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CLITHEROE LIBRARY
CHURCH STREET
CLITHEROE

MASONRY SURVEY



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Clitheroe Library Report

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Survey Details

The survey was requested by Lancashire County Council to assess the condition of the masonry on the 1821 and 1905 sections of the façade of Clitheroe Library. Whilst viewing the building timber windows, roof slating and leadwork were briefly reviewed.

The survey was carried out on the 23rd February 2009 by Quadriga Ltd. The surveyors were Roy Howland and Richard Granton.

Conditions for the survey were dry but dull.

A 17m van mounted simon platform was used to gain access to Church Street façade and the bull nosed return to York Street.

Due to issues with traffic and the pedestrian crossing the York Street elevation could not be accessed with the simon hoist. All observations were therefore made from ground level.

The new extension to York Street did not form part of the scope for this survey.

Clients Brief

The client asked for a survey of the masonry to consider conservation and preservation rather than a full restoration

There are a large number of insitue restoration repairs which have been carried out to the 1821 section of Church Street elevation. These are unsightly and it was requested that these be considered for replacement in new stone.

General Report

There are several areas of severe decay to the stone particularly on the older 1821 section of Church Street. A large section of coping was removed by hand which could have fallen at any time particularly in high winds. (See photo 1 in General photo's appendix D). Several other small areas of failure were noted, which were also removed by hand. Some items had been caught in the bird netting system currently installed.

There is significant delamination of the stone to this area. Due to the stone being laid to an incorrect bed, please see appendix A for a guide to the "correct bed" of fixing sandstone. This resultant scaling and splitting requires different repair methods dependant on the extent of decay.

Where there is surface scaling this can be redressed back to a sound base and traps for moisture removed by hand rubbing with carbination stones. This would help prevent freeze thaw decay. Where the poor bedding of the stone has resulted in large delaminations or splitting either replacement, resin injection or stitching and pinning can be considered dependant on the severity of the failure.

The pointing is in various levels of decay and with most areas still "sound". However patch repairs to pointing can leave a façade looking irregular and patchy. A full repoint should therefore be considered. The majority of the areas have been repointed in a cementitious mortar which should be removed and replaced with a lime based mortar.

The LHS gable over the adjoining property and the pinical above offer particular problems. When viewed closely the pinical shows signs of severe decay due to heavily corroded cramps at joint positions. This is resulting in spalls to the face and most worryingly lift to the bed joints. At

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the 4th joint down light can be seen throughout the pinical. See photo 1 appendix 2) Pointing and packing only, would only offer temporary protection and relief from the deterioration in the steel, which is causing the lift. The alternative would be to dismantle the pinical and rebuild. The offending iron cramps could be removed and replaced with stainless steel. This solution however offers particular difficulties with access. The weight of the units would require the scaffold to be load bearing "masons scaffold". As this is over the main roof and the roof of the neighbouring property this would offer particular difficulties. A second option would be to crane off and on the units. This however would require a street positioned crane during the works. Which would possibly block the passage of traffic along Church Street.

The works to this pinical would therefore require greater indepth consideration beyond the scope of this report. Liason would be needed between the Highways Department and your Structural Engineers. For the purpose of budget costs we have assumed that both roofs could be "bridged" and the pinical scaffolded.

The 1905 section of the façade is in a much better state of repair. There are however some elements where decay is severe and some replacement or minor insitue repairs could be considered. There are signs of leaking rainwater to the Church Street corner of the Clock Tower. Close inspection revealed no obvious point of ingress as the roof lead work appeared in good order.

The timber windows generally appeared sound a few minor resin repairs could be made to save as much of the original timber as practicable.

A full redecoration has been allowed for in the attached budget costings, as some windows are in a poor state of decoration

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Methods of Repairs

The choice of repair method is often subjective and affected by cost restraints for the project. As the brief was for conservation rather than restoration we have tried to assess the best method of repair based on the brief received. Different agencies may disagree with each other on which would be the preferred method of repair.

Where stone decay is severe we have generally allowed for new stonework, where the decay is less so developed an insitue repair mortar could be used, this preserves as much of the original stone as possible which in conservation circles would be preferred.

Where scaling of the stone is noted and there is no resultant effect on water run off descaling and redressing the surface should be considered.

There are several small carved plaques which would benefit from the application of a "consolidant" to preserve the current level of detail. The process involves the application of "stone strengtheners" (fluid). Having a good ability to absorb into the stone its purpose is to bond the particles of stone together at a micro pourouse level. However, the material does allow the stone to breath and moisture within the stone to escape.

Below are listed the specifications for the types of repairs as listed on the survey schedule.

Cleaning

Prior to all works apply Algacide to areas of moss and lichen growth. Allow to dwell

Wash off entire area to remove residual growth and loose dirt deposits. Use clean water under high pressure care is to be taken when using high pressure water to avoid wear to the stone surface.

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Repointing Stone Work

Rake out by hand any loose lime based mortars, where cementitious & based mortars have been used using a fine diamond blade, cut the centre of the joint out and hand dress the old remaining mortar into the cut. Note if hard cementitious mortars are removed solely by hand tools, damage will occur to the face and arris of the stone.
Cut/rake out joints to a depth of 20mm.

Brush out all loose matter and well wet with clean water prior to repointing

Repoint in a 1:3 sand lime (NHL 3.5) Choice of fine sand to be made to match original mortar where possible.

Restoration

To carefully remove decayed or defective areas of stone using hand tools to leave a sound keyed surface.

To introduce non ferrous reinforcing rods and performed supports according to need and extent of repair.

To brush down and well wet the surfaces with clean cold water.

To restore forward the areas concerned using specialist mortar.

The compound is well compressed around the reinforcement and finished with wooden profiles to a modified profile.

On completion of restoration all newly formed masonry joints will be ground out and pointed to match the surrounding work.

Restoration mortar has been specially formulated by us to incorporate crushed natural stone together with appropriate binders and additives to achieve a match as near as reasonably possible with the existing stone, both in colour, texture and strength, while still maintaining the water circuitry of the masonry.

Should it be discovered upon cutting away that the depth of decay precludes us from achieving a sound mechanical base on which to apply a specialist mortar repair, it will be necessary to effect a new stone replacement. Variation cost will be charged extra to contract.

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Descaling

To carefully descale scheduled areas of friable stonework, removing superficial scale loose matter using hand held scrapers and phosphor bronze brushes to expose an acceptably sound face and finish. Carefully hand dress catchment areas to facilitate the face run off of water

Redressing

Carefully descale using hand tools, areas of friable stonework to expose a sound face and finish with carborundum stonesmasons drags to produce a hand rubbed finish.

Masonry Indenting

Carefully cut out defective stonework as scheduled, ensuring that the arises of the aperture are clean and undamaged.

Supply and fix (stone type to be agreed) indents dimensioned in accordance with the schedule. Full stones would normally be bedded in a 1:3 lime sand cement mortar and shall incorporate suitable stainless steel fixings as the where required. Small indents to be placed in polyester cement.

On completion of the fixing, beds and joints shall be carefully repointed to match as near as possible surrounding stonework, and where applicable rubbed in.

The stone will be free from vents, cracks and fissures and other defects, which may adversely affect the strength, durability or appearance of the stone.

The stone will be thoroughly seasoned dressed and worked before delivery to site in accordance with working drawings and schedules provided by yourselves.

All masonry work to be carried out in accordance with BS 5390.

Dismantle & Rebuilding of existing Masonry

Attend site and carry out a dimensional survey of the existing structure and produce numbered elevational drawings of the existing together with sections to facilitate this subsequent building work.

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Initially compile a schedule of condition which identifies existing visible defects in the masonry.

As work proceeds to record further defects as and when they become apparent together with the proposed method of repair or reinstatement. Progressively dismantle existing stonework by firstly cutting out existing joints and beds and carefully separating the stone units using hand tools, assisted by the use of an appropriate lifting platform.

Clean joints and beds of residual mortar and number stones in accordance with working drawings, lower to ground and store flat bed vehicle prior to transit to store.

Existing cramps and other masonry fixings to be removed as work proceeds. Where practical hand architectural fittings to client.

Uplift from store and return masonry units to work area for rebuilding in proper sequence.

Pointing shall be carried out as work proceeds finishing with a neat masons joint.

Once all works are complete the masonry should be fully washed down to remove superficial matter.

All existing fixings and cramps to be replaced in stainless steel.

Fractures

Stopping

Clean out minor fractures and hand fill with polyester cement grout to a flush finish.

Injection

Clean/chase out fractures to a depth of 10mm and surface fill with specialist restoration mortar. Insert application nipples at appropriate centres and inject a free-flow resin commencing at lowest point of fracture and progressively working up until full take-up is achieved.

Skew Stitching

Drill sets of two holes at appropriate centres to achieve a right angled intersection to accommodate 6mm, diameter threaded stainless steel dowels of 200mm, length to be set in a suitable resin or grout and restore disturbed work on completion.

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Masonry Consolidation

The system of masonry preservation was developed and tested in Germany in the early 1970's and is designed to arrest surface attrition and decay by consolidating friable masonry. Experience has shown it to be equally effective on limestone, sandstone and brick, subject to specific testing of individual materials under consideration.

Based on silicic acid ethyl esters the consolidant is spray applied chemical which is absorbed into the masonry by capillary action and converted into a natural silicon dioxide binder. The consolidation achieved does not seal the pores so the substrate retains its water vapour permeability which is an essential factor.

The system can include a final surface treatment with a special grade high performance silicone water repelling agent to protect the masonry against water penetration.

Throughout, from initial testing to final application, the system is subject to precise and carefully control, this being essential to the effectiveness of the treatment.

Apply consolidant assuring low pressure spray or brush with repeated passes until no further "take up" is allowed.

Scaffolding

To supply, erect, maintain and dismantle on completion fully boarded tubular independent scaffolding erected in accordance with all safety, health and welfare regulations and BS 5973/81.

We will supply full monoflex sheeting to the elevations being scaffolding

Whilst every care will be taken carrying out the scaffolds to the chimney stacks/gables etc it is inevitable that some roof slates will be damaged; our quotation does not allow for their replacement and separate consideration must be given to this.

All work subject to necessary permissions from local authorities being granted.

It is assumed that the existing base for our scaffold is adequate to support the imposed load without settlement.

Prior to our work commencing you are to obtain permission for erection of scaffolding from adjoining roofs/structures from the appropriate

owners and a schedule of conditions is to be established and agreed before work proceeds.

Where scaffolding may rest on roof surface it is assumed that the structure is sufficiently strong to carry the imposed loads.

We have included for providing adequate warning lighting to scaffolding at pavement level and will require a suitable power supply

Where scaffold comes into contact with roof finishes and where access has to be made across roof finishes some consequential damage may occur, despite due care and attention. No costs for remedial works are allowed for.

Mastic to Windows

Carefully rake out existing mastic to windows.

Repoint in a polysulphide sealant to a neat fillet for optimum performance.

A linseed mortar may be considered a requirement by some conservation authorities. However this would be at an additional cost.

Painting

Remove all flaking paintwork, sand to feather edge knot, spot prime, one undercoat and two gloss to colour to be agreed.

Varnished Surfaces

Remove previous varnish coating by carbination of varnish remove and sanding. Apply 3 coats of quality exterior varnish.

Wash Downs

On completion of all works using low pressure water rinse all areas of masonry to remove dust deposits and loose matter, clean window and leave tidy.

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Schedule of Repairs

Please see the schedule attached in appendix B. This is to be read in conjunction with the elevation drawing in appendix C for the item location on the façade. A further column indicates the photo number (appendix D) of the particular repair. Please note these are split into the areas as listed on the schedule.

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Costings

For guidance purposes we have applied approximate costings to the items listed and offer the following budget costs.

Scaffold	£22,000.00
Redecoration	£15,000.00
Masonry Works	£49,500.00
Provisional sums	<u>£12,000.00</u>
TOTAL	£98,500.00

No costs are allowed for site welfare etc.

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Summary

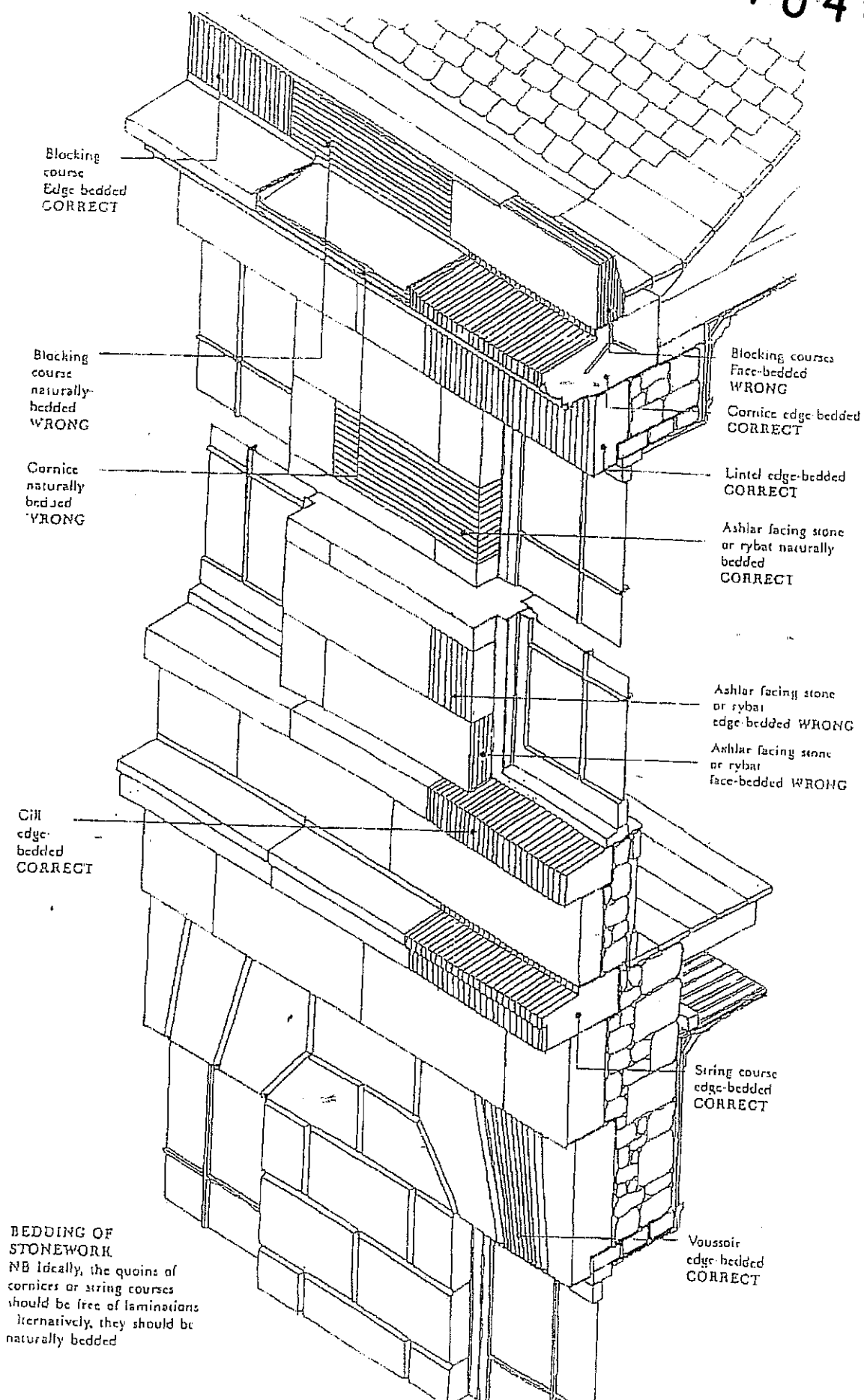
The façade is in varying states of repair and as some elements of masonry had to be removed for public safety it would be prudent to carry out as a minimum those repairs where failure of the stone is imminent. However as a large element of the cost is in the access scaffold extending this scope to a broader field would be advantageous.

Should you have any questions regarding this report please contact Roy Howland

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APPENDIX A

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BEDDING OF STONEWORK.
NB Ideally, the quoins of cornices or string courses should be free of laminations. Alternatively, they should be naturally bedded.

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APPENDIX B
SCHEDULE OF REPAIRS

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--- SURVEY/REPAIR/REPAIR SHEET

Item	PHOTO NO	Description	REPAIR TYPE	COMMENTS	Quant	Unit
1		LHS PINNACLE/TOWER 1821 SECTION				
2	1	METAL FINIAL DETAIL NOT ACCESSIBLE	REPAINT			NC
3	2	REPOINT ALL MASONRY JOINTS TO TOWER	REPOINT	SEE COMMENTS ON CONDITION OF TOWER	1.00	ITEM
4	3	FRACTURED PINNACLE/APEX BLOCK	REPOINT	CORROSION OF STEEL FROM FINIAL DETAIL STARTING TO CAUSE FRACTURE. REPOINTING WOULD BE A SHORT TERM MEASURE. SEE COMMENTS ON SCOPE OF WORKS	1.00	ITEM
5	4	SMALL SPALL	INDENT	CORRODING CRAMP CAUSING SPLITTING. THIS NEEDS REPLACING WITH STAINLESS STEEL AND A STONE INDENT REPAIR	1.00	ITEM
6	5	OLD CEMENTITIOUS REPAIR TO CORNER	INDENT	INDENT APPROX 150X150X50	1.00	ITEM
7	6	2 NO OLD CEMENTITIOUS REPAIR TO CORNER	INDENT	INDENTS APPROX 200X150X50 AND 100X50X 50 A PROVISIONAL SUM SHOULD BE SET ASIDE FOR WORKS DISCOVERED ONCE ACCESS IS AVAILABLE	1.00	ITEM
8	6A	REAR OF PINNACLE NOT ACCESSIBLE			2.00	NC
9	7	4TH JOINT DOWN, CORRODING CRAMPS AT THIS LEVEL HAVE LIFTED THE UPPER 4NO COURSES TO A POINT WHERE LIGHT IS VISIBLE THROUGH THE PINNACLE.	PACK AND POINT	SEE COMMENTS REGARDING TOWER ON COVER LETTER. TAKE DOWN AND REBUILD MAY BE A CONSIDERED ACTION.		NC
10	7A	ALTERNATIVE TO TAKE DOWN THE UPPER PART OF THE TOWER	TAKE DOWN AND REBUILD	THIS ITEM HAS PARTICULAR DIFFICULTIES DUE TO ITS LOCATION, PLEASE SEE COVER LETTER	1.00	ITEM
11	8	FRACTURED BLOCK	PIN AND POINT		1.00	ITEM
12	9	OLD CEMENTITIOUS REPAIR FAILING	DESCALE LOOSE	REMOVE LOOSE MATTER ONLY	1.00	ITEM
13	10	SMALL FRACTURE TO STRING	POINT		1.00	ITEM
14	11	ROLL MOULD FRIABLE	DESCALE LOOSE	REMOVE LOOSE MATTER TO SOUND BASE AND REVIEW	1.00	ITEM
15	12	OLD CEMENTITIOUS REPAIR FAILING	INDENT	APPROX 125X100X50	1.00	ITEM
16	13	REPOINT ENTIRE PINNACLE	REPOINT		1.00	ITEM
17	14	REDRESS LEAD WORK	LEAD REPAIR	SEE COMMENT RE TAKE DOWN AND REBUILD	1.00	ITEM
18	15	SCALING ASHLAR BLOCK	REDRESS		1.00	ITEM

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Item	PHOTO NO	Description	REPAIR TYPE	COMMENTS	Quant	Un
16	16	MINOR SCALING ASHLAR BLOCK	REDRESS		1.00	ITE
17	17	REPOINT BASE AREA OF PINNACLE	REPOINT		1.00	ITE
18	NO PHOTO	REPOINT COPINGS	REPOINT	REPOINT COPINGS AND CRACK, REVIEW RENDER ON CLOSE INSPECTION	1.00	ITE
19	19	METAL CORBEL REQUIRES RUST TREATMENT AND DECORATION	REPOINT			
19A	20	REAR COPINGS REPOINT	REPOINT		1.00	ITE
20	20	REPLACE COPING	NEW STONEMWORK	THIS SECTION OF MASONRY WAS IN A VERY DANGEROUS CONDITION AND WAS REMOVED FOR PUBLIC SAFETY	1.00	ITE
21	21	REPOINT COPINGS	REPOINT		1.00	ITE
22	22	AREA OF SURFACE DEGRADATION TO COPING	RESTORE	THE EXTENT OF DECAY IS LIMITED AND AN INSITUE REPAIR COULD BE CONSIDERED OVER FULL REPLACEMENT	1.00	ITE
22A	22A	OLD CEMENTITIOUS REPAIR TO COPING	RESTORE		1.00	ITE
23	23	FOUL VENT PIPE FIXINGS ARE IN POOR CONDITION	CAST IRON	REPLACE 4 NO FIXINGS	4.00	NO
24	24	AREA OF FAILING RENDER	RENDERING	PATCH REPAIR DEFECTIVE AREA ONLY	1.00	ITE
25	25	AREA OF ADDLED (HOLLOW SOUNDING) RENDER	RENDERING	ALLOW A PROVISIONAL QUANTITY OF 1MS	1.00	ITE
26	26	REPOINT TO BASE OF CHIMNEY POT	REPOINT	THE AMOUNT OF DECAY DOES NOT WARRANT STONE REPLACEMENT	1.00	ITE
27	27	DRIP FAILING TO COPING	REPOINT	REPLACE HAUNCHING	1.00	ITE
28	NONE	HAUNCHING TO REAR OF COPING/SLATE JUNCTION FAILING	RESTORE		1.00	ITE
29		ROOF LEVEL 1821 BUILDING				
30		ROOF SLATE AND LEADWORK APPEARED IN A GENERALLY SOUND CONDITION				
31						
32						
33						
34						
35						
36						
37	1	CORRODED METAL VENT TO ROOF	REPLACEMENT	POINT IT WAS DIFFICULT TO ASSESS IF METAL HAD CORRODED BEYOND REPAIR. A HIGH GRADE PAINT TREATMENT MAY OFFER A SHORT TERM SOLUTION. HOWEVER REPLACEMENT MAY WISH TO BE CONSIDERED FOR A LONG TERM SOLUTION. PROVISIONAL	1.00	ITE



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Item	PHOTO NO	Description	REPAIR TYPE	COMMENTS	Quant	Unit
39		FAÇADE TO 1821 BUILDING				
40		PARAPET LEVEL CHURCH STREET				
41		ALL BIRD NETTING TO THIS WHOLE ELEVATION WILL REQUIRE REMOVAL PRIOR TO SCAFFOLD ERECTION AND REPLACED ON COMPLETION				
42	1	MAIN PARAPET BLOCKS SHOW VARIOUS LEVELS OF SCALING AND LAMINATION	REDRESS		1.00	ITEM
43	2	FORMER CEMENTITIOUS REPAIR	RESTORE			
44	3	REMOVE IRON CRAMPS AND REPLACE WITH STAINLESS STEEL	RESTORE		12.00	NO
45	4	THE FAÇADE SHOULD BE WASHED TO REMOVE ALGAE DEPOSITS	CLEANING		1.00	ITEM
46	5	OLD CEMENTITIOUS REPAIR FRACTURING	RESTORE	RE-RESTORE INDENT REPAIR COULD BE CONSIDERED AS AN ALTERNATIVE. HOWEVER AS REPAIR IS RELATIVELY SMALL RESTORATION HAS BEEN ALLOWED FOR THE PURPOSE OF THIS BUDGET	1.00	ITEM
47	6	OLD CEMENTITIOUS REPAIR FRACTURING	RESTORE	AS ABOVE	1.00	ITEM
48	7	OLD CEMENTITIOUS REPAIR FRACTURING	RESTORE	AS ABOVE	1.00	ITEM
49	8	OLD CEMENTITIOUS REPAIR FRACTURING	RESTORE	AS ABOVE	1.00	ITEM
50	9	FRONT OF COPING HAS BEEN LOST EFFECTING THE WATER RUN OFF	INDENT		1.00	ITEM
51	10	EXISTING STAINLESS STEEL CRAMP FIXED TO BACK OF PARAPET	NO WORKS SUGGESTED		1.00	ITEM
52	11	AREA OF SCALING RESTORATION TO PARAPET AND COPING REPOINT ALL JOINTS	RESTORE	THE REASON FOR AND THE EFFECTIVENESS OF THIS WAS NOT APPARENT		
53	12		REPOINT		1.00	ITEM
54					1.00	ITEM
55		1821 BUILDING BELOW CORNICE				

