BUILDING SURVEY DETAILS

BUILDING NUMBER	BUILDING NAME		STRUCTURE	COMPLETION YEAR	BUILDING AREA		TOTAL FLOOR AREA		CONCRETE DESIGN COMPRESSIVE STRESS		CONCRETE ACTUAL COMPRESSIVE STRESS		RENEWAL DATA						
23-B	ADMINISTRATION BUILDING B-BLOCK		REINFORCED CONCRETE (COLUMN,BEAM), WALL BRICK		869.69M²		869.69M²		300KG/cm²										
EXTERIOR NORTH	COLUMN BEAM	◎	WALL(BRICK)	◎	DOOR		WINDOW	◎	METAL		EXTERIOR FINISH	×	WATER PROOF	◎	COPING	◎	CAULKING	◎	OTHERS
EVALUATION ITEM	NORMAL	✓	NORMAL	✓	NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL	✓	NORMAL	✓	NORMAL	✓	
	DAMAGE		DAMAGE		RUSTY		RUSTY		RUSTY		DIRTY		LEAKAGE		RUSTY		BROKEN		
			BROKEN		CORROSION		CORROSION		CORROSION		WORN OUT	✓	DAMAGE		CORRSION		NONE		
			BULLET MARKS		MISSING		MISSING		NONE						NONE				
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	23B-3		23B-3				23B-3				23B-3								
RECOMMENDATION	C		C				C				A		C		C		C		
EXTERIOR EAST	COLUMN BEAM	◎	WALL(BRICK)	◎	DOOR	◎	WINDOW	◎	METAL		EXTERIOR FINISH	×	WATER PROOF	◎	COPING	◎	CAULKING	◎	OTHERS
EVALUATION ITEM	NORMAL	✓	NORMAL	✓	NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL	✓	NORMAL	✓	NORMAL	✓	
	DAMAGE		DAMAGE		RUSTY		RUSTY		RUSTY		DIRTY		LEAKAGE		RUSTY		BROKEN		
			BROKEN		CORROSION		CORROSION		CORROSION		WORN OUT	✓	DAMAGE		CORRSION		NONE		
			BULLET MARKS		MISSING		MISSING		NONE						NONE				
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	23B-1		23B-1		23B-1		23B-1				23B-1								
RECOMMENDATION	C		C		C		C				A		C		C		C		
EXTERIOR SOUTH	COLUMN BEAM	◎	WALL(BRICK)	×	DOOR	×	WINDOW		METAL		EXTERIOR FINISH	×	WATER PROOF	◎	COPING	◎	CAULKING	◎	OTHERS
EVALUATION ITEM	NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL	✓	NORMAL	✓	NORMAL	✓	
	DAMAGE		DAMAGE		RUSTY		RUSTY		RUSTY		DIRTY		LEAKAGE		RUSTY		BROKEN		
			BROKEN		CORROSION	✓	CORROSION		CORROSION		WORN OUT	✓	DAMAGE		CORRSION		NONE		
			BULLET MARKS	✓	MISSING		MISSING		NONE						NONE				
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	23B-2				23B-2						23B-2								
RECOMMENDATION	C		A		A						A		C		C		C		
EXTERIOR WEST	COLUMN BEAM	◎	WALL(BRICK)	◎	DOOR		WINDOW	◎	METAL		EXTERIOR FINISH	×	WATER PROOF	◎	COPING	◎	CAULKING	◎	OTHERS
EVALUATION ITEM	NORMAL	✓	NORMAL	✓	NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL	✓	NORMAL	✓	NORMAL	✓	
	DAMAGE		DAMAGE		RUSTY		RUSTY		RUSTY		DIRTY		LEAKAGE		RUSTY		BROKEN		
			BROKEN		CORROSION		CORROSION		CORROSION		WORN OUT	✓	DAMAGE		CORRSION		NONE		
			BULLET MARKS		MISSING		MISSING		NONE						NONE				
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS																			
RECOMMENDATION	C		C				C				A		C		C		C		

EVALUATION ◎-GOOD
△-AVERAGE
×-BAD

RECOMMENDATION A-TOTAL REFURBISHMENT
B-PARTIAL REFURBISHMENT
C-NOT NECESSARY

BUILDING NUMBER-23B	ADMINISRATION BUILDING B-BLOCK																				
1-MECHANIC WORK ROOM																					
PARTICULAR	FLOOR	△	WALL	◎	CEILING	◎	METAL		STAIR		LIGHTING	◎	VENTILATION		HEATING	×	WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		・IT HAD BEEN FLOODED 30cm ABOVE FLOOR LEVEL.
	DIRTY	✓	DIRTY		DIRTY		RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN		BROKEN		MISSING	✓	MISSING		BROKEN		
	BROKEN		BROKEN		BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	23B-10		23B-10,11		23B-10,11						23B-11				23B-10						
RECOMMENDATION	B		C		C						C				A						
2-STORAGE(1)																					
PARTICULAR	FLOOR	△	WALL	◎	CEILING	◎	METAL		STAIR		LIGHTING	◎	VENTILATION		HEATING	×	WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		
	DIRTY	✓	DIRTY		DIRTY		RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN		BROKEN		MISSING	✓	MISSING		BROKEN		
	BROKEN		BROKEN		BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS			23B-12								23B-12										
RECOMMENDATION	B		C		C						C				A						
3-WARD ROBE																					
PARTICULAR	FLOOR	×	WALL	×	CEILING	×	METAL		STAIR		LIGHTING	×	VENTILATION		HEATING	×	WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		・SCARS OF THE FLOOD ON WALLS.
	DIRTY	✓	DIRTY	✓	DIRTY	✓	RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN	✓	BROKEN		MISSING	✓	MISSING		BROKEN		
	BROKEN		BROKEN		BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	23B-13		23B-13		23B-13						23B-13										
RECOMMENDATION	A		A		A						A				A						

EVALUATION ◎-GOOD △-AVERAGE ×-BAD

RECOMMENDATION A-TOTAL REFURBISHMENT B-PARTIAL REFURBISHMENT C-NOT NECESSARY

BUILDING NUMBER-23B　ADMINISTRATION BUILDING B-BLOCK

4-SHOWER ROOM																					
PARTICULAR	FLOOR	×	WALL	△	CEILING	×	METAL		STAIR		LIGHTING	×	VENTILATION		HEATING	×	WATER EQUIPMENT	×	FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		·SCARS OF THE FLOOD ON WALLS IN A PASSAGE.
	DIRTY		DIRTY	✓	DIRTY		RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG	✓	CORROSION		UNEVEN		BROKEN	✓	BROKEN		MISSING	✓	MISSING	✓	BROKEN		
	BROKEN	✓	BROKEN		BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	24B-14																23B-14				
RECOMMENDATION	A		B		A						A				A		A				
5-TOILET																					
PARTICULAR	FLOOR	×	WALL	×	CEILING	×	METAL		STAIR		LIGHTING	×	VENTILATION		HEATING		WATER EQUIPMENT	×	FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		·ONLY 2 OUT OF 4 CHAMBER POT WERE REPLACED, AND 2 CHAMBER POT WHICH WERE NOT REPLACED ARE NOT AVAILABLE.
	DIRTY		DIRTY		DIRTY	✓	RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN	✓	BROKEN		MISSING		MISSING	✓	BROKEN		
	BROKEN	✓	BROKEN	✓	BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	23B-15		23B-15														23B-15				
RECOMMENDATION	A		A		A						A						A				
6-LAUNDRY ROOM																					
PARTICULAR	FLOOR	×	WALL	×	CEILING	×	METAL		STAIR		LIGHTING	×	VENTILATION		HEATING	×	WATER EQUIPMENT	×	FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		
	DIRTY		DIRTY		DIRTY	✓	RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN	✓	BROKEN		MISSING	✓	MISSING	✓	BROKEN		
	BROKEN	✓	BROKEN	✓	BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS			23B-16												23B-16						
RECOMMENDATION	A		A		A						A				A		A				

EVALUATION ◎-GOOD △-AVERAGE ×-BAD

RECOMMENDATION A-TOTAL REFURBISHMENT B-PARTIAL REFURBISHMENT C-NOT NECESSARY

BUILDING NUMBER-23B	ADMINISTRATION BUILDING B-BLOCK																				
7-AMBULANCE																					
PARTICULAR	FLOOR	×	WALL	×	CEILING	×	METAL		STAIR		LIGHTING	×	VENTILATION		HEATING	×	WATER EQUIPMENT	×	FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		· SCARS OF THE FLOOD ON WALLS.
	DIRTY		DIRTY	✓	DIRTY	✓	RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN	✓	BROKEN		MISSING	✓	MISSING	✓	BROKEN		
	BROKEN	✓	BROKEN		BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS																					
RECOMMENDATION	A		A		A						A				A		A				
8-ELECTRIC																					
PARTICULAR	FLOOR	△	WALL	◎	CEILING	◎	METAL		STAIR		LIGHTING	◎	VENTILATION		HEATING	×	WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		
	DIRTY	✓	DIRTY		DIRTY		RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN		BROKEN		MISSING	✓	MISSING		BROKEN		
	BROKEN		BROKEN		BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS																					
RECOMMENDATION	B		C		C						C				A						
9-TINSMITH																					
PARTICULAR	FLOOR	△	WALL	◎	CEILING	◎	METAL		STAIR		LIGHTING	◎	VENTILATION		HEATING	×	WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		
	DIRTY	✓	DIRTY		DIRTY		RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN		BROKEN		MISSING	✓	MISSING		BROKEN		
	BROKEN		BROKEN		BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS																					
RECOMMENDATION	B		C		C						C				A						

EVALUATION ◎-GOOD △-AVERAGE ×-BAD

RECOMMENDATION A-TOTAL REFURBISHMENT B-PARTIAL REFURBISHMENT C-NOT NECESSARY

BUILDING NUMBER-23B	ADMINISTRATION BUILDING B-BLOCK																					
10-LOCKSMITH																						
PARTICULAR	FLOOR	◎	WALL	◎	CEILING	◎	METAL		STAIR		LIGHTING	◎	VENTILATION		HEATING	×	WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS	
EVALUATION ITEM	NORMAL	✓	NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL			
	DIRTY		DIRTY		DIRTY		RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION			
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN		BROKEN		MISSING	✓	MISSING		BROKEN			
	BROKEN		BROKEN		BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING			
							MISSING															
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION			
PHOTO NUMBERS																						
RECOMMENDATION	C		C		C						C				A							
11-OFFICE(1)																						
PARTICULAR	FLOOR	△	WALL	×	CEILING	◎	METAL		STAIR		LIGHTING	◎	VENTILATION		HEATING	×	WATER EQUIPMENT	×	FIRE EXTINGUISHER		OTHERS	
EVALUATION ITEM	NORMAL		NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL			
	DIRTY	✓	DIRTY		DIRTY		RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION			
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN		BROKEN		MISSING	✓	MISSING	✓	BROKEN			
	BROKEN		BROKEN	✓	BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING			
							MISSING															
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION			
PHOTO NUMBERS	23B-17		23B-17														23B-17					
RECOMMENDATION	B		A		C						C				A		A					
12-OFFICE(2)																						
PARTICULAR	FLOOR	△	WALL	◎	CEILING	◎	METAL		STAIR		LIGHTING	◎	VENTILATION		HEATING	×	WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS	
EVALUATION ITEM	NORMAL		NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL			
	DIRTY	✓	DIRTY		DIRTY		RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION			
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN		BROKEN		MISSING	✓	MISSING		BROKEN			
	BROKEN		BROKEN		BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING			
							MISSING															
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION			
PHOTO NUMBERS																						
RECOMMENDATION	B		C		C						C				A							

EVALUATION ◎-GOOD △-AVERAGE ×-BAD

RECOMMENDATION A-TOTAL REFURBISHMENT B-PARTIAL REFURBISHMENT C-NOT NECESSARY

BUILDING NUMBER-23B	ADMINISTRATION BUILDING B-BLOCK																				
13-GARDENER																					
PARTICULAR	FLOOR	△	WALL	△	CEILING	◎	METAL		STAIR		LIGHTING	×	VENTILATION		HEATING	×	WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		
	DIRTY	✓	DIRTY	✓	DIRTY		RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN	✓	BROKEN		MISSING	✓	MISSING		BROKEN		
	BROKEN		BROKEN		BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS																					
RECOMMENDATION	B		B		C						A				A						
14-STORAGE(2)																					
PARTICULAR	FLOOR	△	WALL	△	CEILING	◎	METAL		STAIR		LIGHTING	◎	VENTILATION		HEATING	×	WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		
	DIRTY	✓	DIRTY	✓	DIRTY		RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN		BROKEN		MISSING	✓	MISSING		BROKEN		
	BROKEN		BROKEN		BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS																					
RECOMMENDATION	B		B		C						C				A						
15-WELDING MAN																					
PARTICULAR	FLOOR	△	WALL	◎	CEILING	◎	METAL		STAIR		LIGHTING	◎	VENTILATION		HEATING	×	WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		
	DIRTY	✓	DIRTY		DIRTY		RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN		BROKEN		MISSING	✓	MISSING		BROKEN		
	BROKEN		BROKEN		BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	23B-18		23B-18												23B-18						
RECOMMENDATION	B		C		C						C				A						

