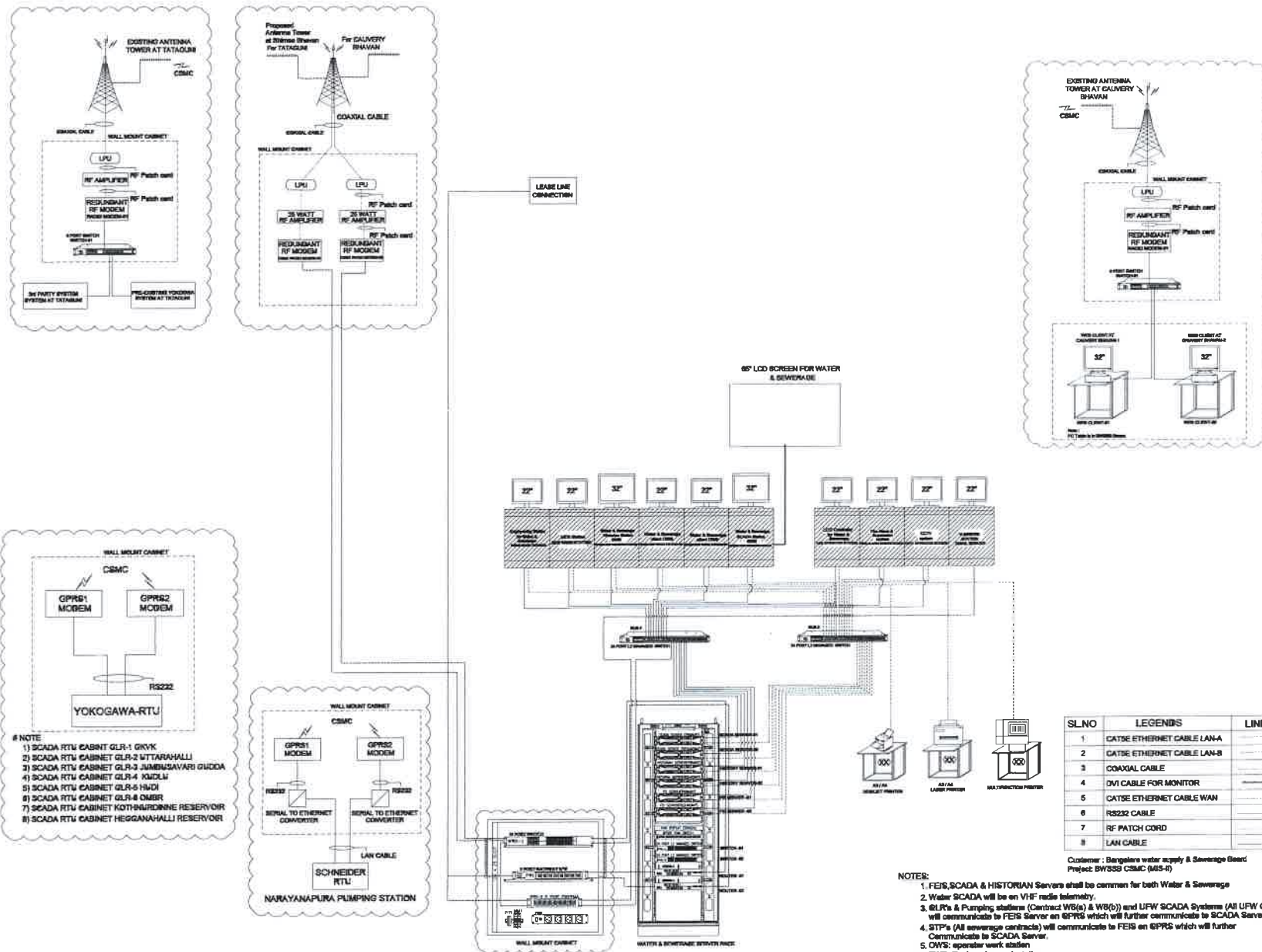


CURRENT MASTER SCADA SYSTEM CONFIGURATION AT SHIMSHA BHAVAN



NO	DATE	DESCRIPTION	BY	TV	CI	ME	APPR
1	17-05-2022	FOR TENDER PURPOSE ONLY					

FOR TENDER PURPOSE ONLY

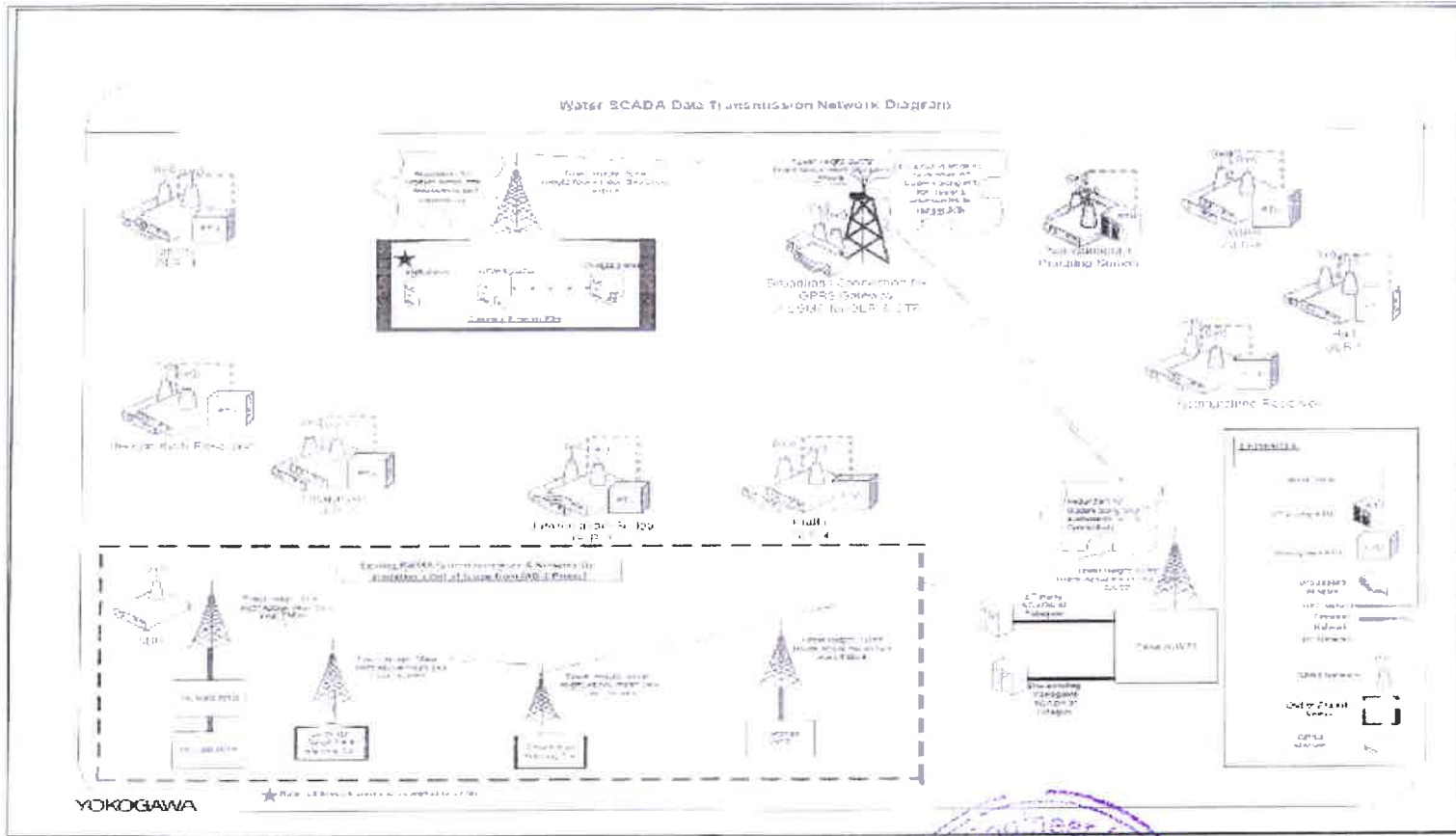
BANGALORE WATER SUPPLY AND SEWERAGE BOARD
BENGALURU WATER SUPPLY AND SEWERAGE PROJECT (PHASE 3)


TITLE: CURRENT MASTER SCADA SYSTEM CONFIGURATION AT SHIMSHA BHAVAN

PROJECT MANAGEMENT CONSULTANTS:
ORIENTAL CONSULTANTS GLOBAL CO. LTD
NUS ENGINEERS INDIA PVT. LTD
TATA CONSULTING ENGINEERS LIMITED
IN ASSOCIATION WITH BLACK & VEATCH