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Item	PHOTO NO	Description	REPAIR TYPE	COMMENTS	Quant	Unit
56				REPAIRS TO THIS AREA WHICH ARE UNSIGHTLY BUT SOUND AND DO NOT APPEAR TO BE HAVING A DETRIMENTAL EFFECT ON THE HOST STONE. THE EXTENT OF REPAIRS IS THEREFORE AN AESTHETIC ISSUE AND THEREFORE SUBJECTIVE. SHOULD	-	NC
57				THERE ARE ALSO MANY AREAS OF GENERAL LIGHT SCALING WHERE REDRESSING IS REQUIRED	-	NC
58	1	HOOD MOULD BEGINNING TO FAIL	INDENT		1.00	ITEM
59	2	FRACTURING TO REVEAL	INJECT	BED OF THE SOME. BLOCKS HAVE BEEN LAID TO THE WRONG BED. AS THE DECAY TO DATE IS NOT CAUSING THE FACE TO FAIL FULLY	1.00	ITEM
60	3	MINOR FRACTURE	NO WORKS SUGGESTED		-	NC
61	4	OLD MORTAR REPAIR TO PIPE	RESTORE		1.00	ITEM
62	5	MINOR FRACTURE TO REVEAL AND FACE	REPOINT		1.00	ITEM
63	6	OLD REPAIRS AND DESCALING TO ROLL MOULD.		BE DESACLED OF LOOSE MATTER AND FAILING OLD REPAIRS. THIS SHOULD THEN BE REVIEWED FOR REPAIRS. REPAIRS COVERED BY PROVISIONAL SUM	1.00	NC
64	7	HOOD MOULD FAILING	DESCALE LOOSE		1.00	ITEM
65	8	ROLL MOULD FAILING	INDENT		1.00	ITEM
66	9	DOUBLE FRACTURE	DESCALE LOOSE		1.00	ITEM
67	10	MINOR FRACTURE	INDENT		1.00	ITEM
			REPOINT		1.00	ITEM
68	11	FRACTURE TO FACE		FOR THE PURPOSE OF THIS BUDGET AN INDENT HAS BEEN ALLOWED, ALTHOUGH AS THE FRACTURE IS SHALLOW A INSITU REPAIR COULD BE CONSIDERED	1.00	ITEM
69	12	SMALL FRACTURE	INDENT		1.00	ITEM
			REPOINT		1.00	ITEM
70	13	INDENT SMALL SECTION OF HOOD MOULD		RESTORATION COULD BE CONSIDERED FOR THIS ITEM	1.00	ITEM
71	14	SMALL FRACTURE	INDENT		1.00	ITEM
72	15	MINOR DELAMINATION TO WINDOW LINE	REPOINT		1.00	ITEM
			RESTORE		1.00	ITEM

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CONTENTS/Estimating—spread SINGLE SHEET

Item	PHOTO NO	Description	REPAIR TYPE	COMMENTS	Quant	Unit
73	16	FRACTURE TO REVEAL	REPOINT			
74	17	LAMINATION TO WINDOW REVEAL	REPOINT			
75	18	DECAY TO TIMBER WINDOW FRAME	REPOINT			
76	18	REDECORATE ALL WINDOWS	TIMBER REPAIR	RESIN REPAIR	1.00	ITEM
77	18	REPOINT AROUND ALL WINDOW FRAMES		COVERED IN GENERAL ELEVATION SECTION OF SCHEDULE	1.00	ITEM
78	19	UNSLIGHTLY OLD REPAIR BUT SOUND SOME		COVERED IN GENERAL ELEVATION SECTION OF SCHEDULE	1.00	ITEM
79	20	LOOSE STONE TO ROLL MOULD				
80	20	MINOR FRACTURE	DESCALE LOOSE			
81	21	MINOR DECAY TO WINDOW FRAME	REPOINT	SEE COMMENTS ON PREVIOUS RESTORATION		
82			TIMBER REPAIR		1.00	ITEM
83				RESIN REPAIR	1.00	ITEM
84	1D AND 1	1821 BUILDING BELOW FIRST FLOOR STRING COURSE			1.00	ITEM
85	2	GENERALLY DESCALE LOOSE MATTER				
86	3	BOTTOM EDGE TO STRING FAILED	RESTORE	THE BOTTOM EDGE TO THE STRING COURSE HAS FAILED BUT, WAS FORTUNATELY CAUGHT BY THE BIRD NETTING	1.00	ITEM
87	4	ROLL MOULD TO UNDERSIDE OF THE STRING COURSE FRIABLE	DESCALE LOOSE	REVIEW AFTER DESCALING FOR POSSIBLE REPAIRS COVERED BY PROVISIONAL SUM	1.00	ITEM
88	5	FRACTURE TO PLAQUE	REPOINT AND CONSOLIDATE		1.00	ITEM
89	6	LOWER DETAIL TO PLAQUE LOST	REPOINT AND CONSOLIDATE		1.00	ITEM
90	7	CONSERVE REMAINING PLAQUE	CONSOLIDATE		1.00	ITEM
91	8	ROLL MOULD TO STRING LOST	RESTORE	APPLY CONSOLIDANT TO PRESERVE THE REMAINING DETAIL OF THE PLAQUE	1.00	ITEM
92	9	ROLL MOULD FAILING	DESCALE LOOSE	4ML LENGTH SECTION LOST	1.00	ITEM
93	9	CONSERVE REMAINING PLAQUE	COSOLADANT	APPLY CONSOLIDANT TO PRESERVE THE REMAINING DETAIL OF THE PLAQUE	1.00	ITEM
94	9	AREA OF OLD RESTORATION	RESTORE	REMOVE AND RE RESTORE	1.00	ITEM

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Item	PHOTO NO	Description	REPAIR TYPE	COMMENTS	Quant	Unit
94	10	9 OLD FIXINGS TO BE REMOVED	RESTORE			
95	11	ROLL MOULD TO HOOD DETAIL RE RESTORE				
96	12	10 100%	RESTORE		5.00	NO
97	13	10 2NO ROLL DETAILS TO JAMB	RESTORE		1.00	ITEM
98	14	11 2 NO ROLL DETAILS TO BASE OF JAMB	RESTORE	2NO AT APROX 1.8ML	2.00	NO
99	15	11 SMALL SPALL TO BASE OF JAMB	RESTORE		2.00	ITEM
100	16	12 METAL FIXINGS	RESTORE		1.00	ITEM
101	16A	13 CUT OT AND REPLACE CILL	INDENT	REMOVE AND RESTORE	2.00	NO
102	17	13 ASHLAR REPAIR	INDENT	IN 2 PIECES	1.00	ITEM
103	18	13 OLD RESTORATION REPAIRS TO LHS JAMB	INDENT	REMOVE OLD REPAIR AND INDENT	1.00	ITEM
104		13 LHS JAMB	INDENT	REMOVE OLD REPAIR AND INDENT	2.00	NO
105	19	15 OLD RESTORATION REPAIR			1.00	ITEM
106	20	15 PREVIOUSLY RESTORED BASE OF CILL	INDENT			
107	21	15 OLD RESTORATION REPAIR BELOW CILL	INDENT	REMOVE OLD REPAIR AND INDENT	1.00	ITEM
108	22	16 OLD RESTORATION REPAIR	INDENT	REMOVE OLD REPAIR AND INDENT	1.00	ITEM
109	23	17 OLD RESTORATION REPAIR	INDENT	REMOVE OLD REPAIR AND INDENT	1.00	ITEM
110	24	17 OLD RESTORATION REPAIR BELOW CILL	INDENT	REMOVE OLD REPAIR AND INDENT	1.00	ITEM
111	25	18 PLINTH AREA TO BE CLEANED OF MOSS AND ALGAE GROWTH	CLEANING	REMOVE OLD REPAIR AND INDENT	1.00	ITEM
112	26	18 MAJORITY OF PLINTH CAPPING IS HOLLOW SOUNDING WHEN TAPPED	INDENT	REPLACE 4 RUNNING SECTION OF CHAMFER APROX 9ML LONG	1.00	ITEM
113	27	19 LOWER PLINTH	DESCALE LOOSE	APPEARS TO BE ORIGINAL STONE. REMOVE LOOSE AFTER CLEANING AND REVIEW. SOME OLD REPAIRS APPEAR SOUND, THESE COULD REMAIN DEPENDANT ON AESTHETICS.	1.00	ITEM
114						
115						
116						
117	1	1821 BUILDING RHS GABLE				
118	1	SCALING ASHLAR	DESCALE LOOSE			NO
119	1	SCALING COPING	DESCALE LOOSE		1.00	ITEM
120					1.00	ITEM



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Item	PHOTO NO	Description	REPAIR TYPE	COMMENTS	Quant	Unit
119	3	COPING JOINTS FAILING	REPOINT			
120	4	2 MORTAR JOINTS TO CHIMNEY STACK FAILING	REPOINT		1.00	ITEM
121	5	2 CAP TO STACK SCALING	DESCALE LOOSE	NOT ALL OF STACK WAS VISIBLE FROM SURVEY POSITION	1.00	ITEM
122	6	REAR COPINGS NOT VISIBLE	REPOINT	ASSUME REPOINTING REQUIRED	1.00	ITEM
123	7	3 PITCH FACED WALLING APPEARS SOUND	REPOINT	ALLOW FOR REPOINTING AS ACCESS WOULD BE AVAILABLE	1.00	ITEM
124	8	- OLD FERROUS CRAMPS BELOW STACK	REMOVE AND RESTORE		9.00	MS
125					5.00	NC
126		CHURCH STREET FAÇADE 1905 BUILDING				
127	1A	REMOVE EXISTING NETTING AND REPLACE ON COMPLETION OF WORKS				NC
128	1	GENERAL LIGHT SCALING TO FAÇADE	DESCALE LOOSE		1.00	ITEM
129	2	POINTING FAILING IN MANY AREAS	REPOINT	FULL REPOINT ALLOWED FOR TO AVOID PATCH POINTING	1.00	ITEM
130		1ST FLOOR LHS			1.00	ITEM
131	3	MASTIC POINTING TO WINDOW FRAMES	REPOINT IN LINSEED MORTAR		1.00	ITEM
132	4	1 FAILING IN AREAS			-	NC
133	5	NOT USED FOR REFERENCE			1.00	ITEM
134	6	MINOR FRACTURE TO TOP OF TRANSOM	RESTORE		1.00	ITEM
135	7	OLD REDUNDANT SCAFFOLD TIE	RESTORE		-	NC
136	8	SCALING TO MULLION	DESCALE LOOSE	CORE DRILL TO REMOVE AND MAKE GOOD	1.00	ITEM
137	9	LIGHT SCALING TO PLAQUE	DESCALE AND CONSOLIDATE	APPLY CONSOLIDANT TO PRESERVE CURRENT CONDITION	1.00	ITEM
138	NO PHOTO	LIGHT SCALING TO DRESSED STONE	DESCALE AND CONSOLIDATE	APPLY CONSOLIDANT TO PRESERVE CURRENT CONDITION	1.00	ITEM
139	6	AROUND PLAQUE	DESCALE		1.00	ITEM
140	NO PHOTO	LIGHT SCALING TO ASHLAR	DESCALE		1.00	ITEM
141	NO PHOTO	LIGHT SCALING TO VOUSOIRS	DESCALE		1.00	ITEM
142	NO PHOTO	OLD REDUNDANT SCAFFOLD TIE	RESTORE	CORE DRILL TO REMOVE AND MAKE GOOD	1.00	ITEM



CLIHROE LIBRARY

UNIVERSITY OF ILLINOIS AT CHICAGO - spread SINGLE SHEET

Item	PHOTO NO	Description	REPAIR TYPE	COMMENTS	Quant	Unit
141	7	DELAMINATION TO UNDERSIDE OF BOTH TRANSOMS	RESTORE			
142	8	SCALING TO ASHLAR	DESCALE		1.00	ITEM
143	8	SCALING TO ASHLAR	DESCALE		1.00	ITEM
144	8	OLD REDUNDANT SCAFFOLD TIE	RESTORE		1.00	ITEM
145	9	AREAS OF SCALING	DESCALE	CORE DRILL TO REMOVE AND MAKE GOOD	1.00	ITEM
146	10	SIGNIFICANT DECAY TO HOOD MOLD	INDENT		1.00	ITEM
147	NO PHOTO	OLD CEMENTITIOUS REPAIR	RESTORE		1.00	ITEM
148	11	OLD CEMENTITIOUS REPAIR	RESTORE	REMOVE UNSIGHTLY REPAIR	1.00	ITEM
149	12	SIGNIFICANT DECAY TO HOOD MOLD	INDENT	REMOVE UNSIGHTLY REPAIR	1.00	ITEM
150	13	SIGNIFICANT DECAY TO STRING COURSE	INDENT		1.00	ITEM
151	14	DRIP DETAIL FAILING	RESTORE		1.00	ITEM
152	15	LOWER SECTION OF MULLION FAILING	INDENT		1.00	ITEM
153	16	SIDE TO KEY STONE DEGRADING	RESTORE	INDENT NEW SECTION UPTO GLAZING LINE	1.00	ITEM
154	NO PHOTO	4 NO OLD LEADED FIXINGS	RESTORE		1.00	ITEM
155	17	CILL TO 3 SMALL WINDOWS OVER DOOR	INDENT	REMOVE AND MAKE GOOD	1.00	ITEM
156	18	SCALING TO LHS OF DOOR FRAME	REDRESS		1.00	ITEM
157	19	OLD CEMENTITIOUS REPAIR	RESTORE	REMOVE UNSIGHTLY REPAIR	1.00	ITEM
158	20	OLD FERROUS FIXING	RESTORE	REMOVE AND MAKE GOOD	1.00	ITEM
159	21	FAILING CORBEL BLOCK	INDENT	INDENT NEW	1.00	ITEM
160	22	GENERAL PHOTO OF SCALING			1.00	ITEM
161					1.00	ITEM
162		ROOF TO CURVED CLOCK TOWER END TO 1905 BUILDING			-	NO
163	1	GENERAL PHOTO		GENERALLY LEAD AND SLATES ARE IN GOOD ORDER. A SMALL NUMBER OF SLATES HAVE SLIPPED WHICH WILL REQUIRE REFIXING	-	NC
164	2	GENERAL PHOTO		THE TIMBER WORK APPEARED TO BE IN A SOUND CONDITION BUT REQUIRES DECORATION	-	NC

06/05/2009



CLITHEROE LIBRARY

Item	PHOTO NO	Description	REPAIR TYPE	COMMENTS	Quant	Unit
165	3	GENERAL PHOTO			-	NC
166	4	GENERAL PHOTO			-	NC
167	5	GENERAL PHOTO			-	NC
168	6	GENERAL PHOTO			-	NC
169		SHOWS THE INSIDE OF THE GUTTER IN THE AREA OF THE APPARENT LEAK. NO VISUAL DEFECT NOTED APART FROM CLEANING	CLEAN GUTTER	THERE IS EVIDENCE OF A LEAK INTO THE BUILDING AT THE GUTTER AT THE CHURCH STREET END OF THE CURVE. CLOSE EXAMINATION DID NOT REVEAL ANY OBVIOUS POINTS OF INGRESS. HOWEVER PHOTO 8 SHOWS A POOR LEAD DETAIL WHICH SHOULD BE ADDRESSED	-	NC
170	8	POOR LEAD DETAIL TO OUTSIDE FACE	REFORM LEAD WORK	PROVISIONAL SUM ALLOWED	1.00	ITEM
171					1.00	ITEM
172					-	NC
173					-	NC
174					-	NC
175					-	NC
176					-	NC
177					-	NC
178	1	REPOINT ALL MASONRY JOINTS			-	NC
179	1	PINNACLE SHOWS LIGHT MOSS AND LICHEN GROWTH			1.00	ITEM
180	1	LIGHT SCALING	WASH DESCALE	WASHING COVERED BY GENERAL ITEM FOR FACADES	-	NC
181	2	OPEN JOINT IN CORNICE	REPOINT	THIS WILL BE ALLOWING MOISTURE INTO THE FABRIC OF THE BUILDING	1.00	ITEM
182	3	SCALING TO CORNICE	REDRESS		-	NC
					1.00	ITEM

320110456P

CURVED CLOCK TOWER END TO 1905
BUILDING



UNIVERSITY OF THE PACIFIC LIBRARY

UNIVERSITY OF THE PACIFIC - SPREAD SINGLE SHEET

Item	PHOTO NO	Description	REPAIR TYPE	COMMENTS	Quant	Un
183	4	4 OLD MASTIC POINTING TO EDGE OF COLUMN EXAMPLE OF MOSS GROWTH IN MORTAR JOINTS	REPOINT	AMOUNT OF MOVEMENT IS MINIMAL AND THERE IS AN ELEMENT OF SHRINKAGE TO THE MASTIC. THIS AREA SHOULD BE REVIEWED FROM SCAFFOLD TO ASSESS IF THERE IS ANY ISSUE OF STRUCTURAL MOVEMENT	1.00	ITEM
184	5					
185	6	3 NO OLD FERROUS FIXING	REMOVE AND RESTORE			NO
186	7	OLD RESTORATION REPAIR TO MULLION	RESTORE		1.00	ITEM
187	8	2 NO OLD FERROUS FIXING	REMOVE AND RESTORE		2.00	ITEM
188	9	DAMP PENETRATION BELOW CORNICE RESULTING IN SCALING TO DRESSED STONE	DESCALE		1.00	ITEM
189	10	INAPPROPRIATE EPOXY REPAIR	RESTORE	OLD EPOXY REPAIRS USED IN THIS AREA ARE UNSUITABLE FOR PURPOSE.	1.00	ITEM
190	11	OLD REPAIR TO CILL FAILING	RESTORE		1.00	ITEM
191	12	PLAQUE	CONSOLIDATE	APPLY CONSOLIDANT TO PRESERVE THE REMAINING DETAIL OF THE PLAQUE	1.00	NO
192	13	SCALING TO LHS JAMB	DESCALE		1.00	ITEM
193	14	INAPPROPRIATE EPOXY REPAIR	RESTORE	OLD EPOXY REPAIRS USED IN THIS AREA ARE UNSUITABLE FOR PURPOSE.	1.00	ITEM
194	14	ROTTING TIMBER TO WINDOW FRAME	RESIN REPAIR		1.00	ITEM
195	15	INAPPROPRIATE REPAIR TO RHS JAMB	RESTORE		1.00	ITEM
196	16	INAPPROPRIATE REPAIR TO LHS REVEAL	RESTORE		1.00	ITEM
197	17	DELAMINATION TO MULLION			1.00	ITEM
198	18	3 NO OLD FERROUS FIXINGS	REMOVE AND RESTORE	NO WORKS PROPOSED	1.00	NO
199	19	SCALING TO JAMB RHS	RESTORE		3.00	NO
200	20	SCALING TO JAMB LHS	RESTORE		1.00	ITEM
201	21	SCALING TO JAMB RHS	DESCALE		1.00	ITEM
202	22	SCALING TO JAMB LHS	DESCALE		1.00	ITEM

15/5/2009



CLIMBEROE LIBRARY

Item	PHOTO NO	Description	REPAIR TYPE	COMMENTS	Quant	Un
203	23	GENERAL COMMENT REMOVE SMALL FIXINGS	REMOVE AND RESTORE			
204	24	NO				
205	25	PHOTO				
206	26	LHS OF CENTRE WINDOW SCALING	REDRESS		20.00	NC
207	27	NOT USED FOR REFERENCE				
208	28	LHS JAMB OLD REPAIR	INDENT		1.00	ITE
209	29	RHS JAMB OLD REPAIR	INDENT	INDENT FACE TO OLD REPAIR	-	NO
		RUBBLE FILL AROUND STEPS AT BASE	REPOINT	INDENT FACE TO OLD REPAIR	1.00	ITE
					1.00	ITE
210		1905 BUILDING YORK STREET ELEVATION				
						NC
211	1A	REPOINT				
212	1	SPALL	FULL REPOINT	THIS ELEVATION HAS BEEN PROTECTED FROM THE PREVAILING WEATHER. A FULL REPOINT SHOULD BE CONSIDERED, HOWEVER PATCH POINTING TO PROJECTING SURFACES AND AREAS OF MINOR DECAY COULD BE CONSIDERED IF COST IS AN ISSUE	3	1.00 ITEM
213	2	SCALING	RESTORE		2	1.00 ITEM
214	3	GENERAL REDRESS SCALING STONE	REDRESS		0	1.00 ITEM
215	4	UNDERSIDE OF COPING	DESCALE		0	1.00 ITEM
			RESTORE		0	1.00 NC
216	5	SCALING ASHLARS TO BACK OF STACK		WATER RUN OFF EFFECTED		
217	6	FRACTURE TO BASE OF MULLION	DESCALE	DESCALE AND REVIEW FOR POSSIBLE FURTHER WORKS	1	1.00 ITEM
218	7	MISSING DRIP TO CILL	INDENT	INDENT TO LOWER SECTION	1	1.00 ITEM
219	8	MISSING DRIP TO CILL	RESTORE	APPROX 1.5 ML	0	1.00 ITEM
220	9	MISSING DRIP TO CILL	RESTORE	APPROX 1.5 ML	4	1.00 ITEM
			RESTORE	APPROX 1 ML	5	1.00 ITEM
221	10	OLD SCAFFOLD TIE	REMOVE AND RESTORE		6	1.00 ITEM
222	11	2 NO OLD FIXINGS	REMOVE AND RESTORE			1.00 NC
223	12	LARGE FERROUS FIXING	REMOVE AND RESTORE			2.00 NC
						1.00 NC



CLITHEROE LIBRARY

CLITHEROE LIBRARY ARCHIVAL SHEET

Item	PHOTO NO	Description	REPAIR TYPE	COMMENTS	Quant	Un
224	13	OLD SCAFFOLD TIE	REMOVE AND RESTORE			
225	14	SCALING	DESCALE		1.00	NO
226	15	SCALING	DESCALE		1.00	ITE
227	16	SCALING	DESCALE		1.00	ITE
228	17	FRACTURE TOP OF CILL	RESTORE		1.00	ITE
229	18	FRACTURE TOP OF CILL	RESTORE		1.00	ITE
230	19	TOP RHS OF SILL FAILING	REDRESS		1.00	ITE
231	20	STOOL NOT INSTALLED IN ORIGINAL CONSTRUCTION			1.00	ITE
232	21	5 DECAY TO TOP OF CILL	INDENT	NO WORKS PROPOSED		NO
233	22	6 DECAY TO TOP OF CILL	INDENT		1.00	ITE
234	23	DECAY TO TOP OF CILL	INDENT		1.00	ITE
235	24	DECAY TO TOP OF CILL	INDENT		1.00	ITE
236	25	7 4 NO OLD FIXINGS	REMOVE AND RESTORE		1.00	ITE
237	26	LARGE FERROUS FIXING	REMOVE AND RESTORE		4.00	NO
238						
239		ALL ELEVATIONS			1.00	ITE
240	1	SCAFFOLD				
241	2	CLEAN				
242	3	PROVISIONAL SUM FOR OTHER REPAIRS DEEMED NECESSARY ONCE SCAFFOLD ACCESS IS MADE AVAILABLE			-	NO
243	4	REDECORATE ALL WINDOWS, DOORS AND TURRET AREA			1.00	ITE
244						
245		PRELIMS			1.00	ITE
246		SITE SET UP COSTS				
247		CDM			-	NO
248					1.00	ITE
249					1.00	ITE
250					-	NO

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APPENDIX C
ELEVATION DRAWINGS