EVALUATION ◎-GOOD △-AVERAGE ×-BAD

RECOMMENDATION A-TOTAL REFURBISHMENT B-PARTIAL REFURBISHMENT C-NOT NECESSARY

BUILDING SURVEY PHOTO

BUILDING NUMBER	23B	BUILDING NAME	ADMINISTRATION

PLAN AND DIRECTION FROM WHICH PHOTO WAS TAKEN

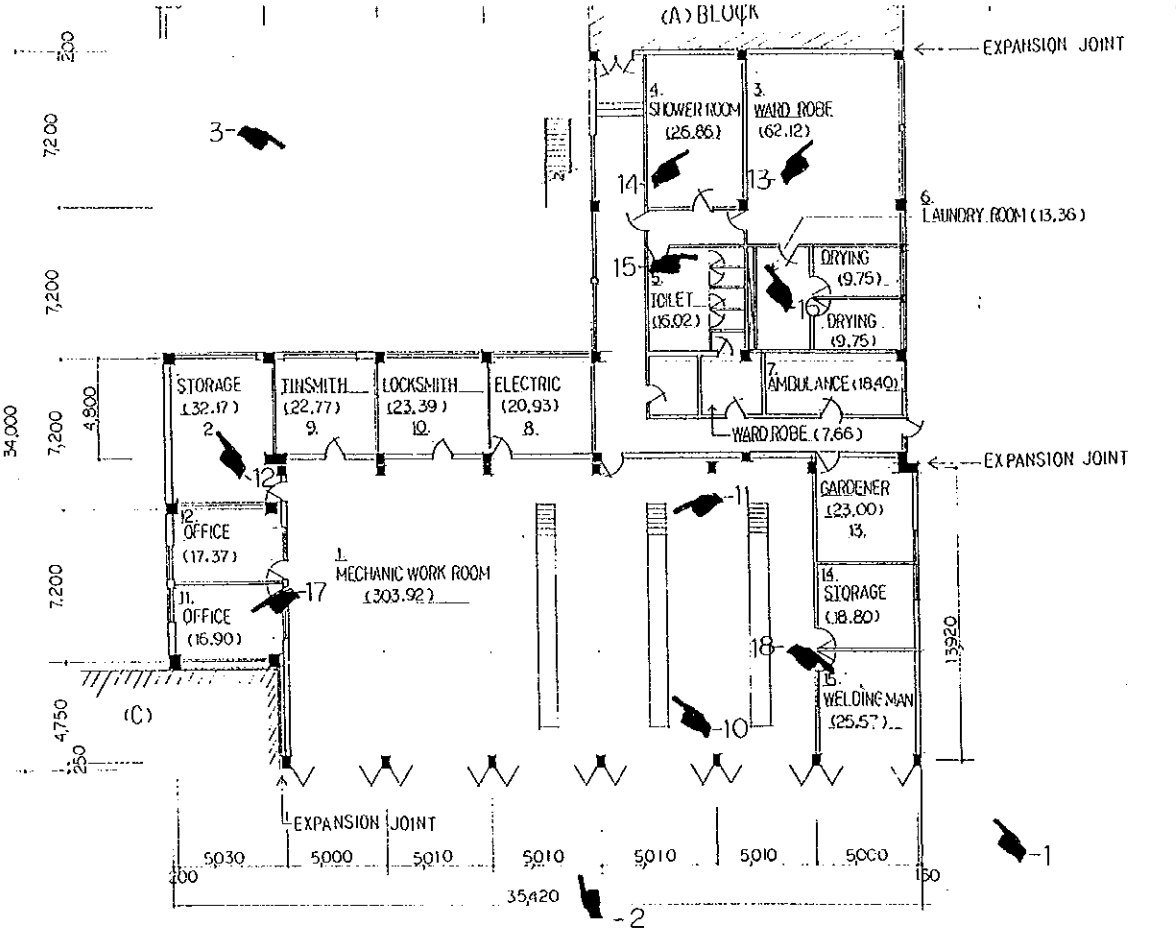


PHOTO NUMBER	23B-1

BUILDING SURVEY PHOTO

BUILDING NUMBER	23B	BUILDING NAME	ADMINISTRATION
PHOTO NUMBER	23B-2		

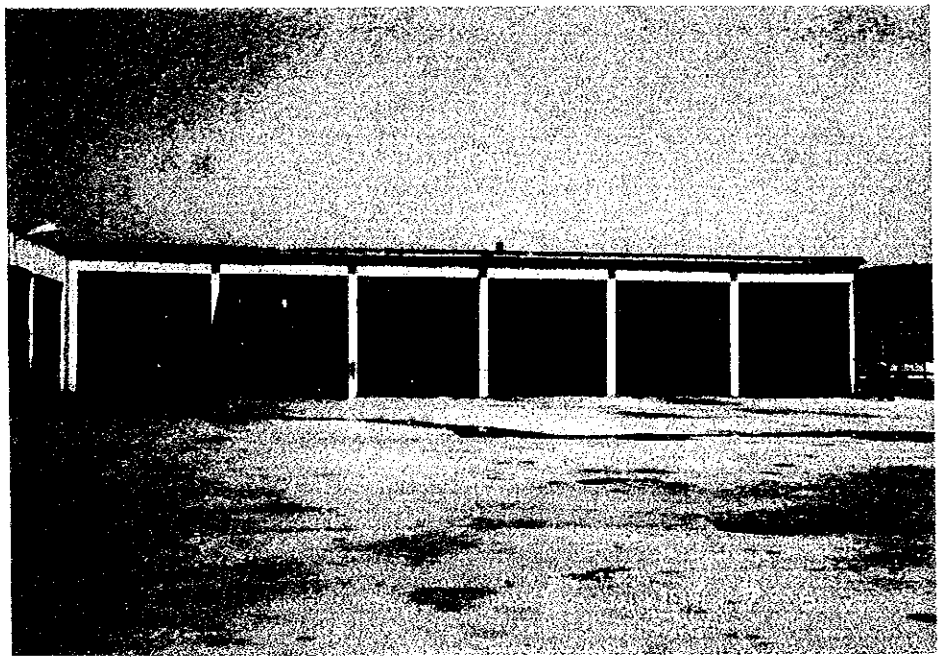
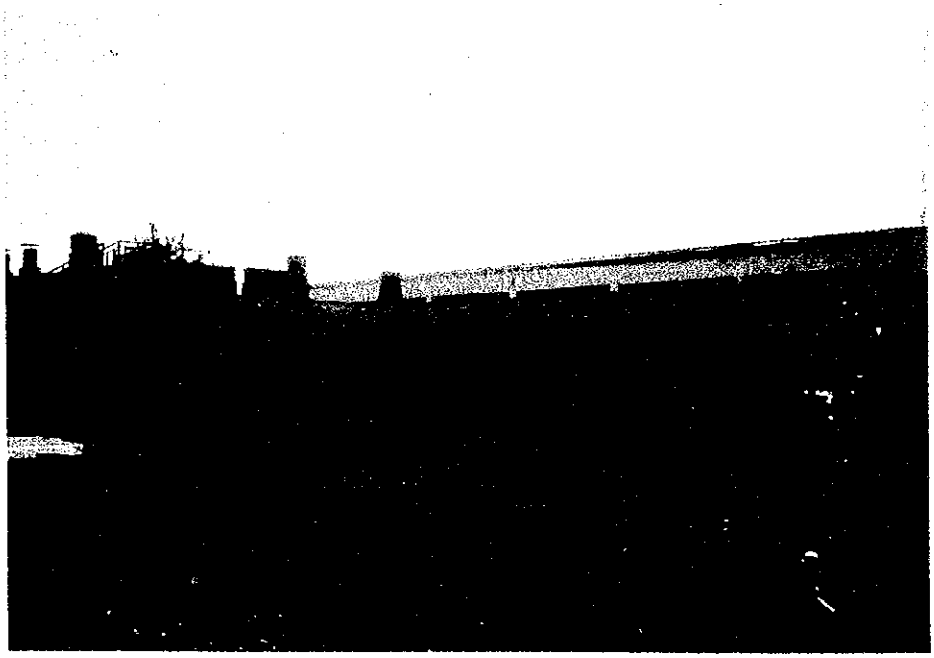


PHOTO NUMBER	23B-3



BUILDING SURVEY PHOTO

BUILDING NUMBER	23B	BUILDING NAME	ADMINISTRATION
PHOTO NUMBER	23B-10		

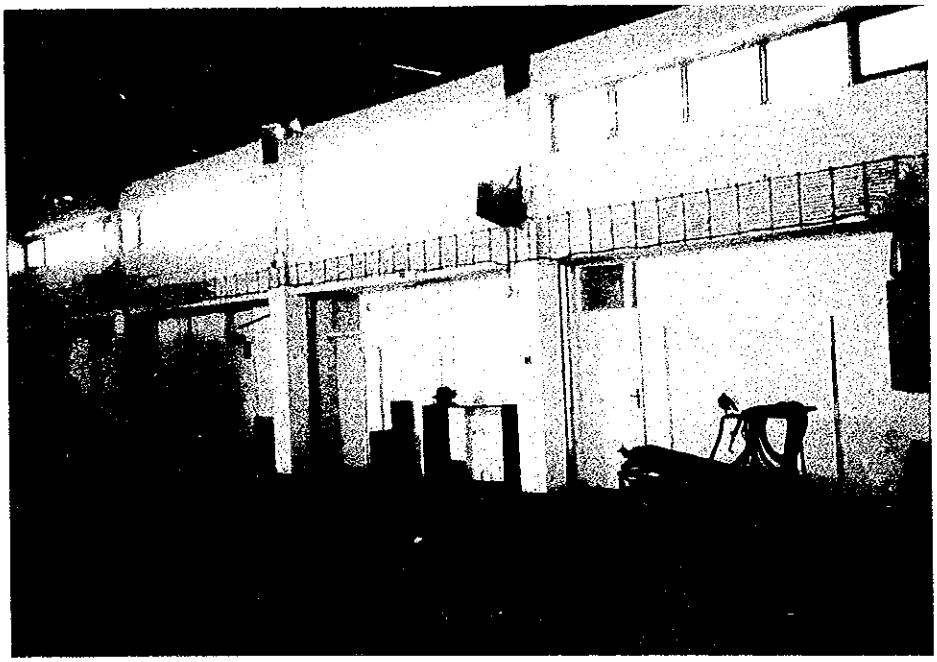
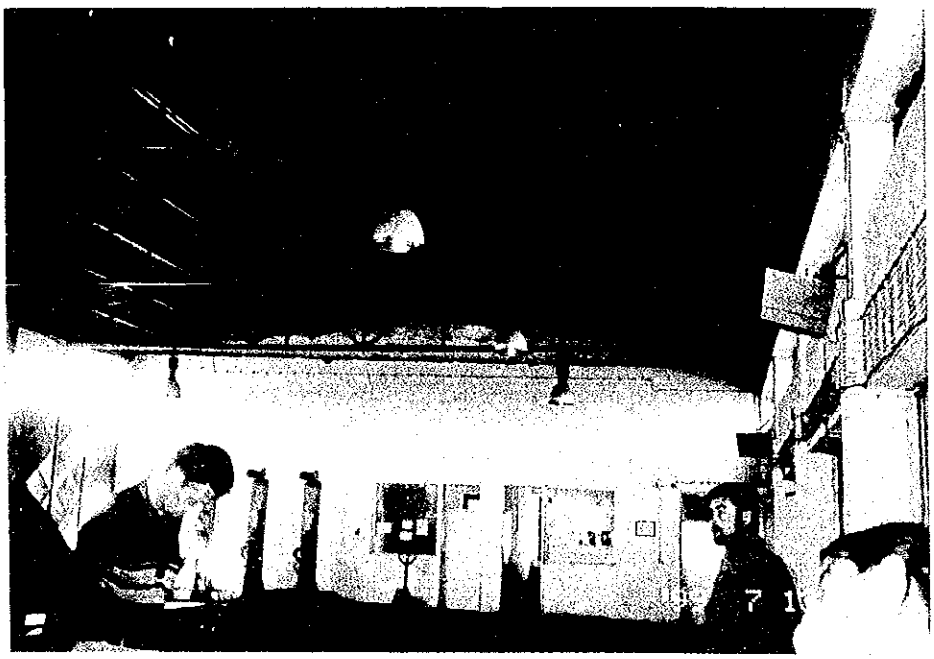


