
WAP93 CP008	L 6.40m W 12.55m Ht 2.25m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 29	184	Footbridge
CONSTRUCTION	GRID REF.	INITIAL
DATE	GRID REI.	CONDITION

This span is another example of the semicircular bridges. As with the other cases the framework is complete but the timber is either missing or in an advanced stage of decay.

	PHOTO NO.	DIMENSIONS
(RCHME) 206/C/16	WAP93 CP037	L 9.50m W 0.96m Ht 3.50m(above canal fill)

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO. RCHME NO.		BRIDGE TYPE
BR 30	123	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1950s /1960s?	TL 37805 01065	Fair

The footbridge is constructed of one large RSJ supported on tall brick piers. Wooden steps on either side access a timber deck which lies on the beam. Two timber hand rails are attached to this deck. Some of the timbers need replacing and perhaps the hand rails but the rest of the structure seems to be stable.

	PHOTO NO.	DIMENSIONS
(RCHME) 206/E/7	WAP93 CP022	L 17.50m W 1.70m Ht 2.65m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 31	126	Footbridge/Pipe bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
pre 1945	TL 37765 01017	Poor

Bridge constructed of angle irons braced with cross pieces. Most members are rivetted. The metal structure supports a timber deck, now mostly rotten. The steps on either end have been removed and the structure is leaning. It appears to have been a pipe bridge after the removal of the steps.

PHOTO NO.	DIMENSIONS
(RCHME) WAP93 CP019 206/E/8	L 14.00m W 1.40m Ht 2m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 32	100	Swing Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
unknown	TL 37700 00683	Demolished

Remains of a narrow gauge railway swing bridge. Consist of a triangular concrete pier set in the middle of Millhead Stream. This pier is supported above the water level by three concrete piles. Surrounding this are a number of timber piles of unknown function. On the west bank is an iron pivot set into concrete 2.80m to the west of this stands the concrete mounting point for the bridge.

There are three steps to the south up to the level of the railway causeway. The concrete block has a curved face to the east to allow the end of the bridge to swing into place. There is no evidence of the rest of the structure.

PHOTO NO.	DIMENSIONS
WAP93 CP034	Not Available

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 33	120	Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
unknown	TL 37465 01487	Poor

Rough bridge constructed of unmortared bricks, a precast concrete pipe and railway sleepers. There are two earthwork causeways leading up to the bridge. Overgrown and not very stable.

PHOTO NO.	DIMENSIONS
WAP93 CP010	L 7.00m W 4.50m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 34 122 Foot/Pipe Br		Foot/Pipe Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1878?/1940s?	TL 37800 01095	Fair

The present structure is built of timber and used to carry steam pipes across the canal. Immediately to the north are brick abutments of a former footbridge. Slots incorporated into the the brickwork appear to have allowed a board to be lowered into place to seal the channel. The bricks and style are similar to the 1878 bridges.

PHOTO NO.	DIMENSIONS
WAP93 CP023	L N/A W 2.50m Ht 1.95m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 35	191	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
unknown	TL 37424 01922	Very Poor

Only two timber trestles remain of this crossing on the east and west banks of the disused canal.

РНОТО NO.	DIMENSIONS
WAP93 CP016	Est. L 5.60m W 1.40m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 36	202	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1890s?	TL 37643 02044	Fair

The footbridge consists of an angle iron frame supporting a timber deck. Serivce pipes were also carried by hoops attached to either side of the bridge.

PHOTO NO.	DIMENSIONS
WAP93 CP042	L 8.50m W 1.30m Ht 2.25m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 37	212	Pipe Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1895?	TL 37575 02116	Poor

This bridge is constructed of timber for the most part and is supported by two timber trestles on the north and south banks. The bridge also supported a walkway on the eastern side. Carried wash water from the nitrator E2 to E4.

PHOTO NO.	DIMENSIONS
WAP93 CP041	L 13.20m W 2.20m Ht 2.35m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 38	173	Pipebridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1890s-1900?	TL 37523 01648	Fair

Steel framed bridge carrying two steam mains over the canal. appears to be sound with no serious corrosion.

PHOTO NO.	DIMENSIONS
WAP93 CP004	L 8.05m W 0.75m Ht 2.40m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 39	174	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1880s-1890s	TL 37523 01653	Fair

The footbridge is constructed of angle irons which support timber steps and decking similar in design to BR 22 but rising higher above the canal. Most of the timbers are rotten and some of the angle irons are badly corroded.

РНОТО NO.	DIMENSIONS
WAP93 CP003	L 9.30m W 1.05m Ht 2.25m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 40	BR 40 176 Pipe Bridge	
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1940-1950s	TL 37498 01667 37500 01652	Fair

This is actually a large pipe probably carrying steam which has been shaped to cross the canal allowing access for barges underneath. The pipe is supported by two metal cables attached to the centre of the span and to two tall concrete posts set in either bank. The posts are damaged as are the cables the pipe is at present supported by a later timber pile in the center of the span.

