Well Field Construction Project at
Tetulzhora-Bhakurta Area of Savar
Upazilla(Part-1)

ELECTRICAL DRAWINGS

FOR APPROVAL

March 2017

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

CONSULTANTS

Hankuk Engineering Consultants
H.E.C

SUNG JI Engineering

Institute of Water Medelling

CLIENT

DHAKA WATER SUPPLY
AND SEWERAGE AUTHORITY

CONTRACTOR

HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE	ORIGINAL DRAWING SIZE
Not in Scale	A3 - 420x297

DRAWING No. | REV.

PROJECT
Well Field Construction Project at
Tetulzhora-Bhakurta Area of Savar
Upazilla(Part-1)

TITLE

STATUS
FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10, 2017	DATE March, 10, 2017	DATE March, 10, 2017	DATE

DRAWING LIST

NO.	DWG No.	DRAWING NAME	REV No.	DATE	REMARKS
1	00	DRAWING COVER	1	2017.03.10	
2	E-VP-E-001	DRAWING LIST 1/8	1	2017.03.10	
3	E-VP-E-002	DRAWING LIST 2/8	1	2017.03.10	
4	E-VP-E-003	DRAWING LIST 3/8	1	2017.03.10	
5	E-VP-E-004	DRAWING LIST 4/8	1	2017.03.10	
6	E-VP-E-005	DRAWING LIST 5/8	1	2017.03.10	
7	E-VP-E-006	DRAWING LIST 6/8	1	2017.03.10	
8	E-VP-E-007	DRAWING LIST 7/8	1	2017.03.10	
9	E-VP-E-008	DRAWING LIST 8/8	1	2017.03.10	
10	E-VP-E-009	Electrical Symbol List and Notes on Building Electrical Works 1/2	1	2017.03.10	
11	E-VP-E-010	Electrical Symbol List and Notes on Building Electrical Works 2/2	1	2017.03.10	
12	E-VP-E-011	NAME PLATE METHOD	1	2017.03.10	
13	E-VP-E-012	NAME PLATE LIST 1/6	1	2017.03.10	
14	E-VP-E-013	NAME PLATE LIST 2/6	1	2017.03.10	
15	E-VP-E-014	NAME PLATE LIST 3/6	1	2017.03.10	
16	E-VP-E-015	NAME PLATE LIST 4/6	1	2017.03.10	
17	E-VP-E-016	NAME PLATE LIST 5/6	1	2017.03.10	
18	E-VP-E-017	NAME PLATE LIST 6/6	1	2017.03.10	
19	E-VP-E-018	MATERIAL LIST 1/3	1	2017.03.10	
20	E-VP-E-019	MATERIAL LIST 2/3	1	2017.03.10	
21	E-VP-E-020	MATERIAL LIST 3/3	1	2017.03.10	
22	E-VP-OGR-001	Over Ground Reservoir 11KV & 400V SINGLE LINE DIAGRAM	1	2017.03.10	
23	E-VP-OGR-002	Over Ground Reservoir LV SWGR & Distribution Starter Panel PANEL LAYOUT DIAGRAM	1	2017.03.10	
24	E-VP-OGR-003	Over Ground Reservoir 11KV HV INCOMING PANEL(HVIP-401/402) PANEL LAYOUT DIAGRAM	1	2017.03.10	
25	E-VP-OGR-004	Over Ground Reservoir Electrical Room Layout Plant	1	2017.03.10	

AS BUILT

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1	AS BUILT	GS, Hwang	IY, Ryu	-	July. 25. 2017

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CONTRACTOR

HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale

ORIGINAL DRAWING SIZE: A3 - 420x297

DRAWING No.: E-VP-E-001

REV.:

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: DRAWING LIST1/8

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March. 10. 2017	DATE March. 10. 2017	DATE March. 10. 2017	DATE

DRAWING LIST

NO.	DWG No.	DRAWING NAME	REV No.	DATE	REMARKS
26	E-VP-OGR-HV-001	Over Ground Reservoir HV Incoming Panel(HVIP-401/402)PANEL LAY OUT DRAWING	1	2017.03.10	
27	E-VP-OGR-HV-002	Over Ground Reservoir HV Incoming Panel(HVIP-401/402)DOOR ARRANGEMENT LAY OUT DIAGRAM	1	2017.03.10	
28	E-VP-OGR-HV-003	Over Ground Reservoir HV Incoming Panel(HVIP-401/402)PANEL SECTION DRAWING	1	2017.03.10	
29	E-VP-OGR-HV-004	Over Ground Reservoir HV Incoming Panel(HVIP-401/402)SINGLE LINE DIAGRAM	1	2017.03.10	
30	E-VP-OGR-HV-005	Over Ground Reservoir HV Incoming Panel(HVIP-401)THREE LINE DIAGRAM	1	2017.03.10	
31	E-VP-OGR-HV-006	Over Ground Reservoir HV Incoming Panel(HVIP-402)THREE LINE DIAGRAM	1	2017.03.10	
32	E-VP-OGR-HV-007	Over Ground Reservoir HV Incoming Panel(HVIP-401/402)CONTROL POWER DIAGRAM	1	2017.03.10	
33	E-VP-OGR-HV-008	Over Ground Reservoir HV Incoming Panel(HVIP-401/402)SCHEMATIC DIAGRAM- 1/4	1	2017.03.10	
34	E-VP-OGR-HV-009	Over Ground Reservoir HV Incoming Panel(HVIP-401/402)SCHEMATIC DIAGRAM- 2/4	1	2017.03.10	
35	E-VP-OGR-HV-010	Over Ground Reservoir HV Incoming Panel(HVIP-401/402)SCHEMATIC DIAGRAM- 3/4	1	2017.03.10	
36	E-VP-OGR-HV-011	Over Ground Reservoir HV Incoming Panel(HVIP-401/402)SCHEMATIC DIAGRAM- 4/4	1	2017.03.10	
37	E-VP-OGR-LVI-001	Over Ground Reservoir LV Incoming, Generator(LVIP-401/402, GEIP-401/402)PANEL LAY OUT DRAWING	1	2017.03.10	
38	E-VP-OGR-LVI-002	Over Ground Reservoir LV Incoming, Generator(LVIP-401/402, GEIP-401/402)PANEL SECTION DRAWING	1	2017.03.10	
39	E-VP-OGR-LVI-003	Over Ground Reservoir LV Incoming, Generator(LVIP-401/402, GEIP-401/402)DOOR ARRANGEMENT LAY-OUT DIAGRAM	1	2017.03.10	
40	E-VP-OGR-LVI-004	Over Ground Reservoir LV Incoming, Generator(LVIP-401/402, GEIP-401/402)SINGLE LINE DIAGRAM	1	2017.03.10	
41	E-VP-OGR-LVI-005	Over Ground Reservoir LV Incoming Panel(LVIP-401)THREE LINE DIAGRAM	1	2017.03.10	
42	E-VP-OGR-LVI-006	Over Ground Reservoir LV Generator Panel(GEIP-401/402)THREE LINE DIAGRAM	1	2017.03.10	
43	E-VP-OGR-LVI-007	Over Ground Reservoir LV Incoming Panel(LVIP-402)THREE LINE DIAGRAM	1	2017.03.10	
44	E-VP-OGR-LVI-008	Over Ground Reservoir LV Incoming, Generator Panel(LVIP-401/402, GEIP-401/402)CONTROL POWER DIAGRAM	1	2017.03.10	
45	E-VP-OGR-LVI-009	Over Ground Reservoir LV Incoming Panel(LVIP-401)SCHEMATIC DIAGRAM 1/2	1	2017.03.10	
46	E-VP-OGR-LVI-010	Over Ground Reservoir LV Incoming Panel(LVIP-401)SCHEMATIC DIAGRAM 2/2	1	2017.03.10	
47	E-VP-OGR-LVI-011	Over Ground Reservoir LV Incoming Panel(LVIP-402)SCHEMATIC DIAGRAM 1/2	1	2017.03.10	
48	E-VP-OGR-LVI-012	Over Ground Reservoir LV Incoming Panel(LVIP-402)SCHEMATIC DIAGRAM 2/2	1	2017.03.10	
49	E-VP-OGR-LVI-013	Over Ground Reservoir LV Generator Panel(GEIP-401)SCHEMATIC DIAGRAM 1/2	1	2017.03.10	
50	E-VP-OGR-LVI-014	Over Ground Reservoir LV Generator Panel(GEIP-401)SCHEMATIC DIAGRAM 2/2	1	2017.03.10	

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July. 25. 2017

CONSULTANTS

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CONTRACTOR

HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale

ORIGINAL DRAWING SIZE: A3 - 420x297

DRAWING No.: E-VP-E-002

REV.:

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: DRAWING LIST2/8

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10, 2017	DATE March, 10, 2017	DATE March, 10, 2017	DATE

DRAWING LIST

NO.	DWG No.	DRAWING NAME	REV No.	DATE	REMARKS
51	E-VP-OGR-LVI-015	Over Ground Reservoir LV Generator Panel(GEIP-402)SCHEMATIC DIAGRAM 1/2	1	2017.03.10	
52	E-VP-OGR-LVI-016	Over Ground Reservoir LV Generator Panel(GEIP-402)SCHEMATIC DIAGRAM 2/2	1	2017.03.10	
53	E-VP-OGR-DP-001	Over Ground Reservoir Distribution Pump Starter Panel(DPSP-4P01A~F)PANEL LAYOUT DIAGRAM	1	2017.03.10	
54	E-VP-OGR-DP-002	Over Ground Reservoir Distribution Pump Starter Panel(DPSP-4P01A~F)PANEL SECTION DRAWING	1	2017.03.10	
55	E-VP-OGR-DP-003	Over Ground Reservoir Distribution Pump Starter Panel(DPSP-4P01A~F)DOOR ARRANGEMENT LAY-OUT DIAGRAM	1	2017.03.10	
56	E-VP-OGR-DP-004	Over Ground Reservoir Distribution Pump Starter Panel(DPSP-4P01A~F)THREE LINE DIAGRAM	1	2017.03.10	
57	E-VP-OGR-DP-005	Over Ground Reservoir Distribution Pump Starter Panel(DPSP-4P01A~F)CONTROL POWER DIAGRAM	1	2017.03.10	
58	E-VP-OGR-DP-006	Over Ground Reservoir Distribution Pump Starter Panel(DPSP-4P01A~F)SCHEMATIC DIAGRAM TYPE OF SVT 1/6	1	2017.03.10	
59	E-VP-OGR-DP-007	Over Ground Reservoir Distribution Pump Starter Panel(DPSP-4P01A~F)SCHEMATIC DIAGRAM TYPE OF SVT 2/6	1	2017.03.10	
60	E-VP-OGR-DP-008	Over Ground Reservoir Distribution Pump Starter Panel(DPSP-4P01A~F)SCHEMATIC DIAGRAM TYPE OF SVT 3/6	1	2017.03.10	
61	E-VP-OGR-DP-009	Over Ground Reservoir Distribution Pump Starter Panel(DPSP-4P01A~F)SCHEMATIC DIAGRAM TYPE OF SVT 4/6	1	2017.03.10	
62	E-VP-OGR-DP-010	Over Ground Reservoir Distribution Pump Starter Panel(DPSP-4P01A~F)SCHEMATIC DIAGRAM TYPE OF SVT 5/6	1	2017.03.10	
63	E-VP-OGR-DP-011	Over Ground Reservoir Distribution Pump Starter Panel(DPSP-4P01A~F)SCHEMATIC DIAGRAM TYPE OF SVT 6/6	1	2017.03.10	
64	E-VP-OGR-DP-012	Over Ground Reservoir LOP FOR Distribution Pump Starter Panel(LOP 4P01A~F)PANEL LAYOUT DIAGRAM	1	2017.03.10	
65	E-VP-OGR-DP-013	Over Ground Reservoir LOP FOR Distribution Pump Starter Panel(LOP 4P01A~F)SCHEMATIC DIAGRAM 1/2	1	2017.03.10	
66	E-VP-OGR-DP-014	Over Ground Reservoir LOP FOR Distribution Pump Starter Panel(LOP 4P01A~F)SCHEMATIC DIAGRAM 2/2	1	2017.03.10	
67	E-VP-OGR-LVDP-001	Over Ground Reservoir LV Distribution PANEL(LVDP-401/402)PANEL LAY-OUT DIAGRAM	1	2017.03.10	
68	E-VP-OGR-LVDP-002	Over Ground Reservoir LV Distribution PANEL(LVDP-401/402)DOOR ARRANGEMENT LAY-OUT DIAGRAM	1	2017.03.10	
69	E-VP-OGR-LVDP-003	Over Ground Reservoir LV Distribution PANEL(LVDP-401/402)PANEL SECTION DRAWING	1	2017.03.10	
70	E-VP-OGR-LVDP-004	Over Ground Reservoir LV Distribution PANEL(LVDP-401/402)THREE LINE DIAGRAM	1	2017.03.10	
71	E-VP-OGR-LVDP-005	Over Ground Reservoir LV Distribution PANEL(LVDP-401/402)CONTROL POWER DIAGRAM	1	2017.03.10	
72	E-VP-OGR-LVDP-006	Over Ground Reservoir LV Distribution PANEL(LVDP-401/402)SCHEMATIC DIAGRAM	1	2017.03.10	
73	E-VP-OGR-LVR-001	Over Ground Reservoir DC POWER SUPPLY(LVR-401)PANEL LAY-OUT DIAGRAM	1	2017.03.10	
74	E-VP-OGR-LVR-002	Over Ground Reservoir DC POWER SUPPLY(LVR-401)Single Line DIAGRAM	1	2017.03.10	
75	E-VP-OGR-LVR-003	Over Ground Reservoir DC POWER SUPPLY(LVR-401)CONTROL POWER DIAGRAM	1	2017.03.10	

