

Figure 4.3.3
Sewerage Option S3

The Study on Sanitation Improvement Plan for
Haiphong City in The Socialist Republic of Vietnam
Japan International Cooperation Agency

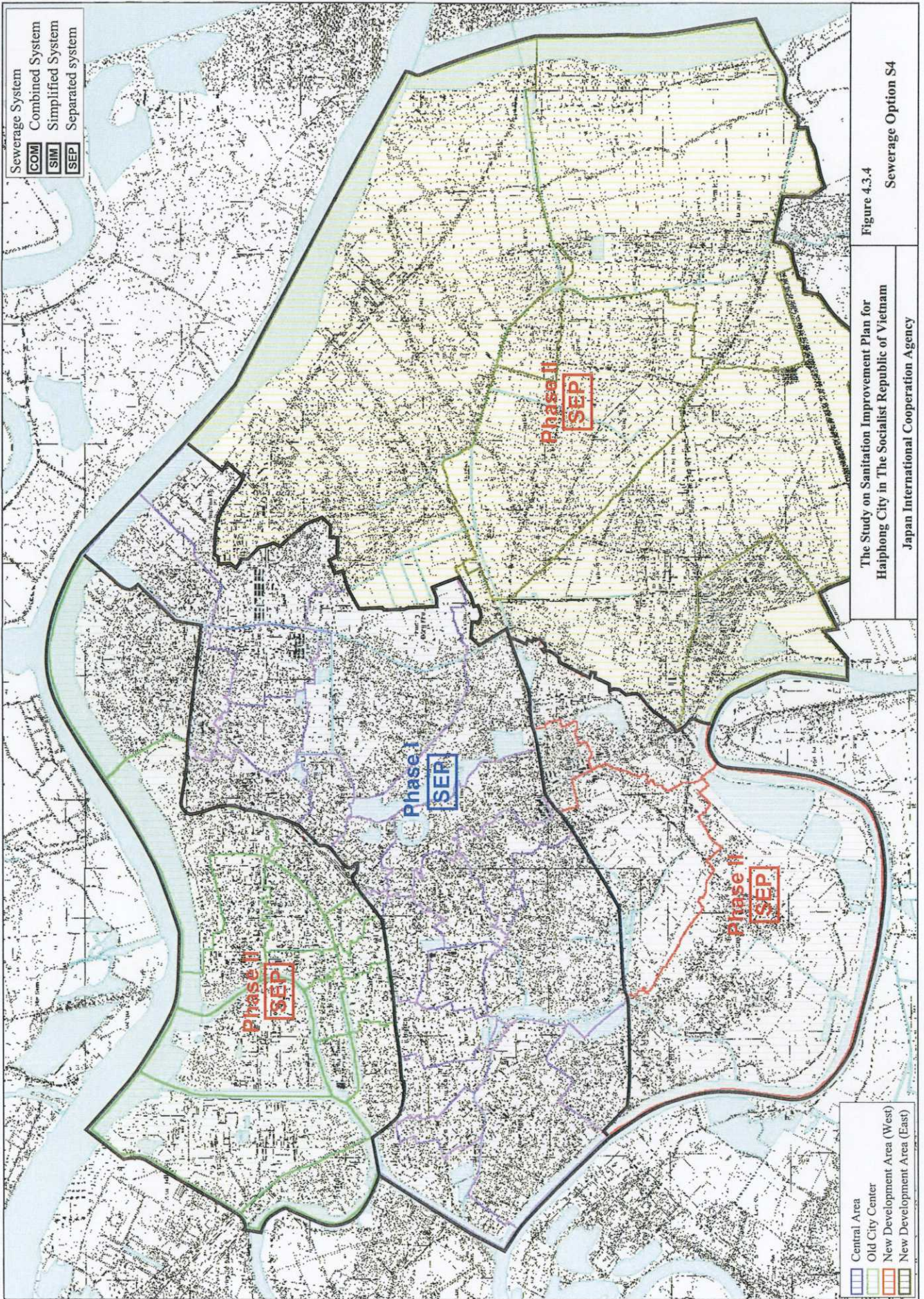
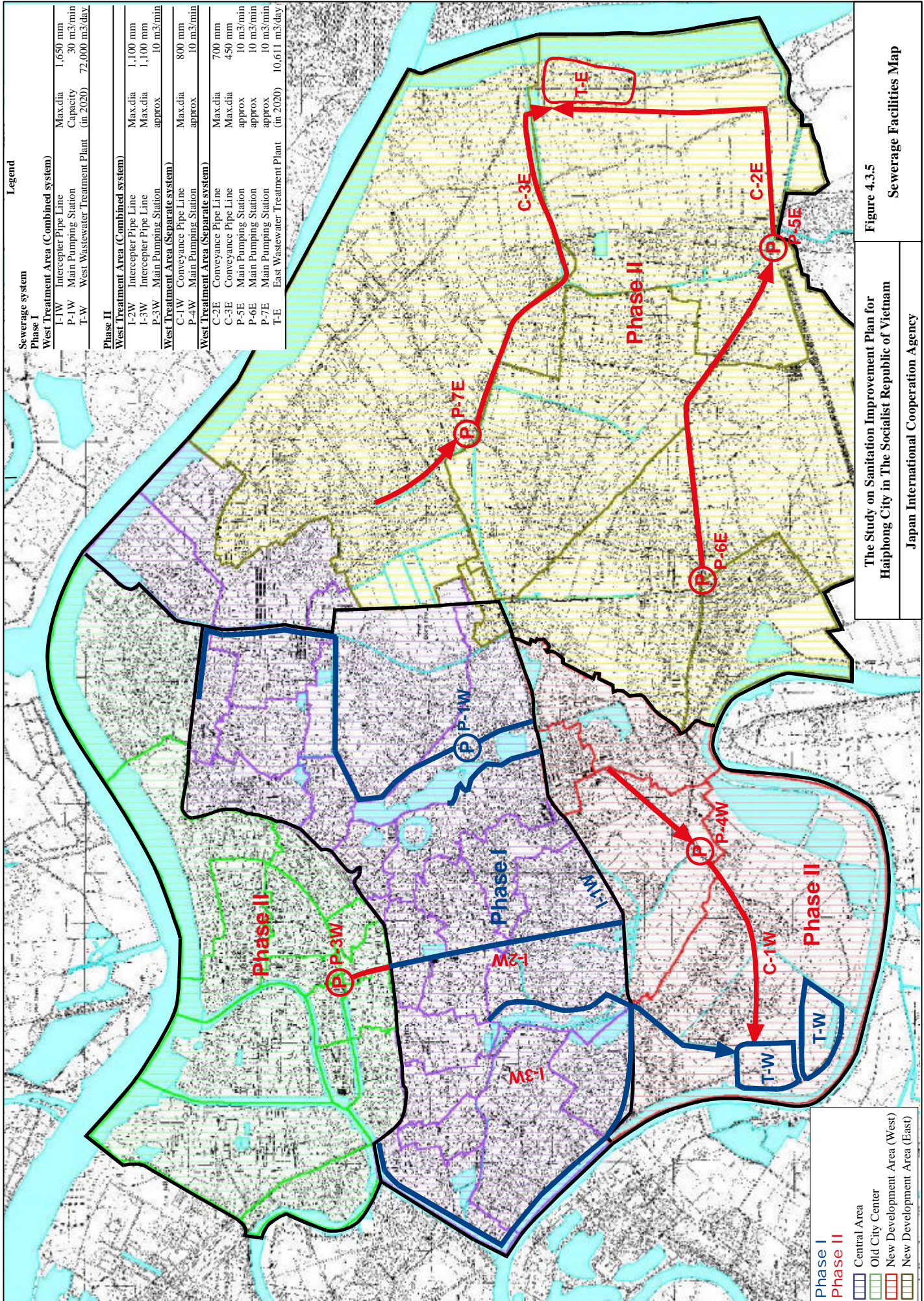


