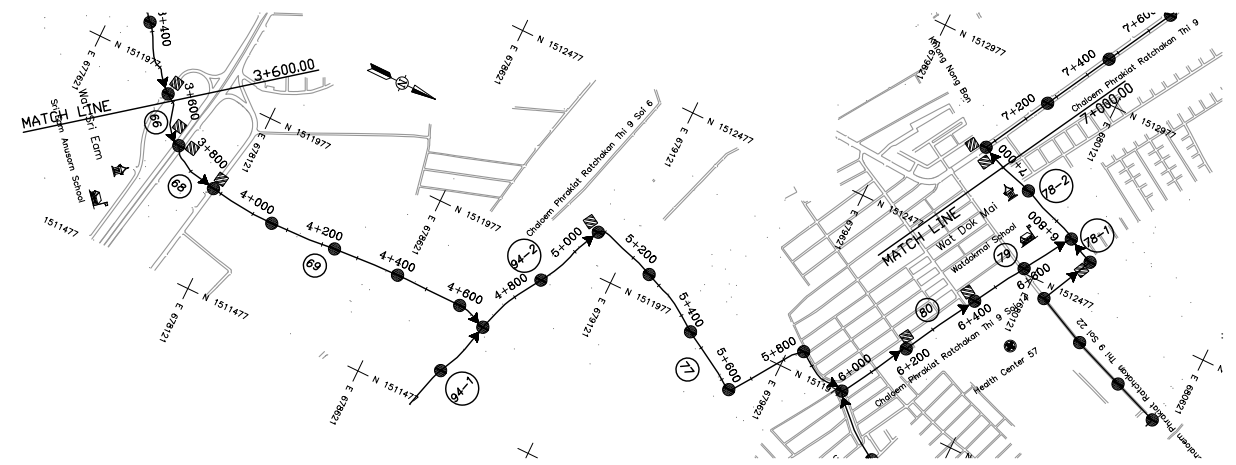
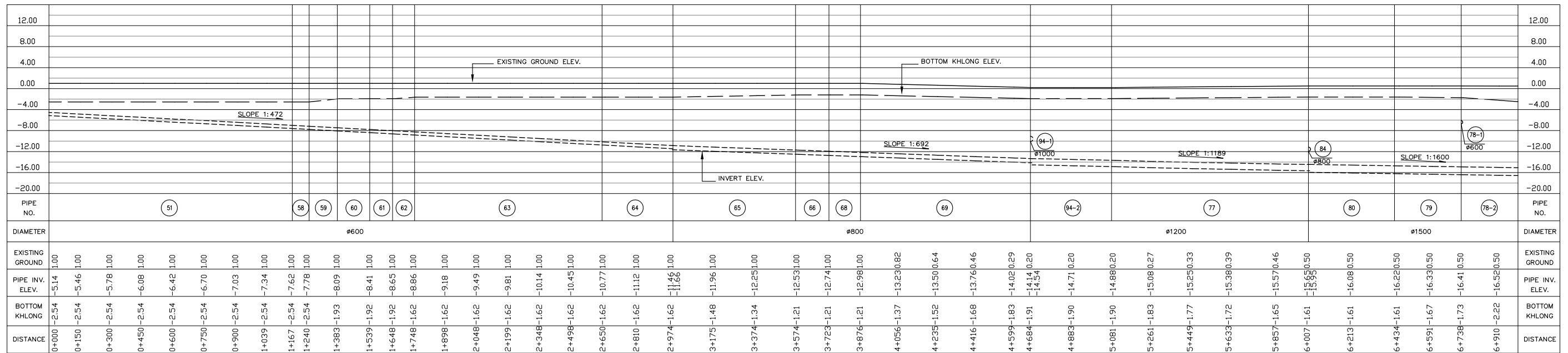


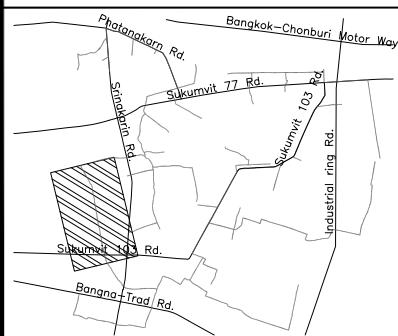
PLAN



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Bangkok Metropolitan Administration



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Nippon Koei Co.,Ltd

DESIGNED :	REV.NO.	DATE	DESCRIPTION	APPROVED
DRAWN : SULIYA S.				
CHECKED :				
PROJECT MANAGER :				
PROJECT ENGINEER :				
DATE : MAR , 2011				

SYMBOL	
●	MANHOLE
⊠	INTERCEPTOR CHAMBER
—	BRIDGE
~	STREAM
⛩	TEMPLE
Ⓔ	GOVERNMENT
🎓	SCHOOL

SCALE	
A1 = 1:10,000	A3 = 1:20,000
1:400	1:800

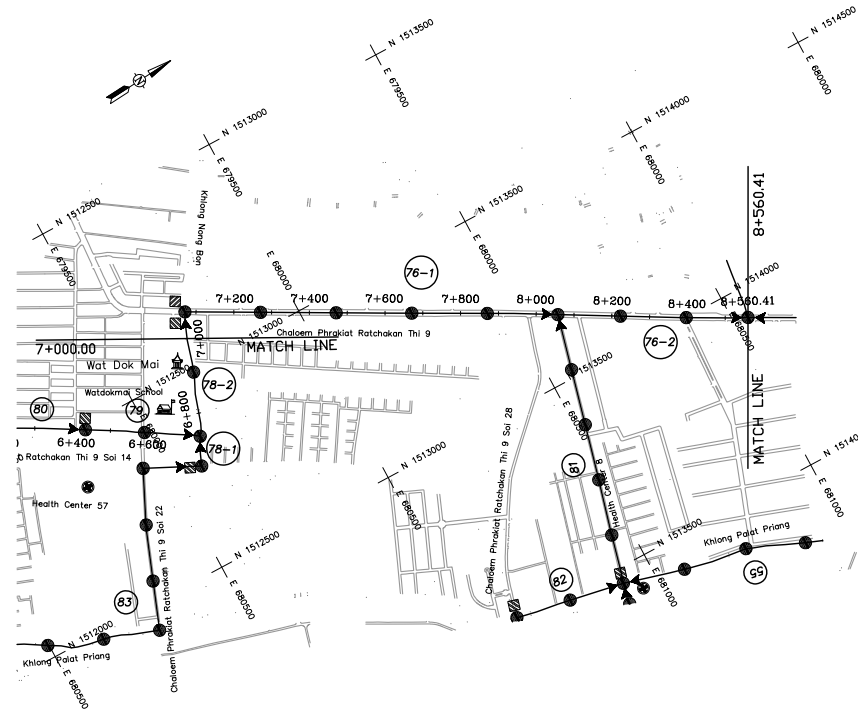
DWG. NO.	SHEET NO.
NB-PF-1009	12

Department of Drainage & Sewerage  
Bangkok Metropolitan Administration

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Preparatory Survey for Bangkok WasteWater Treatment Project

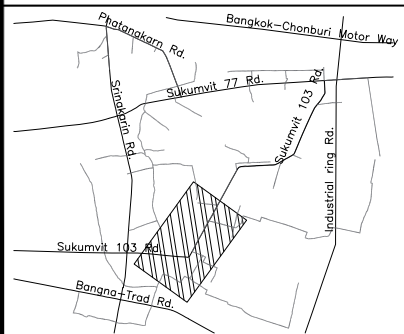
Plan and Profile  
South Trunk Line



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DRAWN : SULIYA S.				
CHECKED :				
PROJECT MANAGER :				
PROJECT ENGINEER :				
DATE : MAR , 2011				

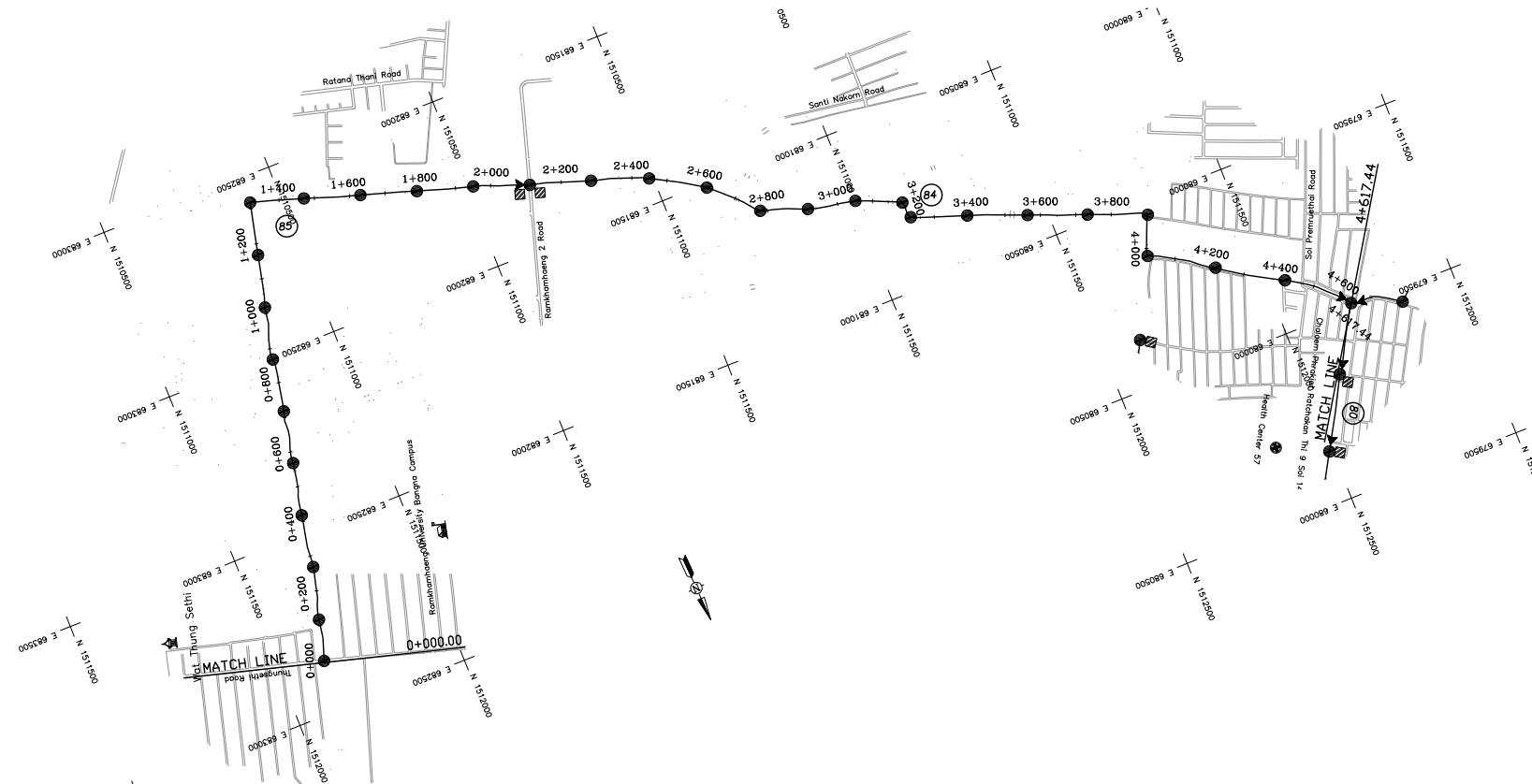
SYMBOL	
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⊠	INTERCEPTOR CHAMBER
—	BRIDGE
~	STREAM
⛪	TEMPLE
Ⓐ	GOVERNMENT
🎓	SCHOOL
SCALE:	
A1 = 1:10,000	A3 = 1:20,000
1:400	1:800
DWG. NO.	SHEET NO.
NB-PF-1010	13

Department of Drainage & Sewerage  
Bangkok Metropolitan Administration

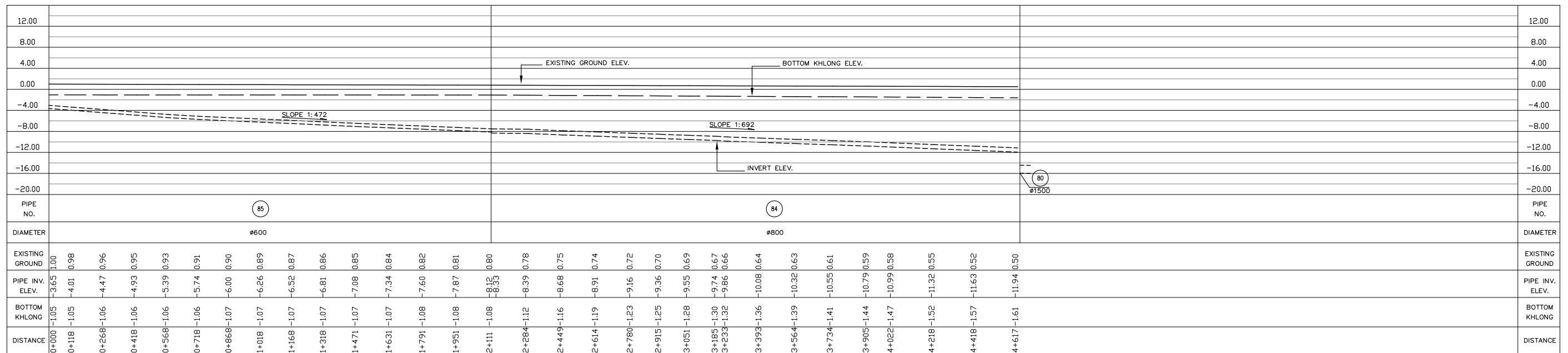
Preparatory Survey for Bangkok WasteWater Treatment Project