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

CONSULTANTS
Hankuk Engineering Consultants (H.E.C)
SUNG JI Engineering
Institute of Water Medelling

CLIENT
DHAKA WATER SUPPLY AND SEWERAGE AUTHORITY (WASA)

CONTRACTOR
HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale
ORIGINAL DRAWING SIZE: A3 - 420x297
DRAWING No.: E-VP-E-003
REV.:

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: DRAWING LIST3/8

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10, 2017	DATE March, 10, 2017	DATE March, 10, 2017	DATE

DRAWING LIST

NO.	DWG No.	DRAWING NAME	REV No.	DATE	REMARKS
76	E-VP-OGR-MCC-001	Over Ground Reservoir MCC PANEL(MCC-401)PANEL LAY-OUT DRAWING 1/2	1	2017.03.10	
77	E-VP-OGR-MCC-002	Over Ground Reservoir MCC PANEL(MCC-401)PANEL LAY-OUT DRAWING 2/2	1	2017.03.10	
78	E-VP-OGR-MCC-003	Over Ground Reservoir MCC PANEL(MCC-401)Single Line Diagram 1/2	1	2017.03.10	
79	E-VP-OGR-MCC-004	Over Ground Reservoir MCC PANEL(MCC-401)Single Line Diagram 2/2	1	2017.03.10	
80	E-VP-OGR-MCC-005	Over Ground Reservoir MCC PANEL(MCC-401)PANEL THREE LINE & SCHEMATIC DIAGRAM 1/2	1	2017.03.10	
81	E-VP-OGR-MCC-006	Over Ground Reservoir MCC PANEL(MCC-401)PANEL THREE LINE & SCHEMATIC DIAGRAM 2/2	1	2017.03.10	
82	E-VP-OGR-MCC-007	Over Ground Reservoir MCC PANEL(MCC-401)PANEL THREE LINE DIAGRAM 1/2	1	2017.03.10	
83	E-VP-OGR-MCC-008	Over Ground Reservoir MCC PANEL(MCC-401)PANEL THREE LINE DIAGRAM 2/2	1	2017.03.10	
84	E-VP-OGR-LCP-001	Over Ground Reservoir LOP FOR SUMP PUMP(LOP-4P02A/B)PANEL LAY-OUT DRAWING	1	2017.03.10	
85	E-VP-OGR-LCP-002	Over Ground Reservoir LOP FOR SUMP PUMP(LOP-4P02A/B)PANEL THREE LINE DIAGRAM	1	2017.03.10	
86	E-VP-OGR-LCP-003	Over Ground Reservoir LOP FOR SUMP PUMP(LOP-4P02A/B)SCHEMATIC DIAGRAM	1	2017.03.10	
87	E-VP-OGR-IVSP1-001	Over Ground Reservoir Distribution PUMP PANEL(VFD) (IVSP-401)PANEL LAY-OUT DRAWING	1	2017.03.10	
88	E-VP-OGR-IVSP1-002	Over Ground Reservoir Distribution PUMP PANEL(VFD) (IVSP-401)PANEL SECTION DRAWING	1	2017.03.10	
89	E-VP-OGR-IVSP1-003	Over Ground Reservoir Distribution PUMP PANEL(VFD) (IVSP-401)DOOR ARRANGEMENT LAY-OUT DIAGRAM	1	2017.03.10	
90	E-VP-OGR-IVSP1-004	Over Ground Reservoir Distribution PUMP PANEL(VFD) (IVSP-401)THREE LINE DIAGRAM	1	2017.03.10	
91	E-VP-OGR-IVSP1-005	Over Ground Reservoir Distribution PUMP PANEL(VFD) (IVSP-401)SCHEMATIC DIAGRAM	1	2017.03.10	
92	E-VP-OGR-IVSP2-006	Over Ground Reservoir Distribution PUMP PANEL(VFD) (IVSP-401)SCHEMATIC DIAGRAM	1	2017.03.10	
93	E-VP-OGR-IVSP2-001	Over Ground Reservoir Distribution PUMP PANEL(VFD) (IVSP-402)PANEL LAY-OUT DRAWING	1	2017.03.10	
94	E-VP-OGR-IVSP2-002	Over Ground Reservoir Distribution PUMP PANEL(VFD) (IVSP-402)PANEL SECTION DRAWING	1	2017.03.10	
95	E-VP-OGR-IVSP2-003	Over Ground Reservoir Distribution PUMP PANEL(VFD) (IVSP-402)DOOR ARRANGEMENT LAY-OUT DIAGRAM	1	2017.03.10	
96	E-VP-OGR-IVSP2-004	Over Ground Reservoir Distribution PUMP PANEL(VFD) (IVSP-402)THREE LINE DIAGRAM	1	2017.03.10	
97	E-VP-OGR-IVSP2-005	Over Ground Reservoir Distribution PUMP PANEL(VFD) (IVSP-402)SCHEMATIC DIAGRAM	1	2017.03.10	
98	E-VP-OGR-IVSP2-006	Over Ground Reservoir Distribution PUMP PANEL(VFD) (IVSP-402)SCHEMATIC DIAGRAM	1	2017.03.10	
99	E-VP-OGR-IVBT-001	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)PANEL LAY-OUT DRAWING	1	2017.03.10	
100	E-VP-OGR-IVBT-002	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)PANEL SECTION DRAWING	1	2017.03.10	

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

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SUNG JI Engineering
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CONTRACTOR
HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale
ORIGINAL DRAWING SIZE: A3 - 420x297
DRAWING No.: E-VP-E-004
REV.:

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: DRAWING LIST4/8

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10, 2017	DATE March, 10, 2017	DATE March, 10, 2017	DATE

DRAWING LIST

NO.	DWG No.	DRAWING NAME	REV No.	DATE	REMARKS
101	E-VP-OGR-IVBT-003	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)DOOR ARRANGEMENT LAY-OUT DIAGRAM	1	2017.03.10	
102	E-VP-OGR-IVBT-004	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)SINGLE LINE DIAGRAM	1	2017.03.10	
103	E-VP-OGR-IVBT-005	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)PANEL THREE LINE DIAGRAM	1	2017.03.10	
104	E-VP-OGR-IVBT-006	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)CONTROL POWER DIAGRAM	1	2017.03.10	
105	E-VP-OGR-IVBT-007	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)SCHEMATIC DIAGRAM	1	2017.03.10	
106	E-VP-OGR-IVBT-008	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)PLC CONFIGURATION DIAGRAM	1	2017.03.10	
107	E-VP-OGR-IVBT-009	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)PLC CONTROL DIAGRAM	1	2017.03.10	
108	E-VP-OGR-IVBT-010	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)PLC SCHEMATIC DIAGRAM	1	2017.03.10	
109	E-VP-OGR-IVBT-011	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)PLC SCHEMATIC DIAGRAM	1	2017.03.10	
110	E-VP-OGR-IVBT-012	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)PLC SCHEMATIC DIAGRAM	1	2017.03.10	
111	E-VP-OGR-IVBT-013	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)PLC SCHEMATIC DIAGRAM	1	2017.03.10	
112	E-VP-OGR-IVBT-014	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)PLC SCHEMATIC DIAGRAM	1	2017.03.10	
113	E-VP-OGR-IVBT-015	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)PLC INPUT SCHEMATIC DIAGRAM	1	2017.03.10	
114	E-VP-OGR-IVBT-016	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)PLC INPUT SCHEMATIC DIAGRAM	1	2017.03.10	
115	E-VP-OGR-IVBT-017	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)PLC INPUT SCHEMATIC DIAGRAM	1	2017.03.10	
116	E-VP-OGR-IVBT-018	Over Ground Reservoir Inverter BUS TIE Panel (IVBT-403)PLC INPUT SCHEMATIC DIAGRAM	1	2017.03.10	
117	E-VP-IRP#1-001	Iron Removal Plant # 1 ELECTRICAL EQUIPMENT LAYOUT PLAN	1	2017.03.10	
118	E-VP-IRP#1-002	Iron Removal Plant #1 (MCC-201, ABP-2M01A/B)PANEL LAY-OUT DIAGRAM	1	2017.03.10	
119	E-VP-IRP#1-ABP-001	Iron Removal Plant # 1 AIR BLOWER PANEL(VFD) (ABP-2M01A/B)PANEL LAY-OUT DIAGRAM	1	2017.03.10	
120	E-VP-IRP#1-ABP-002	Iron Removal Plant # 1 AIR BLOWER PANEL(VFD) (ABP-2M01A/B)DOOR ARRANGEMENT LAY-OUT DIAGRAM	1	2017.03.10	
121	E-VP-IRP#1-ABP-003	Iron Removal Plant # 1 AIR BLOWER PANEL(VFD) (ABP-2M01A/B)THREE LINE & CONTROL POWER DIAGRAM	1	2017.03.10	
122	E-VP-IRP#1-ABP-004	Iron Removal Plant # 1 AIR BLOWER PANEL(VFD) (ABP-2M01A/B)SCHEMATIC DIAGRAM	1	2017.03.10	
123	E-VP-IRP#1-MCC-001	Iron Removal Plant # 1 (MCC-201) PANEL LAY-OUT DIAGRAM	1	2017.03.10	
124	E-VP-IRP#1-MCC-002	Iron Removal Plant # 1 (MCC-201) PANEL SINGLE LINE DIAGRAM	1	2017.03.10	
125	E-VP-IRP#1-MCC-003	Iron Removal Plant # 1 (MCC-201) PANEL BACKWASH REUSE PUMP THREE LINE & SCHEMATIC DIAGRAM	1	2017.03.10	

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

CONSULTANTS
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CLIENT
DHAKA WATER SUPPLY AND SEWERAGE AUTHORITY

CONTRACTOR
HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale
ORIGINAL DRAWING SIZE: A3 - 420x297
DRAWING No.: E-VP-E-005
REV.:

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: DRAWING LIST5/8

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10, 2017	DATE March, 10, 2017	DATE March, 10, 2017	DATE