Figure 4.3.4
Sewerage Option S4

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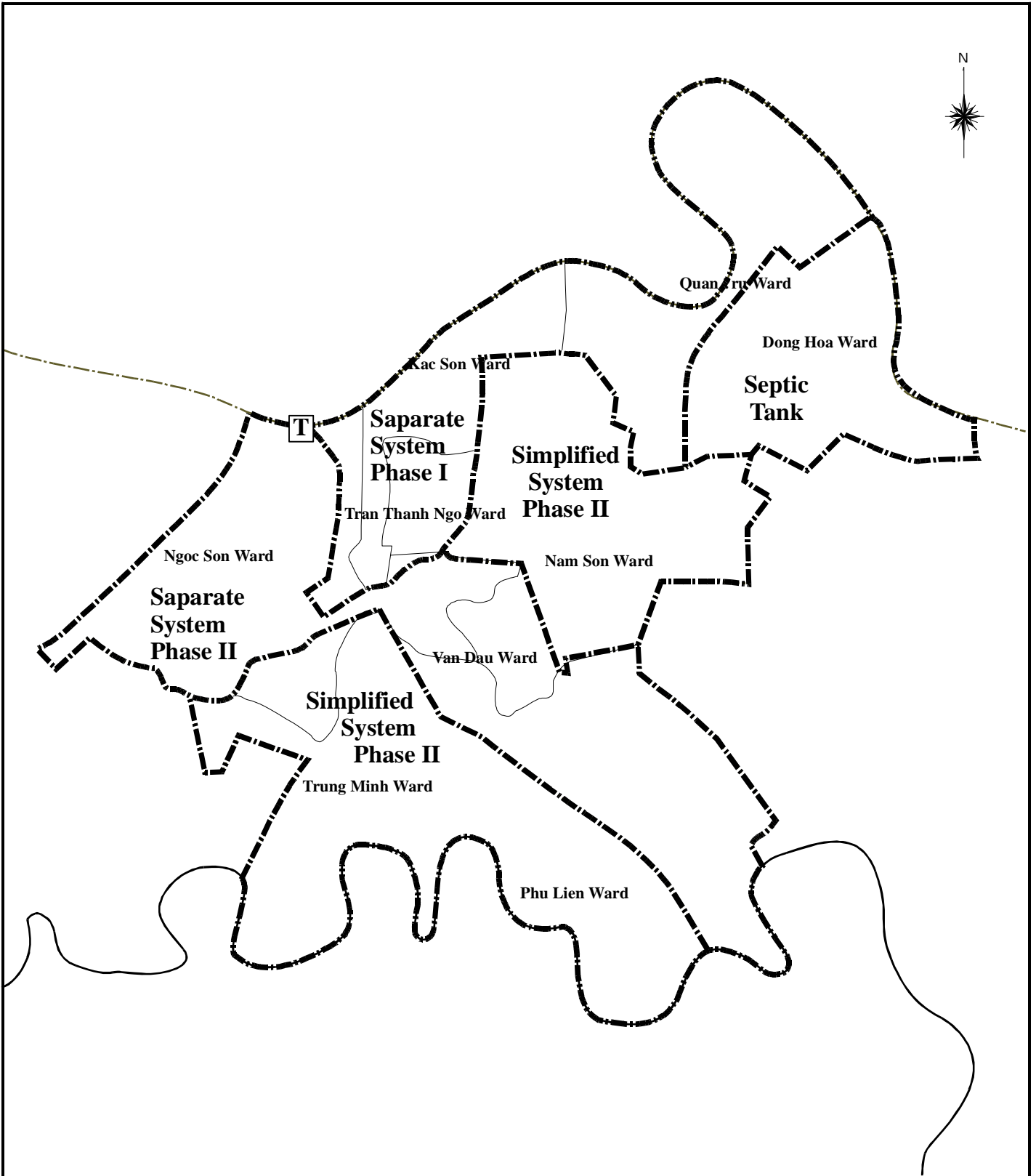
Legend

Sewerage system			
Phase I			
West Treatment Area (Combined system)			
I-1W	Intercepter Pipe Line	Max. dia	1,650 mm
P-1W	Main Pumping Station	Capacity	30 m ³ /min
T-W	West Wastewater Treatment Plant	(in 2020)	72,000 m ³ /day
Phase II			
West Treatment Area (Combined system)			
I-2W	Intercepter Pipe Line	Max. dia	1,100 mm
I-3W	Intercepter Pipe Line	Max. dia	1,100 mm
P-3W	Main Pumping Station	approx	10 m ³ /min
West Treatment Area (Separate system)			
C-1W	Conveyance Pipe Line	Max. dia	800 mm
P-4W	Main Pumping Station	approx	10 m ³ /min
West Treatment Area (Separate system)			
C-2E	Conveyance Pipe Line	Max. dia	700 mm
C-3E	Conveyance Pipe Line	Max. dia	450 mm
P-5E	Main Pumping Station	approx	10 m ³ /min
P-6E	Main Pumping Station	approx	10 m ³ /min
P-7E	Main Pumping Station	approx	10 m ³ /min
T-E	East Wastewater Treatment Plant	(in 2020)	10,611 m ³ /day



