
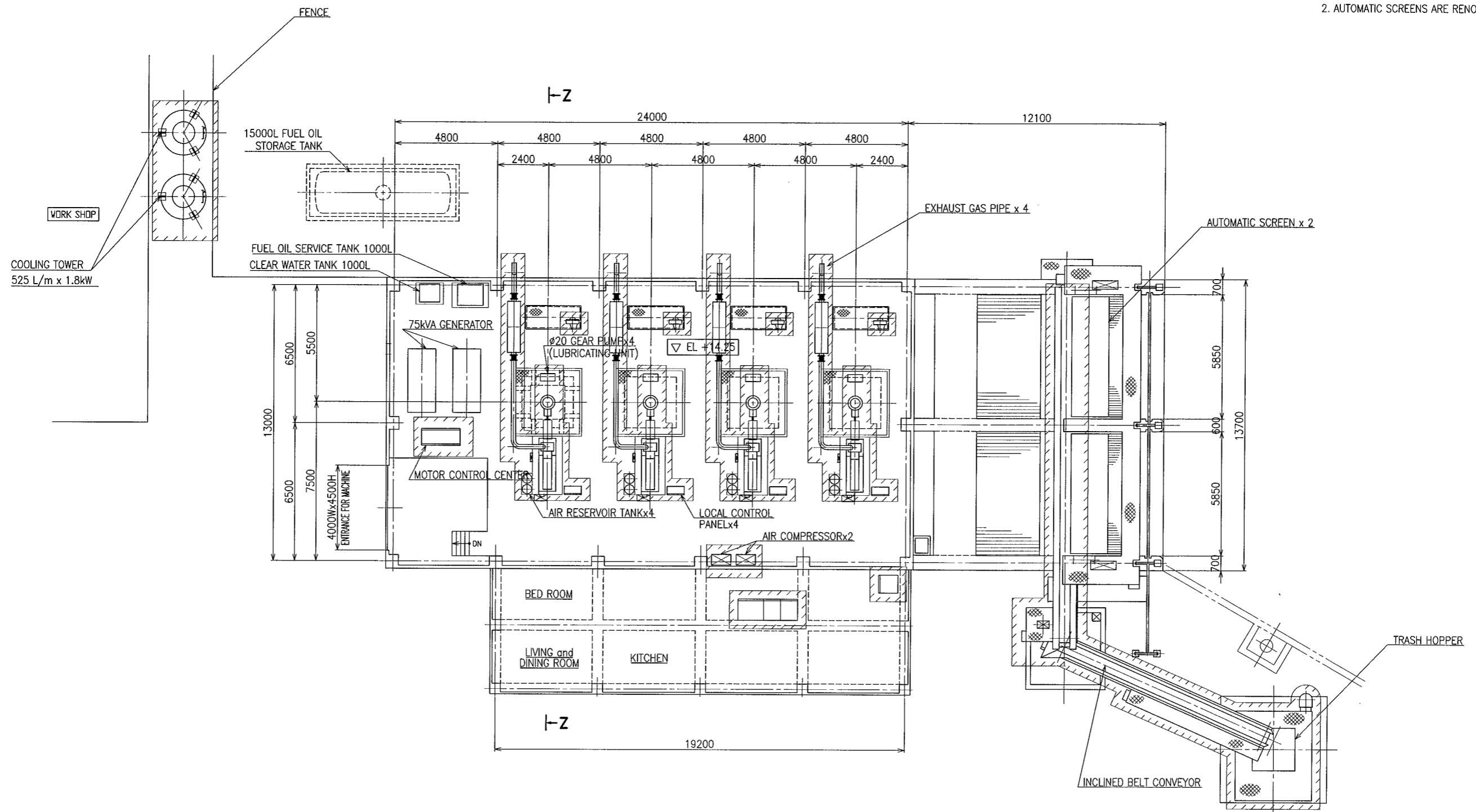





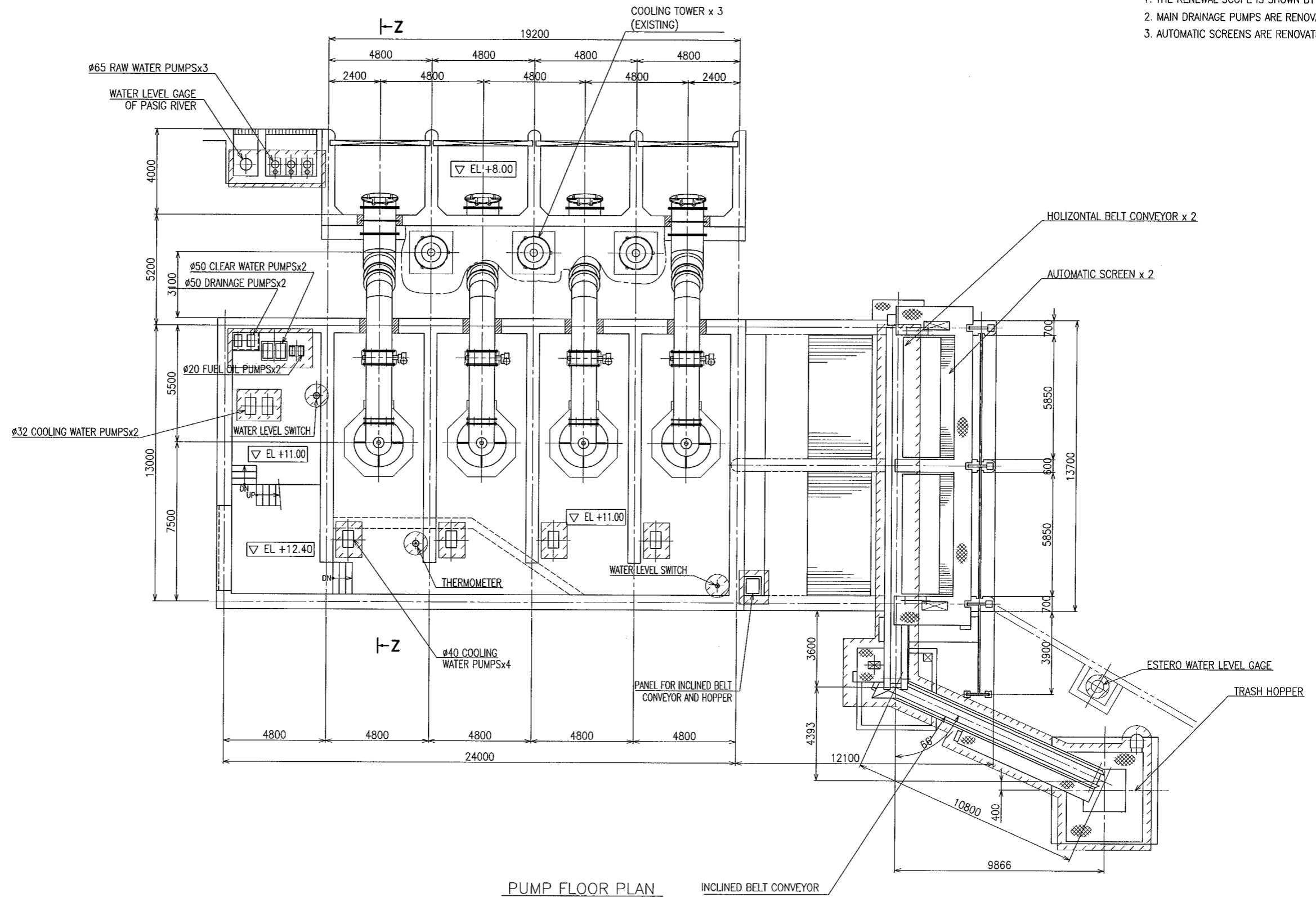
- NOTE:
1. THE RENEWAL SCOPE IS SHOWN BY 
 2. AUTOMATIC SCREENS ARE RENOVATED AT SITE



ENGINE FLOOR PLAN



Name of Project		Drawing No.	28
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/100
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Proposed Engine Floor General Layout			
 : Japan International Cooperation Agency		 Metropolitan Manila Development Authority	

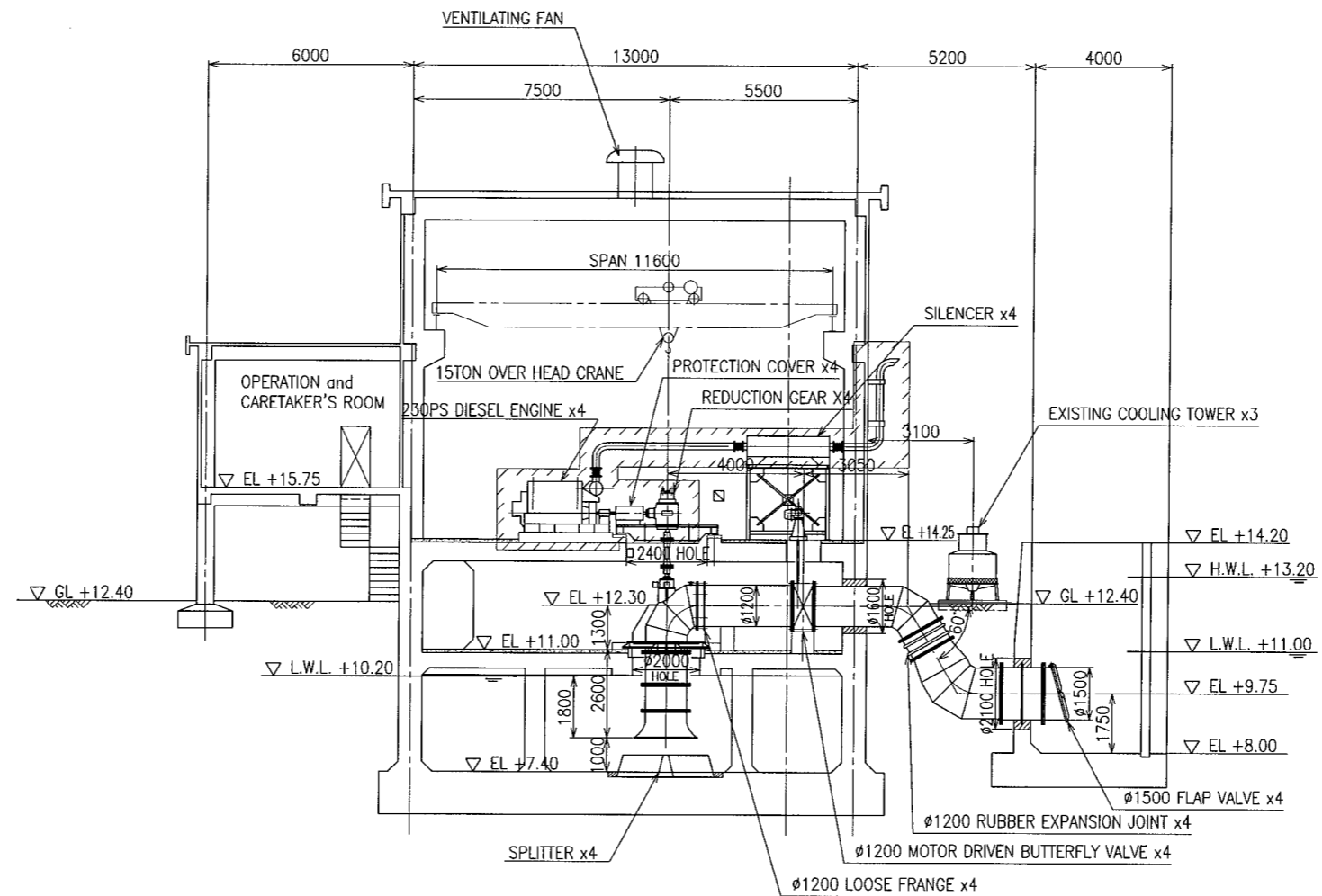
- NOTE:
1. THE RENEWAL SCOPE IS SHOWN BY 
 2. MAIN DRAINAGE PUMPS ARE RENOVATED AND MODIFIED AT SITE.
 3. AUTOMATIC SCREENS ARE RENOVATED AND MODIFIED AT SITE.



PUMP FLOOR PLAN

INCLINED BELT CONVEYOR

Name of Project		Drawing No.	29
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/100
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Proposed Pump Floor General Layout			
 : Japan International Cooperation Agency		 Metropolitan Manila Development Authority	




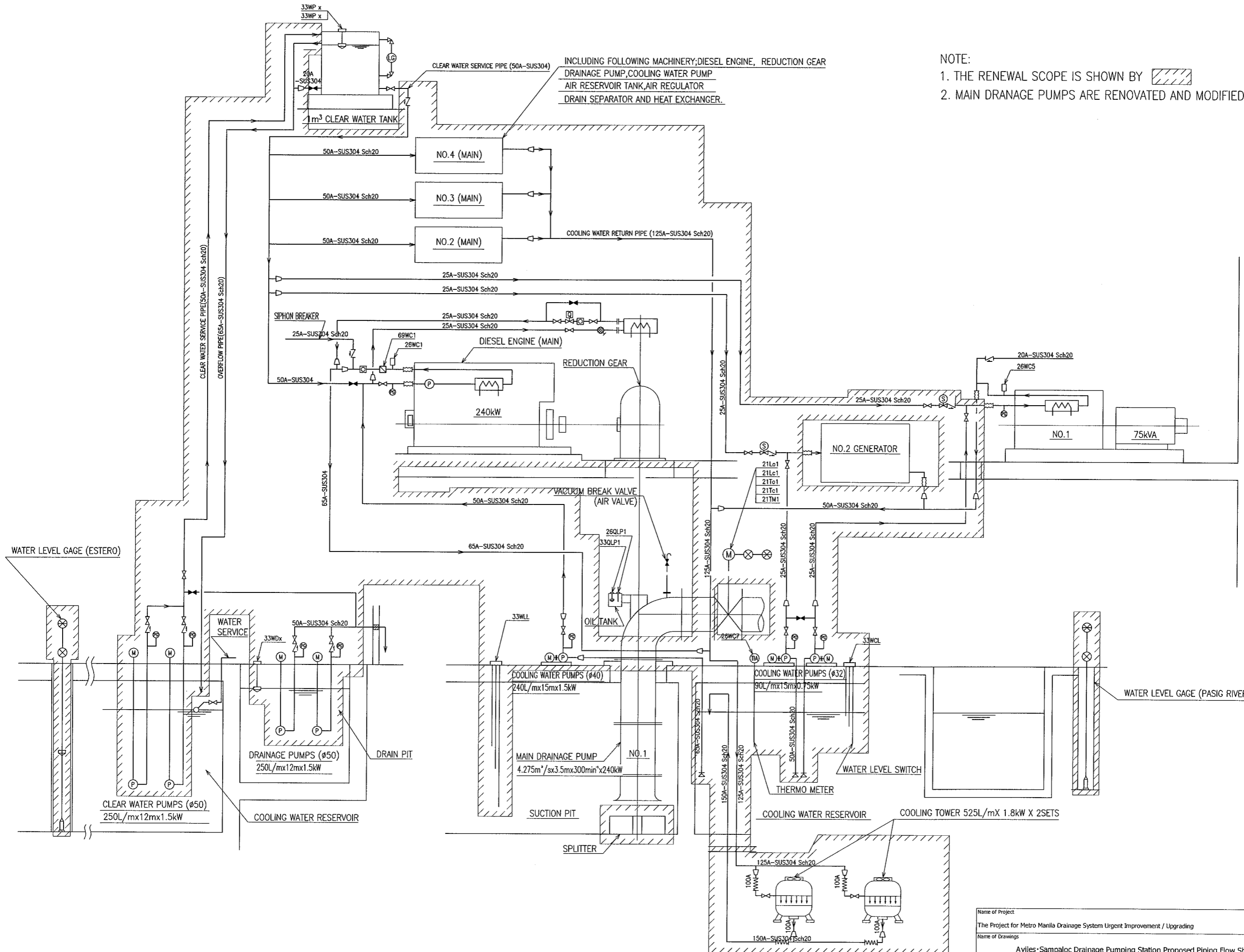
SEC Z Z


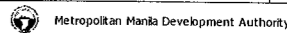
- NOTE:
1. THE RENEWAL SCOPE IS SHOWN BY
 2. MAIN DRAINAGE PUMPS ARE RENOVATED AND MODIFIED AT SITE.

