

3-2-3 概略設計図

マーケットセンター給水計画の概略設計図は以下の図面で構成される。

ムカンダ地区給水施設

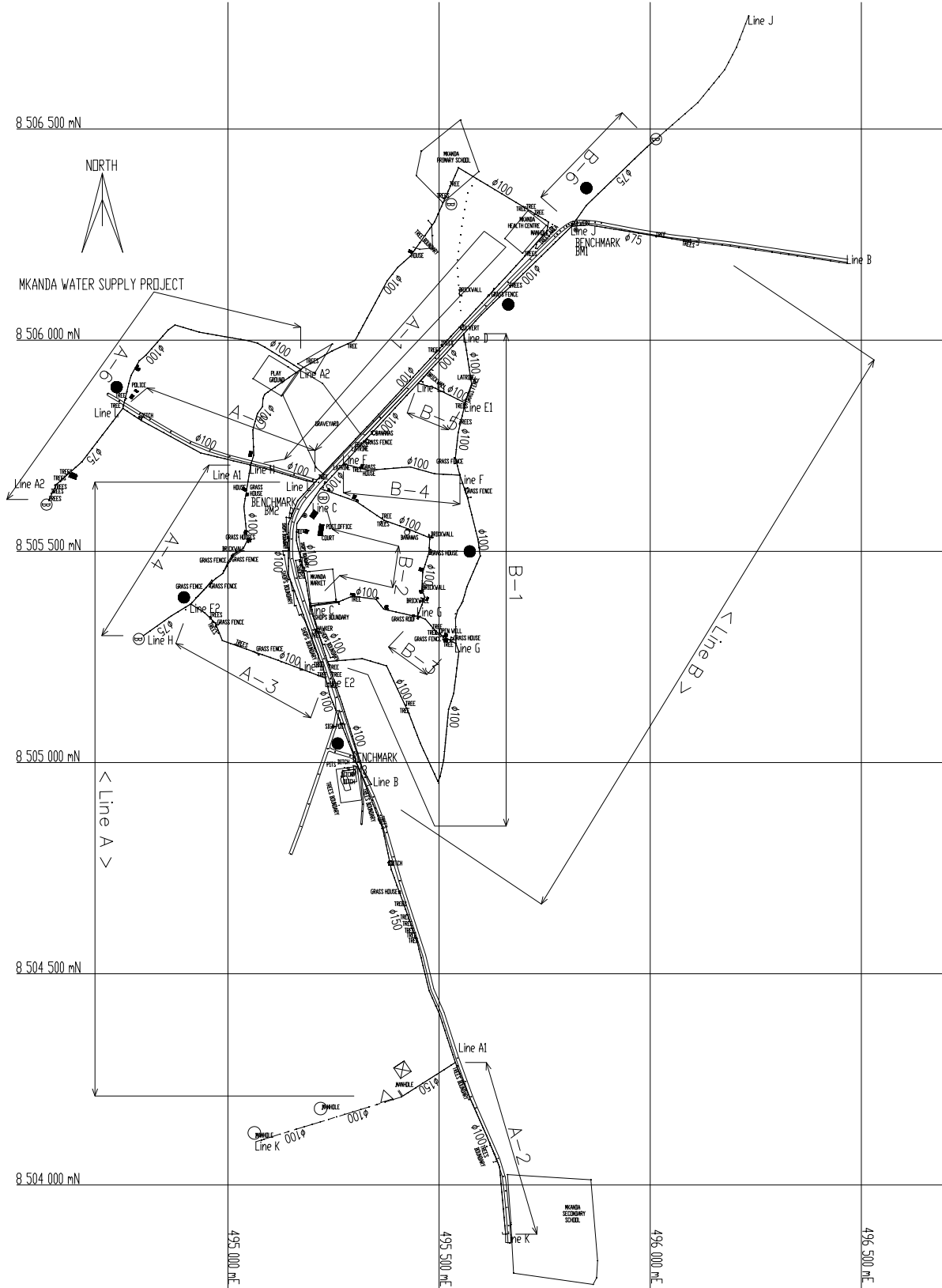
図面番号	図面名
M001	給水施設全体配置図
M002～003	取水井構造・設備図
M004	送水管路線・縦断図（取水井～高架水槽）
M005～006	高架水槽構造・設備図
M007～034	配水管路線・縦断図
M035	事務所棟建屋図

サンテ地区給水施設

図面番号	図面名
S001	給水施設全体配置図
S002～007	取水井構造・設備図
S008～013	送水管路線・縦断図（取水井～配水池）
S014	配水池構造・設備図
S015～053	配水管路線・縦断図
S0054	事務所棟建屋図

共通施設

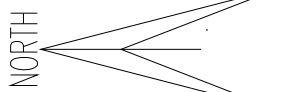
図面番号	図面名
C001	公共水栓構造・設備図



Legend	
○	Intake Well
⊠	Elevated Tank
⊞	Control Building
□	Office Building
●	Communal Water Point
—	Transmission Pipe
—	Distribution Pipe
⊕	Blow Off
⌋	Blind Cap

THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION	
Overall Facility Layout Mkanda	
Scale	Shown in the Drawing
Date	Oct. 2011
	Drawing No. MO01
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	

Overall Facility Layout S=1:5000(A1) 1:10000(A3)
(Mkanda)

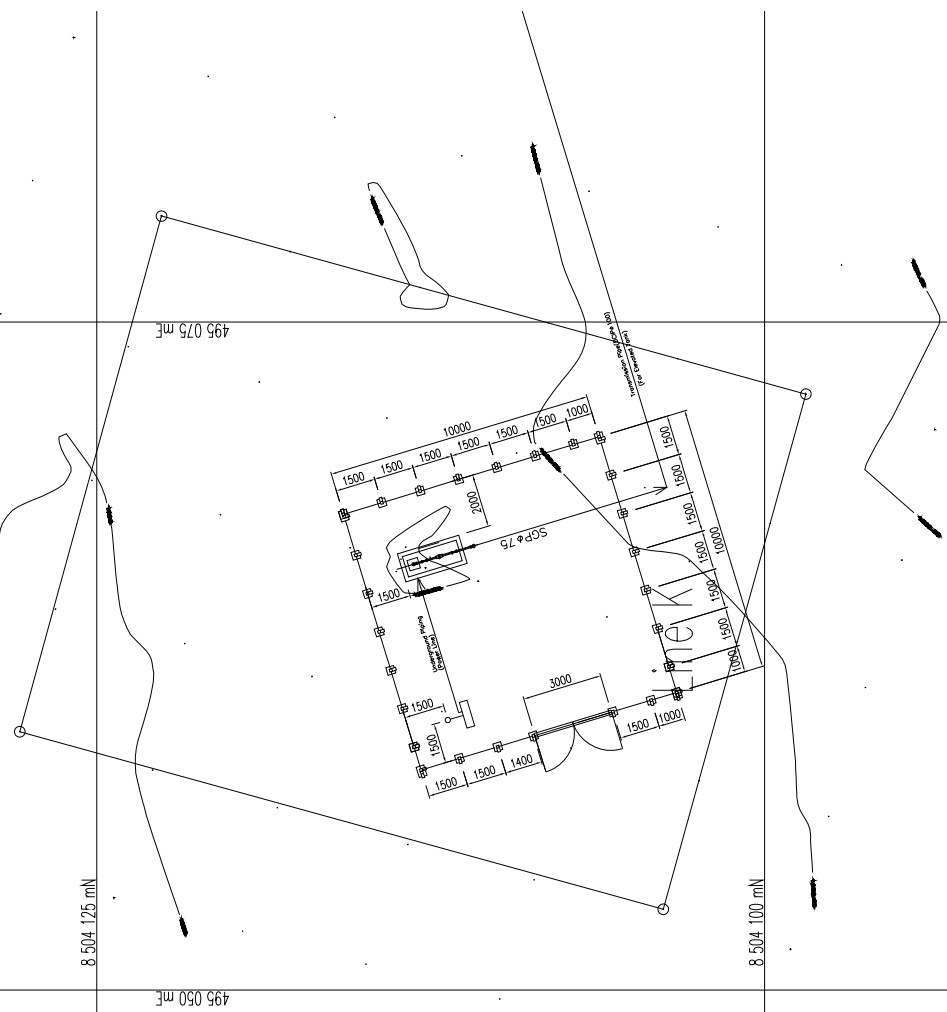


TOPOGRAPHICAL SURVEY

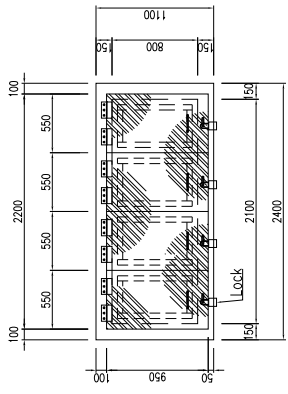
SITE BH1

SITE BEACONS
 BH1A : 1095.311m
 BH1B : 1095.044m
 BH1C : 1094.833m
 BH1D : 1095.045m

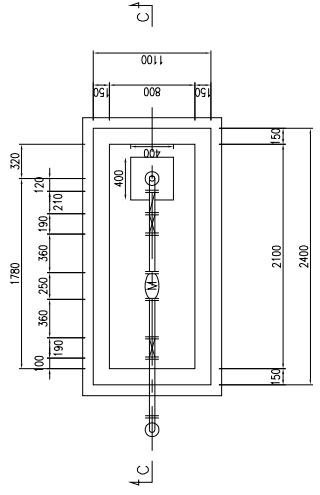
CONTOUR INTERVAL: 0.25m



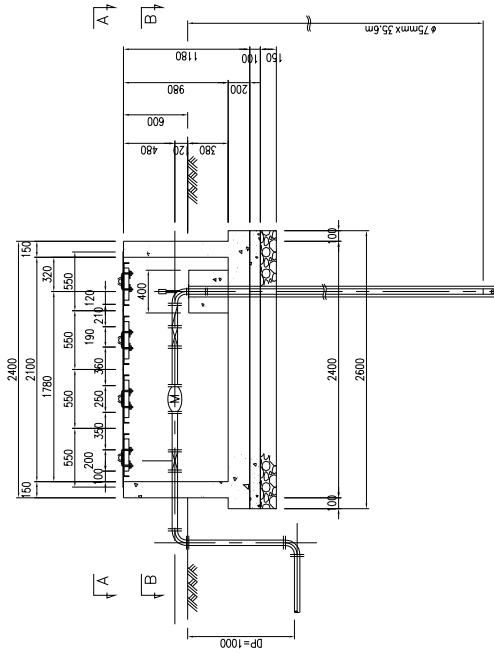
Intake Well MK-3 General Layout
 (Mkanda) S=1:100(A1) 1:200(A3)



A - A Section



B - B Section



C - C Section

0.38m³/min x 48m x 5.5kw

Intake Well Structure
 S=1:25(A1) 1:50(A3)

THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION	
Intake Well MK-3 Mkanda	
Scale	Shown in the Drawing
Date	Oct. 2011
Drawing No.	M002
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	

8 504 200 mN

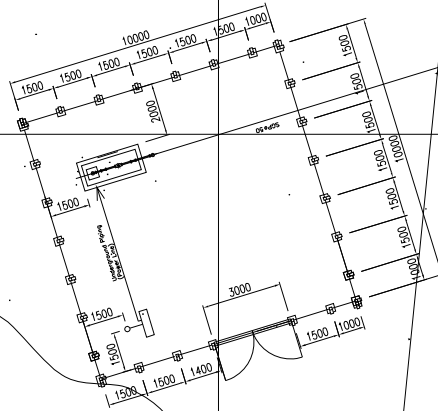
NORTH

TOPOGRAPHICAL SURVEY

SITE BH2

SITE BEACONS
 BH2A : 095.706m
 BH2B : 095.597m
 BH2C : 095.365m
 BH2D : 095.485m

CONTOUR INTERVAL : 0.25m

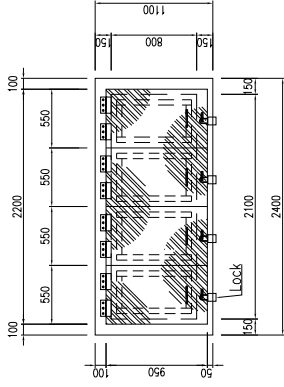


8 504 175 mN

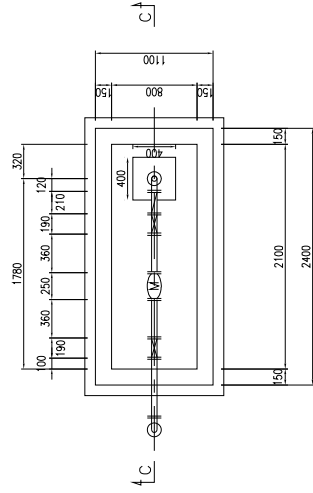
495 225 mE

Line K

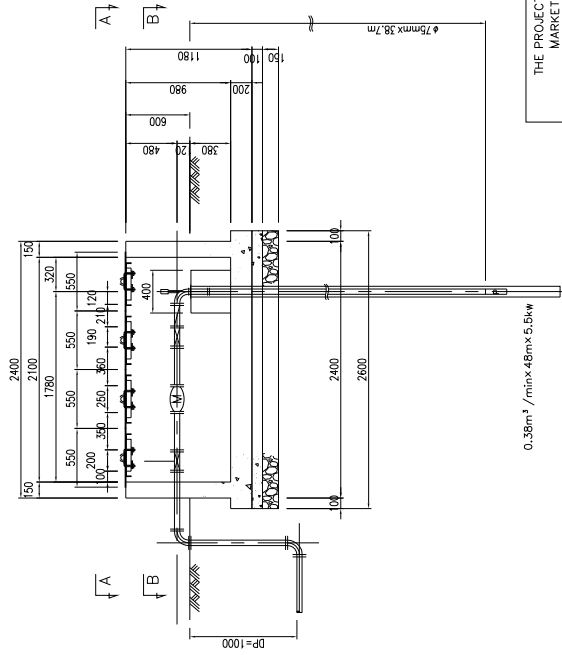
CONTOUR INTERVAL : 0.25
G.A. SURVEY DATA



A - A Section



B - B Section



C - C Section

Intake Well Structure

S=1:25(A1) 1:50(A3)

THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION

Intake Well Mk-2 Mkanda

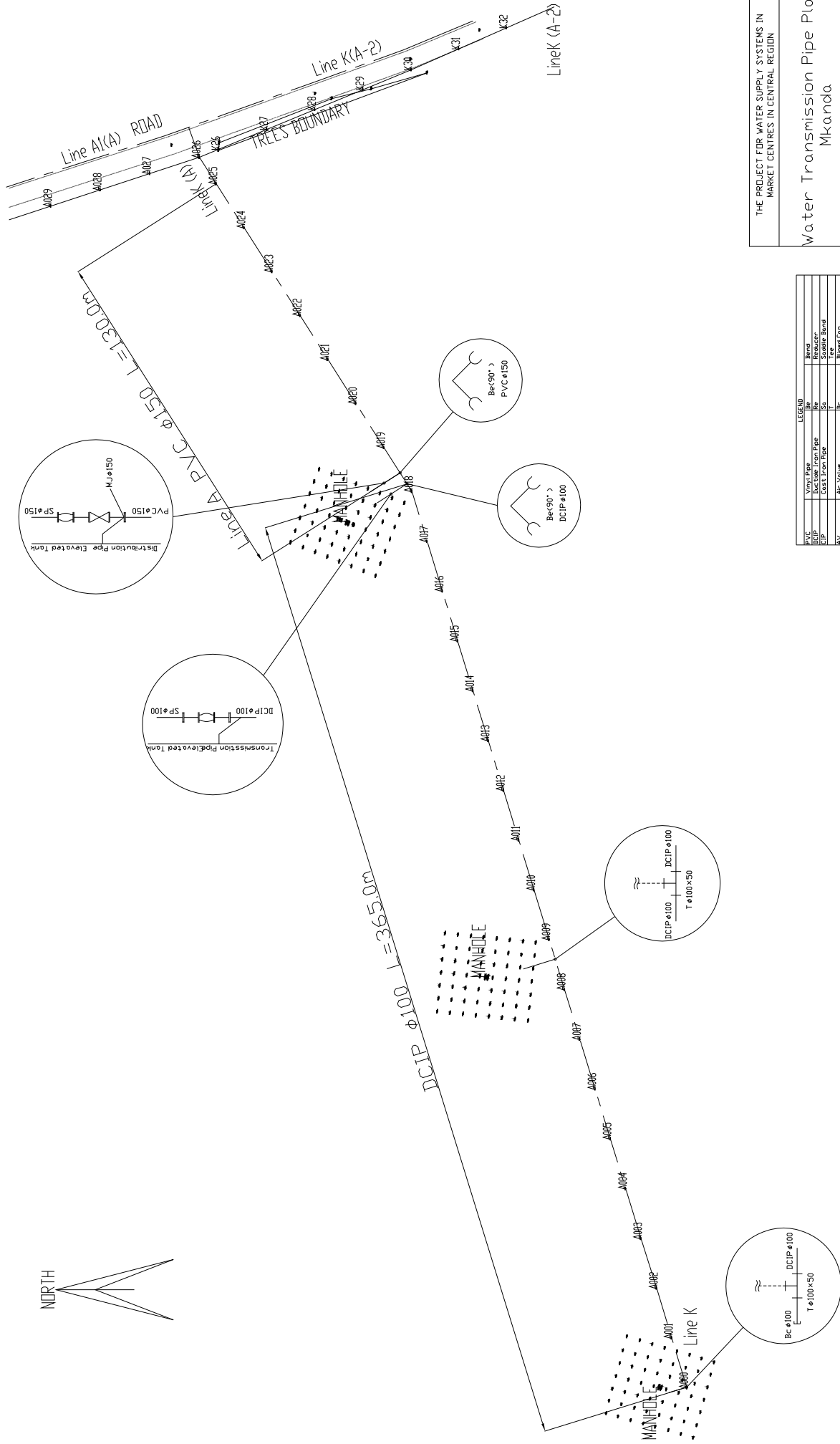
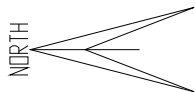
Scale	Shown in the Drawing
Date	Oct. 2011
Drawing No.	M003
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	

Intake Well MK-2 General Layout

(Mkanda) S=1:100(A1) 1:200(A3)

MKANDA WATER SUPPLY SCHEME
 LINE K : 0.00m to 500m

SCALE : 1 / 500 (A0)

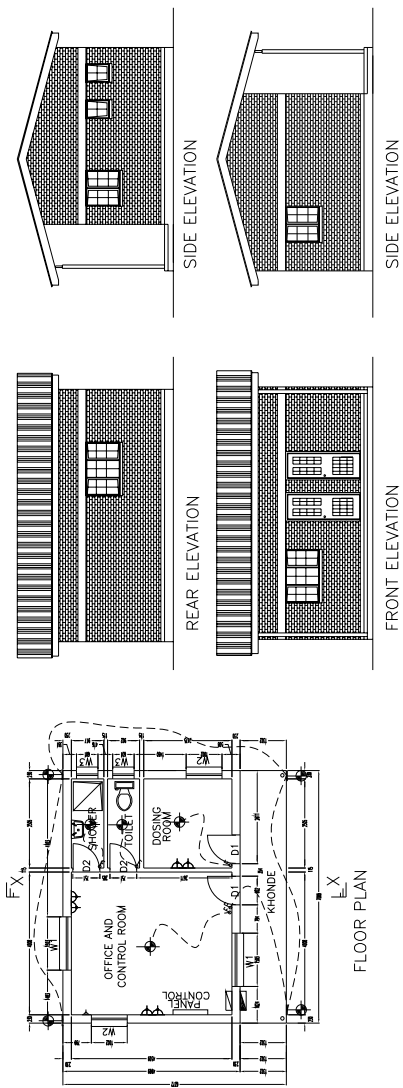


LEGEND	
VC	Valve
DCIP	Ductile Cast Iron Pipe
CP	Cast Iron Pipe
AV	Air Valve
BJP	Blow Off Pipe
MJ	Man Joint
CV	Gate Valve
Be	Breaker
So	Soil Pipe
Be	Be
Br	Brace Rod
Sp	Service Pipe

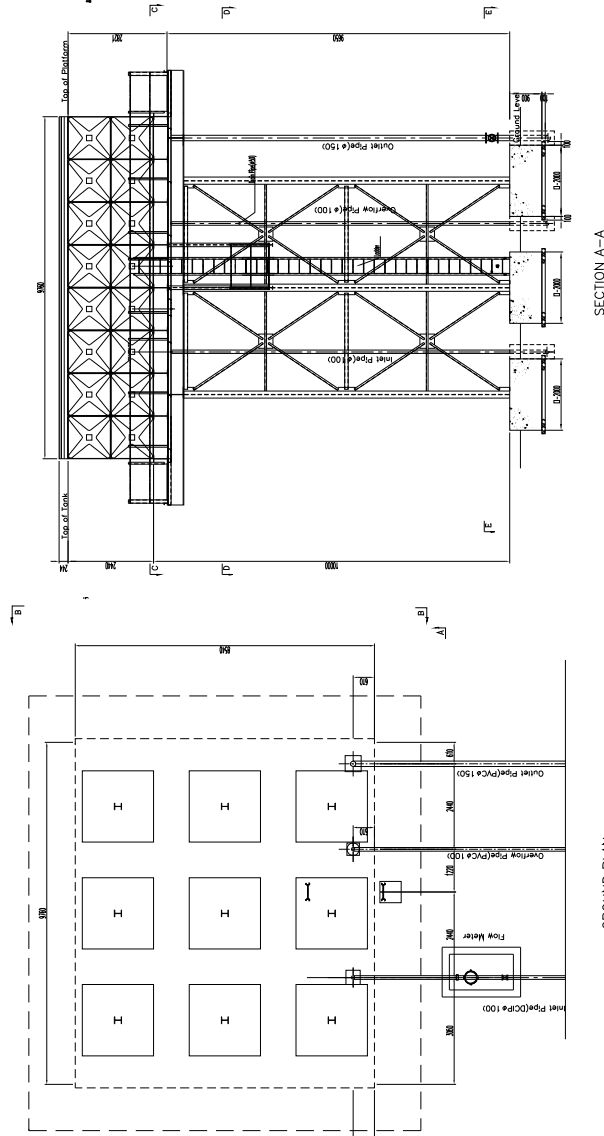
THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Water Transmission Pipe Plan
 Mkanda

Scale: Shown in the Drawing
 Date: Oct. 2011 Drawing No.: M004
 EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