PHOTO NO.	DIMENSIONS
WAP93 CP005	L 15.80m W 0.70m Ht 3.15m

DOCUMENTARY SOURCES

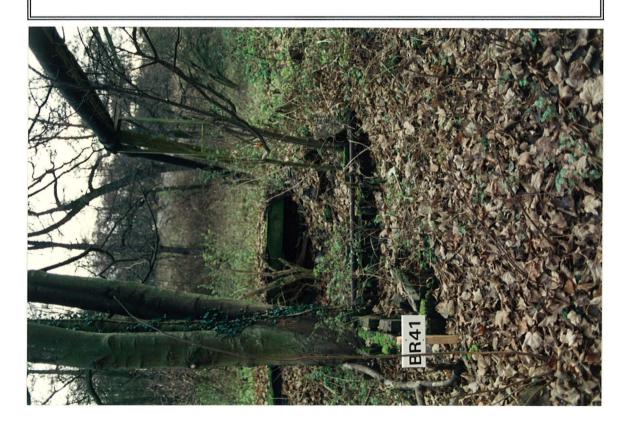


WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 41 177 Lifting Footbridge		Lifting Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
pre 1940	TL 37501 01661	Poor

Remains of a lifting footbridge constructed of a timber box on the north bank (2.5m by 2.15m) with an iron pivot bar. The bridge spaned the canal (4.25m). On the south bank is a concrete landing with two catch plates. Most of the timber is rotten.

PHOTO NO.	DIMENSIONS
WAP93 CP007	L 6.90m W 2.55m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 42	223	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1880s	TL 37586 01264	Poor

Only the two supporting timber trestles survive on either side of the canal. Originally carried the path between the dusting house 159 and the shoe room 157.

PHOTO NO.	DIMENSIONS
WAP94 CP019	L 9.00m W 1.80m

DOCUMENTARY SOURCES



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 43	R 43 253 Bridge	
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1940?	TL 37600 021150	Poor

Two brick piers survive on either site of the Old River Lea, capped by concrete slabs with vertical mounting bolts. The sawn off remains of the bridge supports are in the river. The bridge carried a nitroglycerine gutter and other services from E3 wash house to the mixing house 46a.

PHOTO NO.	DIMENSIONS
Not available	Not Available

DOCUMENTARY SOURCES

WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 44	505	Pipe/ Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
unknown	TL 37545 02348 Poor/demolished	

Only one timber trestle survives on the west bank of the canal. Actual function unknown.

PHOTO NO.	DIMENSIONS
WAP94 CP006	W 2.20m

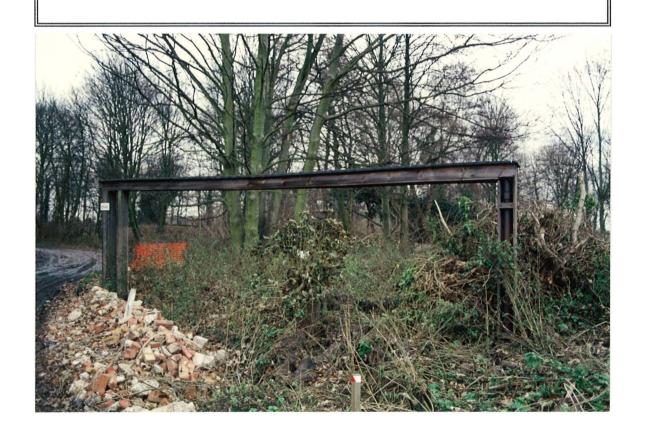


WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 45	509	Pipe/ Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
unknown	TL 37520 02280	Poor/demolished
DESCRIPTION and CONDITION		
DESC	RIPTION and COND	ITION
Only one timber trestle surv		ITION
	ives of this bridge.	DIMENSIONS
Only one timber trestle surv	ives of this bridge.	DIMENSIONS
Only one timber trestle surv PHOTO NO Not available	ives of this bridge.	DIMENSIONS

WALTHAM ABBEY RARDE SITE BRIDGE REPORT			
SITE NO.	RCHME NO.	BRIDGE TYPE	
BR 46	510	Pipe Bridge	
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION	
unknown			

The bridge consists of a timber box surrounding the pipe(s). Roofing felt caps the structure over the span. The timber and felt is in reasonable condition.

PHOTO NO.	DIMENSIONS
WAP93 CP017	L 8.70m W 0.20m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 47	511	Pipe Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1890s TL 37543 021163 Poor(demolished)		

One timber support remains of this bridge which carried the guttering for nitroglycerine from the nitrator E2 to the washing house E3.