FAÇADE TO 1821
PARAPET LEVEL

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2

4

3

5

6

7

1

8

9

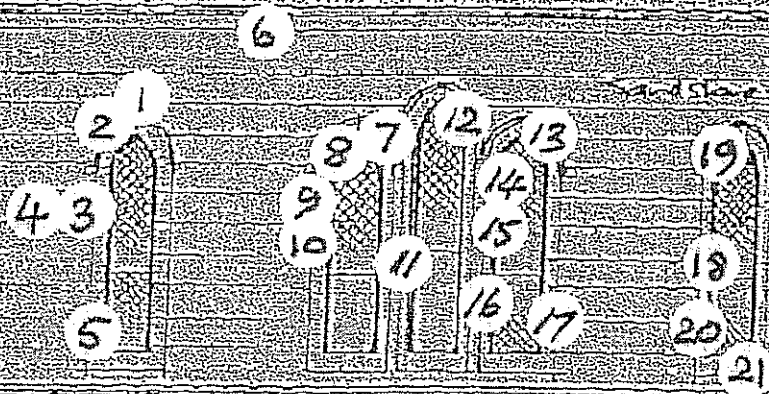
10

11

NO ALTERATIONS

Admission
for 90c

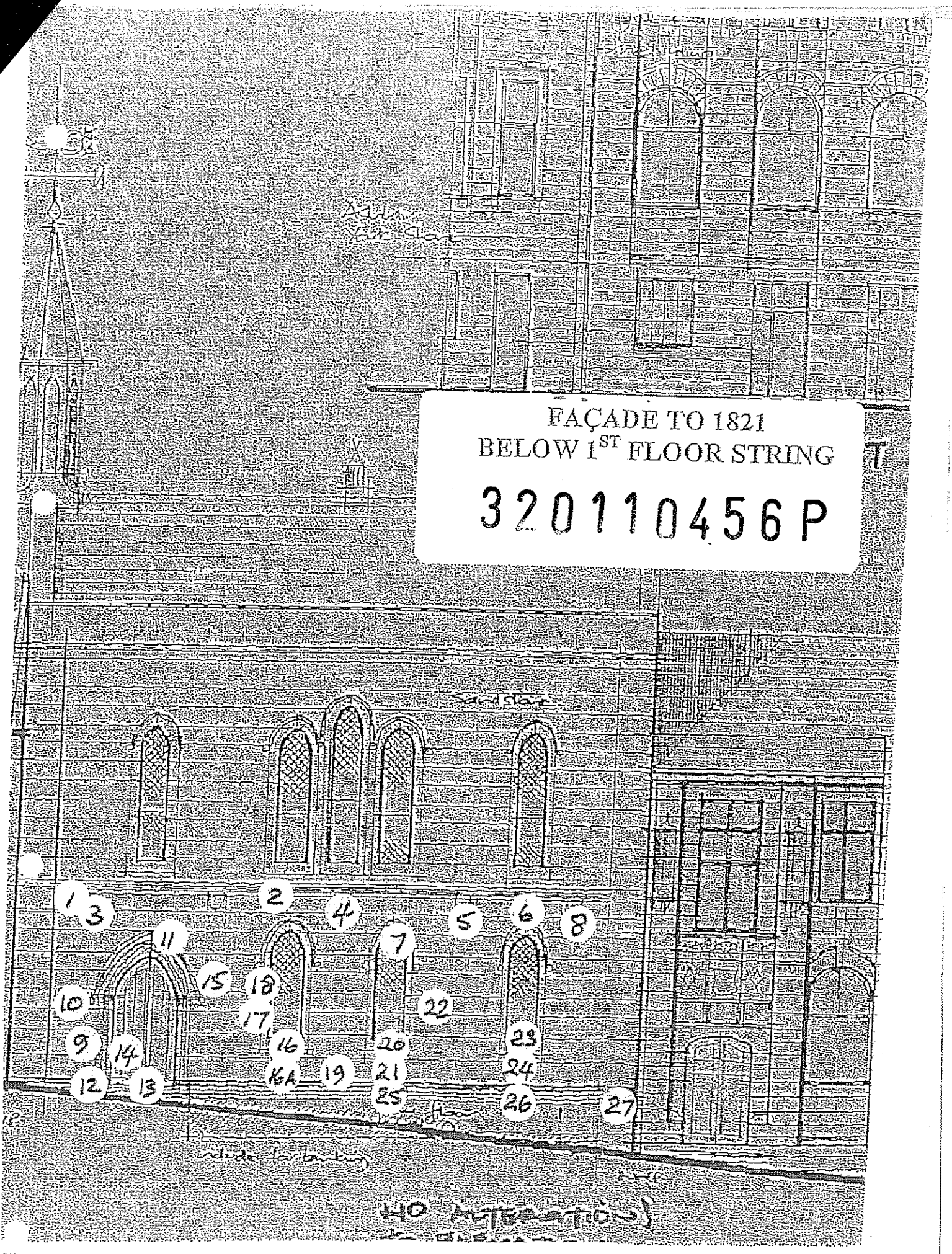
FAÇADE TO 1821
UPPERSTRING COURSE
TO 1ST FLOOR STRING



NO ALTERATION

FAÇADE TO 1821
BELOW 1ST FLOOR STRING

320110456P



NO ALTERATION

RH GABLE TO
1821 BUILDING

- 5
4
6
7
3
2
1

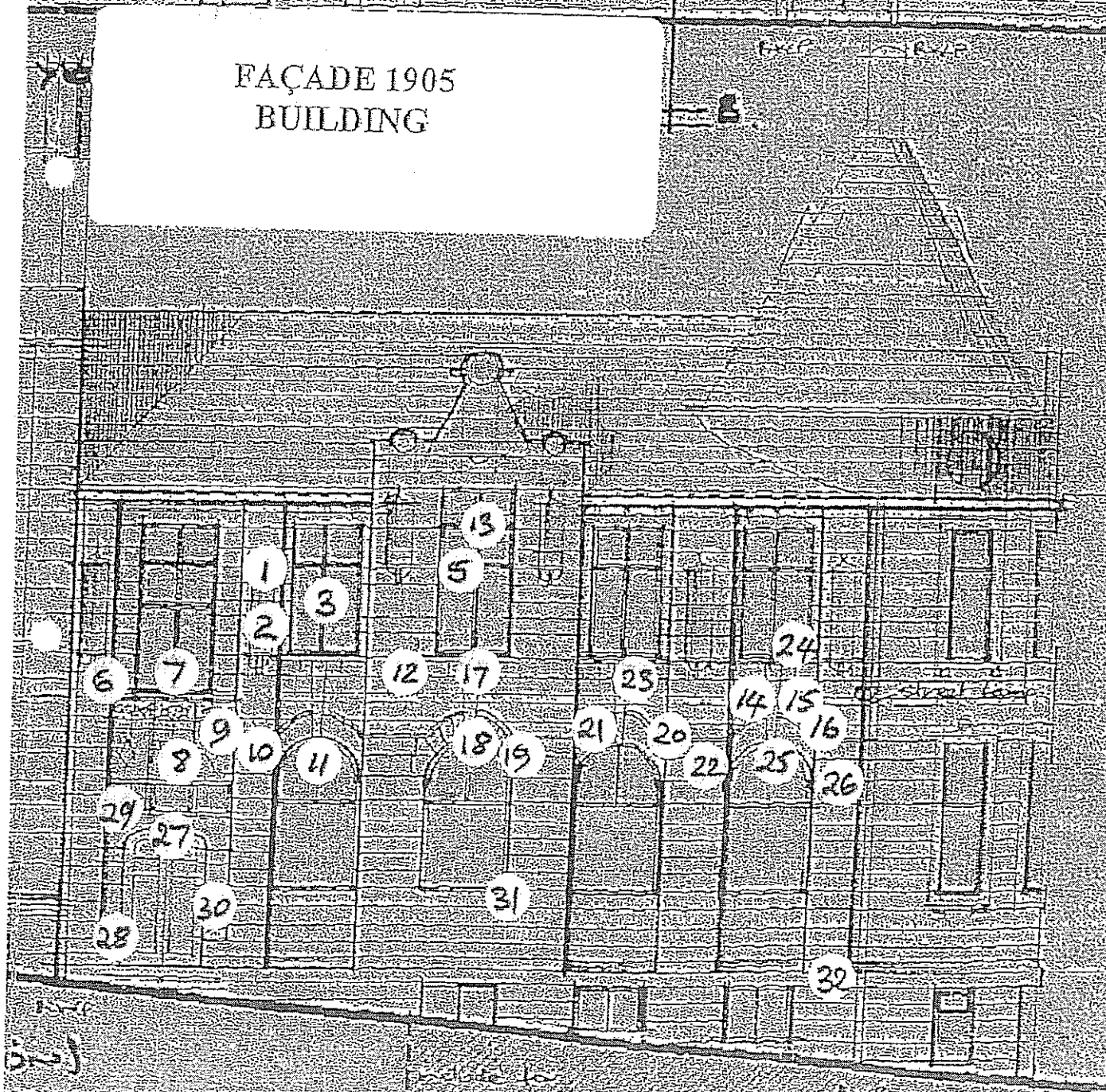


1821 BUILDING
ROOF LEVEL

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NO ALTERATIONS

FAÇADE 1905
BUILDING



EXISTING

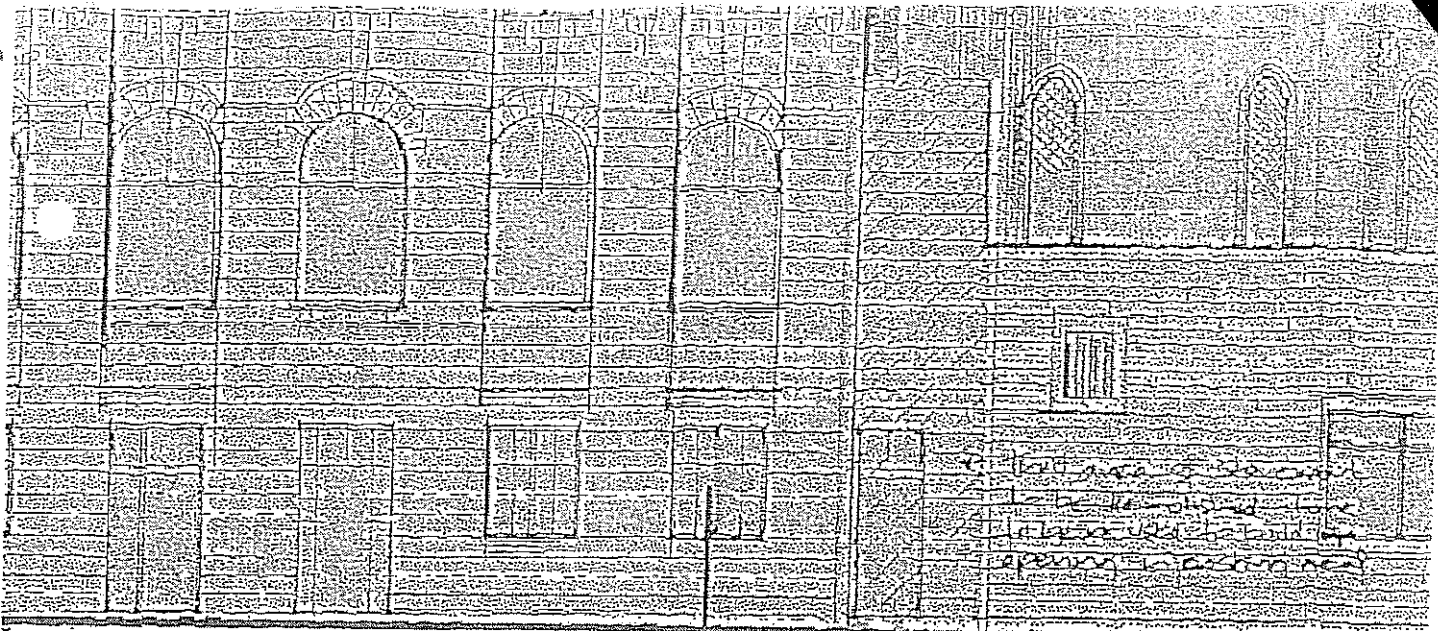
Roof to Curved Tower 1905
Building

2

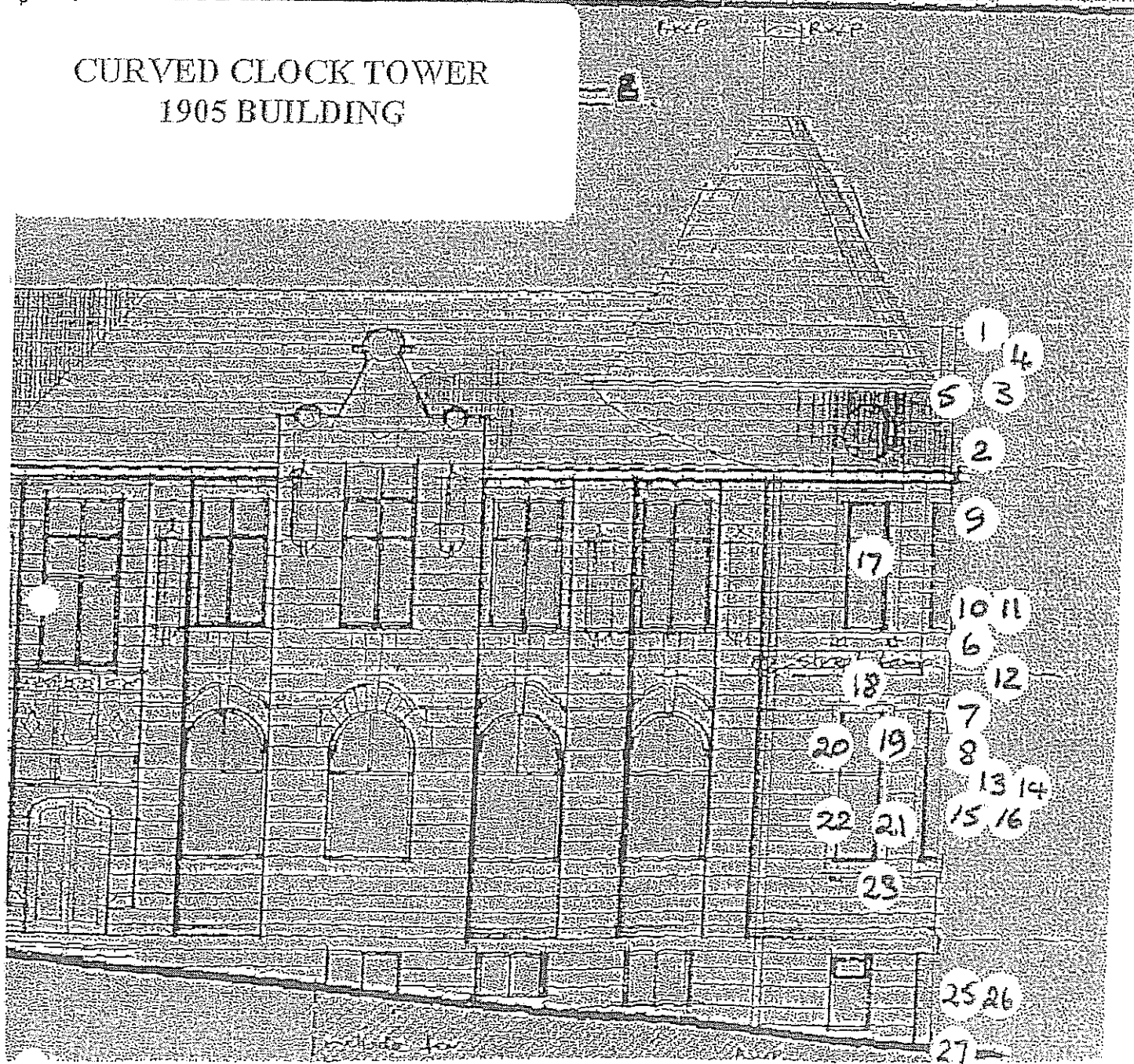
78

320110456P

NO ADDITIONAL



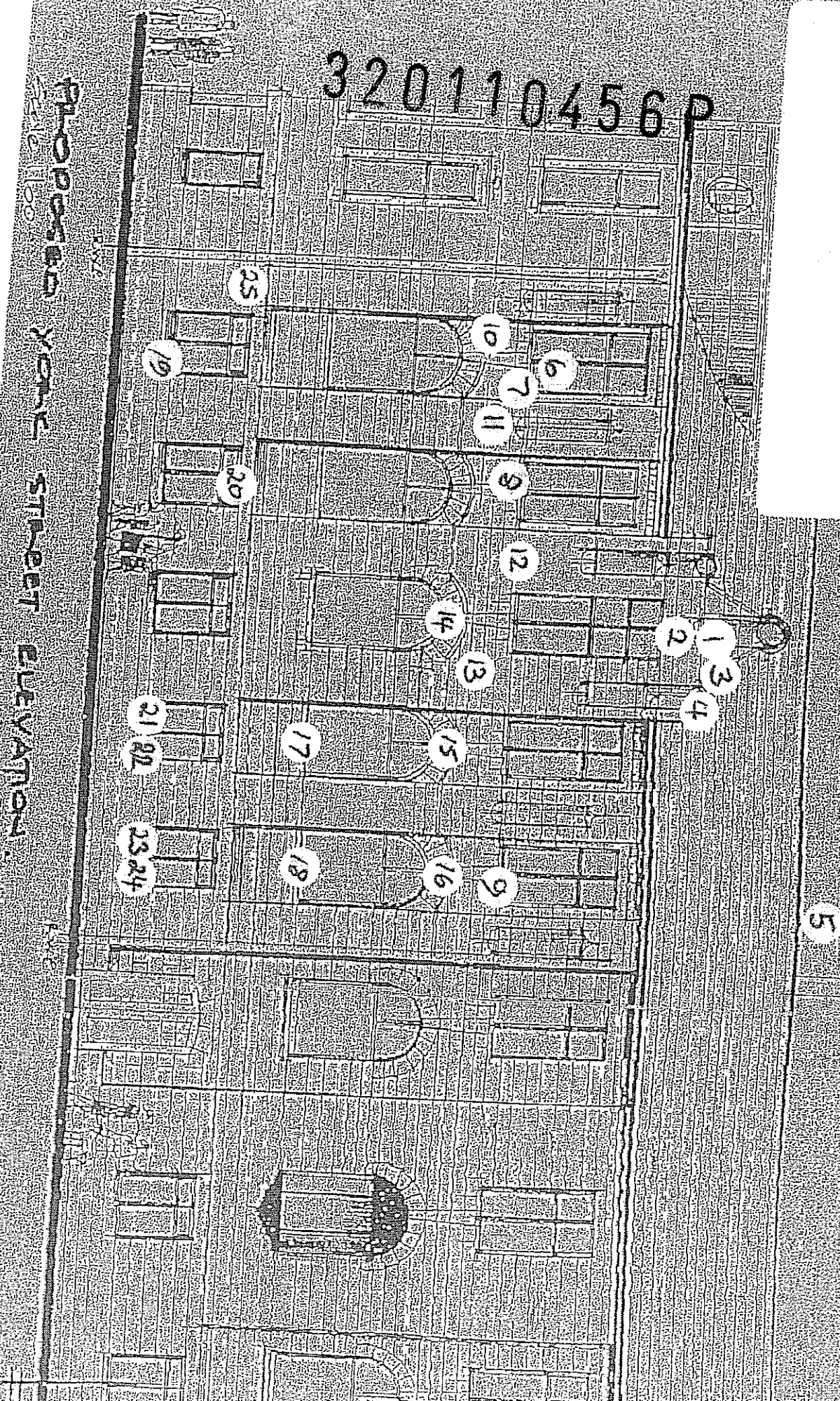
CURVED CLOCK TOWER
1905 BUILDING



1905 BUILDING
YORK ST ELEVATION

320110456P

1905 BUILDING
YORK ST ELEVATION

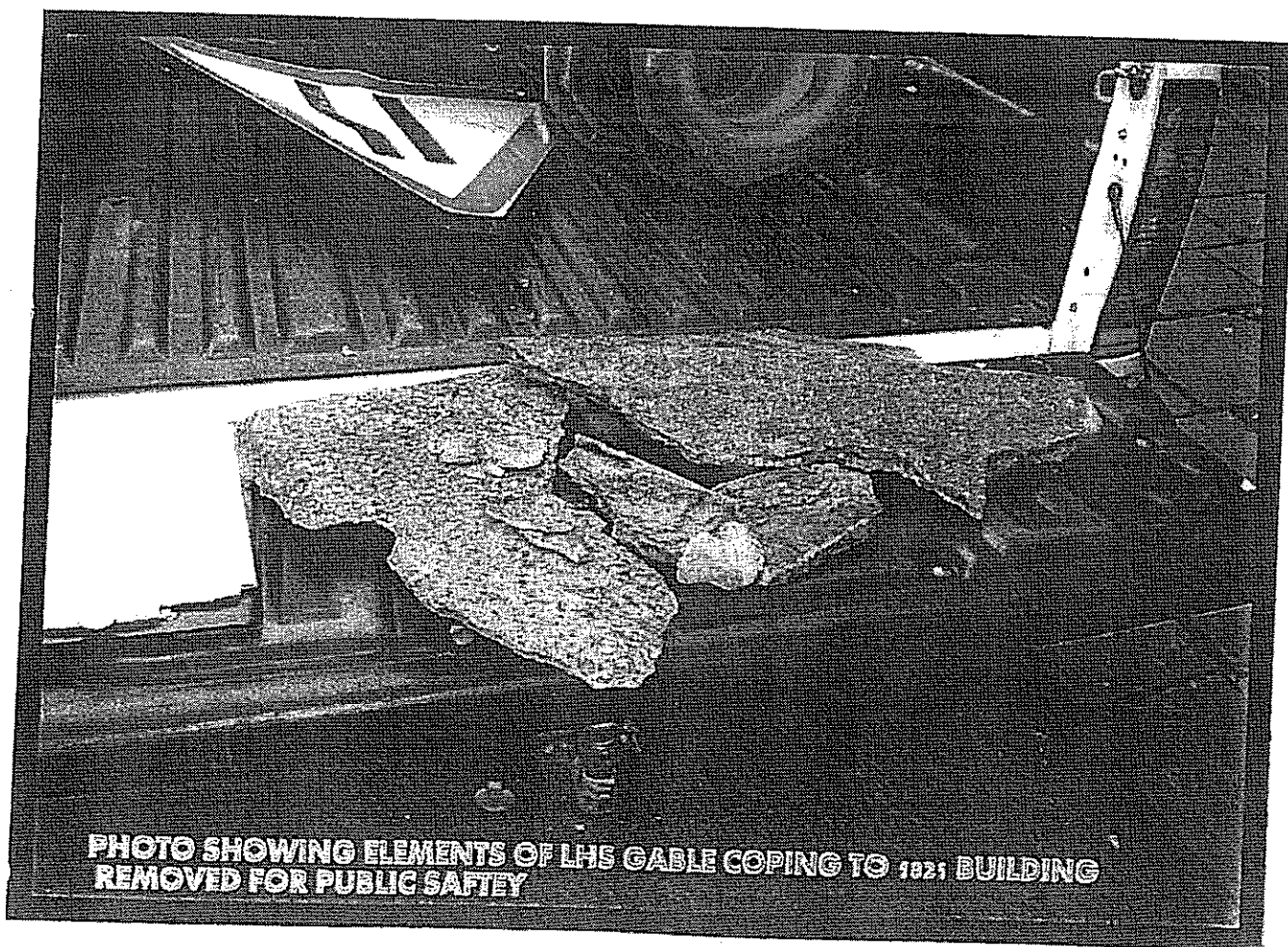
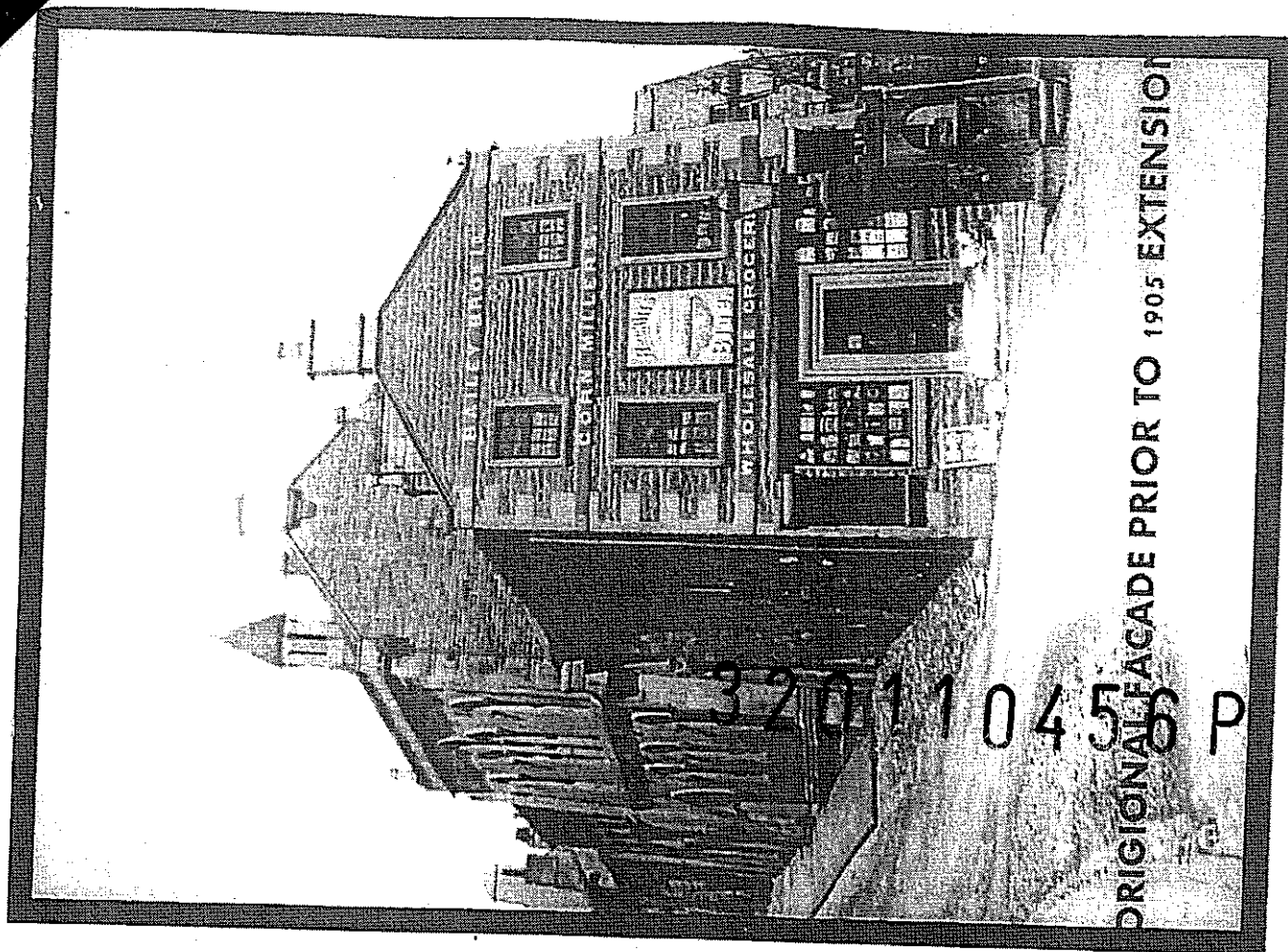