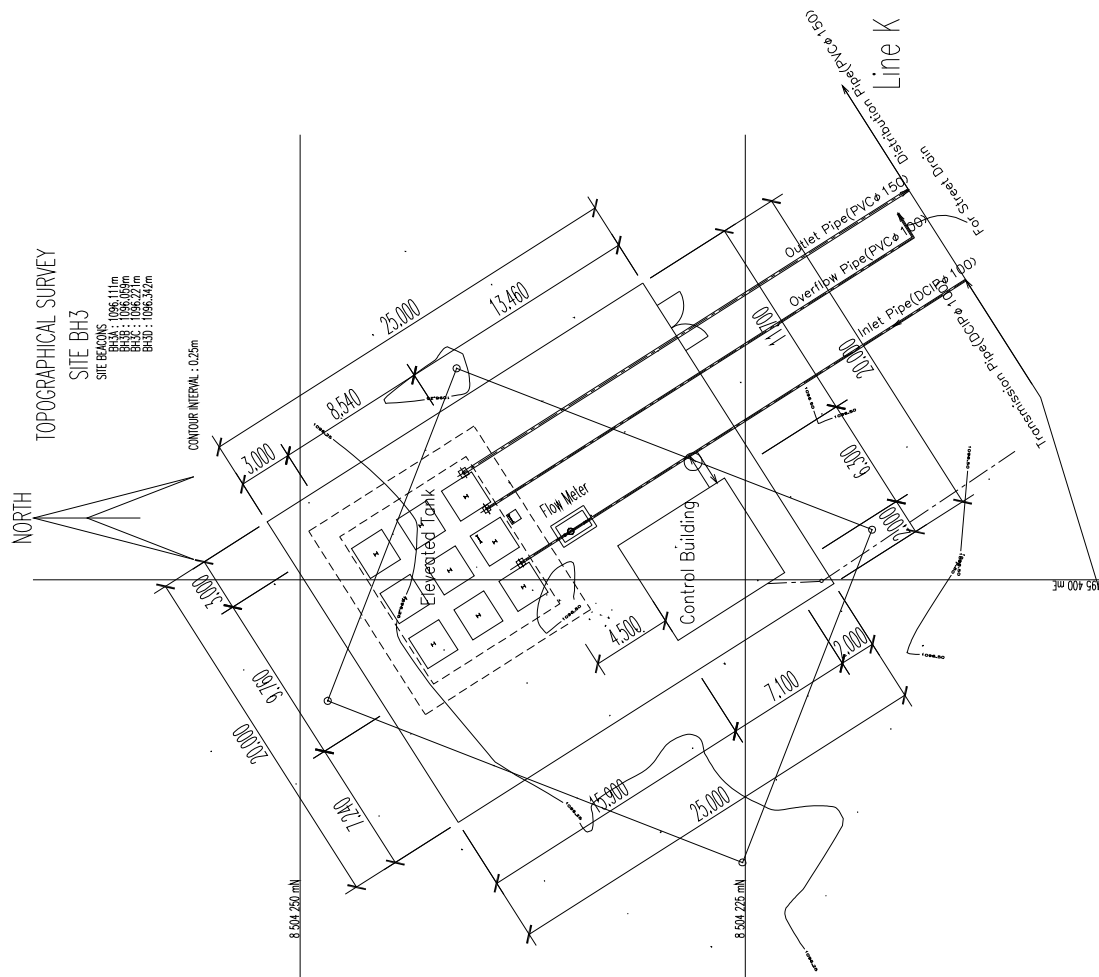


Control Building Layout
S=1:75(A1) 1:150(A3)



GROUND PLAN (SECTION D-D)

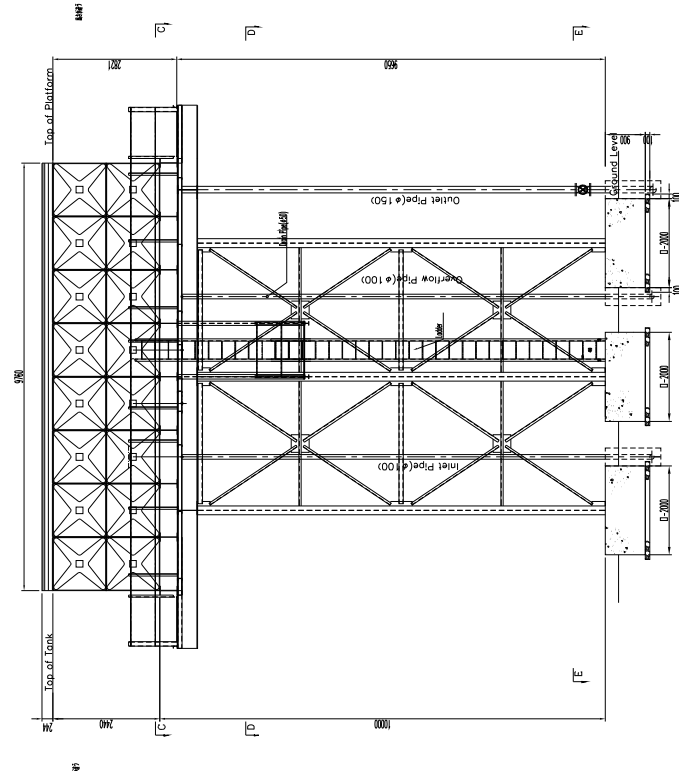
SECTION A-A



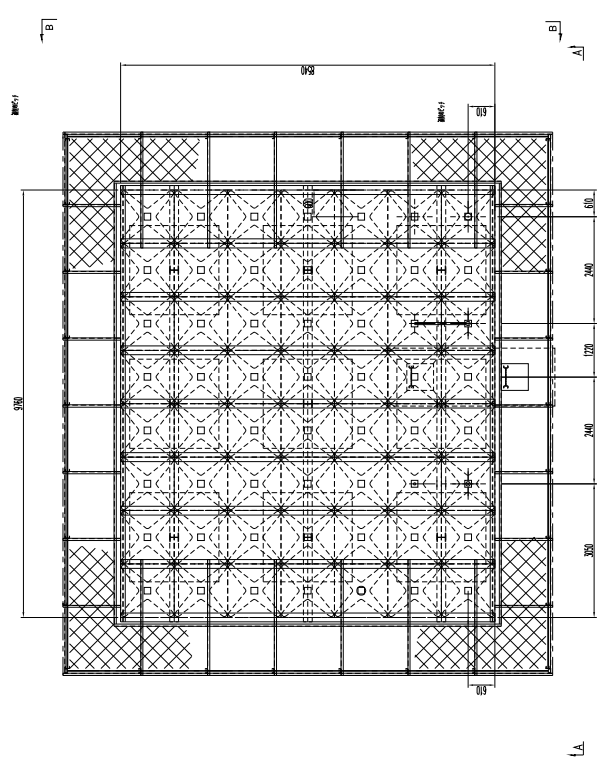
Elevated Tank and Control Building General Layout
(Mkanda) S=1:150(A1) 1:300(A3)

Elevated Tank Structure
S=1:75(A1) 1:150(A3)

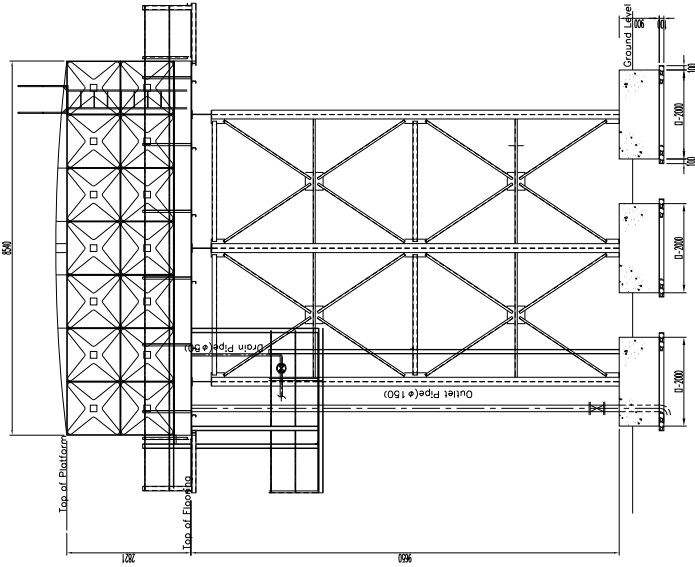
THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION			
Elevated Tank and Control Building Layout Mkanda			
Scale	Shown in the Drawing	Drawing No.	M005
Date	Oct. 2011	Drawing No.	M005
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.			



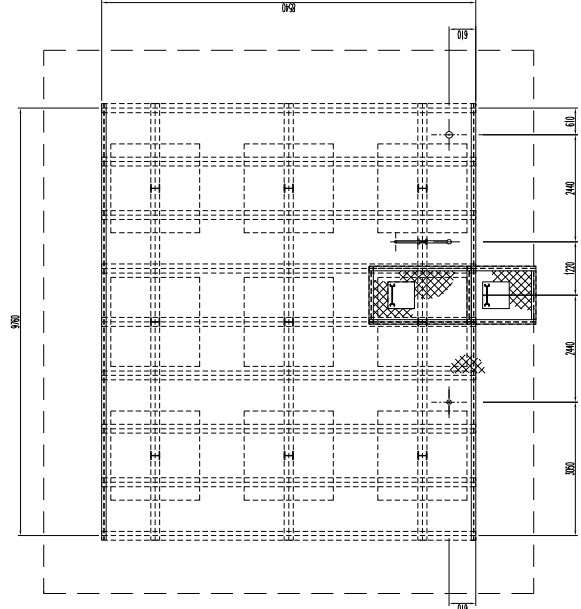
SECTION A-A



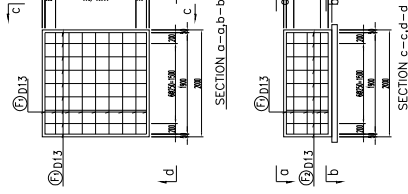
SECTION C-C



SECTION B-B



SECTION D-D



Concrete Foundation Reinforcement
S=1:50(A1) 1:100(A3)

Table of Reinforcing bar Arrangement

Bar	Symbol	Type	a	b	c	R	Quantity	Bar Spacing	Concrete	Bar	Qty.
f	D13	A	1.901	1.901	61	0.274	1.831	90.4		R10	90.4
j	D13	A	381	32	0.378	0.176	24.8			R10	24.8
(R10) 100 (R10) 150 (R10) 175 (R10) 213 (R10) 250 (R10) 300											

THE PROJECT FOR WATER SUPPLY SYSTEMS IN
MARKET CENTRES IN CENTRAL REGION

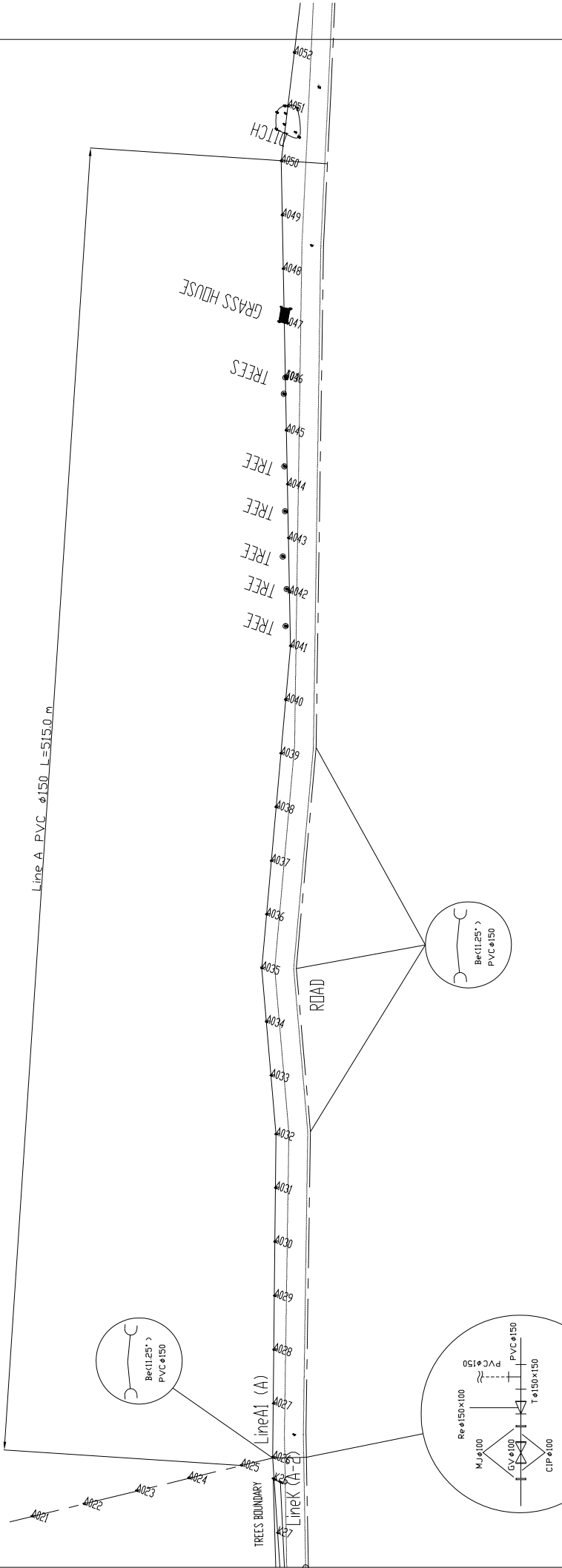
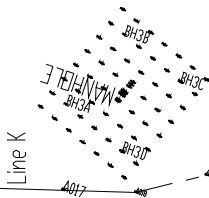
Elevated Tank and
Control Building Layout
Mkanda

Scale _____
Date Oct. 2011
Shown in the Drawing
Drawing No. M006
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

Elevated Tank Structure
S=1:60(A1) 1:120(A3)

MKANDA WATER SUPPLY SCHEME
 LINE A : 0.00m to 500m

SCALE : 1 / 500 (A0)



LEGEND	
VC	Vertical Pipe
BC	Bottom Pipe
CLP	Cast Iron Pipe
AV	Air Valve
MJ	M. Joint
CV	Gate Valve
Be	Beaker
SP	Socket Pipe
SV	Socket Valve
BP	Bottom Pipe
AV	Air Valve
MJ	M. Joint
CV	Gate Valve

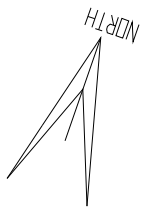
THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan
 Mkanda

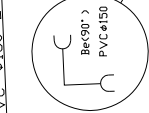
Scale: Shown in the Drawing
 Date: Oct. 2011 Drawing No. M007
 EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

MKANDA WATER SUPPLY SCHEME
 LINE A : 500m to 1,000m

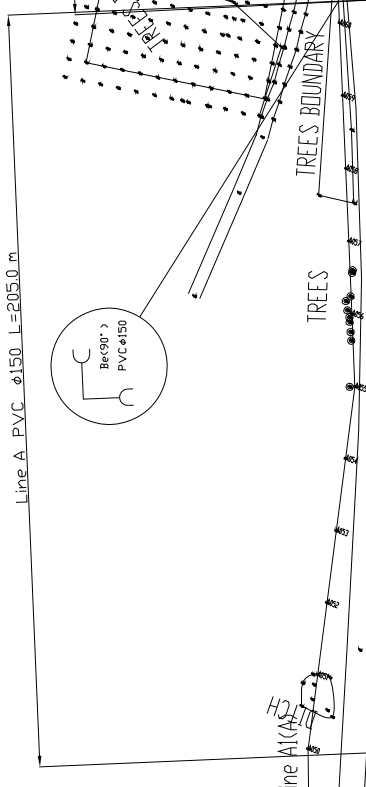
SCALE : 1 / 500 (A0)



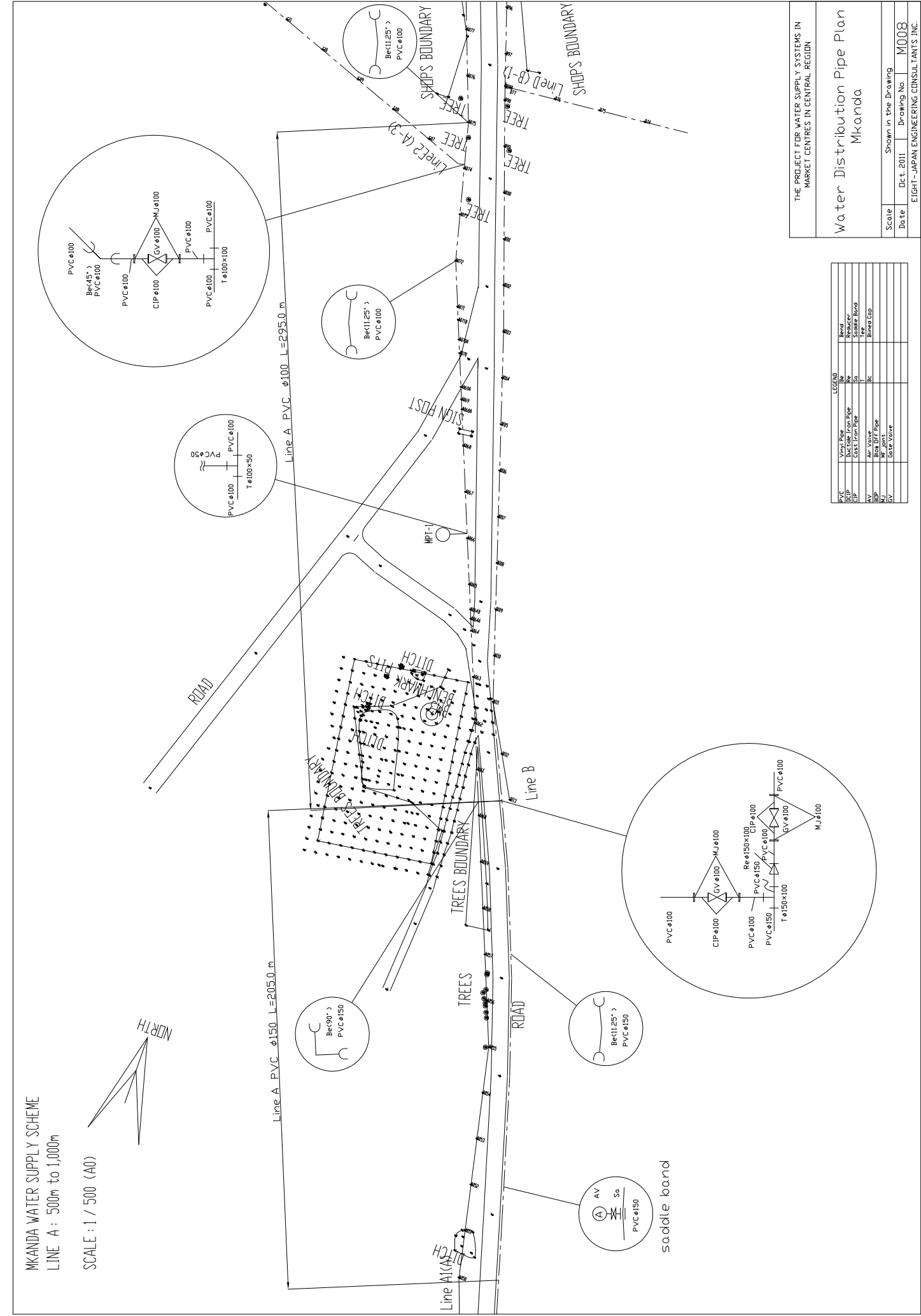
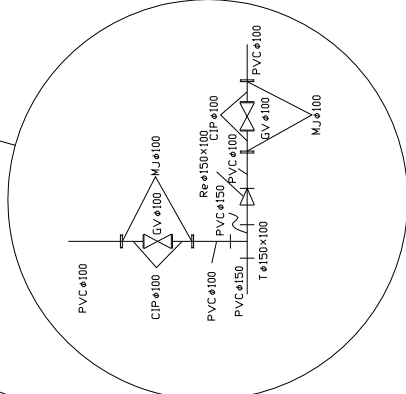
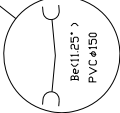
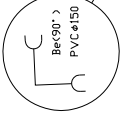
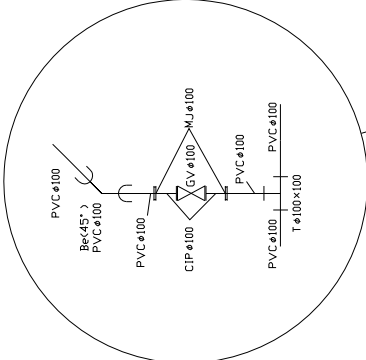
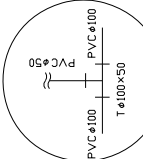
Line A PVC ϕ 150 L=205.0 m



saddle band



Line A PVC ϕ 100 L=295.0 m



LEGEND	
Be	Bell End
Be	Breaker
CIP	Cast Iron Pipe
Ca	Cast Iron Pipe
So	Saddle Band
Te	Tee
Be	Bell End
AV	Av. Valve
BP	Blow Off Pipe
MJ	Man. Joint
GV	Gate Valve

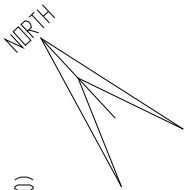
THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan
 Mkanda

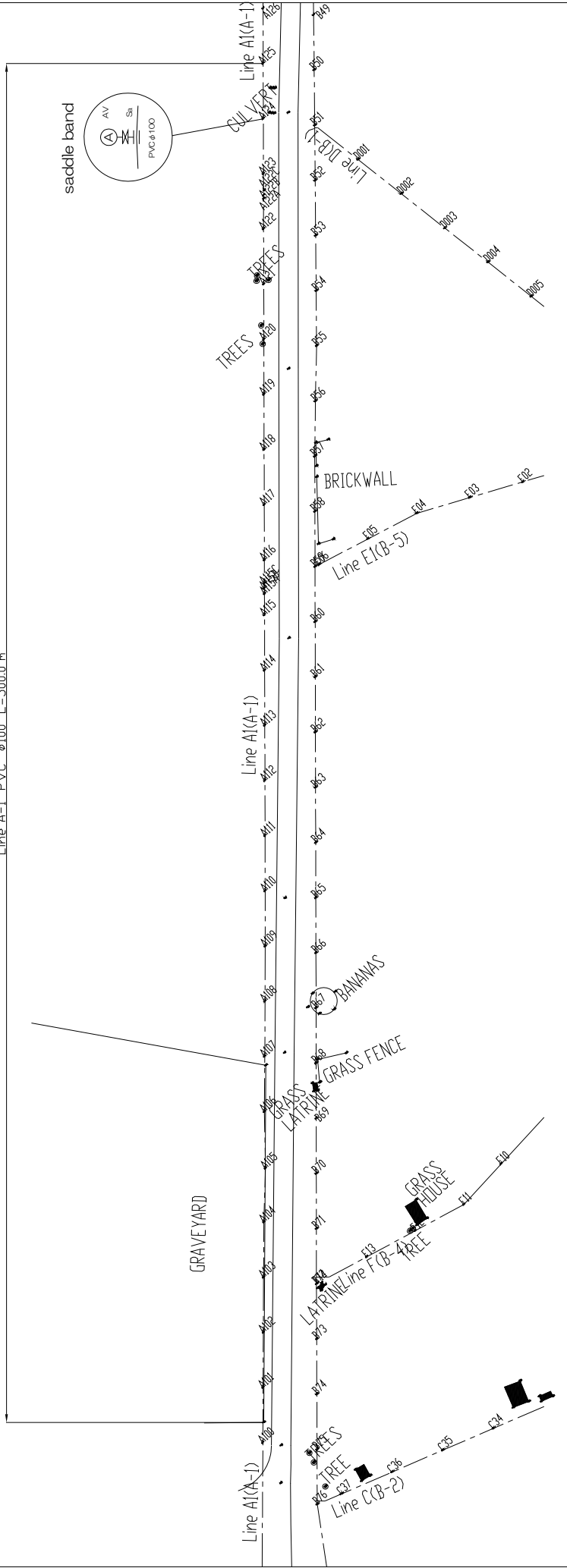
Scale : Shown in the Drawing
 Date : Oct. 2011 Drawing No. : M008
 EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