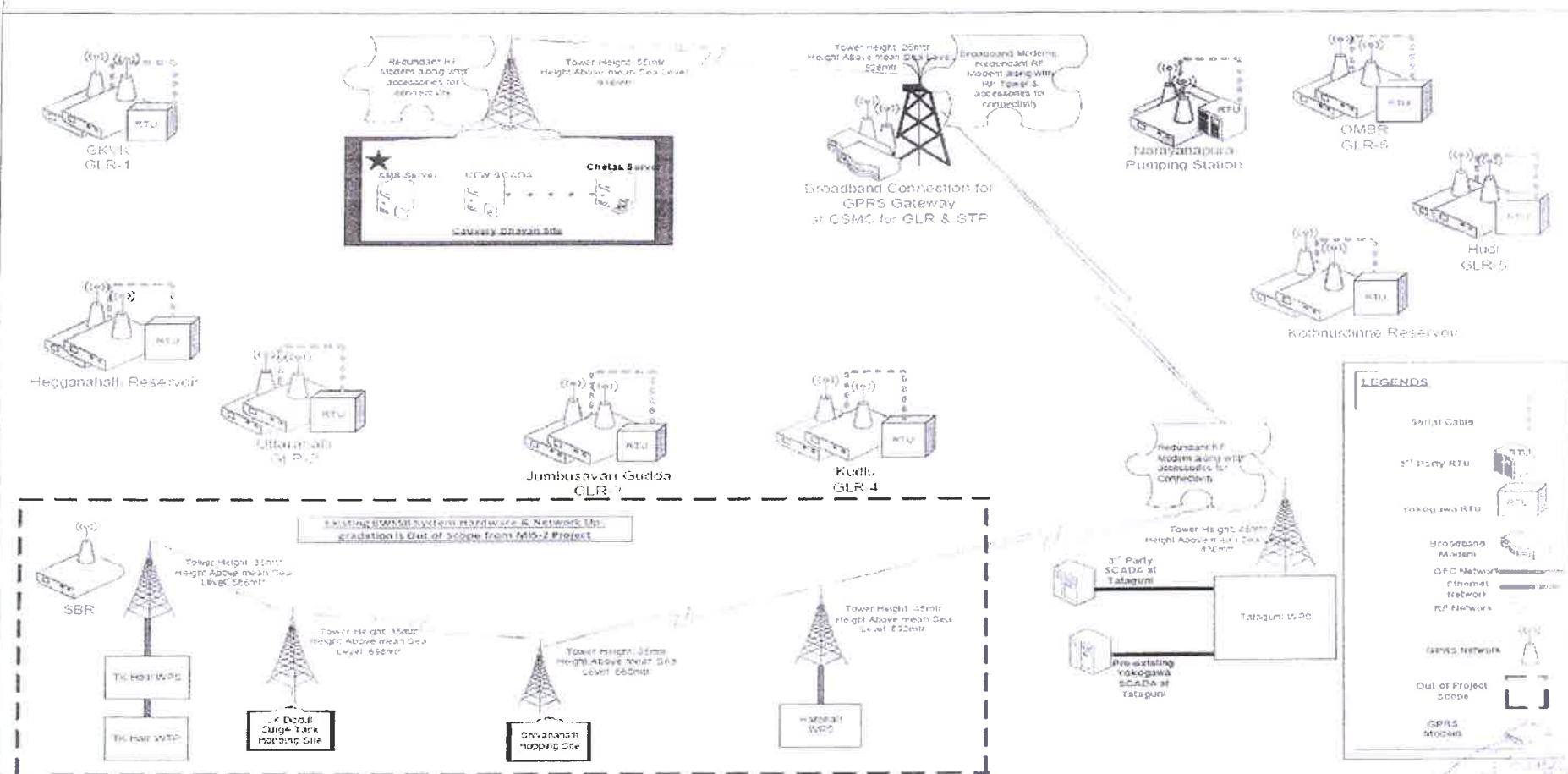
DESIGNED	APPROVED	DRAWN	CHECKED	SCALE	FILE NAME
				OWS: ME	01_ONTB BWSSP(3) CP24-CSC-001