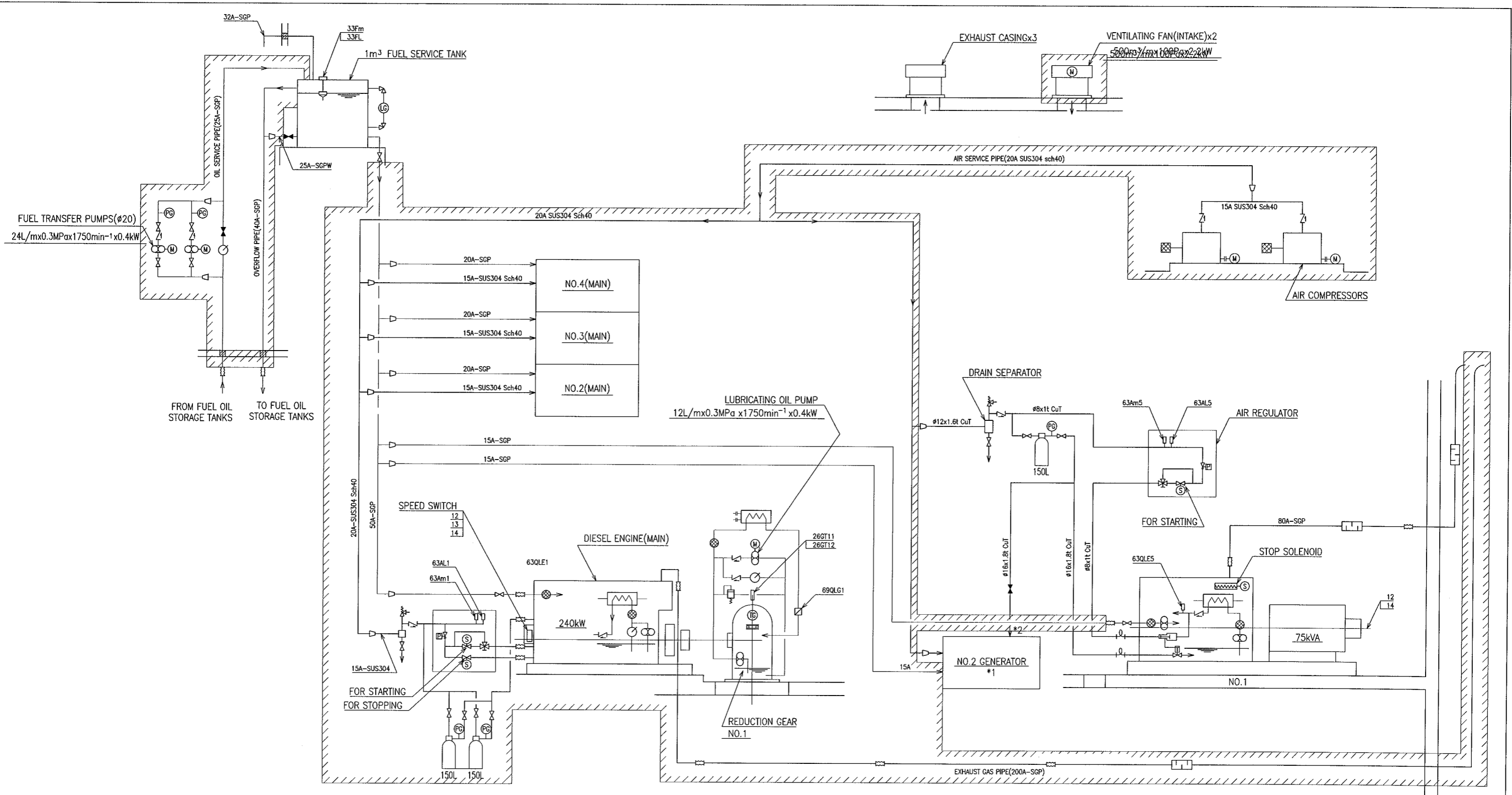
Name of Project		Drawing No.	30
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/100
Name of Drawings		Date	Sep, 2007
Aviles-Sampaloc Drainage Pumping Station Proposed Elevation Plan			
: Japan International Cooperation Agency		Metropolitan Manila Development Authority	

NOTE:

1. THE RENEWAL SCOPE IS SHOWN BY 
2. MAIN DRAINAGE PUMPS ARE RENOVATED AND MODIFIED AT SITE.



Name of Project	The Project for Metro Manila Drainage System Urgent Improvement / Upgrading	Drawing No.	31
Name of Drawings	Aviles-Sampaloc Drainage Pumping Station Proposed Piping Flow Sheet	Scale	-
		Date	Sep, 2007
 : Japan International Cooperation Agency		 Metropolitan Manila Development Authority	

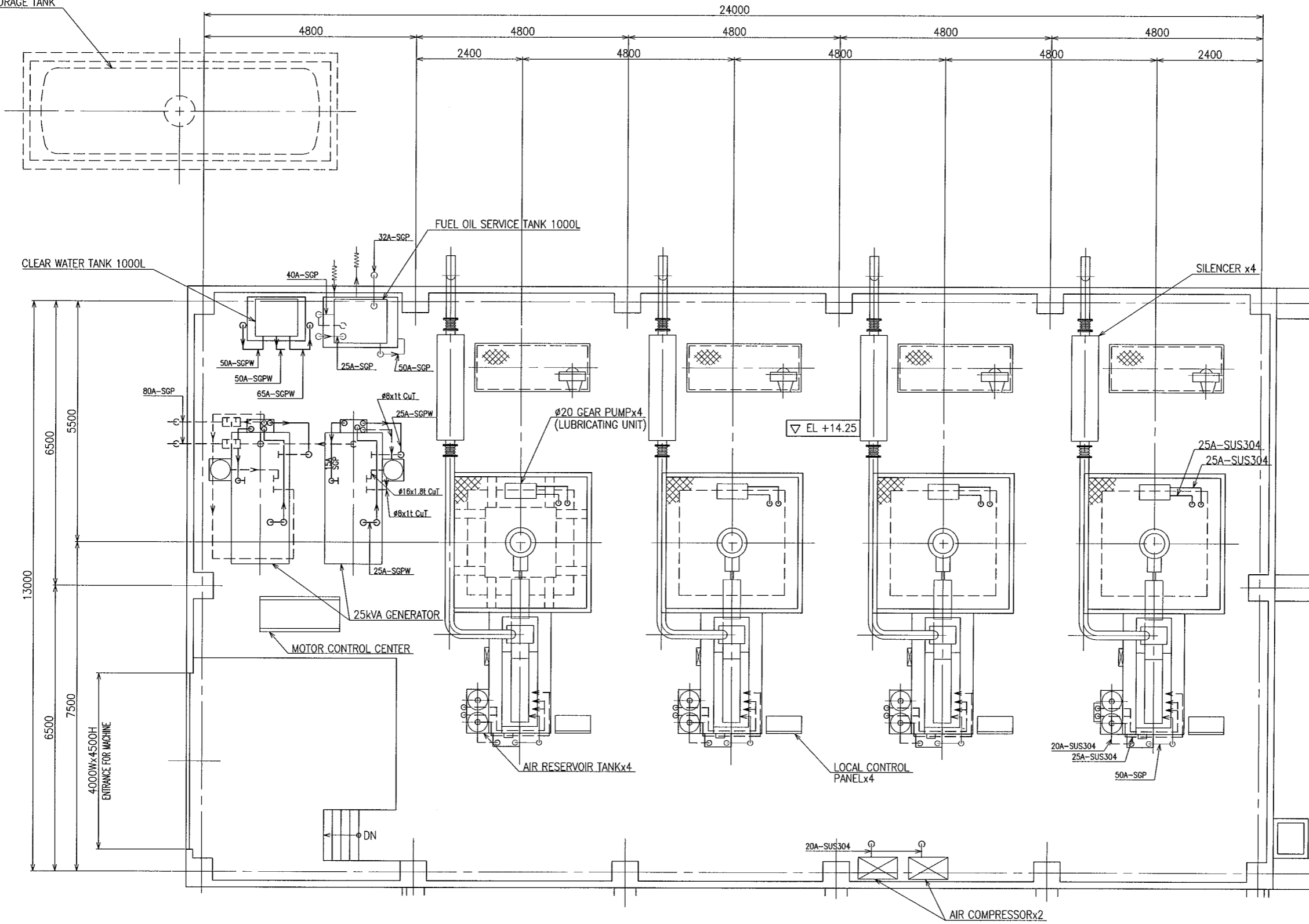


NOTES

- 1.*1 IS INCLUDING FOLLOWING MACHINERY; AIR REGULATOR, AIR RESERVOIR TANK AND DRAIN SEPARATOR
- 2.*2 IS CONNECTING WITH SAME LINE OF NO.2 AIR RESERVOIR TANK.
- 3.THE RENEWAL SCOPE IS SHOWN BY

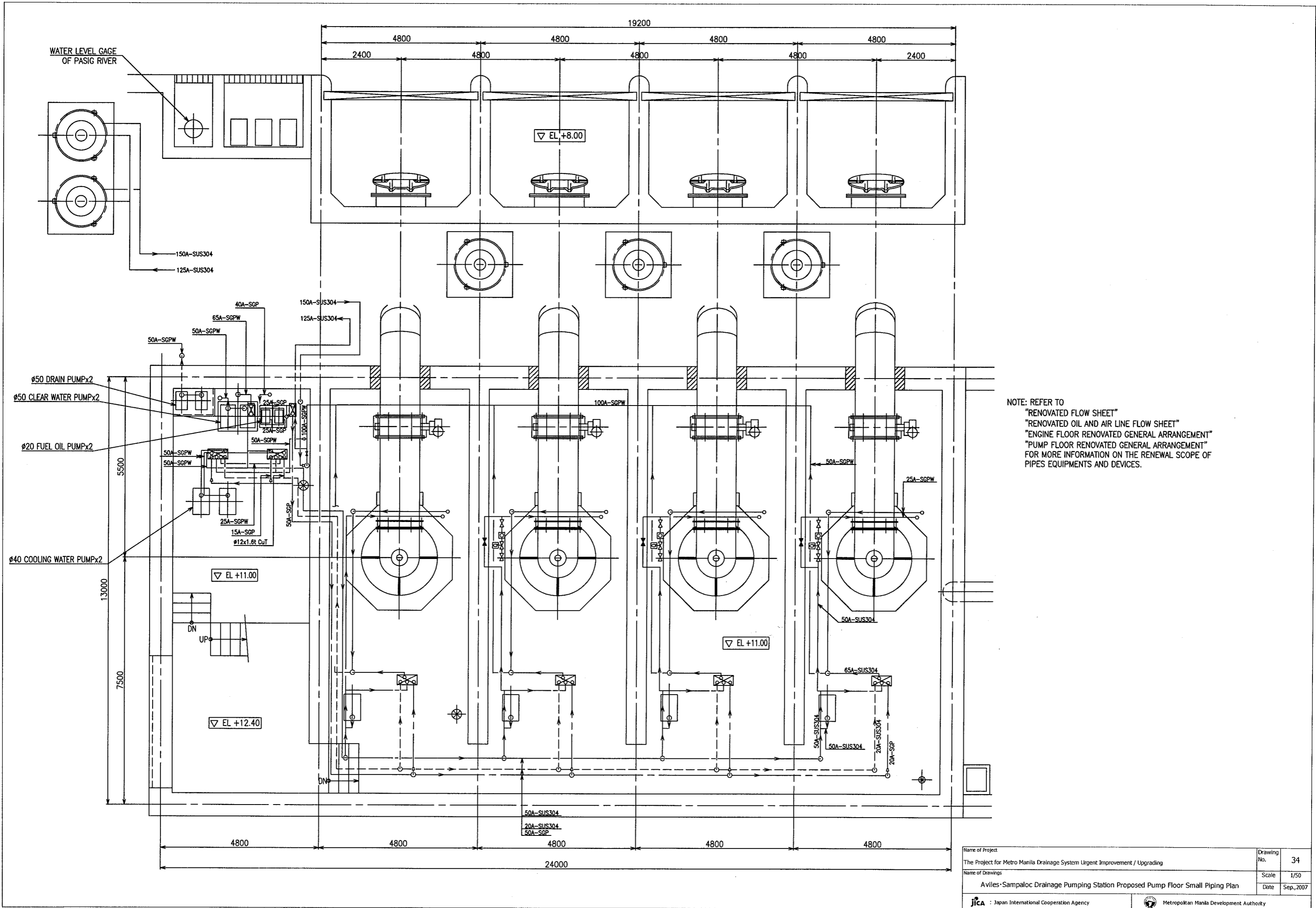
Name of Project		Drawing No.	32
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	-
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Proposed Oil and Air Flow Sheet			
: Japan International Cooperation Agency		Metropolitan Manila Development Authority	

15000L FUEL OIL STORAGE TANK



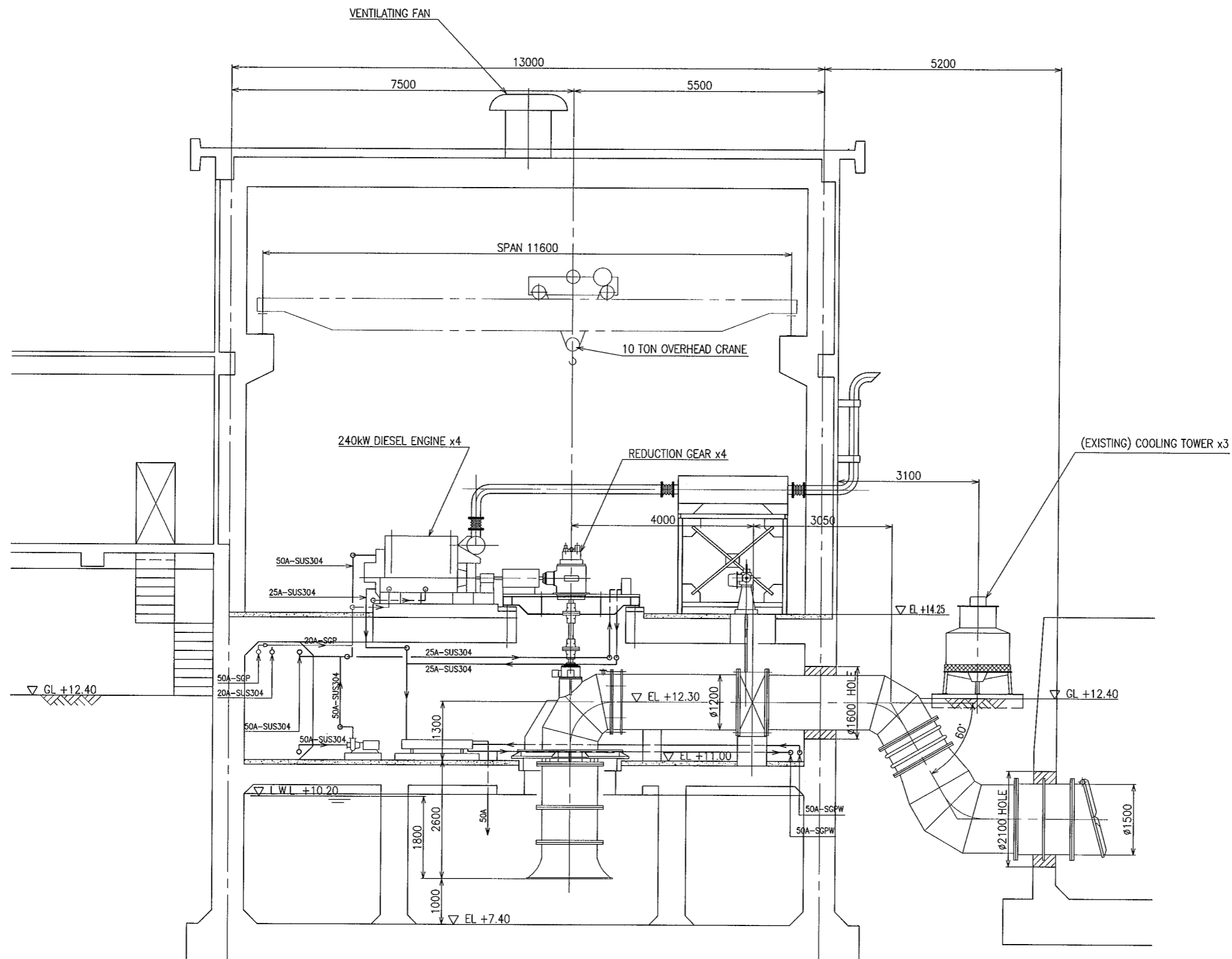
NOTE: REFER TO
 "RENOVATED FLOW SHEET"
 "RENOVATED OIL AND AIR LINE FLOW SHEET"
 "ENGINE FLOOR RENOVATED GENERAL ARRANGEMENT"
 "PUMP FLOOR RENOVATED GENERAL ARRANGEMENT"
 FOR MORE INFORMATION ON THE RENEWAL SCOPE OF PIPES EQUIPMENTS AND DEVICES.