PHOTO NUMBER	23B-11



BUILDING SURVEY PHOTO

BUILDING NUMBER	23B	BUILDING NAME	ADMINISTRATION
PHOTO NUMBER	23B-12		

PHOTO NUMBER	23B-13

BUILDING SURVEY PHOTO

BUILDING NUMBER	23B	BUILDING NAME	ADMINISTRATION
PHOTO NUMBER	23B-14		

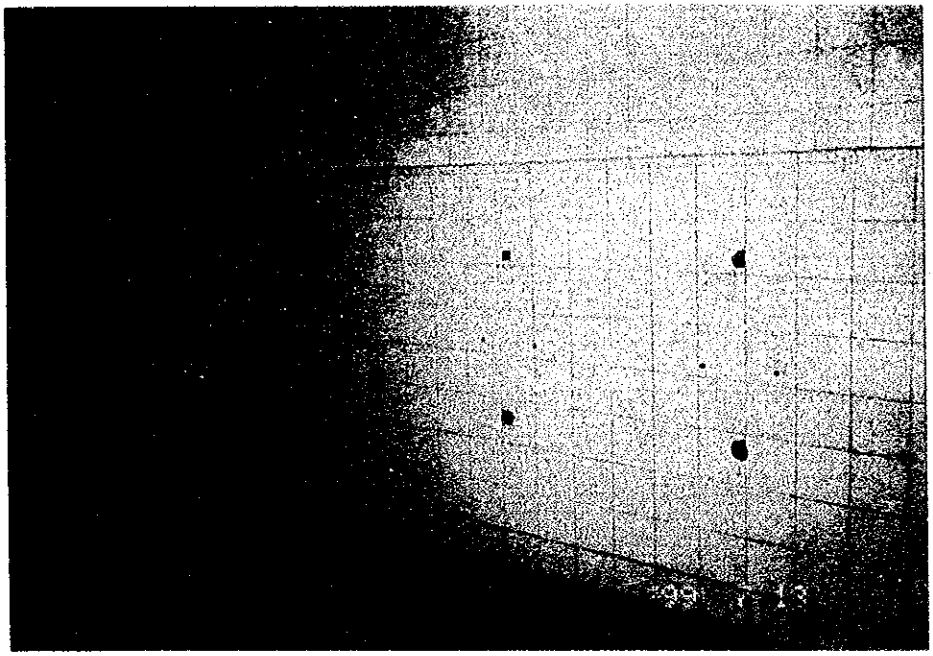
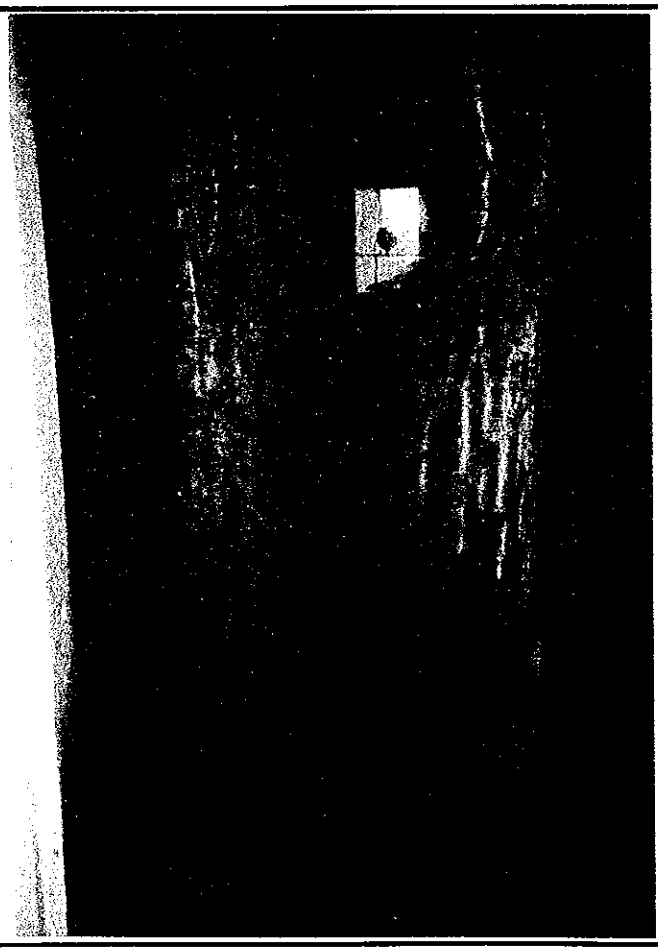


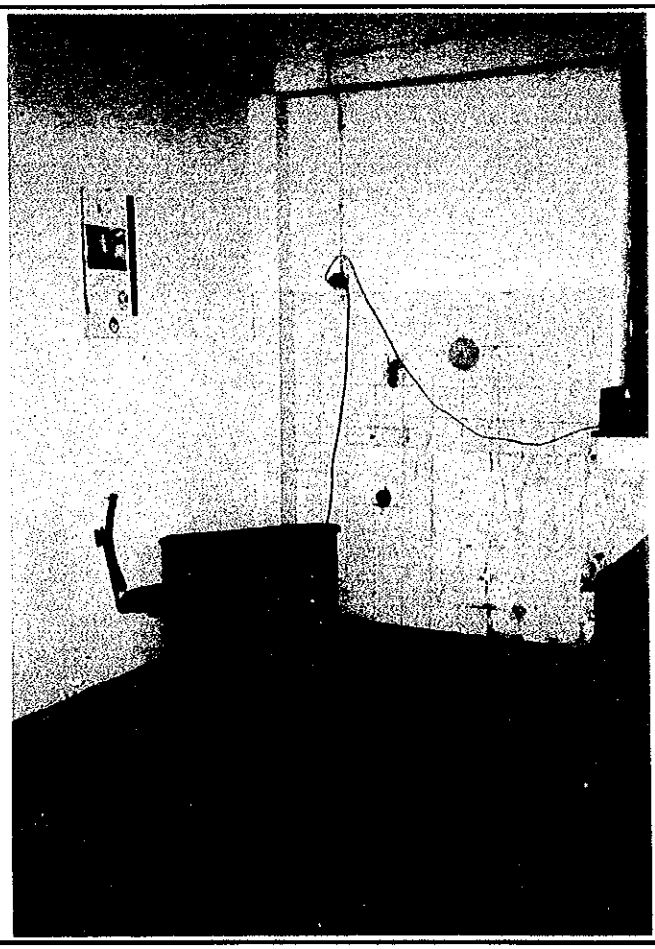
PHOTO NUMBER	23B-15



BUILDING SURVEY PHOTO

BUILDING NUMBER	23B	BUILDING NAME	ADMINISTRATION
PHOTO NUMBER	23B-16		

PHOTO NUMBER	23B-17



BUILDING SURVEY PHOTO

BUILDING NUMBER	23B	BUILDING NAME	ADMINISTRATION
PHOTO NUMBER	23B-18		

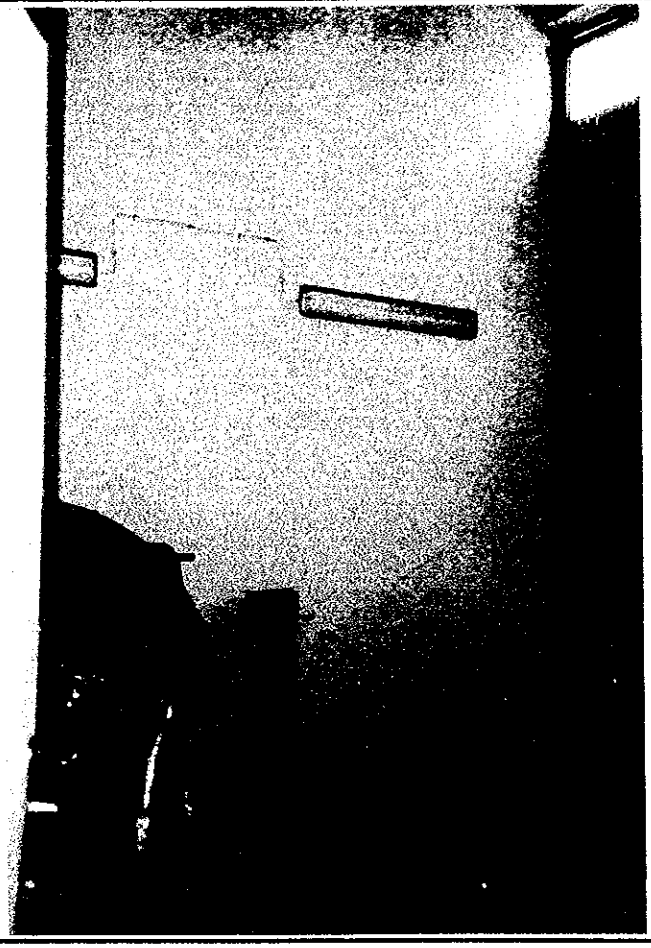


PHOTO NUMBER	23B-

BUILDING SURVEY DETAILS

BUILDING NUMBER	BUILDING NAME		STRUCTURE	COMPLETION YEAR	BUILDING AREA		TOTAL FLOOR AREA		CONCRETE DESIGN COMPRESSIVE STRESS		CONCRETE ACTUAL COMPRESSIVE STRESS		RENEWAL DATA						
23-C	ADMINISTRATION BUILDING C-BLOCK		REINFORCED CONCRETE (COLUMN,BEAM), WALL BRICK		457.63m²		457.63m²		300KG/cm²										
EXTERIOR NORTH	COLUMN BEAM	◎	WALL(BRICK)	◎	DOOR		WINDOW		METAL		EXTERIOR FINISH	×	WATER PROOF	◎	COPING	◎	CAULKING	◎	OTHERS
EVALUATION ITEM	NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL	✓	NORMAL	✓	NORMAL	✓	・IT IS NEEDED TO REPAINT THE REINFORCING BEAMS. ・ROOF IS REPAIRED AS EMERGENCY TO WATERPROOF.
	DAMAGE		DAMAGE		RUSTY		RUSTY		RUSTY		DIRTY		LEAKAGE		RUSTY		BROKEN		
			BROKEN		CORROSION		CORROSION		CORROSION		WORN OUT	✓	DAMAGE		CORRSION		NONE		
			BULLET MARKS		MISSING		MISSING		NONE						NONE				
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS																			
RECOMMENDATION	C		C								A		C		C		C		
EXTERIOR EAST	COLUMN BEAM	◎	WALL(BRICK)	◎	DOOR	×	WINDOW		METAL		EXTERIOR FINISH	×	WATER PROOF	◎	COPING	◎	CAULKING	◎	OTHERS
EVALUATION ITEM	NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL	✓	NORMAL	✓	NORMAL	✓	
	DAMAGE		DAMAGE		RUSTY		RUSTY		RUSTY		DIRTY		LEAKAGE		RUSTY		BROKEN		
			BROKEN		CORROSION	✓	CORROSION		CORROSION		WORN OUT	✓	DAMAGE		CORRSION		NONE		
			BULLET MARKS		MISSING		MISSING		NONE						NONE				
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	23C-1				23C-1						23C-1								
RECOMMENDATION	C		C		A								C		C		C		
EXTERIOR SOUTH	COLUMN BEAM	◎	WALL(BRICK)	◎	DOOR		WINDOW		METAL		EXTERIOR FINISH	×	WATER PROOF	◎	COPING	◎	CAULKING	◎	OTHERS
EVALUATION ITEM	NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL	✓	NORMAL	✓	NORMAL	✓	
	DAMAGE		DAMAGE		RUSTY		RUSTY		RUSTY		DIRTY		LEAKAGE		RUSTY		BROKEN		
			BROKEN		CORROSION		CORROSION		CORROSION		WORN OUT	✓	DAMAGE		CORRSION		NONE		
			BULLET MARKS		MISSING		MISSING		NONE						NONE				
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	23C-2		23C-2								23C-3								
RECOMMENDATION	C		C								A		C		C		C		
EXTERIOR WEST	COLUMN BEAM	◎	WALL(BRICK)	◎	DOOR		WINDOW	◎	METAL		EXTERIOR FINISH	×	WATER PROOF	◎	COPING	◎	CAULKING	◎	OTHERS
EVALUATION ITEM	NORMAL	✓	NORMAL	✓	NORMAL		NORMAL	✓	NORMAL		NORMAL		NORMAL	✓	NORMAL	✓	NORMAL	✓	
	DAMAGE		DAMAGE		RUSTY		RUSTY		RUSTY		DIRTY		LEAKAGE		RUSTY		BROKEN		
			BROKEN		CORROSION		CORROSION		CORROSION		WORN OUT	✓	DAMAGE		CORRSION		NONE		
			BULLET MARKS		MISSING		MISSING		NONE						NONE				
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	23C-3		23C-3				23C-3				23C-3								
RECOMMENDATION	C		C				C				A		C		C		C		

EVALUATION ◎-GOOD
△-AVERAGE
×-BAD

RECOMMENDATION A-TOTAL REFURBISHMENT
B-PARTIAL REFURBISHMENT
C-NOT NECESSARY

BUILDING NUMBER-23C　ADMINISTRATION BUILDING C-BLOCK

GARAGE(1)																				
PARTICULAR	FLOOR	△	WALL	×	CEILING	×	METAL		STAIR		LIGHTING	×	VENTILATION		HEATING	×	WATER EQUIPMENT	×	FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		
	DIRTY	✓	DIRTY		DIRTY	✓	RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN		BROKEN		MISSING	✓	MISSING	✓	BROKEN		
	BROKEN		BROKEN	✓	BROKEN		BROKEN		BROKEN		MISSING	✓	MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	23C-11		23C-11		23C-10						23C-10										
RECOMMENDATION	B		A		A						A				A		A				
GARAGE(2)																					
PARTICULAR	FLOOR	△	WALL	×	CEILING	×	METAL		STAIR		LIGHTING	×	VENTILATION		HEATING	×	WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		
	DIRTY	✓	DIRTY		DIRTY	✓	RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN		BROKEN		MISSING	✓	MISSING		BROKEN		
	BROKEN		BROKEN	✓	BROKEN		BROKEN		BROKEN		MISSING	✓	MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	23C-12		23C-12		23C-12						23C-12										
RECOMMENDATION	B		A		A						A				A						
STORAGE OF THE PLANT																					
PARTICULAR	FLOOR	△	WALL	×	CEILING	×	METAL		STAIR		LIGHTING	×	VENTILATION		HEATING	×	WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		
	DIRTY	✓	DIRTY		DIRTY	✓	RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN		BROKEN		MISSING	✓	MISSING		BROKEN		
	BROKEN		BROKEN	✓	BROKEN		BROKEN		BROKEN		MISSING	✓	MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	23C-13		23C-13		23C-13																
RECOMMENDATION	B		A		A						A				A						