CURRENT- WATER SCADA DATA TRANSMISSION NETWORK DIAGRAM



TO	17-08-2022	FOR TENDER PURPOSE						
ISSUE	DATE	DESCRIPTION	BY	CHKD	BY	DATE	APPROV	
FOR TENDER PURPOSE ONLY								
 BANGALORE WATER SUPPLY AND SEWERAGE BOARD BANGALURU WATER SUPPLY AND SEWERAGE PROJECT (PHASE 3)								
TITLE CURRENT- WATER SCADA DATA TRANSMISSION NETWORK DIAGRAM								
PROJECT MANAGEMENT CONSULTANTS ORIENTAL CONSULTANTS GLOBAL CO. LTD NUS ENGINEERS INDIA PVT. LTD TATA CONSULTING ENGINEERS LIMITED IN ASSOCIATION WITH BLACK & VEATCH								
DESIGNED	APPROVED					DATE	BY	
DRAWN						DATE	BY	
CHECKED						DATE	BY	
SCALE:	AS SHOWN					DATE	BY	
FILE NAME: 02-ONTB-BWSSE(3)-CP24-DSC-002								
M. SUDHAKAR								

Water SCADA Data Transmission Network Diagram



YOKOGAWA

★ Note: All these Servers to be shifted to CSMC

1	FOR APPROVAL	03/09/14		PRD	AMIRTHALINGAM	CUSTOMER: BANGALORE WATER SUPPLY AND SEWERAGE BOARD	TITLE: WATER SCADA –DATA TRANSMISSION NETWORK DIAGRAM	BWSSB Doc No: NMT/BWSSB(II)/MIS2/WDTN/1002/1009-9
				CHK	PIYUSH			
0	FOR APPROVAL	25/03/14		APP	PRS LAL	CONSULTANT: NIPPON JOGESUIDO SEKKEI CO.LTD/MOTO MACDONALD LTD.UK/MOTT MACDONALD LTD.UK/TATA CONSULTING ENGINEERS LTD.INDIA	PROJECT: BWSSB CSMC (MIS-2)	SHEET
REV	DESCRIPTION	DATE	REV BY	APP	PRS LAL			





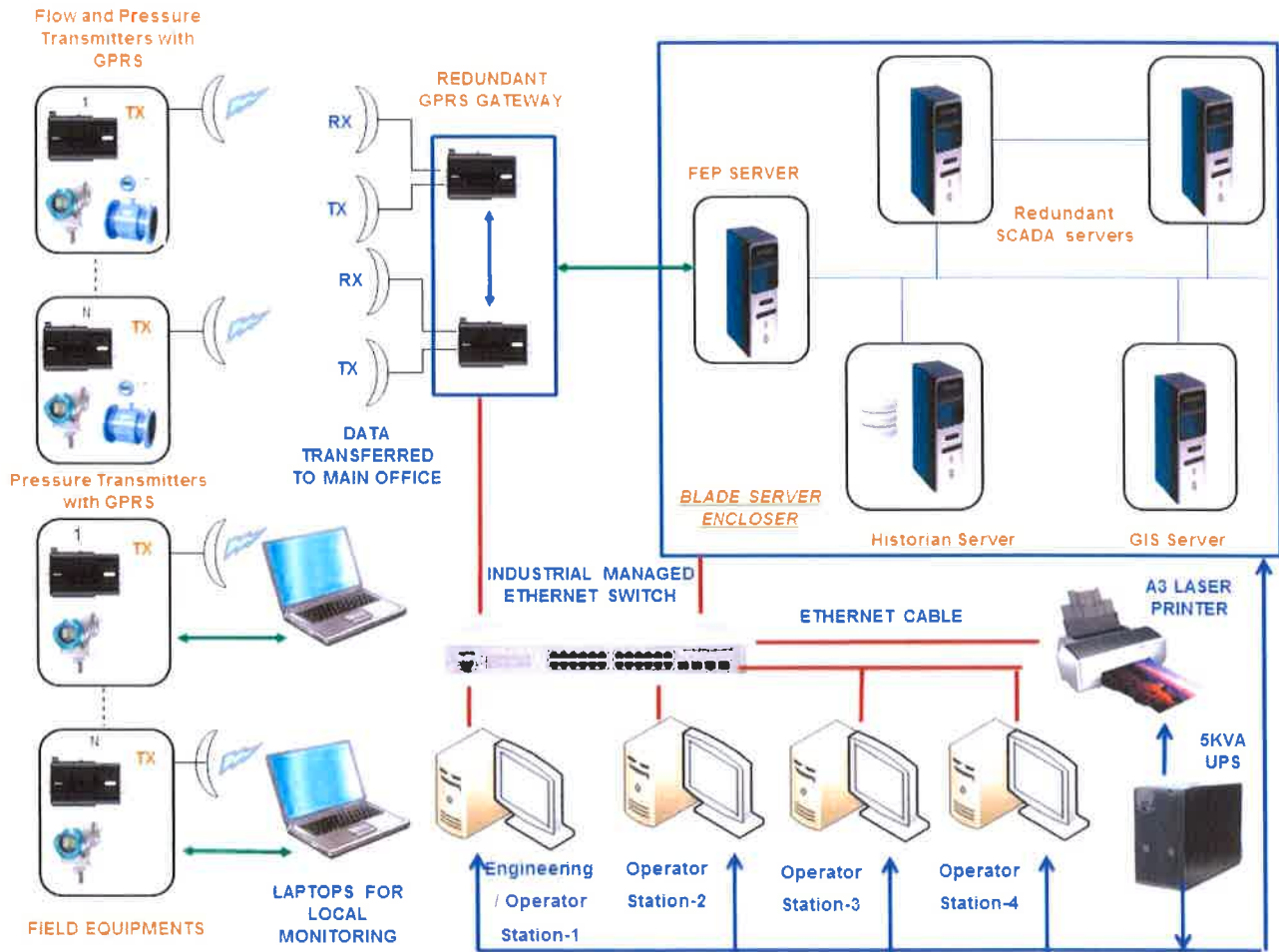
**PROJECT : IMPROVEMENT TO WATER DISTRIBUTION SYSTEM,
REDUCTION IN UFW & LEAKAGE CONTROL IN SOUTH DIVISION**