MKANDA WATER SUPPLY SCHEME
 LINE A(KA-1) : 1,500m to 2,000m

SCALE : 1 / 500 (A0)



Line A-1 PVC ϕ 100 L=500.0 m



LEGEND	
AV	Valve
CB	Check Valve
CP	Control Valve
CP	Control Valve
AV	Valve
EB	Elbow
MU	Manhole
CP	Control Valve
SB	Saddle Band
TR	Tree
BR	Brick Wall
GF	Grass Fence
GH	Grass House

THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan
 Mkanda

Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M010

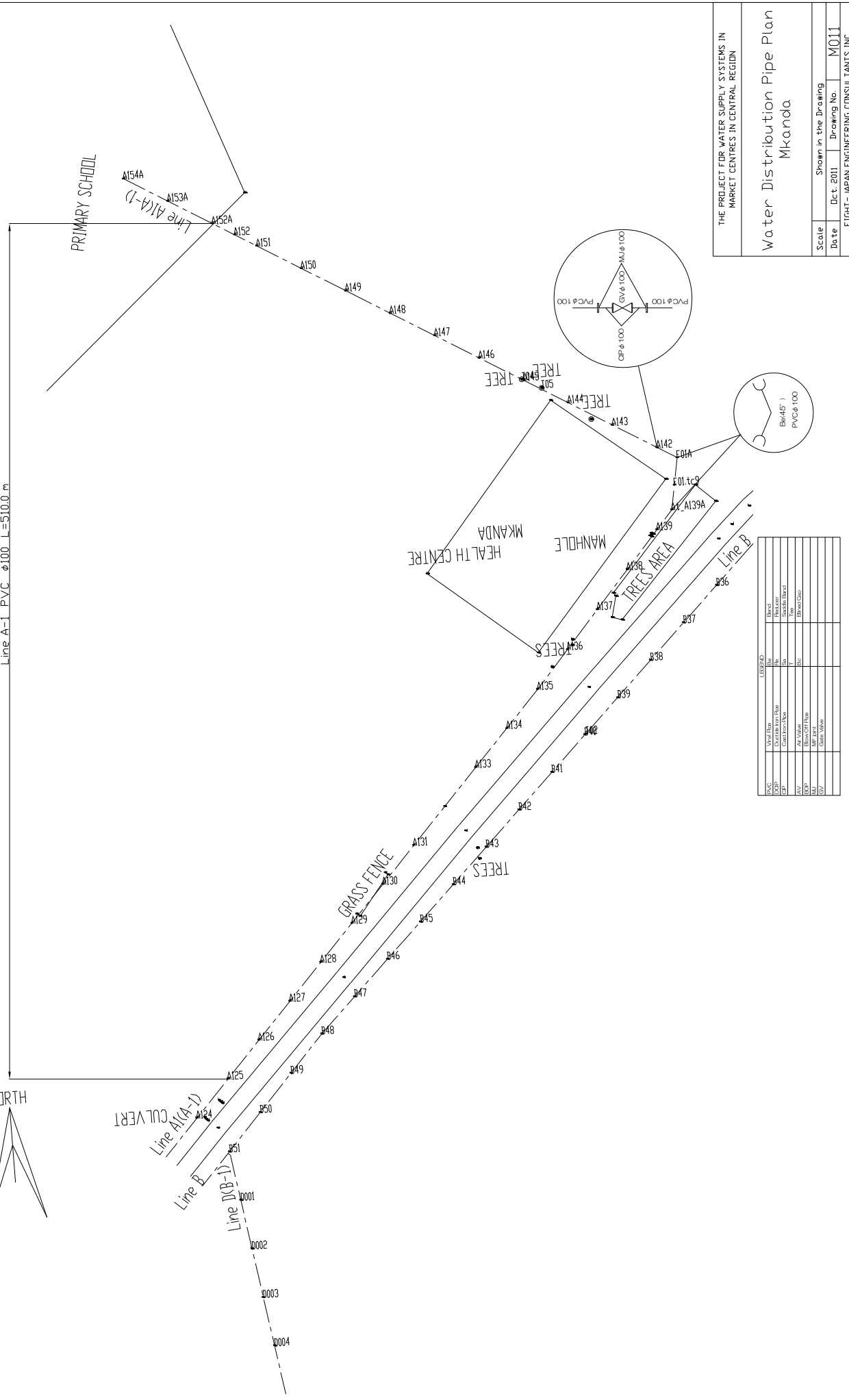
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

MKANDA WATER SUPPLY SCHEME
 LINE A(KA-1) : 2,000m to 2,500m

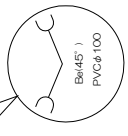
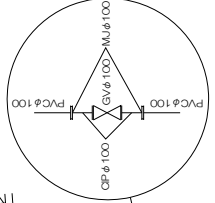
SCALE : 1 / 500 (A0)



Line A-1 PVC ϕ 100 L=510.0 m



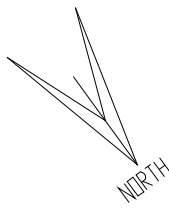
LEGEND	
CP	Cast Iron Pipe
GP	Galvanized Iron Pipe
CPP	Cast Iron Pipe
GP	Galvanized Iron Pipe
AV	Asbestos
CEP	Cast Iron Pipe
MU	Manhole
CP	Cast Iron Pipe
GP	Galvanized Iron Pipe
AV	Asbestos
CEP	Cast Iron Pipe
MU	Manhole
CP	Cast Iron Pipe
GP	Galvanized Iron Pipe
AV	Asbestos
CEP	Cast Iron Pipe
MU	Manhole
CP	Cast Iron Pipe
GP	Galvanized Iron Pipe
AV	Asbestos
CEP	Cast Iron Pipe
MU	Manhole
CP	Cast Iron Pipe
GP	Galvanized Iron Pipe
AV	Asbestos
CEP	Cast Iron Pipe
MU	Manhole



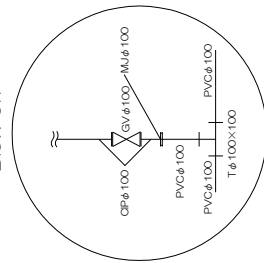
THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION	
Water Distribution Pipe Plan Mkanda	
Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No. M011	
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	

MKANDA WATER SUPPLY SCHEME
 LINE A1(A-1) : 2,500m to 3,000m

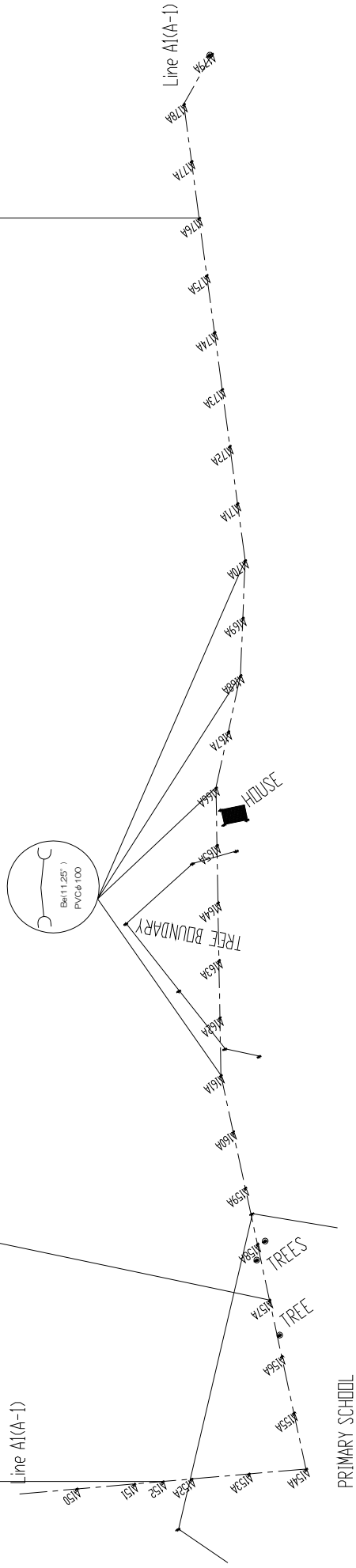
SCALE : 1 / 500 (A0)



Blow off



Line A-1 PVC φ100 L=4900.0 m



THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

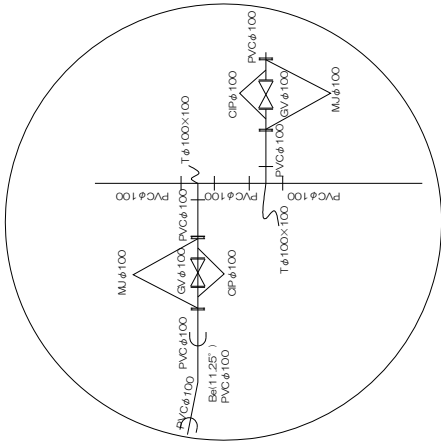
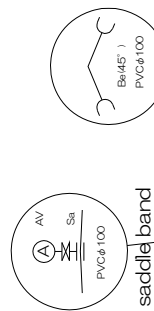
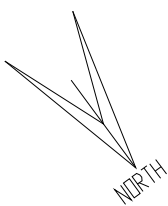
Water Distribution Pipe Plan
 Mkanda

Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M012
EIGHT - JAPAN ENGINEERING CONSULTANTS INC.	

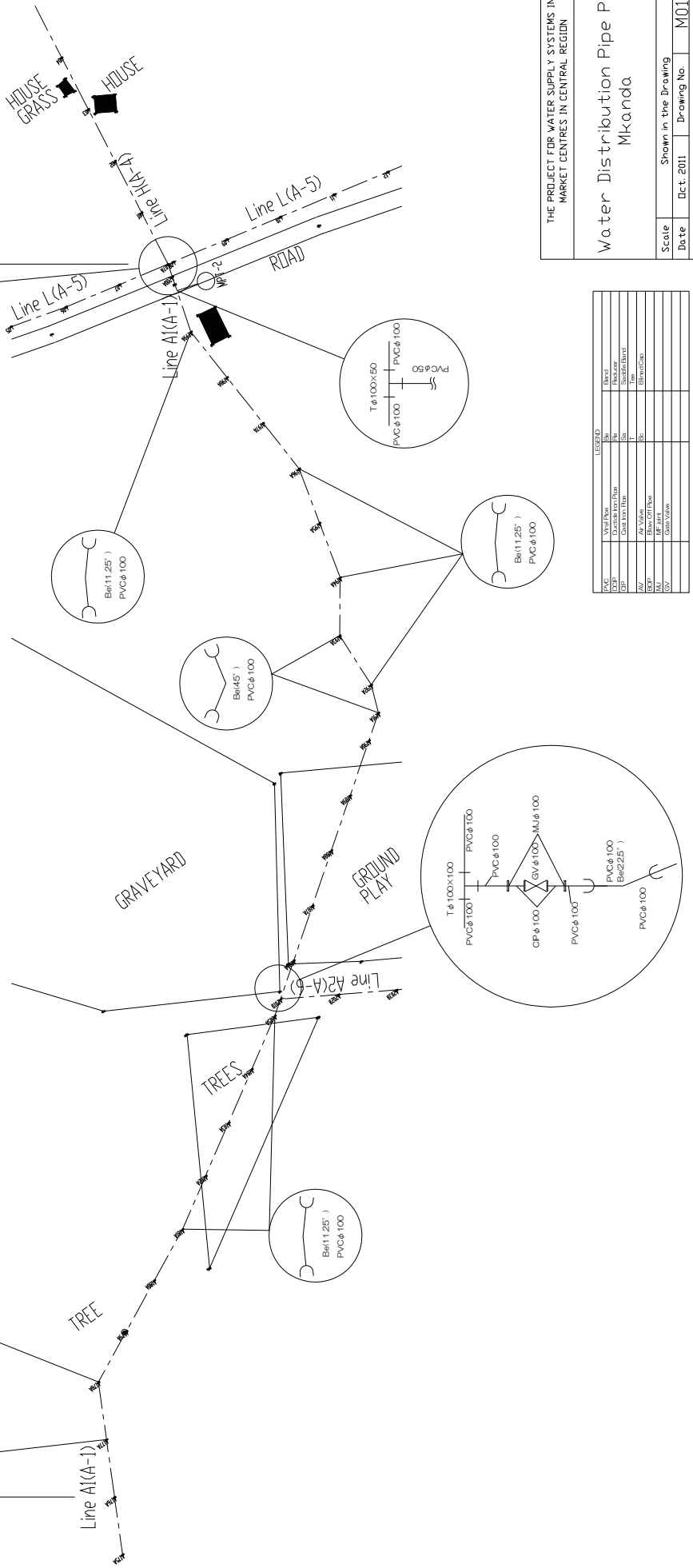
LEGEND	
○	Water Tap
□	Water Meter
△	Water Valve
◇	Water Filter
☆	Water Tank
▽	Water Pipe
◇	Water Pipe
◇	Water Pipe
◇	Water Pipe
◇	Water Pipe
◇	Water Pipe
◇	Water Pipe
◇	Water Pipe
◇	Water Pipe
◇	Water Pipe

MKANDA WATER SUPPLY SCHEME
 LINE A(KA-1) : 3,000m to 3,447.41m

SCALE : 1 / 500 (A0)



Line A-1 PVC φ100 L=465.0 m



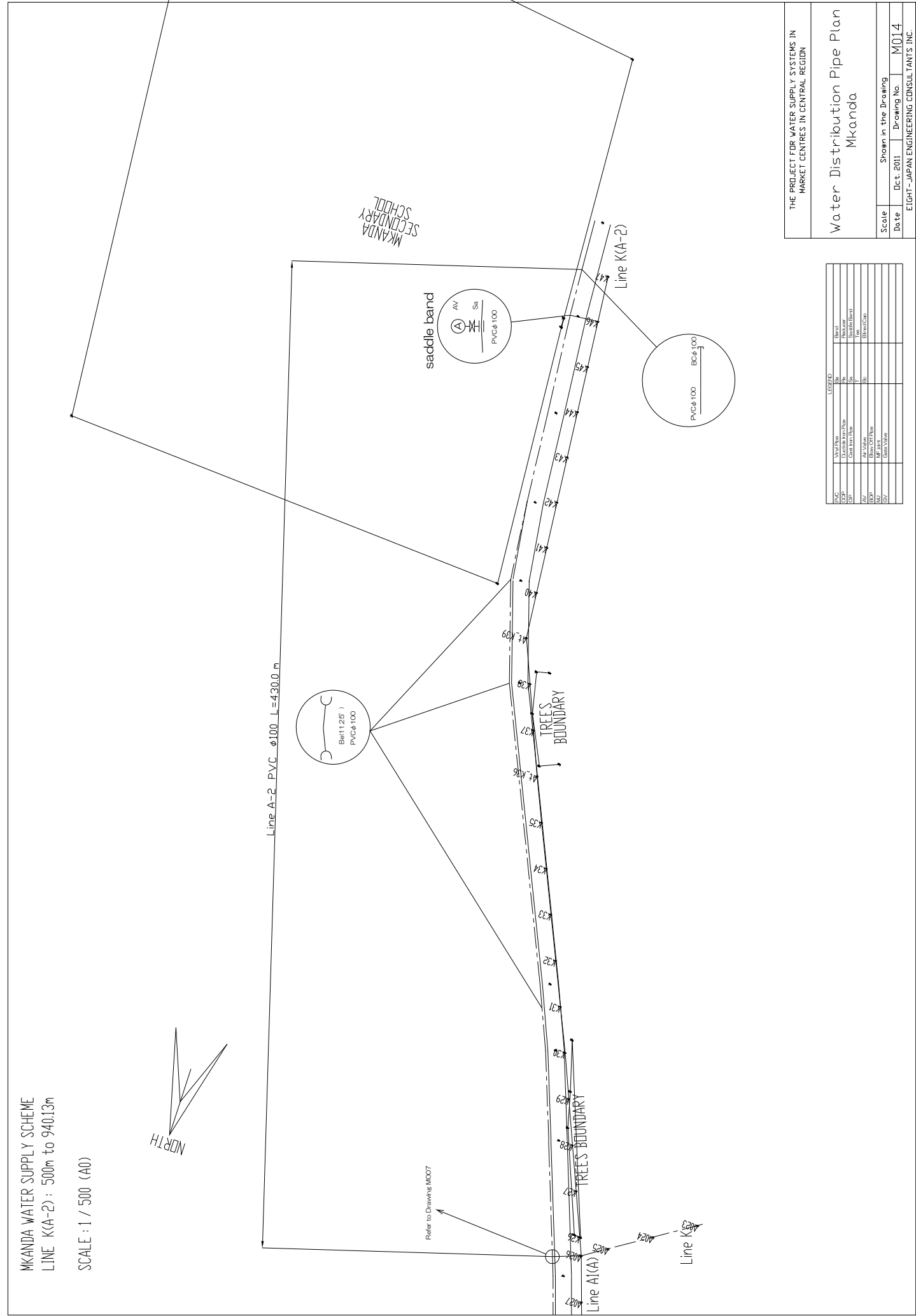
LEGEND	
AV	Valve
CP	Check Valve
GV	Gate Valve
CV	Check Valve
EH	Elbow
TE	Tee
MF	Manhole
CP	Check Valve

THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan Mkanda

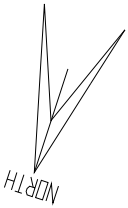
Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M013

EIGHT-JAPAN ENGINEERING CONSULTANTS INC.



MKANDA WATER SUPPLY SCHEME
 LINE K(A-2) : 500m to 940.13m

SCALE : 1 / 500 (A0)



MKANDA
 SECONDARY
 SCHOOL

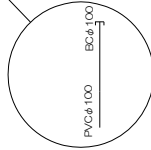
Line A-2 PVC φ100 L=430.0 m

Line K(A-2)

saddle band

Refer to Drawings M007

Line K(A-2)



THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

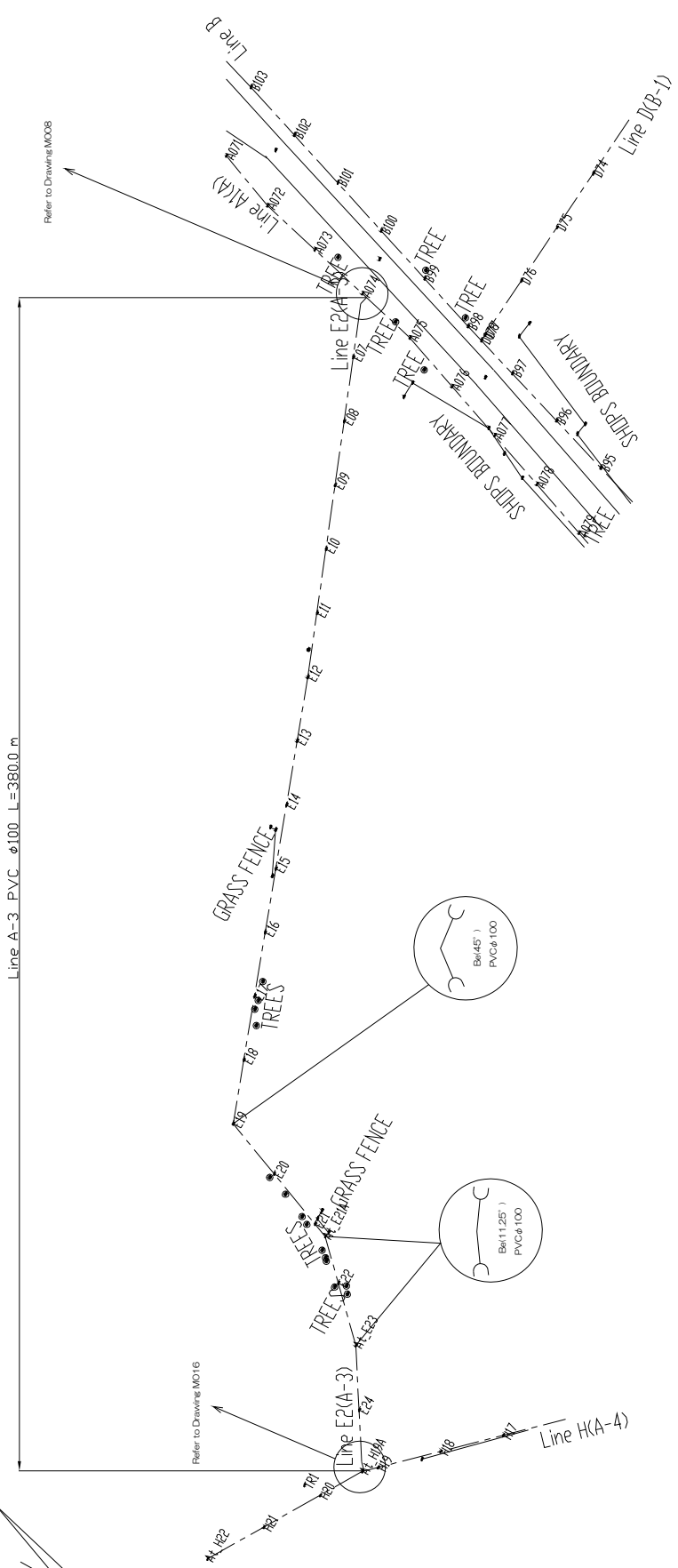
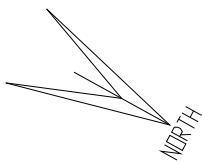
Water Distribution Pipe Plan Mkanda

Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M014
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	

LEGEND	
W.P.	Water Pipe
D.P.	Distribution Pipe
G.P.	Gas Pipe
E.P.	Electricity Pipe
M.U.	Meter Unit
C.P.	Catchment Pipe
S.S.	Sewerage Pipe
T.P.	Terrace Pipe
T.P.	Terrace Pipe
T.P.	Terrace Pipe
T.P.	Terrace Pipe
T.P.	Terrace Pipe
T.P.	Terrace Pipe
T.P.	Terrace Pipe
T.P.	Terrace Pipe
T.P.	Terrace Pipe
T.P.	Terrace Pipe
T.P.	Terrace Pipe
T.P.	Terrace Pipe
T.P.	Terrace Pipe
T.P.	Terrace Pipe
T.P.	Terrace Pipe

MKANDA WATER SUPPLY SCHEME
 LINE E2(A-3): 0.00m to 379.08m

SCALE : 1 / 500 (A0)