EVALUATION ◎-GOOD △-AVERAGE ×-BAD

RECOMMENDATION A-TOTAL REFURBISHMENT B-PARTIAL REFURBISHMENT C-NOT NECESSARY

BUILDING SURVEY PHOTO

BUILDING NUMBER	23C	BUILDING NAME	ADMINISTRATION

PLAN AND DIRECTION FROM WHICH PHOTO WAS TAKEN

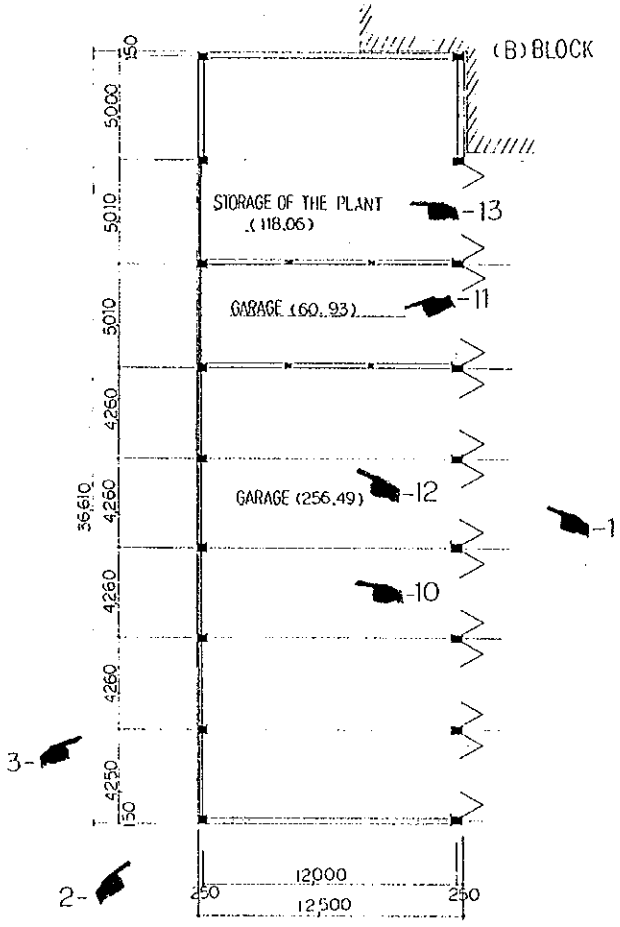
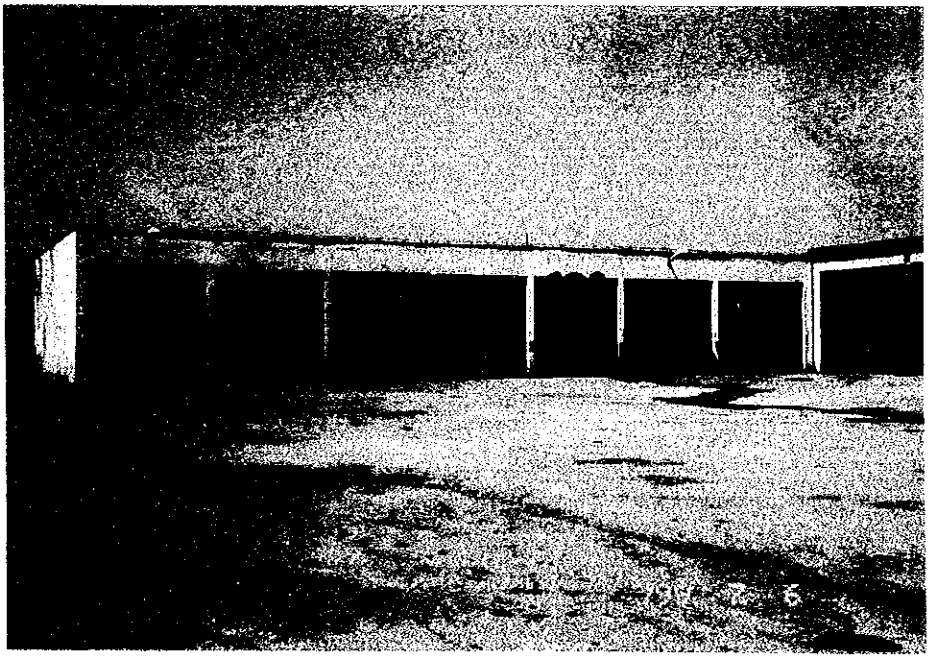


PHOTO NUMBER	23C-1



BUILDING SURVEY PHOTO

BUILDING NUMBER	23C	BUILDING NAME	ADMINISTRATION
PHOTO NUMBER	23C-2		

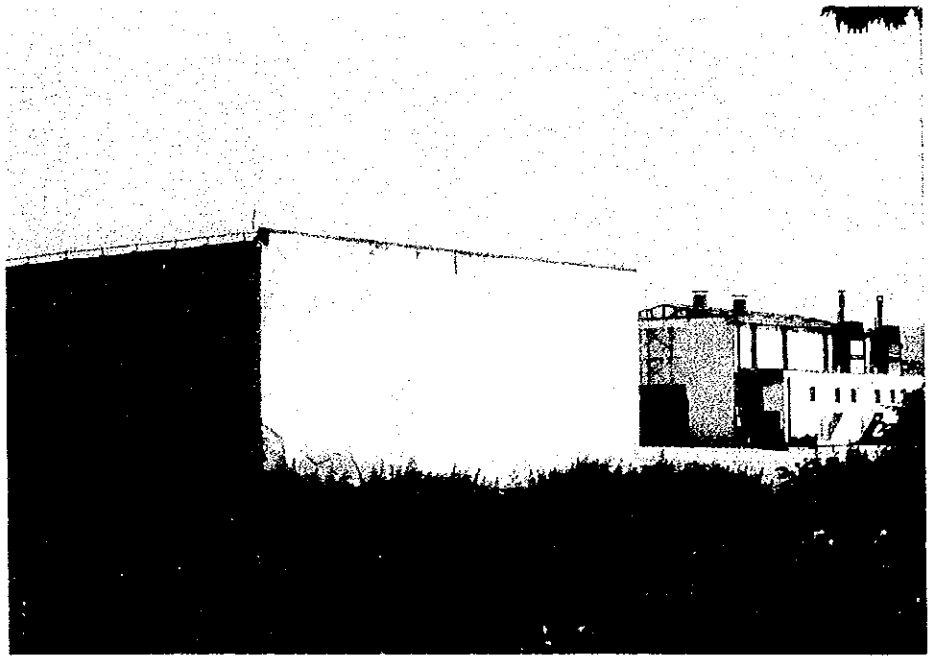
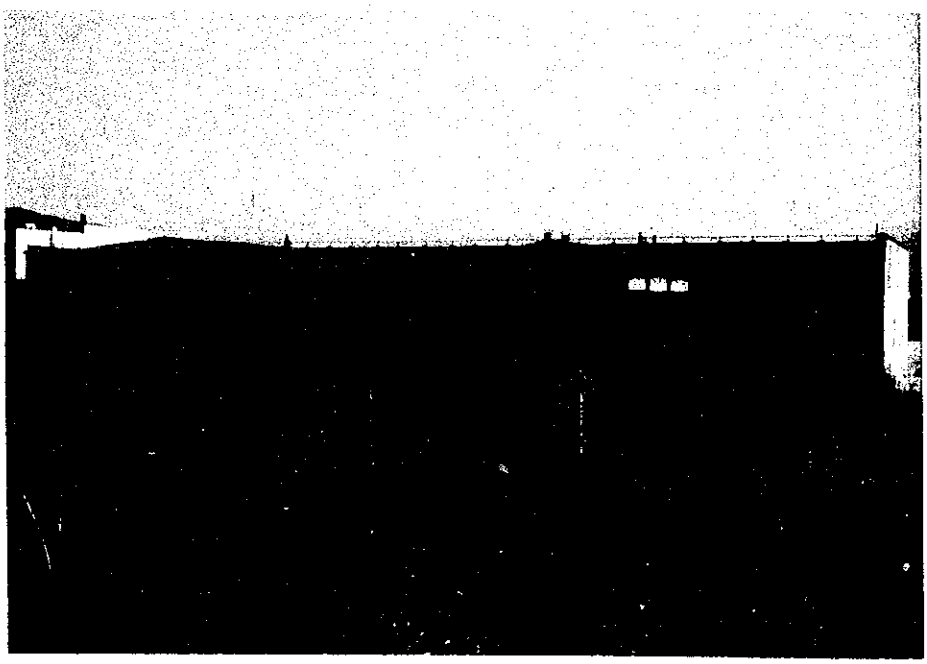


PHOTO NUMBER	23C-3



BUILDING SURVEY PHOTO

BUILDING NUMBER	23C	BUILDING NAME	ADMINISTRATION
PHOTO NUMBER	23C-10		

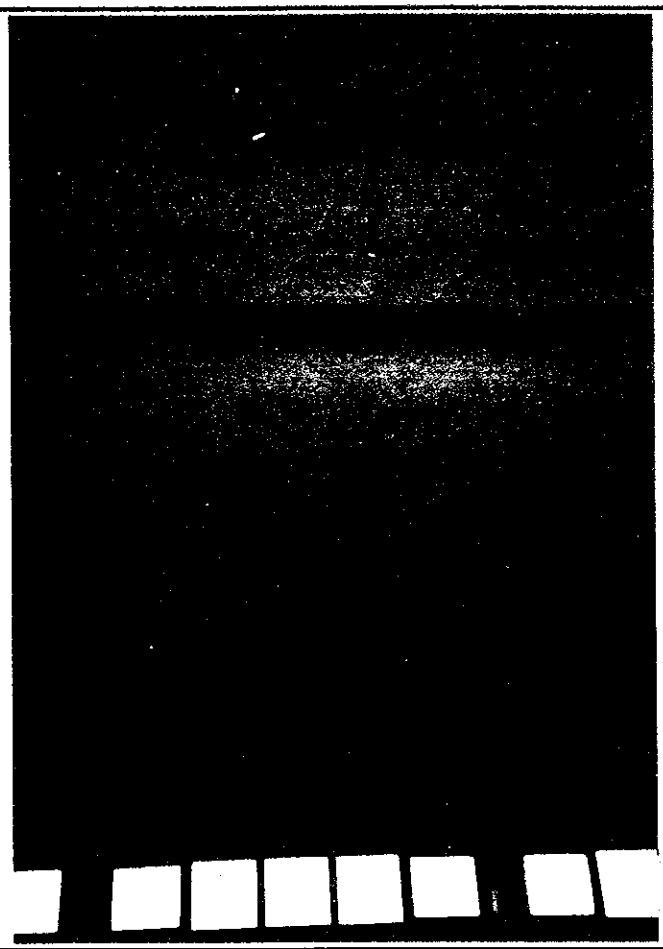
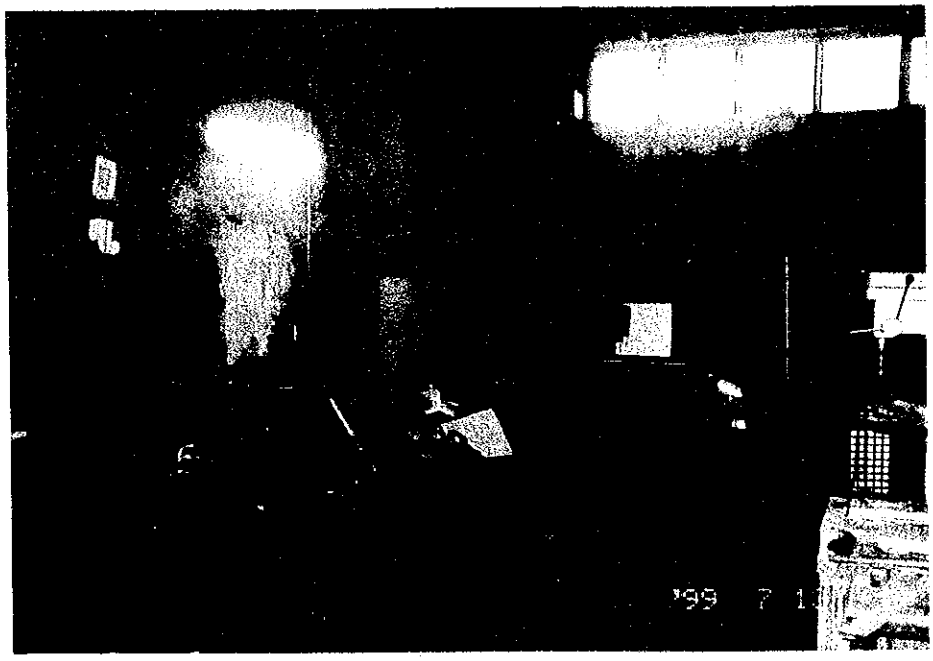