PHOTO NO.	DIMENSIONS
WAP93 CP040	Not Available



WALTHAM ABBEY RARDE SITE BRIDGE REPORT			
SITE NO.	RCHME	E NO.	BRIDGE TYPE
BR 48	512	,	Footbridge
CONSTRUCTION DATE	GRID I	REF.	INITIAL CONDITION
c. 1850s	TL 37505 02116		Demolished
DESCRIPTION and CONDITION			
Four truncated timbers survive in the canal bed no bank suports can be seen.			
PHOTO NO. DIMENSIONS			
No Photographs available		Not Availa	able
DOCUMENTARY SOURCES			

WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 49	513	Aqueduct
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
pre 1886 TL 37418 01977 Fair		

Subterranean aqueduct/culvert constructed of brick and concrete. Precise construction unknown.

PHOTO NO.	DIMENSIONS
WAP93 CP024	L unknown W 4.00m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 50	514	Brick Road Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1850-86	1850-86 TL 37455 01976 Poor(partially demolished	

Yellow brick road bridge in English Bond. The spanning structure is missing but the embankment walls and abutments survive in good condition. Grooves can be observed in the brickwork where it is presumed boards could be fitted to dam up sections of the canal.

PHOTO NO.	DIMENSIONS
WAP93 CP044	L 3.30m W approx 3.00m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 51	515	Footbridge/pipe Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1940?	TL 37665 01976	Demolished

Only two brick piers remain on either side of a disused canal. Built of yellow stocks in Flemish Bond with concrete capping. Steel loop steps are set into the brickwork on both piers. Pipe supports have been bolted on at a later date.

PHOTO NO.	DIMENSIONS
WAP94 CP002	L 12.00m W 1.40m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT			
SITE NO.	RCHME NO.		BRIDGE TYPE
BR 52	516		Pipe Bridge
CONSTRUCTION DATE	GRID REF.		INITIAL CONDITION
unknown	TL 37434		Demolished
DESCRIPTION and CONDITION			
Only concrete block abutments survive.			
PHOTO NO. DIMENSIO		DIMENSIONS	
Not available		Dims of blocks 0.85m by 0.75m	
DOCUMENTARY SOURCES			

WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 53	517	Pipe culvert
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
unknown	TL 37435 01825	Fair

Very crude construction, one concrete pipe surrounded by unmortared brickwork. Seems to be in a stable condition.

PHOTO NO.	DIMENSIONS
WAP93 CP002	L 3.20m W 2.90m pipe dia. 0.60m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 54	518	Pipe Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
pre 1940	TL 37497 01660	Fair

Constructed of an angle iron frame with flat cross pieces. This supports a narrow timber deck together with a large steam pipe to one side.

PHOTO NO.	DIMENSIONS
WAP93 CP006	L 15.70m W 0.80m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 55	519	Pipe Culvert
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
unknown	TL 37472 01586	Good/Fair

Constructed of a large concrete pipe encased in concrete. Two side capping pieces either side of the road in which are set hand rails. The banks are retained by concrete sand bags.

PHOTO NO.	DIMENSIONS
WAP93 CP009	L 12.30m W 3.10m pipe dia 1.10m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 56	520	Pipe Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION

Consists of a pipe clad in a timber box which is capped with roofing felt. Some of the timbers have rotten and portions of the roof felt are missing.

PHOTO NO.	DIMENSIONS
Not available	Est. L 5.00m W 0.40m

WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 57	521	Pipe Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
post 1947	TL 37550 01340	Fair(disused)

This bridge is constructed for at least four pipes. Built of two steel tube stanchions which support a metal pipe held on by "U" bolts. This pipe has four hooks suspended beneath it and has disused pipes attached to either side.

PHOTO NO.	DIMENSIONS
WAP93 CP011	L 7.15m W 0.85m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT			
SITE NO.	RCHME NO.		BRIDGE TYPE
BR 58	522		Pipe Bridge
CONSTRUCTION DATE	GRID REF.		INITIAL CONDITION
unknown	TL 37580	01278	Demolished
DESCRIPTION and CONDITION			
DESC	RIPTION and	d CONDIT	ΠΟΝ
DESC Two concrete block abutmer			
	nts are all that r	emains of th	
Two concrete block abutmer	nts are all that r	emains of th	is crossing. DIMENSIONS ocks
Two concrete block abutmer PHOTO NO. Not available	nts are all that r	emains of the latest la	is crossing. DIMENSIONS ocks 0.85m

WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 59	523	Pipe Culvert
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
between 1955 and 1965	TL 37627 01162	Good/Fair

Constructed of six concrete pipes dia. 0.60m laid next to each other across the canal. Head walls are made of concrete. Although the canal has silted up the structure appears to be sound.