Date : 28 – 09 - 2012

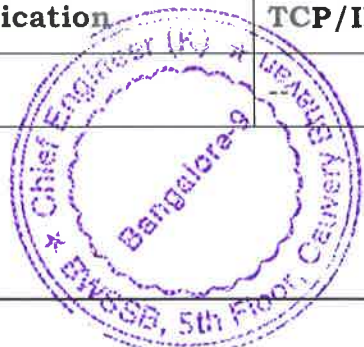
**TITLE : PRELIMINARY FUNCTIONAL DESIGN SPECIFICATION -
UFW INSTRUMENTATION**

Rev : 00

II. Data Flow Architecture



Symbol	Signal Transmission Mode	Protocol	Connectivity
	Wireless Communication	MODBUS	GSM/GPRS
	Wired communication	MODBUS	Twisted Cable
	Wired communication	TCP/IP	Ethernet Cable
	Power supply		Power cable



**PROJECT : IMPROVEMENT TO WATER DISTRIBUTION SYSTEM,
REDUCTION IN UFW & LEAKAGE CONTROL IN SOUTH DIVISION**

Date : 28 – 09 - 2012

**TITLE : PRELIMINARY FUNCTIONAL DESIGN SPECIFICATION -
UFW INSTRUMENTATION**

Rev : 00

Architecture Description

Electromagnetic Flow Meter to Front End processor

Sl.No.	Signal From	Signal To	Connectivity	Data Transmission
1	Electromagnetic Flow Meter (EMF/DMA)	Totalizer	Cable	4-20mA (Analog)
2	Totalizer/Transmitter	GPRS Module	Built in	(MODBUS) - 10Mbps
3	Pressure Transducer	Totalizer/ Transmitter	Cable	4-20mA (Analog)
4	Totalizer/Transmitter	FEP Server	Wireless (GSM)	900/1800MHz
5	Electromagnetic Flow meter Totalizer	Laptop	LAN Cable	RJ45

Front End processor to Main Server

Sl.No.	Signal From	Signal To	Connectivity	Data Transmission
1	FEP	Historian Server	Cable	RJ45 (MODBUS)
2	FEP	Redundant SCADA Server	Cable	RJ45 (MODBUS)
3	Redundant SCADA Server	Historion Server	Cable	RJ45 (MODBUS)