PHOTO NUMBER	23C-11



BUILDING SURVEY PHOTO

BUILDING NUMBER	23C	BUILDING NAME	ADMINISTRATION
PHOTO NUMBER	23C-12		

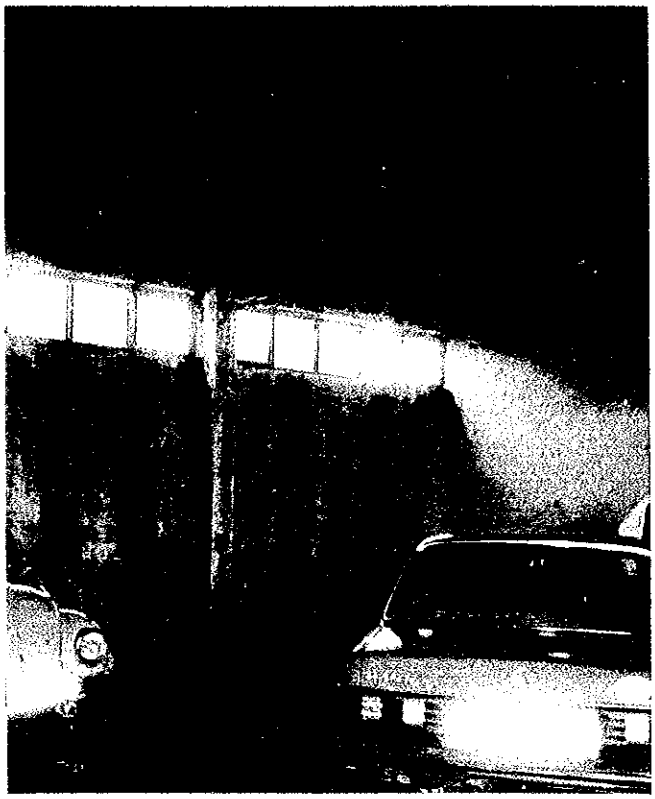
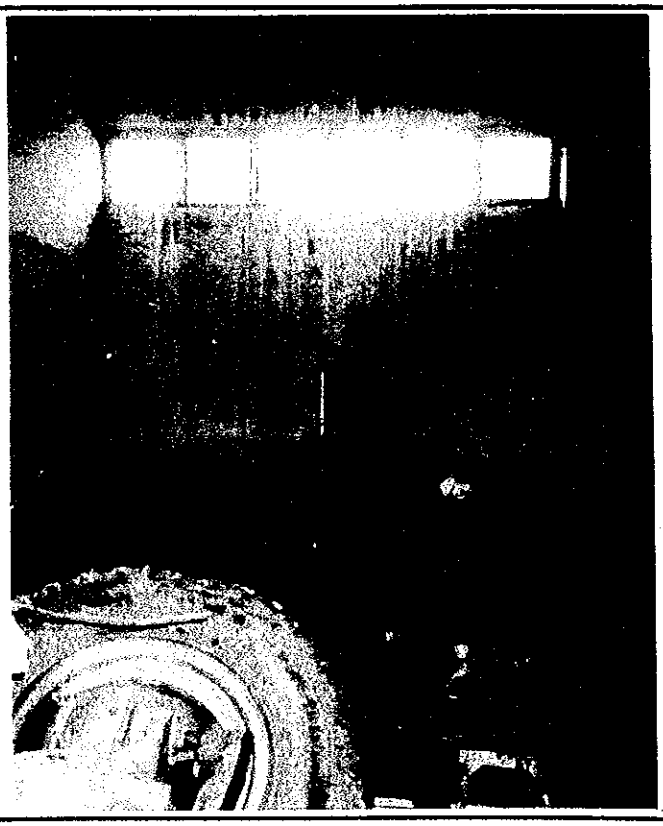


PHOTO NUMBER	23C-13



BUILDING SURVEY DETAILS

BUILDING NUMBER	BUILDING NAME		STRUCTURE	COMPLETION YEAR	BUILDING AREA		TOTAL FLOOR AREA		CONCRETE DESIGN COMPRESSIVE STRESS		CONCRETE ACTUAL COMPRESSIVE STRESS		RENEWAL DATA						
24	SERVICE WATER PUMP STATION		REINFORCED CONCRETE (COLUMN,BEAM), WALL BRICK		57.00m²		57.00m²		300KG/cm²										
EXTERIOR NORTH	COLUMN BEAM	◎	WALL(BRICK)	◎	DOOR		WINDOW	×	METAL		EXTERIOR FINISH	×	WATER PROOF	×	COPING	×	CAULKING	×	OTHERS
EVALUATION ITEM	NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		
	DAMAGE		DAMAGE		RUSTY		RUSTY		RUSTY		DIRTY		LEAKAGE	✓	RUSTY		BROKEN	✓	
			BROKEN		CORROSION		CORROSION	✓	CORROSION		WORN OUT	✓	DAMAGE		CORRSION	✓	NONE		
			BULLET MARKS		MISSING		MISSING		NONE						NONE				
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS																			
RECOMMENDATION	C		C				A				A		A		A		A		
EXTERIOR EAST	COLUMN BEAM	◎	WALL(BRICK)	◎	DOOR	×	WINDOW		METAL	×	EXTERIOR FINISH	×	WATER PROOF	×	COPING	×	CAULKING		OTHERS
EVALUATION ITEM	NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		*THE HANDRAIL OF OUTSIDE STAIRS FOR ENTRANCE IS BROKEN.
	DAMAGE		DAMAGE		RUSTY		RUSTY		RUSTY		DIRTY	✓	LEAKAGE	✓	RUSTY		BROKEN	✓	
			BROKEN		CORROSION	✓	CORROSION		CORROSION		WORN OUT		DAMAGE		CORRSION	✓	NONE		
			BULLET MARKS		MISSING		MISSING		NONE						NONE				
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	24-1		24-1		24-1				24-1		24-1								
RECOMMENDATION	C		C		A				A		A		A		A				
EXTERIOR SOUTH	COLUMN BEAM	◎	WALL(BRICK)	◎	DOOR		WINDOW	×	METAL		EXTERIOR FINISH	×	WATER PROOF	×	COPING	×	CAULKING		OTHERS
EVALUATION ITEM	NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		
	DAMAGE		DAMAGE		RUSTY		RUSTY		RUSTY		DIRTY	✓	LEAKAGE	✓	RUSTY		BROKEN	✓	
			BROKEN		CORROSION		CORROSION	✓	CORROSION		WORN OUT		DAMAGE		CORRSION	✓	NONE		
			BULLET MARKS		MISSING		MISSING		NONE						NONE				
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	24-2																		
RECOMMENDATION	C		C				A				A		A		A				
EXTERIOR WEST	COLUMN BEAM	◎	WALL(BRICK)	◎	DOOR		WINDOW		METAL		EXTERIOR FINISH	×	WATER PROOF	×	COPING	×	CAULKING		OTHERS
EVALUATION ITEM	NORMAL	✓	NORMAL	✓	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		
	DAMAGE		DAMAGE		RUSTY		RUSTY		RUSTY		DIRTY		LEAKAGE	✓	RUSTY		BROKEN	✓	
			BROKEN		CORROSION		CORROSION		CORROSION		WORN OUT	✓	DAMAGE		CORRSION	✓	NONE		
			BULLET MARKS		MISSING		MISSING		NONE						NONE				
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	24-3		24-3								24-3								
RECOMMENDATION	C		C								A		A		A				

EVALUATION ◎-GOOD
△-AVERAGE
×-BAD

RECOMMENDATION A-TOTAL REFURBISHMENT
B-PARTIAL REFURBISHMENT
C-NOT NECESSARY

BUILDING NUMBER-24

SERVICE WATER PUMP STATION

PUMP ROOM																						
PARTICULAR	FLOOR	×	WALL	×	CEILING	×	METAL		STAIR		LIGHTING	×	VENTILATION		HEATING	×	WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		
	DIRTY		DIRTY		DIRTY	✓	RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN	✓	BROKEN		MISSING	✓	MISSING		BROKEN		
	BROKEN	✓	BROKEN	✓	BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS	24-10,11		24-10,11		24-10,11						24-10,11										
RECOMMENDATION	A		A		A						A				A						
PARTICULAR	FLOOR		WALL		CEILING		METAL		STAIR		LIGHTING		VENTILATION		HEATING		WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		
	DIRTY		DIRTY		DIRTY		RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN		BROKEN		MISSING		MISSING		BROKEN		
	BROKEN		BROKEN		BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS																					
RECOMMENDATION																					
PARTICULAR	FLOOR		WALL		CEILING		METAL		STAIR		LIGHTING		VENTILATION		HEATING		WATER EQUIPMENT		FIRE EXTINGUISHER		OTHERS
EVALUATION ITEM	NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		NORMAL		
	DIRTY		DIRTY		DIRTY		RUSTY		DIRTY		RUSTY		CORROSION		BROKEN		BROKEN		CORROSION		
	SAG		SAG		SAG		CORROSION		UNEVEN		BROKEN		BROKEN		MISSING		MISSING		BROKEN		
	BROKEN		BROKEN		BROKEN		BROKEN		BROKEN		MISSING		MISSING						MISSING		
							MISSING														
INVESTIGATION METHOD	VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		VISUAL INSPECTION		
PHOTO NUMBERS																					
RECOMMENDATION																					

EVALUATION ◎-GOOD
△-AVERAGE
×-BAD

RECOMMENDATION A-TOTAL REFURBISHMENT
B-PARTIAL REFURBISHMENT
C-NOT NECESSARY

BUILDING SURVEY PHOTO

BUILDING NUMBER	24	BUILDING NAME	SERVICE WATER PUMPING STATION

PLAN AND DIRECTION FROM WHICH PHOTO WAS TAKEN

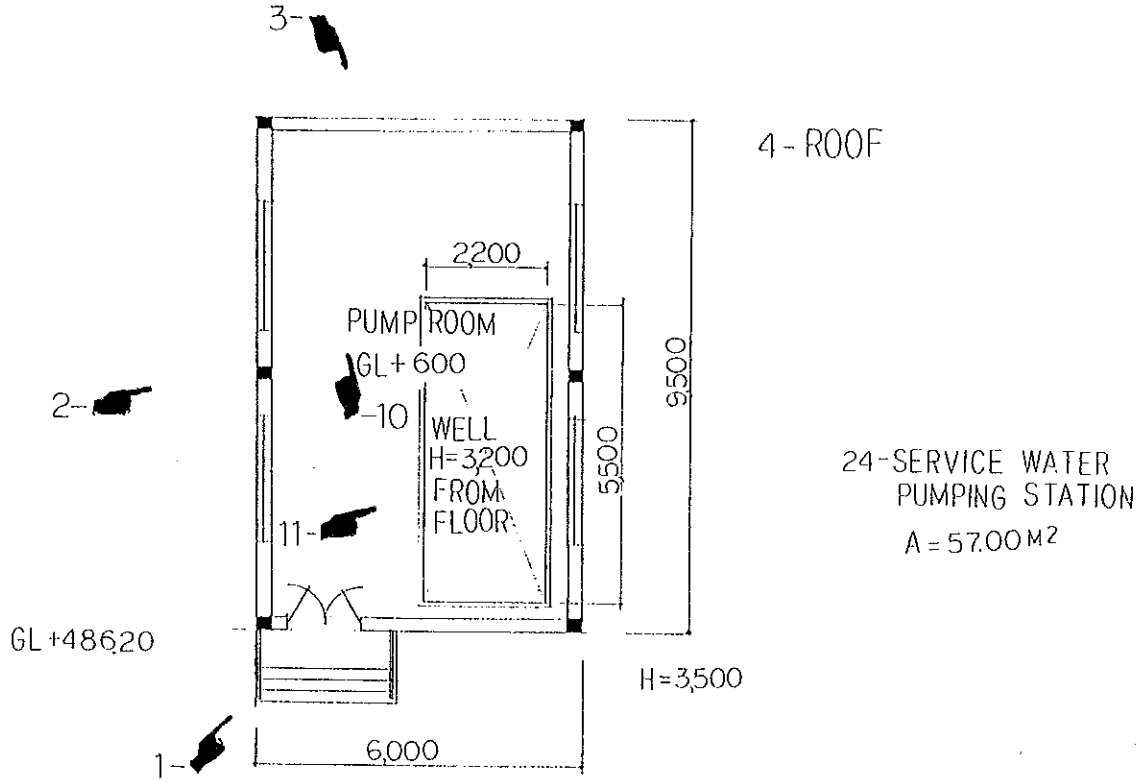
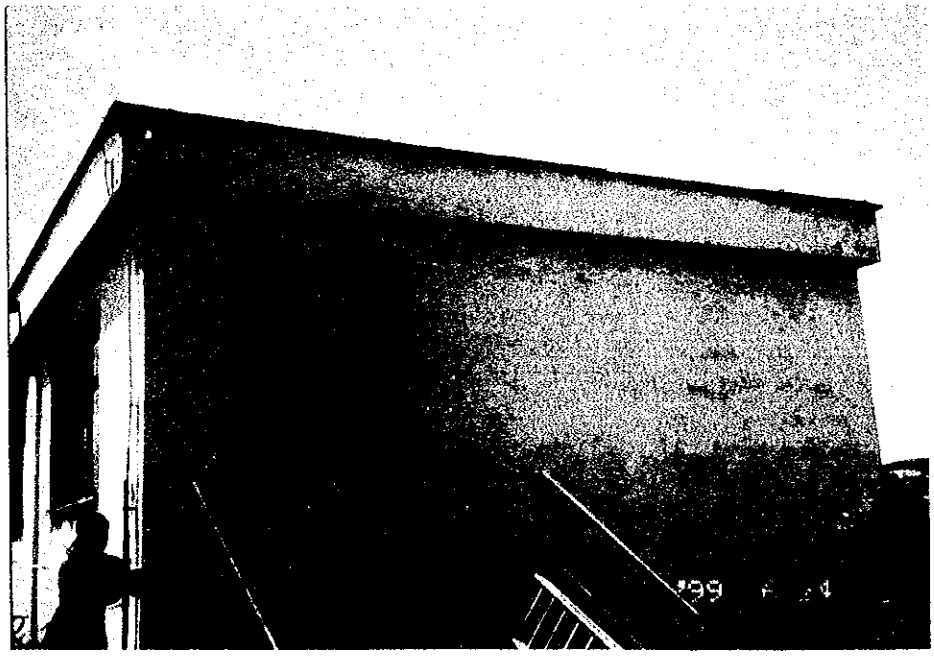