DRAWING LIST

NO.	DWG No.	DRAWING NAME	REV No.	DATE	REMARKS
126	E-VP-IRP#1-MCC-004	Iron Removal Plant # 1 (MCC-201) PANEL DRYING BED REUSE PUMP #A,#B SCHEMATIC DIAGRAM	1	2017.03.10	
127	E-VP-IRP#1-MCC-005	Iron Removal Plant # 1 (MCC-201) PANEL (SPARE) THREE LINE & SCHEMATIC DIAGRAM	1	2017.03.10	
128	E-VP-IRP#1-MCC-006	Iron Removal Plant # 1 (MCC-201) PANEL THREE DIAGRAM	1	2017.03.10	
129	E-VP-IRP#1-MCC-007	Iron Removal Plant # 1 (MCC-201) PANEL THREE DIAGRAM	1	2017.03.10	
130	E-VP-IRP#1-MCC-008	Iron Removal Plant # 1 (MCC-201) PANEL THREE DIAGRAM	1	2017.03.10	
131	E-VP-IRP#1-LOP-001	Iron Removal Plant # 1 LOP FOR AIR BLOWER (LOP-2M01A/B) PANEL LAY OUT DIAGRAM	1	2017.03.10	
132	E-VP-IRP#1-LOP-002	Iron Removal Plant # 1 LOP FOR AIR BLOWER (LOP-2M01A/B) SCHEMATIC DIAGRAM	1	2017.03.10	
133	E-VP-IRP#1-LOP-003	Iron Removal Plant # 1 LOP FOR BACKWASH RESUE PUMP (LOP-2P01A/B) PANEL LAY OUT DIAGRAM	1	2017.03.10	
134	E-VP-IRP#1-LOP-004	Iron Removal Plant # 1 LOP FOR BACKWASH RESUE PUMP (LOP-2P01A/B) SCHEMATIC DIAGRAM	1	2017.03.10	
135	E-VP-IRP#1-LOP-005	Iron Removal Plant # 1 LOP FOR DRING BED REUSE PUMP #A(2P03A) PANEL LAYOUT DIAGRAM	1	2017.03.10	
136	E-VP-IRP#1-LOP-006	Iron Removal Plant # 1 LOP FOR DRING BED REUSE PUMP #A(2P03A) SCHEMATIC DIAGRAM	1	2017.03.10	
137	E-VP-IRP#1-LOP-007	Iron Removal Plant # 1 LOP FOR DRING BED REUSE PUMP #B(2P03B) PANEL LAYOUT DIAGRAM	1	2017.03.10	
138	E-VP-IRP#1-LOP-008	Iron Removal Plant # 1 LOP FOR DRING BED REUSE PUMP #B(2P03B) SCHEMATIC DIAGRAM	1	2017.03.10	
139	E-VP-IRP#1-LOP-009	Iron Removal Plant # 1 MOP FOR SUMP PUMP (MOP-2P04A/B) PANEL LAYOUT DIAGRAM	1	2017.03.10	
140	E-VP-IRP#1-LOP-010	Iron Removal Plant # 1 MOP FOR SUMP PUMP (MOP-2P04A/B) PANEL THREE DIAGRAM	1	2017.03.10	
141	E-VP-IRP#1-LOP-011	Iron Removal Plant # 1 MOP FOR SUMP PUMP (MOP-2P04A/B) SCHEMATIC DIAGRAM	1	2017.03.10	
142	E-VP-IRP#1-LOP-012	Iron Removal Plant # 1 MOP FOR SUMP PUMP (MOP-2P04A/B) SCHEMATIC DIAGRAM	1	2017.03.10	
143	E-VP-IRP#2-001	Iron Removal Plant # 2 11KV and 400V SINGLE LINE DIAGRAM	1	2017.03.10	
144	E-VP-IRP#2-002	Iron Removal Plant # 2 ELECTRICAL EQUIPMENT LAYOUT PLAN	1	2017.03.10	
145	E-VP-IRP#2-003	Iron Removal Plant # 2 LV Incoming, Air Blower, MCC (LV-301,302)(MCC-301)(ABP-3M01A/B)PANEL LAY OUT DIAGRAM	1	2017.03.10	
146	E-VP-IRP#2-LV-001	Iron Removal Plant # 2 LV Incoming(LV-301/302)PANEL LAY-OUT DIAGRAM	1	2017.03.10	
147	E-VP-IRP#2-LV-002	Iron Removal Plant # 2 LV Incoming(LV-301)PANEL DOOR ARRANGEMENT LAY-OUT DIAGRAM	1	2017.03.10	
148	E-VP-IRP#2-LV-003	Iron Removal Plant # 2 LV Incoming(LV-302)PANEL DOOR ARRANGEMENT LAY-OUT DIAGRAM	1	2017.03.10	
149	E-VP-IRP#2-LV-004	Iron Removal Plant # 2 LV Incoming(LV-301)PANEL SECTION DRAWING	1	2017.03.10	
150	E-VP-IRP#2-LV-005	Iron Removal Plant # 2 LV Incoming(LV-302)PANEL SECTION DRAWING	1	2017.03.10	

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

CONSULTANTS
Hankuk Engineering Consultants (H.E.C)
SUNG JI Engineering
Institute of Water Medelling

CLIENT
DHAKA WATER SUPPLY AND SEWERAGE AUTHORITY

CONTRACTOR
HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale
ORIGINAL DRAWING SIZE: A3 - 420x297
DRAWING No.: E-VP-E-006
REV.:

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: DRAWING LIST6/8

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10, 2017	DATE March, 10, 2017	DATE March, 10, 2017	DATE

DRAWING LIST

NO.	DWG No.	DRAWING NAME	REV No.	DATE	REMARKS
151	E-VP-IRP#2-LV-006	Iron Removal Plant # 2 LV Incoming(LV-301)THREE LINE DIAGRAM	1	2017.03.10	
152	E-VP-IRP#2-LV-007	Iron Removal Plant # 2 LV Incoming(LV-302)THREE LINE DIAGRAM	1	2017.03.10	
153	E-VP-IRP#2-LV-008	Iron Removal Plant # 2 LV Incoming(LV-301/302)CONTROL POWER DIAGRAM	1	2017.03.10	
154	E-VP-IRP#2-LV-009	Iron Removal Plant # 2 LV Incoming(LV-301)SCHEMATIC DIAGRAM 1/3	1	2017.03.10	
155	E-VP-IRP#2-LV-010	Iron Removal Plant # 2 LV Incoming(LV-301)SCHEMATIC DIAGRAM 2/3	1	2017.03.10	
156	E-VP-IRP#2-LV-011	Iron Removal Plant # 2 LV Incoming(LV-301)SCHEMATIC DIAGRAM 3/3	1	2017.03.10	
157	E-VP-IRP#2-LV-012	Iron Removal Plant # 2 LV Incoming(LV-302)ATS SCHEMATIC DIAGRAM	1	2017.03.10	
158	E-VP-IRP#2-ABP-001	Iron Removal Plant #2 AIR BLOWER PANEL(VFD) (ABP-3M01A/B)PANEL LAY-OUT DIAGRAM	1	2017.03.10	
159	E-VP-IRP#2-ABP-002	Iron Removal Plant #2 AIR BLOWER PANEL(VFD) (ABP-3M01A/B)DOOR ARRANGEMENT LAY-OUT DIAGRAM	1	2017.03.10	
160	E-VP-IRP#2-ABP-003	Iron Removal Plant #2 AIR BLOWER PANEL(VFD) (ABP-3M01A/B)THREE LINE & CONTROL POWER DIAGRAM	1	2017.03.10	
161	E-VP-IRP#2-ABP-004	Iron Removal Plant #2 AIR BLOWER PANEL(VFD) (ABP-3M01A/B)SCHEMATIC DIAGRAM	1	2017.03.10	
162	E-VP-IRP#2-MCC-001	Iron Removal Plant #2 MCC PANEL(MCC-301)PANEL LAY-OUT DIAGRAM	1	2017.03.10	
163	E-VP-IRP#2-MCC-002	Iron Removal Plant #2 MCC PANEL(MCC-301)PANEL SINGLE LINE DIAGRAM	1	2017.03.10	
164	E-VP-IRP#2-MCC-003	Iron Removal Plant #2 MCC PANEL(MCC-301)BACKWASH REUSE PUMP THREE LINE & SCHEMATIC DIAGRAM	1	2017.03.10	
165	E-VP-IRP#2-MCC-004	Iron Removal Plant #2 MCC PANEL(MCC-301)DRYING BED REUSE PUMP #A/#B SCHEMATIC DIAGRAM	1	2017.03.10	
166	E-VP-IRP#2-MCC-005	Iron Removal Plant #2 MCC PANEL(MCC-301)SPARE THREE LINE & SCHEMATIC DIAGRAM	1	2017.03.10	
167	E-VP-IRP#2-MCC-006	Iron Removal Plant #2 MCC PANEL(MCC-301)THREE DIAGRAM	1	2017.03.10	
168	E-VP-IRP#2-MCC-007	Iron Removal Plant #2 MCC PANEL(MCC-301)THREE DIAGRAM	1	2017.03.10	
169	E-VP-IRP#2-MCC-008	Iron Removal Plant #2 MCC PANEL(MCC-301)THREE DIAGRAM	1	2017.03.10	
160	E-VP-IRP#2-LOP-001	Iron Removal Plant #2 LOP FOR AIR BLOWER (LOP-3M01A/B) PANEL LAY OUT DIAGRAM	1	2017.03.10	
171	E-VP-IRP#2-LOP-002	Iron Removal Plant #2 LOP FOR AIR BLOWER (LOP-3M01A/B) SCHEMATIC DIAGRAM	1	2017.03.10	
172	E-VP-IRP#2-LOP-003	Iron Removal Plant #2 LOP FOR BACKWASH RESUE PUMP (LOP-3P01A/B) PANEL LAY OUT DIAGRAM	1	2017.03.10	
173	E-VP-IRP#2-LOP-004	Iron Removal Plant #2 LOP FOR BACKWASH RESUE PUMP (LOP-3P01A/B) SCHEMATIC DIAGRAM	1	2017.03.10	
174	E-VP-IRP#2-LOP-005	Iron Removal Plant #2 LOP FOR DRING BED REUSE PUMP #A(3P03A) PANEL LAYOUT DIAGRAM	1	2017.03.10	
175	E-VP-IRP#2-LOP-006	Iron Removal Plant #2 LOP FOR DRING BED REUSE PUMP #A(3P03A) SCHEMATIC DIAGRAM	1	2017.03.10	

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

CONSULTANTS
Hankuk Engineering Consultants (H.E.C)
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Institute of Water Medelling

CLIENT
DHAKA WATER SUPPLY AND SEWERAGE AUTHORITY

CONTRACTOR
HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale
ORIGINAL DRAWING SIZE: A3 - 420x297
DRAWING No.: E-VP-E-007
REV.:

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: DRAWING LIST7/8

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10, 2017	DATE March, 10, 2017	DATE March, 10, 2017	DATE

DRAWING LIST

NO.	DWG No.	DRAWING NAME	REV No.	DATE	REMARKS
176	E-VP-IRP#2-LOP-007	Iron Removal Plant #2 LOP FOR DRING BED REUSE PUMP #B(3P03B) PANEL LAYOUT DIAGRAM	1	2017.03.10	
177	E-VP-IRP#2-LOP-008	Iron Removal Plant #2 LOP FOR DRING BED REUSE PUMP #B(3P03B) SCHEMATIC DIAGRAM	1	2017.03.10	
178	E-VP-IRP#2-LOP-009	Iron Removal Plant #2 MOP FOR SUMP PUMP (MOP-3P04A/B) PANEL LAYOUT DIAGRAM	1	2017.03.10	
179	E-VP-IRP#2-LOP-010	Iron Removal Plant #2 MOP FOR SUMP PUMP (MOP-3P04A/B) PANEL THREE DIAGRAM	1	2017.03.10	
180	E-VP-IRP#2-LOP-011	Iron Removal Plant #2 MOP FOR SUMP PUMP (MOP-3P04A/B) SCHEMATIC DIAGRAM	1	2017.03.10	
181	E-VP-IRP#2-LOP-012	Iron Removal Plant #2 MOP FOR SUMP PUMP (MOP-3P04A/B) SCHEMATIC DIAGRAM	1	2017.03.10	
182	E-VP-DW-001	Deep Tube Well 11KV and 400V SINGLE LINE DIAGRAM	1	2017.03.10	
183	E-VP-DW-002	Deep Tube Well ELECTRICAL EQUPMENT & CABLE TRENCH LAYOUT PLAN	1	2017.03.10	
184	E-VP-DW-003	Deep Tube Well PANEL LAY-OUT DIAGRAM	1	2017.03.10	
185	E-VP-DW-LV-001	Deep Tube Well LV INCOMING PANEL(LV-101~146)PANEL LAY-OUT DIAGRAM	1	2017.03.10	
186	E-VP-DW-LV-002	Deep Tube Well LV INCOMING PANEL(LV-101~146)DOOR ARRANGEMENT LAY-OUT DIAGRAM	1	2017.03.10	
187	E-VP-DW-LV-003	Deep Tube Well LV INCOMING PANEL(LV-101~146)PANEL SECTION DRAWING	1	2017.03.10	
188	E-VP-DW-LV-004	Deep Tube Well LV INCOMING PANEL(LV-101~146)THREE LINE DIAGRAM	1	2017.03.10	
189	E-VP-DW-LV-005	Deep Tube Well LV INCOMING PANEL(LV-101~146)CONTROL POWER DIAGRAM	1	2017.03.10	
190	E-VP-DW-LV-006	Deep Tube Well LV INCOMING PANEL(LV-101~146)SCHEMATIC DIAGRAM	1	2017.03.10	
191	E-VP-DW-LV-007	Deep Tube Well LV INCOMING PANEL(LV-101~146)SCHEMATIC DIAGRAM	1	2017.03.10	
192	E-VP-DW-LV-008	Deep Tube Well LV INCOMING PANEL(LV-101~146)ATS SCHEMATIC DIAGRAM	1	2017.03.10	
193	E-VP-DW-VFD-001	Deep Tube Well PRODUCT WATER PUMP(VFD)STARTER PANEL(PWP-IP01~IP46)PANEL LAY-OUT DIAGRAM	1	2017.03.10	
194	E-VP-DW-VFD-002	Deep Tube Well PRODUCT WATER PUMP(VFD)STARTER PANEL(PWP-IP01~IP46)DOOR ARRANGEMENT LAY-OUT DIAGRAM	1	2017.03.10	
195	E-VP-DW-VFD-003	Deep Tube Well PRODUCT WATER PUMP(VFD)STARTER PANEL(PWP-IP01~IP46)THREE LINE & CONTROL POWER DIAGRAM	1	2017.03.10	
196	E-VP-DW-VFD-004	Deep Tube Well PRODUCT WATER PUMP(VFD)STARTER PANEL(PWP-IP01~IP46)SCHEMATIC DIAGRAM	1	2017.03.10	