Plan and Profile  
South Trunk Line

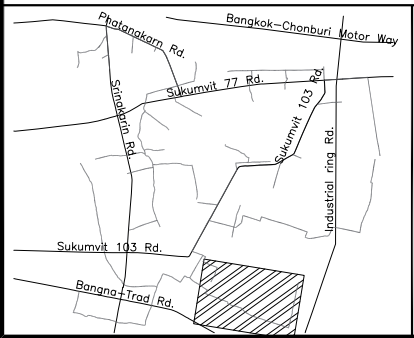
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DRAWN : SULIYA S.				
CHECKED :				
PROJECT MANAGER :				
PROJECT ENGINEER :				
DATE : MAR , 2011				

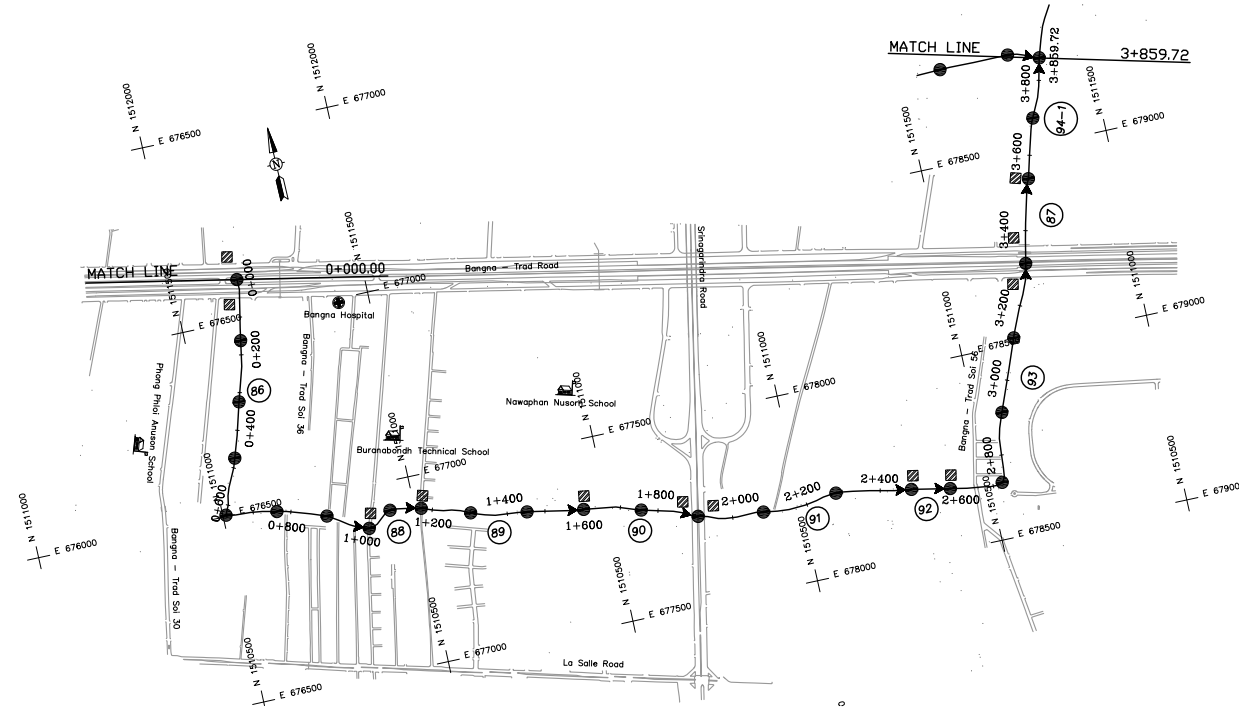
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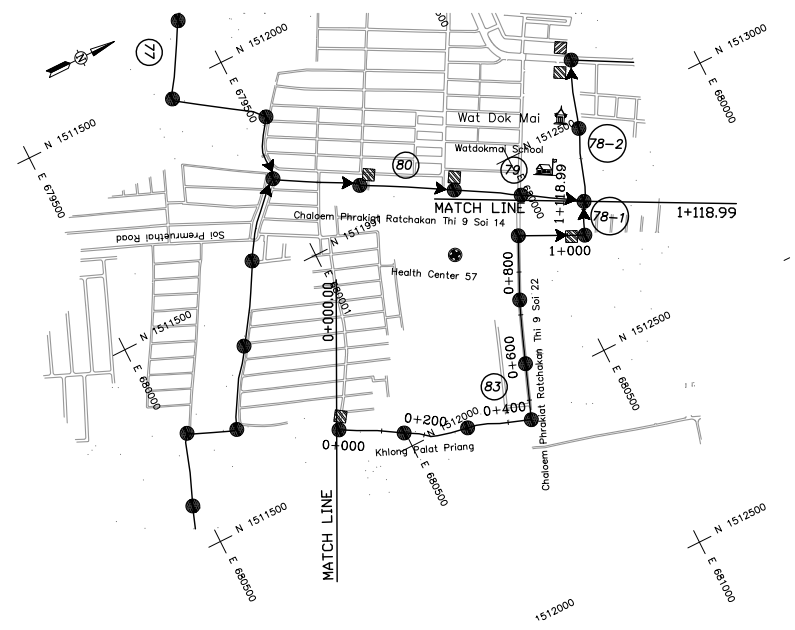
Preparatory Survey for Bangkok WasteWater Treatment Project

Plan and Profile  
 South Trunk Line-1

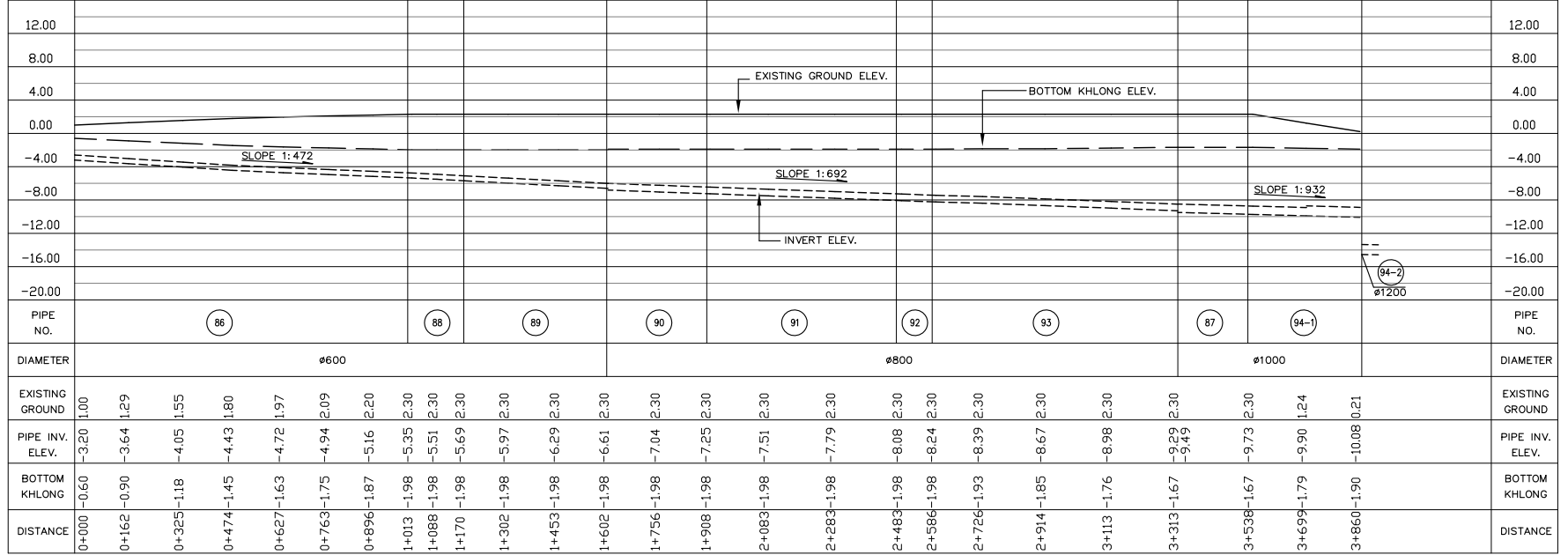
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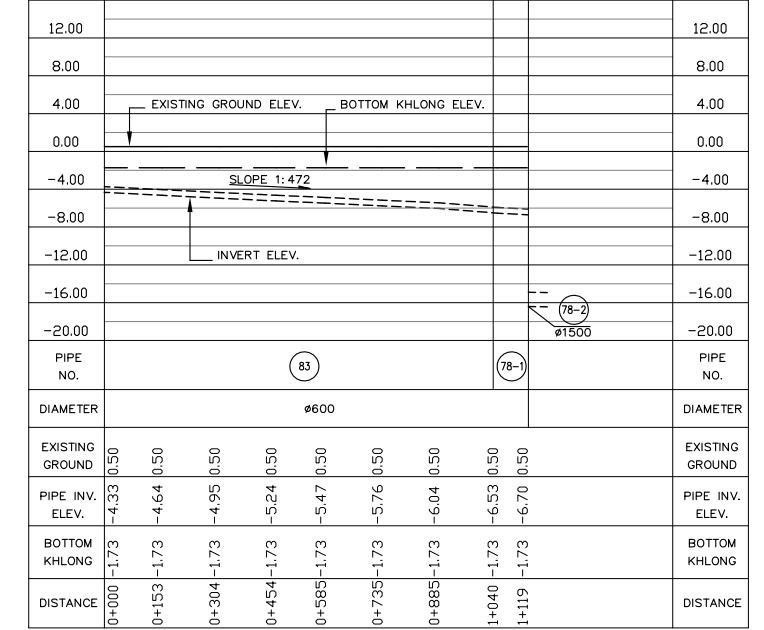
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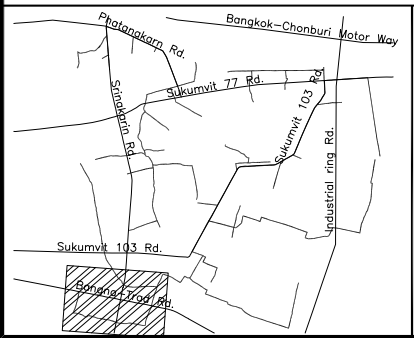
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DRAWN : SULIYA S.				
CHECKED :				
PROJECT MANAGER :				
PROJECT ENGINEER :				
DATE : MAR , 2011				

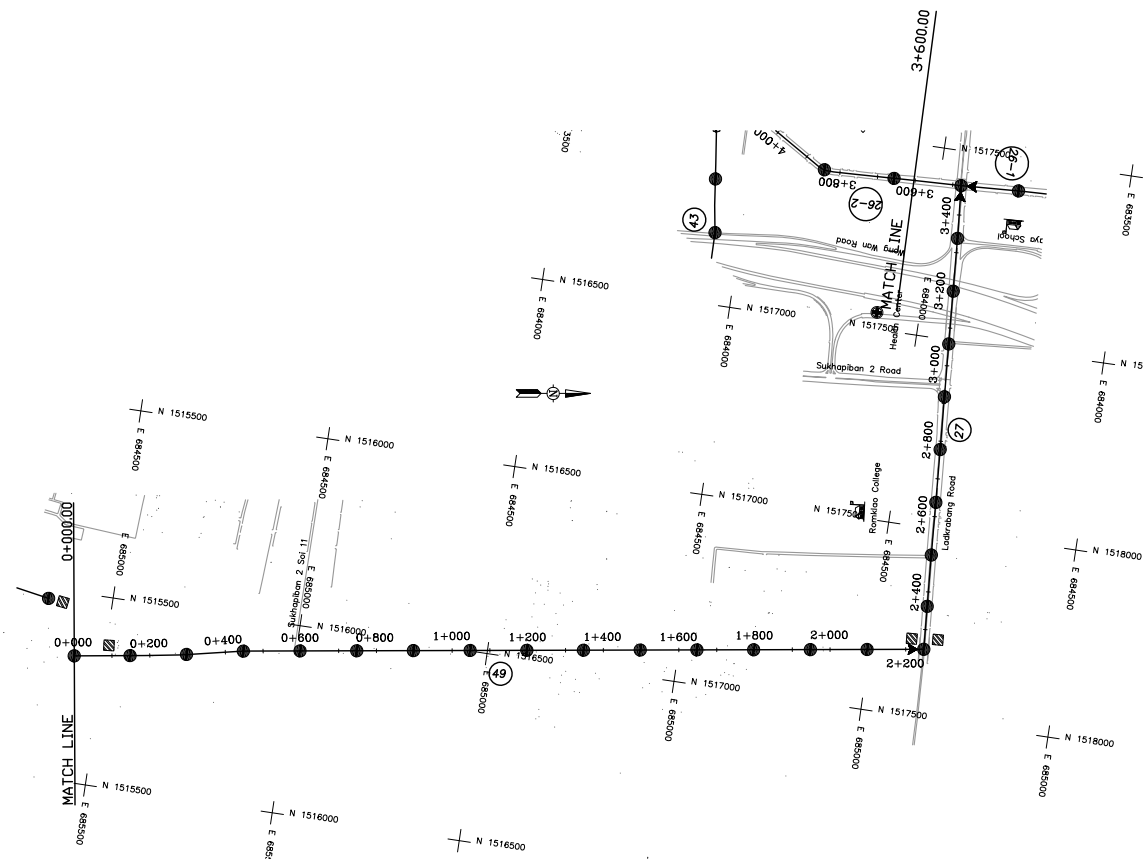
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SCALE:	
A1 = 1:10,000	A3 = 1:20,000
1:400	1:800
DWG. NO. NB-PF-1012	SHEET NO. 15