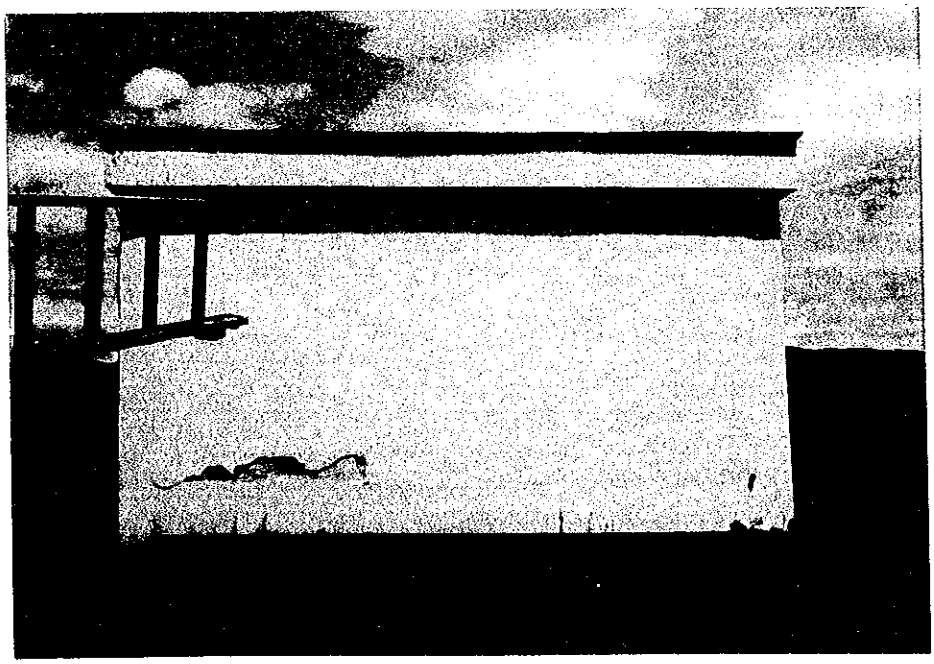
PHOTO NUMBER	24-1



BUILDING SURVEY PHOTO

BUILDING NUMBER	24	BUILDING NAME	SERVICE WATER PUMPING STATION
PHOTO NUMBER	24-2		

PHOTO NUMBER	24-3



BUILDING SURVEY PHOTO

BUILDING NUMBER	24	BUILDING NAME	SERVICE WATER PUMPING STATION
PHOTO NUMBER	24-10		

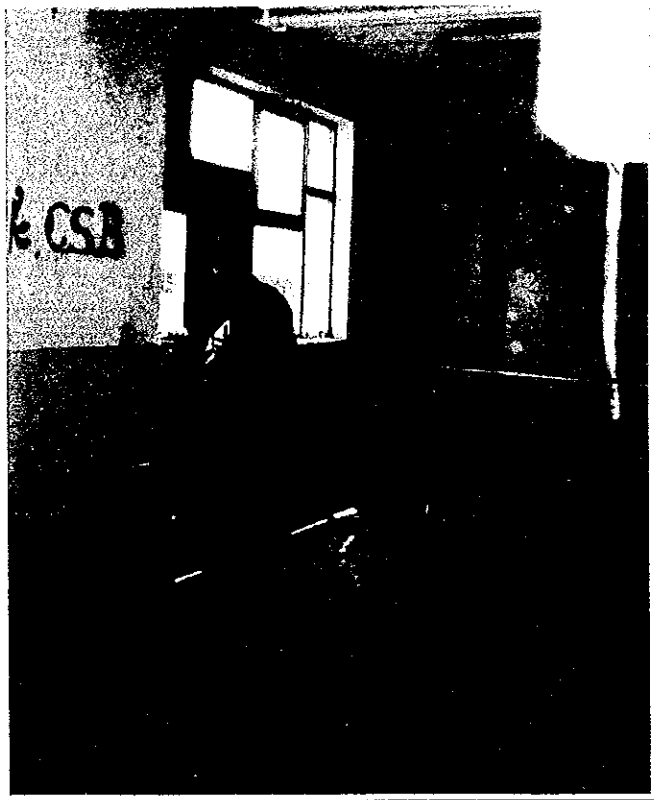
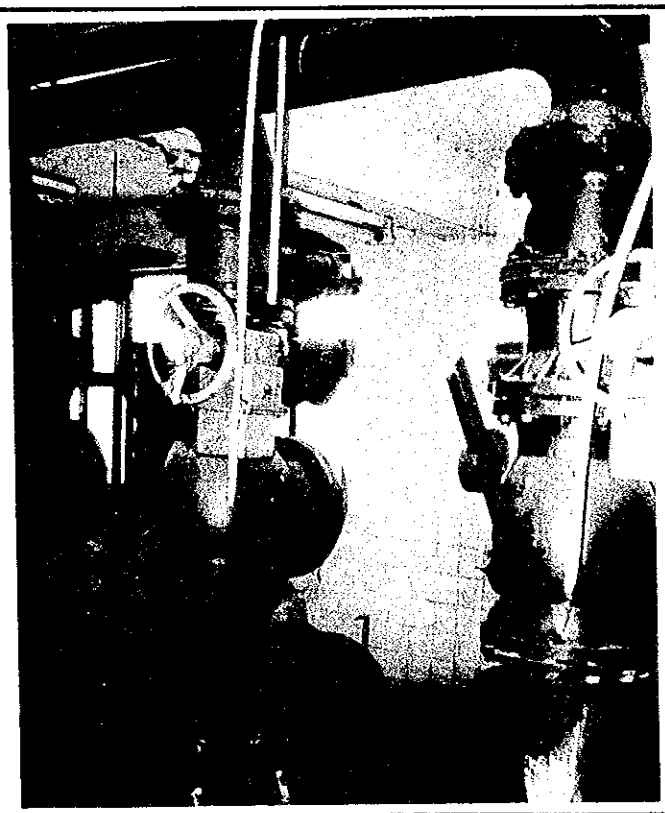


PHOTO NUMBER	24-11



APPENDIX I

INSPECTION SHEETS MECHANICAL ASPECTS

INSPECTION SHEET

Date of inspection 18 , June ,1999
Weather Cloudy later rain

Equipment	Main inlet gate 380 V 2.5 kW 4 pole Manufacturer: MIN NIS		
Location	Pre-treatment	Facilities	

Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	×	※1	Capacity	—	※2
	Stain/Corrosion	×		Safety measure	×	
	Painting	×		Other		
	Lubricant	×				
	Deformation/Crack	×				
	Damage	×				
	Abnormal sound	—	—			
	Overheat	—	—			
	Wear	×				
Decision A						

※1: The drive motor is removed and part of reducer is broken, only hand lever exists and the gate is movable, therefore operation test was carried out by rotating hand lever manually upward and downward in full spun of gate opening . Inside structure of level indicator and the pointer of the indicator work properly when the gate is operating by manually with hand lever.

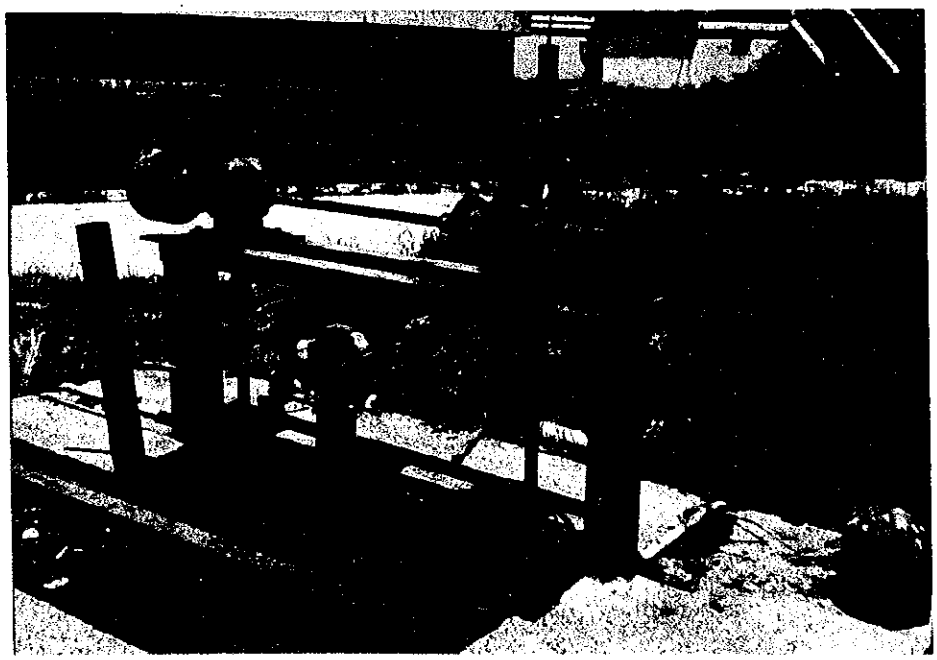
※2: Capacity in case of gate means that moving speed of gate plate in downward and upward are in between reasonable range when drive the gate by motor through reducer. However drive motor is move out, and besides the reducer is seriously damaged, therefore decision of capacity is impossible because the operation of the gate by motor through reducer being definitely not available.

As a conclusion, the whole main inlet facility including necessary auxiliaries should be replaced with new one.

FACILITY SURVEY PHOTO

LOCATION : PRE TREATMENT : MAIN INLET GATE
PHOTO No. 0-M 1

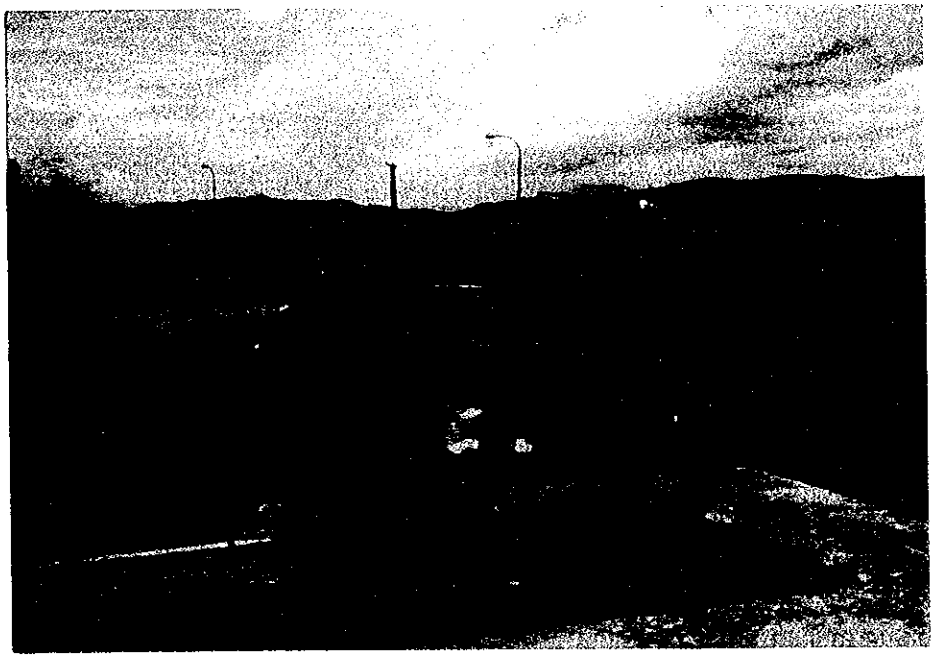
LOCATION : PRE TREATMENT : MAIN INLET GATE
PHOTO No . 0-M 2



FACILITY SURVEY PHOTO

LOCATION : PRE TREATMENT : MAIN INLET GATE
PHOTO No.0-M 3

LOCATION : PRE TREATMENT : MAIN INLET GATE
PHOTO No. 0-M 4



INSPECTION SHEET

Date of inspection 18 , June ,1999
Weather Cloudy later rain

Equipment	Screw pump No. 1~ No. 4* 380 V 160 kW 4 pole *(Numbering is from right to left in Arab. rule) Manufacturer: FLAYT		
Location	Raw water pumping station	Facilities	

Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	–	※1	Capacity	–	
	Stain/Corrosion	○		Safety measure	△	
	Painting	△	※2	Other	△	※3
	Lubricant	×				
	Deformation/Crack	○				
	Damage	△				
	Abnormal sound	–				
	Overheat	–				
	Wear	○				
Decision B						

※1: Grease lubrication systems for lower bearings of all 4 pumps are damaged or broken, and operation test for this kind of machines need for at least two hours continuous running in order to investigate several bearing's temperature stabilization, vibration, abnormal sound and water pumping up capability etc. In this case all four pumps are lacking of lower bearings' grease lubrication, therefore operation test for two hours should be too dangerous because of probably causing the severe damage of the pumps and not recommendable from the mechanical and safety point of view.

※2: Painting condition of 4 screw pumps are almost same and not so bad. Thickness of painting for each of 4 pumps was tried using Painting thickness measuring equipment at two point for each of 4pumps. However the measurement was too dangerous to be carried out, therefore abandoned finally.

※3: Drive units including reducer and lower bearings (foot bearings) need to be changed and remaining screws and shafts could be utilized, still needs cleaning, protection of corroded parts, painting and adjustment.