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

CONSULTANTS
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SUNG JI Engineering
Institute of Water Medelling

CLIENT
DHAKA WATER SUPPLY AND SEWERAGE AUTHORITY (WASA)

CONTRACTOR
HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale
ORIGINAL DRAWING SIZE: A3 - 420x297
DRAWING No.: E-VP-E-008
REV.:

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: DRAWING LIST8/8

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10, 2017	DATE March, 10, 2017	DATE March, 10, 2017	DATE

LEGEND

SYMBOL	MEANING	SYMBOL	MEANING
MDB	Electrical Main Distribution Board	TD	4X20 Watt Ceiling Mounted fluorescent light fittings(2ft) with reflector
DB	Distribution board, DB (1350 mm from floor level)	PL	500 Watt Incandescent/250 Watt High pressure mercury vapor pendent Light fixture with reflector/ reflective system
SDB	Electrical Sub- Distribution Board	EF	300mm (12") Exhaust Fan
SB	Switch Board, SB (1200 mm from floor level)	EF	Above 250 Watt Exhaust Fan for Air Ventilation system
SBe	Emergency Switch Board (1200 mm from floor level)	PB	Bell Push
DP	Double Pole Switch (1350 mm from floor level)	CB	Calling Bell
CL/B	20/25 Watt Ceiling /65 Watt Wall Mounted Energy Saver Light fittings	ICTPNL	15A-60A Iron clad triple pole and neutral line isolating switch
BL	1 X 60 Watt Wall Mounted Bracket Light Fitting	ICDP	15A-60A Iron clad double pole isolating switch
FL	500 Watt Flood Light fittings with reflector	P	5A 2/3-pin combined or 3pin Switch Socket Outlet
STL	150 watt high pressure sodium or 65/85 watt Energy saver Street Light fittings with reflector	Q	15A/20A 3pin Switch Socket Outlet
F	Ceiling Fan(Sweep 56", 48", 36")	GP	15A 3pin Socket Outlet for Geyser
SL	1X100 Watt Security Light Fittings with reflector water proof Type		3 Gang 1 way switch
TL	1X 40 Watt Wall Mounted Fluorescent Light Fitting (4 ft)		4 Gang 1 way switch
TA	1X40 Watt Ceiling Suspended fluorescent light fittings (4ft) with reflector	TV	Television Outlet
CT	2X 40 Watt Ceiling suspended Fluorescent Light Fitting (4 ft) with reflector	T	Telephone Outlet
GTL	100 Watt Energy Saving Gate Light fittings (Wall Mounted)	IC	Intercom Outlet
TC	1X20 Watt Ceiling Mounted fluorescent light fittings (2ft) with cover	PABX	Telephone Distribution Board/PABX
ML	1ft Fluorescent Mirror Light Fitting	TV JB/TJB	Television Cable/Telephone Cable Junction Box
A/C	Air Cooler Window Type	A/C	Air Cooler Split Type

NOTES: (About Cables, Conduit & Others)
Please Carefully Read the Following Notes

A. Cables (For Internal Wiring)

1. Each Switch board (SB) to Light / Fan Point it is recommended to use 3X1C-1.5 Sq.mm BYA Cable
2. From Switch board (SB) to DB /SDB and SB to SB it is recommended to use 3X1C-2.5 Sq.mm BYA Cable
3. From 3-Pin(5A) Switch Socket Outlet to DB /SDB and 5 A Switch socket to 5A switch socket outlet it is recommended to use 3X1C-4.0 Sq.mm BYA Cable
4. From 3-Pin(15A/20A) Socket Outlet to DB /SDBit is recommended to use 3X1C-4 Sq.mm BYA Cable
5. Phase cable Insulation color will be read , yellow, blue & neutral cable Insulation color will be block and Earthling (ECC) Cable Installation color will be Green.

B. Conduit (For Internal Wiring)

1. All Conduit Size-1" - OR -3/4" Φ Water Grade PVC Conduit Unless or otherwise it is specified in the Schedule
2. Minimum Thickness of Conduit - 2 mm ,if not specified in the schedule.
3. Brand of Conduit -Aziz/Lira or any other approved brand.

C. Special Notes:

1. Switch Board Height 1350 mm from Finished Floor Level to Bottom of Switch Board.
2. Telephone, TV-Outlet & 3-Pin, 5A, 2-Pin 5A Switch Socket outlet Height 225 mm from Finish Floor Level to Bottom of Socket Outlet.
3. All wall mounted light fixture should be mounted at a height 2250 mm from finished Floor Level.
4. 20A 3-Pin Socket (for A/C) or Air ventilation Fan/ Exhaust Fan Should be installed at Lintel Level & ICDP/ICTPNL isolating Switch should be provided at a height 1350 mm from Finished floor level.
5. If any Change is Required as per site requirement please clearly marked it on the drawing sheet.
6. Proper Earthling is Essential for any type of Electrical Installation. So it is Strongly Recommended to Provide Earthling as per Design.

Conceled Cable & Conduit Line
Under Ground Cable & Conduit

–TV– Television Cable
--T– Telephone Cable

One Gang two way switch
Two Gang two way switch

TB Battery type fluorescent light fitting for Emergency used

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

CONSULTANTS
Hankuk Engineering Consultants H.E.C
SUNG JI Engineering
Institute of Water Medelling

CLIENT
DHAKA WATER SUPPLY AND SEWERAGE AUTHORITY

CONTRACTOR
HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE	ORIGINAL DRAWING SIZE
Not in Scale	A3 - 420x297

DRAWING No. E-VP-E-009 REV.

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: **Electrical Symbol and Notes on Building Electrical Works**

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10. 2017	DATE March, 10. 2017	DATE March, 10. 2017	DATE

ROTATING MACHINE

SYNCHRONOUS GENERATOR, 3-PHASE

AC INDUCTION MOTOR, 3-PHASE
* N : NORMAL DUTY
S : STAND-BY

DC MOTOR

POWER TRANSFORMERS

SINGLE PHASE TRANSFORMER, TWO WINDINGS

3-PHASE TRANSFORMER, TWO WINDINGS

3-PHASE TRANSFORMER, THREE WINDINGS

NOTE : THE ASTERISK WILL BE REPLACED BY ONE OF THE CORRESPONDING VECTOR SYMBOLS OF TRANSFORMER

TRANSFORMER VECTOR SYMBOLS

3-PHASE, 3-WIRE, DELTA

3-PHASE, 3-WIRE, DELTA GROUNDED

3-PHASE, OPEN DELTA

3-PHASE, OPEN DELTA GROUNDED AT COMMON POINT

3-PHASE, BROKEN DELTA

3-PHASE, WYE UNGROUNDED

3-PHASE, WYE GROUNDED NEUTRAL

LIGHTNING ARRESTERS

LA : LIGHTNING ARRESTER
SA : SURGE ARRESTER
SS : SURGE SUPPRESSOR

DISCHARGE COUNTER

INSTRUMENT TRANSFORMERS

CURRENT TRANSFORMER

ZERO PHASE CURRENT TRANSFORMER

POTENTIAL TRANSFORMER

CIRCUIT BREAKERS

POWER CIRCUIT BREAKER, FIXED TYPE
GCB : SF6 GAS CIRCUIT BREAKER
VCB : VACUUM CIRCUIT BREAKER
ACB : AIR CIRCUIT BREAKER

POWER CIRCUIT BREAKER, DRAWOUT TYPE

CIRCUIT BREAKER, FIXED TYPE
MCCB : MOULDED CASE CIRCUIT BREAKER
MCB : MINIATURE CIRCUIT BREAKER

CIRCUIT BREAKER, DRAWOUT TYPE

WITHDRAWABLE INTERCONNECTOR

CIRCUIT BREAKER, MANUALLY OPERATED FIXED TYPE WITH THERMAL & MAGNETIC TRIP

CIRCUIT BREAKER, MANUALLY OPERATED FIXED TYPE WITH MAGNETIC TRIP ONLY

CIRCUIT BREAKER, MANUALLY OPERATED DRAWOUT TYPE WITH THERMAL & MAGNETIC TRIP

CIRCUIT BREAKER, MANUALLY OPERATED FIXED TYPE WITH THERMAL & MAGNETIC TRIP AND RESIDUAL CURRENT RELEASE

SWITCHES

DISCONNECTOR SWITCH, SINGLE THROW MANUALLY OPERATED

LOAD BREAK SWITCH, SINGLE THROW MANUALLY OPERATED,

EARTHING SWITCH, SINGLE THROW MANUALLY OPERATED

DISCONNECTOR SWITCH, SINGLE THROW MOTOR OPERATED

EARTHING SWITCH, SINGLE THROW MOTOR OPERATED

VACUUM CIRCUIT SWITCH

FUSED DISCONNECTOR SWITCH

FUSE-SWITCH

LIMIT SWITCH (MAKE CONTACT)

LIMIT SWITCH (BREAK CONTACT)

PUSH BUTTON, NORMALLY OPEN MOMENTARY CONTACT

PUSH BUTTON, NORMALLY CLOSED MOMENTARY CONTACT

PUSH BUTTON, NORMALLY OPEN PUSH TO LOCK, RELEASED BY KEY

MANUAL SELECTOR SWITCH (LOCKED)

CONTACTORS AND STARTERS

AUX. CONTACT, NORMALLY OPEN WHEN MAIN SWITCHING DEVICE IS DE-ENERGIZED

AUX. CONTACT, NORMALLY CLOSED WHEN MAIN SWITCHING DEVICE IS DE-ENERGIZED

MAGNETIC CONTACTOR, ELECTRICALLY OPERATED

COMBINATION STARTER, FULL VOLTAGE, NON-REVERSING, DRAWOUT TYPE, WITH ELECTRICALLY OPERATED CONTACTORS, WITH MAGNETIC MOTOR CIRCUIT BREAKER, BUILT IN ELECTRONIC OVER-CURRENT RELAY WITH ADJUSTABLE TRIP RATING

COMBINATION STARTER, FULL VOLTAGE, NON-REVERSING, FIXED TYPE, WITH ELECTRICALLY OPERATED CONTACTORS, WITH MAGNETIC MOTOR CIRCUIT BREAKER, BUILT IN THERMAL OVER-CURRENT RELAY WITH ADJUSTABLE TRIP RATING

GRAPHIC SYMBOLS

GENERAL OPERATING COIL

CAPACITOR

CAPACITOR VOLTAGE TRANSFORMER(CVT)

RESISTOR

DIODE

CONTROLLED RECTIFIER

DC-DC CONVERTER

RECTIFIER, BATTERY CHARGER

DC-AC INVERTER

BATTERY BANK

ELECTRIC HEATER, INDICATE 1* OR 3* AND kW RATING. UNLESS OTHERWISE SPECIFIED, TO BE REGARDED AS 1*.