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**Bangkok Metropolitan Administration**

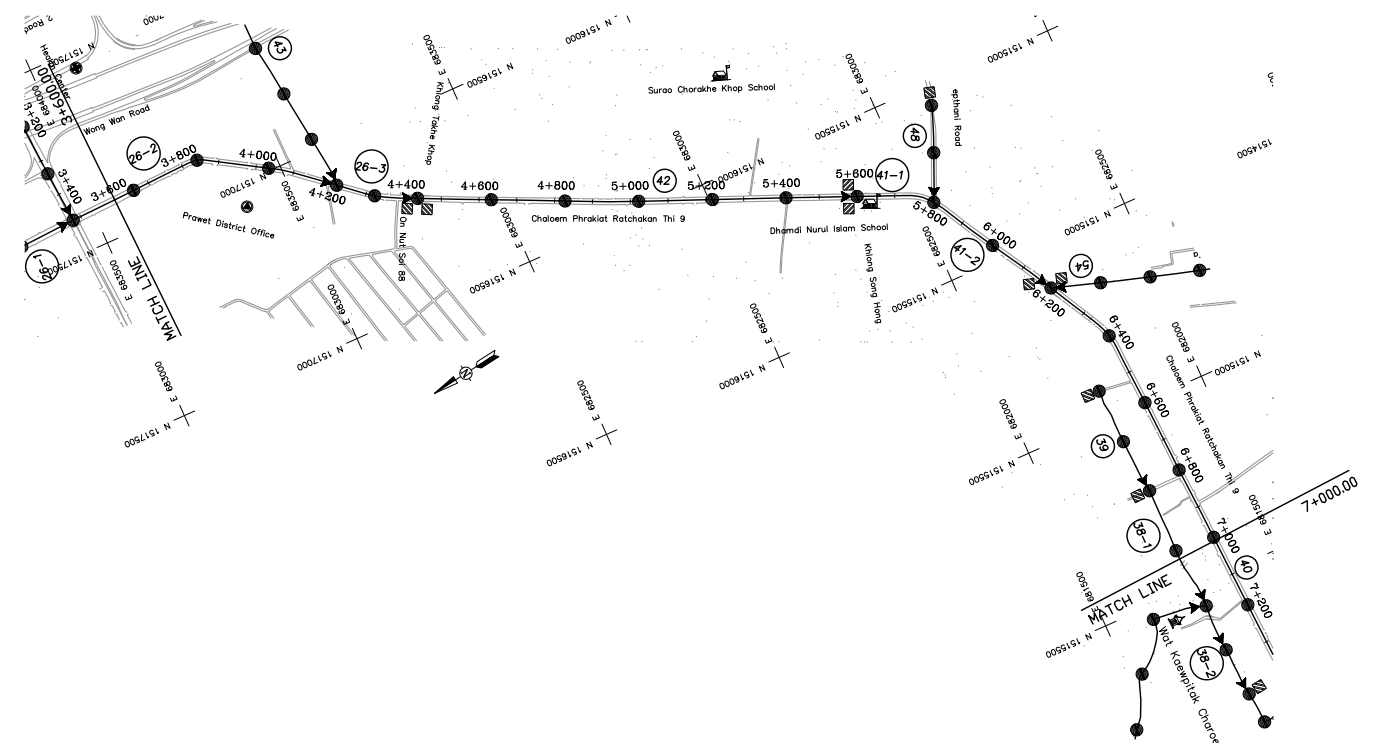
Preparatory Survey for Bangkok WasteWater Treatment Project

Plan and Profile  
South Trunk Line-2,3

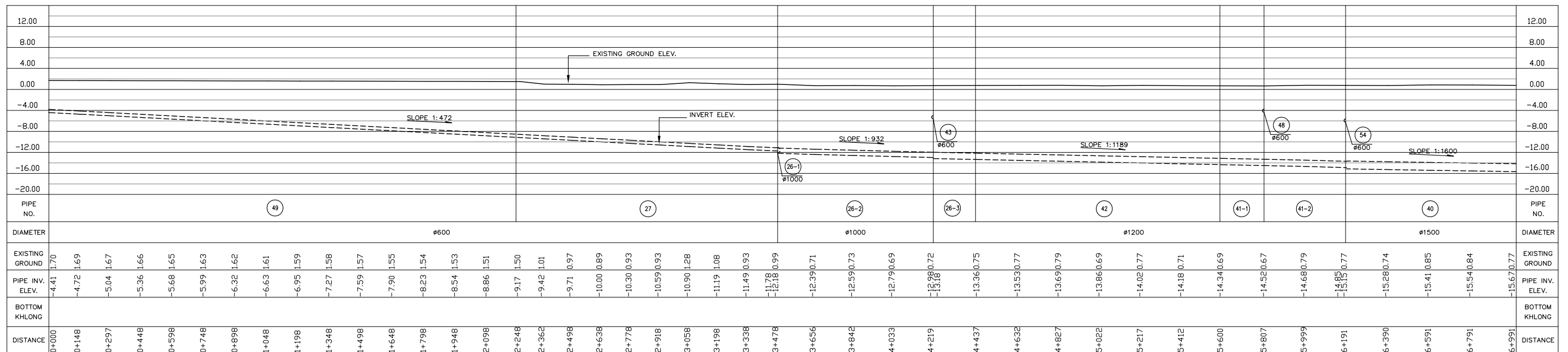
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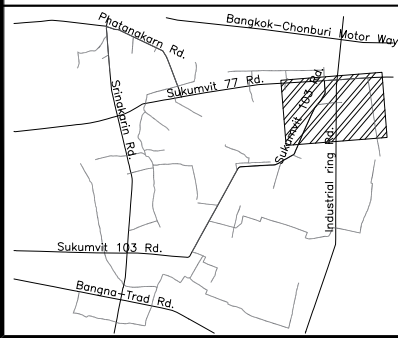
PLAN



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DRAWN : SULIYA S.				
CHECKED :				
PROJECT MANAGER :				
PROJECT ENGINEER :				
DATE : MAR , 2011				

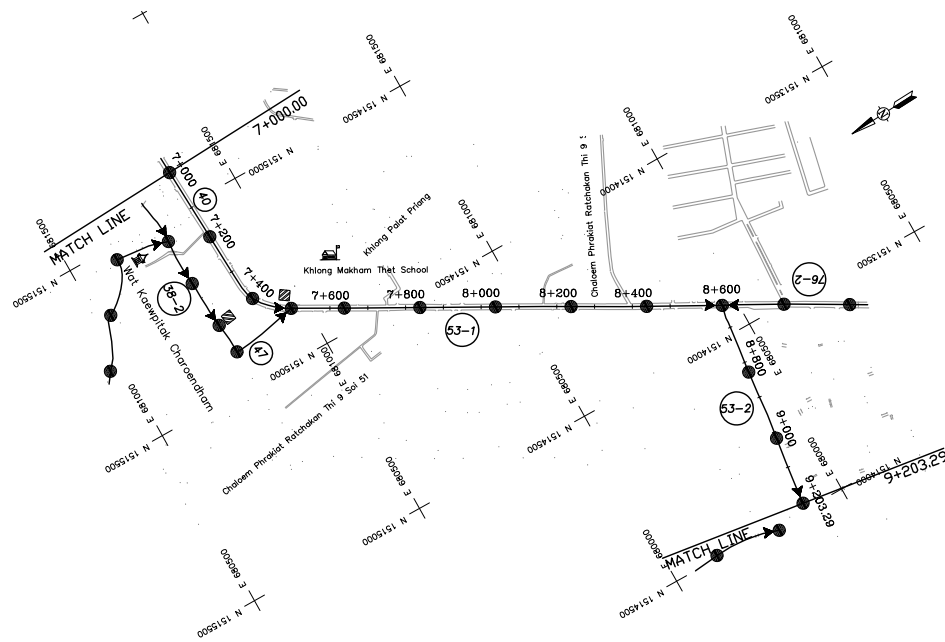
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SCALE: A1 = 1:10,000    A3 = 1:20,000 1:400                1:800	
DWG. NO. NB-PF-1013	SHEET NO. 16

Department of Drainage & Sewerage  
Bangkok Metropolitan Administration

Preparatory Survey for Bangkok WasteWater Treatment Project

Plan and Profile  
Prawet Trunk Line

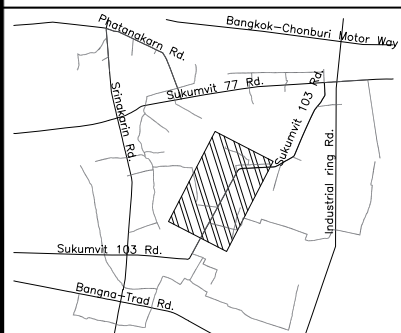
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DRAWN : SULIYA S.				
CHECKED :				
PROJECT MANAGER :				
PROJECT ENGINEER :				
DATE : MAR , 2011				

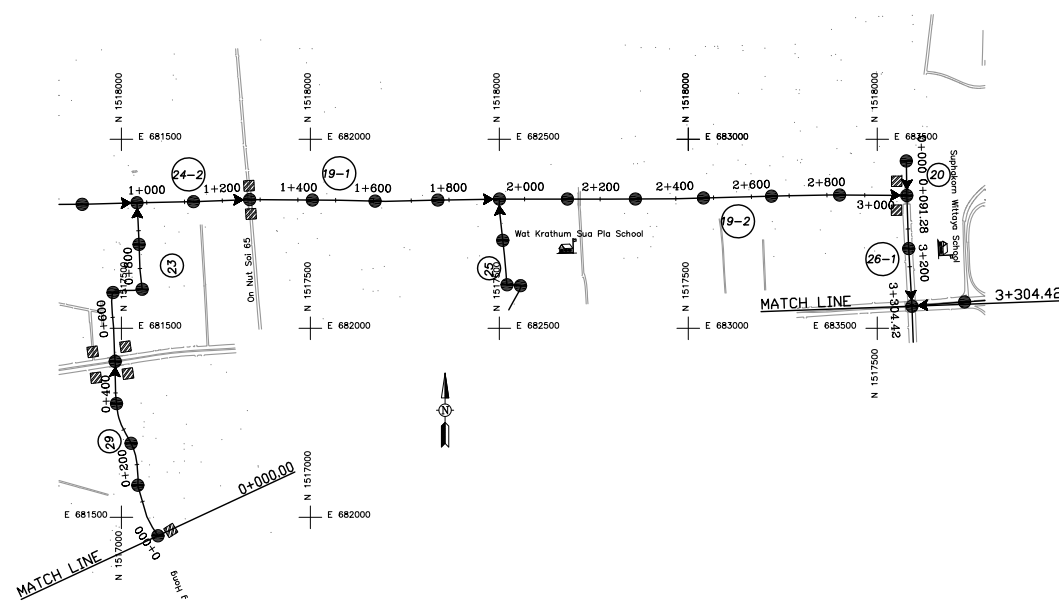
SYMBOL	
●	MANHOLE
⊠	INTERCEPTOR CHAMBER
—	BRIDGE
~	STREAM
⛩	TEMPLE
Ⓐ	GOVERNMENT
🎓	SCHOOL
SCALE.	
A1 = 1:10,000	A3 = 1:20,000
1:400	1:800
DWG. NO.	SHEET NO.
NB-PF-1014	17

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Bangkok Metropolitan Administration

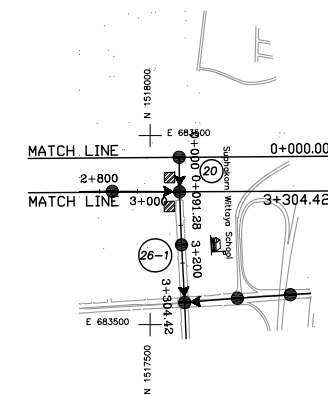
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Preparatory Survey for Bangkok WasteWater Treatment Project