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APPENDIX D

PHOTOS

CLITHEROE LIBRARY
GENERAL PHOTOS



**LEFT HAND SIDE
PINICAL / TOWER TO
1821 SECTION
PHOTOS**

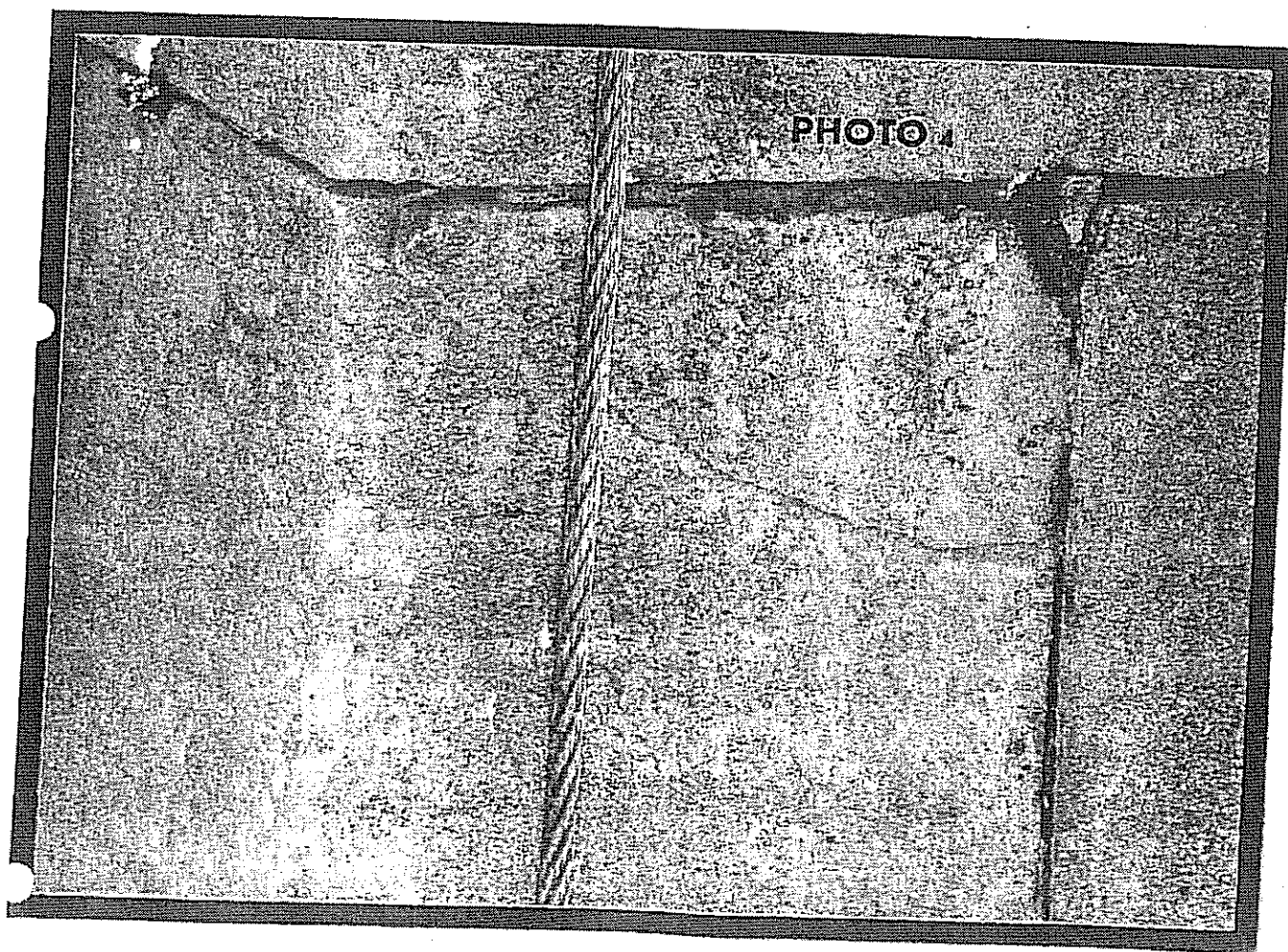
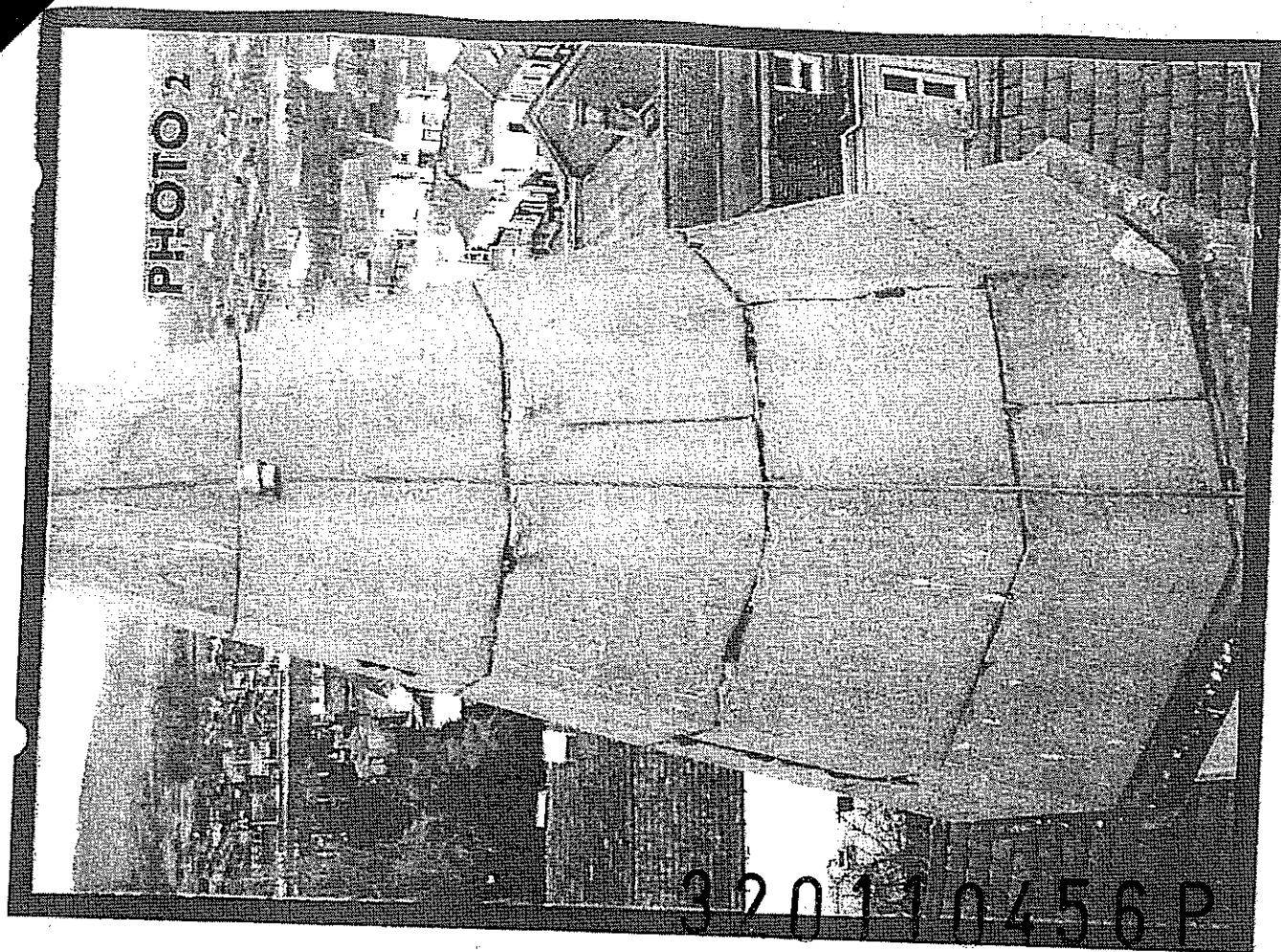


PHOTO 5

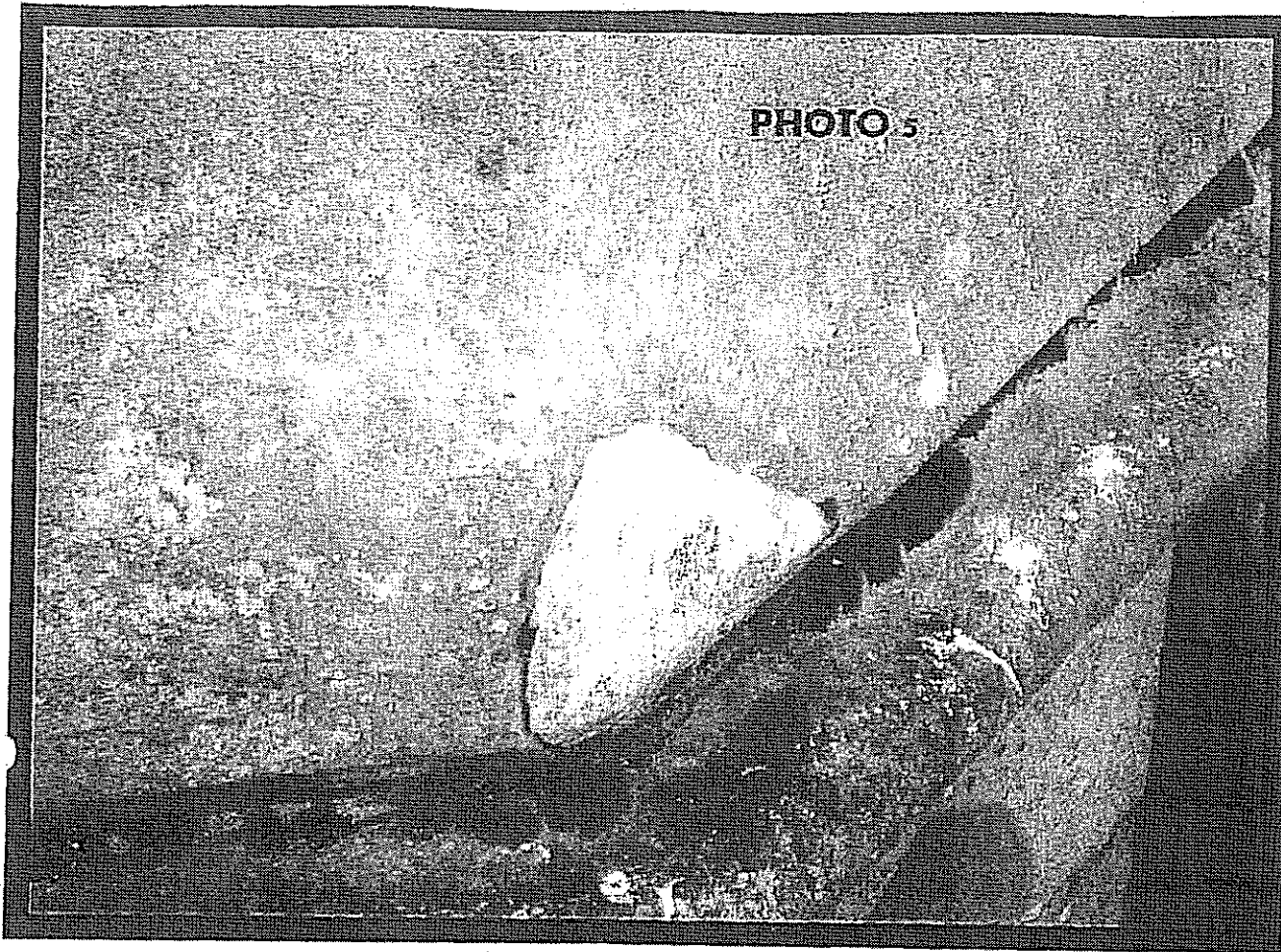
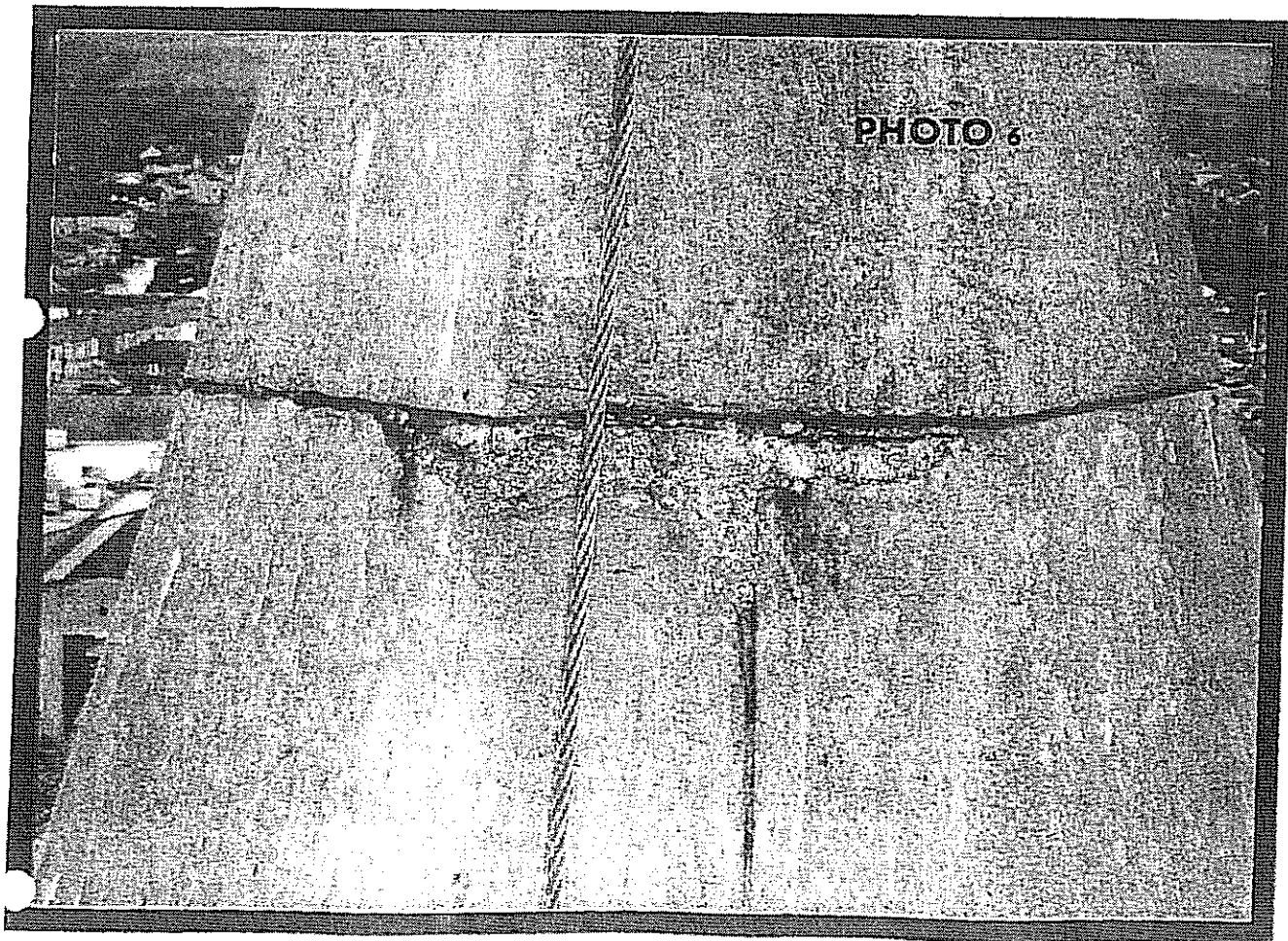
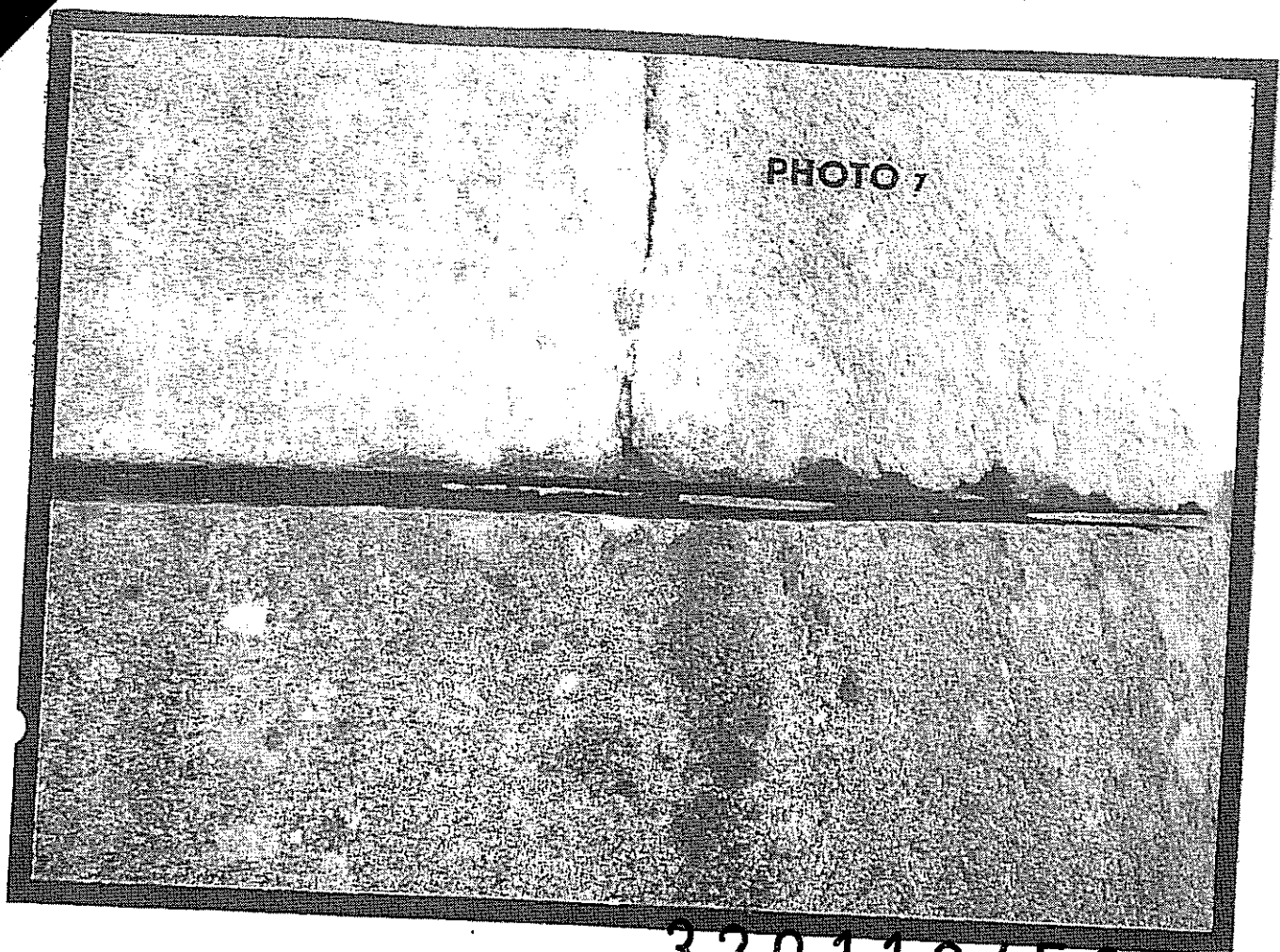