EARTHING CONNECTION

DISCONNECTION LINK

CROSSING OF CONDUCTORS NOT CONNECTED

OR

JUNCTION OF CONDUCTORS OR WIRES

BUS DUCT
SPB : SEGREGATED PHASE BUS DUCT
IPB : ISOLATED PHASE BUS DUCT

CABLE HEAD AND CABLE CONNECTION

AS

AMMETER SWITCH

VS

VOLTMETER SWITCH

SIGNAL LAMP
* R = RED Y = YELLOW
G = GREEN B = BLUE
W = WHITE A = AMBER
C = CYAN

METERING AND INSTRUMENTS

#
* V : VOLTMETER
A : AMMETER
B : BALANCE INDICATOR
W : WATTMETER
VAr : VARMETER
Hz : FREQUENCY METER
COS* : POWER FACTOR METER
V : DC VOLTMETER
A : DC AMMETER
WT : WINDING TEMPERATURE INDICATOR
: NUMBER OF METERS
IF NOT SHOWN, THE NUMBER IS ONE

*
Wh : WATTHOUR METER
VArh : VARHOUR METER
: EXPORT
: IMPORT
: IMPORT AND EXPORT

*
W : WATT RECORDER
VAr : VAR RECORDER
COS* : POWER FACTOR RECORDER

TRANSDUCER

#
* V : VOLTAGE TRANSDUCER
A : AMPERE TRANSDUCER
W : WATT TRANSDUCER
VAr : VARTRANSDUCER
Hz : FREQUENCY TRANSDUCER
COS* : POWER FACTOR TRANSDUCER
: NUMBER OF METERS
IF NOT SHOWN, THE NUMBER IS ONE

DEVICE FUNCTION NUMBERING

*

21	UNDERIMPEDANCE RELAY
24	OVERFLUX RELAY
25	SYNCHRO CHECK RELAY
25A	AUTOMATIC SYNCHRONIZER
27	UNDERVOLTAGE RELAY
27TN	STATOR EARTH FAULT RELAY (100%)
27/37	CURRENT SUPERVISED UNDERVOLTAGE RELAY
32	REVERSE POWER RELAY
40	LOSS OF EXCITATION RELAY
46	NEGATIVE PHASE SEQUENCE RELAY
47	PHASE SEQUENCE VOLTAGE RELAY
48	MOTOR STARTING SUPERVISION RELAY
49	OVERLOAD RELAY
49Q	OIL TEMPERATURE RELAY
49W	WINDING TEMPERATURE RELAY
49WH	HV WINDING TEMPERATURE RELAY
49WL	LV WINDING TEMPERATURE RELAY
50	INSTANTANEOUS OVERCURRENT RELAY
50BF	BREAKER FAILURE RELAY
50G	INSTANTANEOUS EARTH FAULT RELAY (EARTH)
50N	INSTANTANEOUS EARTH FAULT RELAY (3Io)
50/27	INADVERTENT ENERGIZATION RELAY
51	TIME DELAYED OVERCURRENT RELAY
51N	TIME DELAYED RESIDUAL OVERCURRENT RELAY
51V	VOLTAGE DEPENDENT OVERCURRENT RELAY
50/51	INSTANTANEOUS/TIME DELAYED OVERCURRENT RELAY
50/51G	INSTANTANEOUS/TIME DELAYED EARTH FAULT RELAY (EARTH)
59	OVERVOLTAGE RELAY
59N	STATOR EARTH FAULT RELAY (95%)
60	VOLTAGE TRANSFORMER SUPERVISION RELAY
63B	BUCHHOLZ RELAY
63C	BUCHHOLZ RELAY FOR OIL FILLED CABLE BOX
63P	PRESSURE RELIEF DEVICE
63PO	OLTC PROTECTIVE RELAY
64G	GROUND PROTECTIVE RELAY
64R	ROTOR EARTH FAULT RELAY
64REF	RESTRICTED EARTH FAULT RELAY
66	MOTOR RESTART INHIBIT RELAY
67	DIRECTIONAL OVERCURRENT RELAY
68	INRUSH RESTRAINT RELAY
71Q	OIL LEVEL RELAY
71QO	OLTC OIL LEVEL RELAY
74TC	TRIP CIRCUIT SUPERVISION RELAY
78	POLE SLIPPING (OUT OF STEP) RELAY
81H/L	OVER/UNDER FREQUENCY RELAY
86	LOCKOUT RELAY (MANUAL RESET)
87	DIFFERENTIAL RELAY
87B	BUSBAR PROTECTION RELAY
91	TRIPPING RELAY (SELF RESET)

ABBREVIATION

AC	ALTERNATING CURRENT
ACB	AIR CIRCUIT BREAKER
AL	ALARM CONTRACT OF MCCB
ATS	AUTOMATIC TRANSFER SWITCH
ARP	AUXILIARY RELAY PANEL
AVR	AUTOMATIC VOLTAGE REGULATOR
AX	AUXILIARY CONTACT OF MCCB
BCT	BUSHING CURRENT TRANSFORMER
CCR	CENTRAL CONTROL ROOM
DC	DIRECT CURRENT
DCS	DISTRIBUTED CONTROL SYSTEM
DGU	DIESEL GENERATOR UNIT
DR	DISCHARGE RESISTOR
EOCR	ELECTRONIC OVERCURRENT RELAY
GCB	SF6 GAS CIRCUIT BREAKER
GIS	GAS(SF6) INSULATED SWITCHGEAR
GPR	GENERATOR PROTECTION RELAY PANEL
GT	GAS TURBINE
GTG	GAS TURBINE GENERATOR
HSBT	HIGHT SPEED BUS TRANSFER
IPB	ISOLATED PHASE BUS DUCT
LDC	LOAD DISPATCH CENTER
LED	LIGHT EMITTING DIODE
MCB	MINIATURE CIRCUIT BREAKER
MCCB	MOULDED CASE CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MP	METERING PANEL
MV	MEDIUM VOLTAGE
MVR	MANUAL VOLTAGE REGULATOR
NC	NORMALLY CLOSED
NLTC	NO LOAD TAP CHANGER
NO	NORMALLY OPEN
OLTC	ON LOAD TAP CHANGER
PDB	POWER DISTRIBUTION BOARD
PF	POWER FACTOR
PT	POTENTIAL TRANSFORMER
RTD	RESISTANCE TEMPERATURE DETECTOR
SHT	SHUNT TRIP MODULE
SPP	STEAM POWER PLANT
ST	STEAM TURBINE
STG	STEAM TURBINE GENERATOR
SWGR	SWITCHGEAR
STS	STATIC TRANSFER SWITCH
SYN	SYNCHRONIZING
TC	THERMOCOUPLE
TCS	TRIP CIRCUIT SUPERVISION
UPS	UNINTERRUPTIBLE POWER SUPPLY UNIT
UVT	UNDERVOATAGE TRIP MOUDULE
VCB	VACUUM CIRCUIT BREAKER
VCS	VACUUM CIRCUIT SWITCH

NOTES

1. THE ELECTRICAL SYMBOLS HAVE BEEN DERIVED FROM IEC 617.
2. THE SYMBOLS MAY BE COMBINED TO PRODUCE MORE COMPLEX AND DESCRIPTIVE SYMBOLS.
3. WHERE A SYMBOL IS NOT ADEQUATE TO INDICATE TYPE OR FUNCTIONS OF A PIECE OF ELECTRICAL EQUIPMENT, ADDITIONAL NOTES NEXT TO THE SYMBOL MAY BE PLACED.
4. ELECTRICAL TRANSDUCER RANGE
   OVERLOAD RANGE SHALL BE CONSIDERED
   A. VOLTAGE TRANSDUCERS
      220kV SYSTEM : 0~245kV : 4~20mA
      6.9kV SYSTEM : 0~7.2kV : 4~20mA
      400V SYSTEM : 0~430V : 4~20mA
      220V SYSTEM : 0~240V : 4~20mA
   B. FREQUENCY
      45~55Hz : 4~20mA
   C. POWER FACTOR
      0.8 lead-0-0.8 Lag : 4~20mA

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
	AS BUILT	GS, Hwang	IY, Ryu	-	July. 25. 2017

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DHAKA WATER SUPPLY AND SEWERAGE AUTHORITY

CONTRACTOR
HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale
ORIGINAL DRAWING SIZE: A3 - 420x297
DRAWING No.: E-VP-E-010
REV.

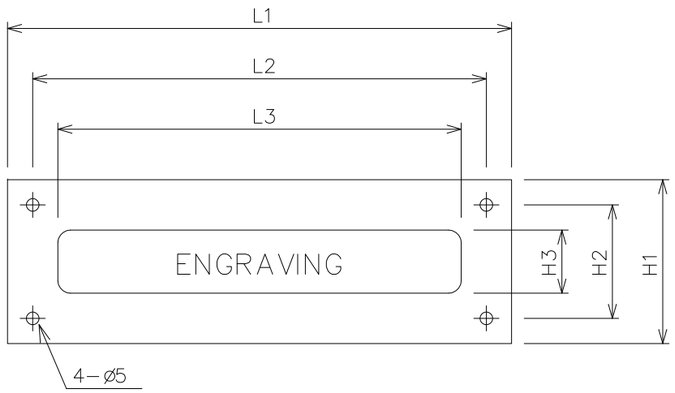
PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: **Electrical Symbol List and Notes on Building Electrical Works**

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10, 2017	DATE March, 10, 2017	DATE March, 10, 2017	DATE

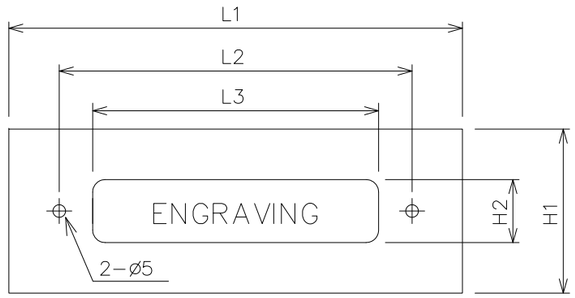
T01 TYPE(PNL NAMEPLATE)



DEMENSION

TYPE	L1	L2	L3	H1	H2	H3	THICK -NESS	MATERIAL
T01	315	300	275	63	50	32	5t	LAMINATE

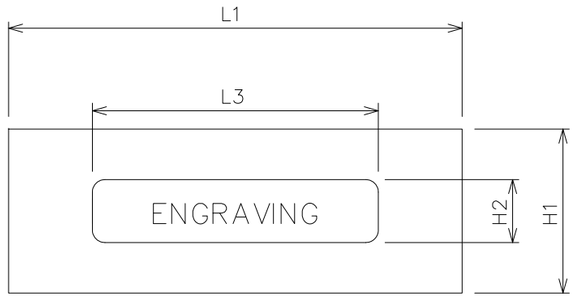
T04 TYPE(RELAY,METER,BUZZER NAMEPLATE)



DEMENSION

TYPE	L1	L2	L3	H1	H2	THICK -NESS	MATERIAL
T04	60	51	42	20	12	2t	LAMINATE

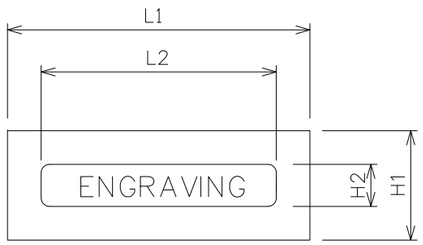
T04-1 TYPE(VCB NAMEPLATE)



DEMENSION

TYPE	L1	L2	L3	H1	H2	THICK -NESS	MATERIAL
T04	60	–	42	20	12	2t	LAMINATE

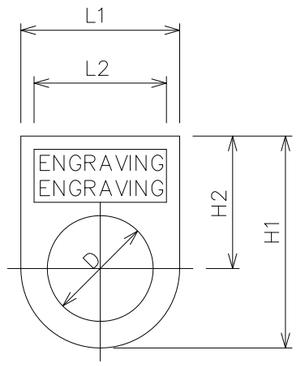
T05 TYPE(MCCB NAMEPLATE)



DEMENSION

TYPE	L1	L2	H1	H2	THICK -NESS	MATERIAL
T05	40	36	12.5	8	2t	LAMINATE

T08 TYPE(PL,PBL,PB 30ø NAMEPLATE)



DEMENSION

TYPE	L1	L2	H1	H2	D	THICK -NESS	MATERIAL
T08	37	33	51	32	31	2t	LAMINATE

* * N O T E * *

1. COLOR OF LETTER

■ BLACK ☐ WHITE ☐ OTHER _____

2. COLOR OF BACK GROUND

☐ MATERIAL COLOR ■ WHITE _____

3. FITTING METHOD

■ BOLTING(G) (T01,T04) ADHESIVE (T05,T08) ☐ OTHER _____

4. MATERIAL

☐ SUS ■ LAMINTE

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Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

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CONTRACTOR

HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE	ORIGINAL DRAWING SIZE
Not in Scale	A3 - 420x297

DRAWING No. E-VP-E-011 REV.