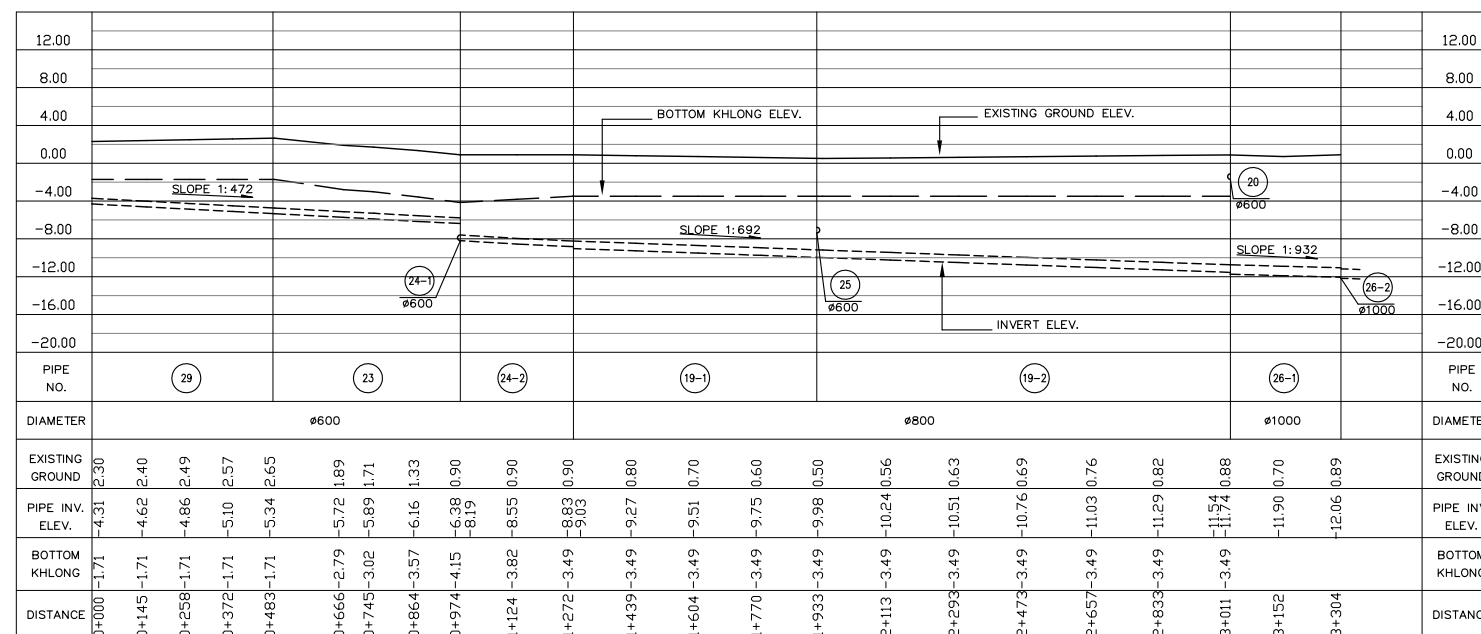
Plan and Profile  
Prawet Trunk Line



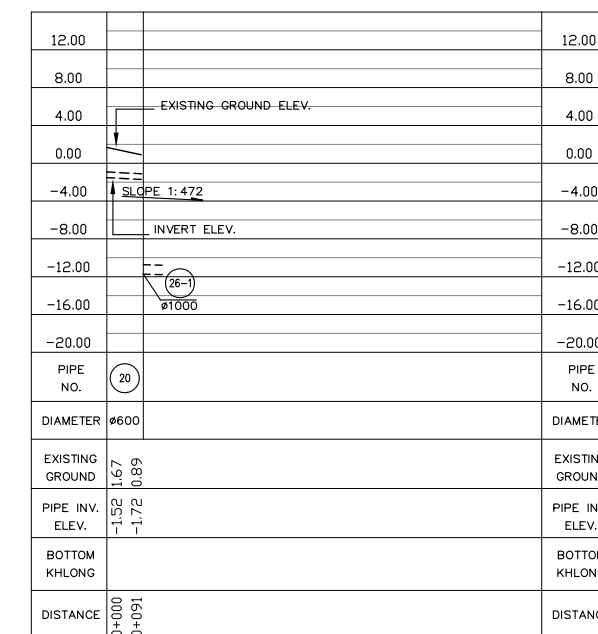
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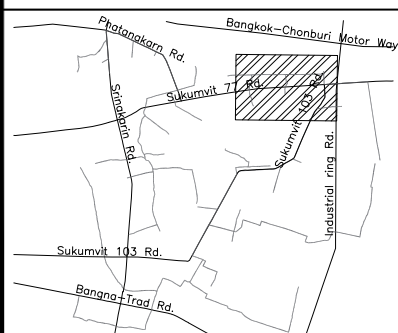
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DRAWN :	SULIYA S.								
CHECKED :									
PROJECT MANAGER :									
PROJECT ENGINEER :									
DATE :	MAR , 2011								

- SYMBOL
- MANHOLE
  - ▣ INTERCEPTOR CHAMBER
  - BRIDGE
  - ~ STREAM
  - ⛪ TEMPLE
  - Ⓐ GOVERNMENT
  - 🎓 SCHOOL

SCALE:  
A1 = 1:10,000    A3 = 1:20,000  
1:400            1:800

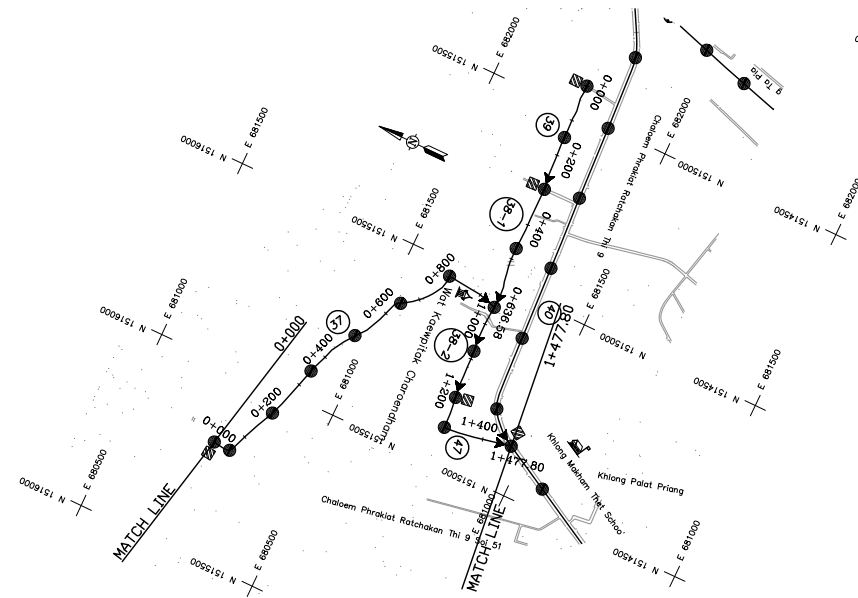
DWG. NO. NB-PF-1015    SHEET NO. 18

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Bangkok Metropolitan Administration

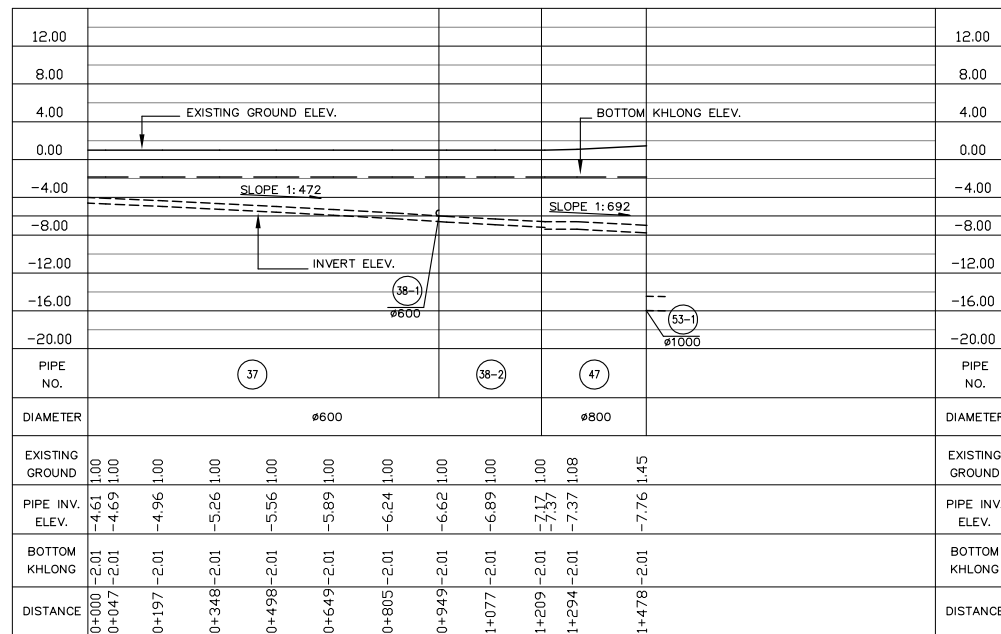
Preparatory Survey for Bangkok WasteWater Treatment Project

Plan and Profile  
Prawet Trunk Line-1,9

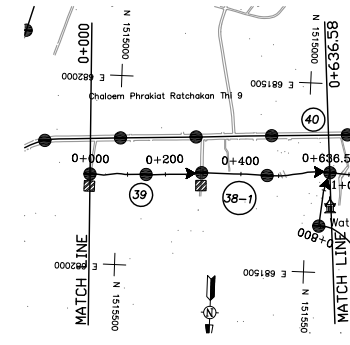
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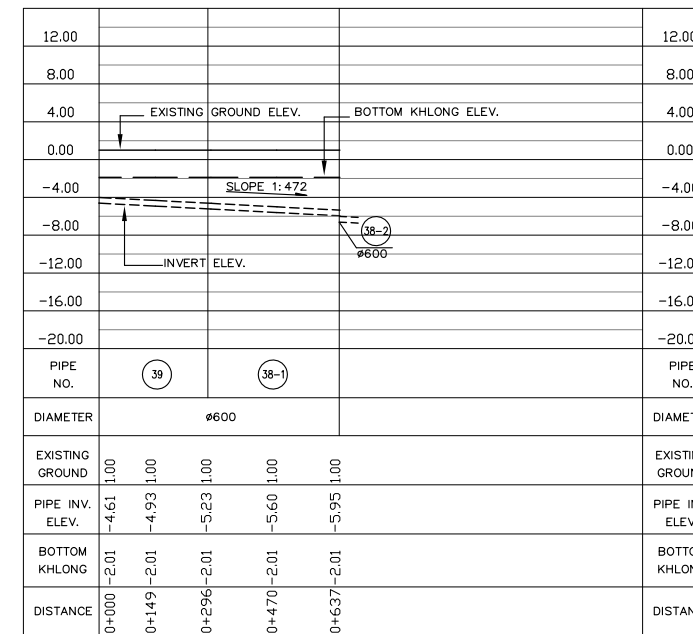
PLAN



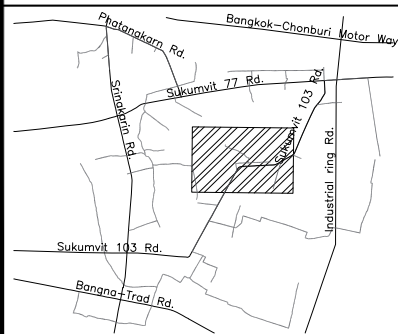
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CHECKED :  
PROJECT MANAGER :  
PROJECT ENGINEER :  
DATE : MAR , 2011

REV.NO.	DATE	DESCRIPTION	APPROVED

SYMBOL	
●	MANHOLE
⊠	INTERCEPTOR CHAMBER
— —	BRIDGE
~	STREAM
⛪	TEMPLE
Ⓒ	GOVERNMENT
Ⓔ	SCHOOL
SCALE.	
A1 = 1:10,000	A3 = 1:20,000
1:400	1:800
DWG. NO.	SHEET NO.
NB-PF-1016	19

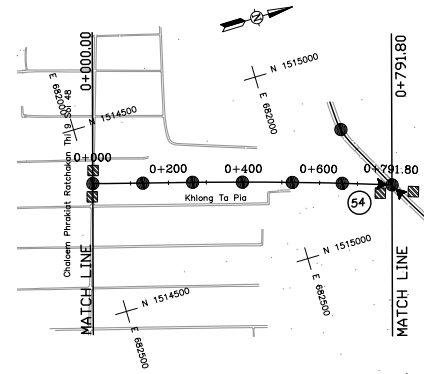
Department of Drainage & Sewerage  
Bangkok Metropolitan Administration

FINAL

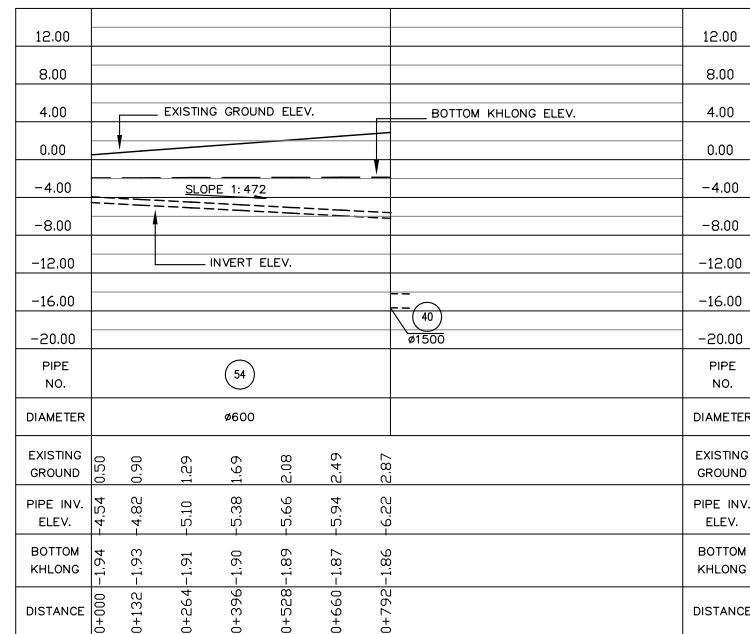
Preparatory Survey for Bangkok WasteWater Treatment Project