RS485 port



RJ45



SCHEMATIC DIAGRAM FOR FLOW METER CHAMBER

- NOTE:**
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED
 - REINFORCED CEMENT CONCRETE FOR CHAMBER SHALL BE OF GRADE M20 (1:1.5:3) CONFORMING TO LATEST IS 456
 - PLAIN CEMENT CONCRETE AT BASE SHALL BE GRADE M10 (1:3:6) CONFORMING TO LATEST IS 456
 - CLEAR COVER TO REINFORCEMENT
BASE SLAB ---- 50mm
WALLS ---- 50mm SOIL SIDE & 30mm INSIDE
COVER SLAB ---- 30mm TOP & BOTTOM
BEAM ---- 30mm
 - REINFORCEMENT SHALL BE THERMO MECHANICALLY TREATED BARS OF GRADE Fe500 CONFORMING TO LATEST IS:1786
 - INVERT LEVEL OF PIPE SHALL BE AS PER RELEVANT DRAWING
 - THE CONTRACTOR SHALL OBTAIN ENGINEERS APPROVAL FOR ALL CHAMBER LOCATIONS AND LEVELS BEFORE EXECUTION
 - THE INSTALLATION OF THE CABINET SHALL BE CARRIED OUT BASED ON SITE CONDITION AS PER THE ENGINEER INSTRUCTION
 - CONTRACTOR SHALL EMBOSS THE BWSR NAME AND VALVE DIA ____ MM AND SERIAL NO: _____ ON THE COVER SLAB (VALVE DIA & SERIAL NUMBER CAN BE MENTIONED AT SITE OF INSTALLATION WITH PAINT)
 - TWO COATS OF NON POISONOUS ANTI CORROSION BITUMINOUS PAINT FOR MS LADDER

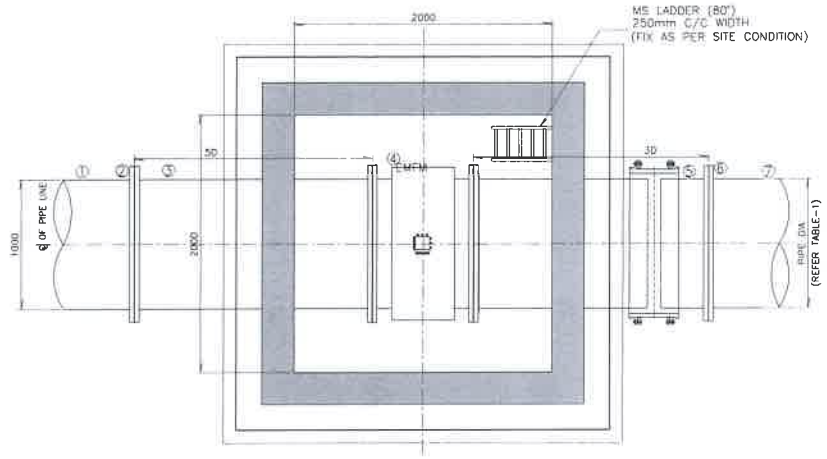


TABLE-1

PIPE DIA	S.No	SPECIALS & FITTINGS	QTY
DI PIPE OF 100-1000mm Dia	1	DI PIPE	1
	2	DI FLANGED SOCKET	1
	3	DI DOUBLE FLANGED PIPE (L=50)	1
	4	FLOW METER	1
	5	DI DOUBLE FLANGED PIPE (L=30)	1
	6	DI FLANGED SOCKET	1
	7	DI PIPE	1

PLAN OF ELECTROMAGNETIC FLOW METER VALVE CHAMBER
(NTS)