Refer to Drawing MO08

Refer to Drawing MO16

THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan
 Mkanda

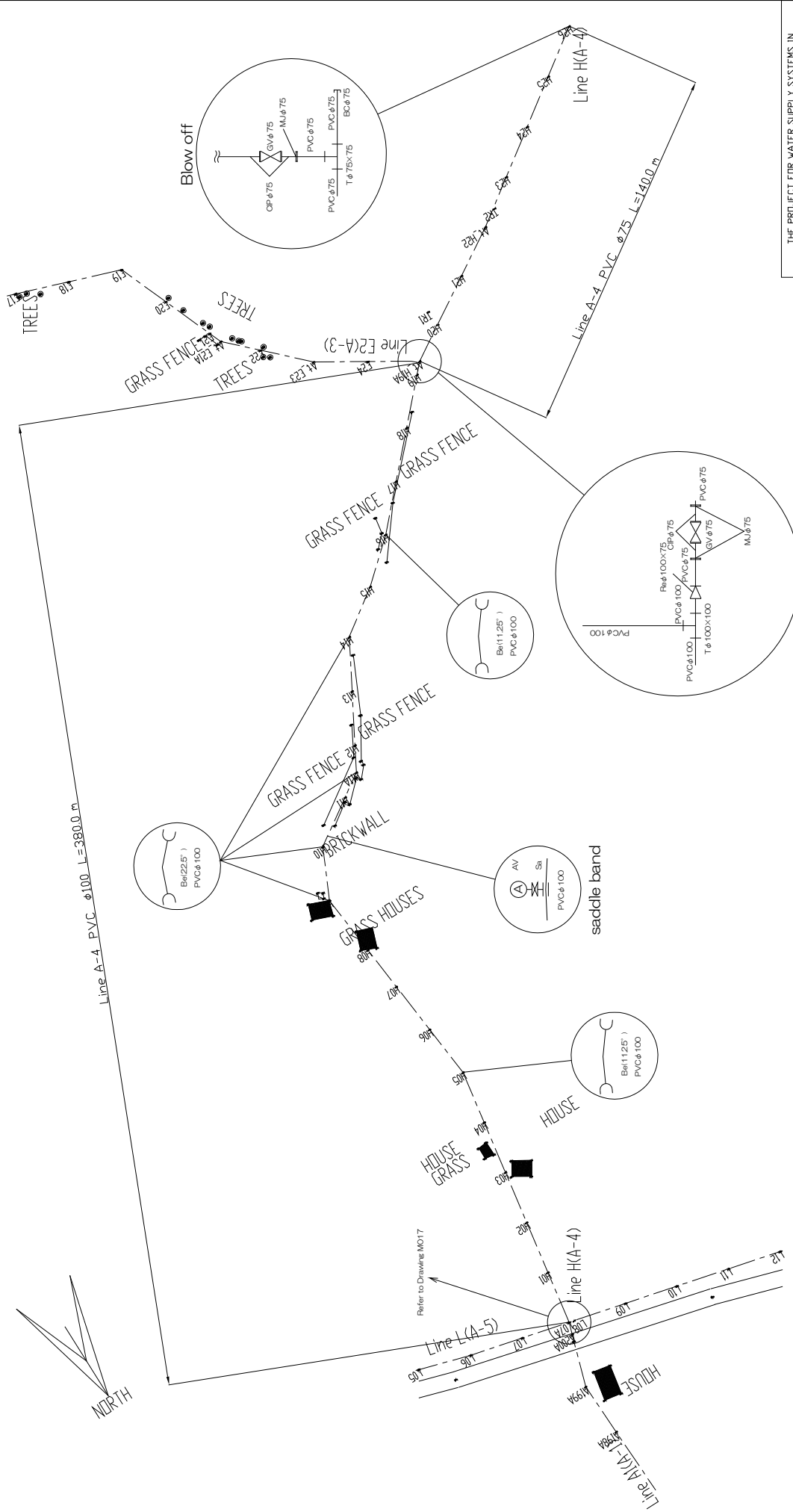
Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M015

EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

LEGEND	
---	Water Main
---	Water Distribution Pipe
---	Ship Boundary
---	Grass Fence
---	Tree
---	Ship
---	Water Main
---	Water Distribution Pipe
---	Ship Boundary
---	Grass Fence
---	Tree
---	Ship

MKANDA WATER SUPPLY SCHEME
 LINE H(A-4) : 0.00m to 520.21m

SCALE : 1 / 500 (A0)

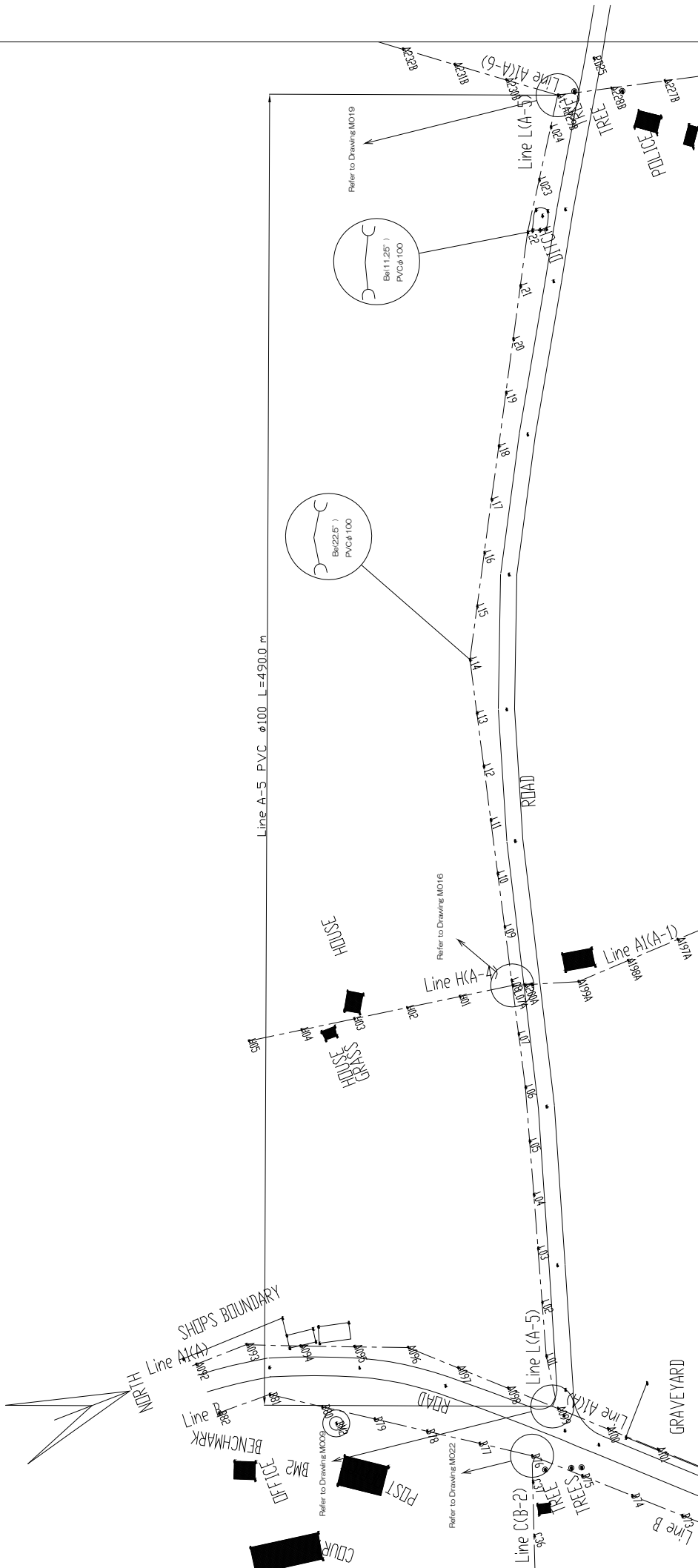


LEGEND	
CP	Coupling
GP	Gate Valve
GV	Gate Valve
EL	Elbow
TE	Teel
AV	AV Valve
EV	Elbow Off Tee
MU	MF Joint
CP	Coupling

THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION			
Water Distribution Pipe Plan Mkanda			
Scale	Shown in the Drawing	Drawing No.	M016
Date	Dec. 2011	Date	
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.			

MKANDA WATER SUPPLY SCHEME
 LINE L(A-5) : 0.00m to 492.17m

SCALE : 1 / 500 (A0)



THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan Mkanda

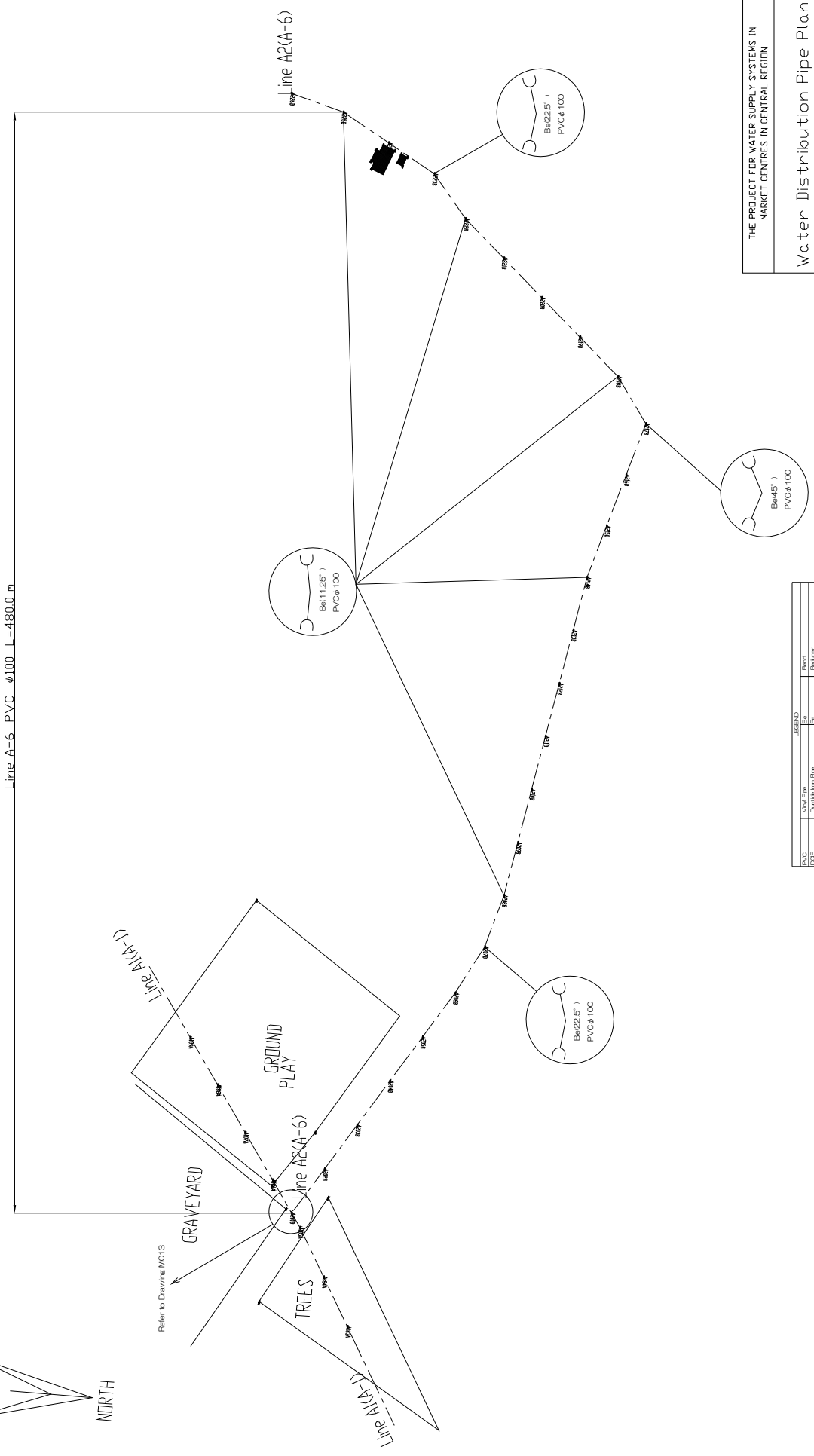
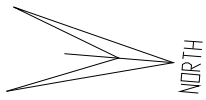
Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M017

EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

LEGEND	
W.P.	Water Pipe
W.P.	Water Pipe (100mm)
W.P.	Water Pipe (150mm)
W.P.	Water Pipe (200mm)
W.P.	Water Pipe (250mm)
W.P.	Water Pipe (300mm)
W.P.	Water Pipe (350mm)
W.P.	Water Pipe (400mm)
W.P.	Water Pipe (450mm)
W.P.	Water Pipe (500mm)
W.P.	Water Pipe (550mm)
W.P.	Water Pipe (600mm)
W.P.	Water Pipe (650mm)
W.P.	Water Pipe (700mm)
W.P.	Water Pipe (750mm)
W.P.	Water Pipe (800mm)
W.P.	Water Pipe (850mm)
W.P.	Water Pipe (900mm)
W.P.	Water Pipe (950mm)
W.P.	Water Pipe (1000mm)

MKANDA WATER SUPPLY SCHEME
 LINE A2(A-6): 0.00m to 500m

SCALE : 1 / 500 (A0)



LEGEND	
WSP	Water Pipe
WSP	Water Pipe 150mm Dia
WSP	Water Pipe 200mm Dia
WSP	Water Pipe 250mm Dia
WSP	Water Pipe 300mm Dia
WSP	Water Pipe 350mm Dia
WSP	Water Pipe 400mm Dia
WSP	Water Pipe 450mm Dia
WSP	Water Pipe 500mm Dia
WSP	Water Pipe 600mm Dia
WSP	Water Pipe 700mm Dia
WSP	Water Pipe 800mm Dia
WSP	Water Pipe 900mm Dia
WSP	Water Pipe 1000mm Dia
WSP	Water Pipe 1200mm Dia
WSP	Water Pipe 1500mm Dia
WSP	Water Pipe 2000mm Dia
WSP	Water Pipe 2500mm Dia
WSP	Water Pipe 3000mm Dia
WSP	Water Pipe 3500mm Dia
WSP	Water Pipe 4000mm Dia
WSP	Water Pipe 4500mm Dia
WSP	Water Pipe 5000mm Dia
WSP	Water Pipe 6000mm Dia
WSP	Water Pipe 7000mm Dia
WSP	Water Pipe 8000mm Dia
WSP	Water Pipe 9000mm Dia
WSP	Water Pipe 10000mm Dia

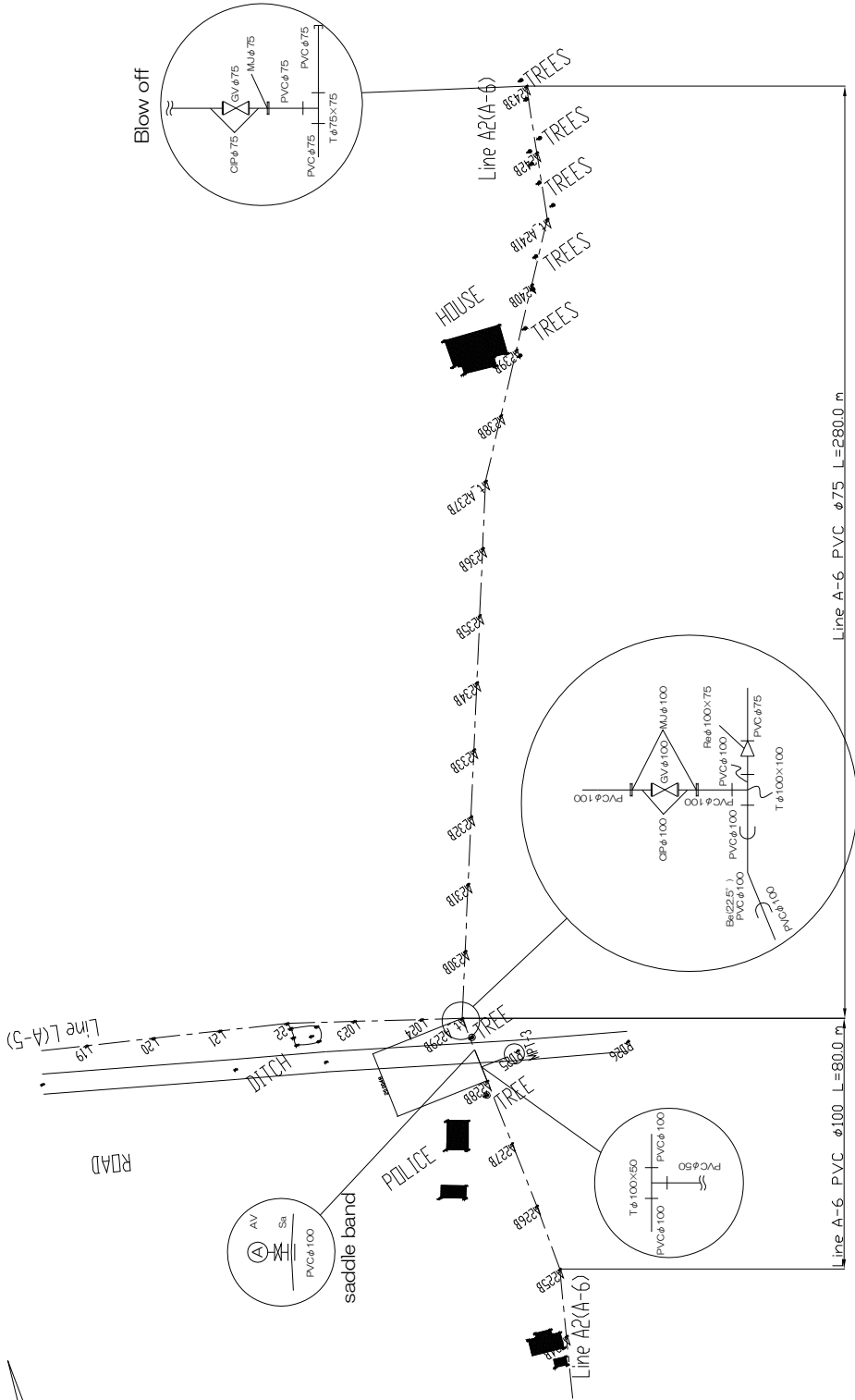
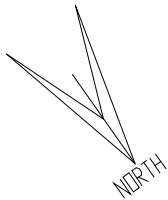
THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan
 Mkanda

Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M018
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	

MKANDA WATER SUPPLY SCHEME
 LINE A2(A-6): 500m to 840.30m

SCALE : 1 / 500 (A0)



LEGEND	
CP	Control Valve
GV	Gate Valve
SH	Shut Off Valve
SV	Stop Valve
AV	AV Valve
BL	Blow Off Pipe
MU	MU Joint
CP	Control Valve

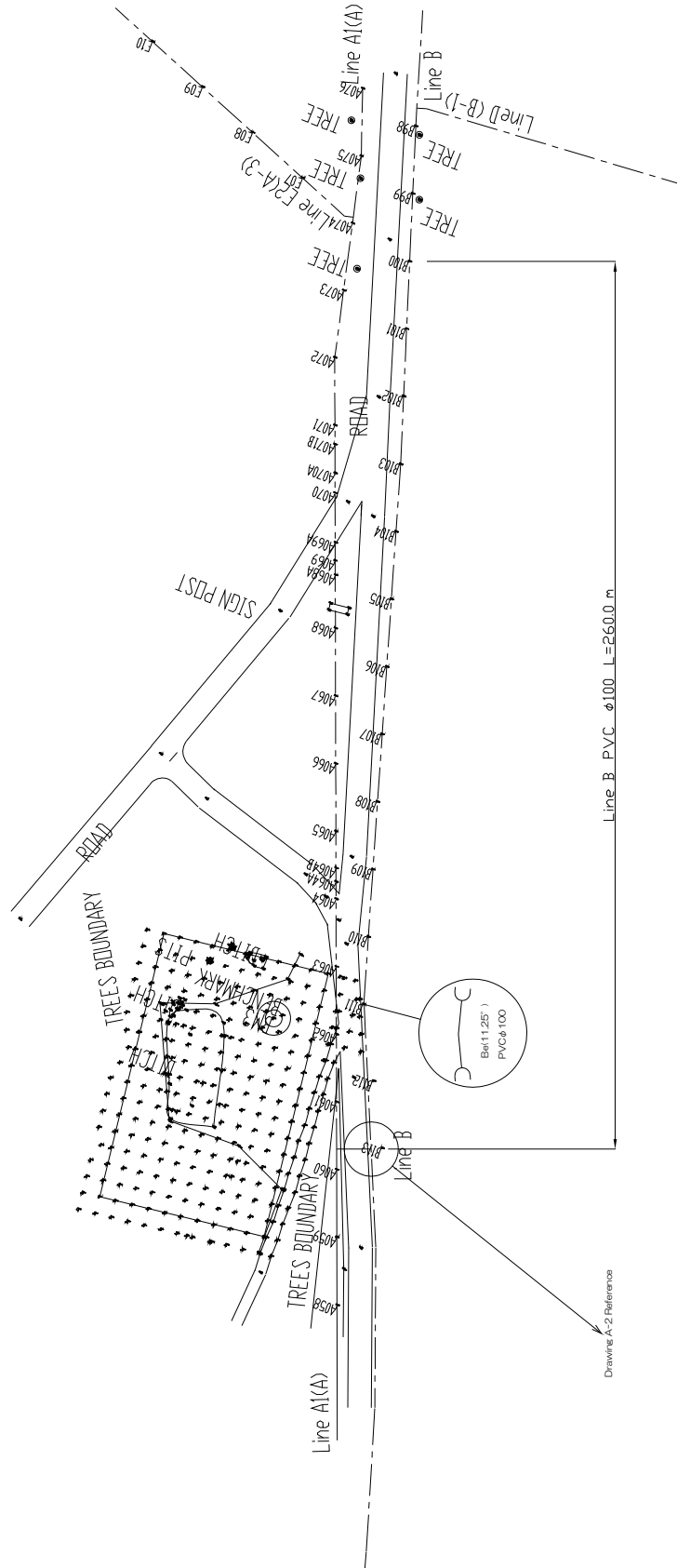
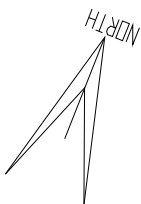
THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan
 Mkanda

Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M019
EIGHT - JAPAN ENGINEERING CONSULTANTS INC.	