Plan and Profile  
Prawet Trunk Line-2,7

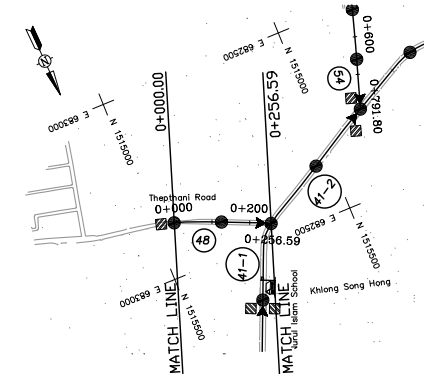




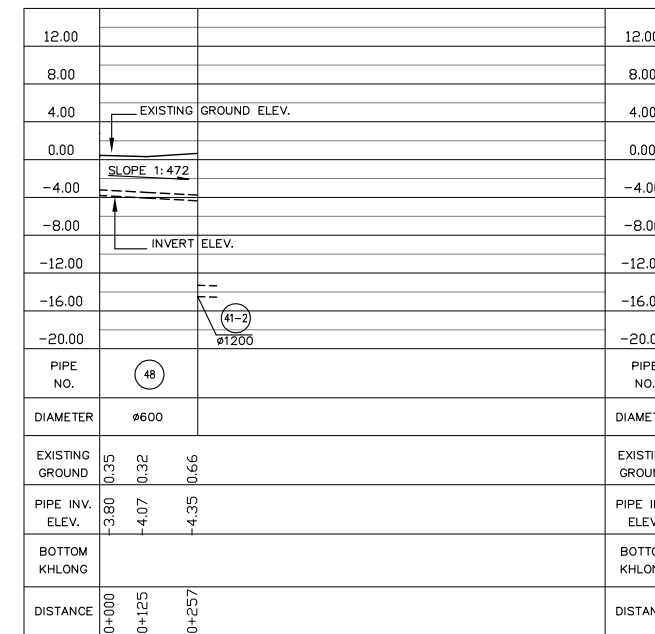
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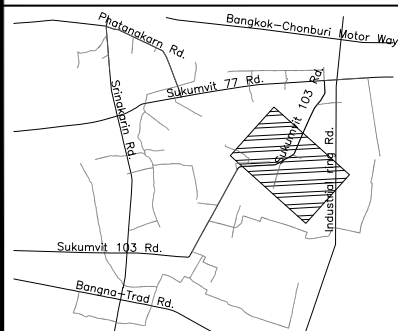
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DRAWN : SULIYA S.				
CHECKED :				
PROJECT MANAGER :				
PROJECT ENGINEER :				
DATE : MAR , 2011				

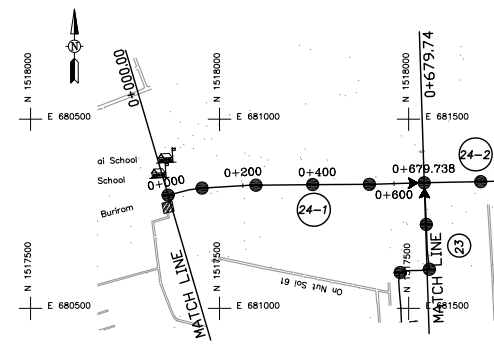
SYMBOL	
●	MANHOLE
⊠	INTERCEPTOR CHAMBER
— —	BRIDGE
~	STREAM
⛪	TEMPLE
Ⓐ	GOVERNMENT
🎓	SCHOOL
SCALE:	
A1 = 1:10,000	A3 = 1:20,000
1:400	1:800
DWG. NO.	SHEET NO.
NB-PF-1017	20

Department of Drainage & Sewerage  
Bangkok Metropolitan Administration

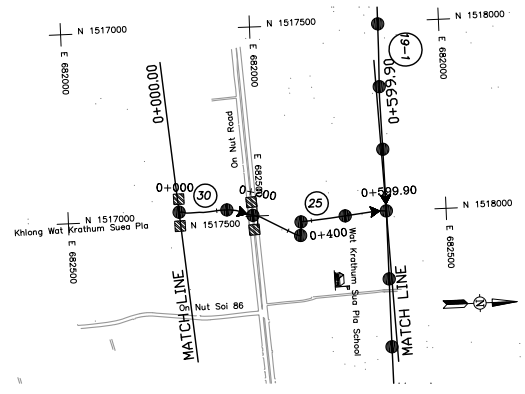
Preparatory Survey for Bangkok WasteWater Treatment Project

Plan and Profile  
Prawet Trunk Line-3,8

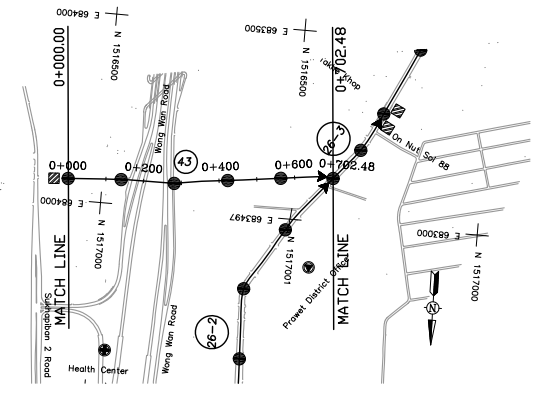
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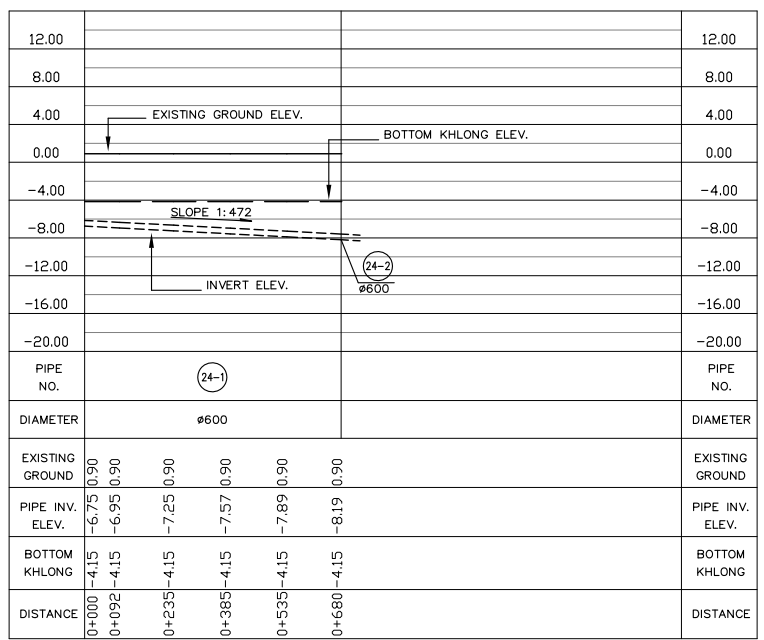
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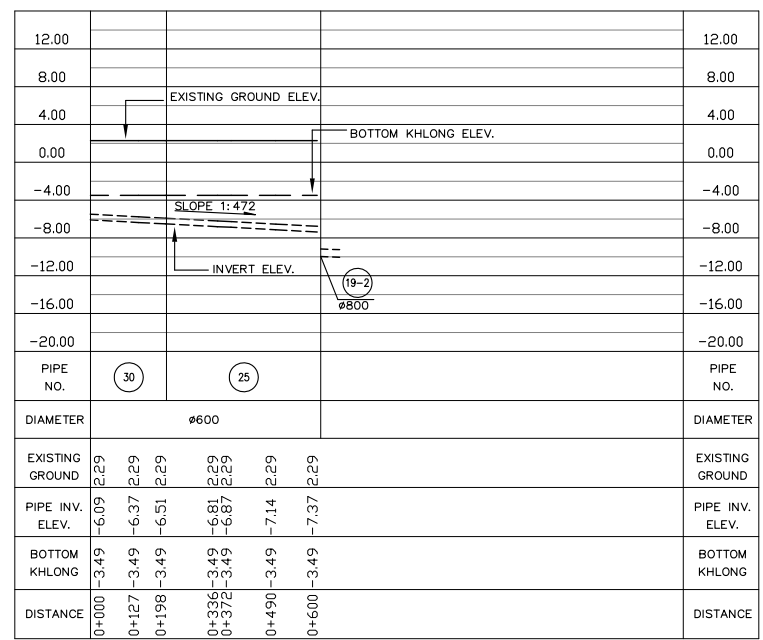
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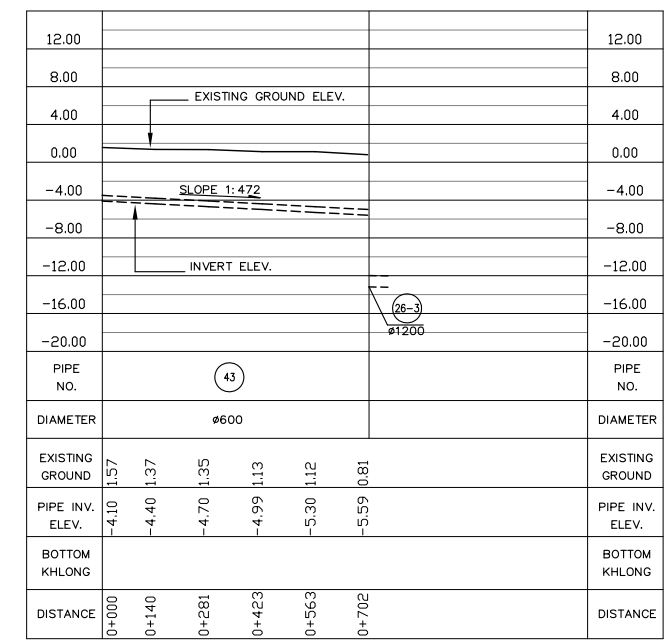
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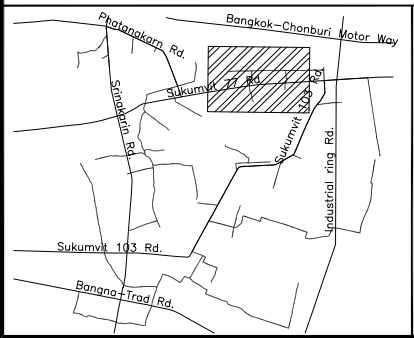
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DRAWN : SULIYA S.				
CHECKED :				
PROJECT MANAGER :				
PROJECT ENGINEER :				
DATE : MAR , 2011				