Name of Project		Drawing No.	33
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/50
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Proposed Engine Floor Small Piping Plan			
JICA	Japan International Cooperation Agency	Metropolitan Manila Development Authority	



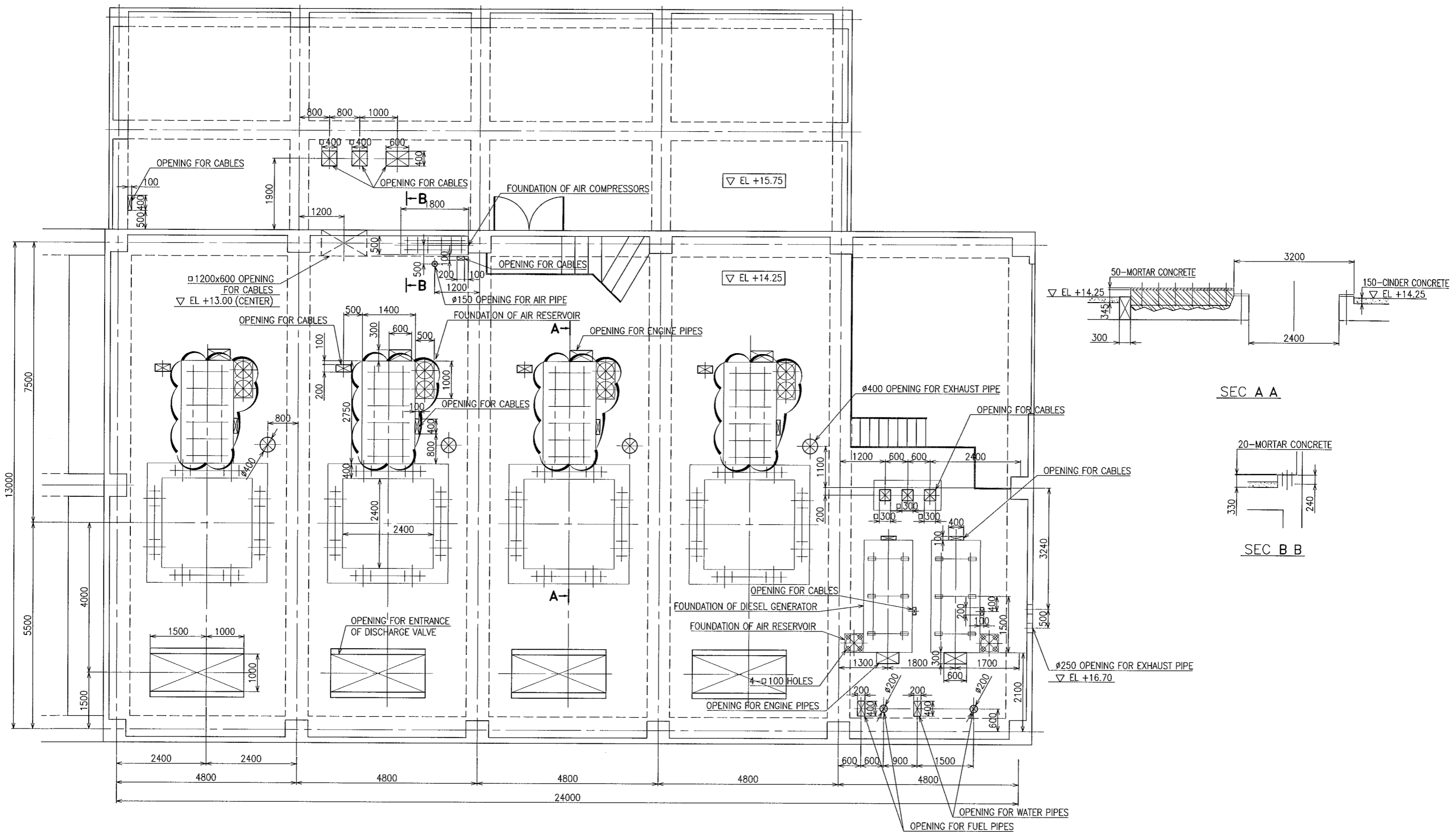
NOTE: REFER TO
 "RENOVATED FLOW SHEET"
 "RENOVATED OIL AND AIR LINE FLOW SHEET"
 "ENGINE FLOOR RENOVATED GENERAL ARRANGEMENT"
 "PUMP FLOOR RENOVATED GENERAL ARRANGEMENT"
 FOR MORE INFORMATION ON THE RENEWAL SCOPE OF
 PIPES EQUIPMENTS AND DEVICES.

Name of Project		Drawing No.	34
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/50
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Proposed Pump Floor Small Piping Plan			
Japan International Cooperation Agency		Metropolitan Manila Development Authority	



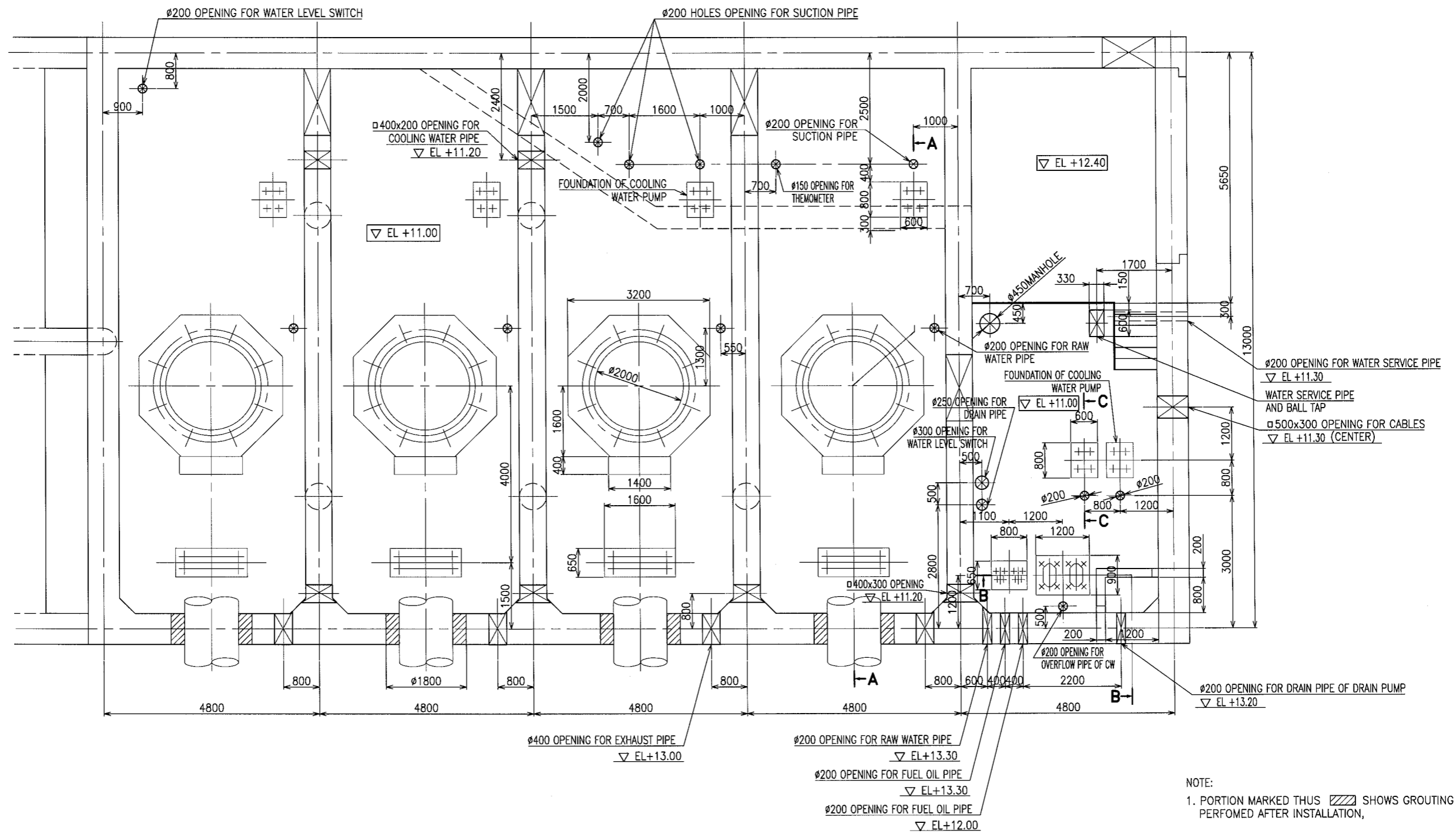
NOTE: REFER TO
 "RENOVATED FLOW SHEET"
 "RENOVATED OIL AND AIR LINE FLOW SHEET"
 "ENGINE FLOOR RENOVATED GENERAL ARRANGEMENT"
 "PUMP FLOOR RENOVATED GENERAL ARRANGEMENT"
 FOR MORE INFORMATION ON THE RENEWAL SCOPE OF PIPES EQUIPMENTS AND DEVICES.

Name of Project	The Project for Metro Manila Drainage System Urgent Improvement / Upgrading	Drawing No.	35
Name of Drawings	Aviles-Sampaloc Drainage Pumping Station Proposed Small Piping Elevation Plan	Scale	1/50
		Date	Sep.,2007
JICA : Japan International Cooperation Agency		Metropolitan Manila Development Authority	

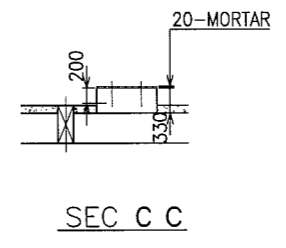
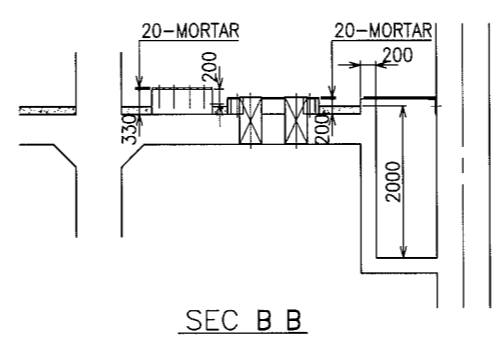
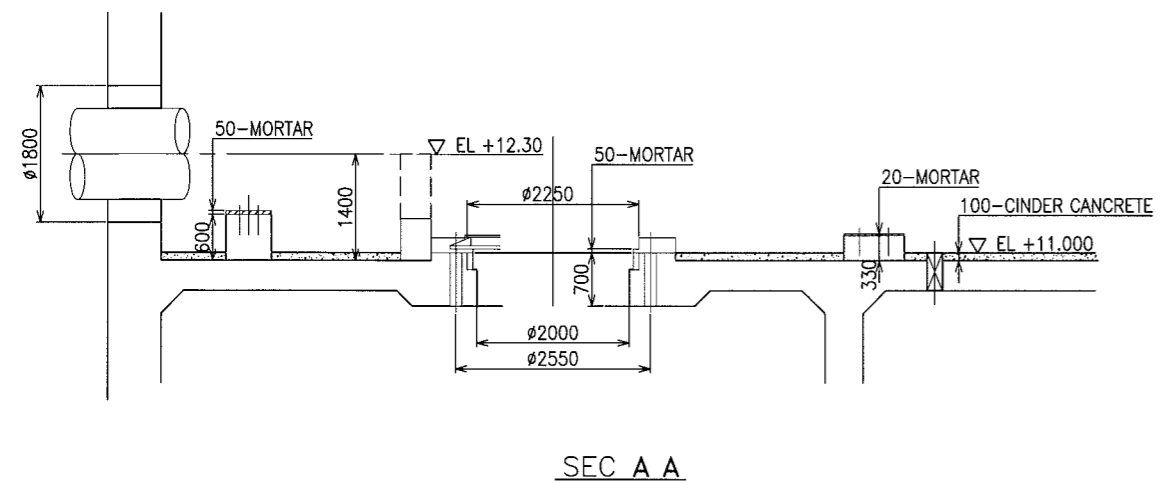


NOTE:
 1. THE CIVIL SCOPE IS SHOWN BY .
 2. PORTION MARKED THUS SHOWS SECONDARY CONCRETE TO BE PERFORMED BEFORE INSTALLATION,
 3. PORTION MARKED THUS SHOWS GROUTING TO BE PERFORMED AFTER INSTALLATION,

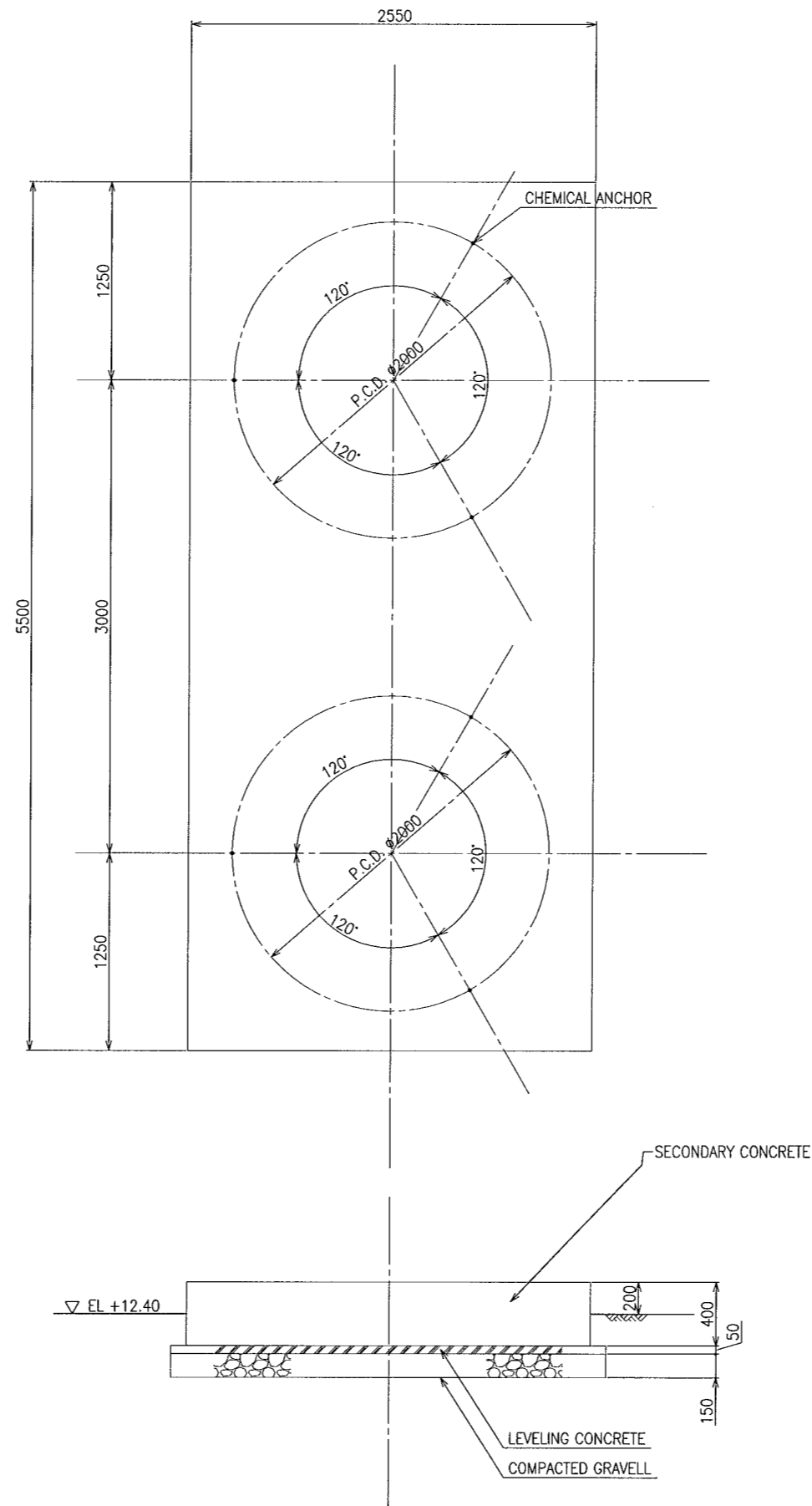
Name of Project		Drawing No.	36
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/50
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Proposed Engine Floor Foundation Plan			
: Japan International Cooperation Agency		Metropolitan Manila Development Authority	



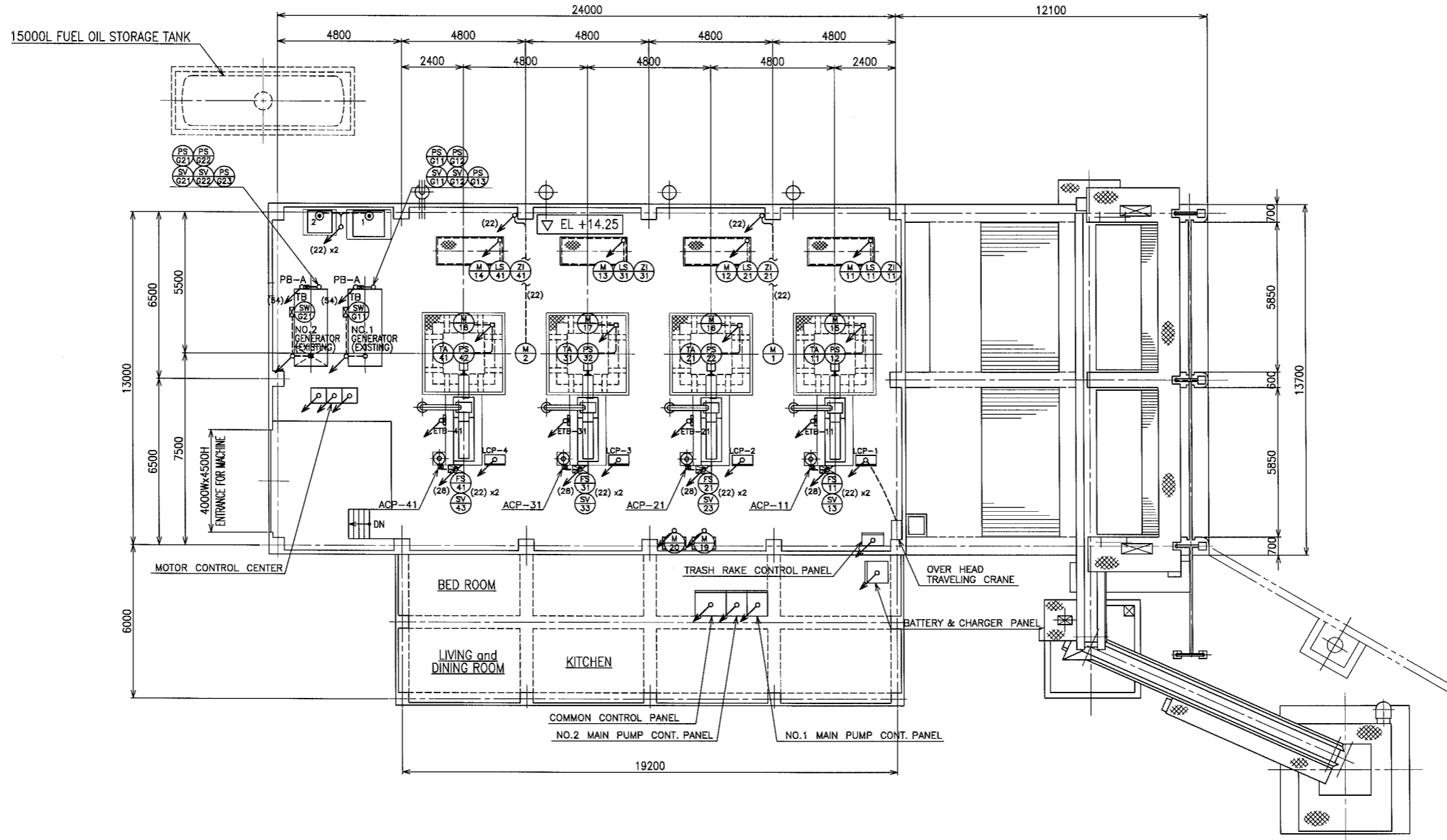
NOTE:
 1. PORTION MARKED THUS SHOWS GROUTING TO BE PERFORMED AFTER INSTALLATION,