Figure 4.3.5

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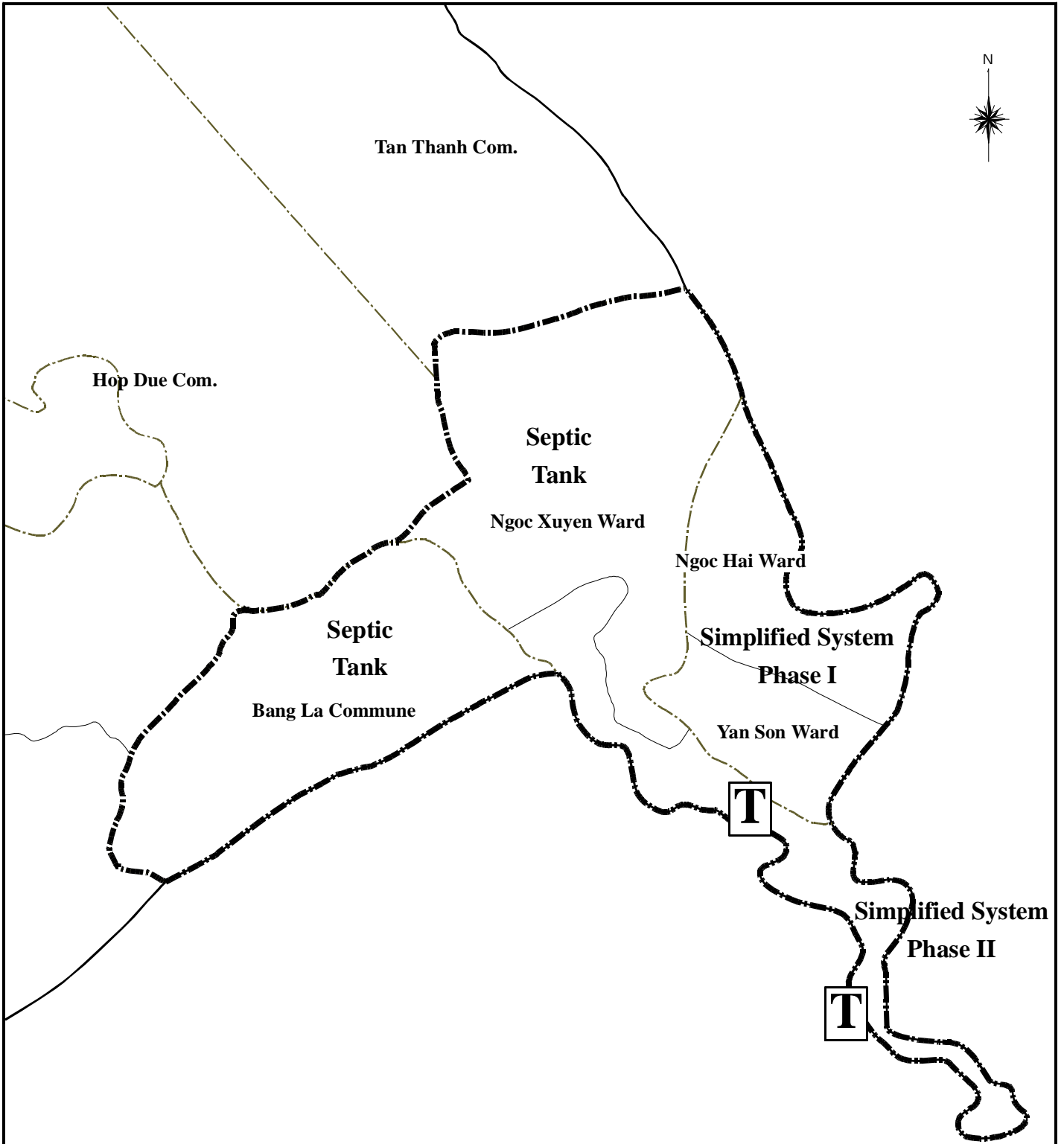
Sewerage Facilities Map