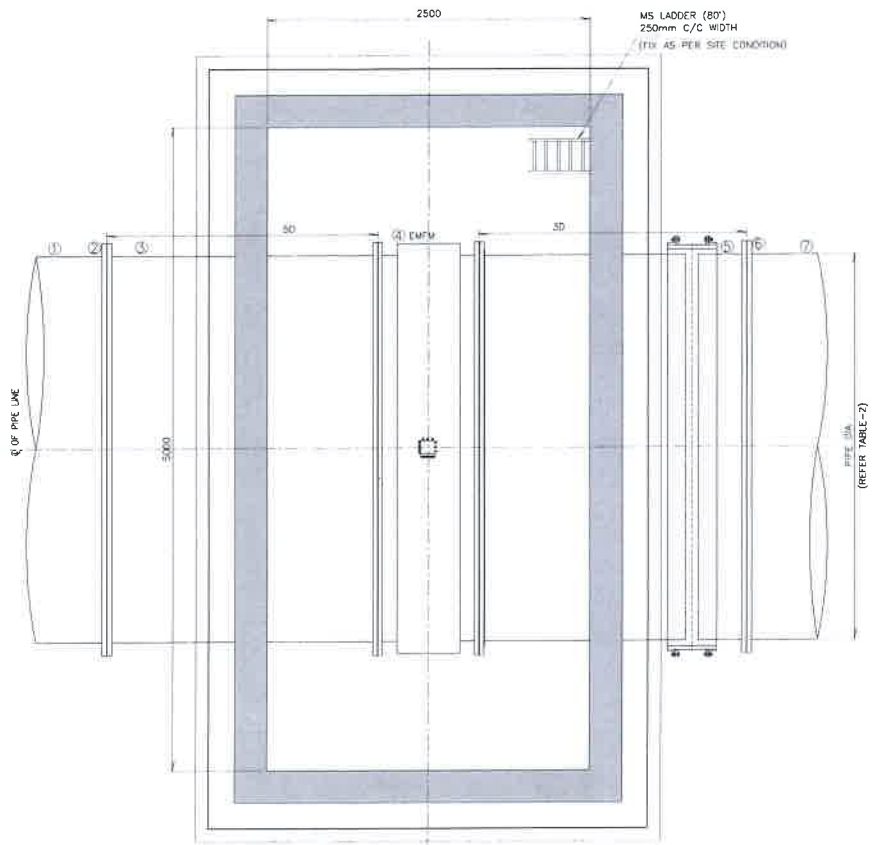


TABLE-2

PIPE DIA	S.No	SPECIALS & FITTINGS	QTY
DI PIPE OF ABOVE 1000-3000mm Dia	1	DI PIPE	1
	2	DI FLANGED SOCKET	1
	3	DI DOUBLE FLANGED PIPE (L=50)	1
	4	FLOW METER	1
	5	DI DOUBLE FLANGED PIPE (L=30)	1
	6	DI FLANGED SOCKET	1
	7	DI PIPE	1

PLAN OF ELECTROMAGNETIC FLOW METER VALVE CHAMBER
(NTS)

CONTRACT PACKAGE NO.	SALIENT FEATURES
CP-02	Water Treatment Plant at TK Halli (775 MLD output Water Treatment Plant with all necessary Electrical Mechanical Instrumentation SCADA etc.)
CP-03	Procurement of Design/Engineering Construction Commissioning of Pump Station and Reservoir at T K Halli with Operations and Maintenance of Seven (7) Years
CP-04	Procurement of Design/Engineering Construction Commissioning of Pump Station and Reservoir at Harohalli and Tataquni with Operations and Maintenance of Seven (7) Years
CP-07	Supplying Fabrication and laying of Clear Water Transmission Main from TK Halli to Harohalli PS
CP-08	Supplying Fabrication and laying of Clear Water Transmission Main from Harohalli PS to Vajarahalli
CP-09	City Trunk Main along Eastern Route
CP-10	City Trunk Main along Western Route
CP-12	Ground Level Reservoirs along Eastern Route at Gottigere (50 ML), Doddakanahalli(48 ML) & Kadugodi(50 ML)
CP-13	Ground Level Reservoirs along Western Route at Lingadannahalli (18 ML), Singapura (20 ML), Vasudevapura (11 ML) & Chikanehalli (65 ML)
CP-24	Centralized SCADA for Monitoring & Control of Water Treatment & Distribution System. SCADA for Monitoring of all Sewerage Treatment Facilities



TO: 27-10-2022	FOR: TENDER PURPOSE	BY: [Signature]
ORDER DATE	DESCRIPTION	IN CV EI MR
FOR TENDER PURPOSE ONLY		
BANGALORE WATER SUPPLY AND SEWERAGE BOARD		
BENGALURU WATER SUPPLY AND SEWERAGE PROJECT (PHASE 3)		
TITLE: SCHEMATIC DIAGRAM FOR FLOW METER CHAMBER OF CP-24 PACKAGE		
PROJECT MANAGEMENT CONSULTANTS:		
ORIENTAL CONSULTANTS GLOBAL CO. LTD RUS ENGINEERS INDIA PVT. LTD TATA CONSULTING ENGINEERS LIMITED IN ASSOCIATION WITH BLACK & VEATCH		
DESIGNED:	APPROVED:	DATE: 27-10-2022
DRAWN:		DATE: 27-10-2022
CHECKED:		DATE: 27-10-2022
SCALE: 1:10	DWG. NO: ONTB BWSRP(3) CP24-CSC-009	DATE: 27-10-2022
FILE NAME: B:\CHTB BWSRP(3) CP24-CSC-009		DATE: 27-10-2022