Name of Project	The Project for Metro Manila Drainage System Urgent Improvement / Upgrading	Drawing No.	37
Name of Drawings	Aviles-Sampaloc Drainage Pumping Station Proposed Pump Floor Foundation Plan	Scale	1/50
		Date	Sep., 2007
: Japan International Cooperation Agency		: Metropolitan Manila Development Authority	



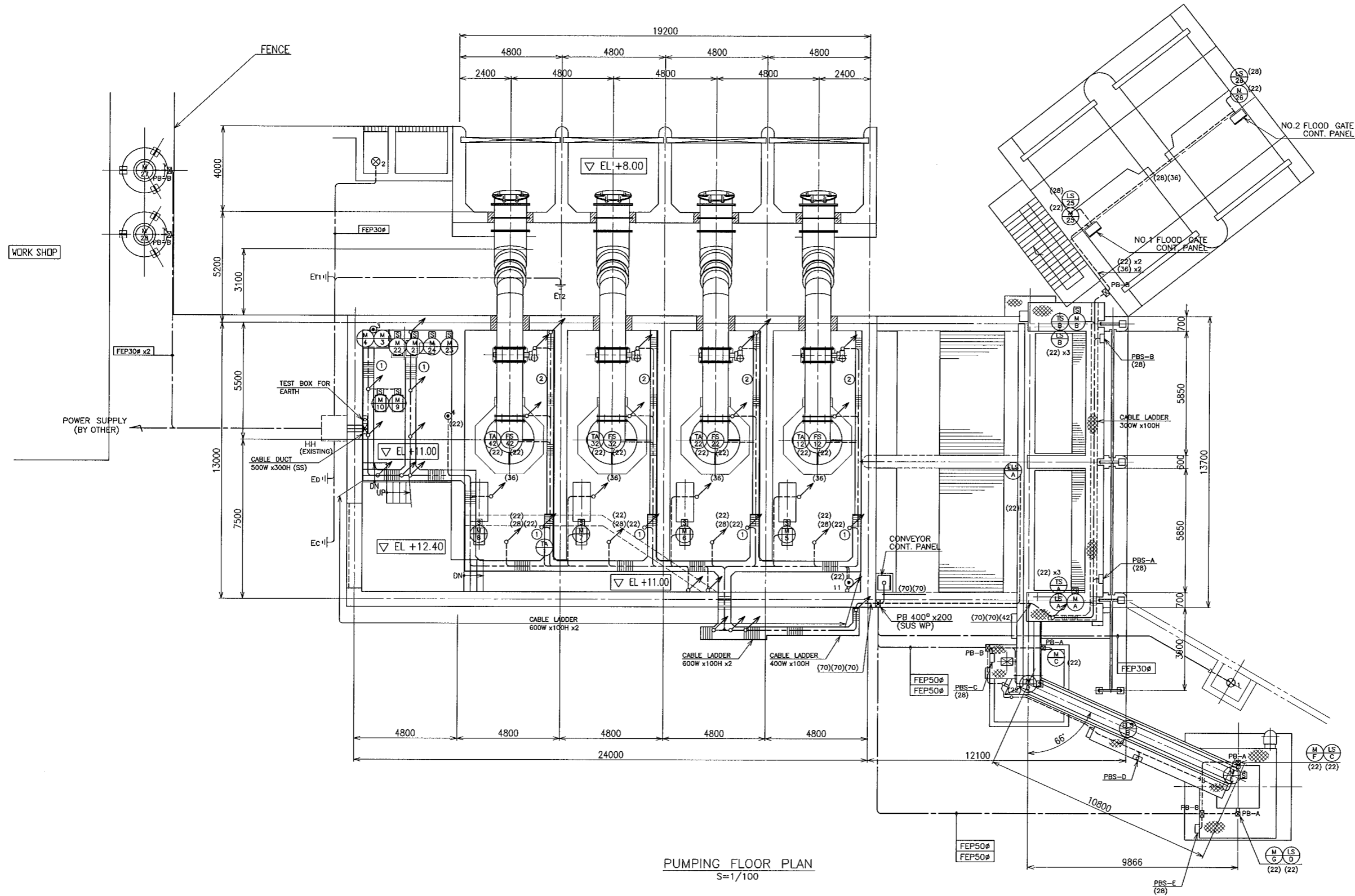
Name of Project		Drawing No.	38
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/20
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Proposed Cooling Tower Foundation Plan			
JICA : Japan International Cooperation Agency		Metro Manila Development Authority	



ENGINE FLOOR PLAN
S=1/100

NOTE
1. PB-A : 200^o x 150 (SUS WP)

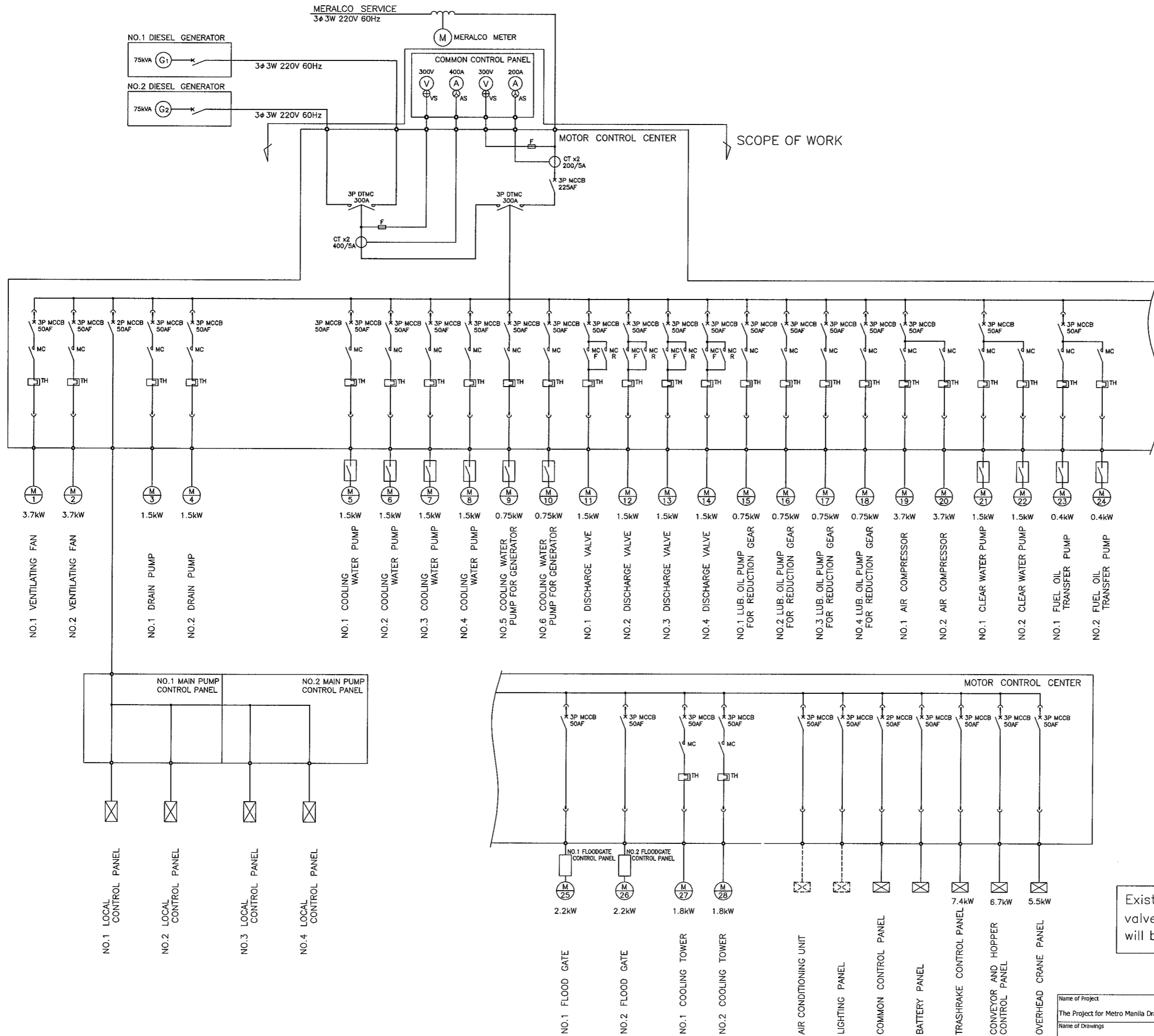
Name of Project	The Project for Metro Manila Drainage System Urgent Improvement / Upgrading	Drawing No.	39-1
Name of Drawings	Aviles-Sampaloc Drainage Pumping Station Proposed Wiring Plan(1/2)	Scale	1/100
		Date	Sep.,2007
Japan International Cooperation Agency		Metropolitan Manila Development Authority	



PUMPING FLOOR PLAN
S=1/100

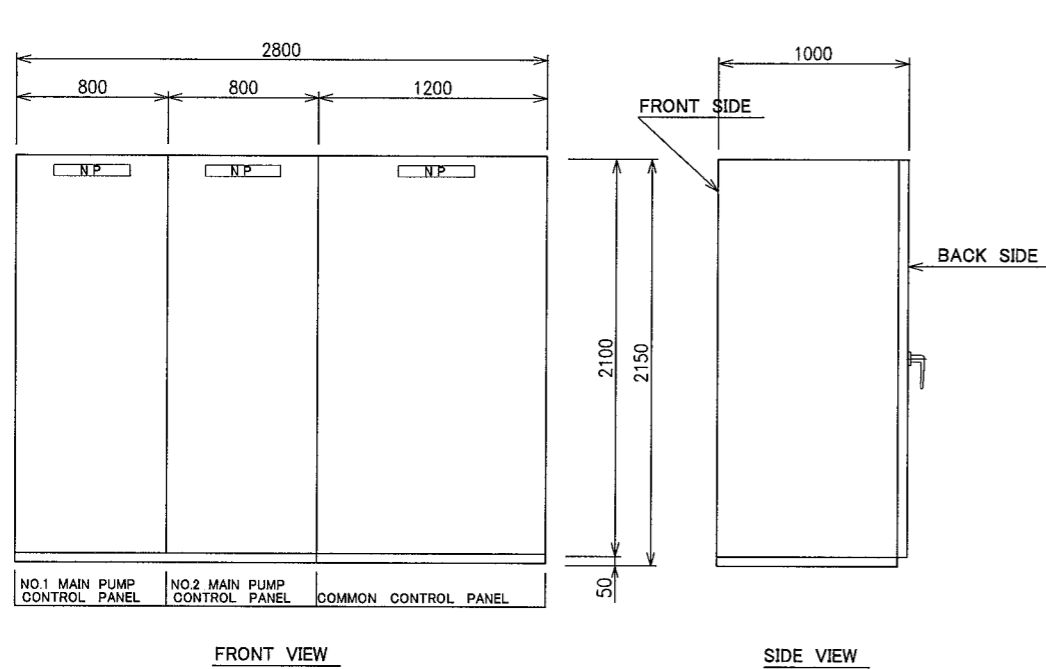
- NOTE
- PB-A : 200^o x 150 (SUS WP)
PB-B : 300^o x 200 (SUS WP)
 - [S] : MCCB BOX
 - CABLE LADDER : ALUMINUM.
① 400W x 100H
② 300W x 100H
 - CABLE LADDER SUPPORT : SS HOT DIPPED GALVA.

Name of Project		Drawing No.	39-2
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/100
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Proposed Wiring Table(2/2)			
Japan International Cooperation Agency		Metropolitan Manila Development Authority	

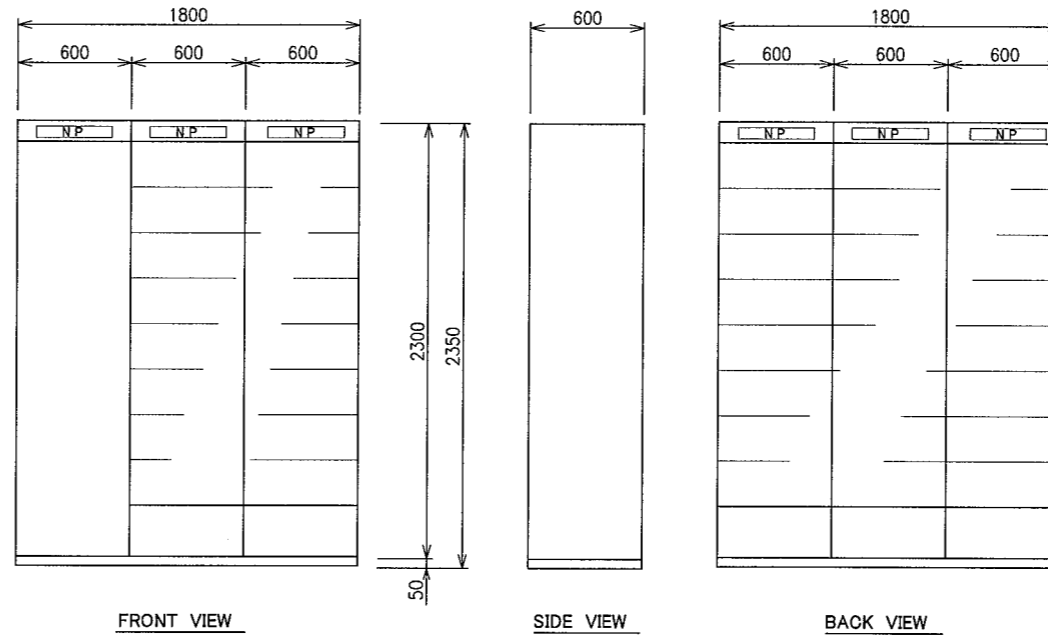


Existing raw water pumps and raw water valves will be dismantled. Other equipment will be replaced with new ones.

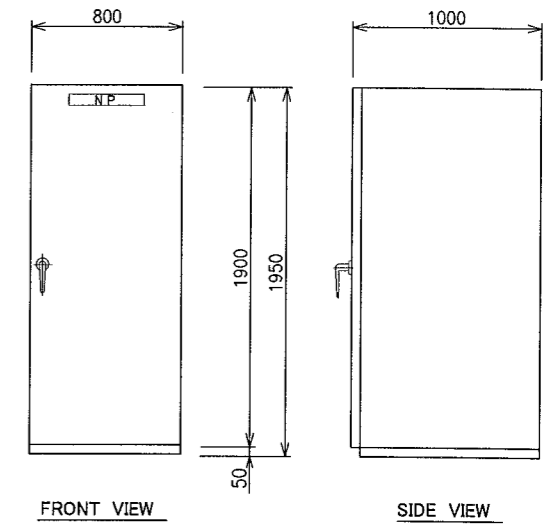
Name of Project		Drawing No.	41
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	-
Name of Drawings		Date	Sep, 2007
Aviles-Sampaloc Drainage Pumping Station Proposed Single Line Diagram			
JICA : Japan International Cooperation Agency		Metro Manila Development Authority	