FACILITY SURVEY PHOTO

LOCATION : RAW WATER PUMPING STATION
PHOTO No.1-M 1

LOCATION : RAW WATER PUMPING STATION
PHOTO No. 1-M 2

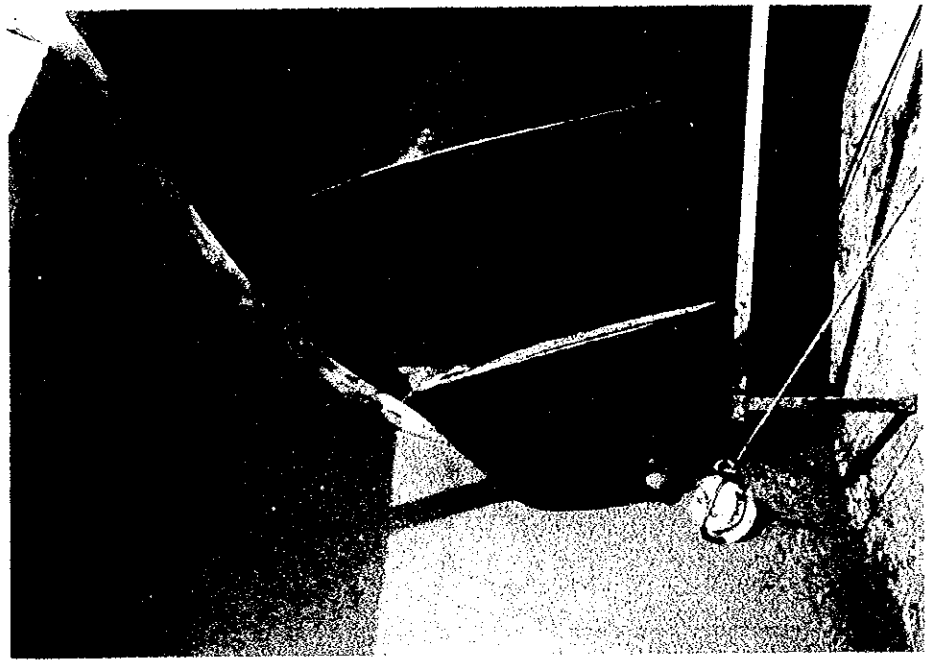
FACILITY SURVEY PHOTO

LOCATION : RAW WATER PUMPING STATION
PHOTO No.1-M 3

LOCATION : RAW WATER PUMPING STATION
PHOTO No.1-M 4

FACILITY SURVEY PHOTO

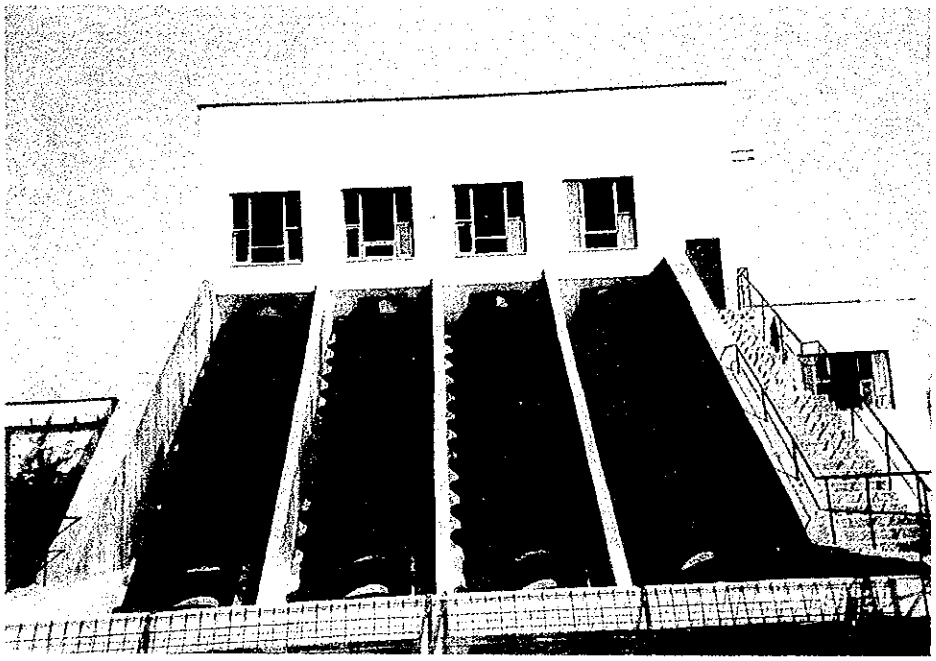
LOCATION : RAW WATER PUMPING STATION
PHOTO No.1-M 5



LOCATION : RAW WATER PUMPING STATION
PHOTO No.1-M 6

FACILITY SURVEY PHOTO

Location ; Raw Water Pumping Station
PHOTO No.1-M 7



Location ; Raw Water Pumping Station
PHOTO No.1-M 8

INSPECTION SHEET

Date of inspection 21 , June , 1999
Weather Fine

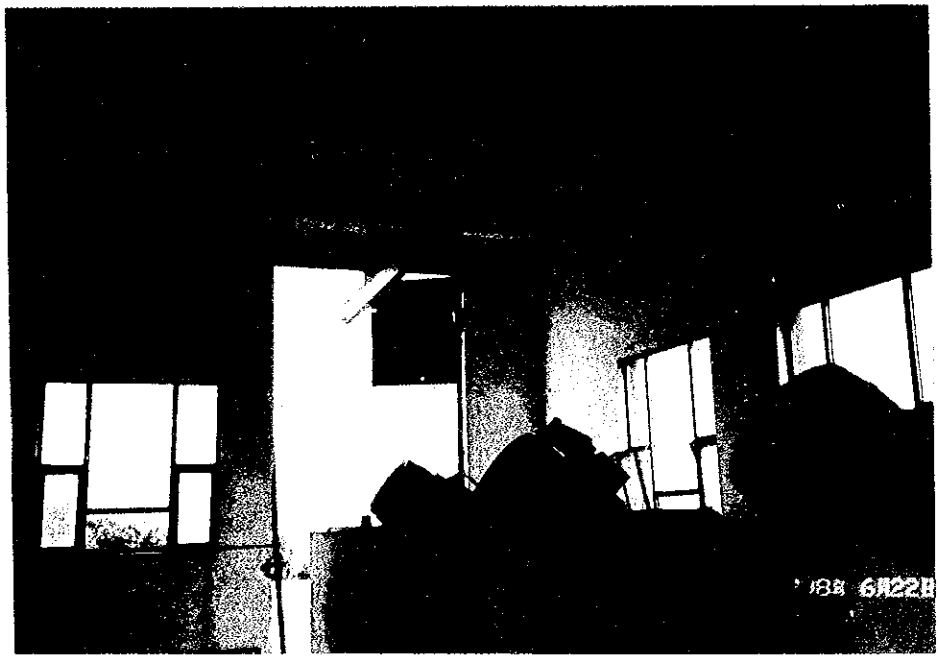
Equipment	Rail crane for screw pumps 380 V 4 / 0,7 kW 4 pole Manufacturer: Vulkan from Rijeka		
Location	Raw Water Pumping Station	Facilities	

Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	—	—	Capacity	—	
	Stain/Corrosion	△	△	Safety measure	△	
	Painting	×		Other		
	Lubricant	×				
	Deformation/Crack	△				
	Damage	×				
	Abnormal sound	—				
	Overheat	—				
	Wear	△				
Decision A						

Remarks : The crane is not good condition. Spare drive motor is dismounted.
The cable of the command from the ground and switch cabinet are not complete. Therefore the crane with whole auxiliaries are necessary to replace with new one.

FACILITY SURVEY PHOTO

LOCATION	: RAW WATER PUMPING STATION
PHOTO	No 1.1M 1 Rail Crane for Screw Pumps



INSPECTION SHEET

Date of inspection 22 , June ,1999
Weather Rain later cloudy

Equipment	Stop gate with motor drive 380 V 1.1 kW 2 pole Manufacturer: Laurent-Ramus		
Location	Screening Station	Facilities	

Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	—		Capacity	—	
	Stain/Corrosion	△		Safety measure	×	
	Painting	△		Other		
	Lubricant	×				
	Deformation/Crack	△				
	Damage	×				
	Abnormal sound	—				
	Overheat	—				
	Wear	△				
Decision A						

Remark: The stop gate is not in good condition. Complete producer's table with the data is missing. The stop gate with whole auxiliaries is necessary to replace with new one from mechanical and safety point of view.

INSPECTION SHEET

Date of inspection 22 , June ,1999
Weather Rain later cloudy

Equipment	Stop gate with manual drive V kW pole Manufacturer: Laurent-Ramus/Auma		
Location	Screening Station	Facilities	

Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	×	※1	Capacity	×	
	Stain/Corrosion	×		Safety measure	×	
	Painting	×		Other		
	Lubricant	×				
	Deformation/Crack	△				
	Damage	△				
	Abnormal sound	△				
	Overheat	△				
	Wear	△				
Decision B						

※1 : All 3 stop gates with manual drives could not operate by usual average man power of 15 kg which is Japan Sewerage Standard due to stiffness between shaft gears and coupled gears, trying to drive upward and downward many times, however could operate by putting much bigger manual power than 15 kg finally, therefore all bolts and nuts as well as retainer sheets need to be renewed and readjust.

FACILITY SURVEY PHOTO

LOCATION : SCREENING STATION	
PHOTO	No. 2-M 1 STOP GATE WITH MOTOR DRIVE

LOCATION : SCREENING STATION	
PHOTO	No. 2.1 STOP GATE WITH MANUAL DRIVE

INSPECTION SHEET

Date of inspection 22 , June ,1999
Weather Rain later cloudy

Equipment	Automatic coarse screen No.1~No.4* 380 V 2.5 kW 4 pole *The numbering is from right to left by Arab. rule. Manufacturer: Dgremont		
Location	Screening Station	Facilities	

Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	–		Capacity	–	※1
	Stain/Corrosion	△		Safety measure	×	
	Painting	△		Other		
	Lubricant	×				
	Deformation/Crack	△				
	Damage	×				
	Abnormal sound	–				
	Overheat	–				
	Wear	△				
Decision A						

※1 : Capacity in this kind of machine means that moving speed of coarse screen scraper in upward direction along 50mm apart of screen bars shows in certain speed range by operating the automatic coarse screen using drive motor through reducer, however drive motors for all 4 automatic coarse screen are not complete. Therefore measuring the capacity of the all 4 of automatic coarse screen is difficult.

INSPECTION SHEET

Date of inspection 22 , June , 1999
Weather Rain later cloudy

Equipment	Automatic fine screen No.1~No.4* 380 V 2.5 kW 4 pole *The numbering is from right to left in Arab. rule. Manufacturer: Degremont		
Location	Screening Station	Facilities	

Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	–		Capacity	–	※1
	Stain/Corrosion	△		Safety measure	×	
	Painting	×		Other		
	Lubricant	×				
	Deformation/Crack	△				
	Damage	×				
	Abnormal sound	–				
	Overheat	–				
	Wear	△				
Decision A						

※1 : Capacity in these kind of machines mean that scraping mechanisms are moving upward along 25 mm apart of screen bars when operating by drive motor through reducer show in certain speed range, however drive motors of all 4 automatic fine screens are not complete. Therefore measuring capacity of the automatic fine screens are difficult, almost impossible.

INSPECTION SHEET

Date of inspection 22 , June , 1999
Weather

Equipment	Belt conveyors for screenings No.1/No.2 380 V 2.5 kW 4 pole Manufacturer: No table		
Location	Screening Station	Facilities	

Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	—		Capacity		
	Stain/Corrosion	×	×	Safety measure		
	Painting	×		Other		
	Lubricant	×				
	Deformation/Crack	×				
	Damage	×				
	Abnormal sound	—				
	Overheat	—				
	Wear	×				
Decision A						

Remark : The portable conveyors for screenings are in very bad condition, attacked by rust, no motors, it is necessary to replace whole complete sets.

INSPECTION SHEET

Date of inspection 22 , June, 1999
Weather Rain later cloudy

Equipment	Single rail cranes for the screen No.1/No.2 380 V 4/0.7 kW pole Manufacturer: Vulkan Rijeka		
Location	Screening Station	Facilities	

Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	—		Capacity	—	
	Stain/Corrosion	△		Safety measure	×	
	Painting	△		Other		
	Lubricant	△				
	Deformation/Crack	△				
	Damage	×				
	Abnormal sound					
	Overheat	—				
	Wear	△				
Decision A						

Remark : Capacity in these kind of machines mean that the lifting capability show designed 2,000 kg by using main and spare motor drive, however cable of command from the ground and switch cabinet are not complete. Therefore measuring of capacity is impossible.
The cranes are need to be replaced with new complete machines with necessary auxiliaries.

INSPECTION SHEET

Date of inspection 22 , June , 1999
Weather Rain later cloudy

Equipment	Stop gate with motor drive 380 V 1.1 kW 2 pole Manufacturer: Lauret Ramus/Auma		
Location	Screening Station	Facilities	

Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	—	—	Capacity		
	Stain/Corrosion	△	×	Safety measure		
	Painting	△		Other		
	Lubricant	△				
	Deformation/Crack	△				
	Damage	×				
	Abnormal sound	—				
	Overheat	—				
	Wear	△				
Decision A						

Remark : The stop gate is not good condition. Complete producer's table with the data is missing. The stop gate with whole auxiliaries is necessary to be replaced with new one from mechanical and safety point of view.