PHOTO 6





320110456P

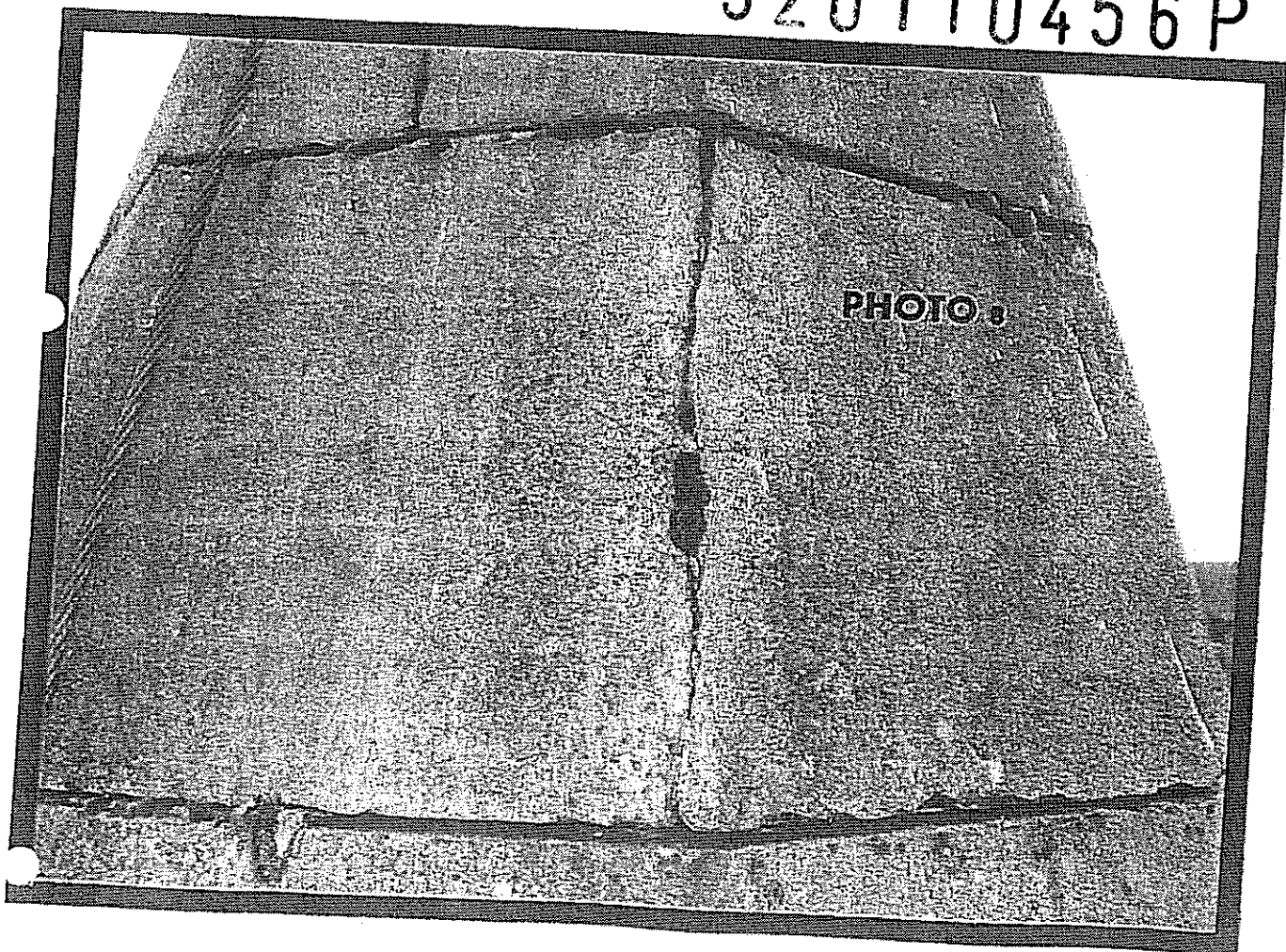


PHOTO 9

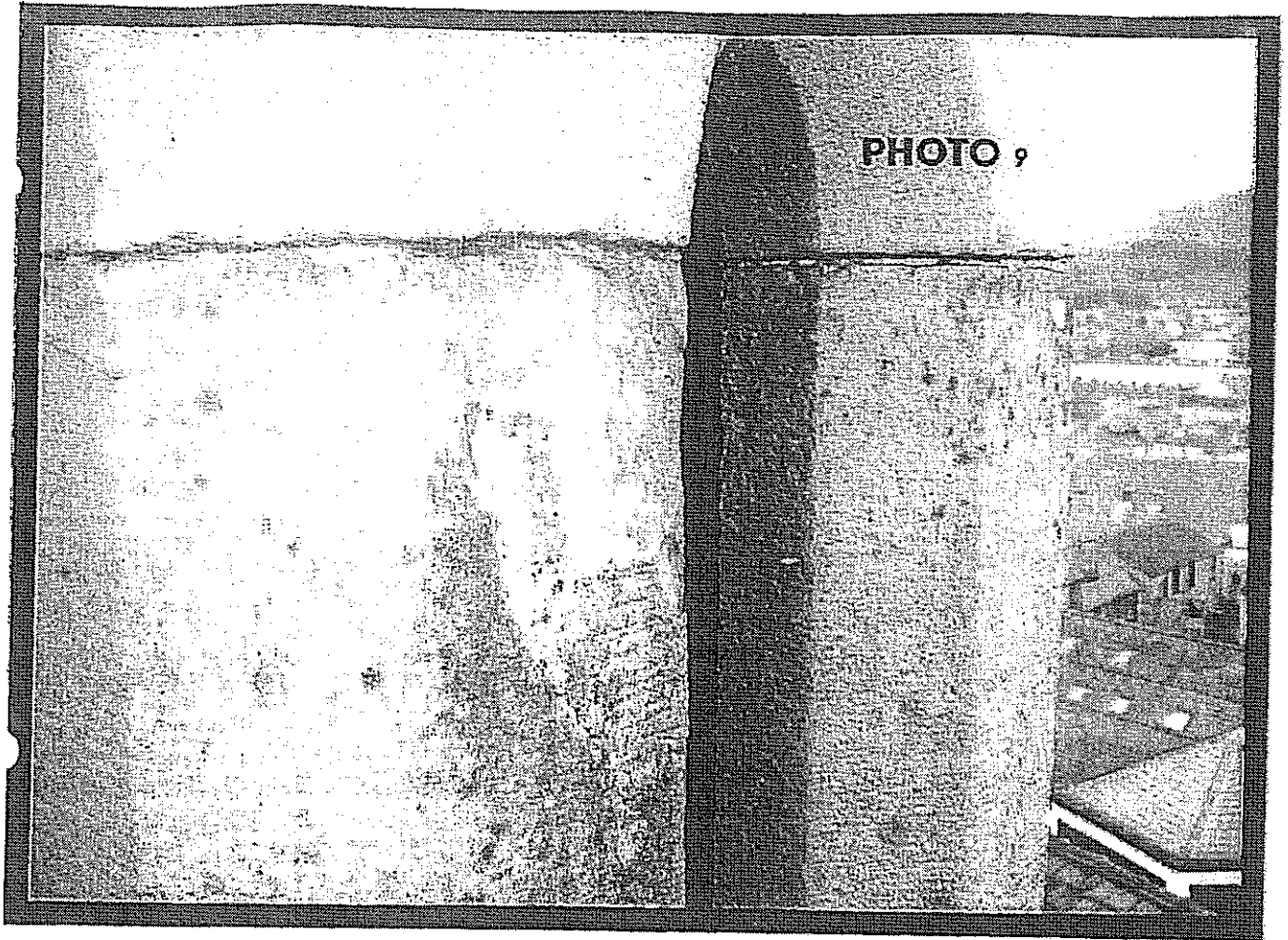


PHOTO 10

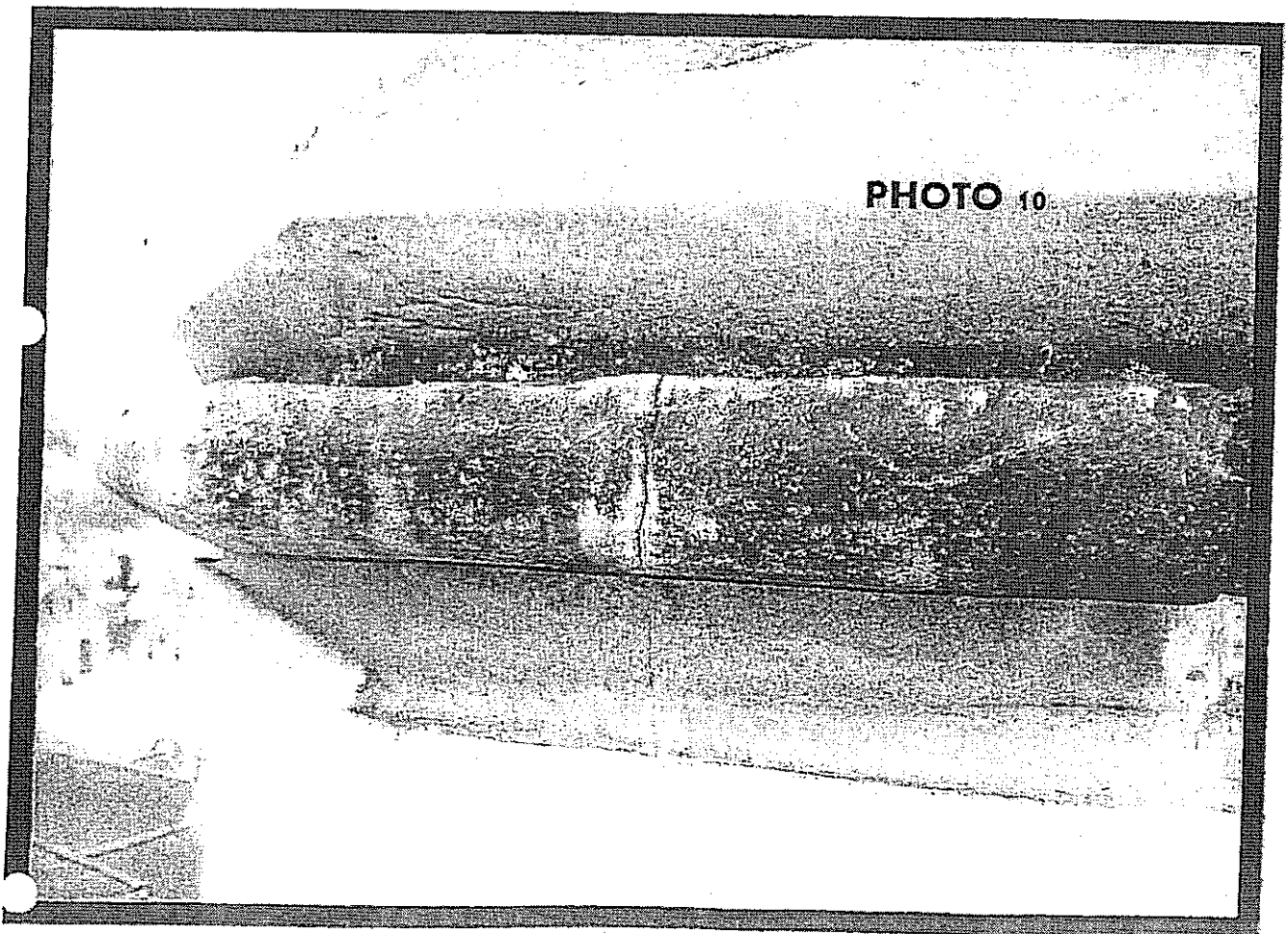


PHOTO 11

320110456P

PHOTO 12

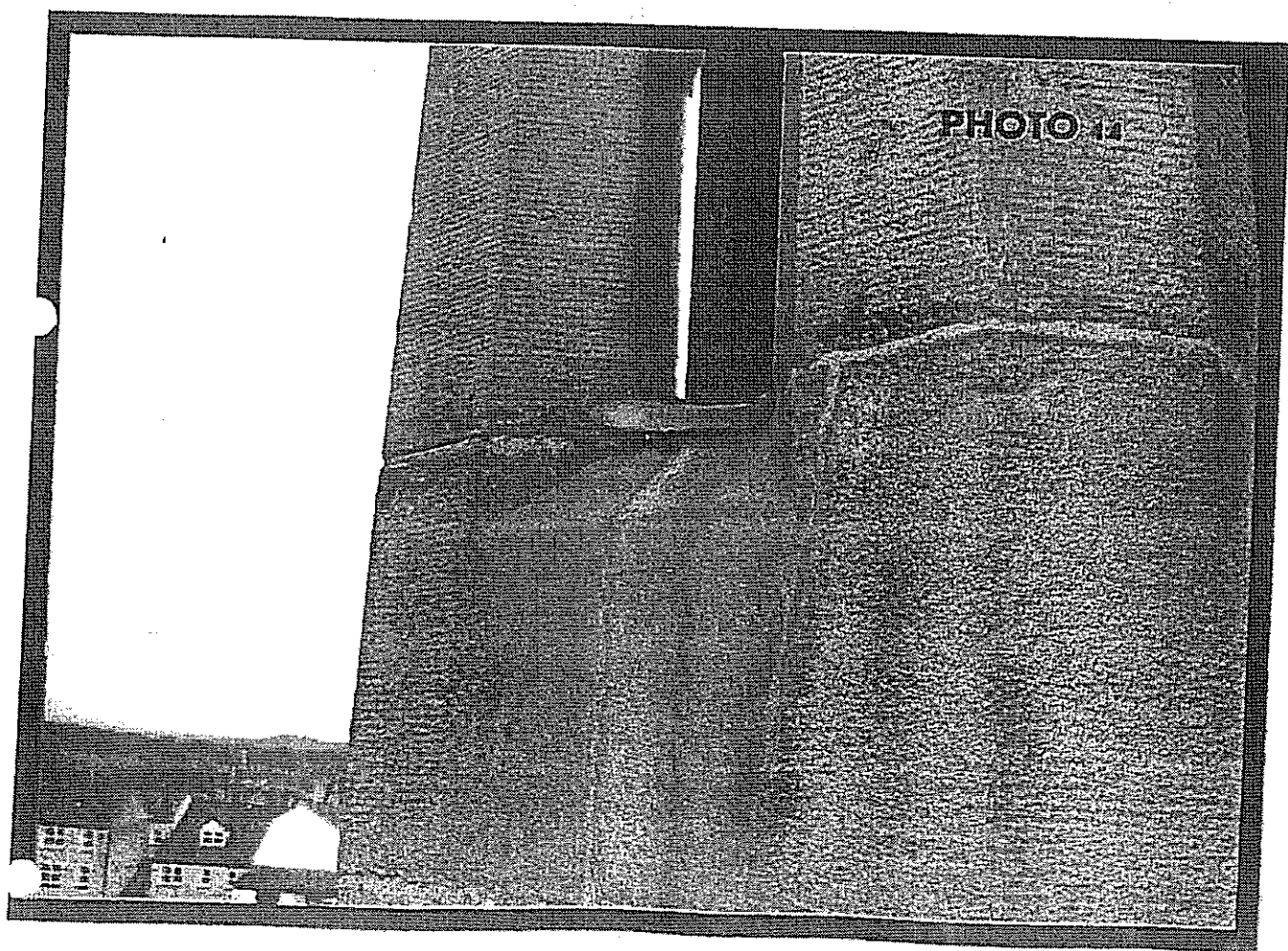
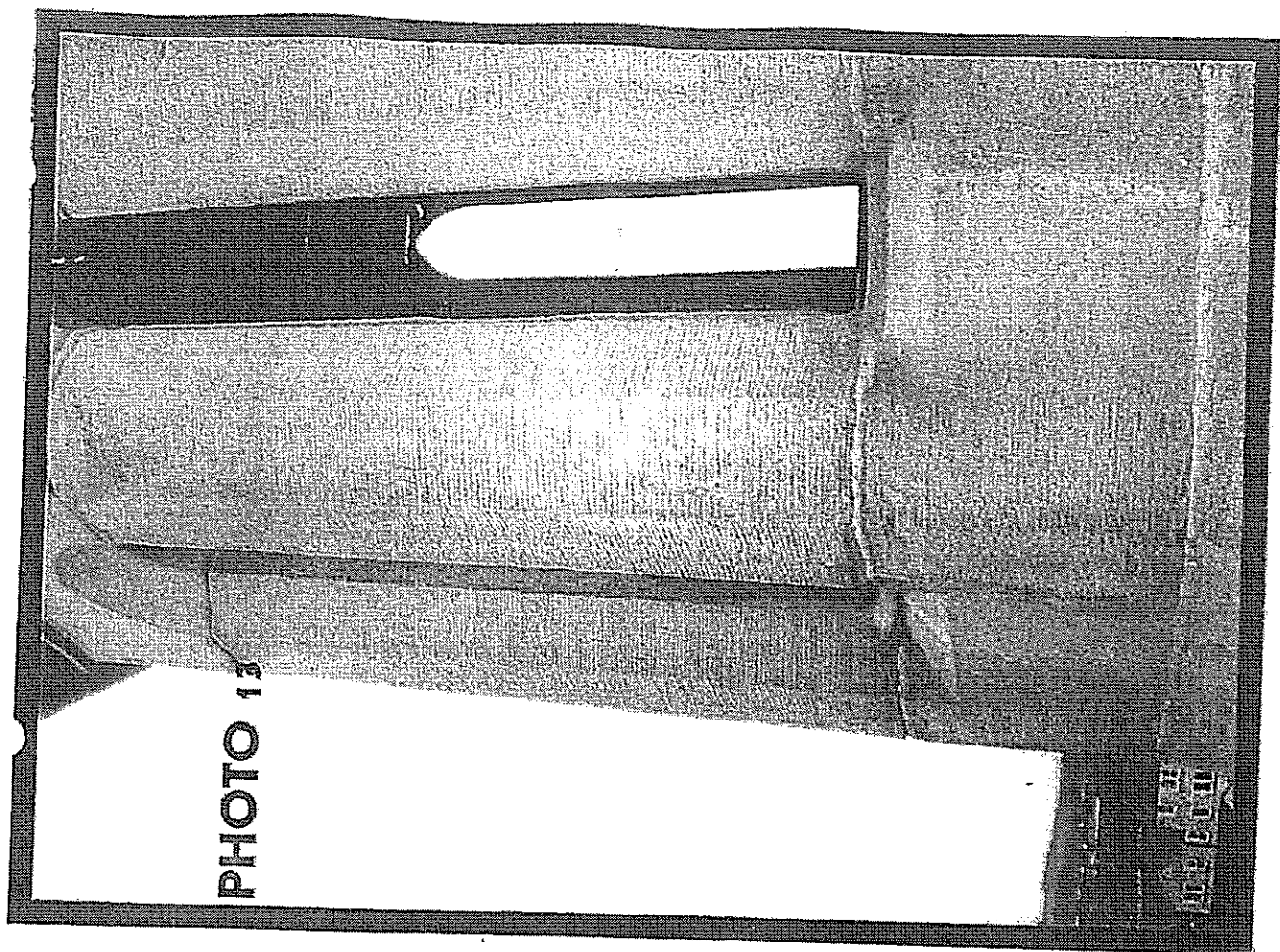
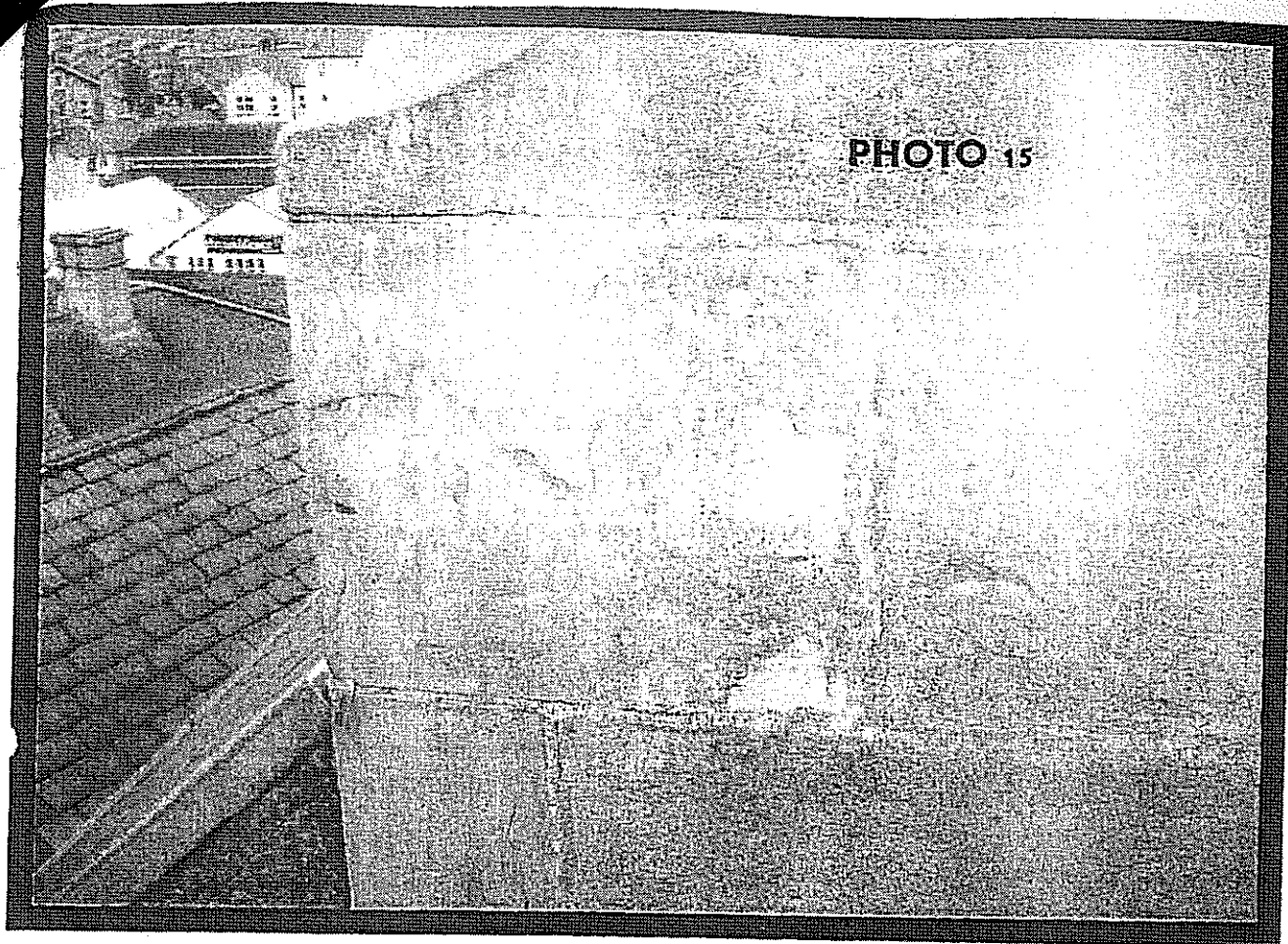
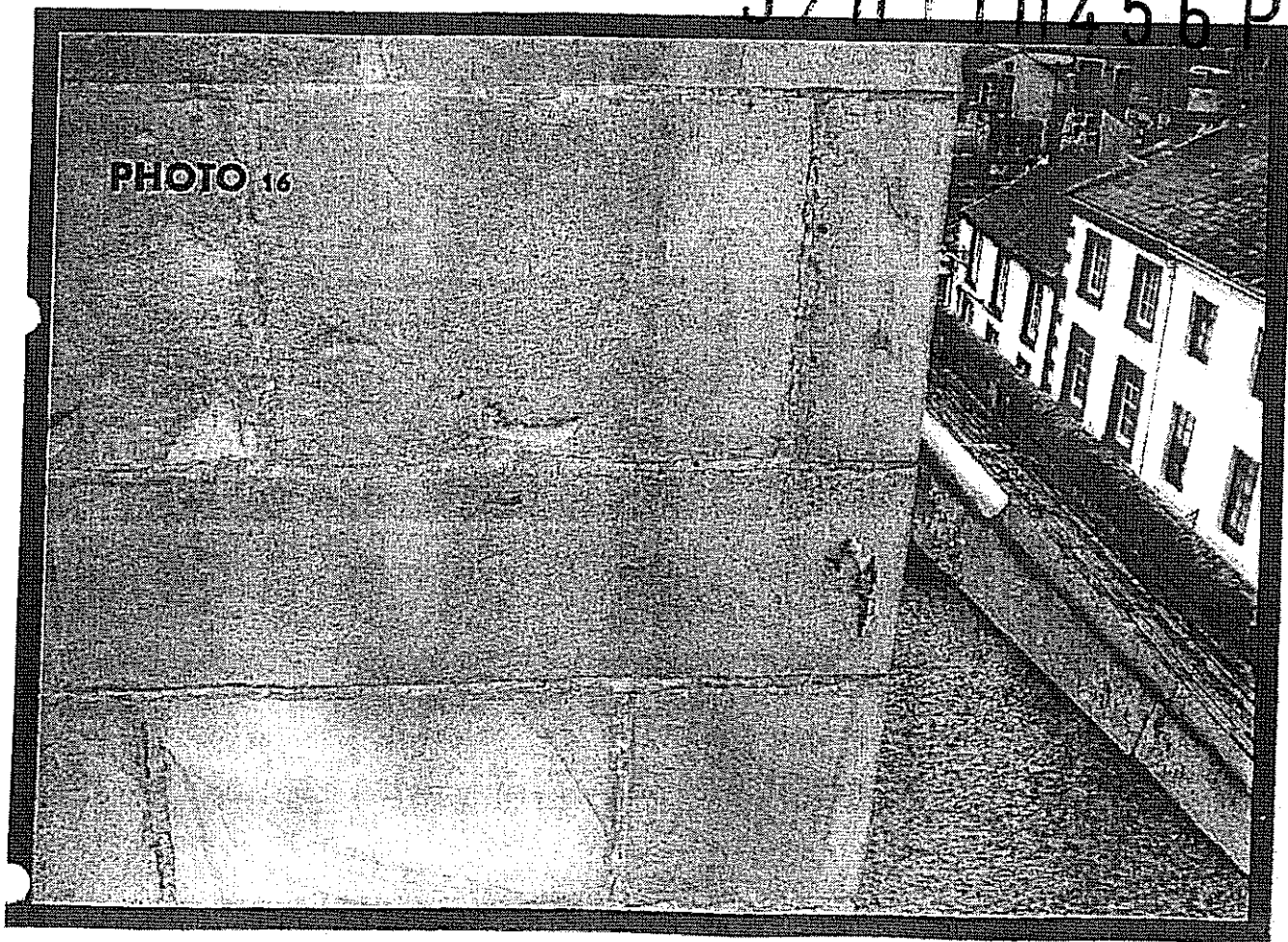


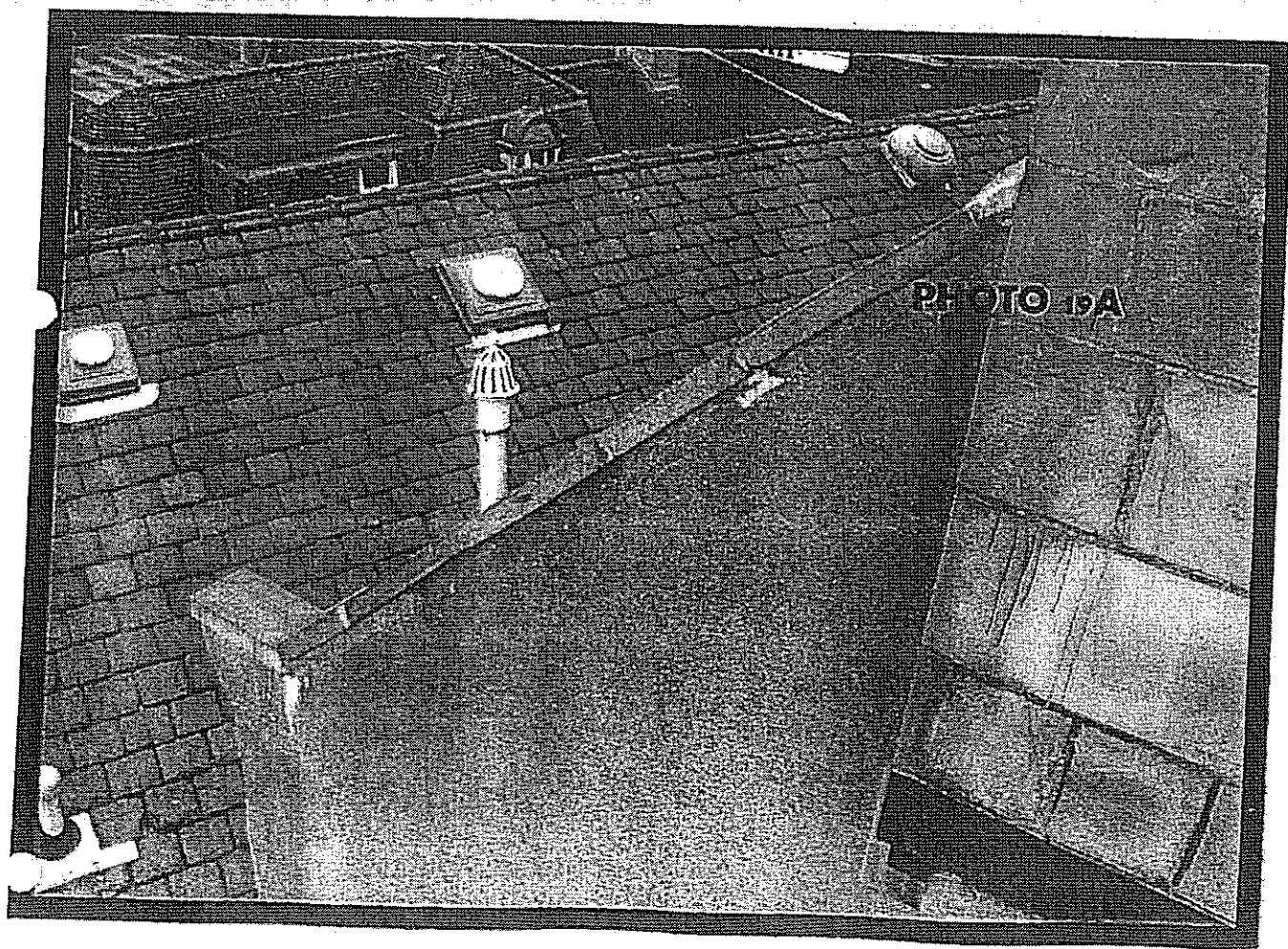
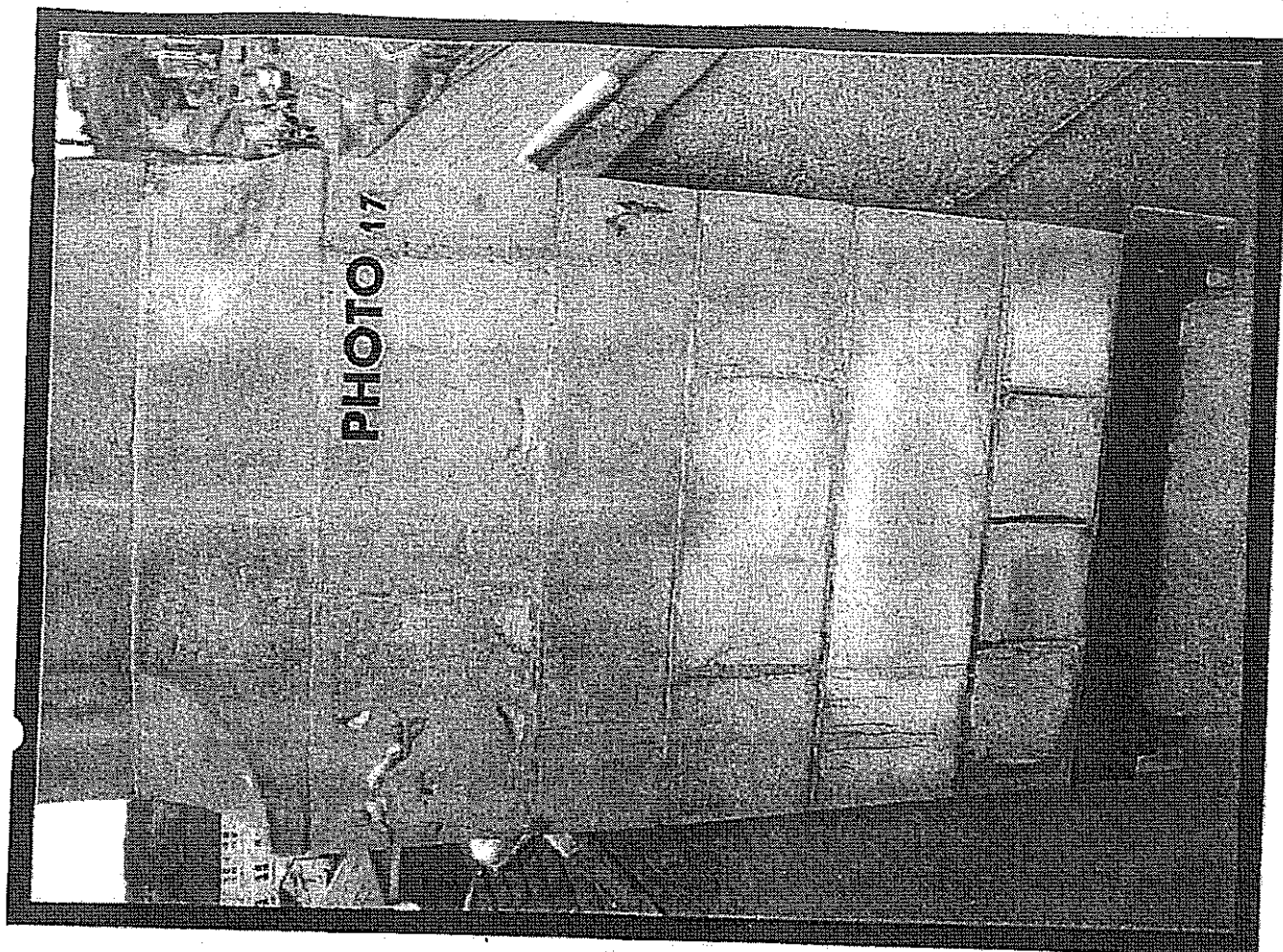
PHOTO 15