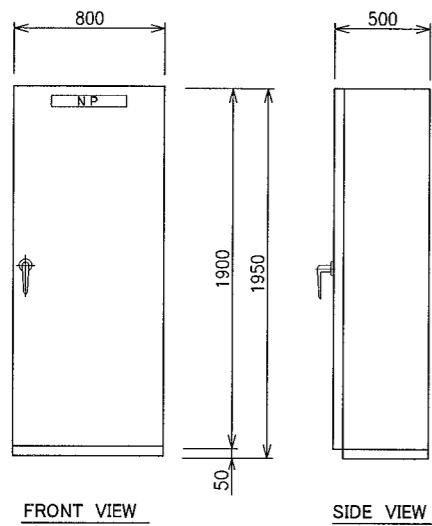
COMMON CONTROL CENTER
S=1/20



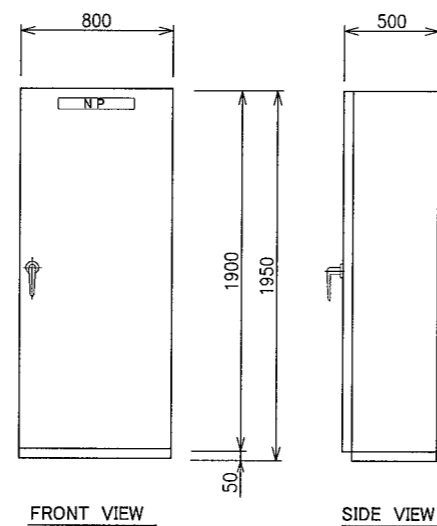
MOTOR CONTROL CENTER
S=1/20



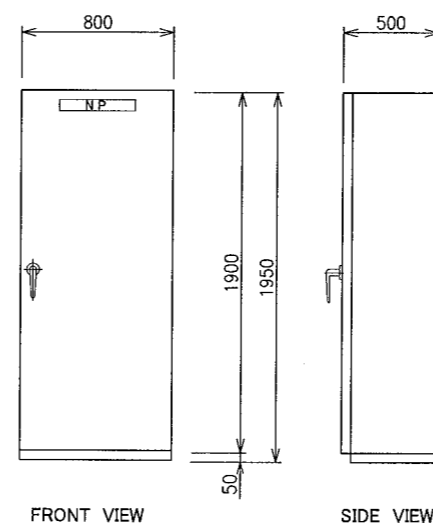
BATTERY AND CHARGER PANEL
S=1/20



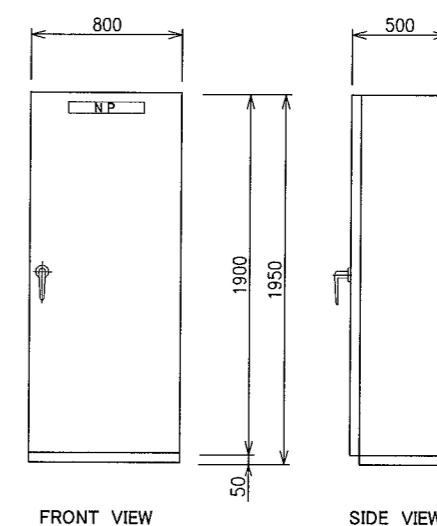
TRASHRAKE CONTROL PANEL
S=1/20



CONVEYOR AND HOPPER CONTROL PANEL
S=1/20




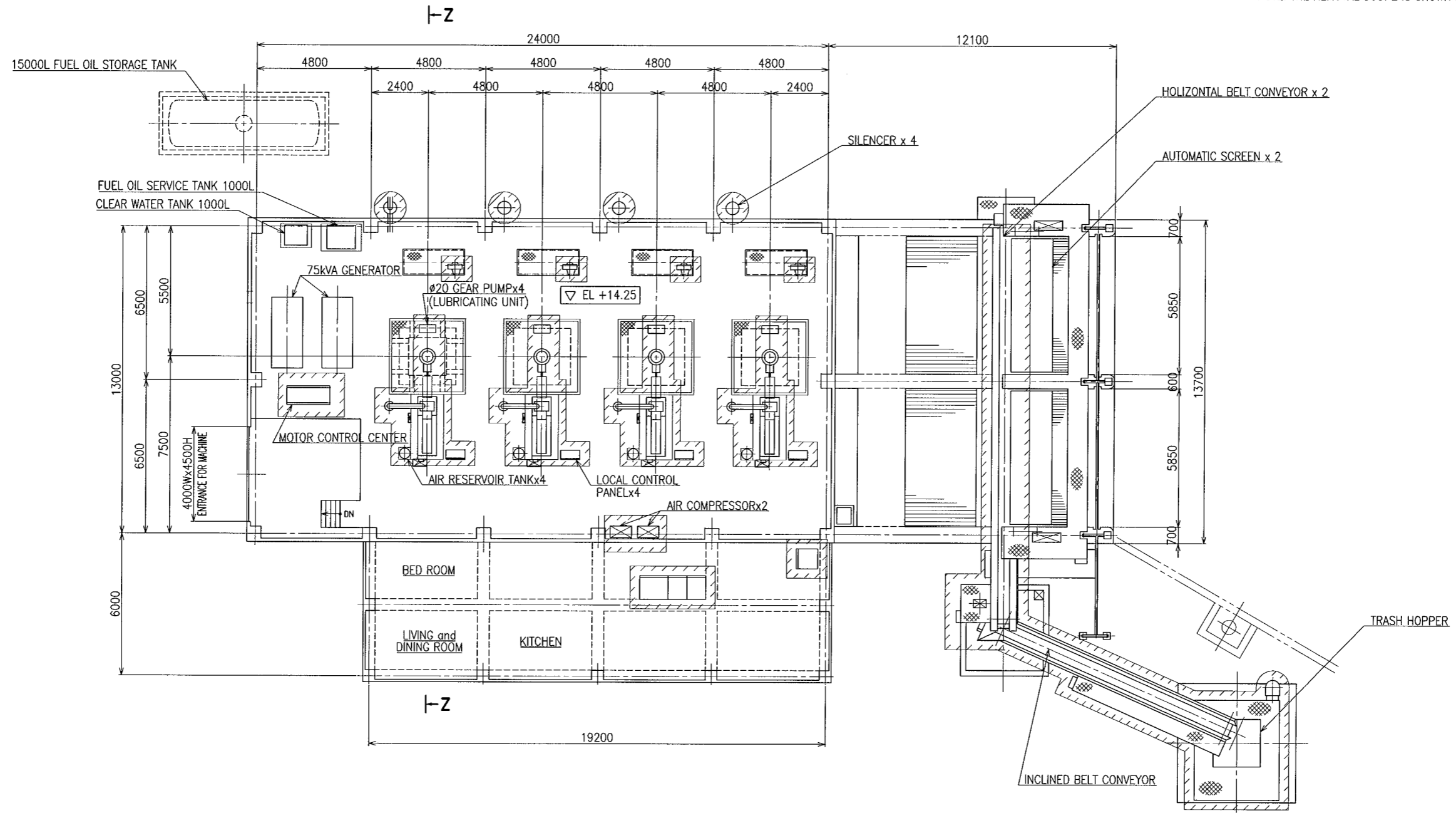
FLOODGATE CONTROL PANEL
S=1/20 (2 UNITS)





LOCAL CONTROL PANEL
S=1/20 (4 UNITS)

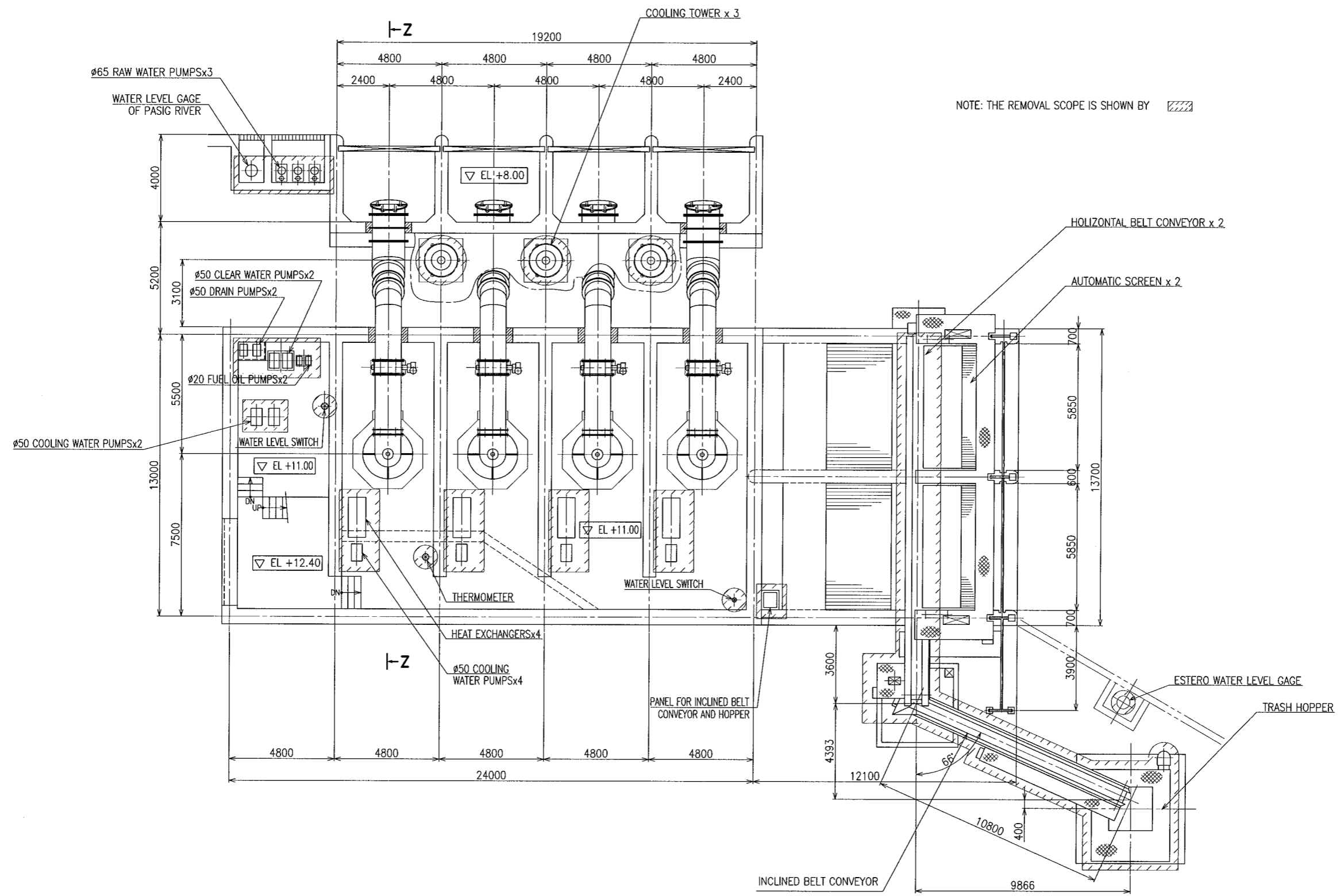
Name of Project		Drawing No.	42
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/20
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Reference Drawings of Panels			
: Japan International Cooperation Agency		: Metropolitan Manila Development Authority	

NOTE: THE REMOVAL SCOPE IS SHOWN BY 



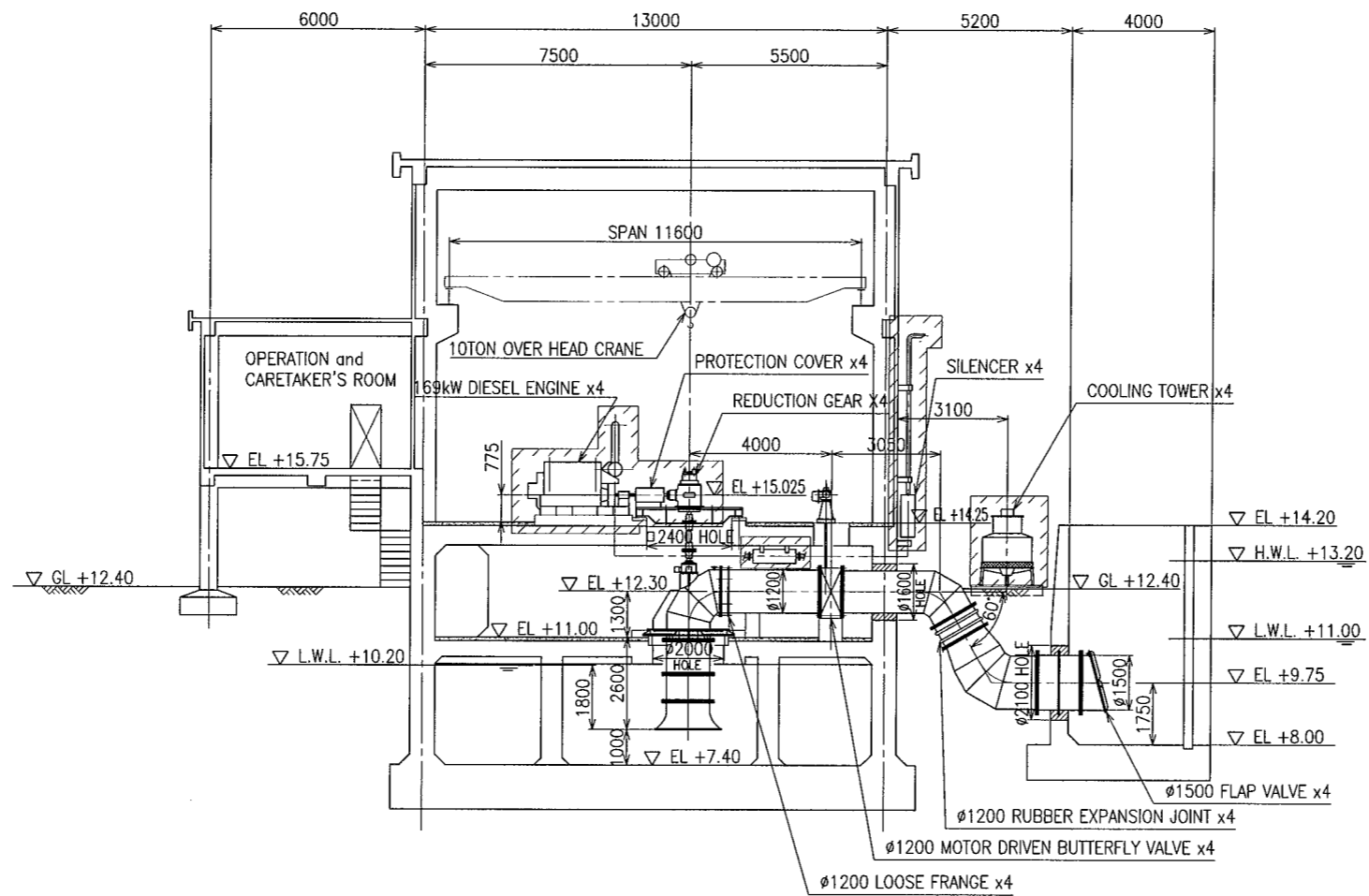
ENGINE FLOOR PLAN

Name of Project		Drawing No.	43
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/100
Name of Drawings		Date	Sep.,2007
Aviles-Sampaloc Drainage Pumping Station Existing Engine Floor General Layout			
 : Japan International Cooperation Agency		 Metropolitan Manila Development Authority	



PUMP FLOOR PLAN

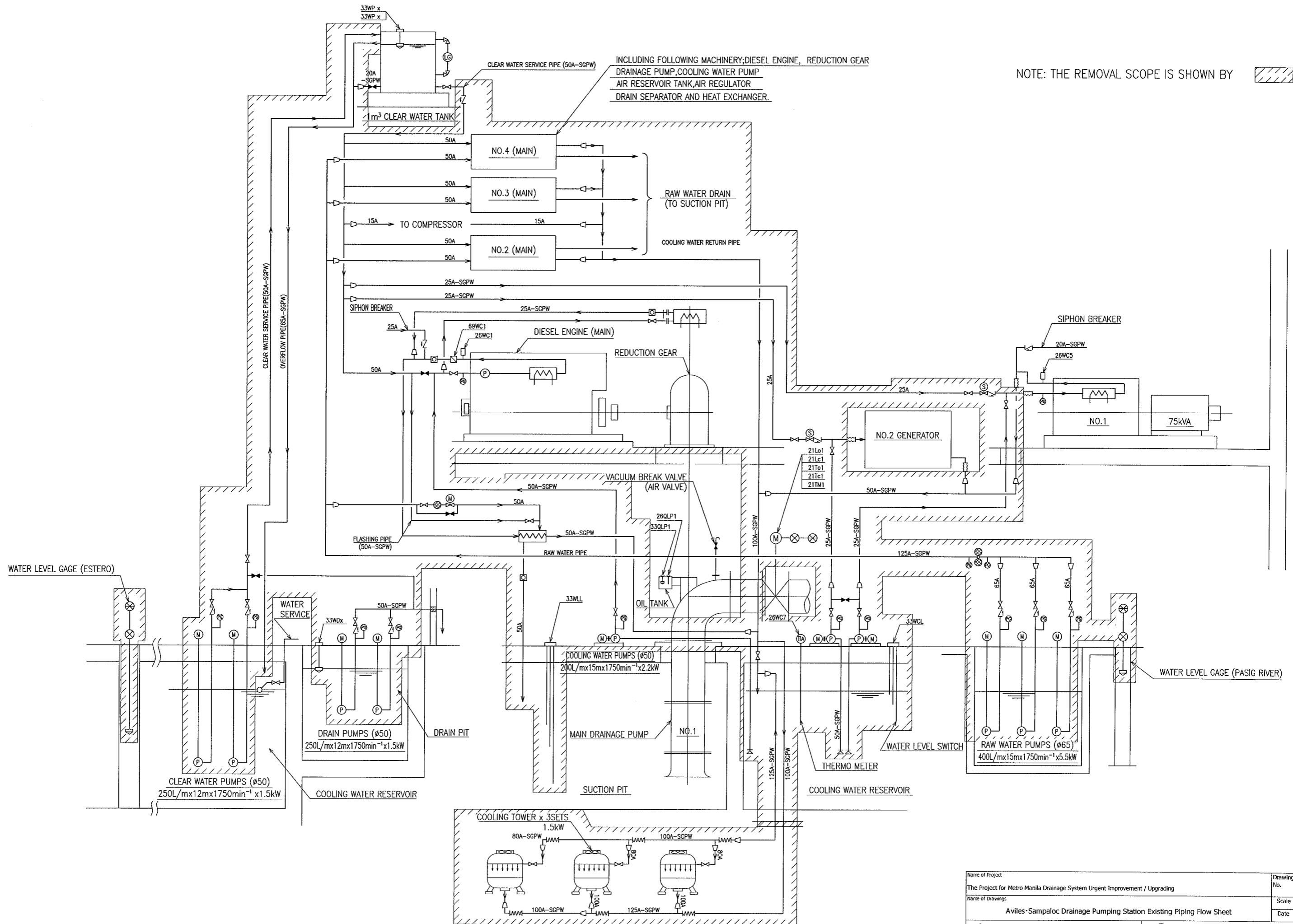
Name of Project		Drawing No.	44
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/100
Name of Drawings		Date	Sep, 2007
Aviles-Sampaloc Drainage Pumping Station Existing Pump Floor General Layout			
JICA : Japan International Cooperation Agency		MetroManila Development Authority	