Legend

-  Study Area
-  Treatment Plant

<p>The Study on Sanitation Improvement Plan for Haiphong City in The Socialist Republic of Vietnam</p>	<p>Figure 4.4.1 Sewerage Plan of Kien An District</p>
<p>Japan International Cooperation Agency</p>	



Legend	
	Study Area
	Simplified Wastewater Treatment Plant

The Study on Sanitation Improvement Plan for Haiphong City in The Socialist Republic of Vietnam	Figure 4.4.2 Sewerage Plan of Do Son District
Japan International Cooperation Agency	

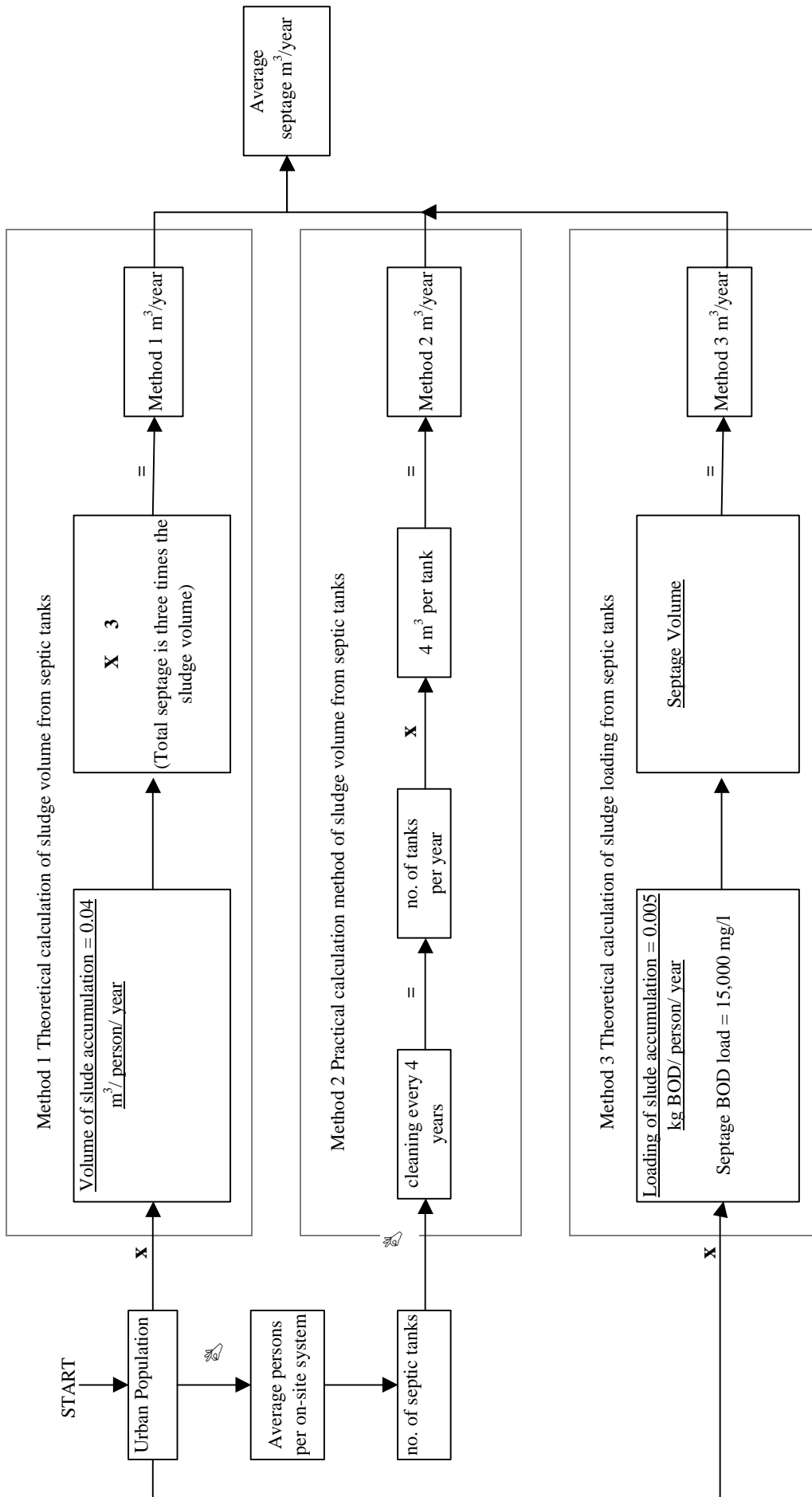


Figure 4.7.1 Septage Volume Estimating Method

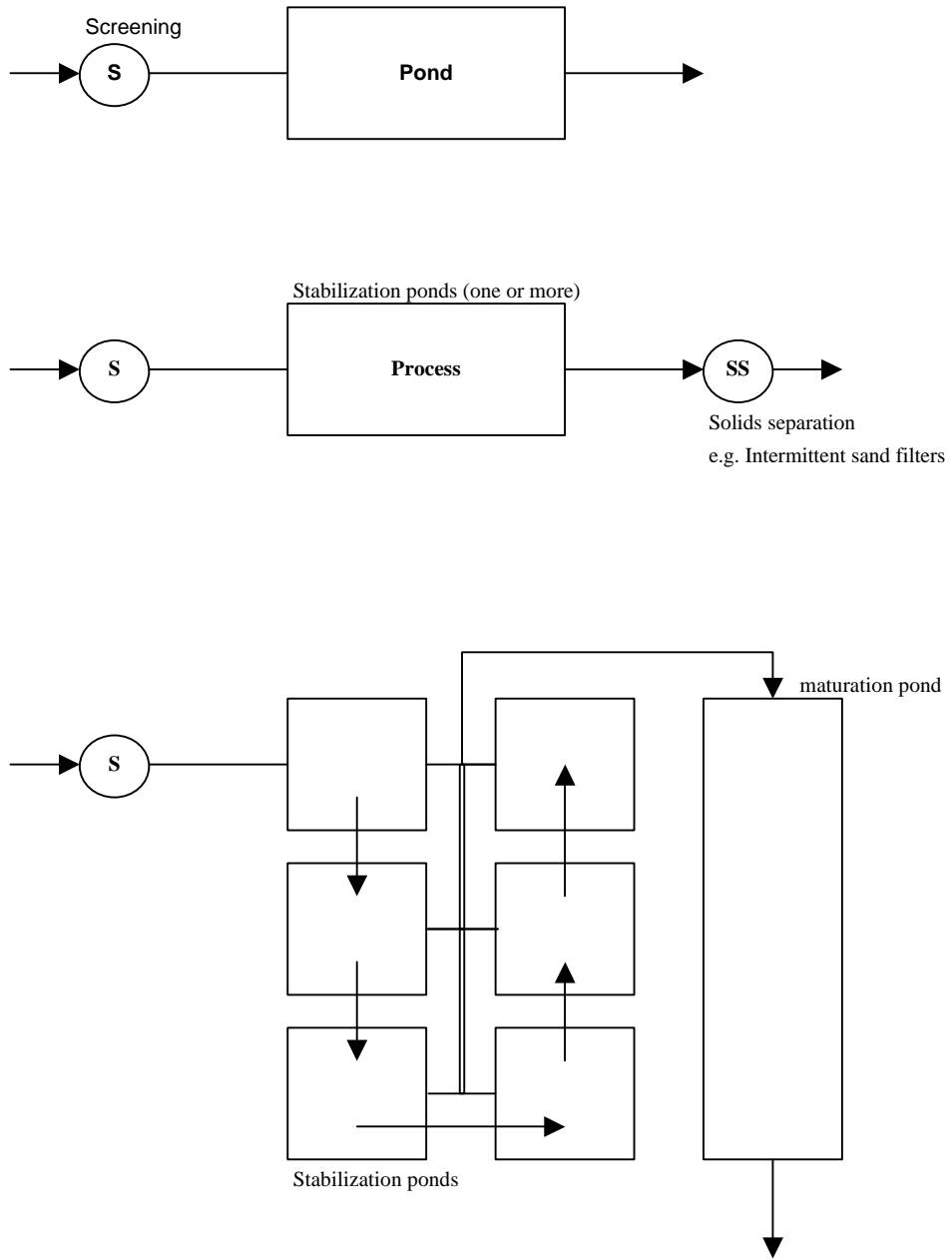
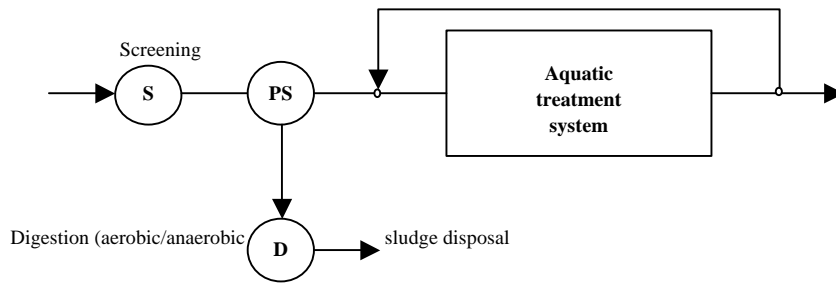
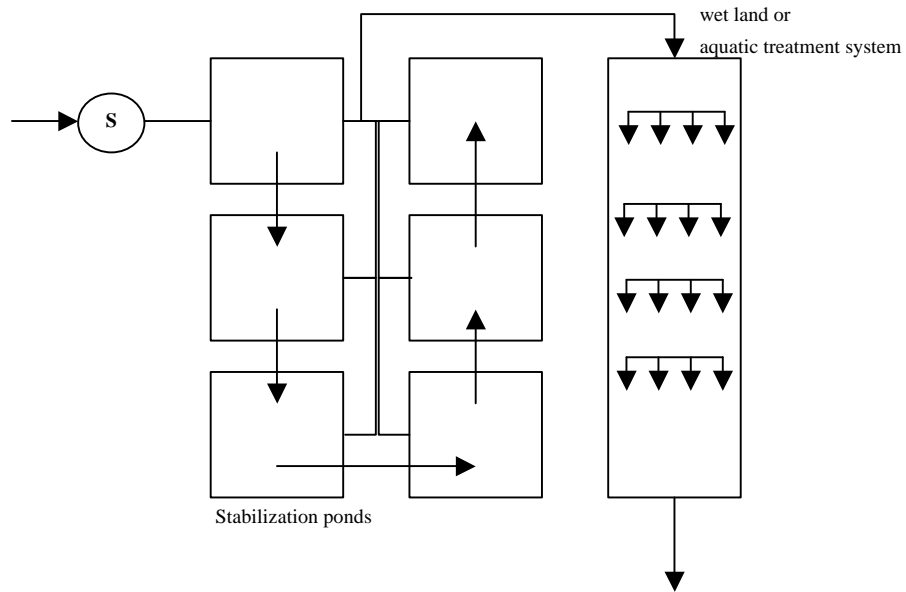