SYMBOL	
●	MANHOLE
⊠	INTERCEPTOR CHAMBER
—	BRIDGE
~	STREAM
⛩	TEMPLE
Ⓐ	GOVERNMENT
🎓	SCHOOL

SCALE:  
A1 = 1:10,000    A3 = 1:20,000  
1:400            1:800

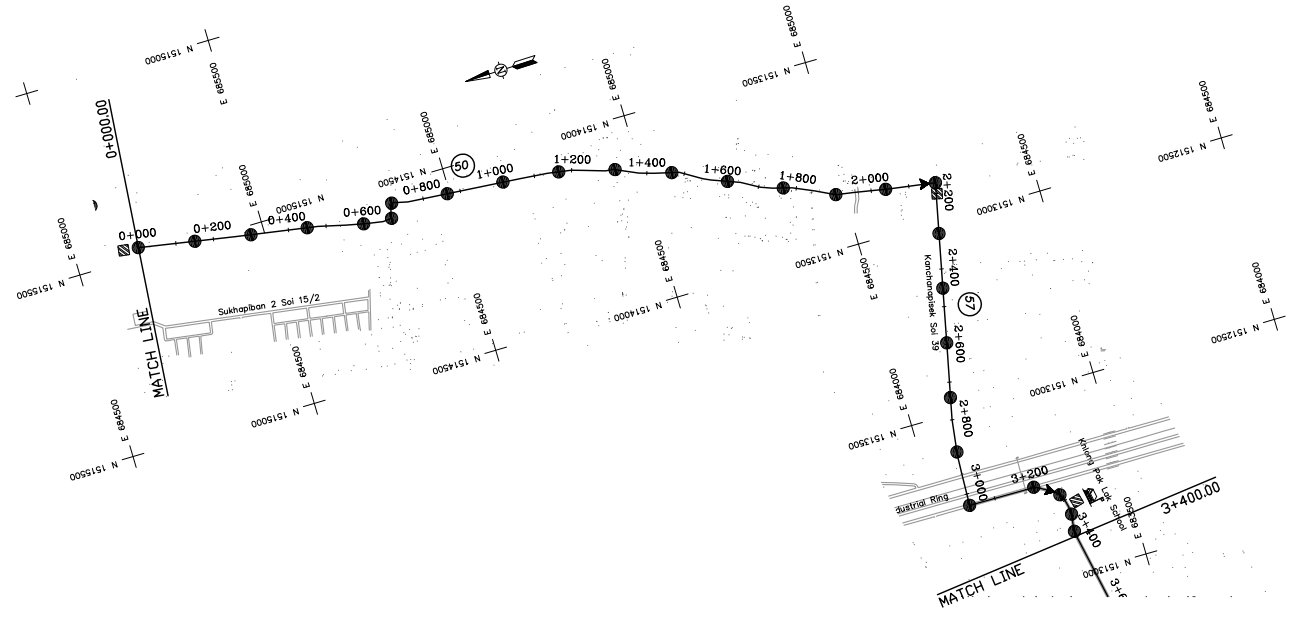
DWG. NO. NB-PF-1018    SHEET NO. 21

Department of Drainage & Sewerage  
Bangkok Metropolitan Administration

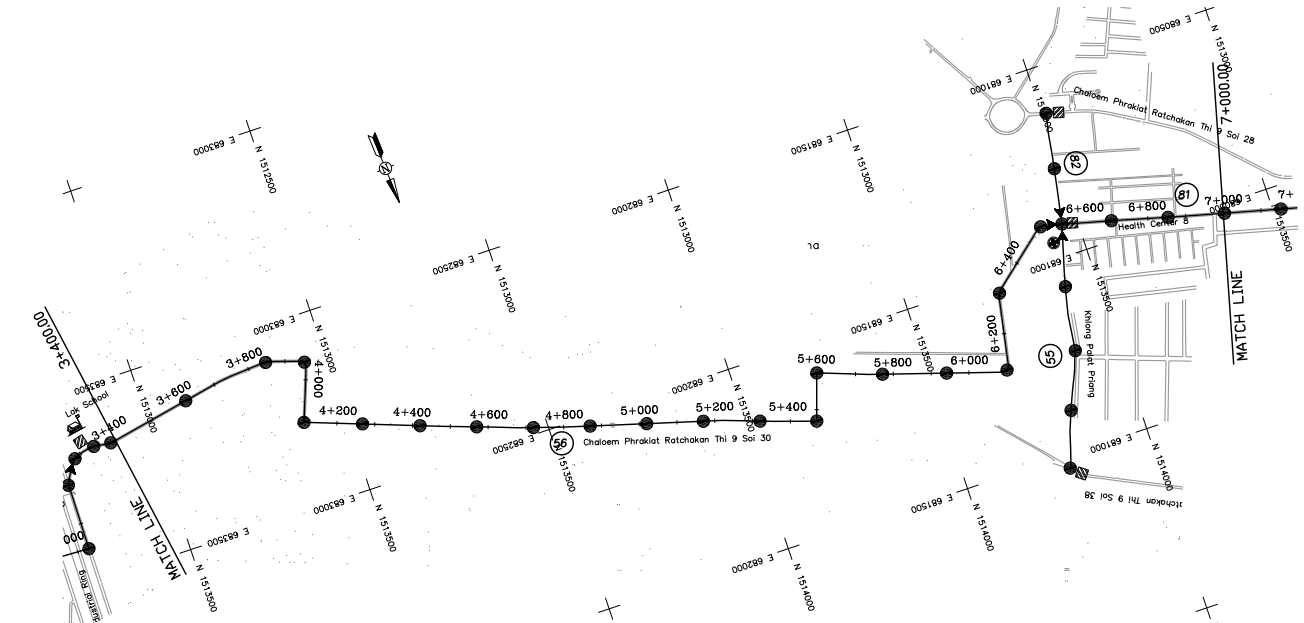
Preparatory Survey for Bangkok WasteWater Treatment Project

Plan and Profile  
Prawet Trunk Line-4,5,6

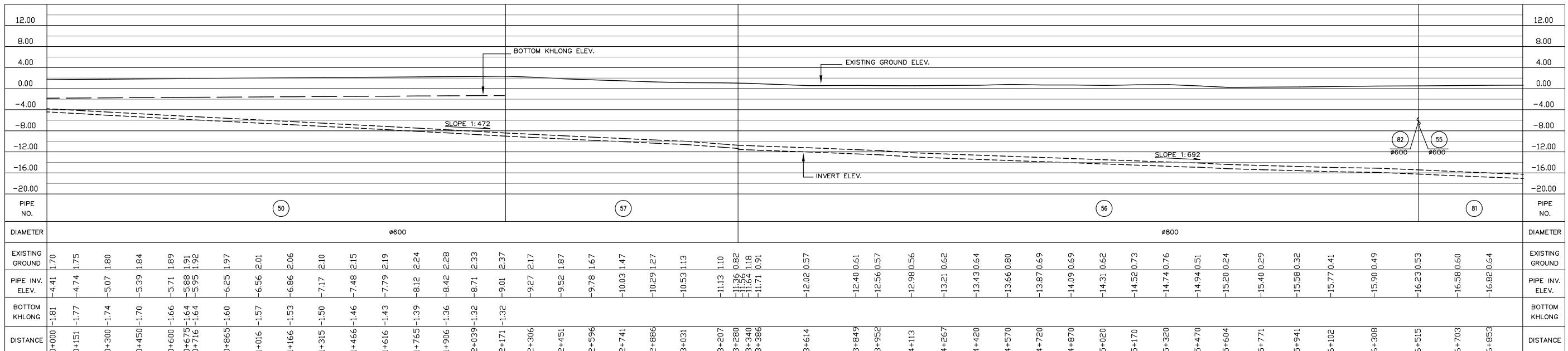
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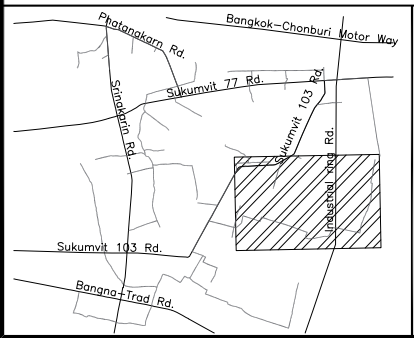
PLAN



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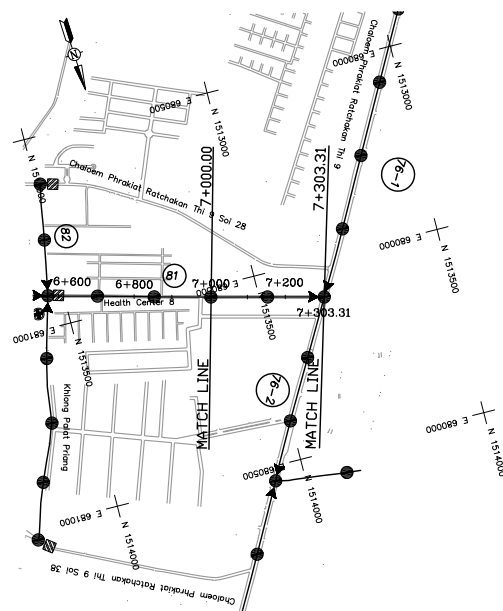


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**Tokyo Engineering Consultants Co.,Ltd**
  
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DRAWN : SULIYA S.				
CHECKED :				
PROJECT MANAGER :				
PROJECT ENGINEER :				
DATE : MAR , 2011				

**SYMBOL**
  
  
**SCALE:**
  
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**DWG. NO.** NB-PF-1019    **SHEET NO.** 22

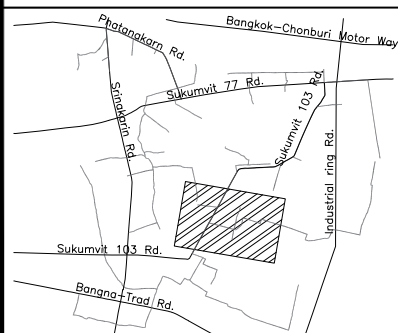
**Department of Drainage & Sewerage**
  
**Bangkok Metropolitan Administration**
  
 Preparatory Survey for Bangkok WasteWater Treatment Project
   
 Plan and Profile
   
 Dok Mai Trunk Line
   
FINAL



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Nippon Koei Co.,Ltd

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DRAWN : SULIYA S.				
CHECKED :				
PROJECT MANAGER :				
PROJECT ENGINEER :				
DATE : MAR , 2011				

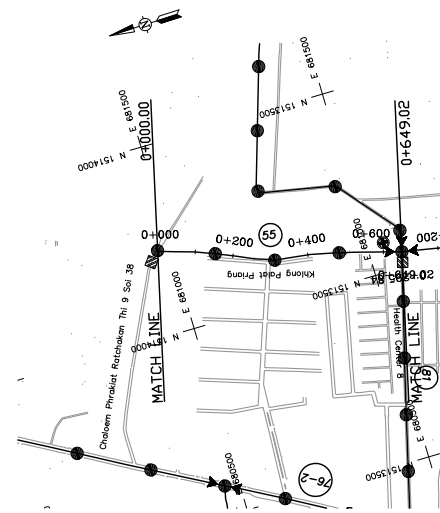
SYMBOL	
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⊠	INTERCEPTOR CHAMBER
—	BRIDGE
~	STREAM
⛩	TEMPLE
Ⓒ	GOVERNMENT
🎓	SCHOOL
SCALE.	
A1 = 1:10,000	A3 = 1:20,000
1:400	1:800
DWG. NO.	SHEET NO.
NB-PF-1020	23

Department of Drainage & Sewerage  
Bangkok Metropolitan Administration

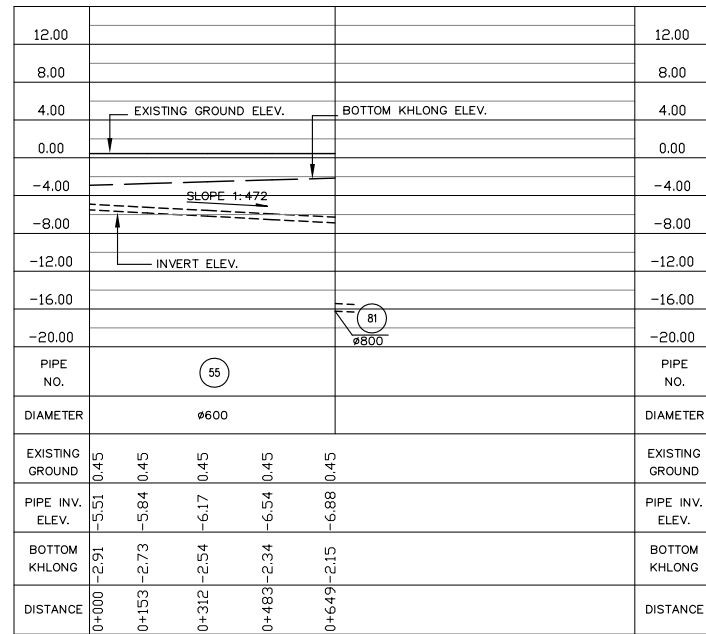
FINAL

Preparatory Survey for Bangkok WasteWater Treatment Project

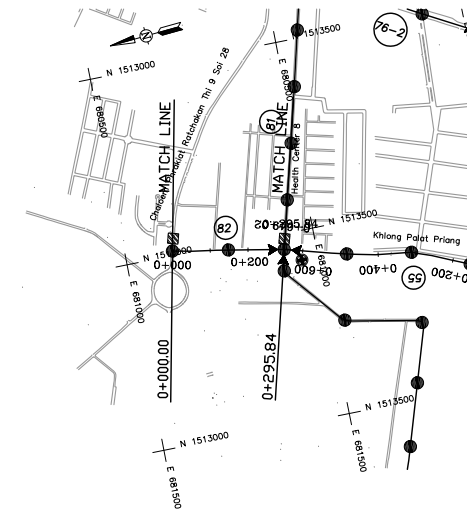
Plan and Profile  
Dok Mai Trunk Line



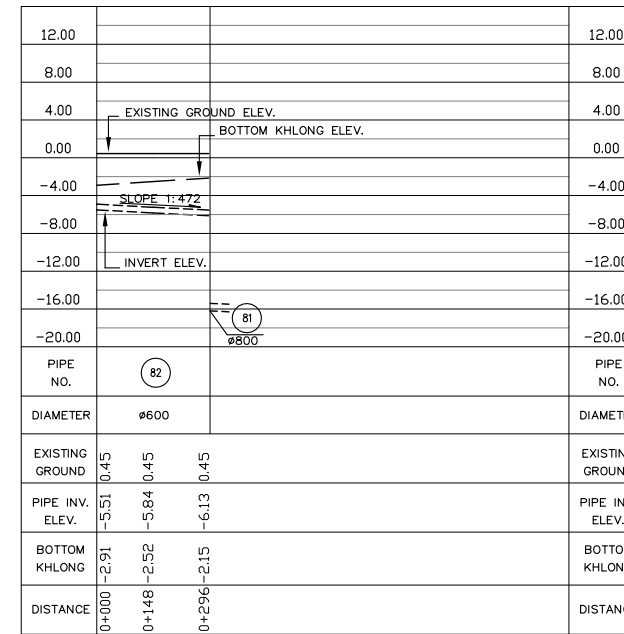
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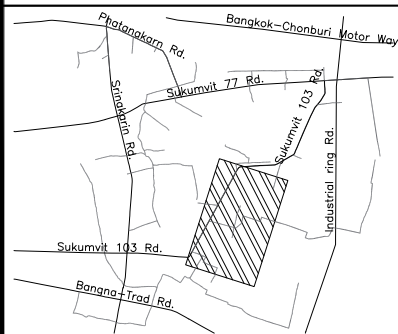
LONGITUDINAL PROFILE