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: NAME PLATE METHOD

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10, 2017	DATE March, 10, 2017	DATE March, 10, 2017	DATE

PANEL NAME : HV INCOMING PANEL(HIVP-401/402)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	HV INCOMING PANEL (HVIP-401)	2	T01	
2	HV INCOMING PANEL (HVIP-402)	2	T01	
3	ANNUNCIATOR LAMP	2	T04	
4	DIGITAL METER	2	T04	
5	BUZZER STOP	2	T08	
6	LAMP TEST	2	T08	
7	RESET	2	T08	
8	CLOSE	2	T08	
9	OPEN	2	T08	
10	BUZZER	2	T08	
11	GPTT	2	T04	
12	PTT	2	T04	
13	CTT	2	T04	
14				
15				
16				

PANEL NAME : LV/GENERATOR INCOMING PNL(LVIP-401/402/GEIP-401/402)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	LV INCOMING PANEL (LVIP-401)	2	T01	
2	LV INCOMING PANEL (LVIP-402)	2	T01	
3	GENERATOR INCOMING PNL (GEIP-401)	1	T01	
4	GENERATOR INCOMING PNL (GEIP-402)	1	T01	
5	GENERATOR INCOMING PNL (GEIP-401)/(GEIP-402)	1	T01	
6	DIGITAL METER	4	T04	
7	FAULT	4	T08	
8	RESET	4	T08	
9	OPEN	4	T08	
10	CLOSE	4	T08	
11	BUZZER STOP	4	T08	
12	PTT	4	T04	
13	CTT	4	T04	
14				
15				
16				

PANEL NAME : DISTRIBUTION PUMP(DPSP-4P01A~4P01F)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	DIST. PUMP PANEL (DPSP-4P01A)	2	T01	
2	DIST. PUMP PANEL (DPSP-4P01B)	2	T01	
3	DIST. PUMP PANEL (DPSP-4P01C)	2	T01	
4	DIST. PUMP PANEL (DPSP-4P01D)	2	T01	
5	DIST. PUMP PANEL (DPSP-4P01E)	2	T01	
6	DIST. PUMP PANEL (DPSP-4P01F)	2	T01	
7	A-METER	6	T04	
8	EMPR	12	T04	
9	VAVLE OPENING INDICATOR	6	T04	
10	RUN	6	T08	
11	STOP	12	T08	
12	FAULT/RESET	6	T08	
13	LAMP TEST	6	T08	
14	BUZZER STOP	6	T08	
15	BUZZER RESET	6	T08	
16	E.M STOP	6	T08	

PANEL NAME : DISTRIBUTION PUMP(DPSP-4P01A~4P01F)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
17	FULL OPEN	6	T08	
18	FULL CLOSE	6	T08	
19	FAULT	6	T08	
20	OPEN	6	T08	
21	CLOSE	6	T08	

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Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

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HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale
ORIGINAL DRAWING SIZE: A3 - 420x297
DRAWING No.: E-VP-E-012
REV.

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: NAME PLATE LIST 1/6

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10. 2017	DATE March, 10. 2017	DATE March, 10. 2017	DATE

PANEL NAME : LOP FOR DISTRIBUTION PUMP (LOP-4P01A-4P01B)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	DISTRIBUTION PUMP (LOP-4P01A)	1	T01	
2	DISTRIBUTION PUMP (LOP-4P01B)	1	T01	
3	DISTRIBUTION PUMP (LOP-4P01C)	1	T01	
4	DISTRIBUTION PUMP (LOP-4P01D)	1	T01	
5	DISTRIBUTION PUMP (LOP-4P01E)	1	T01	
6	DISTRIBUTION PUMP (LOP-4P01F)	1	T01	
7	A-METER	6	T04	
8	DISTRIBUTION PUMP (4P01A)	1	T04	
9	DISTRIBUTION PUMP (4P01B)	1	T04	
10	DISTRIBUTION PUMP (4P01C)	1	T04	
11	DISTRIBUTION PUMP (4P01D)	1	T04	
12	DISTRIBUTION PUMP (4P01E)	1	T04	
13	DISTRIBUTION PUMP (4P01F)	1	T04	
14	RUN	6	T08	
15	STOP	6	T08	
16	FAULT/RESET	6	T08	

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
17	FULL OPEN	6	T08	
18	FAULT	6	T08	
19	FULL CLOSE	6	T08	
20	OPEN	6	T08	
21	STOP	6	T08	
22	CLOSE	6	T08	
23	LAMP TEST	6	T08	
24				
25				
26				
27				
28				
29				
30				
31				
32				

PANEL NAME : 400V LV SWGR PANEL(LVDP-401/402)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	LV DISTRIBUTION PANEL (LVDP-401)	2	T01	
2	LV DISTRIBUTION PANEL (LVDP-402)	2	T01	
3	NO.1 CONDENSER BANK	2	T04	
4	NO.2 CONDENSER BANK	2	T04	
5	NO.3 CONDENSER BANK	2	T04	
6	NO.4 CONDENSER BANK	2	T04	
7	ON	8	T08	
8	OFF	8	T08	
9	OVER LOAD	8	T08	
10	ELD	2	T04	
11	APFC	2	T04	

PANEL NAME : LV DC POWER SUPPLY(LV-R)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
14	LV-R LV DC POWER SUPPLY	2	T01	
15				
16				

PANEL NAME : MCC-401 (OGR)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	OGR MCC PANEL (MCC-401)	2	T01	
2	V-METER	1	T04	
3	A-METER	1	T04	
4	4P02A SUMP PUMP COMPLETE-1	1	T04	
5	4P02B SUMP PUMP COMPLETE-2	1	T04	
6	4M02A OGR PUMP ROOM SUPPLY FAN	1	T04	
7	4M02B OGR PUMP ROOM SUPPLY FAN	1	T04	
8	4M02C OGR PUMP ROOM SUPPLY FAN	1	T04	
9	4M02D OGR PUMP ROOM SUPPLY FAN	1	T04	
10	4M02E OGR PUMP ROOM SUPPLY FAN	1	T04	
11	4M02F OGR PUMP ROOM SUPPLY FAN	1	T04	
12	4M03A OGR PUMP ROOM EXHAUST FAN	1	T04	
13	4M03B OGR PUMP ROOM EXHAUST FAN	1	T04	
14	4M03C OGR PUMP ROOM EXHAUST FAN	1	T04	
15	4M03D OGR PUMP ROOM EXHAUST FAN	1	T04	
16	4M03E OGR PUMP ROOM EXHAUST FAN	1	T04	

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Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

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HYUNDAI ROTEM COMPANY

Notes:

1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale

ORIGINAL DRAWING SIZE: A3 - 420x297

DRAWING No.: E-VP-E-013

REV.:

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: NAME PLATE LIST 2/6

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10. 2017	DATE March, 10. 2017	DATE March, 10. 2017	DATE

PANEL NAME : MCC-401 (OGR)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
17	4M03F OGR PUMP ROOM EXHAUST FAN	1	T04	
18	SPARE	3	T04	
19	RUN	12	T08	
20	STOP	12	T08	
21	FAULT/RESET	12	T08	
22	MCC/PLC	12	T08	

PANEL NAME : LOP FOR SUMP PUMP(LOP-4P02A/B)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	LOP FOR SUMP PUMP (LOP-4P02A/B)	1	T01	
2	EOCR	1	T04	
3	SUMP P/P 4P02A	1	T04	
4	SUMP P/P 4P02B	1	T04	
5	LOCAL/MCC	2	T08	
6	RUN	2	T08	
7	STOP	2	T08	
8	FAULT/RESET	2	T08	

PANEL NAME : DISTRIBUTION PUMP PANEL (VFD) (IVSP-401)/(IVSP-402)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	DIST. PUMP PANEL (VFD) (IVSP-401)	2	T01	
2	DIST. PUMP PANEL (VFD) (IVSP-402)	2	T01	
3	LOP-4M02B	1	T04	
4	LOP-4M02C	1	T04	
5	LOP-4M02D	1	T04	
6	LOP-4M02E	1	T04	
7	LOP-4M02F	1	T04	
8	LOCAL/MCC	6	T08	
9	RUN	6	T08	
10	STOP	6	T08	
11	FAULT/RESET	6	T08	

PANEL NAME : INVERTER BUS TIE PANEL (IVBT-403)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	INVERTER BUS TIE PANEL (IVBT-403)	2	T01	
2	LOP-4M03A	1	T04	
3	LOP-4M03B	1	T04	
4	LOP-4M03C	1	T04	
5	LOP-4M03D	1	T04	
6	RUN	6	T08	
7	STOP	6	T08	
8	FAULT/RESET	6	T08	

PANEL NAME : DC POWER SUPPLY PANEL(LVR-401)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	DC POWER SUPPLY PANEL (LVR-401)	1	T01	
2	EOCR	1	T04	
3	SUMP P/P 4P02A	1	T04	

PANEL NAME : LOW VOLTAGE PANEL(LV-101~146)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
	LV-101~146 LOW VOLTAGE PANEL	92	T01	
	ANNUNCIATOR LAMP	46	T04	
	DIGITAL METER	46	T04	
	ATS CONTROLLER	46	T04	
	FAULT	46	T08	
	OPEN	46	T08	
	CLOSE	46	T08	
	LAMP TEST	46	T08	
	PTT	46	T04	
10	CTT	46	T04	
11	UVR	46	T04	
12				
13				
14				
15				
16				

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

CONSULTANTS

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CONTRACTOR

HYUNDAI ROTEM COMPANY

Notes:

1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale

ORIGINAL DRAWING SIZE: A3 - 420x297

DRAWING No.: E-VP-E-014

REV.

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: NAME PLATE LIST 3/6

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10, 2017	DATE March, 10, 2017	DATE March, 10, 2017	DATE

PANEL NAME : PWP START PANEL(PWP−101~146)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	PWP−101~146 PWP STARTER PANEL	92	T01	
2	ANNUNCIATOR LAMP	46	T04	
3	INVERTER	46	T04	
4	MCC/PLC	46	T08	
5	RUN	46	T08	
6	STOP	46	T08	
7	FAULT/RESET	46	T08	
8	LAMP TEST	46	T08	
9	EMERGENCY STOP	46	T08	
10				
11				
12				
13				
14				
15				
16				

PANEL NAME : AIR BLOWER STARTER(VFD)PANEL (ABP−2M01A/B)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	AIR BLOWER STARTER PNL (VFD) (ABP−2M01A)	2	T01	
2	AIR BLOWER STARTER PNL (VFD) (ABP−2M01B)	2	T01	
3	ANNUNCIATOR LAMP	2	T04	
4	INVERTER	2	T04	
5	MCC/PLC	2	T08	
6	RUN	2	T08	
7	STOP	2	T08	
8	FAULT/RESET	2	T08	
9	LAMP TEST	2	T08	
10				
11				
12				
13				
14				
15				
16				

PANEL NAME : IRP#1 MCC PANEL (MCC − 201)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	IRP#1 MCC PANEL (MCC − 201)	2	T01	
2	V−METER	1	T04	
3	A−METER	1	T04	
4	2P01A BACKWASH REUSE PUMP #A	1	T04	
5	2P01B BACKWASH REUSE PUMP #B	1	T04	
6	2P01B BACKWASH REUSE PUMP #B	1	T04	
7	2P01B BACKWASH REUSE PUMP #B	1	T04	
8	2M01A AIR BLOWER #A	1	T04	
9	2M01B AIR BLOWER #B	1	T04	
10	2P02A UTILITY WATER PUMP #A	1	T04	
11	2P02B UTILITY WATER PUMP #B	1	T04	
12	SPARE	3	T04	
13	RUN	5	T08	
14	STOP	5	T08	
15	FAULT/RESET	5	T08	
16	MANU/PLC	3	T08	
17	LOCAL/REMOTE	1	T08	
18	HIGH	2	T08	
19	LOW	2	T08	

PANEL NAME : LOP FOR AIR BLOWER(LOP−2M01A/B)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	LOP−2M01A/B LCP FOR AIR BLOWER	1	T01	
2	SUMP PUMP NO.1	1	T04	
3	SUMP PUMP NO.2	1	T04	
4	RUN	2	T08	
5	STOP	2	T08	
6	FAULT/RESET	2	T08	

PANEL NAME : LOP FOR BACKWASH REUSE PUMP (LOP−2P01A/B)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	BACKWASH REUSE PUMP (LOP−2P01A/B)	1	T01	
2	BACKWASH REUSE PUMP #A	1	T04	
3	BACKWASH REUSE PUMP #B	1	T04	
4	RUN	2	T08	
5	STOP	2	T08	
6	FAULT/RESET	2	T08	

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July. 25. 2017

CONSULTANTS

Hankuk Engineering Consultants H.E.C

SUNG JI Engineering

Institute of Water Medelling

CLIENT

DHAKA WATER SUPPLY AND SEWERAGE AUTHORITY

CONTRACTOR

HYUNDAI ROTEM COMPANY

Notes:

1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale

ORIGINAL DRAWING SIZE: A3 - 420x297

DRAWING No.: E-VP-E-015

REV.