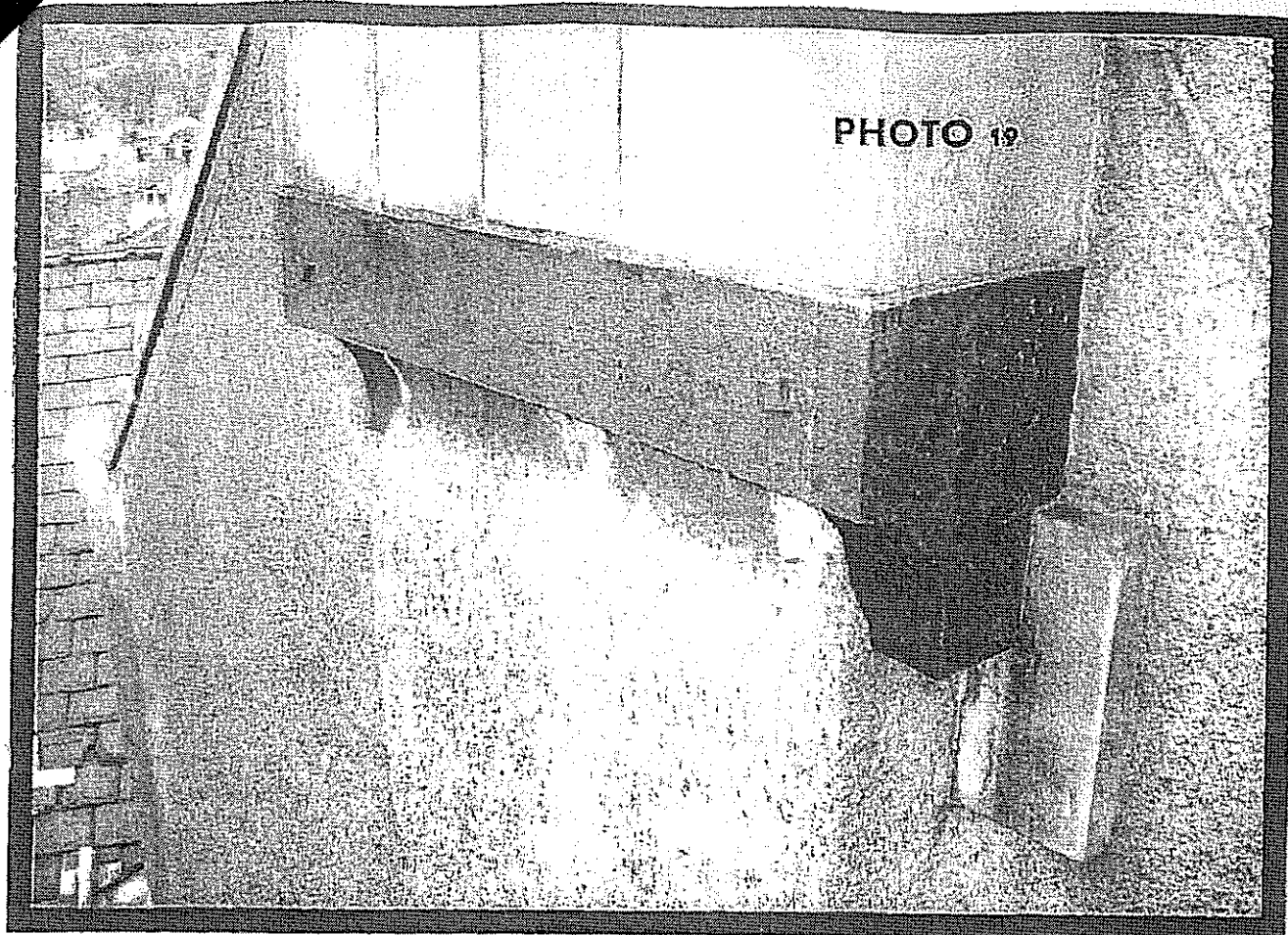


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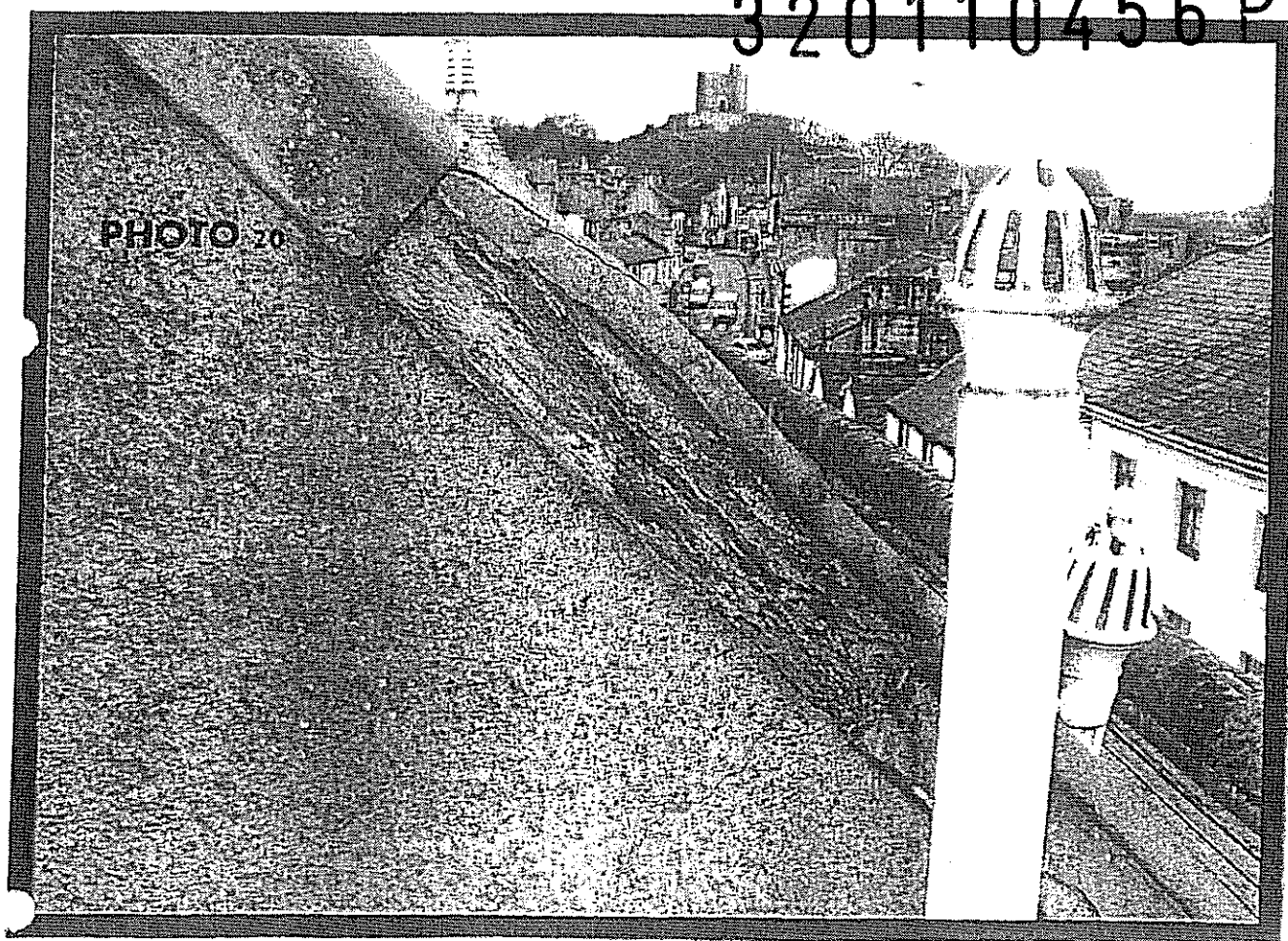
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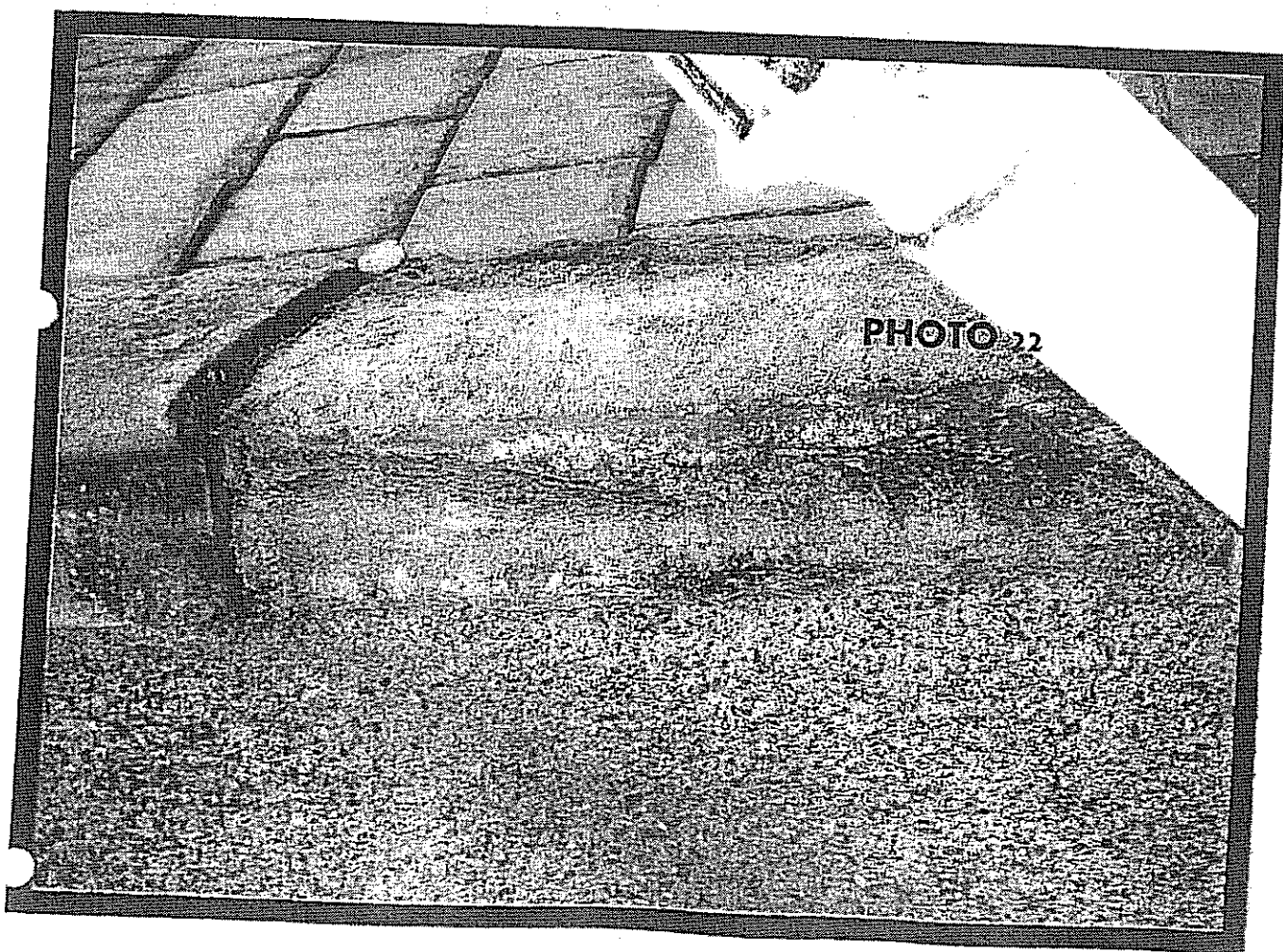
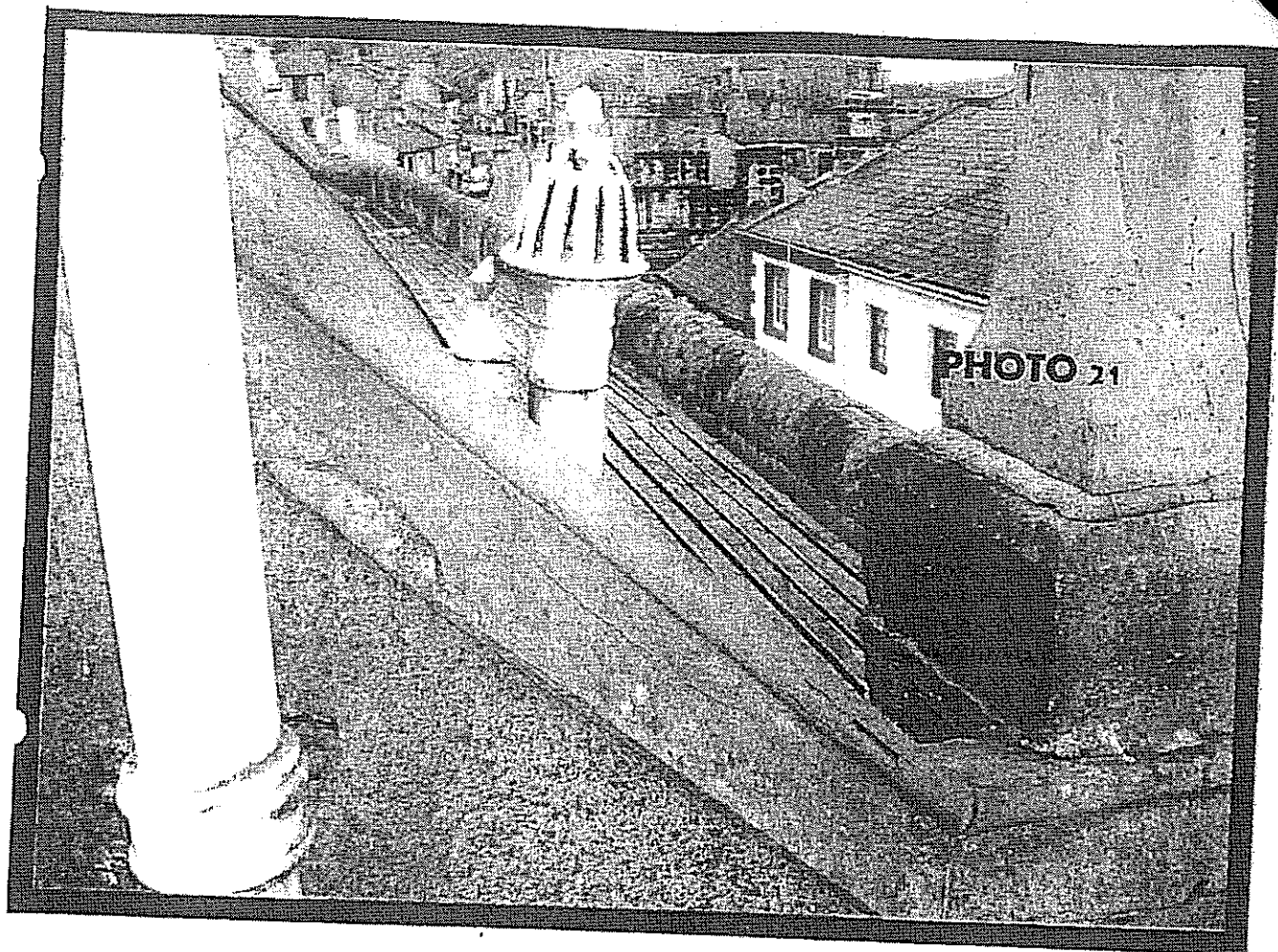






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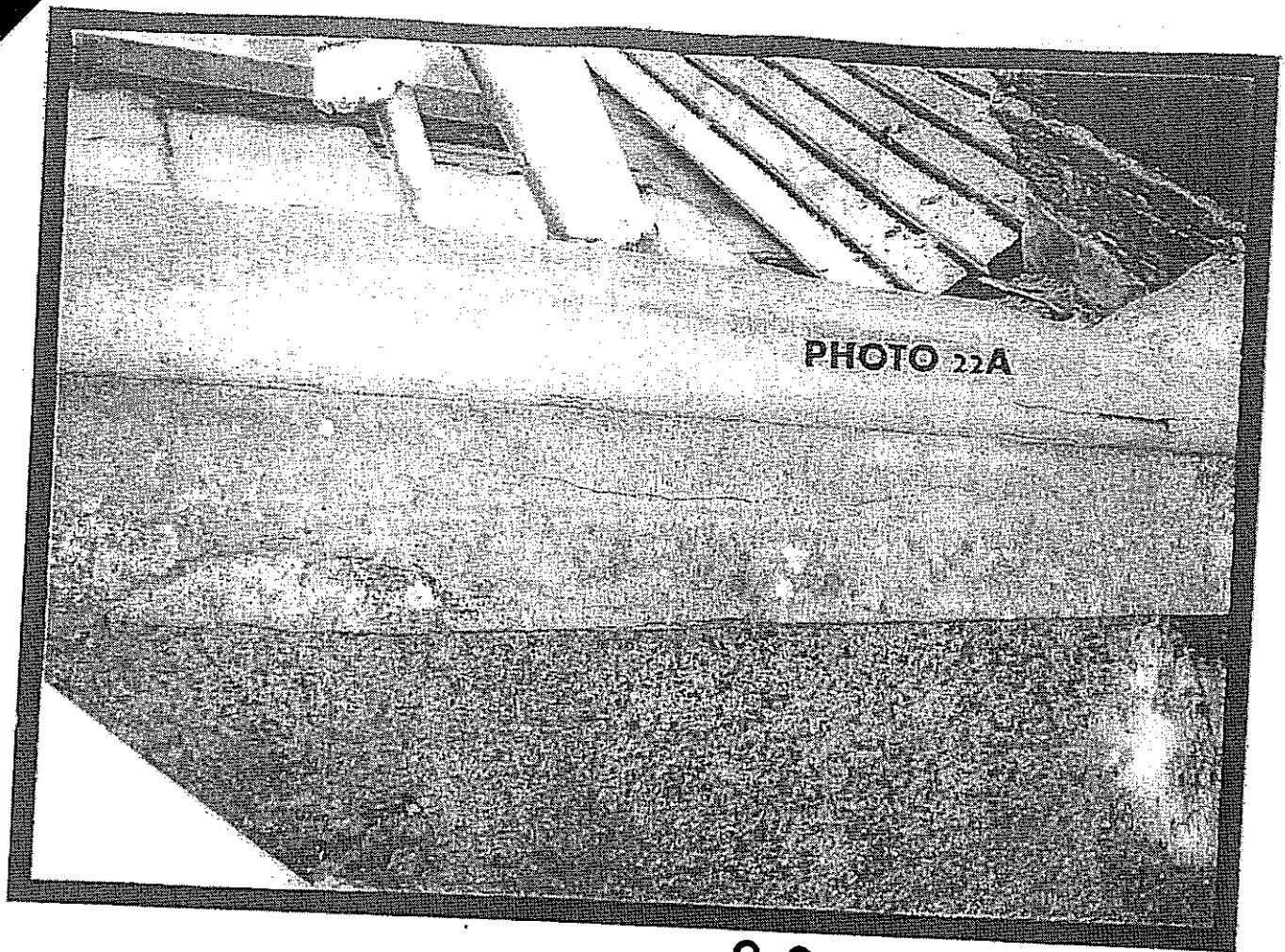


PHOTO 22A

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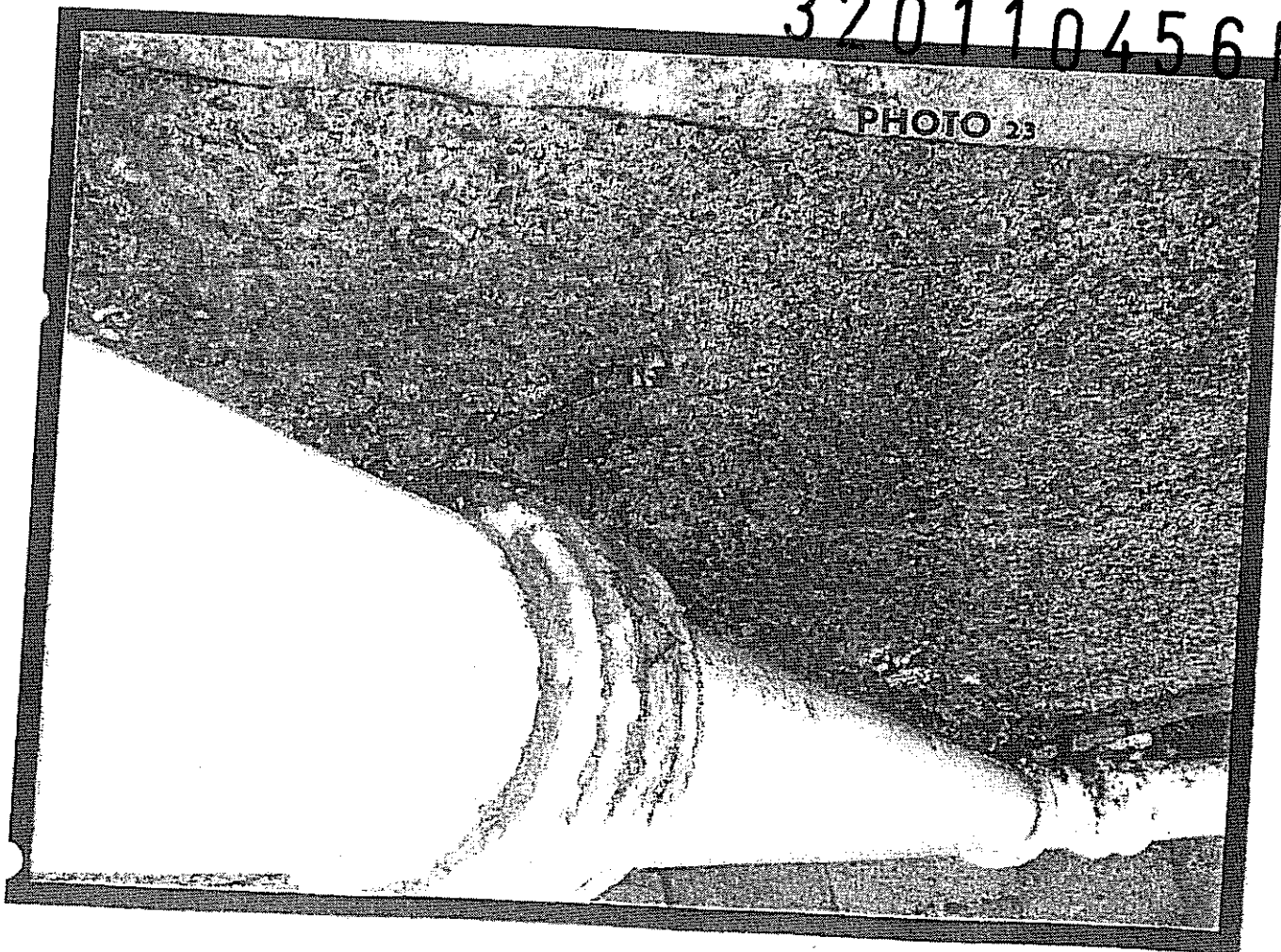