MKANDA WATER SUPPLY SCHEME
 LINE B : 0.00m to 262.86m

SCALE : 1 / 500 (A0)



Drawing A-2 Reference

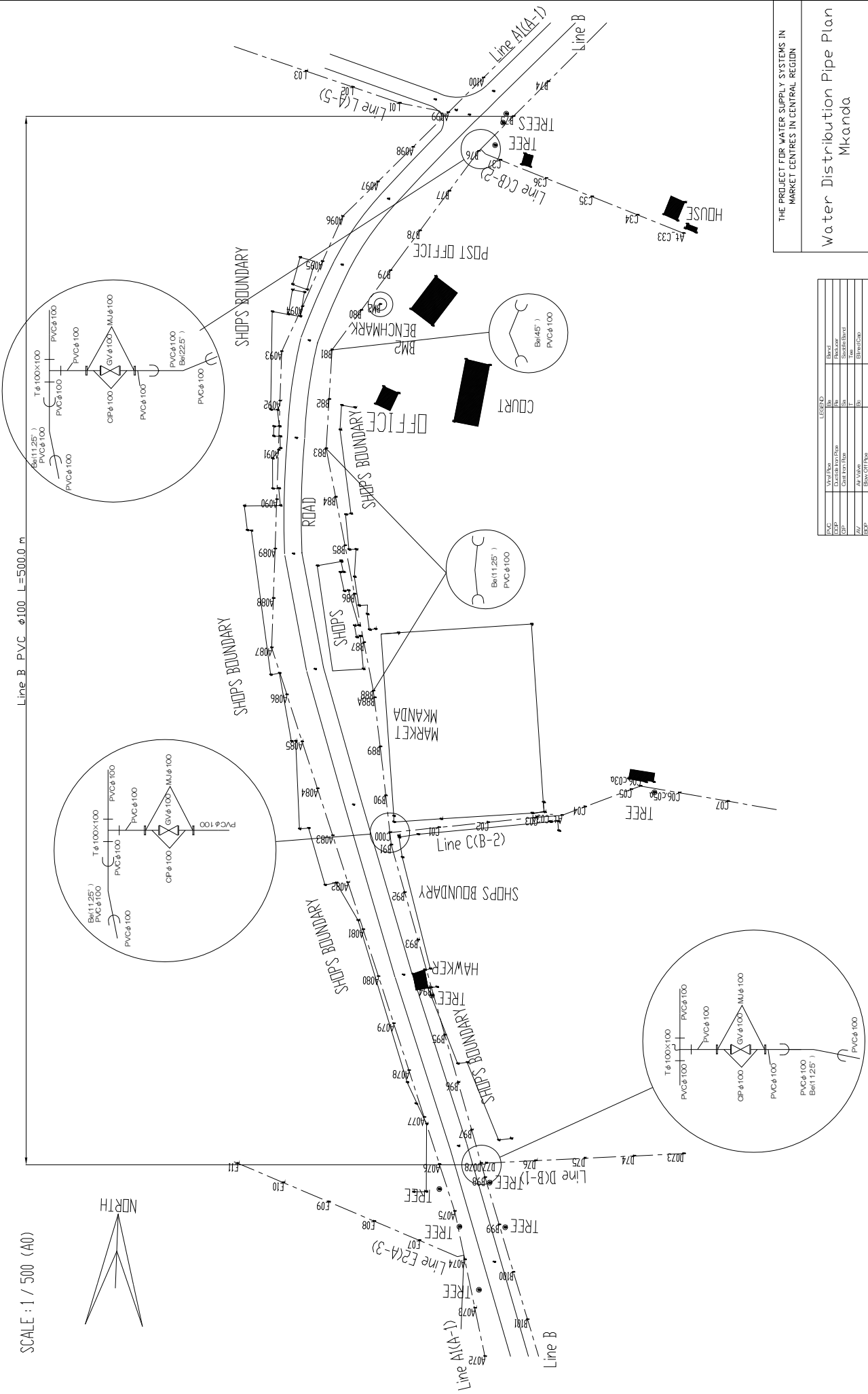
LEGEND		
Symbol	Description	Notes
---	Water Main	See Notes
---	Water Valve	See Notes
---	Water Stop Valve	See Notes
---	Water Stop Valve	See Notes
---	Water Stop Valve	See Notes
---	Water Stop Valve	See Notes
---	Water Stop Valve	See Notes
---	Water Stop Valve	See Notes
---	Water Stop Valve	See Notes
---	Water Stop Valve	See Notes
---	Water Stop Valve	See Notes

MKANDA WATER SUPPLY SCHEME
 LINE B : 262.86m to 753.65m

SCALE : 1 / 500 (A0)



Line B PVC φ100 L=500.0 m



LEGEND	
CP	Check Valve
GV	Gate Valve
MJ	Manhole
T	Tee
Bk	Bend
CP φ100	Check Valve φ100
GV φ100	Gate Valve φ100
MJ φ100	Manhole φ100
T φ100x100	Tee φ100x100
Bk(11.25°) φ100	Bend(11.25°) φ100
Bk(22.5°) φ100	Bend(22.5°) φ100

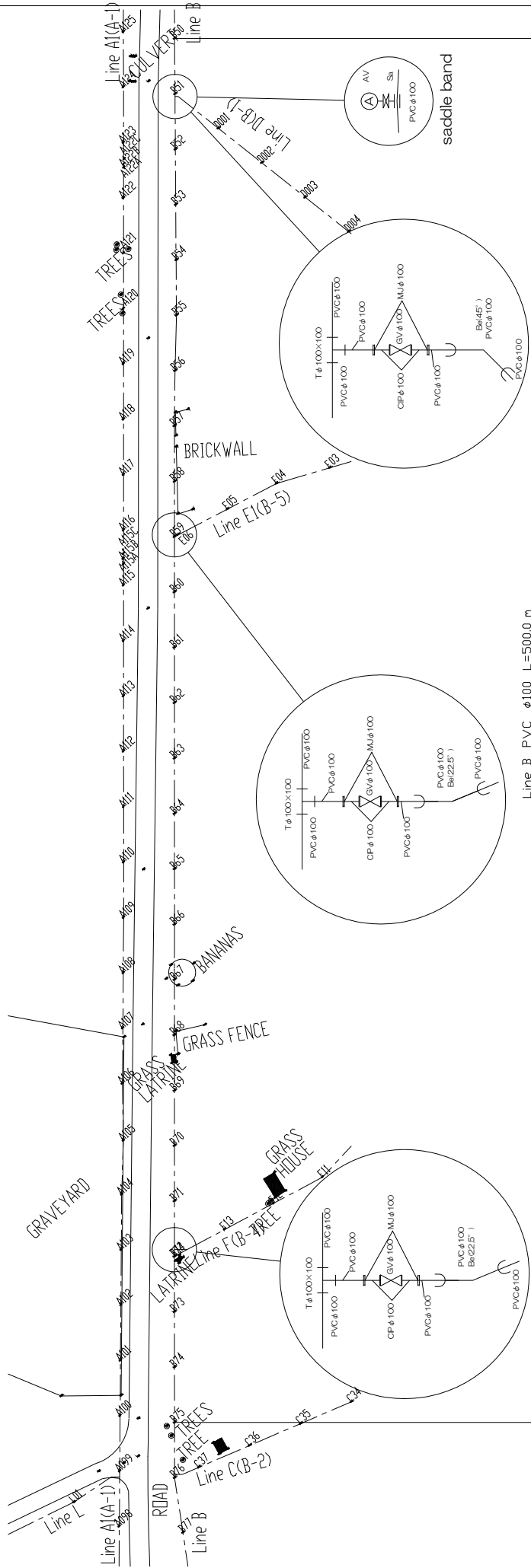
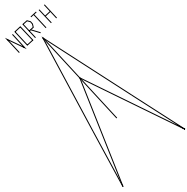
THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan
 Mkanda

Scale : 1 / 500 in the Drawing
 Date : Dec. 2011 Drawing No. : M021
 EIGHT - JAPAN ENGINEERING CONSULTANTS INC.

MKANDA WATER SUPPLY SCHEME
 LINE B : 765.65m to 1,265.72m

SCALE : 1 / 500 (A0)



Line B PVC ϕ 100 L=500.0 m

LEGEND	
CPVC	Cold Water Pipe
OPV	Open Valve
CP	Control Valve
GP	Gate Valve
EL	Elbow
MU	Manhole
RF	Riser
CP	Control Valve

THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION

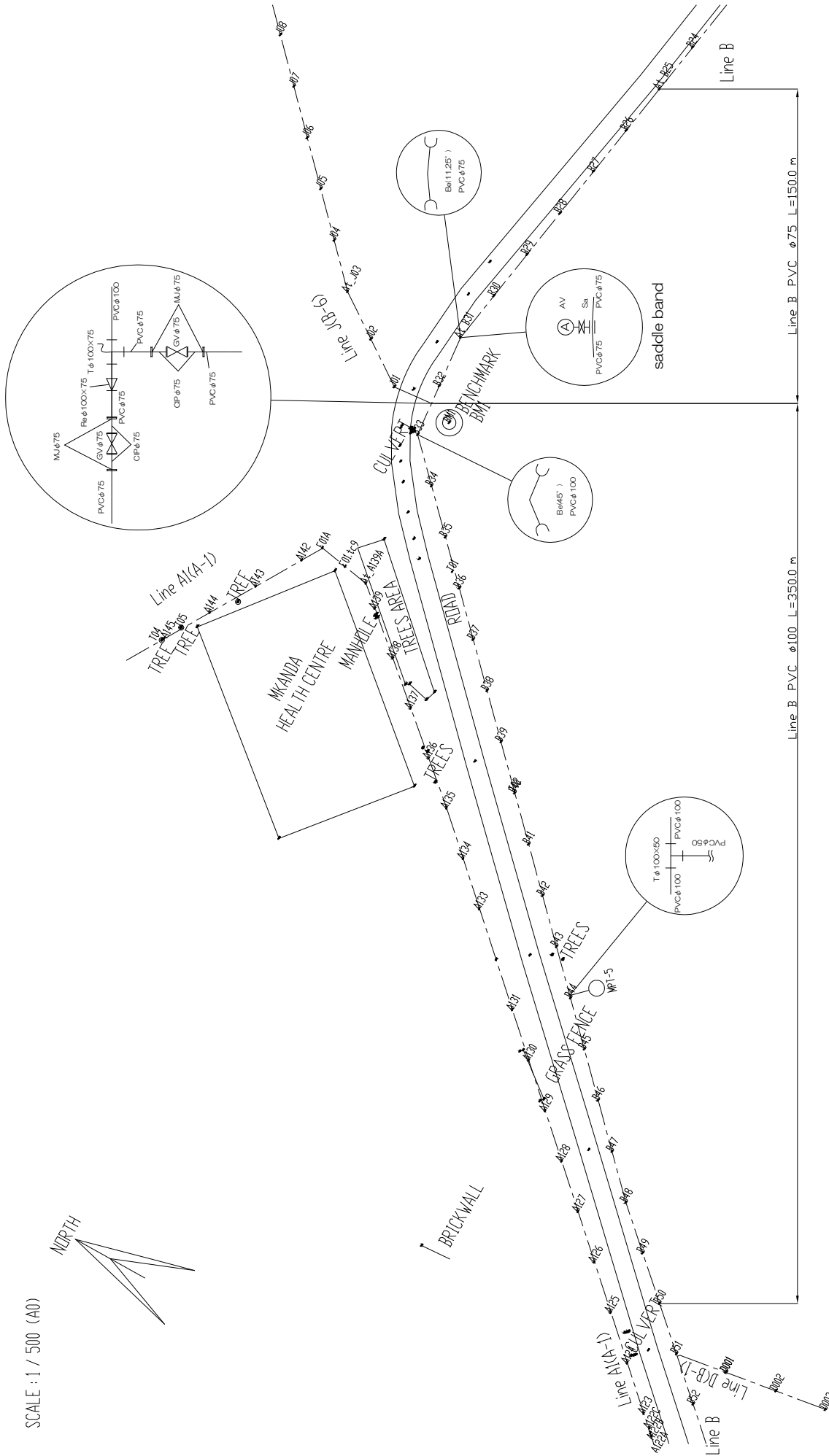
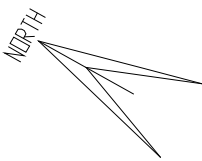
**Water Distribution Pipe Plan
 Mkanda**

Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M022

EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

MKANDA WATER SUPPLY SCHEME
 LINE B : 1,265.72m to 1,765.79m

SCALE : 1 / 500 (A0)

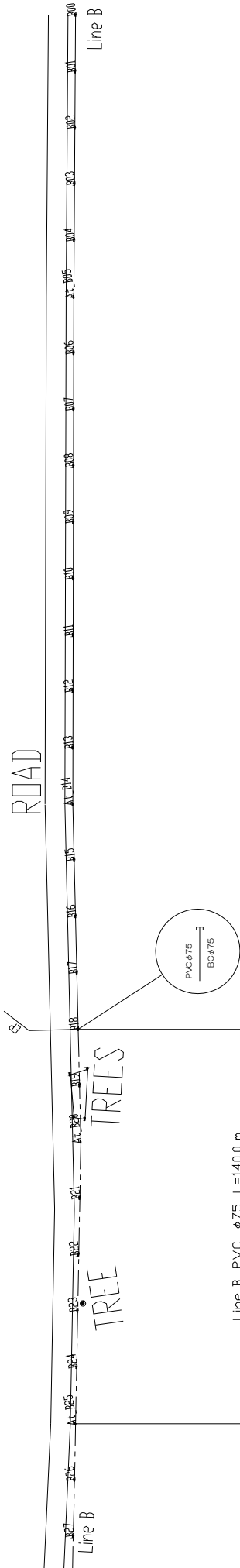
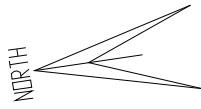


THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION	
Water Distribution Pipe Plan Mkanda	
Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M023
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	

LEGEND	
CP	Coupling
GV	Gate Valve
OP	Open Valve
T	Telee
S	Standard
AV	AV Valve
BM	Benchmark
MJ	Manhole
CP	Coupling

MKANDA WATER SUPPLY SCHEME
 LINE B : 1,765.79m to 1,905.86m

SCALE : 1 / 500 (A0)



LEGEND			
WSP	Water Supply	Line	Line
WSP	Water Supply	Manhole	Manhole
WSP	Water Supply	Valve	Valve
WSP	Water Supply	Street Light	Street Light
WSP	Water Supply	Tree	Tree
WSP	Water Supply	Drainage	Drainage
WSP	Water Supply	Elbow/Off Take	Elbow/Off Take
WSP	Water Supply	RF Joint	RF Joint
WSP	Water Supply	Control Valve	Control Valve

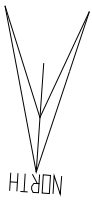
THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan
 Mkanda

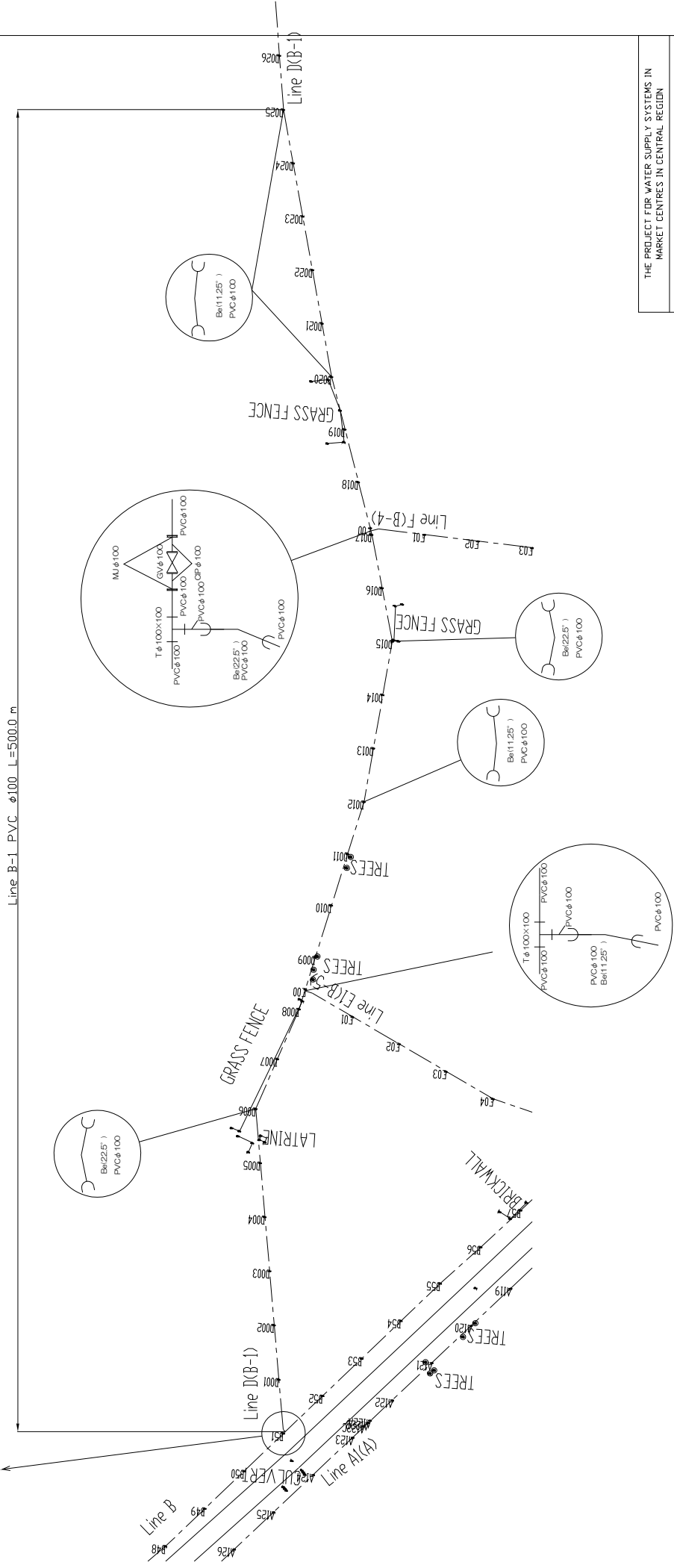
Scale: Shown in the Drawing
 Date: Dec. 2011 Drawing No. M024
 EIGHT - JAPAN ENGINEERING CONSULTANTS INC.

MKANDA WATER SUPPLY SCHEME
 LINE DCB-1) : 0.00m to 500m

SCALE : 1 / 500 (A0)



Refer to Drawing M022



LEGEND	
WSP	Water Supply Pipe
WDP	Water Distribution Pipe
WCP	Water Connection Pipe
WEP	Water End Pipe
WUP	Water User Pipe
WMP	Water Main Pipe
WAP	Water Access Pipe
WIP	Water Inlet Pipe
WOP	Water Outlet Pipe
WCP	Water Connection Pipe
WEP	Water End Pipe
WUP	Water User Pipe
WMP	Water Main Pipe
WAP	Water Access Pipe
WIP	Water Inlet Pipe
WOP	Water Outlet Pipe

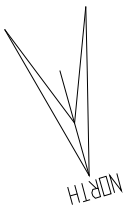
THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan Mkanda

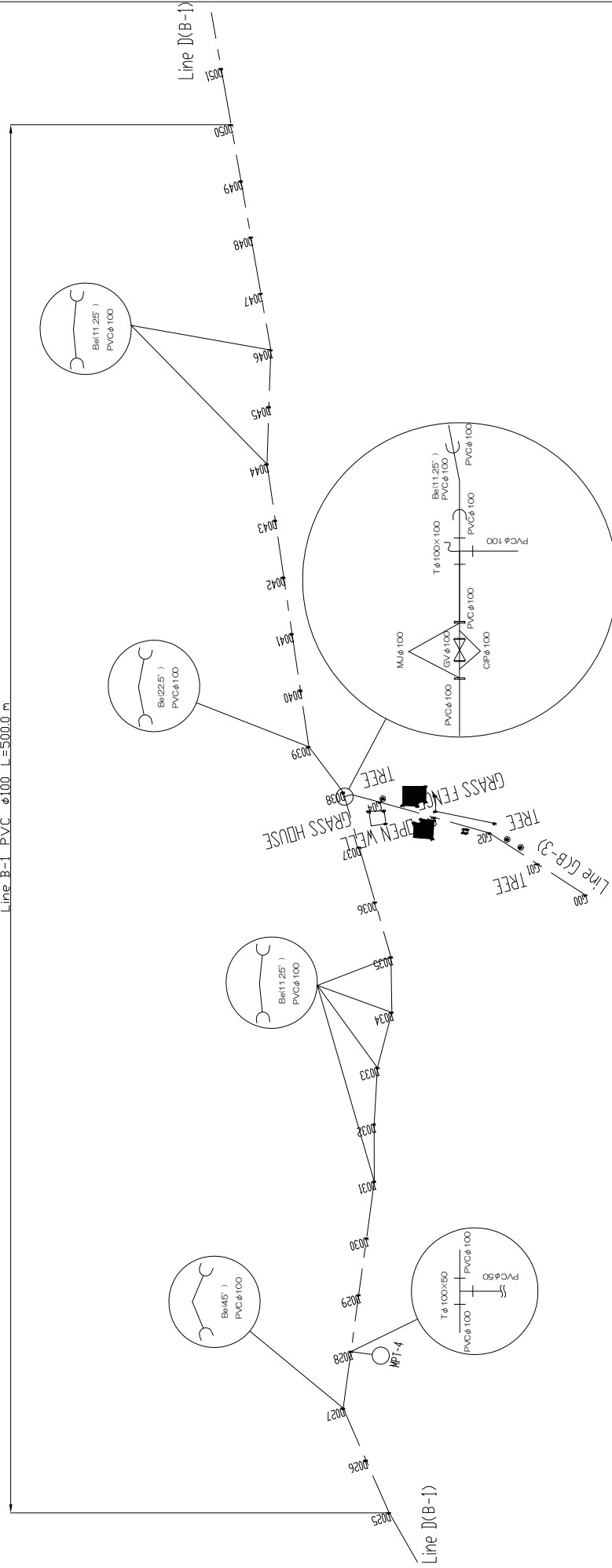
Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M025
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	

MKANDA WATER SUPPLY SCHEME
 LINE D(B-1): 500m to 1,000m

SCALE : 1 / 500 (A0)



Line B-1 PVC φ100 L=500.0 m



THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan
 Mkanda

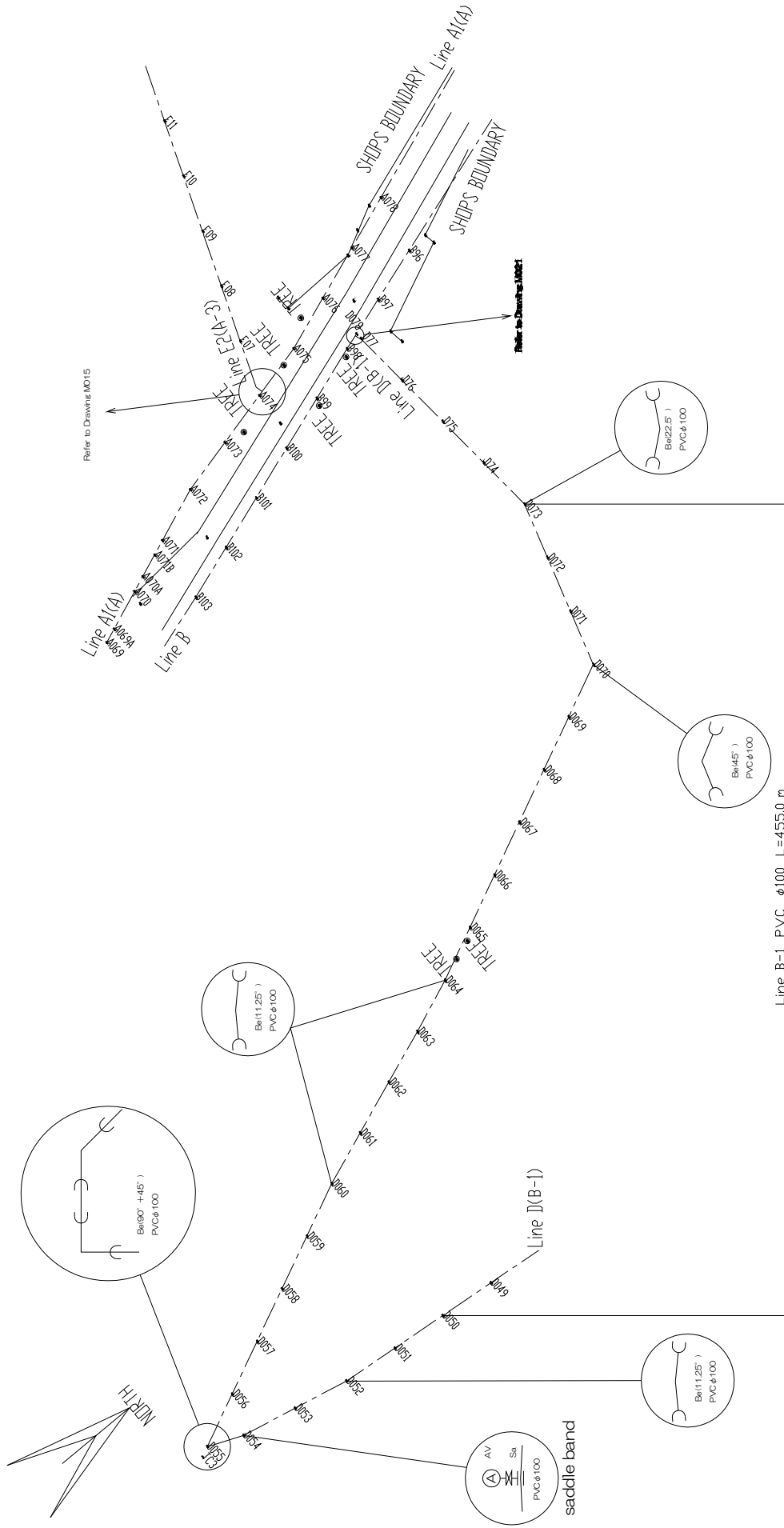
Scale	Shown in the Drawing	
Date	Oct. 2011	Drawing No. M026

EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

LEGEND	
BSV	Bell Spigot Valve
CPV	Control Valve
CF	Control Valve
GV	Gate Valve
SWV	Swing Off Valve
MV	Motor Valve
CF	Control Valve

MKANDA WATER SUPPLY SCHEME
 LINE D(B-1) : 1,000m to 1,500m

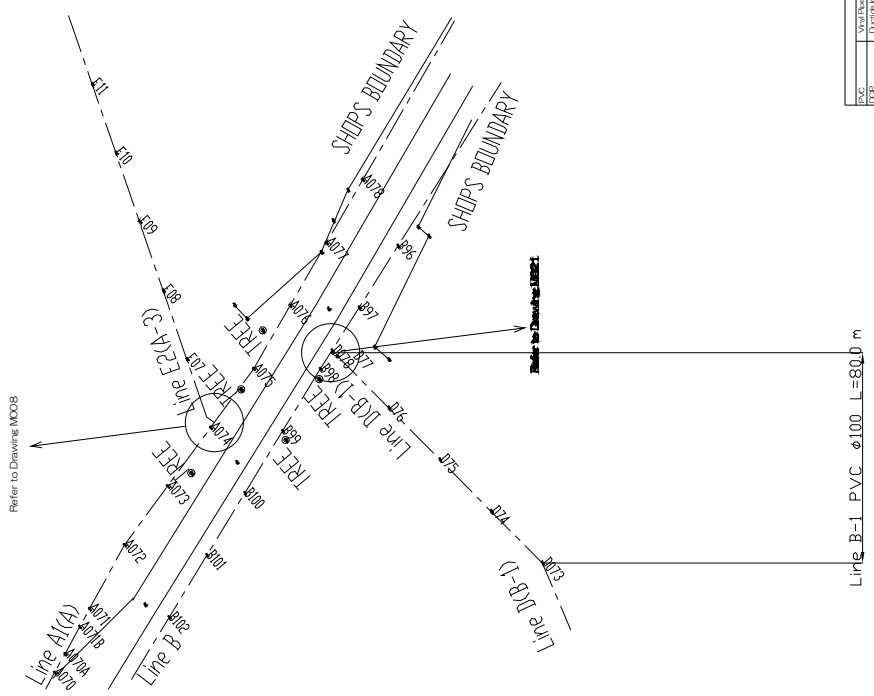
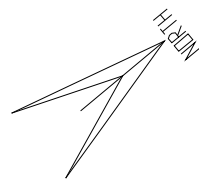
SCALE : 1 / 500 (A0)



LEGEND	
WV	Water Valve
DP	Drinking Point
CP	Control Point
AV	Air Valve
EP	End Point
MU	Manhole
CP	Control Point

THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION	
Water Distribution Pipe Plan Mkanda	
Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M027
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	

MKANDA WATER SUPPLY SCHEME
 LINE DCB-1: 1,500m to 1,534.61m
 SCALE : 1 / 500 (A0)



Refer to Drawing M008

LEGEND			
Ø	VALVE	REEL	
TREE	TRUNK	PIPE	
DB	DIAMETER	SHIPS	
DB	DISTANCE	BOUNDARY	
DB	DIAMETER	SHIPS	
DB	DISTANCE	BOUNDARY	
DB	DIAMETER	SHIPS	
DB	DISTANCE	BOUNDARY	
DB	DIAMETER	SHIPS	
DB	DISTANCE	BOUNDARY	
DB	DIAMETER	SHIPS	
DB	DISTANCE	BOUNDARY	
DB	DIAMETER	SHIPS	
DB	DISTANCE	BOUNDARY	
DB	DIAMETER	SHIPS	
DB	DISTANCE	BOUNDARY	

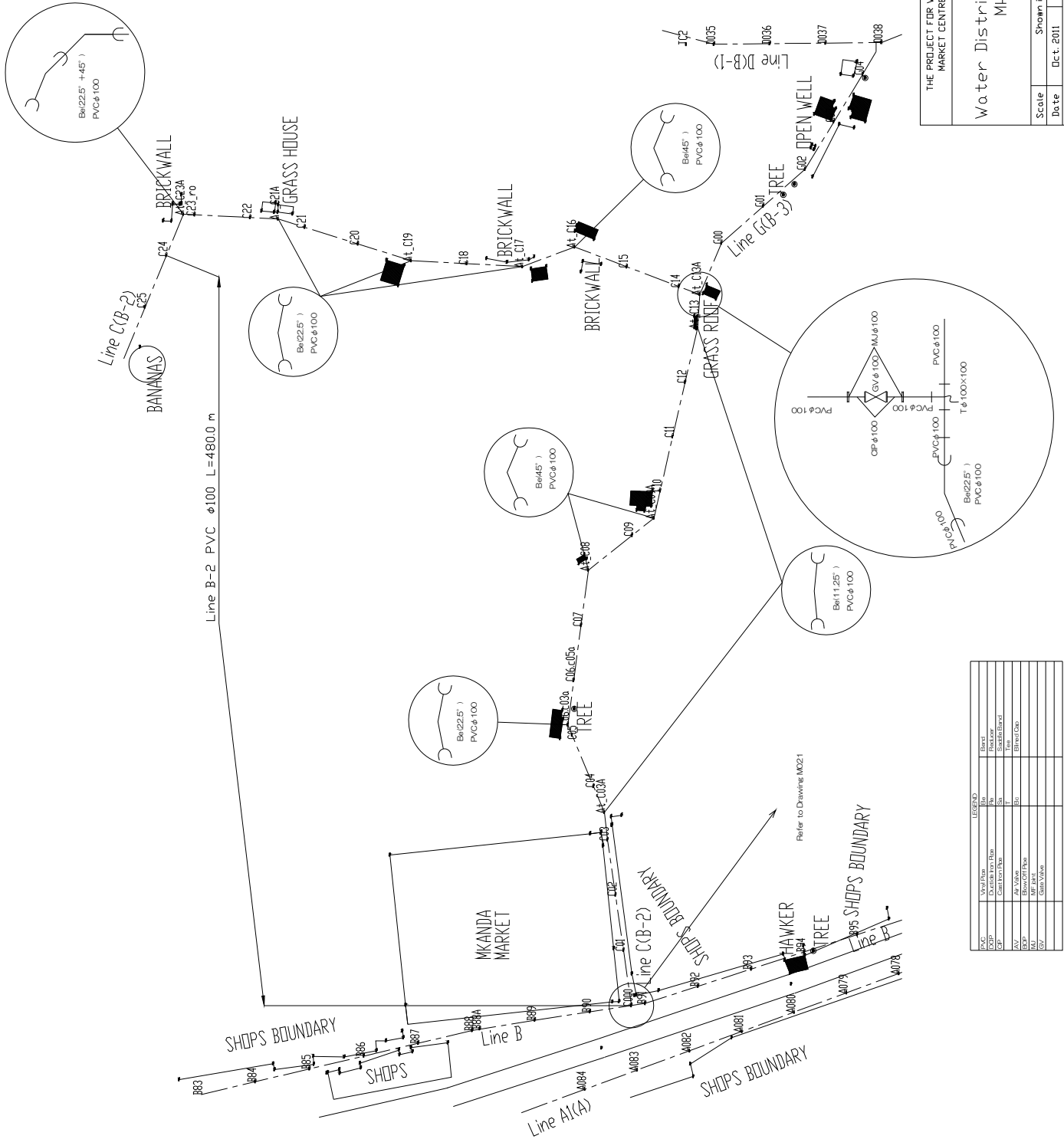
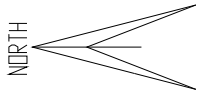
THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan
 Mkanda

Scale: _____
 Date: Dec. 2011
 Drawing No. M028
 Show in the Drawing
 EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

MKANDA WATER SUPPLY SCHEME
 LINE C(B-2) : 0.00m to 500m

SCALE : 1 / 500 (A0)



THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

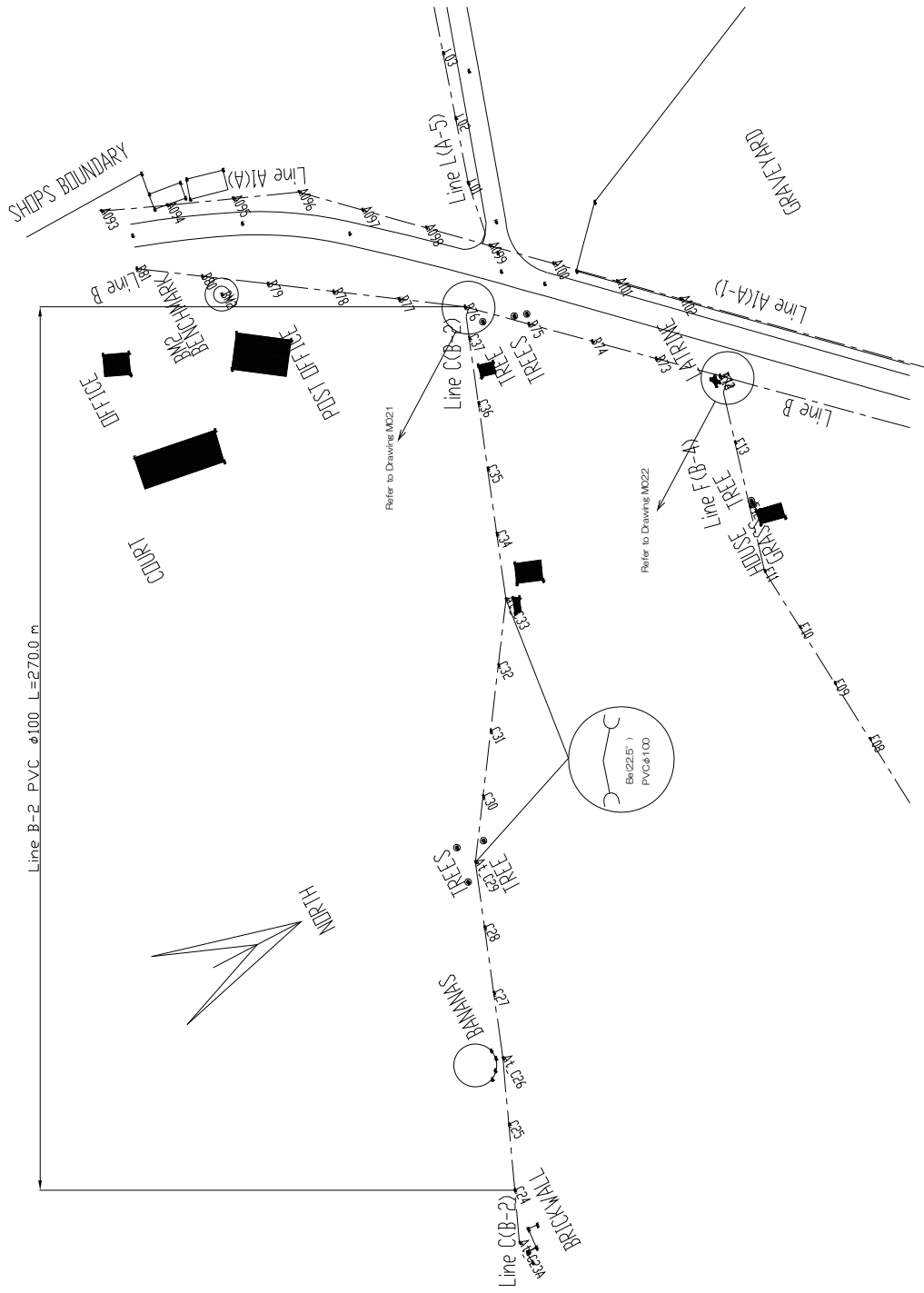
Water Distribution Pipe Plan
 Mkanda

Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M029
EIGHT - JAPAN ENGINEERING CONSULTANTS INC.	

LEGEND	
W.P.	Water Pipe
W.P. (D)	Water Pipe (Diameter)
W.P. (L)	Water Pipe (Length)
W.P. (M)	Water Pipe (Material)
W.P. (S)	Water Pipe (Specification)
W.P. (T)	Water Pipe (Type)
W.P. (V)	Water Pipe (Valve)
W.P. (W)	Water Pipe (Well)
W.P. (X)	Water Pipe (Other)
W.P. (Y)	Water Pipe (Other)
W.P. (Z)	Water Pipe (Other)

MKANDA WATER SUPPLY SCHEME
 LINE C(B-2) : 500m to 749.74m

SCALE : 1 / 500 (A0)



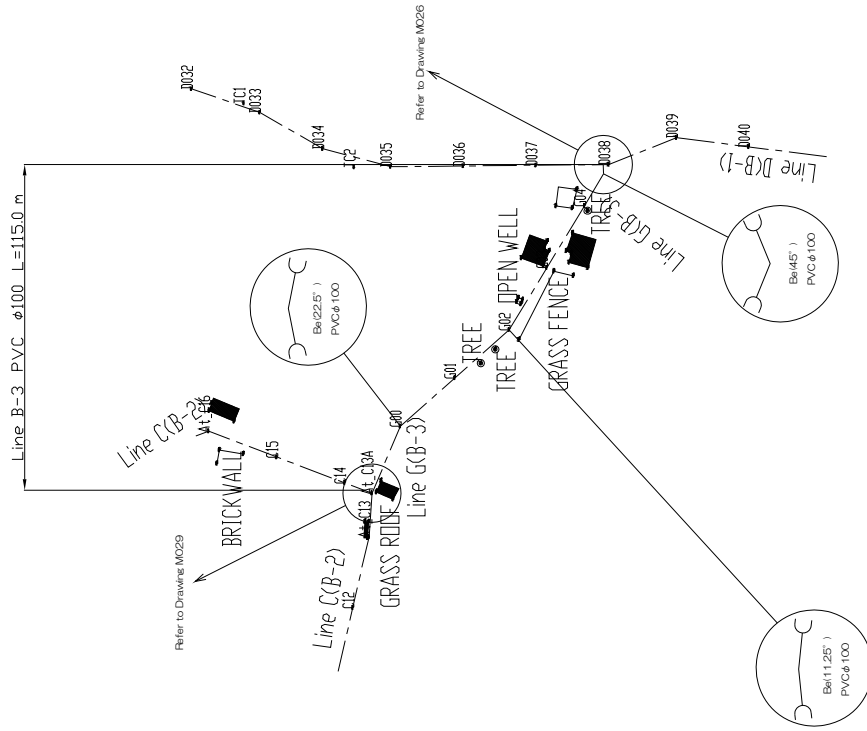
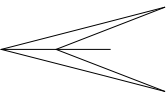
LEGEND	
W.P.	Water Pipe
D.P.	Distribution Pipe
C.P.	Control Pipe
M.U.	Water Meter
E.P.	Elbow
T.P.	Tee
J.P.	Joint
S.P.	Stop Valve
B.P.	Bench Mark
T.	Tree
G.T.	Grass Tree
H.T.	House Tree
B.M.	Benchmark
S.B.	Shops Boundary
G.A.	Graveyard
O.	Office
C.	Court
P.O.	Post Office

THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION	
Water Distribution Pipe Plan Mkanda	
Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M030
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	

MKANDA WATER SUPPLY SCHEME
 LINE G(B-3) : 0.00m to 113.11m

SCALE : 1 / 500 (A0)

NORTH



LEGEND	
---	Water Main
---	Water Branch
---	Water Tap
---	Water Valve
---	Water Meter
---	Water Stop
---	Water Check
---	Water Flange
---	Water Elbow
---	Water Tee
---	Water Coupling
---	Water Gasket
---	Water Seal
---	Water Joint
---	Water Socket
---	Water Adapter
---	Water Reducer
---	Water Expander
---	Water Connector
---	Water Fitting
---	Water Accessory

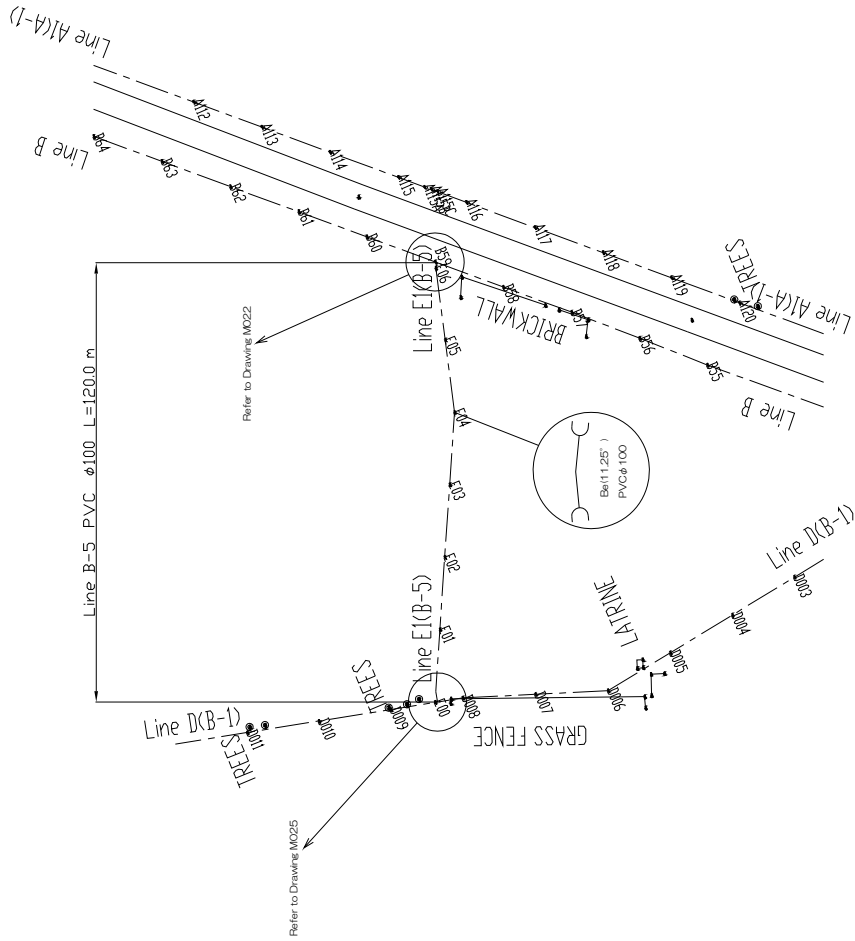
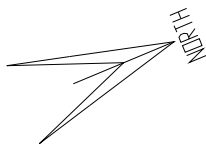
THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan
 Mkanda

Scale: Shown in the Drawing
 Date: Oct. 2011 Drawing No. M031
 EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

MKANDA WATER SUPPLY SCHEME
 LINE E1(B-5) : 0.00m to 121.67m

SCALE : 1 / 500 (A0)



LEGEND	
WSP	Water Supply Pipe
WDP	Water Distribution Pipe
WUP	Water User Pipe
WMP	Water Meter Pipe
WAP	Water Access Pipe
WCP	Water Control Pipe
WEP	Water Entry Pipe
WOP	Water Outlet Pipe
WIP	Water Inlet Pipe
WSP	Water Supply Pipe
WDP	Water Distribution Pipe
WUP	Water User Pipe
WMP	Water Meter Pipe
WAP	Water Access Pipe
WCP	Water Control Pipe
WEP	Water Entry Pipe
WOP	Water Outlet Pipe
WIP	Water Inlet Pipe

THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Water Distribution Pipe Plan
 Mkanda

Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M033

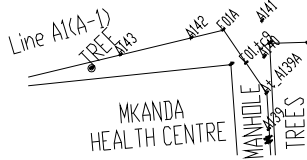
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

MKANDA WATER SUPPLY SCHEME
 LINE JB-6 : 0.00m to 500m

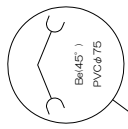
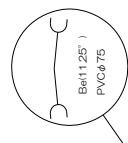
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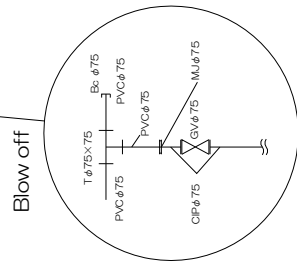
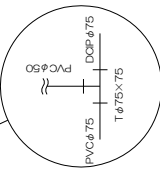
Refer to Drawing M023



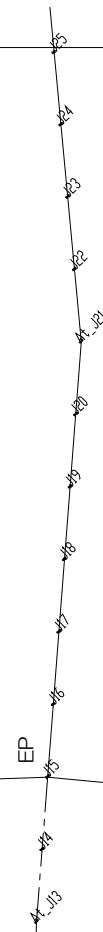
Line B-6 PVC ϕ 75 L=300.0 m



MP1-6

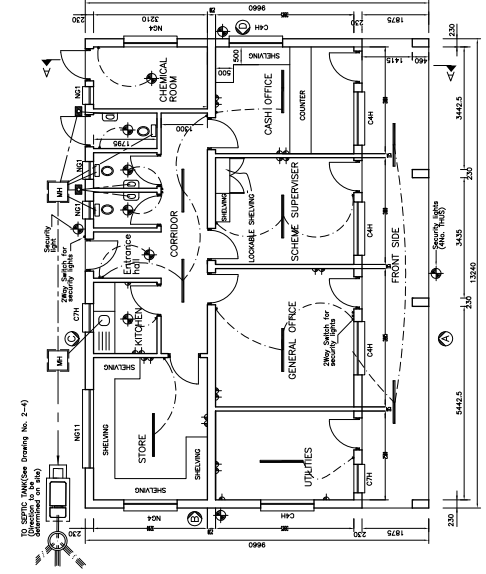
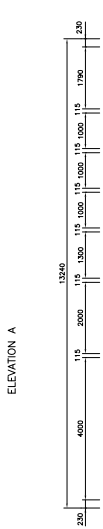
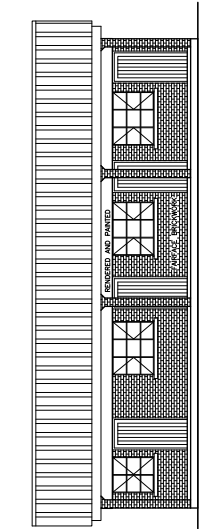


Line J(B-6)



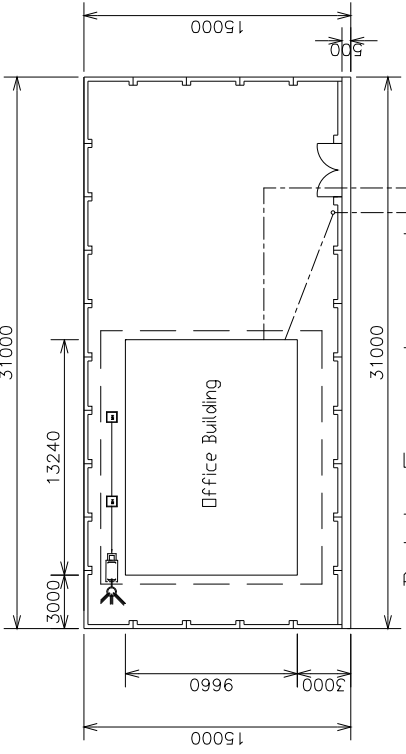
LEGEND	
Line	Water Supply Line
EP	End Point
GP	Ground Point
CP	Control Point
AV	Valve
EP	End Point
MU	Manhole
GP	Ground Point

THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION	
Water Distribution Pipe Plan Mkanda	
Scale	Shown in the Drawing
Date	Dec. 2011
Drawing No.	M034
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	

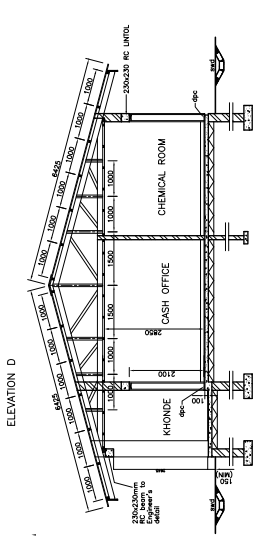
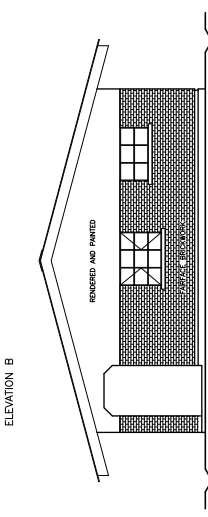
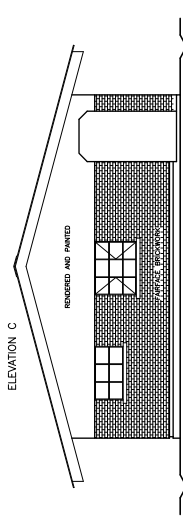
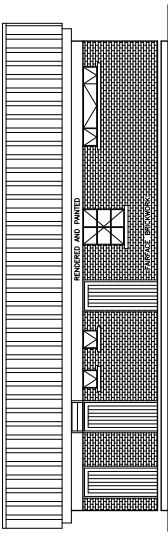


FLOOR PLAN

Office Building Layout
S=1:75(A1) 1:150(A3)



Brick Fence Layout
S=1:150(A1) 1:300(A3)



THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION			
Office Building Layout Mkanda			
Scale	Shown in the Drawing	Date	Oct. 2011
Date	Oct. 2011	Drawing No.	M035
EIGHT - JAPAN ENGINEERING CONSULTANTS, INC.			