SEC Z Z

NOTE: THE REMOVAL SCOPE IS SHOWN BY

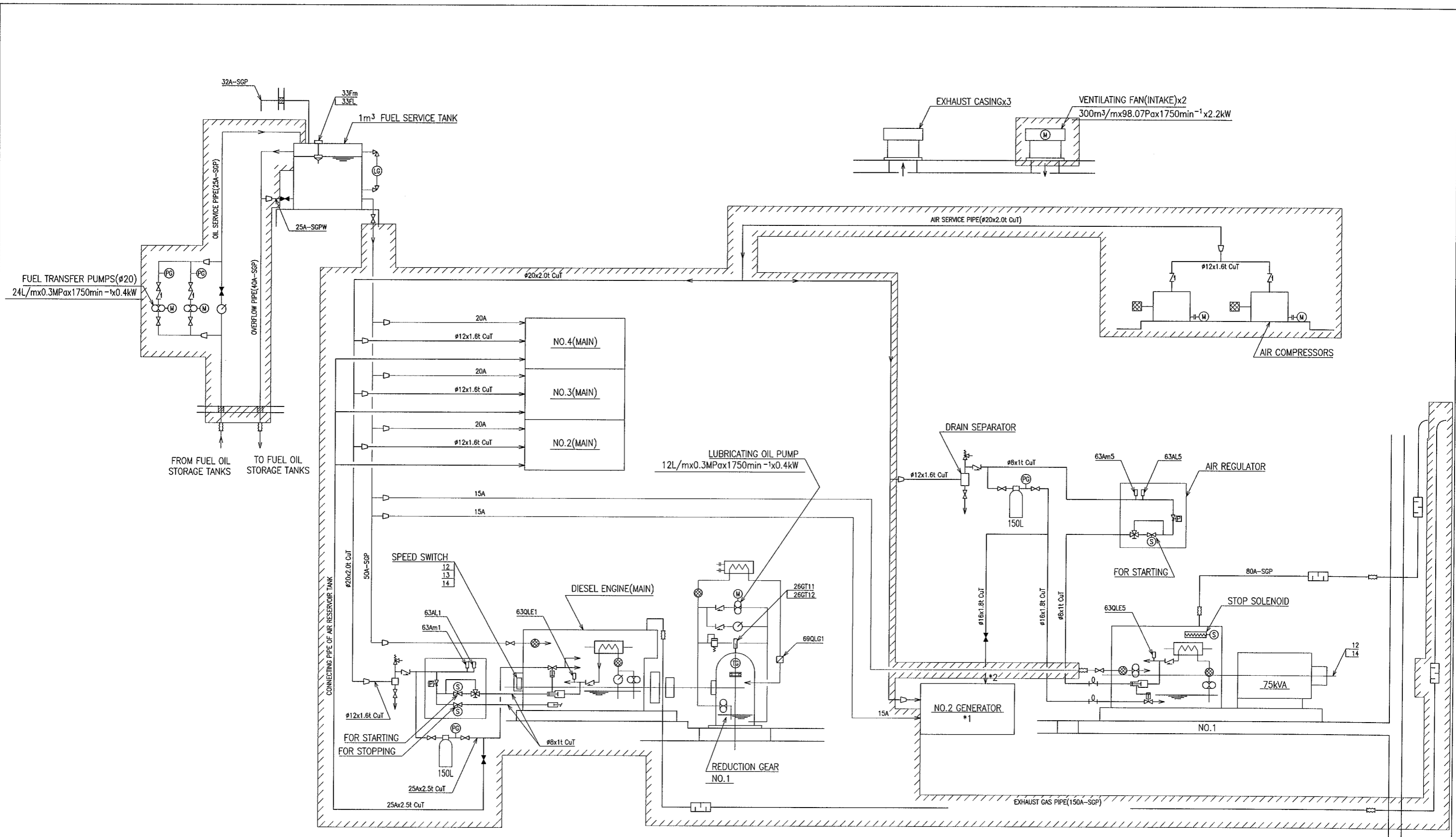
Name of Project		Drawing No.	45
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/100
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Existing Elevation View			
: Japan International Cooperation Agency		Metropolitan Manila Development Authority	



NOTE: THE REMOVAL SCOPE IS SHOWN BY

INCLUDING FOLLOWING MACHINERY; DIESEL ENGINE, REDUCTION GEAR
 DRAINAGE PUMP, COOLING WATER PUMP
 AIR RESERVOIR TANK, AIR REGULATOR
 DRAIN SEPARATOR AND HEAT EXCHANGER.

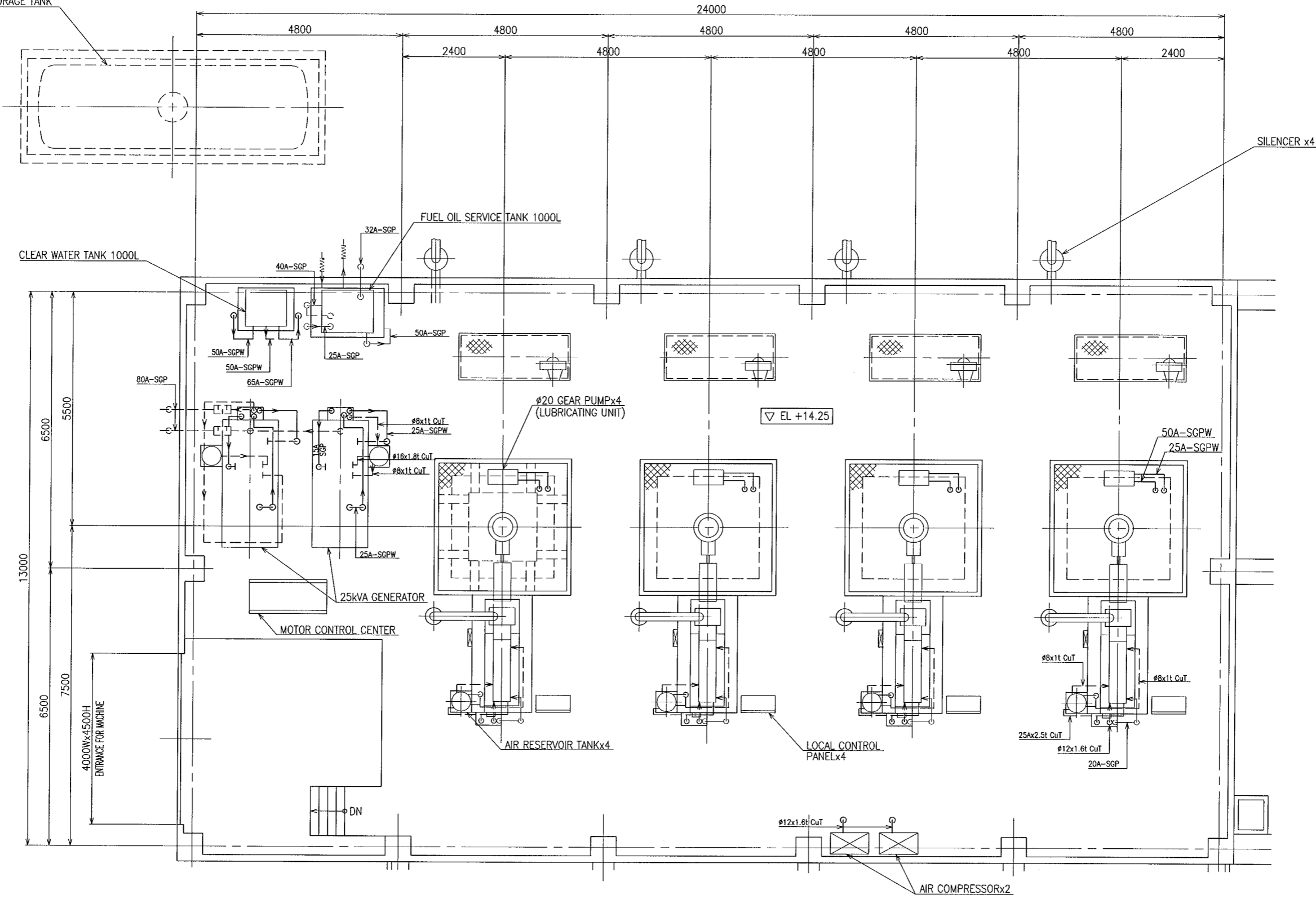
Name of Project		Drawing No.	46
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	-
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Existing Piping Flow Sheet			
: Japan International Cooperation Agency		MetroRan Manila Development Authority	



- NOTES
- *1 IS INCLUDING FOLLOWING MACHINERY; AIR REGULATOR, AIR RESERVOIR TANK AND DRAIN SEPARATOR
 - *2 IS CONNECTING WITH SAME LINE OF NO.2 AIR RESERVOIR TANK.
 - THE REMOVAL SCOPE IS SHOWN BY

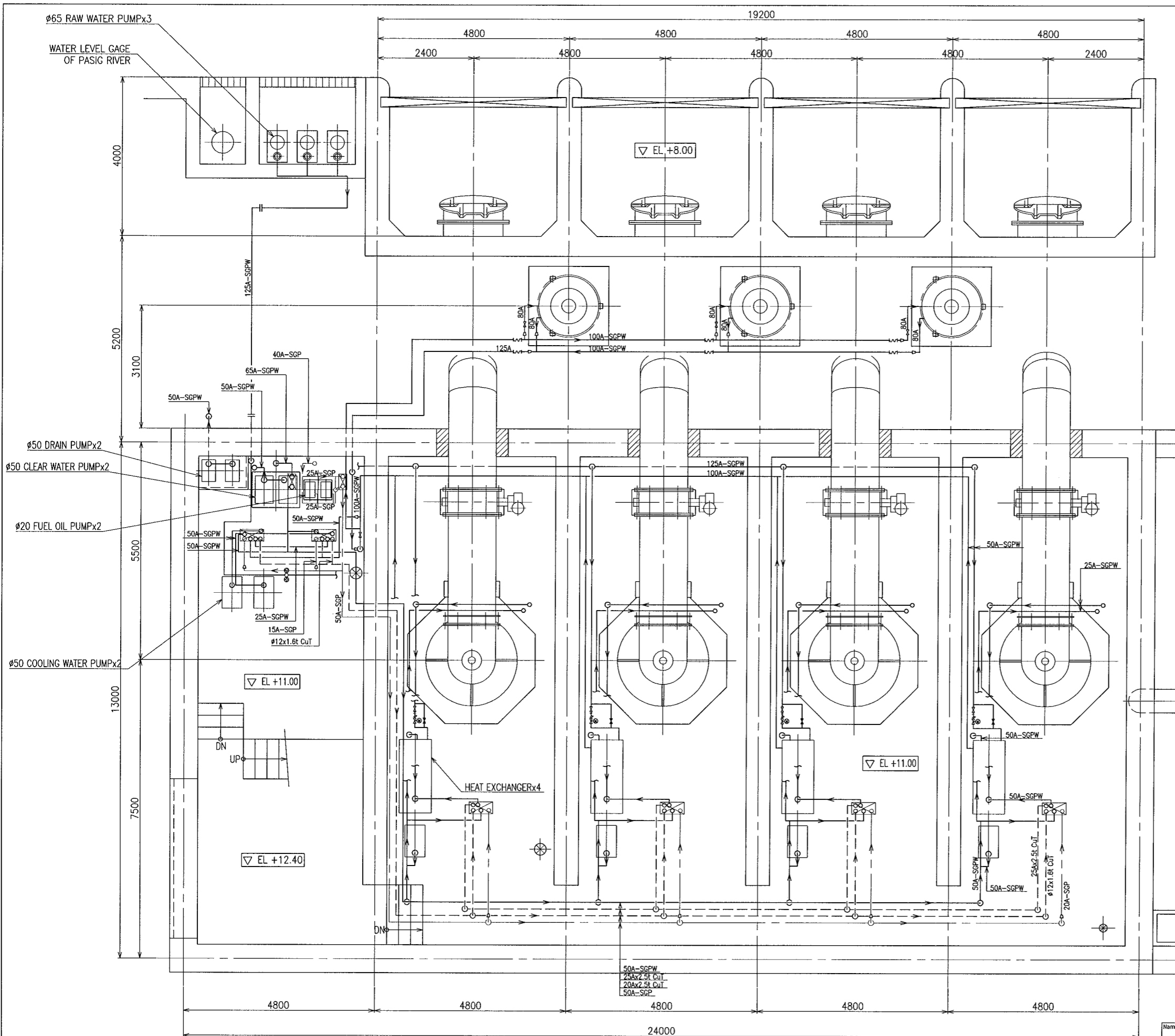
Name of Project		Drawing No.	47
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	-
Name of Drawings		Date	Sep.,2007
Aviles-Sampaloc Drainage Pumping Station Existing Oil and Air Flow Sheet			
: Japan International Cooperation Agency		Metropolitan Manila Development Authority	

15000L FUEL OIL STORAGE TANK



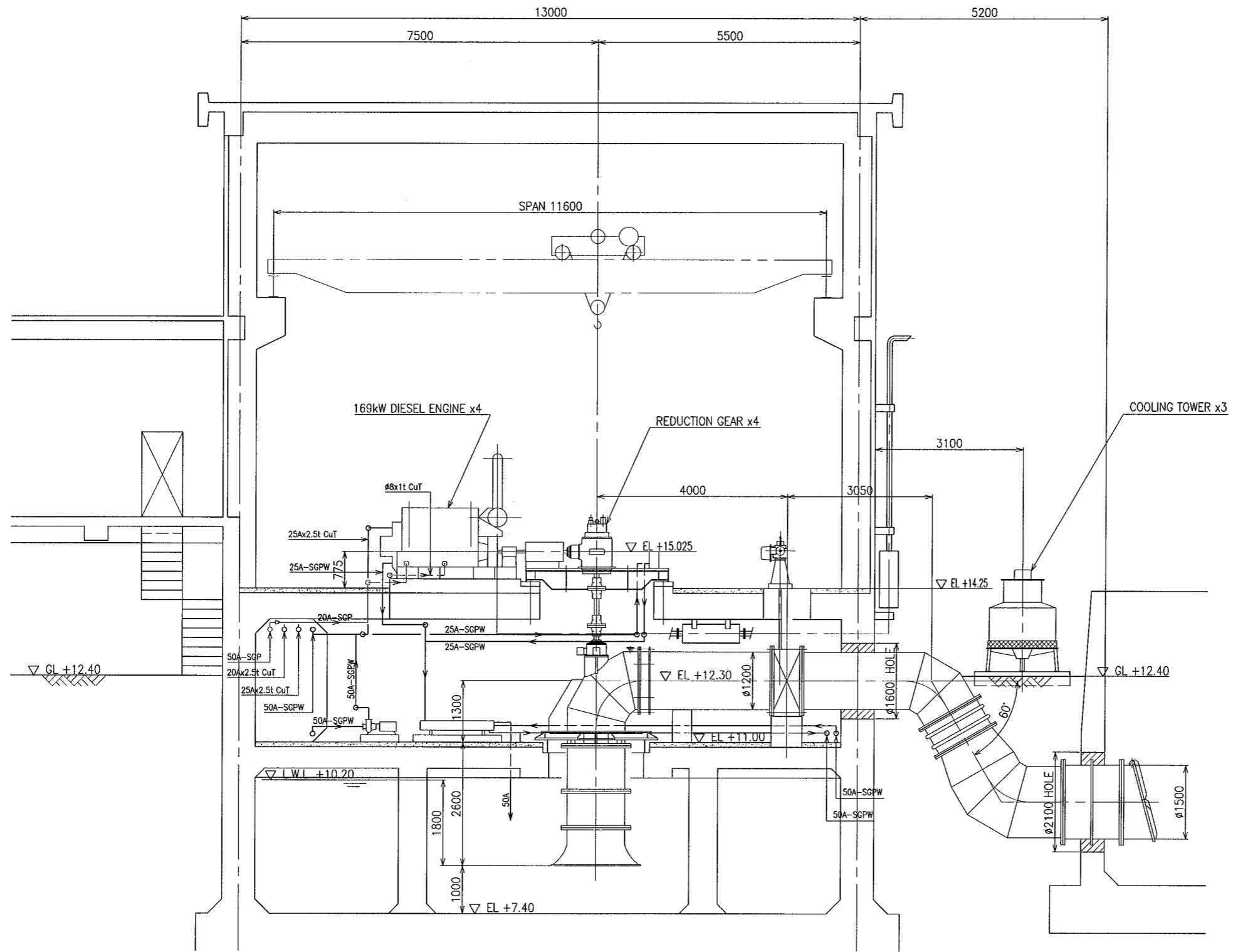
NOTE: REFER TO
 "EXISTING FLOW SHEET"
 "EXISTING OIL AND AIR LINE FLOW SHEET"
 "ENGINE FLOOR EXISTING GENERAL ARRANGEMENT"
 "PUMP FLOOR EXISTING GENERAL ARRANGEMENT"
 FOR MORE INFORMATION ON THE REMOVAL SCOPE OF PIPES EQUIPMENTS AND DEVICES.