PHOTO 23

PHOTO 24

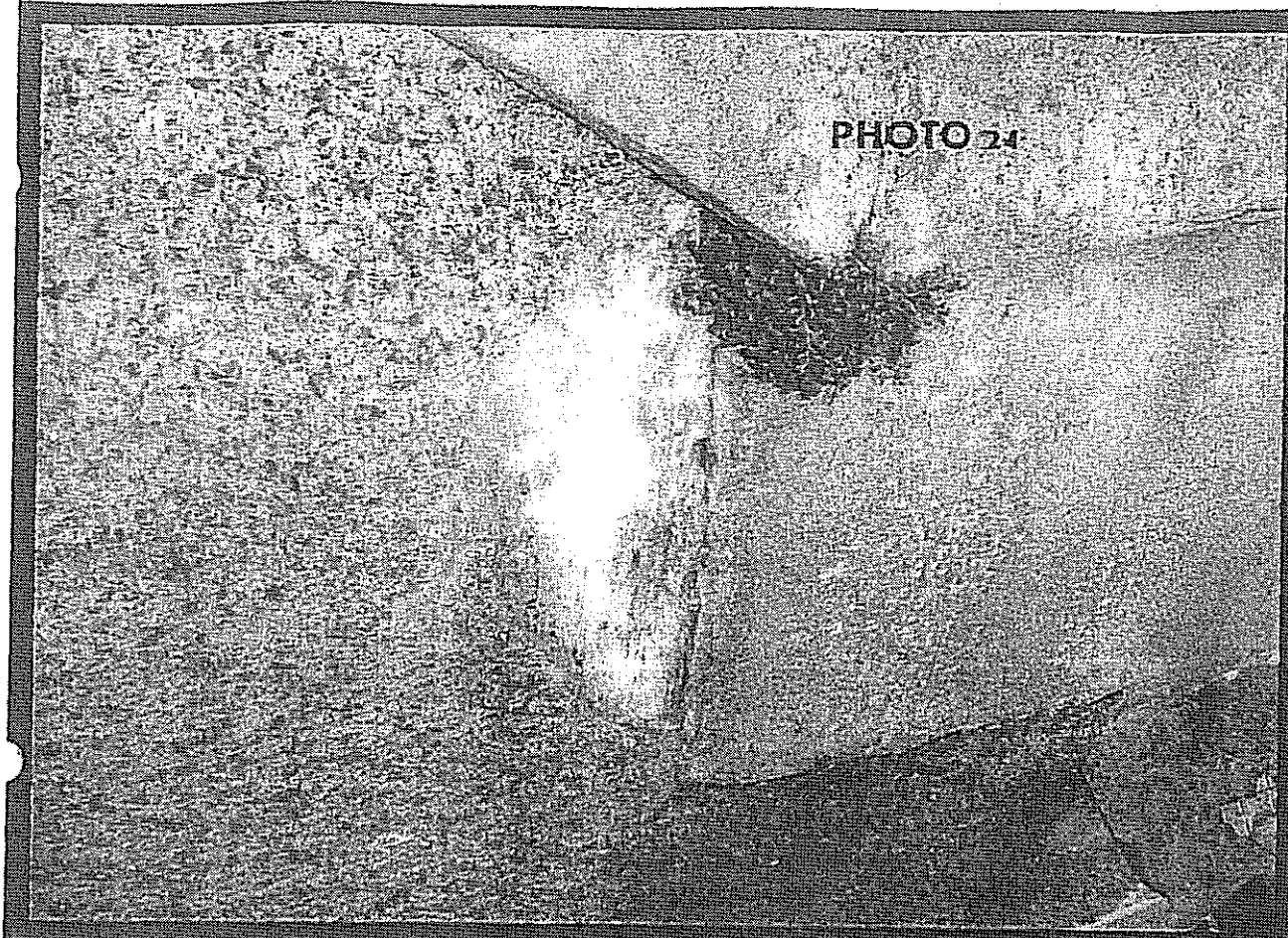
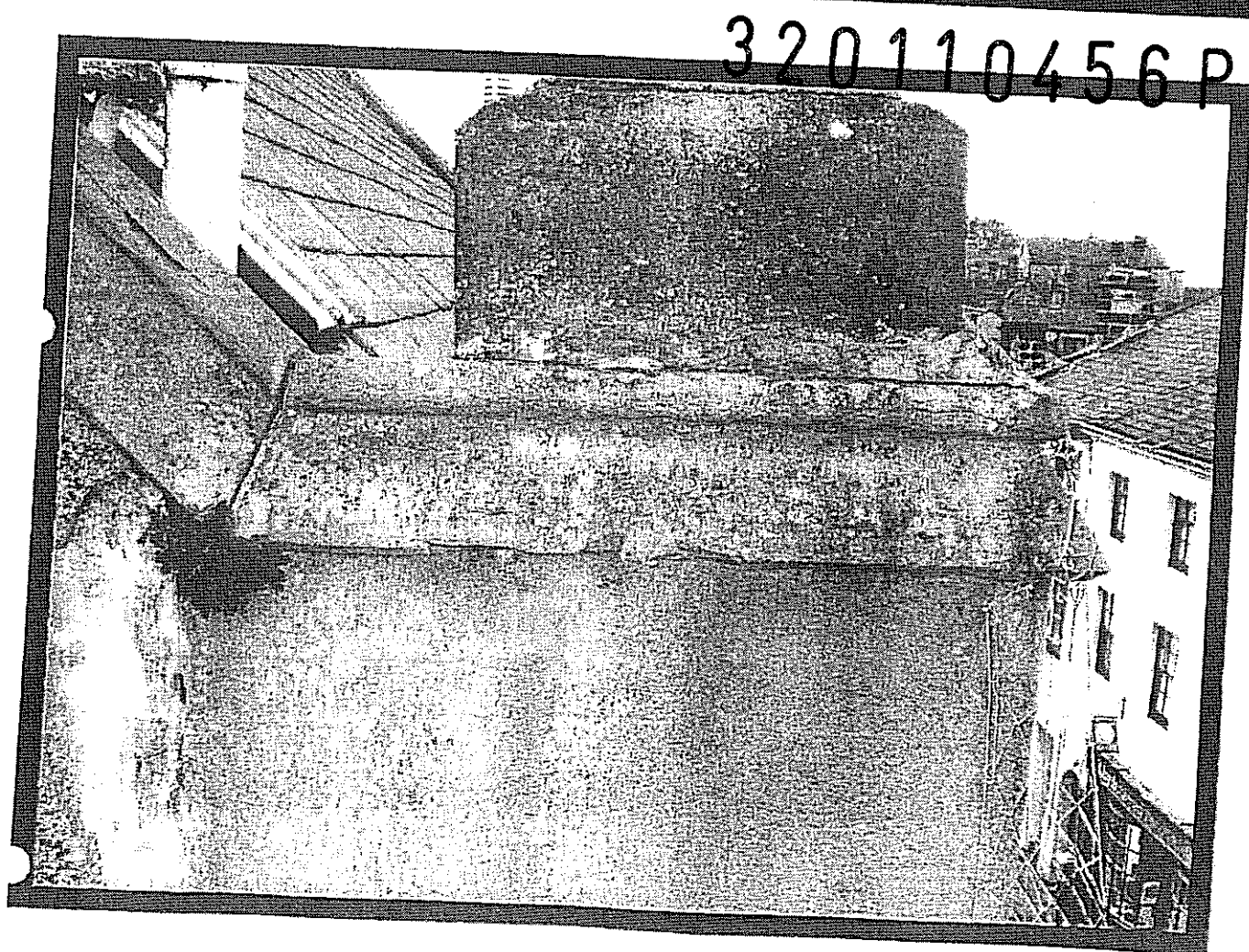
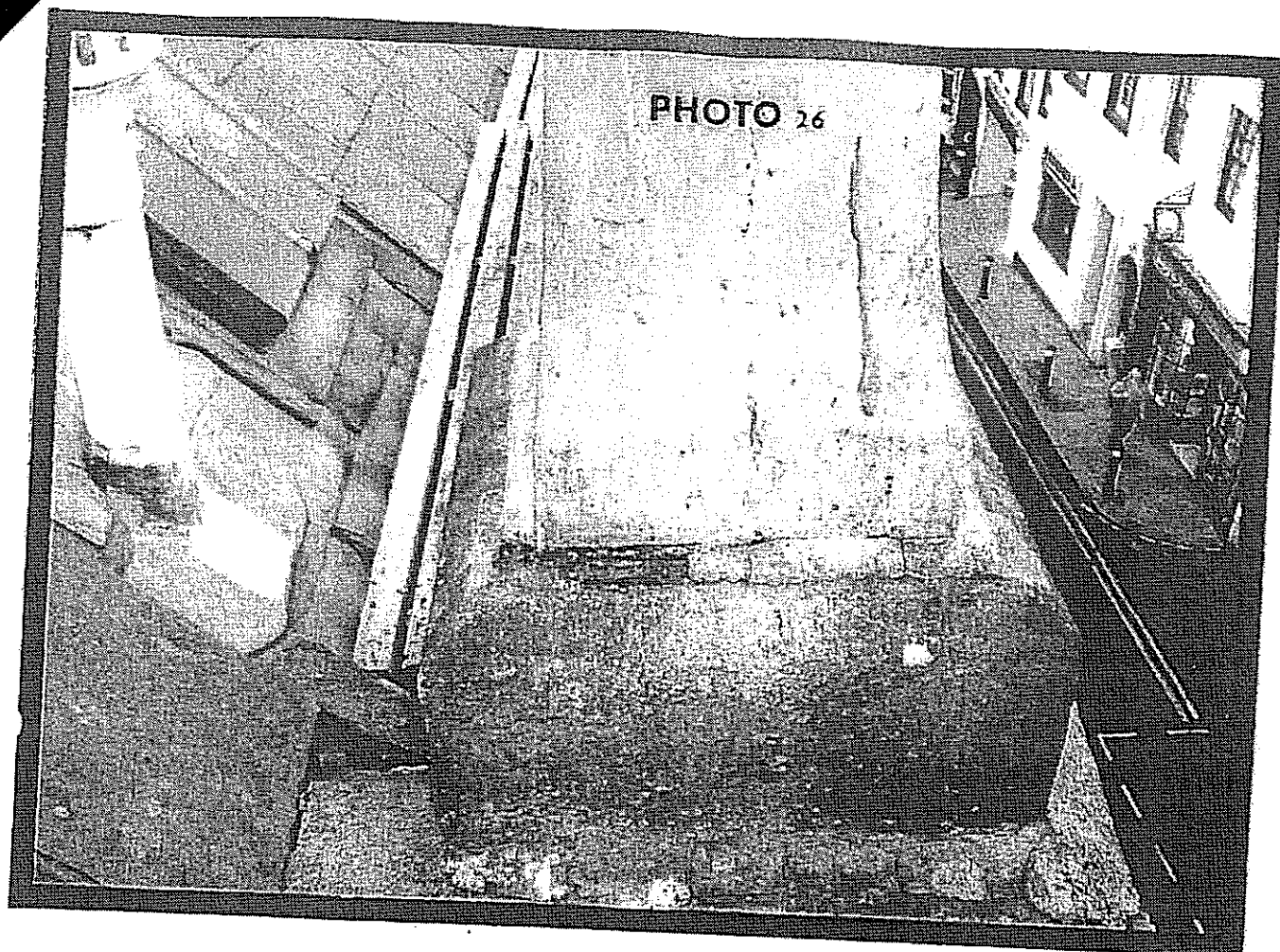
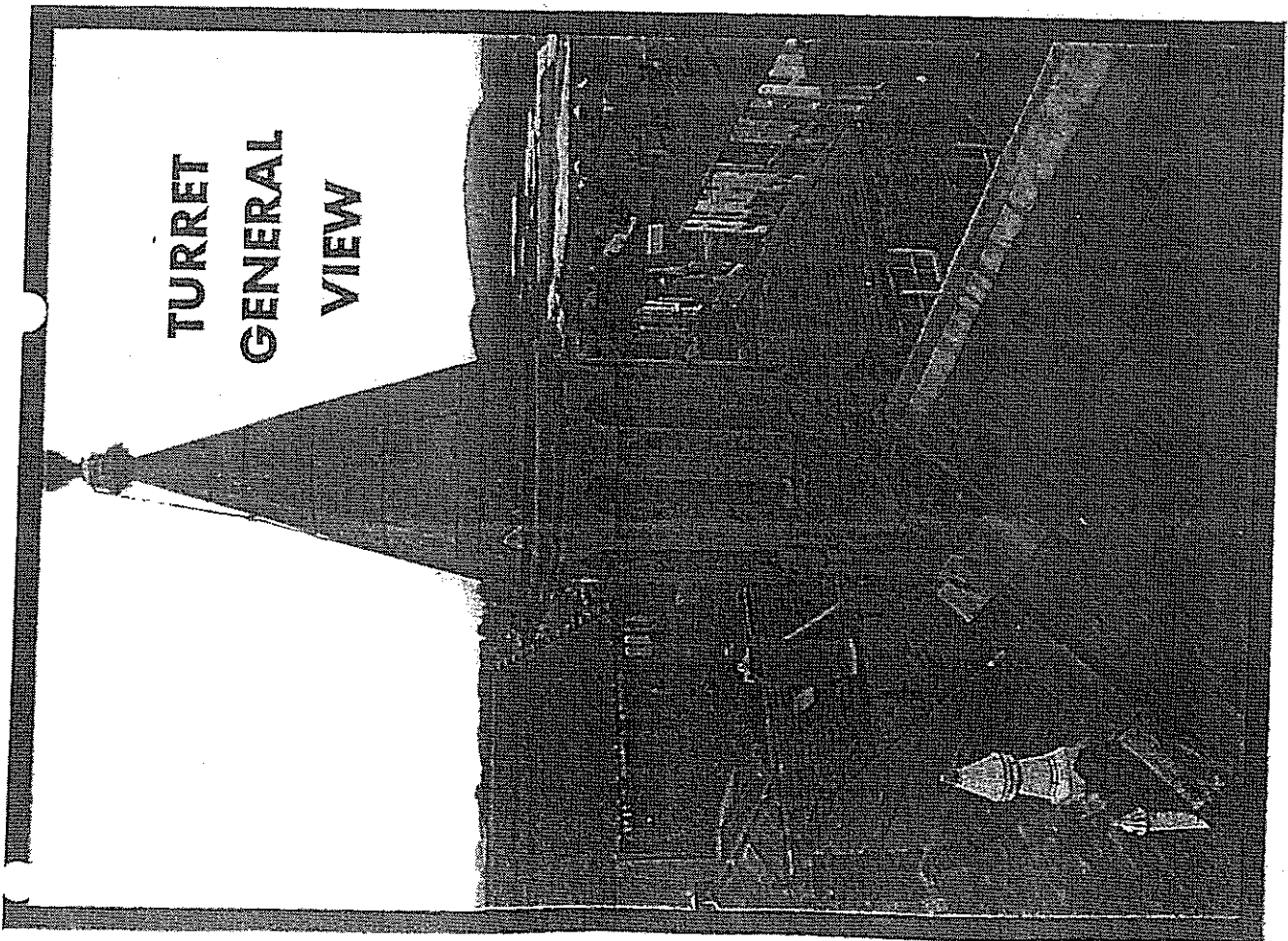
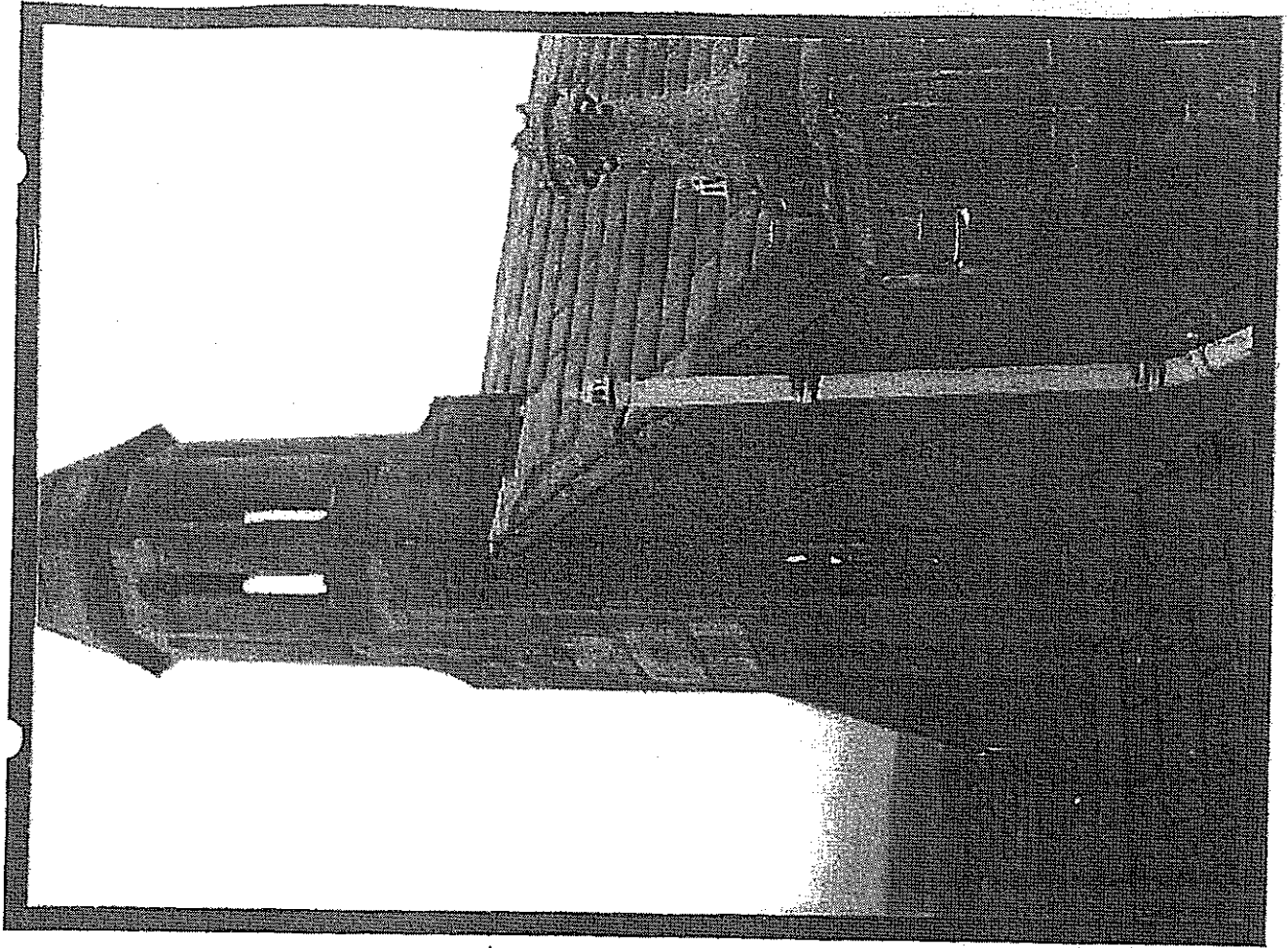