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: NAME PLATE LIST 4/6

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10. 2017	DATE March, 10. 2017	DATE March, 10. 2017	DATE

PANEL NAME : LOP FOR DRYING BED PUMP (2P03A)/(2P03B)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	DRYING BED PUMP (LOP-2P03A)	1	T01	
2	DRYING BED PUMP (LOP-2P03B)	1	T01	
3	LOCAL/MCC	1	T08	
4	RUN	1	T08	
5	STOP	1	T08	
6	FAULT/RESET	1	T08	

PANEL NAME : MOP FOR SUMP PUMP(MOP-2P04A/B)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	IRP#1 SUMP PUMP (MOP-2P04A/B)	1	T01	
2	LOCAL/MCC	1	T08	
3	RUN	1	T08	
4	STOP	1	T08	
5	FAULT/RESET	1	T08	

PANEL NAME : LV INCOMING PANEL (LV-301)/(LV-302)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	LV INCOMING PANEL (LV-301)	2	T01	
2	LV INCOMING PANEL (LV-302)	2	T01	
3	DIGITAL METER	1	T04	
4	APFC	1	T04	
5	PTT	1	T04	
6	CTT	1	T04	
7	UVR	1	T04	
8	NO.1 CONDENSER BANK	1	T04	
9	NO.2 CONDENSER BANK	1	T04	
10	NO.3 CONDENSER BANK	1	T04	
11	NO.4 CONDENSER BANK	1	T04	
12	RESET/B.Z STOP	1	T08	
13	OPEN	1	T08	
14	CLOSE	1	T08	
15	LAMP TEST	1	T08	
16	ON	1	T08	

PANEL NAME : LOW VOLTAGE PANEL(LV-301)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
17	OFF	1	T08	
18	OVER LOAD	1	T08	
19	ELD	1	T04	
20	APFC	1	T04	

PANEL NAME : LOW VOLTAGE PANEL(LV-302)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	LV-302 LOW VOLTAGE PANEL	2	T01	
2	ATS CONTROLLER	1	T04	
3				
4				
5				
6				
7				

PANEL NAME : AIR BLOWER PANEL(ABP-301A/B)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	ABP-301A/B AIR BLOWER STARTER(VFD)PANEL	4	T01	
2	ANNUNCIATOR LAMP	2	T04	
3	INVERTER	2	T04	
4	MCC/PLC	2	T08	
5	RUN	2	T08	
6	STOP	2	T08	
7	FAULT/RESET	2	T08	
8	LAMP TEST	2	T08	
9				
10				
11				
12				
13				
14				
15				
16				

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July. 25. 2017

CONSULTANTS

Hankuk Engineering Consultants H.E.C

SUNG JI Engineering

Institute of Water Medelling

CLIENT

DHAKA WATER SUPPLY AND SEWERAGE AUTHORITY

CONTRACTOR

HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale

ORIGINAL DRAWING SIZE: A3 - 420x297

DRAWING No.: E-VP-E-016

REV.

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: NAME PLATE LIST 5/6

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10, 2017	DATE March, 10, 2017	DATE March, 10, 2017	DATE

PANEL NAME : MCC – 301 (IRP #2)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	MCC–301 MCC PANEL	2	T01	
2	V–METER	1	T04	
3	A–METER	1	T04	
4	3P01A BACKWASH REUSE PUMP #A	1	T04	
5	3P01B BACKWASH REUSE PUMP #B	1	T04	
6	3M01A AIR BLOWER #A	1	T04	
7	3M01B AIR BLOWER #B	1	T04	
8	3P02A UTILITY WATER PUMP #A	1	T04	
9	3P02B UTILITY WATER PUMP #B	1	T04	
10	SPARE	3	T04	
11	RUN	5	T08	
12	STOP	5	T08	
13	FAULT/RESET	5	T08	
14	MANU/PLC	2	T08	
15	LOCAL/REMOTE	1	T08	
16	MANU/PLC	3	T08	
17	LOCAL/REMOTE	1	T08	
18	HIGH	2	T08	
19	LOW	2	T08	

PANEL NAME : LCP FOR AIR BLOWER(LOP–3M01A/B)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	LOP–3M01A/B LCP FOR AIR BLOWER	1	T01	
2	SUMP PUMP NO.1	1	T04	
3	SUMP PUMP NO.2	1	T04	
4	RUN	2	T08	
5	STOP	2	T08	
6	FAULT/RESET	2	T08	

PANEL NAME : LCP FOR BACKWASH REUSE PUMP (LOP–3P01A/B)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	LOP–3P01A/B LCP FOR BACKWASH REUSE PUMP	1	T01	
2	BACKWASH REUSE PUMP #A	1	T04	
3	BACKWASH REUSE PUMP #B	1	T04	
4	RUN	2	T08	
5	STOP	2	T08	
6	FAULT/RESET	2	T08	

PANEL NAME : LOP FOR DRYING BED PUMP A(3P03A)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	LOP–3P03A LOP FOR DRYING BED PUMP A	1	T01	
2	LOCAL/MCC	1	T08	
3	RUN	1	T08	
4	STOP	1	T08	
5	FAULT/RESET	1	T08	

PANEL NAME : LOP FOR DRYING BED PUMP B(3P03B)

NO.	DESCRIPTION	Q'TY	TYPE	REMARK
1	LOP–3P03B LOP FOR DRYING BED PUMP B	1	T01	
2	LOCAL/MCC	1	T08	
3	RUN	1	T08	
4	STOP	1	T08	
5	FAULT/RESET	1	T08	

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

CONSULTANTS

Hankuk Engineering Consultants H.E.C

SUNG JI Engineering

Institute of Water Medelling

CLIENT

DHAKA WATER SUPPLY AND SEWERAGE AUTHORITY

CONTRACTOR

HYUNDAI ROTEM COMPANY

Notes:

1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale

ORIGINAL DRAWING SIZE: A3 - 420x297

DRAWING No.: E-VP-E-017

REV.:

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: NAME PLATE LIST 6/6

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10. 2017	DATE March, 10. 2017	DATE March, 10. 2017	DATE

BILL OF MATERIAL LIST

NO	DESIGN	SPECIFICATION	TYPE	MAKER	OGR																							DTW		IRP#1					IRP#2							Q'TY	REMAKR'S
					HVIP-401	HVIP-402	LVIP-401	LVIP-402	GEIP 401/402	DPSP-401	DPSP-402	DPSP-403	DPSP-404	DPSP-405	DPSP-406	IVSP-401	IVSP-402	LVBT-01	LOP-4P01~06 (DB Pump)	LVDP-401	LVDP-402	MCC-402	LOP-4P02(AB) (Sump Pump)	LOP-4M01(AB) (Fan)	LOP-4M02(AB) (Fan)	LVR-401	LV-101~146	PWP-101~146	MCC-201	ABP-201A/B	LOP-2M01(AB) (Air Blower)	LOP-2P01(AB) (Backwash P/P)	LOP-2P03(AB) (Drying Bed P/P)	LV-301	LV-302	MCC-301	ABP-301A/B	LOP-3M01(AB) (Air Blower)	LOP-3P01(AB) (Backwash P/P)	LOP-3P03(AB) (Drying Bed P/P)	TOTAL	
1	VCB	12KV 630A 25KA 520MVA	KVAF-1625M	VITZROTECH	1	1																																				2	
2	ACB	4P, A.C 400V, 50Hz, 2000A	VAB S20204NAE6D1 17 KL	VITZROTECH			1	1	2																																	4	
3	ACB	4P, A.C 400V, 50Hz, 630A (W.OCR,OCGR)	VAB S20064NAS6A2 17 KL	VITZROTECH																								46							1							47	
	ACB	3P, A.C 400V, 50Hz, 1000A	VAB S20103NAE6D1 17 KL	VITZROTECH														1																								1	
4	ATS	4P 400A 12KA	64WN(BACK)	VITZROTECH																								46								1						47	
5	Digital Protection & Monitoring	OCR, OCGR, OVR, UVR, OVGR, SGR, POR	GEPAM-115F1	LS	1	1	1	1	2																																	6	
6	Digiatl Power Meter	V, A, KW, Phase, Wh, Hz, PF	GEMAC-4	LS																								46							1							47	
7	INVERTER	3P, A.C 400V, 50Hz, 55KW	ATV630D55N4	Schneider																									46													46	
8	INVERTER	3P, A.C 400V, 50Hz, 75KW	ATV630D75N4	Schneider																											2							2				4	
9	INVERTER	3P, A.C 400V, 50HZ, 315kW	ATV630C31N4	Schneider												1	1																									2	
10	MCCB	800AF/800AT	ABS803c	LS						1	1	1	1	1	1	1	1																									8	
11	MCCB	4P 400AF/300AT	ABS404c	LS																1										1						1	1					4	
12	MCCB	3P 250AF/175AT	ABS203c	LS																								46	46	2	2						2	2				100	
13	MCCB	3P 250AF/100AT	ABS203c	LS			1	1																																		2	
14	MCCB	4P 250AF/175AT	ABS204c	LS																	1	1																				2	
15	MCCB	4P 250AF/150AT	ABS204c	LS																	1																					1	
16	MCCB	4P 125AF/100AT	ABS104c	LS																1	2														1						4	
17	MCCB	3P 125AF/100AT	ABS103c	LS																-																						-	
18	MCCB	3P 125AF/75AT	ABS103c	LS																										2							2					4	
19	MCCB	4P 50AF/50AT	ABS54c	LS																2	2	3						184		3						5	3					202	
20	MCCB	4P 50AF/30AT	ABS54c	LS																2																						2	
21	MCCB	3P 50AF/50AT	ABS53c	LS																2	3	-						92		2							2					101	
22	MCCB	3P 50AF/15AT	ABS53c	LS																										1							1					2	
23	MCCB	3P 50AF/10AT	ABS53c	LS																										8							8					16	
	MCCB	4P 30AF/30AT	ABS34c																			1								4							4					9	
24	MCCB	3P 30AF/30AT	ABS33c	LS																3	3	1																				7	
25	MCCB	3P 30AF/15AT	ABS33c	LS																		16								1							1					18	
26	MCCB	3P 30AF/10AT	ABS33c	LS																		6																				6	
27	MCCB	4P 30AF/15AT	ABS34c	LS																		6								4							4					14	
	MCCB	2P 50AF/50AT	ABS52c	LS																1																2						3	
28	MCCB	2P 30AF/30AT	ABS32c	LS																		1								1							1					3	
29	MCCB	2P 30AF/10AT	ABS32c	LS	2	2	2	2	4													2						138	46	2	2					3	2	2				209	
30	MCCB	2P 30AF/5AT	ABS32c	LS	1	1	1	1	2																				92		4							4				106	
31	ELCB	4P 30AF/15AT	EBS34c	LS																																						-	
32	LA	15KV 5KA	PDV-65	OHIO BRASS	-																																					-	
33	G.P.T	12KV/11000/√3/110/√3/190/3V 200VA	NV26TF	KYONG BO	3	3																																				6	
34	CURRENT LIMIT RESISTOR	25Ω	CLR	KYONG BO	1	1																																				2	
35	G.P.T	1.15 KV 400/√3/110/√3/190 100VA 1.0CL	NL23T	KYONG BO																																						-	
36	PT	1.15 KV 400/110 100VA 1.0CL	LL23	KYONG BO			3	3	3													3						138		3					3		3					159	
37	CT	12KV 150/5A 5P10 15VA 12.5KA Protection	WV-6R	KYONG BO	3	3																																				6	

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

CONSULTANTS

Hankuk Engineering Consultants H.E.C

SUNG JI Engineering

Institute of Water Medelling

CLIENT

DHAKA WATER SUPPLY AND SEWERAGE AUTHORITY

CONTRACTOR

HYUNDAI ROTEM COMPANY

Notes:

1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE	ORIGINAL DRAWING SIZE
Not in Scale	A3 - 420x297

DRAWING No. E-VP-E-018

REV.