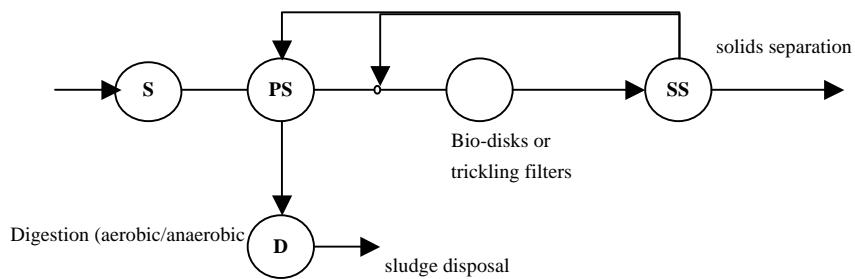
Figure 4.7.2 Typical Flow Schematic for Septage Waste Stabilization Ponds



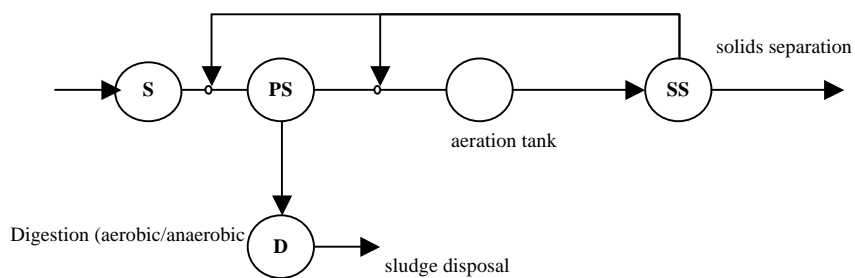
a) Aquatic treatment system (ATS)



b) Stabilization ponds with wet land or aquatic treatment system



c) Bio-disks or trickling filters treatment process



d) Activated sludge treatment process

Figure 4.7.3 Flow Schematic for Typical Small Septage Treatment Facilities