PHOTO NO.	DIMENSIONS	
WAP93 CP012	L 19.80m W 7.50m pipe dia 0.60m	



WALTHAM ABBEY RARDE SITE BRIDGE REPORT			
SITE NO.	RCHME NO.	BRIDGE TYPE	
BR 60	524 Pipe		
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION	
1957?	TL 37660 01051	Good/Fair	

Similar in design to BR 59 with six pipes and concrete head walls, the pipe are slightly larger with a 0.90m diameter.

РНОТО NO.	DIMENSIONS
WAP93 CP014	L 16.00m W 6.00m pipe dia 0.90m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT			
SITE NO.	RCHME NO.	BRIDGE TYPE	
BR 61	525 Pipe Bridge		
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION	
post 1947 TL 37710 00882 Fair		Fair	

This structure is basically a timber and roofing felt cover for a pipe crossing the canal at low level. The timber of the box section cover is in fair condition, there are small portions of the felt missing.

PHOTO NO.	DIMENSIONS
WAP93 CP020	L 12.50m W 0.30m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT			
SITE NO.	RCHME NO.	BRIDGE TYPE	
BR 62	526 Pipe Bridge		
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION	
pre 1945 TL 37725 00858 Fair/Good		Fair/Good	

Pipe bridge constructed of an angle iron frame which supports the pipe. Structure appears sound with little corrosion.

PHOTO NO.	DIMENSIONS
WAP93 CP018	L 12.40m
WAP94 CP038	W 1.00m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 63	527	Pipe Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1960s?	TL 37767 01022	Good

Modern steam carrier constructed of two box shaped steel tube stanchions. Pipe is suspended between, extra welded braces have been added to the pipe at the span.

PHOTO NO.	DIMENSIONS
WAP93 CP021	Dims of stanchions 0.65m by 0.95m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT			
SI	TE NO.	RCHME NO.	BRIDGE TYPE
BR 64		528	Footbridge
CONSTRUCTION DATE		GRID REF.	INITIAL CONDITION
1	BRIDGE 64	alle Trind World	Part
A steel to Wilcon. Confirmed with Wilcon that WAREM the preime undamage Make he claim on this 14/3/00. Chocked with S-Chaddock on historic value,			
WAP93 (Laborard.			



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 64	528	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
1940-50s	TL 37592 00852	Fair

A steel tube formed arch bridge with a timber deck which originally spaned the Horsemill Stream. It now rests on the eastern bank of the sme stream just outside the preimeter fence. The deck may need to be replaced but the frame appears undamaged.

PHOTO NO.	DIMENSIONS
WAP93 CP045	Not Available



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 65	530	Footbridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION

Footbridge built of 5 timber joists originally supporting a planked deck (now rotten away) which rests on two brick piers.

PHOTO NO.	DIMENSIONS
Not available	L 6.00m W 3.50m

WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 66	531	Pipe Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
post 1947	TL 37705 01490	Fair

Built of an angle iron supporting frame with a box section, held up by concrete piers. The piers and the frame seem to be in good condition.

PHOTO NO.	DIMENSIONS
WAP93 CP026	L 15.00m W 0.45m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 67	532	Pipe Bridge
CONSTRUCTION DATE	GRID REF.	INITIAL CONDITION
post 1947	TL 37700 01343	Fair/ Poor

Two angle iron framed stanchions support a delapidated timber box housing. Carried one pipe and telegraph wires.

PHOTO NO.	DIMENSIONS
WAP93 CP025	L 6.80m W 0.75m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 68	555	Footbridge
CONSTRUTION DATE	GRID REF.	INITIAL CONDITION
post 1947	TL 37658 02094	Demolished

This footbridge appears to be built after the canal had silted up and was constructed of sorted timbers, asbestos sheeting and hard board covered with gravel. There were no bank supports.

L 4.00m W 2.20m

WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 69	556	Pipe Bridge
CONSTRUTION DATE	GRID REF.	INITIAL CONDITION
1936	TL 37442 02314	Poor

The bridge consists of three supports carrying large steam and air pipes over the canal in front of the Quinan Stove. Supports are steel angles the pipes are galvanized steel. The complex was recently burnt out as part of the decontamination process.

PHOTO NO.	DIMENSIONS
WAP94 CP001	Approx L 11.00m W 2.20m



WALTHAM ABBEY RARDE SITE BRIDGE REPORT		
SITE NO.	RCHME NO.	BRIDGE TYPE
BR 70	557	Pipe Bridge
CONSTRUTION DATE	GRID REF.	INITIAL CONDITION
1940	TL 37575 01975	Poor/Fair

Similar to bridge BR 51 this also carried the Steam, Acid and compressed air services to the New Hill Nitroglycerine Plant. Constructed of Brick piers in Flemish bond with concrete capping and steel loop steps up one side of each. The pipes and gantry are missing.

РНОТО NO.	DIMENSIONS	
Not Available (refer to BR51)	Unknown	
DOCUMENTARY SOURCES		