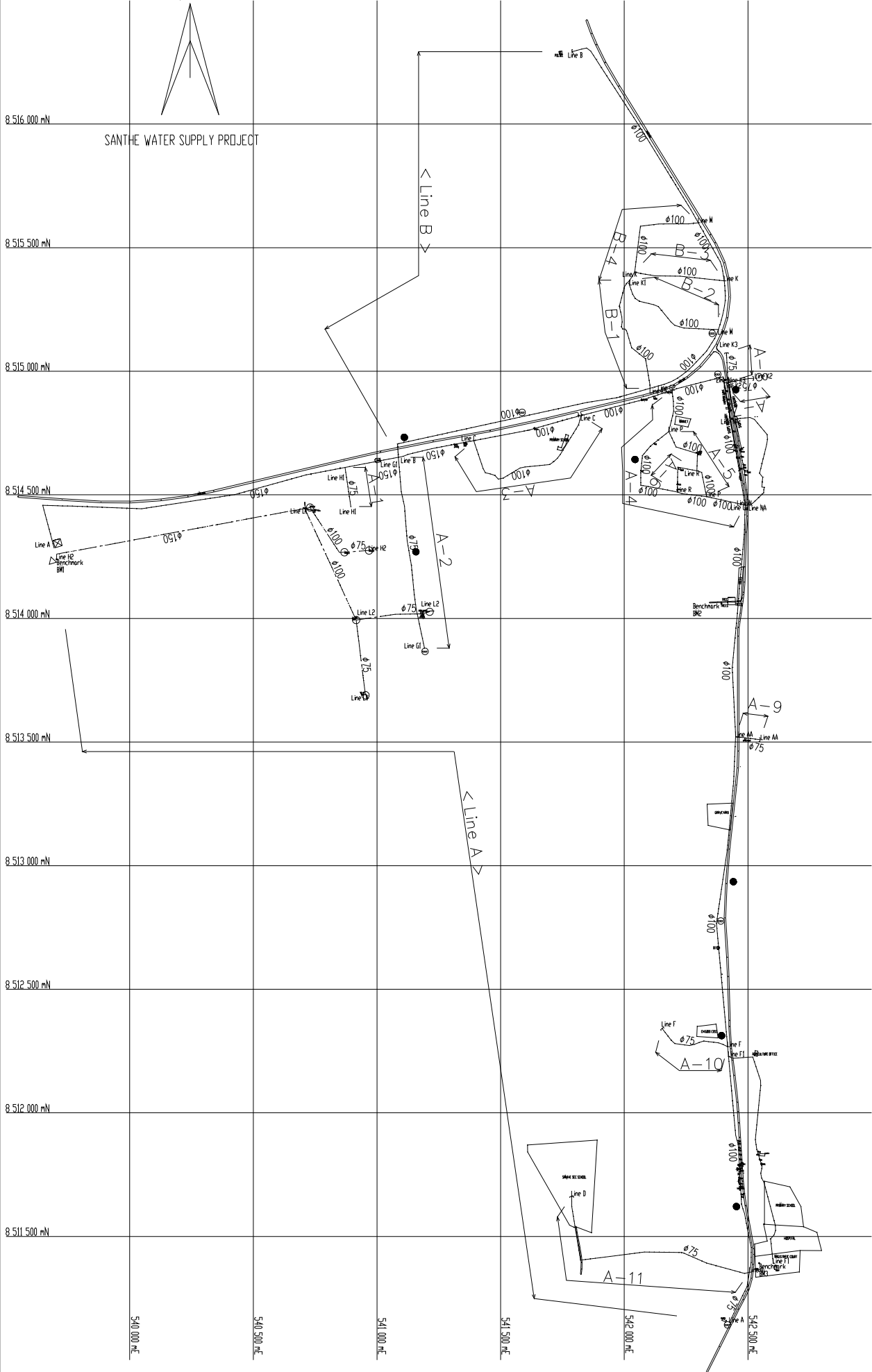
Office Building General Layout
(Mkanda)
S=1:300(A1) 1:600(A3)

NORTH

SANTHE WATER SUPPLY PROJECT

8.516.000 mN
8.515.500 mN
8.515.000 mN
8.514.500 mN
8.514.000 mN
8.513.500 mN
8.513.000 mN
8.512.500 mN
8.512.000 mN
8.511.500 mN

540.000 mE
540.500 mE
541.000 mE
541.500 mE
542.000 mE
542.500 mE
543.000 mE



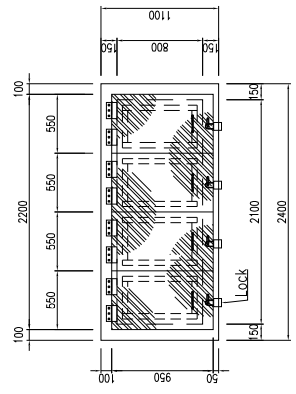
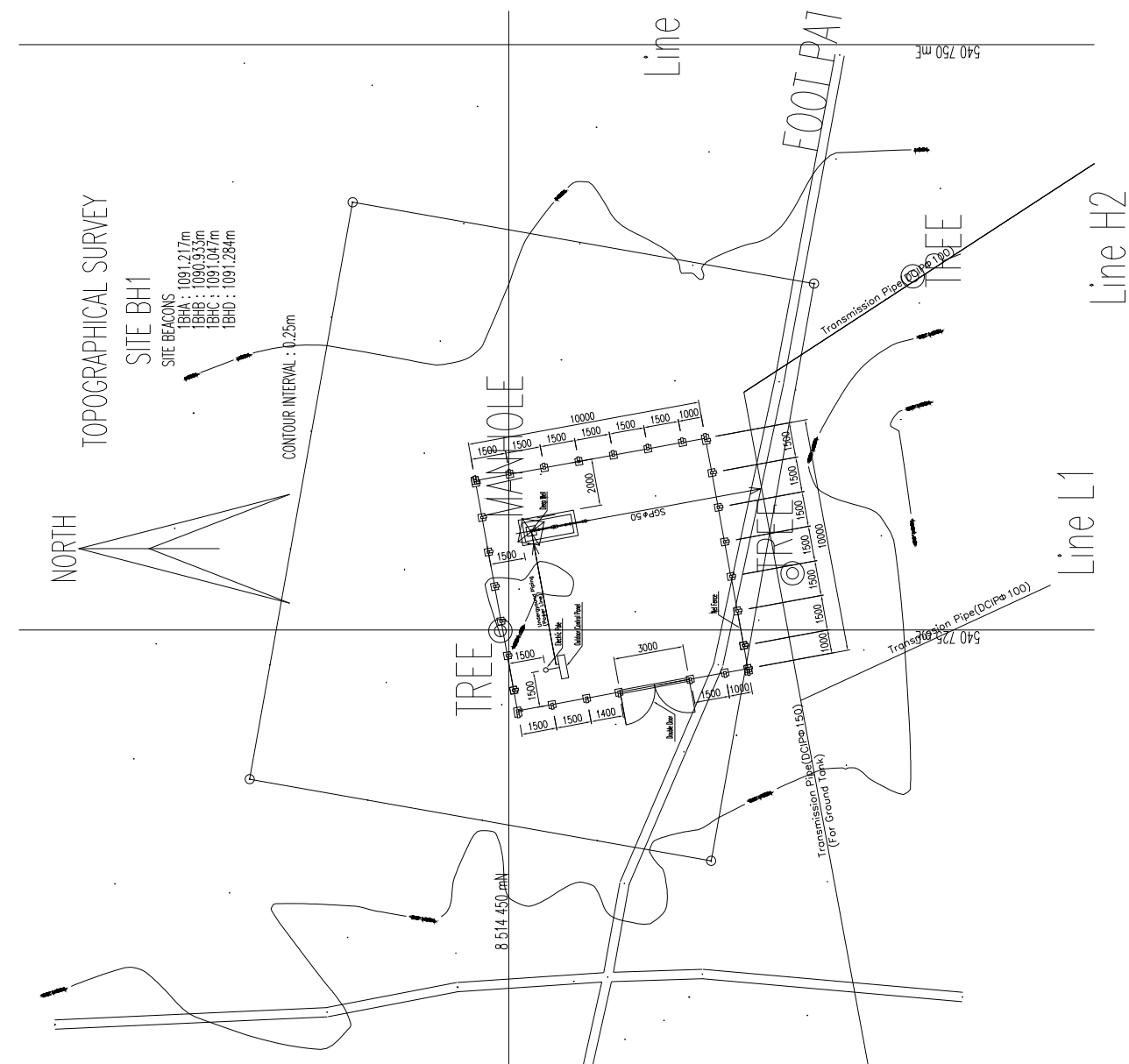
THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION

Overall Facility Layout
Santhe

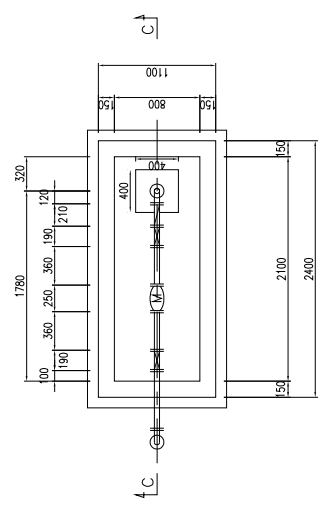
Scale: Shown in the Drawing
Date: Oct. 2011 Drawing No.: S001
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.

Legend	
○	Intake Well
⊗	Elevated Tank
△	Control Building
□	Office Building
●	Communal Water Point
---	Transmission Pipe
---	Distribution Pipe
⊕	Blow Off
┌	Blind Cap

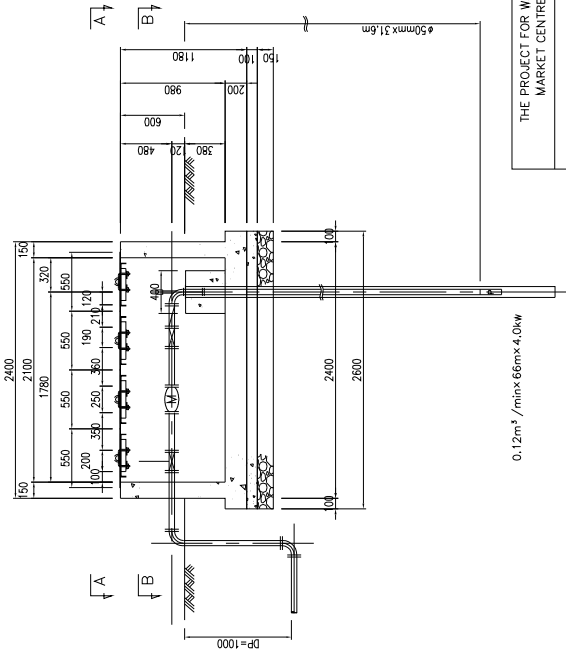
Overall Facility Layout
(Santhe) S=1:7500(A1) 1:15000(A3)



A - A Section



B - B Section

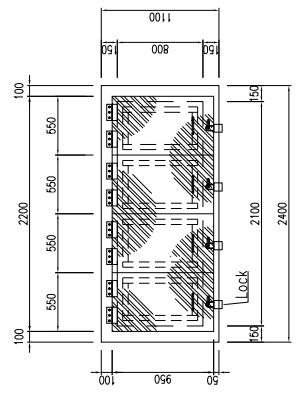


C - C Section

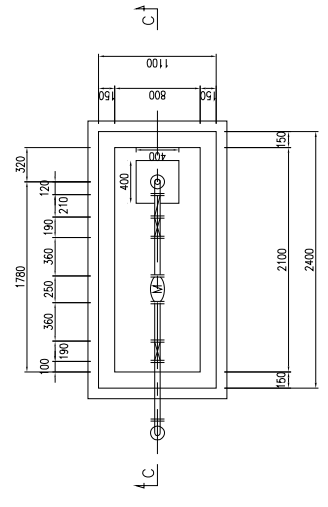
THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION	
Intake Well ST-1 Santhe	
Scale	Shown in the Drawing
Date	Oct. 2011
Drawing No.	S002
EIGHT-JAPAN ENGINEERING CONSULTANTS INC.	

Intanke Well Structure
S=1:25(A1) 1:50(A3)

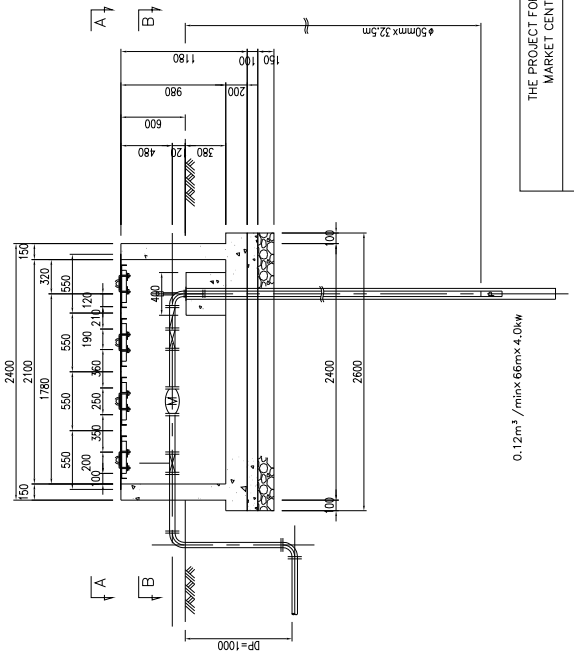
Intanke Well ST-1 General Layout
(Santhe)
S=1:100(A1) 1:200(A3)



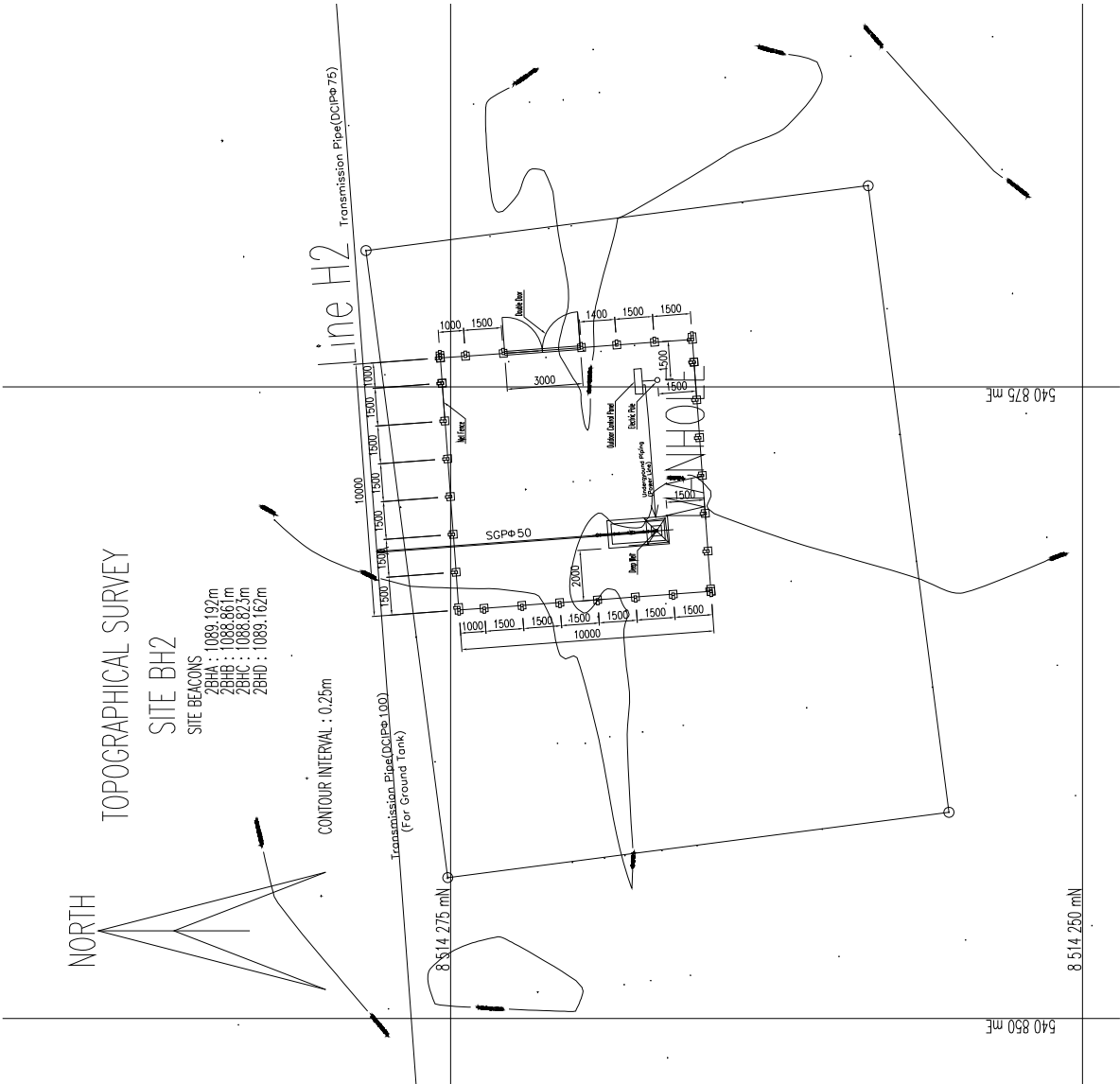
A - A Section



B - B Section



C - C Section



Intanke Well ST-2 General Layout
(Santhe)
S=1:100(A1) 1:200(A3)

THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION		
Intanke Well ST-2 Santhe		
Scale	Shown in the Drawing	
Date	Oct. 2011	Drawing No. S003
EIGHT-JAPAN ENGINEERING CONSULTANTS, INC.		