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DRAWN : SULIYA S.				
CHECKED :				
PROJECT MANAGER :				
PROJECT ENGINEER :				
DATE : MAR , 2011				

SYMBOL	
●	MANHOLE
⊠	INTERCEPTOR CHAMBER
—	BRIDGE
~	STREAM
⛩	TEMPLE
Ⓐ	GOVERNMENT
🎓	SCHOOL

SCALE.	
A1 = 1:10,000	A3 = 1:20,000
1:400	1:800

DWG. NO.	SHEET NO.
NB-PF-1021	24

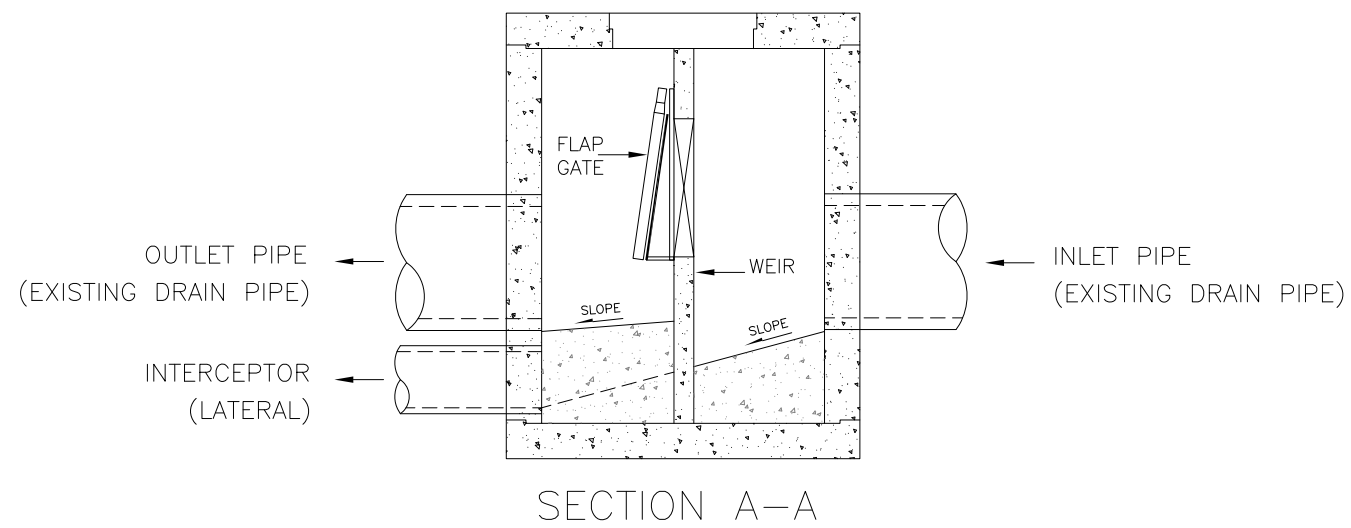
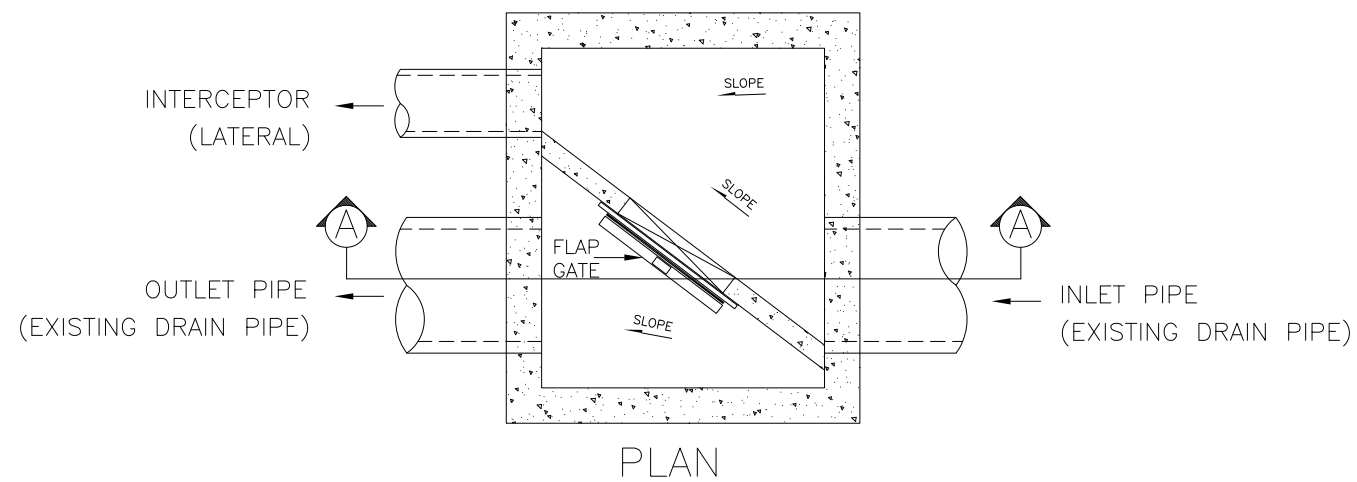
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FINAL

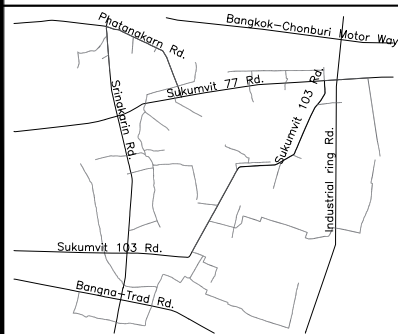
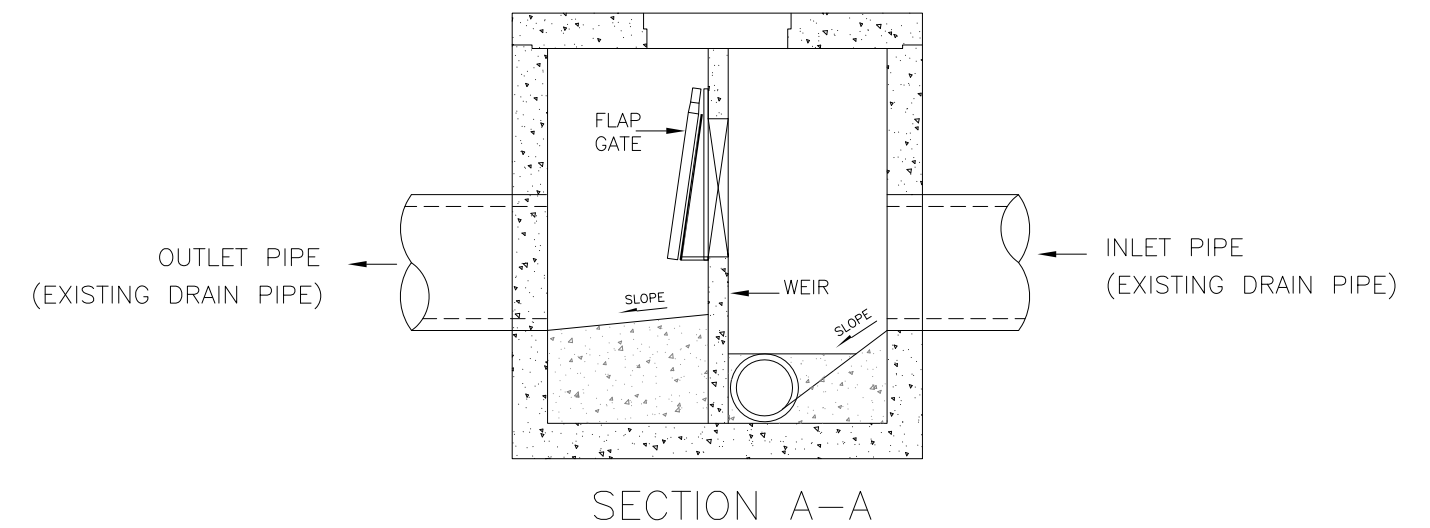
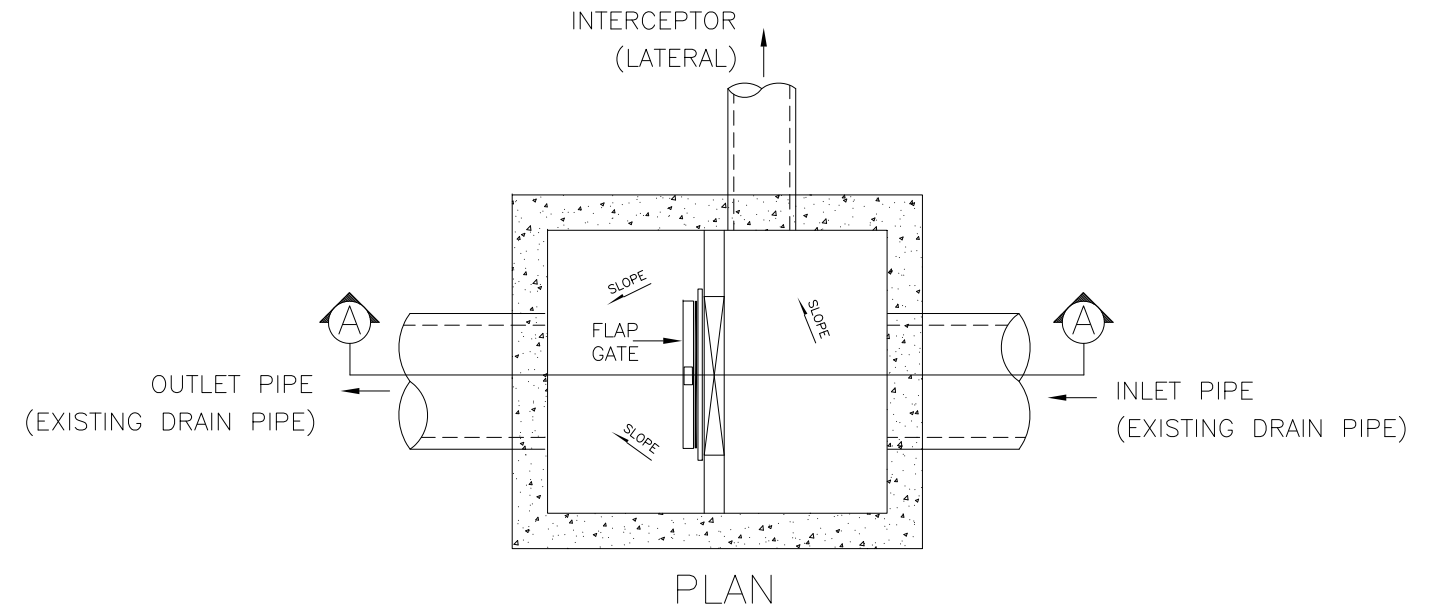
Preparatory Survey for Bangkok WasteWater Treatment Project

Plan and Profile  
Dok Mai Trunk Line-1,2

TYPE 1



TYPE 2



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DESIGNED :	REV.NO.	DATE	DESCRIPTION	APPROVED
DRAWN : SULIYA S.				
CHECKED :				
PROJECT MANAGER :				
PROJECT ENGINEER :				
DATE : MAR , 2011				