Name of Project		Drawing No.	48
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/50
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Existing Engine Floor Small Piping			
: Japan International Cooperation Agency		Metro Manila Development Authority	



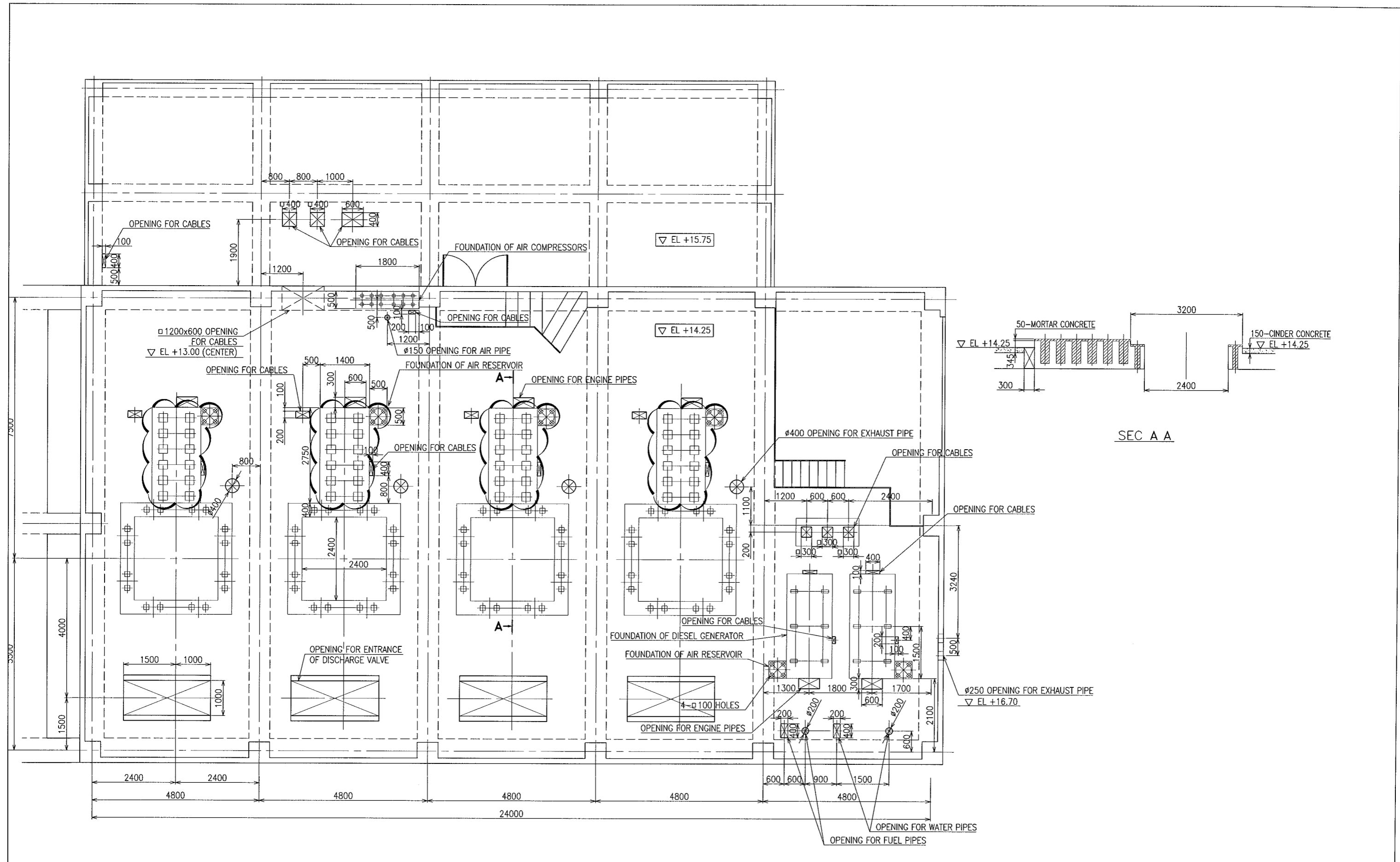
NOTE: REFER TO
 "EXISTING FLOW SHEET"
 "EXISTING OIL AND AIR LINE FLOW SHEET"
 "ENGINE FLOOR EXISTING GENERAL ARRANGEMENT"
 "PUMP FLOOR EXISTING GENERAL ARRANGEMENT"
 FOR MORE INFORMATION ON THE REMOVAL SCOPE OF
 PIPES EQUIPMENTS AND DEVICES.

Name of Project		Drawing No.	49
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/50
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Existing Pump Floor Small Piping			
: Japan International Cooperation Agency		Metropolitan Manila Development Authority	



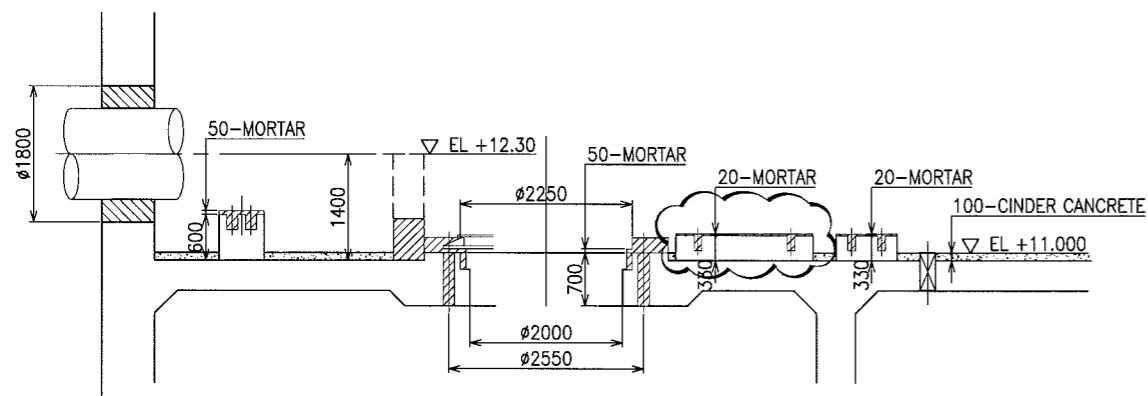
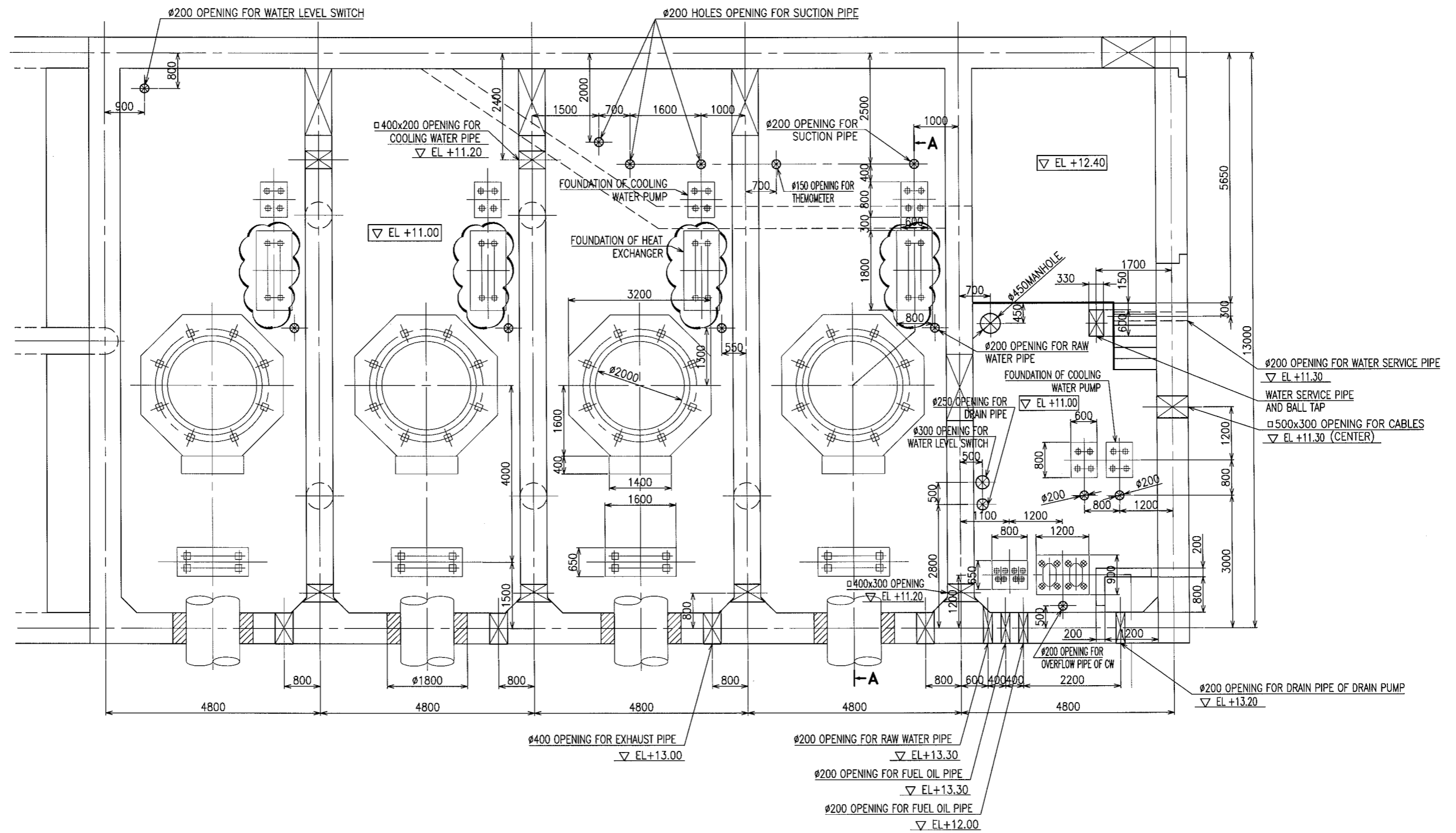
NOTE: REFER TO
 "EXISTING FLOW SHEET"
 "EXISTING OIL AND AIR LINE FLOW SHEET"
 "ENGINE FLOOR EXISTING GENERAL ARRANGEMENT"
 "PUMP FLOOR EXISTING GENERAL ARRANGEMENT"
 FOR MORE INFORMATION ON THE REMOVAL SCOPE OF PIPES EQUIPMENTS AND DEVICES.

Name of Project		Drawing No.	50
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/50
Name of Drawings		Date	Sep.,2007
Aviles-Sampaloc Drainage Pumping Station Existing Small Piping Elevation View			
: Japan International Cooperation Agency		Metropolitan Manila Development Authority	



NOTE: THE REMOVAL SCOPE IS SHOWN BY

Name of Project		Drawing No.	51
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/50
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Existing Engine Floor Foundation			
: Japan International Cooperation Agency		MetroManila Development Authority	

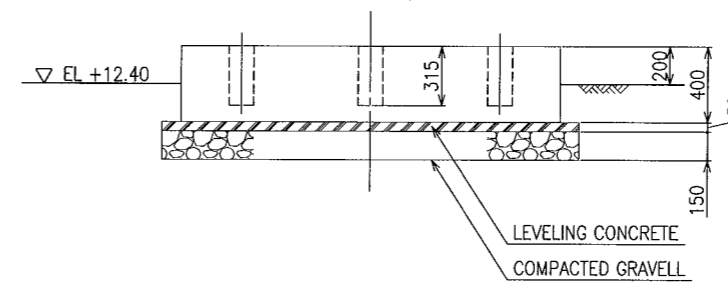
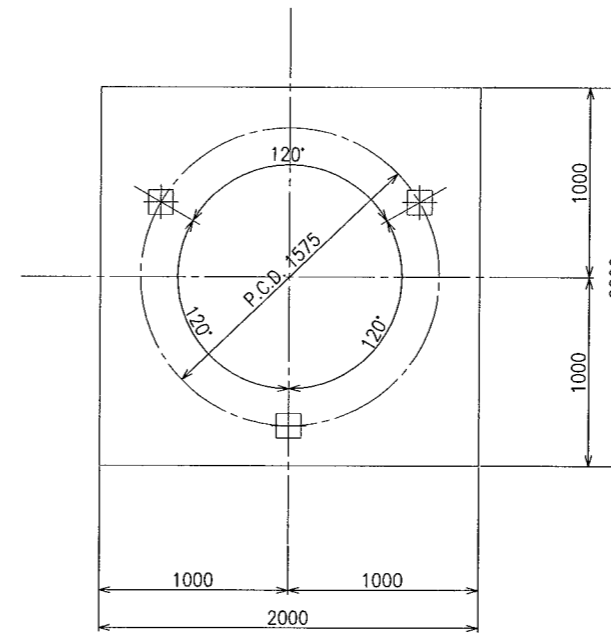
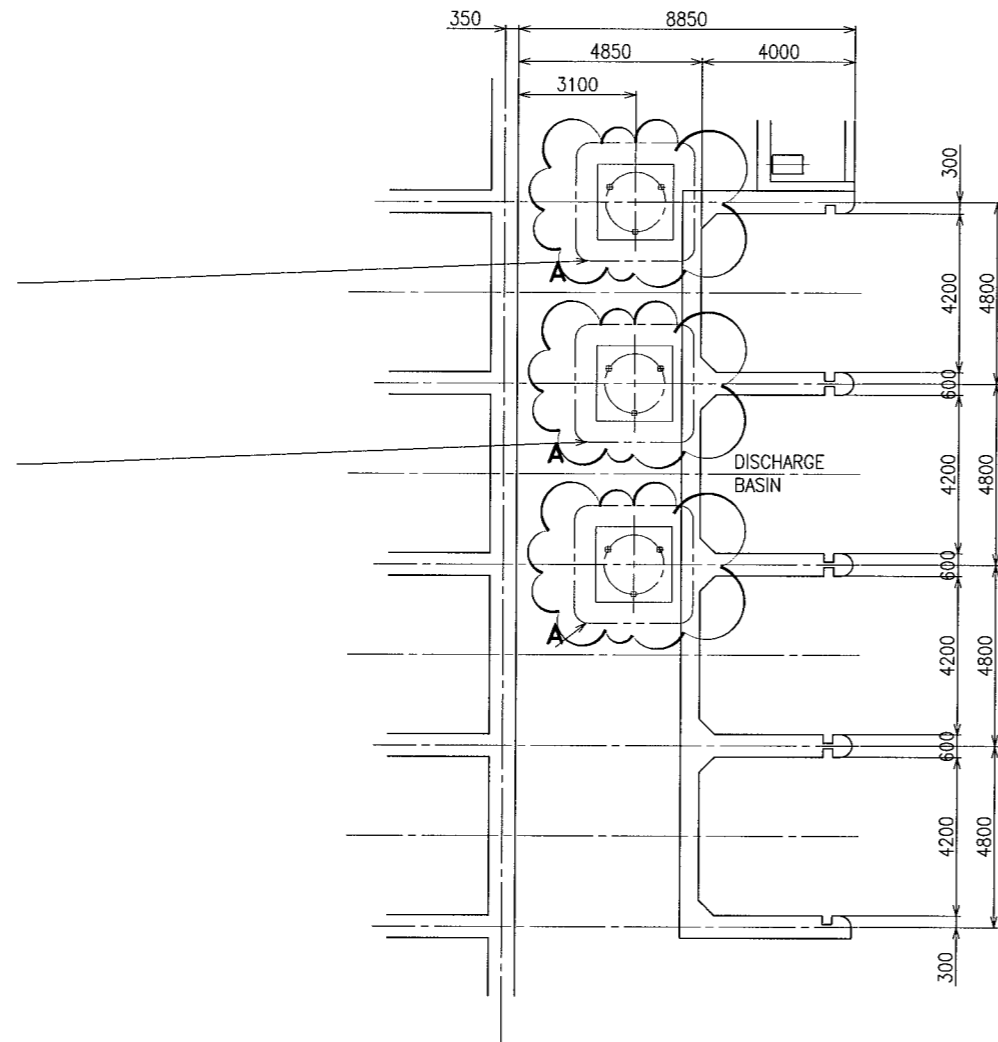


SEC A A

NOTE: THE REMOVAL SCOPE IS SHOWN BY



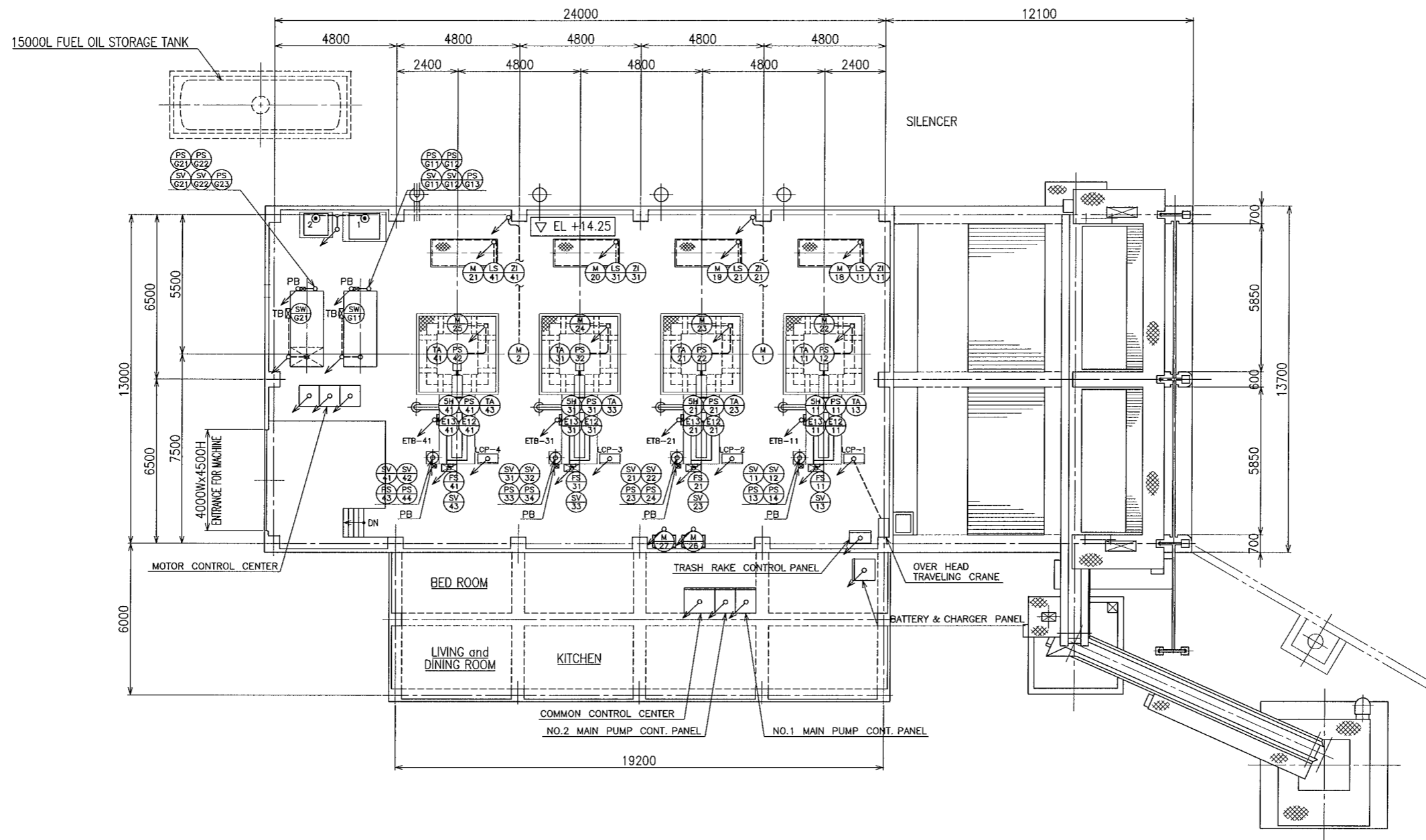
Name of Project	The Project for Metro Manila Drainage System Urgent Improvement / Upgrading	Drawing No.	52
Name of Drawings	Aviles-Sampaloc Drainage Pumping Station Existing Pump Floor Foundation	Scale	1/50
		Date	Sep., 2007
JICA : Japan International Cooperation Agency		Metropolitan Manila Development Authority	