INSPECTION SHEET

Date of inspection 22 , June , 1999
Weather

Equipment	Stop gates with hand drive No.1~No.3* V kW pole Manufacturer: Laurent-Ramus/Auma		
Location	Screening Station	Facilities	

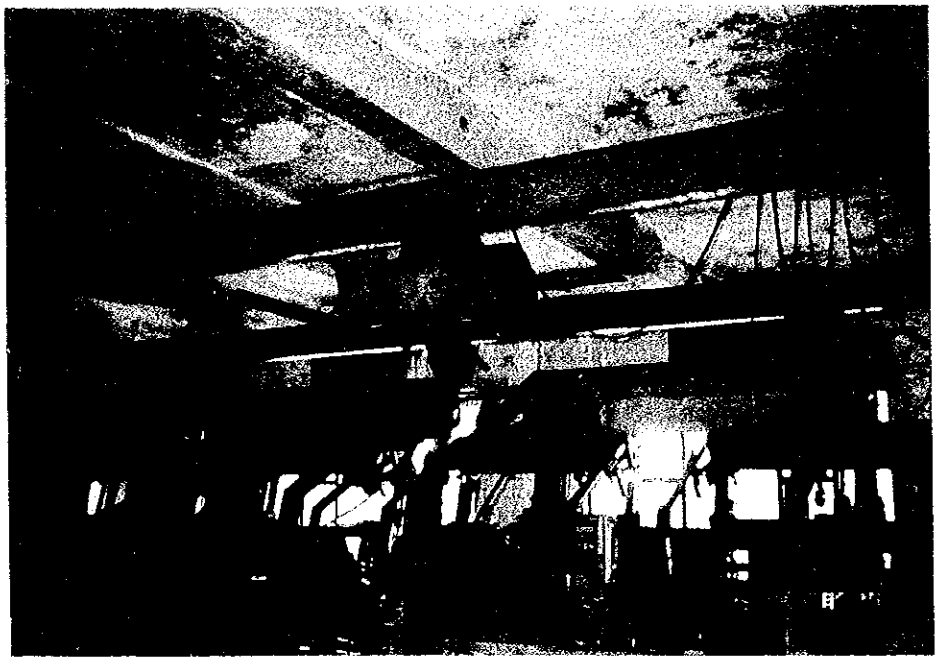
Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	△		Capacity	×	
	Stain/Corrosion	△		Safety measure	×	
	Painting	×		Other		
	Lubricant	×				
	Deformation/Crack	△				
	Damage	△				
	Abnormal sound	△				
	Overheat	△				
	Wear	△				
Decision B						

* Numbering is from right to left in Arab. rule.

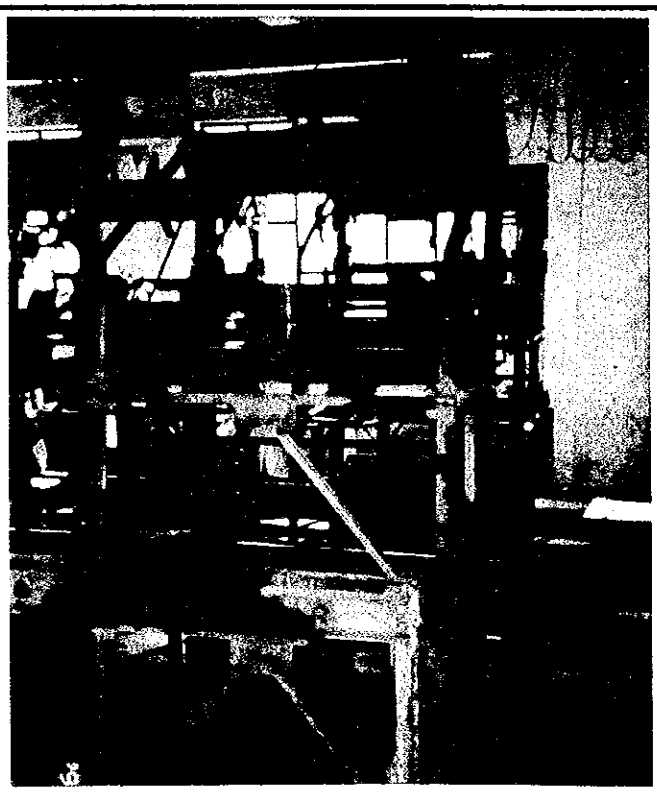
Remark : The gates can operate by manually putting much more than 15 kg which Japan Sewerage Standard, therefore all bolts and nuts as well as retainer sheets need to be replaced with new one and readjusted.

FACILITY SURVEY PHOTO

LOCATION : SCREENING STATION	
PHOTO	No. 2.2 AUTOMATIC COARSE SCREEN No.1 ~ No.4



LOCATION : SCREENING STATION	
PHOTO No .	2.3AUTOMATIC FINE SCREEN No. 1 ~ No.4



INSPECTION SHEET

Date of inspection 23 , June , 1999
Weather: Cloudy

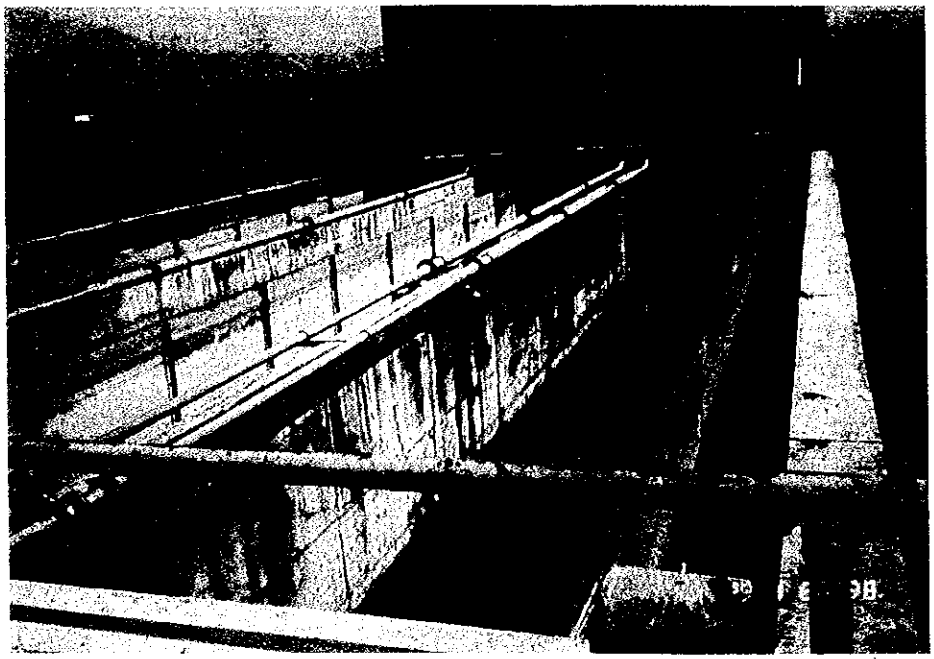
Equipment	Sand trap bridge 380 V 1.5 kW 4 pole Manufacturer: Degremont France		
Location	Aeration Grit Chamber	Facilities	

Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	—		Capacity	—	
	Stain/Corrosion	×		Safety measure	×	
	Painting	×		Other		
	Lubricant	×				
	Deformation/Crack	△				
	Damage	×				
	Abnormal sound	—				
	Overheat	—				
	Wear	×				
Decision A						

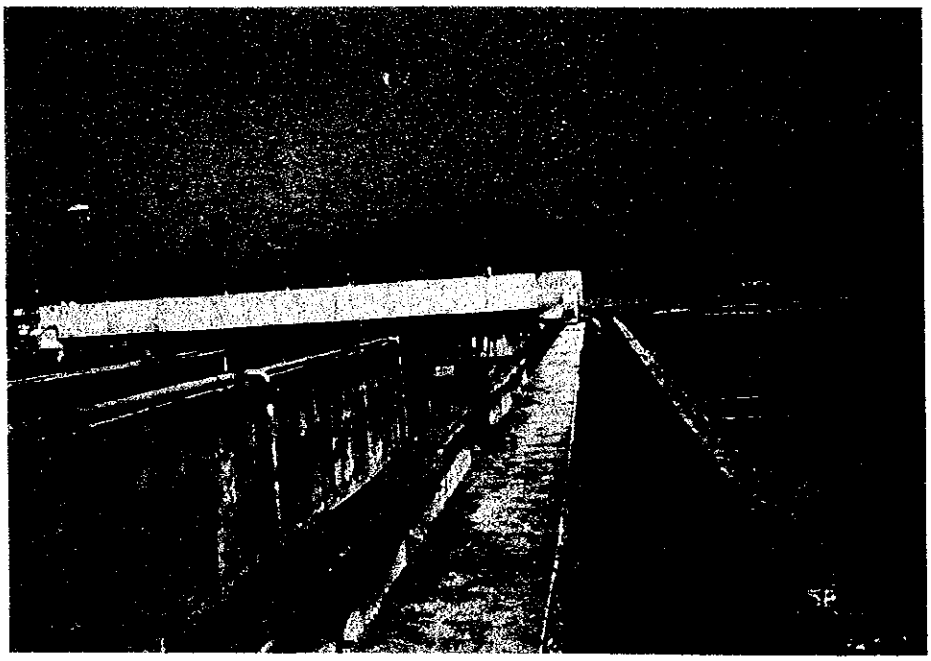
Remark : Metal bridge construction is attacked severely by corrosion, bridge drive motor is rusted and flexible cab tire cable is missing thoroughly.
Aeration system, made of galvanized pipe with nozzles for production of air bubbles is damaged heavily.
At the bridge, there are mammoth pumps and pipe lines for sludge evacuation and these things are almost finished their lives.
As a conclusion, whole aeration sand trap mechanism with all necessary auxiliaries except civil structure should be replaced by new one.

FACILITY SURVEY PHOTO

LOCATION :	AERATION GRIT CHAMBER
PHOTO No.	3-M 1 SAND TRAP BRIDGE



LOCATION :	AERATION GRIT CHAMBER
PHOTO No.	3-M 2 SAND TRAP BRIDGE



INSPECTION SHEET

Date of inspection 23 , June ,1999
Weather: Cloudy

Equipment	Aeration sand trap inlet gates No.1~No.3* V kw pole *Numbering is from right to left in Arab. rule Manufacturer: Laurent-Ramus		
Location	Aeration grit chamber	Facilities	

Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	△		Capacity	△	
	Stain/Corrosion	△		Safety measure	×	
	Painting	△		Other		
	Lubricant	△				
	Deformation/Crack	△				
	Damage	×				
	Abnormal sound	×				
	Overheat	△				
	Wear	△				
Decision B						

Remark: All of three gates are operable by manually, however power needed are over 15 kg which figure is guided as Japanese Sewerage Standard.
All bolts and nuts as well as retainers are needed to be replaced with new ones.

INSPECTION SHEET

Date of inspection 23 , June ,1999
Weather: Cloudy

Equipment	Scum channel inlet gates No.1~No.3 * V kw pole *Numbering is from right to left by Arab. rule Manufacturer: Laurent-Ramas		
Location	Aerated grit chamber	Facilities	

Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	△		Capacity	△	
	Stain/Corrosion	△		Safety measure	×	
	Painting	△		Other		
	Lubricant	×				
	Deformation/Crack	△				
	Damage	×				
	Abnormal sound	×				
	Overheat	×				
	Wear	△				
Decision B						

Remark: All three of gates are operable by manually, however power needed are over 15 kg which figure is guided as Japanese Sewerage Standard.
All bolts and nuts as well as retainers are needed to be replaced with new ones.

INSPECTION SHEET

Date of inspection 23, June, 1999
Weather: Cloudy

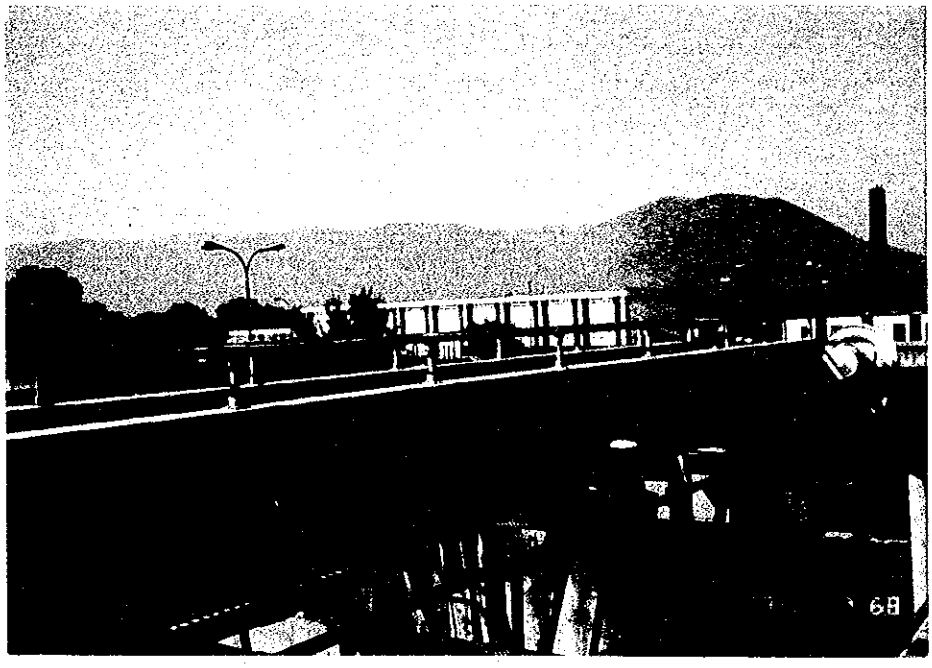
Equipment	Aeration sand trap outlet gates No.1~No.3* V kw pole *Numbering is from right to left in Arab. rule. Manufacturer: Laurent-Ramus		
Location	Aeration grit chamber	Facilities	

Result of inspection						
	Physical inspection			Functional inspection		
Degree of problem	Operating condition	△		Capacity	△	
	Stain/Corrosion	△		Safety measure	×	
	Painting	△		Other		
	Lubricant	×				
	Deformation/Crack	△				
	Damage	×				
	Abnormal sound	×				
	Overheat	×				
	Wear	△				
Decision B						

Remark: All three of gates are operable by manually, however power needed are over 15 kg which figure is guided as Japanese Sewerage Standard.
All bolts and nuts as well as retainers are needed to be replaced with new ones and readjusted .

FACILITY SURVEY PHOTO

LOCATION :	AERATION GRIT CHAMBER
PHOTO No.	3-M 3 SAND TRAP BRIDGE



LOCATION :	AERATION GRIT CHAMBER
PHOTO No.	3-4 SAND TRAP BRIDGE