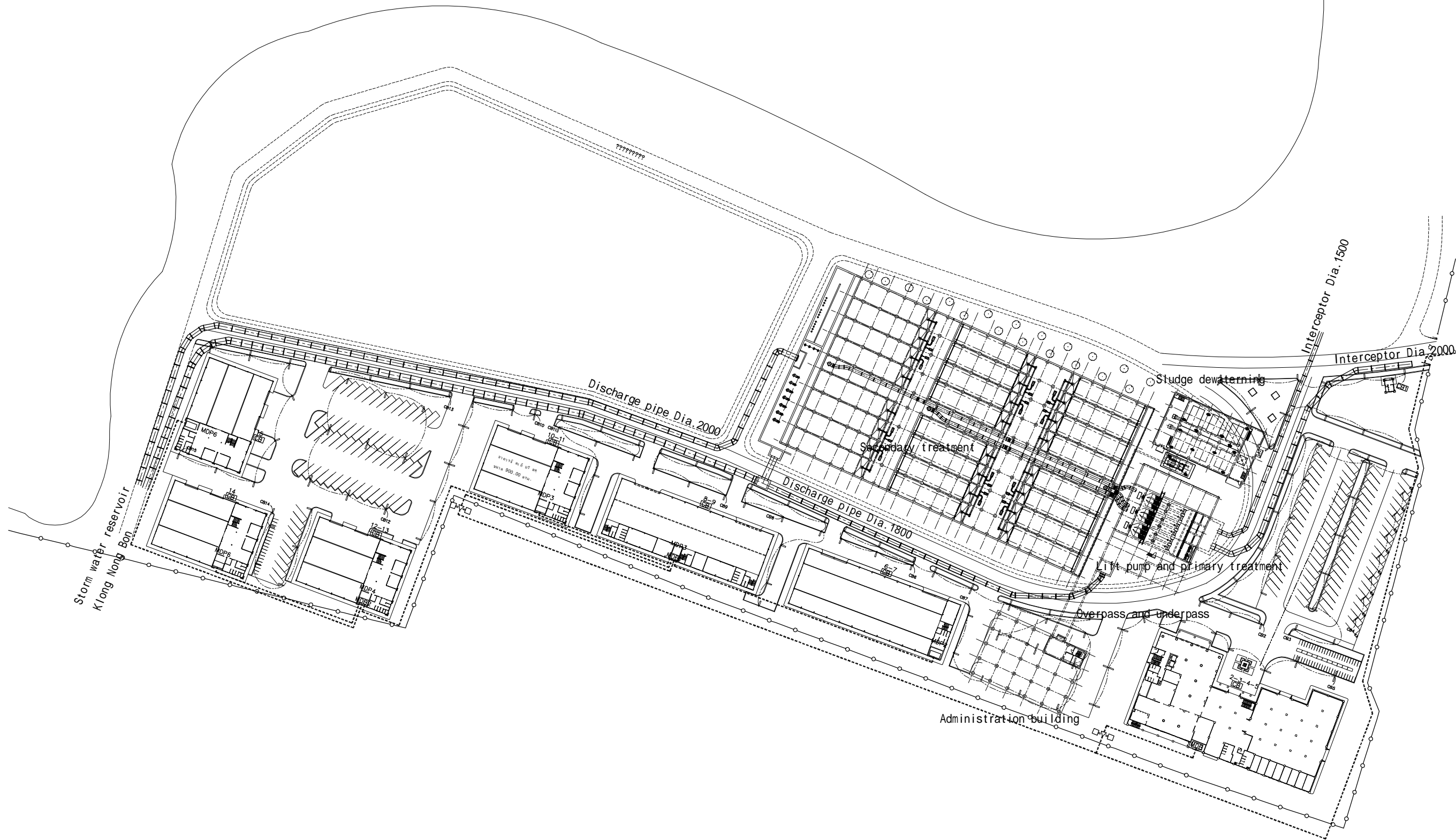
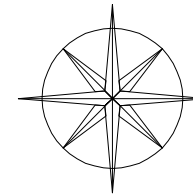
SYMBOL	
●	MANHOLE
⊠	INTERCEPTOR CHAMBER
—	BRIDGE
~	STREAM
⛪	TEMPLE
Ⓐ	GOVERNMENT
Ⓒ	SCHOOL
SCALE:	
A1 = --	A3 = --
DWG. NO.	SHEET NO.
NB-IC-1001	25

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Preparatory Survey for Bangkok WasteWater Treatment Project

Plan and Section  
Typical Interceptor Chambers

FINAL



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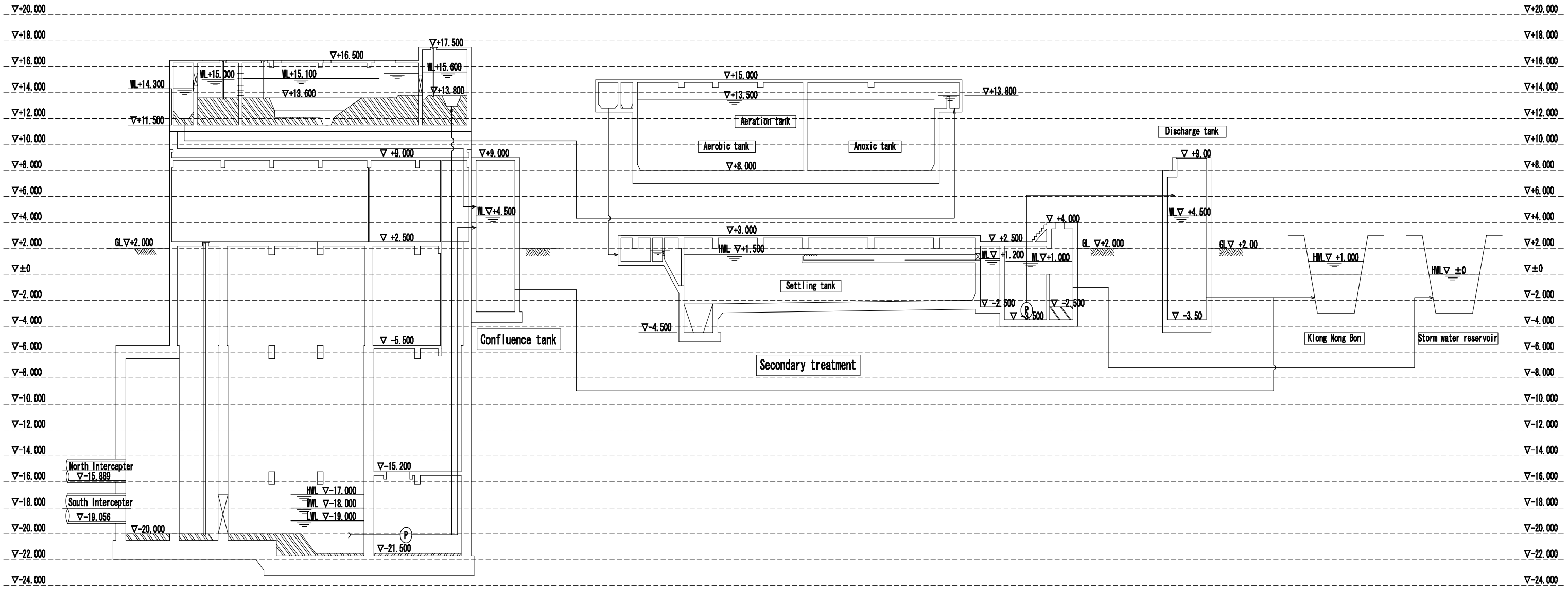
Japan International Cooperation Agency  
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Nippon Koei Co.,Ltd

DESIGNED :	REV.NO.	DATE	DESCRIPTION	APPROVED
DRAWN :				
CHECKED :				
PROJECT MANAGER :				
DATE :				

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SCALE A1 = 1:100    A3 = 1:200	
DWG. NO. NB-TP-1001	SHEET NO. 26

Preparatory Survey for Bangkok WasteWater Treatment Project

Nong Bon WWTW  
General Layout



Lift pump and primary treatment



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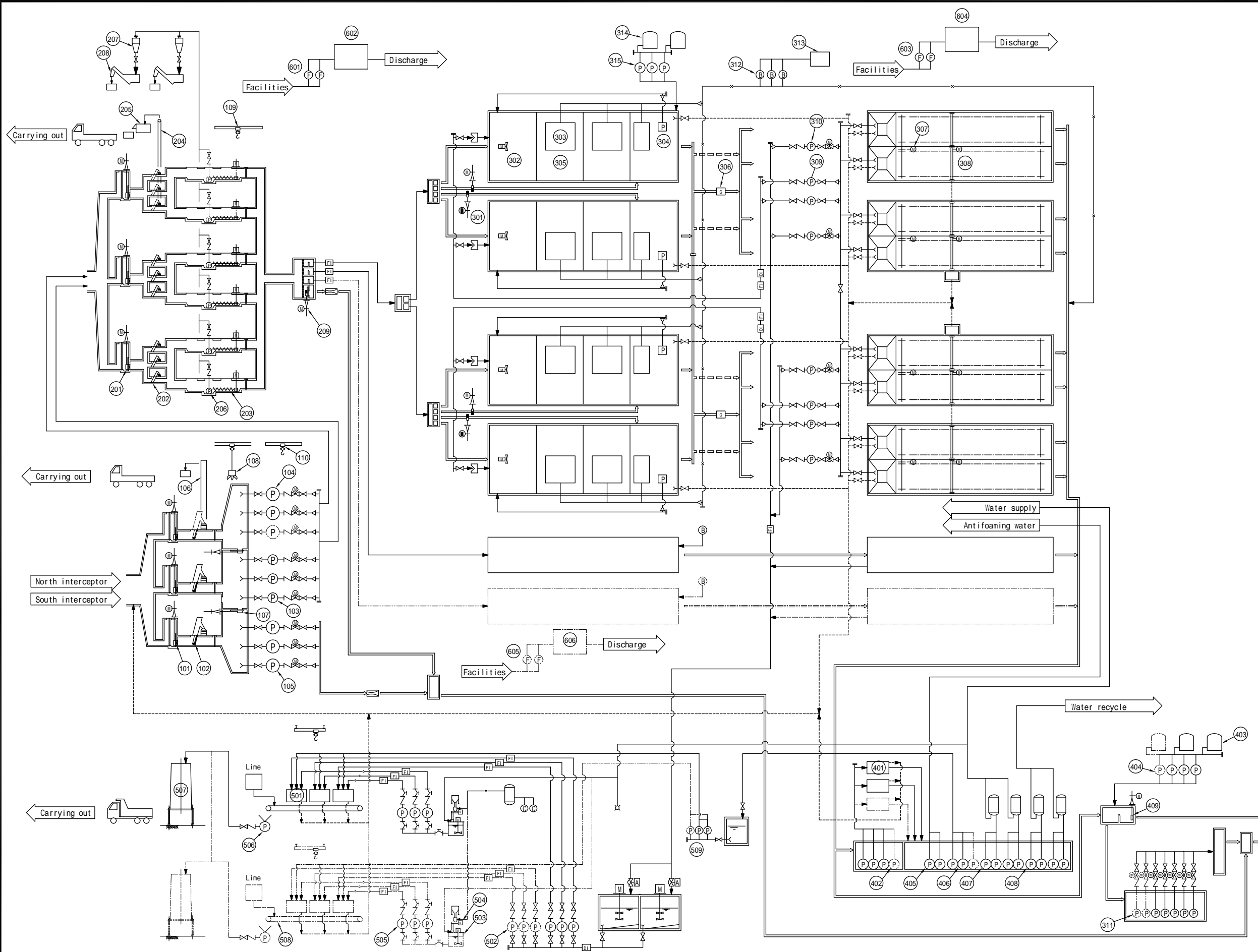
DESIGNED :	REV.NO.	DATE	DESCRIPTION	APPROVED
DRAWN :				
CHECKED :				
PROJECT MANAGER :				
DATE :				

Department of Drainage and Sewerage	
SCALE: A1 = 1:200      A3 = 1:400 1:150      1:300	
DWG. NO. NB-TP-1002	SHEET NO. 27

Preparatory Survey for Bangkok WasteWater Treatment Project

Nong Bon WWTP  
Hydraulic Profile





No.	Item	Number	
		MP	FS
101	Inlet gate	3	3
102	Coarse screen	3	2
103	Lift pump(1)	3(1)	3(1)
104	Lift pump(2)	3(1)	2(1)
105	Lift pump(3)	3	3
106	Screening conveyor	1	1
107	Connecting gate	2	2
108	Grub bucket	1	1
109	Hoist(grit chamber)	1	1
110	Hoist(lift pump)	1	1
201	Inlet gate	3	3
202	Fine screen	9	6
203	Grit collector	6	4
204	Screening conveyor	1	1
205	Screening dewatering	1	1
206	Grit pump	6	4
207	Grit separator	2	2
208	Grit washer	2	2
209	Distribution weir	2	2
301	Aeration tank weir	12	8
302	Mixer	24	16
303	Air diffuser	12	8
304	Circulation pump	12	8
305	Carrier screen	12	8
306	Hydraulic turbine	6	4
307	Sludge collector	12	8
308	Scum skimmer	12	8
309	Return sludge pump	12	8
310	Excess sludge pump	12(6)	8(4)
311	Discharge pump	7(1)	5(1)
312	Blower	9(3)	6(2)
313	Air filter	3	2
314	Coagulant tank	6	4
315	Coagulant dosing pump	9(3)	6(2)
401	Disc filter	3	2
402	Raw water pump	4(1)	3(1)
403	NaClO tank	3	2
404	NaClO dosing pump	4(1)	3(1)
405	Antifoaming water pump	2(1)	2(1)
406	Transfer pump	3(1)	2(1)
407	Water supply unit(1)	2(1)	2(1)
408	Water supply unit(2)	2(1)	2(1)
409	Discharge gate	1	1
501	Dewatering machine	6(1)	3(1)
502	Sludge supply pump	6(1)	3(1)
503	Coagulant tank	4	2
504	Coagulant feeder	4	2
505	Coagulant dosing pump	6(1)	3(1)
506	Sludge cake pump	2	1
507	Sludge cake storage	2	1
508	Sludge cake conveyor	2	1
509	Belt washing pump	3(1)	2(1)
601	Deodorization fun(1)	2	2
602	Deodorization equipment(1)	1	1
603	Deodorization fun(2)	2	2
604	Deodorization equipment(2)	1	1
605	Deodorization fun(3)	2	0
606	Deodorization equipment(3)	1	0

Item	
∇	Check valve
∇	Sluice valve
∇	Eccentric valve
∇	Diaphragm valve
⊙	Motor
□	Concentration meter
□	Flow meter
□	Parshall flume
⊗	Nozzle
---	Waste water
---	Sludge
---	Treated water
---	Chemical
---	Air
---	Drainage

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DRAWN :				
CHECKED :				
PROJECT MANAGER :				
DATE :				

**Department of Drainage and Sewerage**  
 SCALE: A1 = Non A3 = Non  
 DWG. NO. NB-TP-1003  
 SHEET NO. 28

Preparatory Survey for Bangkok WasteWater Treatment Project  
 Nong Bon WWTP  
 Flow diagram