PHOTO 25







320110456P

FAÇADE TO
1821 BUILDING
PARAPET LEVEL
CHURCH STREET
PHOTOS

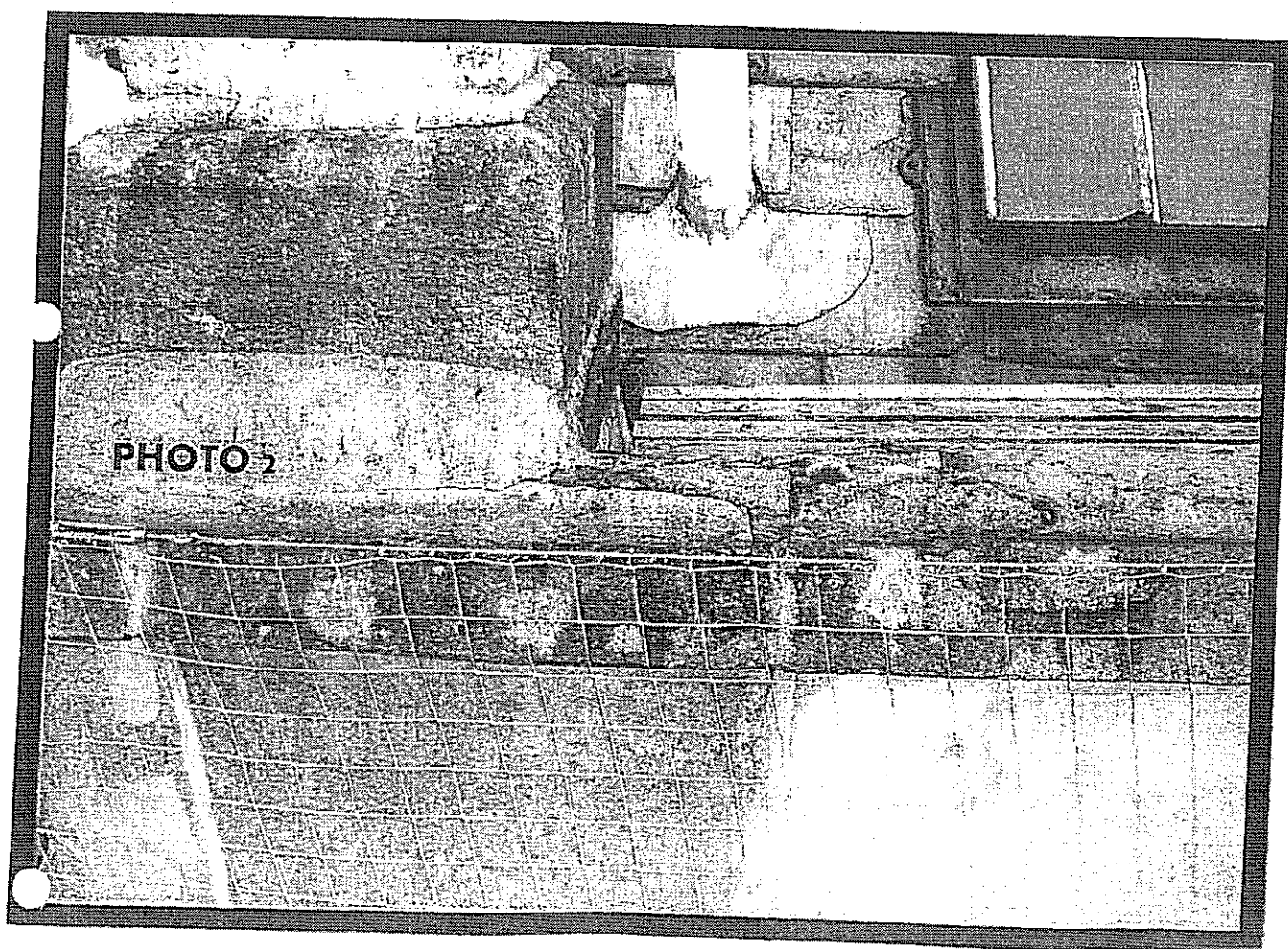
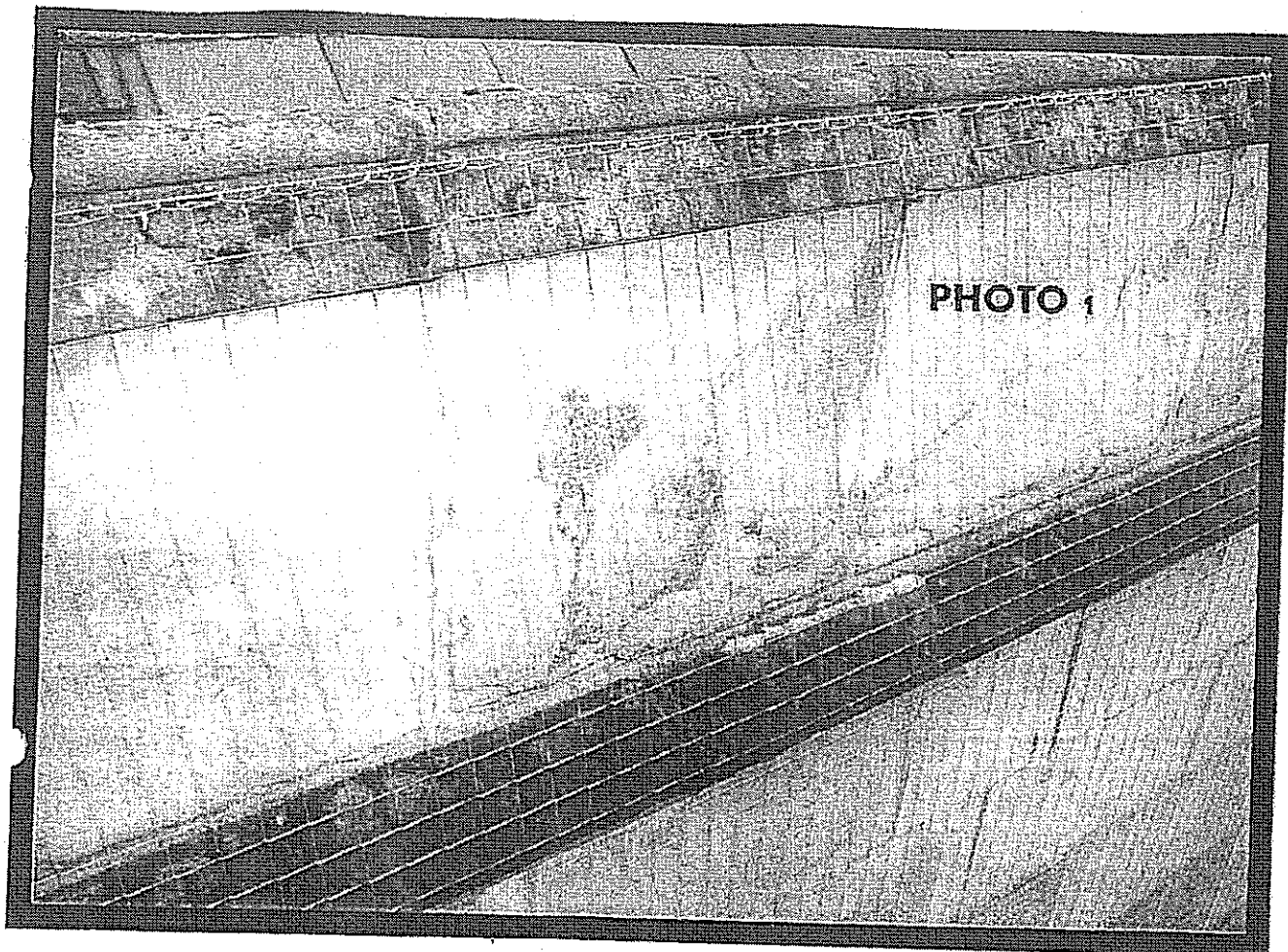
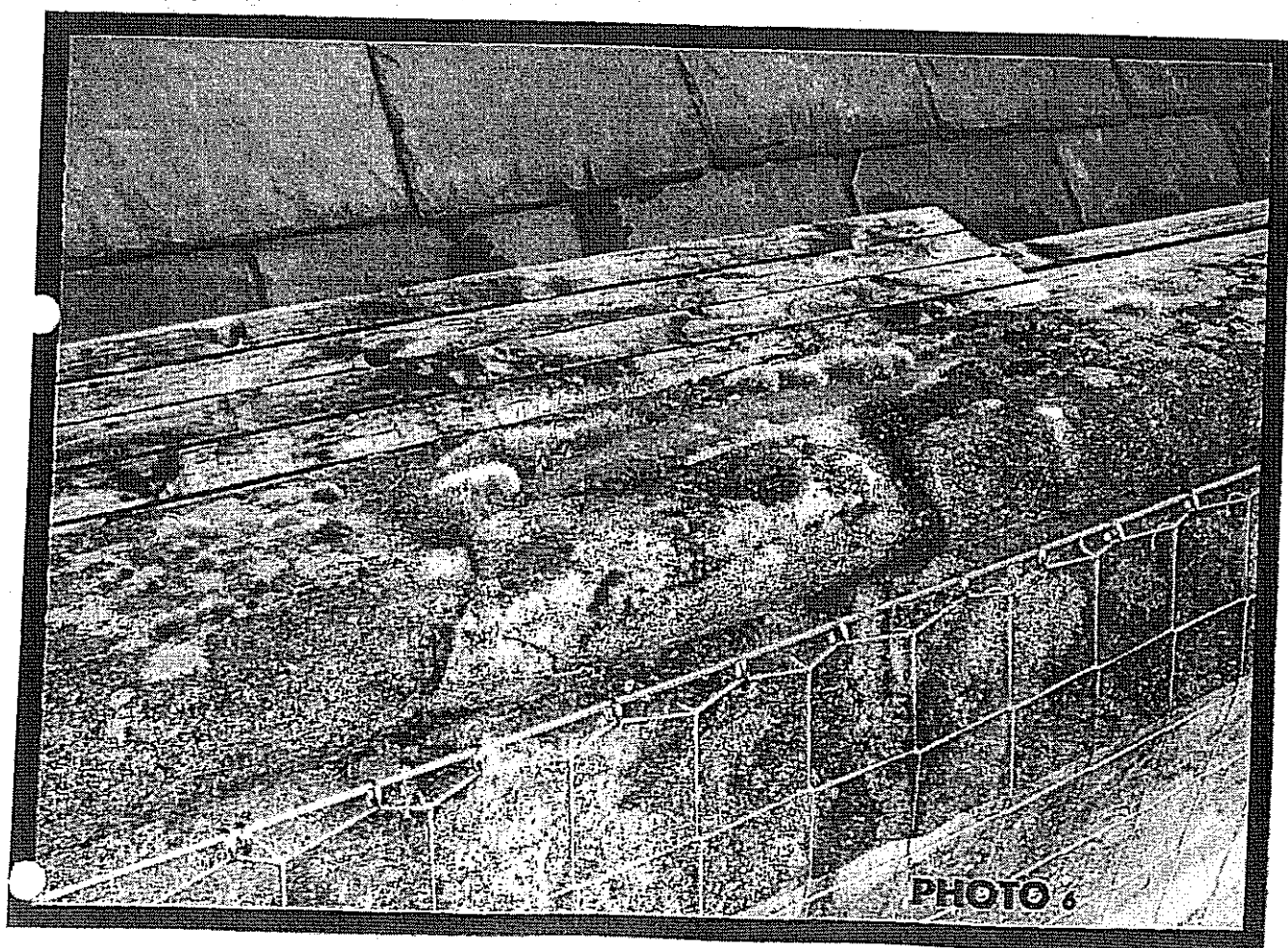
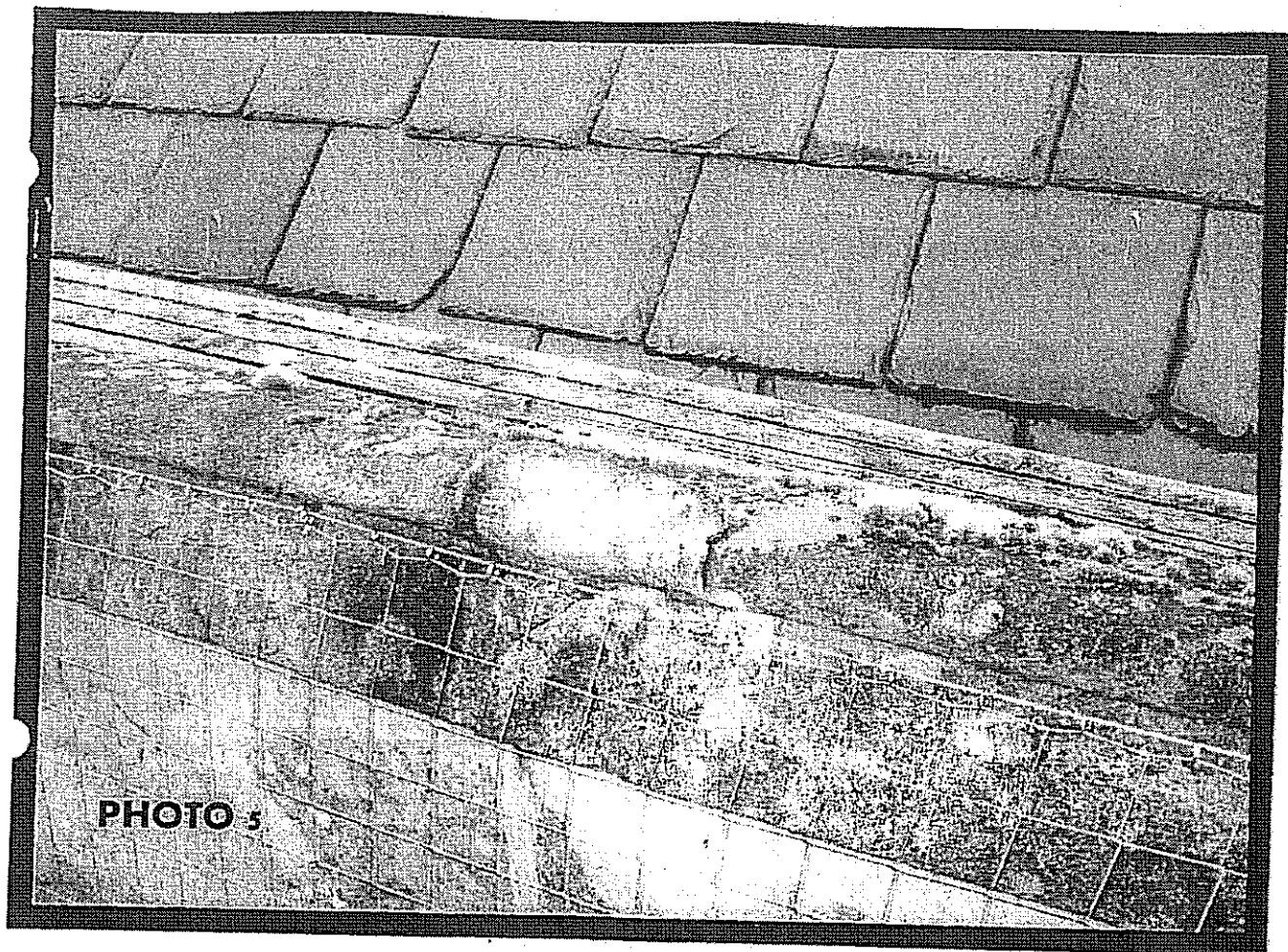
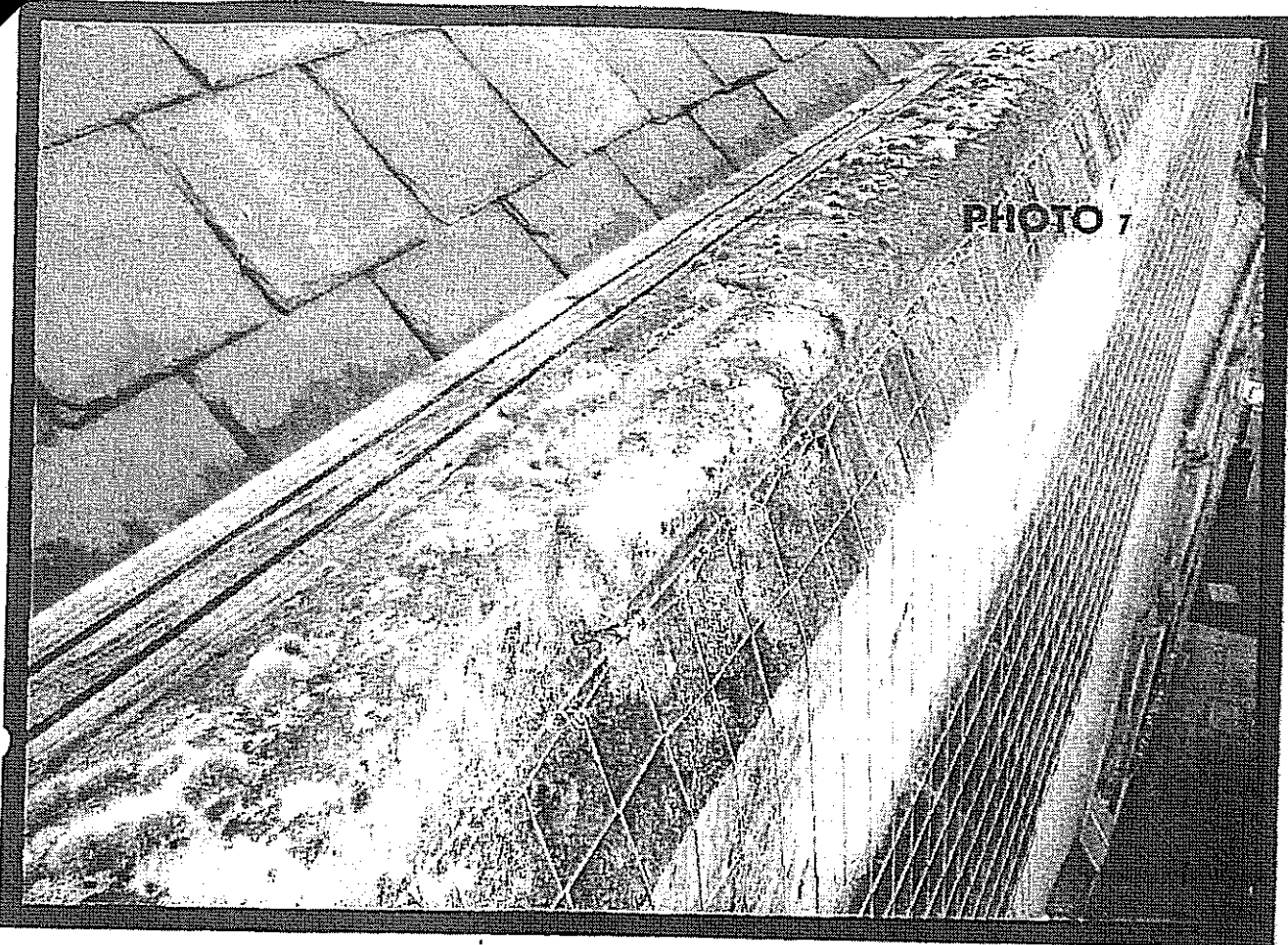


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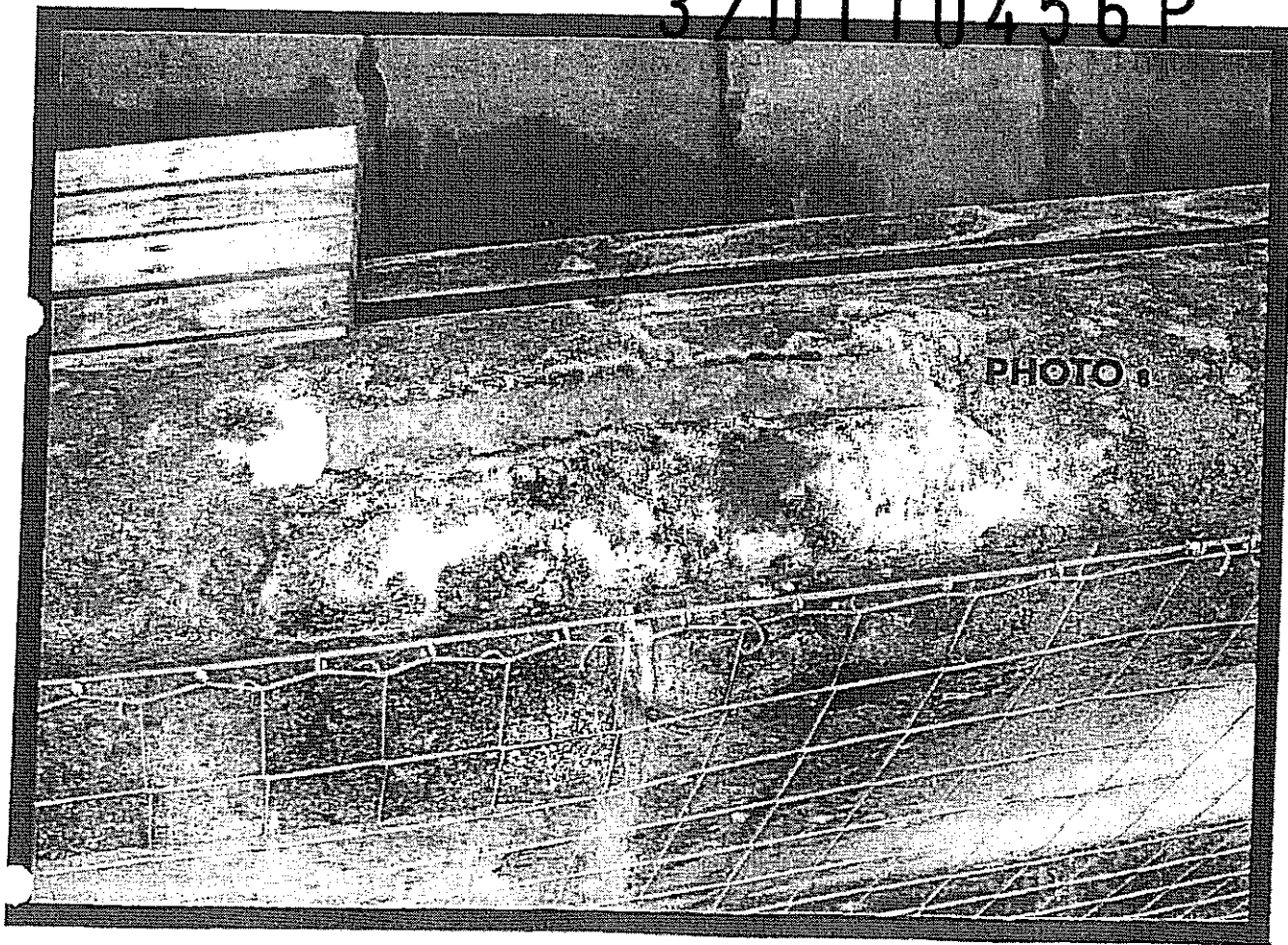
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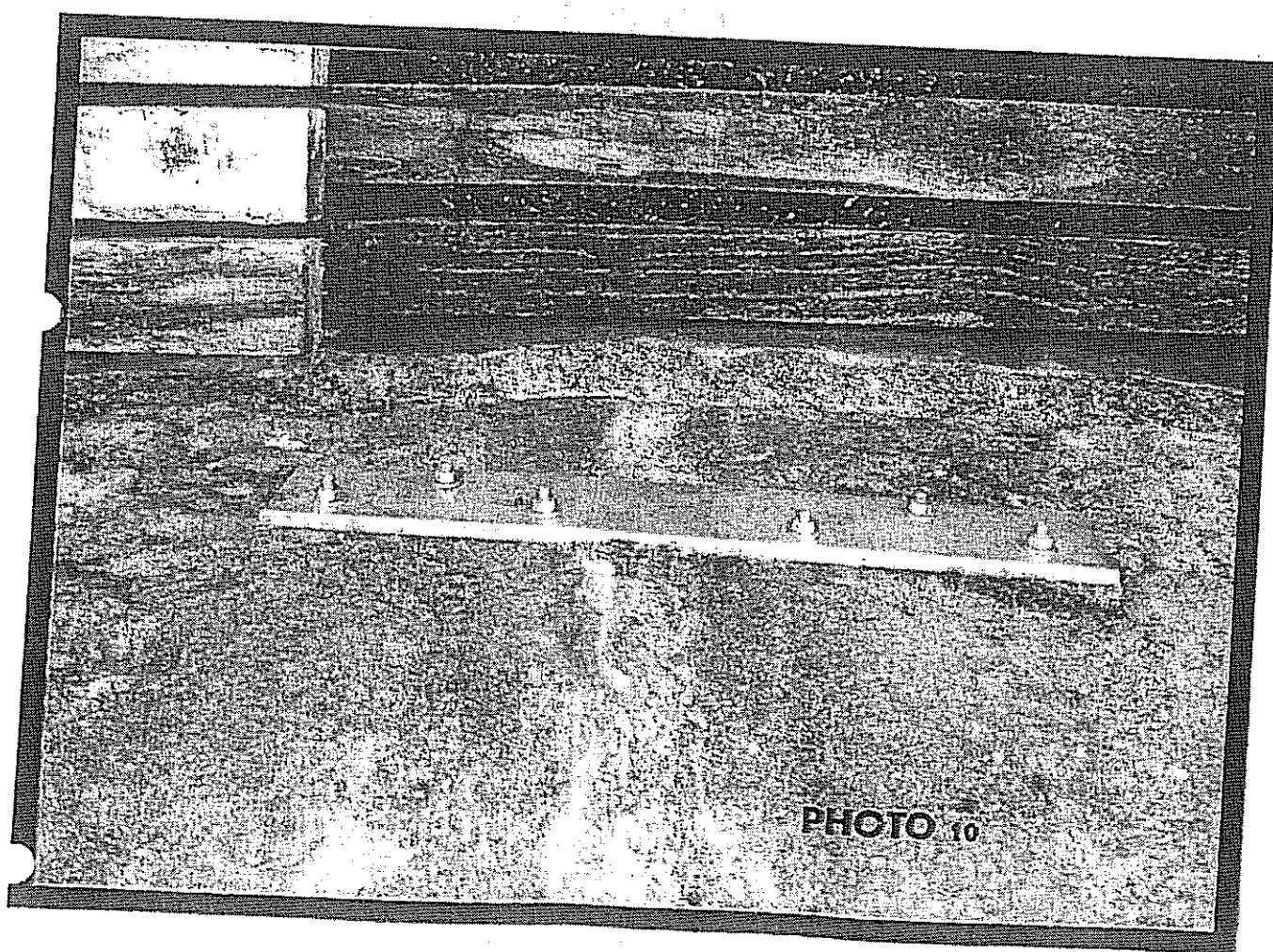
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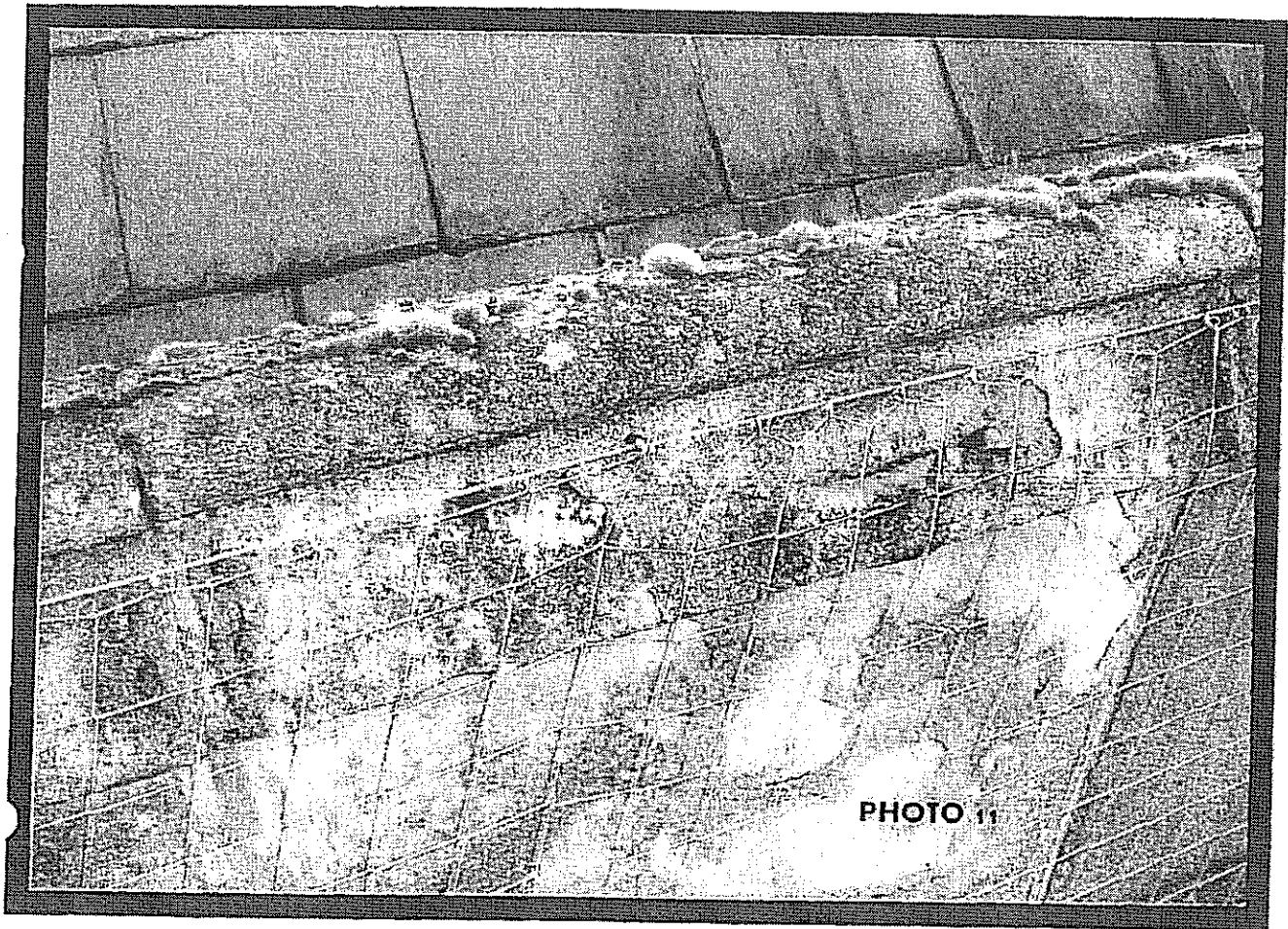




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