Intanke Well Structure
S=1:25(A1) 1:50(A3)

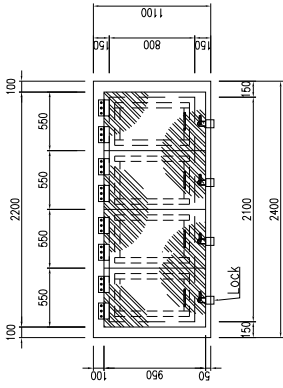
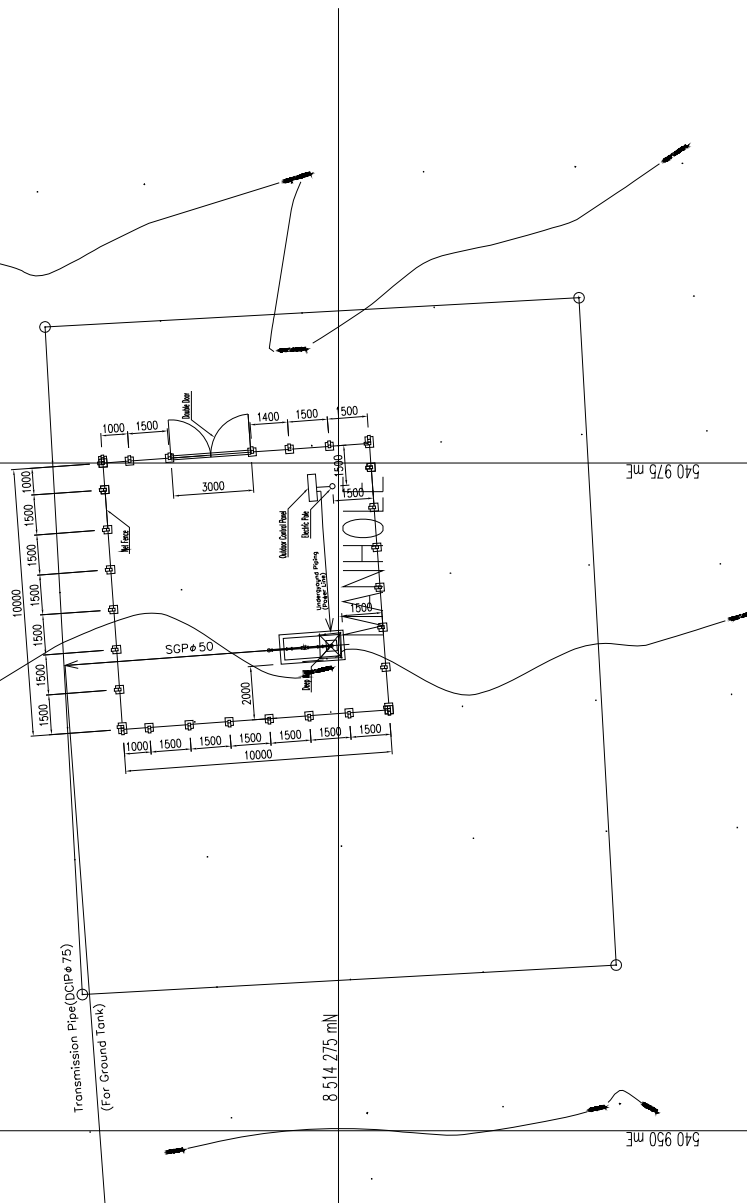
NORTH

TOPOGRAPHICAL SURVEY

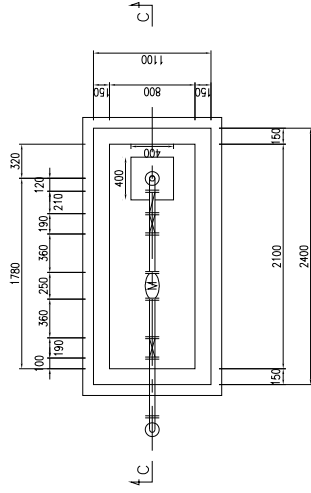
SITE BH3

SITE BEACONS
 38HA : 1087.938m
 38HB : 1087.596m
 38HC : 1087.592m
 38HD : 1087.933m

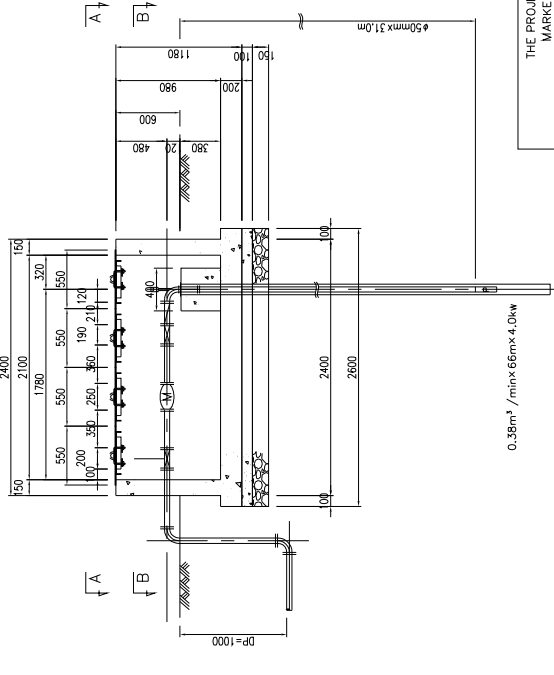
CONTOUR INTERVAL : 0.25m



A - A Section



B - B Section



C - C Section

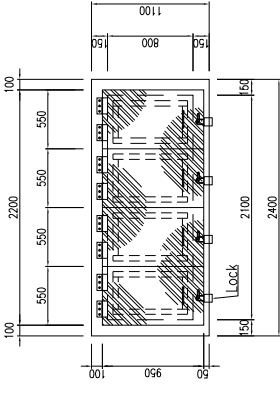
Intanke Well ST-3 General Layout
 (Santhe)
 S=1:100(A1) 1:200(A3)

Intanke Well Structure
 S=1:25(A1) 1:50(A3)

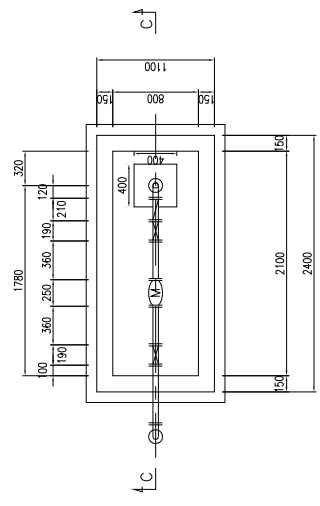
THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Intanke Well ST-3
 Santhe

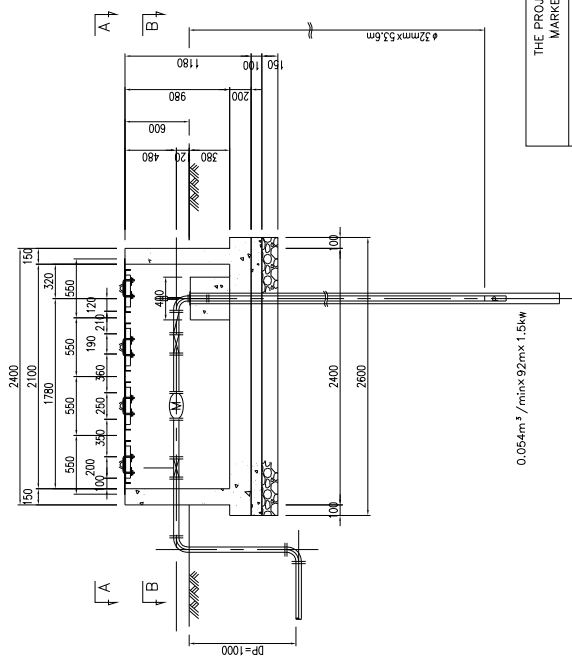
Scale	Shown in the Drawing
Date	Oct. 2011
Drawing No.	S004
EIGHT-JAPAN ENGINEERING CONSULTANTS, INC.	



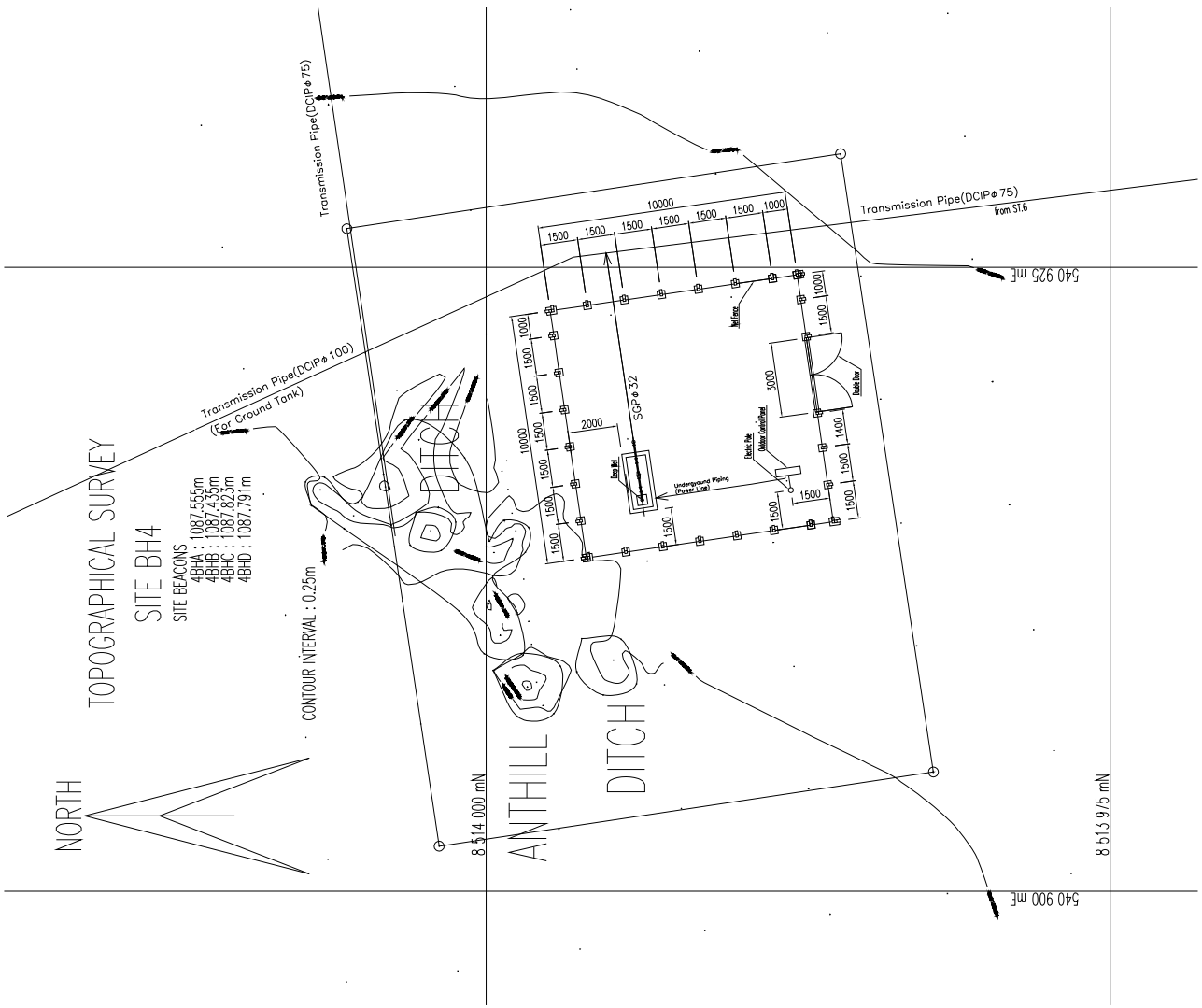
A - A Section



B - B Section



C - C Section



Intanke Well ST-4 General Layout
(Santhe)

Intanke Well Structure

S=1:25(A1) 1:50(A3)

S=1:100(A1) 1:200(A3)

THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION	
Intanke Well ST-4 Santhe	
Scale	Shown in the Drawing
Date	Oct. 2011
Drawing No.	S005
EIGHT-JAPAN ENGINEERING CONSULTANTS, INC.	

8 514 650 mN

NORTH

TOPOGRAPHICAL SURVEY

SITE BH5

SITE BEACONS
 5BHA : 1082.572m
 5BHB : 1082.956m
 5BHC : 1082.328m
 5BHD : 1082.110m

CONTOUR INTERVAL : 0.25m

Line 2

Transmission Pipe (Dc=1000mm)
(For Ground Tank)

SGP# 32

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

Water Tank

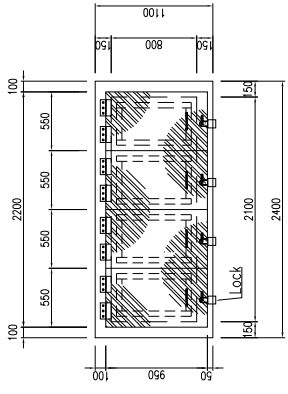
Water Tank

Water Tank

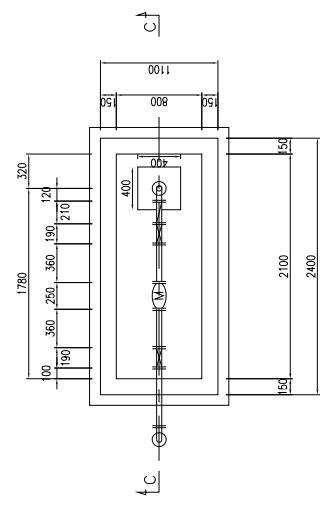
FOOTPATH

541 225 mE

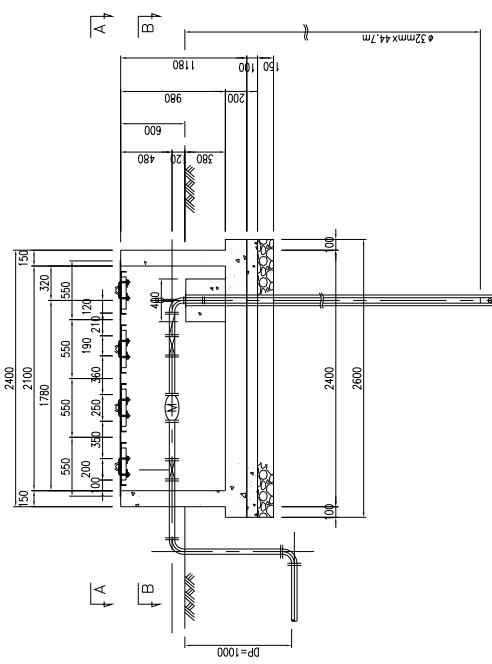
541 200 mE



A - A Section



B - B Section



C - C Section

Intanke Well ST-5 General Layout

(Santhe)

S=1:100(A1) 1:200(A3)

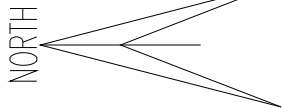
Intanke Well Structure

S=1:25(A1) 1:50(A3)

THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Intanke Well ST-5
 Santhe

Scale	Shown in the Drawing
Date	Oct. 2011
Drawing No.	S006
EIGHT-JAPAN ENGINEERING CONSULTANTS, INC.	



TOPOGRAPHICAL SURVEY

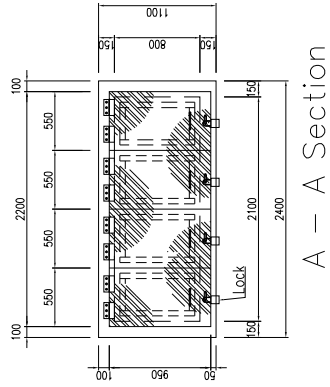
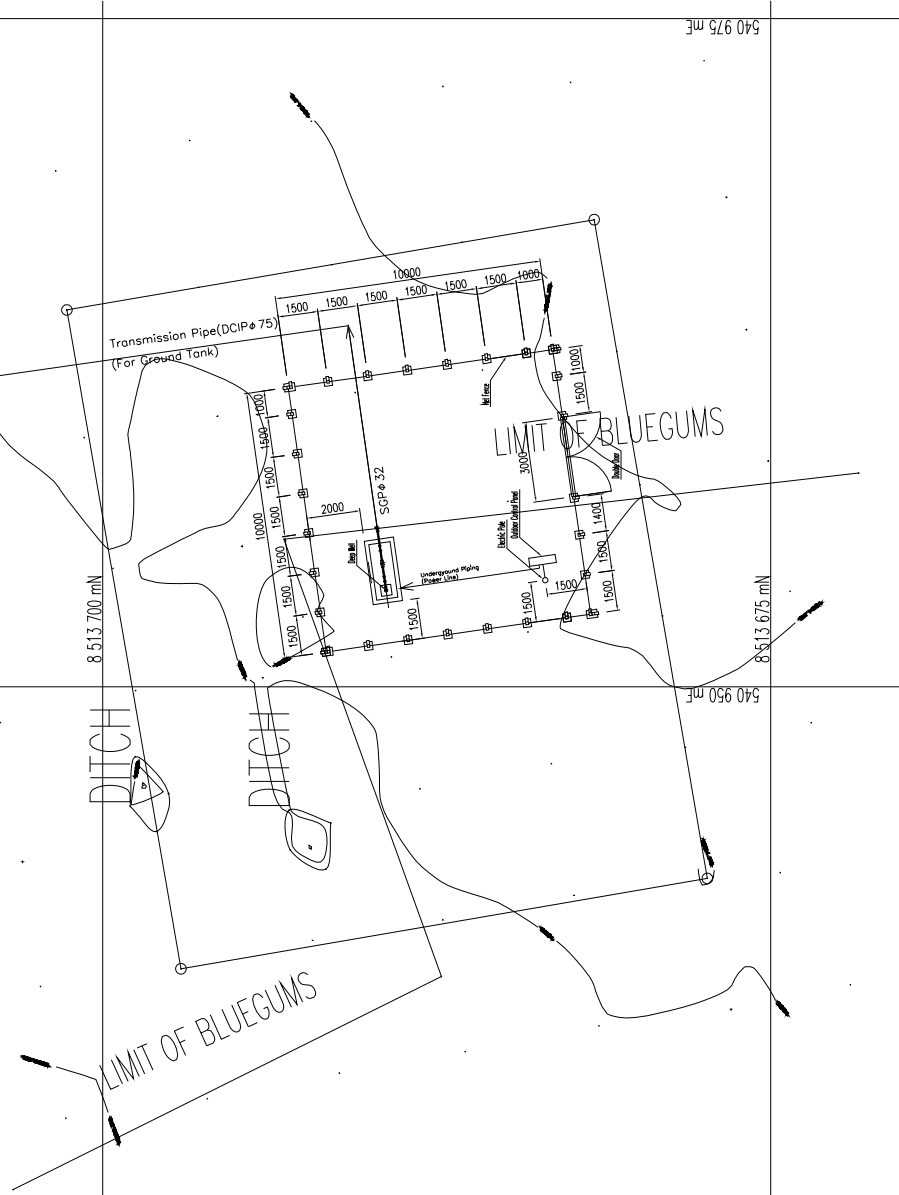
SITE BH6

SITE BEACONS

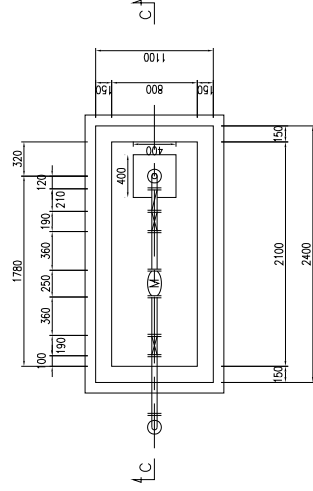
- 68HA : 1085.136m
- 68HB : 1084.911m
- 68HC : 1084.712m
- 68HD : 1084.737m

Line L1

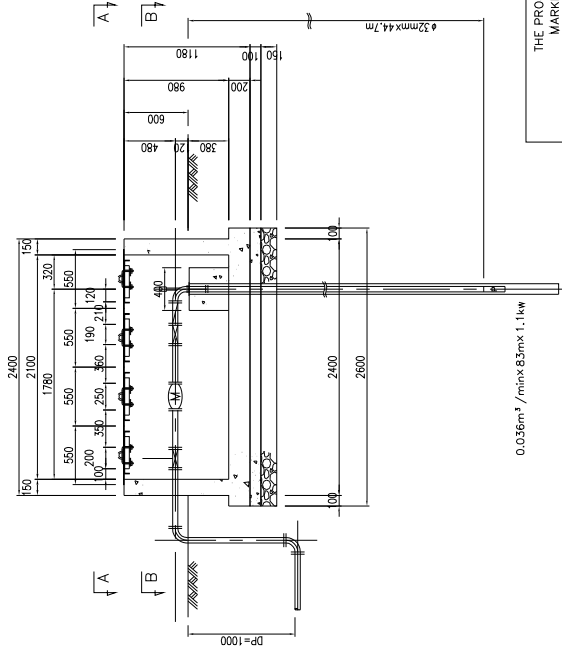
CONTOUR INTERVAL : 0.25m



A - A Section



B - B Section



C - C Section

0.0366m³ / min x 83mm x 1.1kw

THE PROJECT FOR WATER SUPPLY SYSTEMS IN MARKET CENTRES IN CENTRAL REGION

Intanke Well ST-6
Santhe

Intanke Well Structure

S=1:25(A1) 1:50(A3)

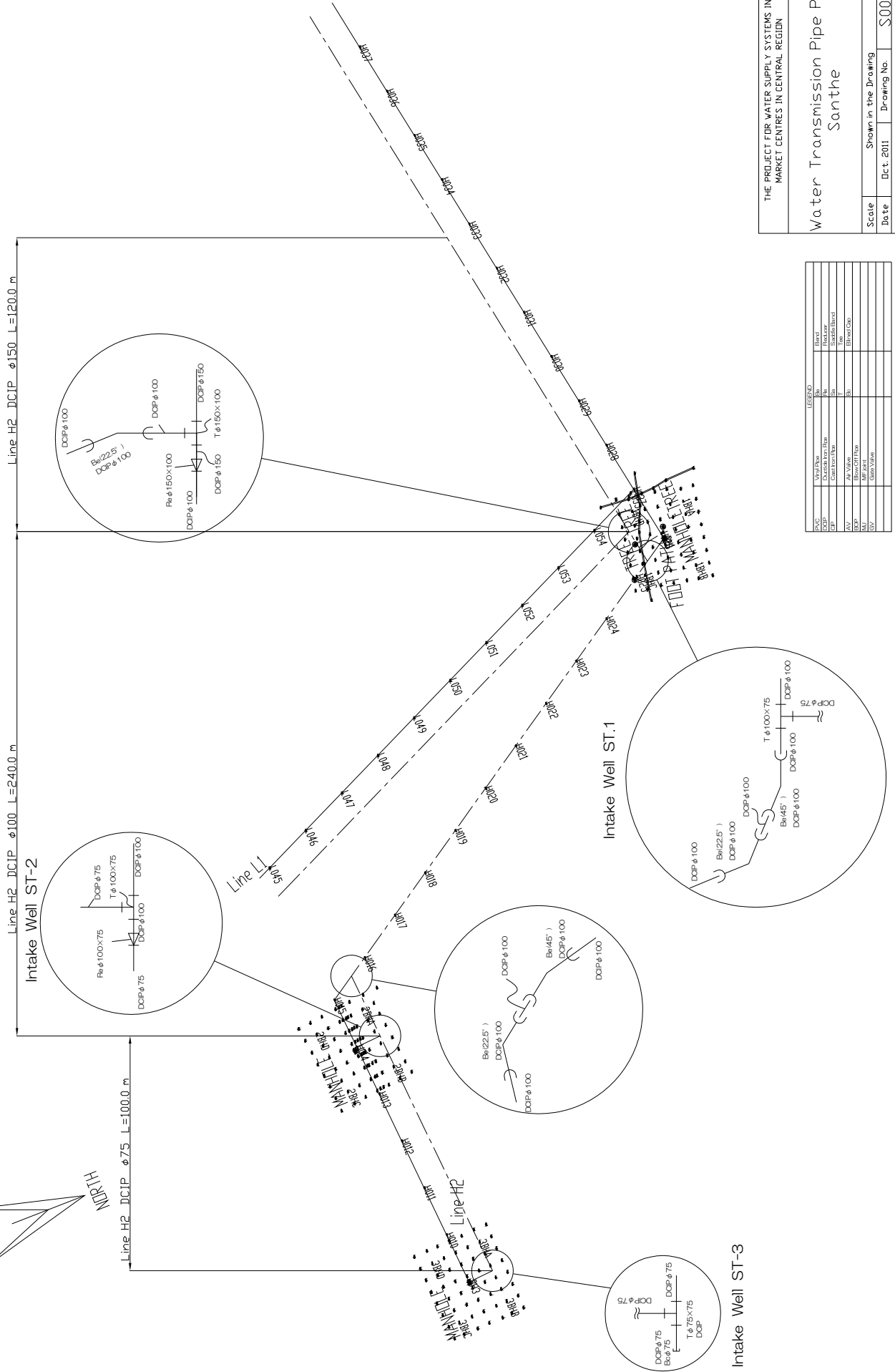
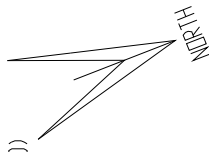
Intanke Well ST-6 General Layout
(Santhe)

S=1:100(A1) 1:200(A3)

Scale	Shown in the Drawing
Date	Oct. 2011
Drawing No.	S007
EIGHT-JAPAN ENGINEERING CONSULTANTS, INC.	

SANTHE WATER SUPPLY SCHEME
 LINE H2 : 0.00m to 500m

SCALE : 1 / 500 (A0)



LEGEND	
Line	Water Pipe
DOP	Double Flange DOP
DF	Cast Iron DOP
AV	AV Valve
DFP	Blow Off Pipe
DFI	Cast Iron
Be	Bell
DF	Standard DOP
DF	Flange
DFI	Cast Iron

THE PROJECT FOR WATER SUPPLY SYSTEMS IN
 MARKET CENTRES IN CENTRAL REGION

Water Transmission Pipe Plan
 Santhe

Scale	Shown in the Drawing
Date	Oct. 2011
Drawing No.	S008

EIGHT-JAPAN ENGINEERING CONSULTANTS INC.