DETAL A
(S=1:20)

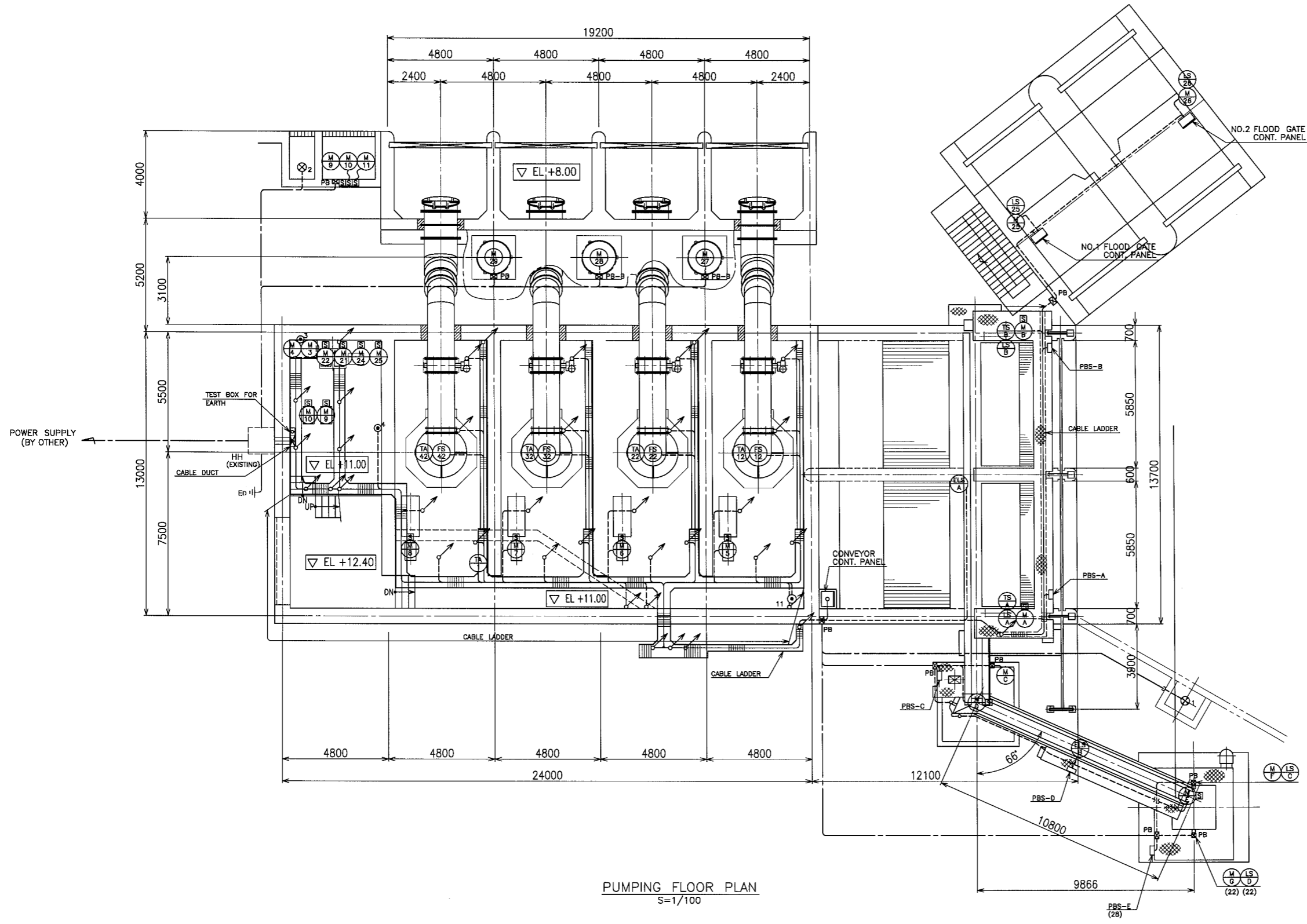
NOTE: THE REMOVAL SCOPE IS SHOWN BY


Name of Project		Drawing No.	53
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/100
Name of Drawings		Date	Sep., 2007
Aviles-Sampaloc Drainage Pumping Station Existing Cooling Tower Foundation			
: Japan International Cooperation Agency		Metropolitan Manila Development Authority	





ENGINE FLOOR PLAN
S=1/100

Name of Project		Drawing No.	54-1
The Project for Metro Manila Drainage System Urgent Improvement / Upgrading		Scale	1/100
Name of Drawings		Date	Sep.,2007
Aviles-Sampaloc Drainage Pumping Station Existing Wiring Layout(1/2)			
: Japan International Cooperation Agency		Metropolitan Manila Development Authority	



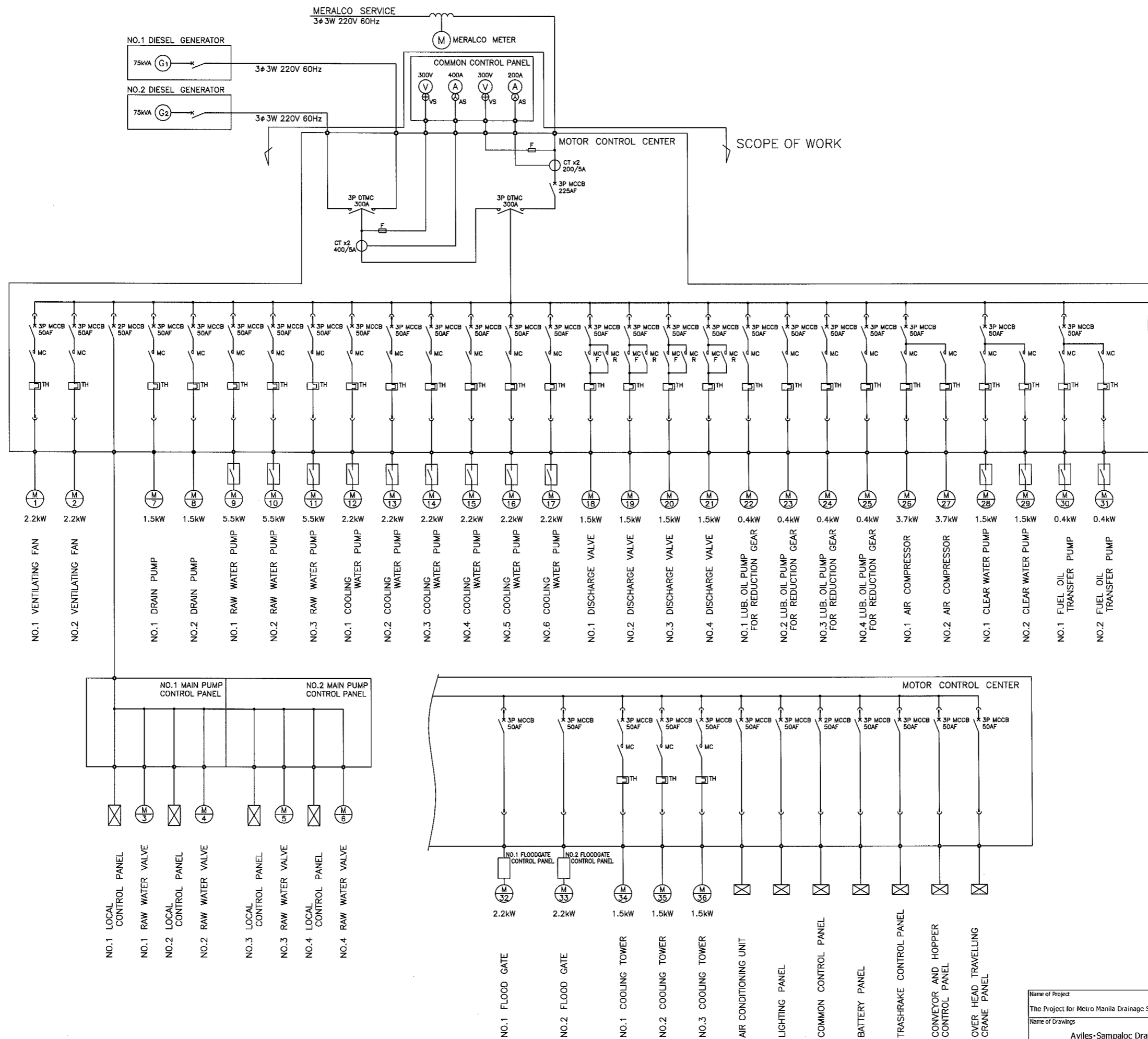
NOTE
1.  CABLE LADDER

PUMPING FLOOR PLAN
S=1/100

Name of Project	The Project for Metro Manila Drainage System Urgent Improvement / Upgrading	Drawing No.	54-2
Name of Drawings	Aviles-Sampaloc Drainage Pumping Station Existing Wiring Layout(2/2)	Scale	1/100
		Date	Sep.,2007
 JICA : Japan International Cooperation Agency		 Metropolitan Manila Development Authority	

SYMBOL	FROM	TO	CABLE SPEC.	CONDUIT PIPE	GROUNDING WIRE	REMARKS
M 1	NO.1 VENTILATION FAN	MOTOR CONTROL CENTER	600V CV 2 [□] -3C	(28)	IV 2 [□]	2.2kW
M 2	NO.2					
M 3	NO.1 RAW WATER VALVE	NO.1 LOCAL CONT. PANEL				
M 4	NO.2					
M 5	NO.3					
M 6	NO.4					
M 7	NO.1 DRAIN PUMP	MOTOR CONTROL CENTER				1.5kW
M 8	NO.2					
M 9	NO.1 RAW WATER PUMP		600V CV 5.5 [□] -3C		IV 5.5 [□]	5.5kW
M 10	NO.2					
M 11	NO.3					
M 12	NO.1 COOLING WATER PUMP		600V CV 3.5 [□] -3C		IV 2 [□]	2.2kW
M 13	NO.2					
M 14	NO.3					
M 15	NO.4					
M 16	NO.5					
M 17	NO.6					
M 18	NO.1 DISCHARGE VALVE					1.5kW
M 19	NO.2					
M 20	NO.3					
M 21	NO.4					
M 22	NO.1 LUBE OIL PUMP FOR REDUCTION GEAR					0.4kW
M 23	NO.2					
M 24	NO.3					
M 25	NO.4					
M 26	NO.1 AIR COMPRESSOR		600V CV 3.5 [□] -3C		IV 3.5 [□]	3.7kW
M 27	NO.2					
M 28	NO.1 CLEAR WATER PUMP		600V CV 2 [□] -3C		IV 2 [□]	1.5kW
M 29	NO.2					
M 30	NO.1 FUEL OIL TRANSFER PUMP					0.4kW
M 31	NO.2					
	NO.1 FLOOD GATE CONT. PANEL					2.2kW
	NO.2					
M 34	NO.1 COOLING TOWER					1.5kW
M 35	NO.2					
M 36	NO.3					
M 32	NO.1 FLOOD GATE	NO.1 FLOOD GATE CONT. PANEL	600V CV 3.5 [□] -3C	(22)	IV 3.5 [□]	
M 33	NO.2	NO.2				
1	OVER HEAD TRAVELING CRANE	MOTOR CONTROL CENTER	600V CV 8 [□] -3C	(28)	IV 5.5 [□]	
	TRASH RAKE CONT. PANEL		600V CV 14 [□] -3C	(36)		
	CONVEYOR CONT. PANEL					
M A	NO.1 TRASH RAKE	TRASH RAKE CONT. PANEL	600V CV 3.5 [□] -3C	(22)	IV 3.5 [□]	
M B	NO.2					
M C	DRAINAGE PUMP					
M D	HORIZONTAL CONVEYOR	CONVEYOR CONT. PANEL				
M E	INCLINED CONVEYOR					
M F	NO.1 HOPPER					
M G	NO.2					

SYMBOL	FROM	TO	CABLE SPEC.	CONDUIT PIPE	GROUNDING WIRE	REMARKS
	NO.1 GENERATOR	MOTOR CONTROL CENTER	600V CV 200 [□] -3C		IV 22 [□]	
	NO.2					
	BATTERY & CHARGER PANEL	MOTOR CONTROL CENTER	600V CV 14 [□] -3C			
		NO.1 GENERATOR	600V CV 3.5 [□] -2C			
		NO.2				
		NO.1 MAIN PUMP CONT. PANEL	600V CV 3.5 [□] -2C x 2			
		NO.2				
	COMMON CONT. PANEL	MOTOR CONTROL CENTER	600V CV 14 [□] -2C			
			600V CV 3.5 [□] -2C			
			600V CV 3.5 [□] -3C x 4			
	NO.1 MAIN PUMP CONT. PANEL		600V CV 14 [□] -2C			
	MOTOR CONTROL CENTER	COMMON CONT. PANEL	CVV 2 [□] -30C			
			CVV 2 [□] -15C x 2			
			CVV 2 [□] -6C			
		NO.1 MAIN PUMP CONT. PANEL	CVV 2 [□] -6C x 4			
			CVV 2 [□] -10C x 2			
		NO.2 MAIN PUMP CONT. PANEL	CVV 2 [□] -6C x 4			
			CVV 2 [□] -10C x 2			
LOP-1	NO.1 LOCAL CONT. PANEL	MOTOR CONTROL CENTER	CVV 2 [□] -3C x 4			
		NO.1 MAIN PUMP CONT. PANEL	CVV 2 [□] -2C x 2			
			600V CV 3.5 [□] -2C			
			CVV 2 [□] -15C x 3			
LOP-2	NO.2 LOCAL CONT. PANEL	MOTOR CONTROL CENTER	CVV 2 [□] -3C x 4			
		NO.1 MAIN PUMP CONT. PANEL	CVV 2 [□] -2C x 2			
			600V CV 3.5 [□] -2C			
			CVV 2 [□] -15C x 3			
LOP-3	NO.3 LOCAL CONT. PANEL	MOTOR CONTROL CENTER	CVV 2 [□] -3C x 4			
		NO.2 MAIN PUMP CONT. PANEL	CVV 2 [□] -2C x 2			
			600V CV 3.5 [□] -2C			
			CVV 2 [□] -15C x 3			
LOP-4	NO.4 LOCAL CONT. PANEL	MOTOR CONTROL CENTER	CVV 2 [□] -3C x 4			
		NO.2 MAIN PUMP CONT. PANEL	CVV 2 [□] -2C x 2			
			600V CV 3.5 [□] -2C			
			CVV 2 [□] -15C x 3			
	NO.1 GENERATOR	COMMON CONT. PANEL	CVV 2 [□] -12C			
	NO.2					
	BATTERY & CHARGER PANEL		600V CV 3.5 [□] -2C x 2			
	NO.1 FLOOD GATE PANEL		CVV 2 [□] -4C			
			CVV 2 [□] -8C			
	NO.2 FLOOD GATE PANEL		CVV 2 [□] -4C			
			CVV 2 [□] -8C			
PBS-A	NO.1 TRASH RAKE PBS	TRASH RAKE CONT. PANEL	CVV 2 [□] -10C	(28)		
PBS-B	NO.2					
PBS-C	HORIZONTAL CONVEYOR PBS	CONVEYOR CONT. PANEL				
PBS-D	INCLINED CONVEYOR PBS					
PBS-E	HOPPER PBS					



Name of Project	The Project for Metro Manila Drainage System Urgent Improvement / Upgrading	Drawing No.	56
Name of Drawings	Aviles-Sampaloc Drainage Pumping Station Existing Single Line Diagram	Scale	--
		Date	Sep., 2007
JICA	Japan International Cooperation Agency	Metropolitan Manila Development Authority	