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: **Material List for Electrical Panel Board 1/3**

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10. 2017	DATE March, 10. 2017	DATE March, 10. 2017	DATE

BILL OF MATERIAL LIST

NO	DESIGN	SPECIFICATION	TYPE	MAKER	OGR																						DTW		IRP#1					IRP#2							Q'TY	REMAKR'S
					HVIP-401	HVIP-402	LVIP 401	LVIP 402	GEIP 401/402	DPSP-401	DPSP-402	DPSP-403	DPSP-404	DPSP-405	EPSP-406	IVSP-401	IVSP-402	LVBT-01	LOP-4P01-06 (D/B Pump)	LVDP-401	LVDP-402	MCC-402	LOP-4P02(A/B) (Sump Pump)	LOP-4MD2(A/B) (Fan)	LOP-4MD2(A/B) (Fan)	LVR-401	LV-101-146	PWP-101-146	MCC-201	ABP-201A/B	LOP-2M01(A/B) (Air Blower)	LOP-2P01(A/B) (Backwash P/P)	LOP-2P03(A/B) (Drying Bed P/P)	LV-301	LV-302	MCC-301	ABP-301A/B	LOP-3M01(A/B) (Air Blower)	LOP-3P01(A/B) (Backwash P/P)	LOP-3P03(A/B) (Drying Bed P/P)	TOTAL	
38	CT	1.15 KV2000/5A 5P10 40VA 1.0CL Protection	US 8R	KYONG BO			3	3	6																																	12	
39	CT	1.15 KV800/5A 1.3CL 40VA Metering	US 6	KYONG BO						3	3	3	3	3	3																											18	
40	CT	1.15 KV800/5A 1P10 15VA Protection	US 6RA	KYONG BO						3	3	3	3	3	3																											18	
41	CT	1.15 KV400/5A 1.3CL 40VA-Metering	US 4	KYONG BO																							138							3								141	
42	CT	1.15 KV300/5A 1.3CL 40VA-metering	US 2	KYONG BO																									3							3						6	
43	CT	1.15 KV200/5A 1.3CL 15VA-Metering	UR-1	KYONG BO						3	3	3	3	3	3																											18	
44	CT	1.15 KV150/5A 1.3CL 15VA-metering	US-1	KYONG BO																		3																				3	
45	EOCR	OCR, UCR, GROUND FAULT	EOCR-FEZ	Schneider						2	2	2	2	2	2																											12	
46	EMPR	OCR, UCR, GROUND FAULT	DMP56-TZ	LS																		13	2						3							3						21	
47	EMPR	OCR, UCR, GROUND FAULT	DMP60-TZ	LS																									2					4		2						8	
48	ZCT	200mA/1.5mA	ZS-20(2000A)	KYONG BO			-	-	-																																	-	
49	ZCT	200mA/1.5mA	ZS-11	KYONG BO	1	1				1	1	1	1	1	1																											8	
50	ZCT	200mA/1.5mA	ZS 09	KYONG BO																																						-	
51	ZCT	200mA/1.5mA	ZS 06	KYONG BO																		13	2																			15	
52	M.C	MAGNETIC CONTACTOR AC230V 50HZ, 2a2b	MC-800a	LS						2	2	2	2	2	2	2	2																									16	
53	M.C	MAGNETIC CONTACTOR AC230V 50HZ, 2a2b	MC-225a	LS						1	1	1	1	1	1																											6	
54	M.C	MAGNETIC CONTACTOR AC230V 50HZ, 2a2b	MC-130a	LS																								46														46	
55	M.C	MAGNETIC CONTACTOR AC230V 50HZ, 2a2b	MC-150a	LS																										2							2					4	
56	M.C	MAGNETIC CONTACTOR AC230V 50HZ, 2a2b	MC-50a	LS																1	1																					2	
57	M.C	MAGNETIC CONTACTOR AC230V 50HZ, 2a2b	MC-40a	LS																2	2								4					4		4						16	
58	M.C	MAGNETIC CONTACTOR AC230V 50HZ, 2a2b	MC-32a	LS																1	1								2							2						6	
59	M.C	MAGNETIC CONTACTOR AC230V 50HZ, 1a1b	MC-9a	LS																		13	2						1							1						17	
60	S/C	3P 400V 50Hz 60KVar	SMF-45060KT	Samwha						1	1	1	1	1	1																											6	
61	S/C	3P 400V 50Hz 50KVar	SMB-45050KT	Samwha			1	1																																		2	
62	S/C	3P 400V 50Hz 20kVar	SMB-45020KT	Samwha																1	1																					2	
63	S/C	3P 400V 50Hz 12.5kVar	SMS-4250ST	Samwha																														4								4	
64	S/C	3P 400V 50Hz 10kVar	SMS-4200ST	Samwha																2	2																					4	
65	S/C	3P 400V 50Hz 5kVar	SMS-4100ST	Samwha																1	1						46															48	
66	S/C	3P 400V 50Hz 150μF	SMS-4150ST	Samwha																										2						2						4	
67	S/C	3P 400V 50Hz 100μF	SMS-4100ST	Samwha																																						-	
68	REACTOR & DISCHARGE COIL	3P 400V 50Hz 3.6KVar		HYUPHWA						1	1	1	1	1	1																											6	
69	APFC		EPC-600	EPC KOREA																1	1													1								3	
70	ELD	0.20-5-1.0A	GD10-102R	KYONG BO																1	1						46								1							49	
71	Digital Protection Relay	UVR	DUV-M33D	DEESYS																							46							1								47	
72	Control TR	1P 400/230V 1KVA		WOONYOUNG																																						-	
73	Power Transformer	3P 11,000/400-230/1250KVA		Vizro C&C	1	1																																				2	
74	Power Transformer	3P 11,000/400-230/100KVA		Vizro C&C																							46															46	
75	Power Transformer	3P 11,000/400-230/200KVA		Vizro C&C																														1								1	
76	DC POWER SUPPLY	3P 400V/DC110V 20A		Famicom																						1																1	
77	MULTI TIMER	AC/DC 24~240V	AT8N	Autonics	1	1	1	1	2	3	3	3	3	3	3																											24	

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July. 25. 2017

CONSULTANTS

Hankuk Engineering Consultants H.E.C

SUNG JI Engineering

Institute of Water Medelling

CLIENT

DHAKA WATER SUPPLY AND SEWERAGE AUTHORITY

CONTRACTOR

HYUNDAI ROTEM COMPANY

Notes:

1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale

ORIGINAL DRAWING SIZE: A3 - 420x297

DRAWING No.: E-VP-E-019

REV.:

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: **Material List for Electrical Panel Board 2/3**

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10, 2017	DATE March, 10, 2017	DATE March, 10, 2017	DATE

BILL OF MATERIAL LIST

NO	DESIGN	SPECIFICATION	TYPE	MAKER	OGR																						DTW		IRP#1					IRP#2							Q'TY	REMAKR'S
					HVIP-401	HVIP-402	LVIP 401	LVIP 402	GEH 401/402	DPSP-401	DPSP-402	DPSP-403	DPSP-404	DPSP-405	DPSP-406	IVSP-401	IVSP-402	LVET-01	LOP-4P01~06 (D/B Pump)	LVDP-401	LVDP-402	MCC-402	LOP-4P02(A/B) (Sump Pump)	LOP-6M02(A/B) (Fan)	LOP-6M02(A/B) (Fan)	LVR-401	LV-101~146	PWP-101~146	MCC-201	AHP-201A/B	LOP-2M01(A/B) (Air Blower)	LOP-2P01(A/B) (Backwash P/P)	LOP-2P03(A/B) (Drying Bed P/P)	LV-301	LV-302	MCC-301	AHP-301A/B	LOP-3M01(a/B) (Air Blower)	LOP-3P01(A/B) (Backwash P/P)	LOP-3P03(A/B) (Drying Bed P/P)	TOTAL	
78	A-METER	AMPERE METER 110x110 0~1000A, OS300%								1	1	1	1	1	1																											6	
79	A-METER	AMPERE METER 80x80 0~1000A, OS300%																	6			1																				7	
80	V-METER	VOLTAGE METER 80x80 0~600V, 10VA																				1																				1	
81	CAM S/W(3-52)	20A 250 AC/DC TRIP-CLOSE/PULL TURN TYPE	DNC 3102A,R C4MO20B	YONGSUNG	1	1	1	1	2																		46			2				1			2				57	
82	CAM S/W(43R)	20A 250 AC/DC LOCAL-REMOTE	DNC 3102 C4N/O20B	YONGSUNG	1	1	1	1	2	3	3	2	2	2	2				6								46	46	5	2	2	2		1		5	2	2	2		141	
83	SELECTOR S/W	5A 250 AC/DC MANUAL-AUTO	YS R 22 2 1HKE	YONGSUNG																1	1	13	2	6	6																	29	
84	BZ	DC110V, 65Φ	YS EB6-00 D01	YONGSUNG			1	1																																		2	
85	BZ	AC230V, 65Φ	YS EB6-22 A01	YONGSUNG						1	1	1	1	1	1												46			2				1			2				57	
86	SQUARE LAMP	FAULT INDICATOR AC230V(40*30)	YS BRL 34-AL11Y 1*1	YONGSUNG																			2										2							2	6	
87	SQUARE LAMP	FAULT INDICATOR DC110V(40*30)	YS BRL 34-DL11Y 1*3	YONGSUNG																								46		2							2				50	
88	SQUARE LAMP	FAULT INDICATOR DC110V(40*30)	YS BRL 34-DL11Y 1*8	YONGSUNG	1	1	1	1	2																																	6	
89	SQUARE LAMP	FAULT INDICATOR AC230V(40*30)	YS BRL 34-AL11Y 1*4	YONGSUNG															6																							6	
90	SQUARE LAMP	FAULT INDICATOR AC230V(40*30)	YS BRL 34-AL11Y 1*6	YONGSUNG						1	1	1	1	1	1												46															52	
91	P.B.L	PUSH BUTTON LAMP S/W, AC230V, 25Φ, LED TYPE	YS-APBL-22-AL 22 RH R	YONGSUNG						1	1	1	1	1	1				12	4	4	13	2	6	6			46	5	2	2	2	2		4	5	2	2	2	2	129	
92	P.B.L	PUSH BUTTON LAMP S/W, AC230V, 25Φ, LED TYPE	YS-APBL-22-AL 221 RH G	YONGSUNG						1	1	1	1	1	1				12	4	4	13	2	6	6			46	5	2	2	2	2		4	5	2	2	2	2	129	
93	P.B.L	PUSH BUTTON LAMP S/W, AC230V, 25Φ, LED TYPE	YS-APBL-22-AL 22 RH Y	YONGSUNG						1	1	1	1	1	1				6	4	4	13	2	6	6			46	5	2	2	2	2		4	5	2	2	2	2	123	
94	P.L	PUSH BUTTON S/W., AC230V, 25Φ	YS-PL-2-AL 22R,G,Y	YONGSUNG						3	3	3	3	3	3				18			-	1				92							2							131	
95	P.L	PUSH BUTTON S/W., DC110V, 25Φ	YS-APL-22-DL 11 R,G,	YONGSUNG	2	2	2	2	4																																	12	
96	P.B	PUSH BUTTON S/W.,25Φ	YS-P1-22-11 RF R,Y,G	YONGSUNG	3	3	3	3	6										12								92	46		2							2				172	
97	P.B	PUSH BUTTON S/W.,25Φ	YS-P1-22-11 RF O	YONGSUNG																														2							2	
98	PIT	4P			1	1	1	1	2																																	6	
99	GPTT	4P			1	1																																				2	
100	CTT	4P			1	1	1	1	2																																	6	
101	AUX Relay		GMR-4(2a2b)	LS	15	15	8	8	16																																	62	
102	AUX Relay		UA-4(2a2b)	LS	2	2	5	5	10																																	24	
103	E.M SW	PUSH BUTTON, 25Φ(1a1b)	YS SEP3 23 11 RA	YONGSUNG						1	1	1	1	1	1				6									46		2							2				62	
104	TEMPERATURE INDICATOR	96*48	TZ4W-A4R	Autonics						3	3	3	3	3	3																											18	
105	AUTO CHANGE CONTROLLER	49*77	YS ACC A22-2S	YONGSUNG																			1																			1	
106	INDICATOR	96*48	SCONI-1200A 4X	ESCON						1	1	1	1	1	1																											6	
107	HOUR METER	48*24	LEEN-BN LED	Autonics						1	1	1	1	1	1								2																			8	
108	TIMER		FS5H	Autonics																																						-	
109	S.H	AC230V, 50HZ, 150W	DCA1H-230	DAECHANG	1	1	1	1	2	1	1	1	1	1	1																											12	
110	TH(W/TS)	0~90℃	RTC-80, RHC-90	RUN ELECTRIC	1	1	1	1	2	1	1	1	1	1	1																											12	
111	F.L	AC230V, 20W, LAMP W/COVER	LC-10	SUNGHO	1	1	1	1	2	2	2	2	2	2	2																											18	
112	A-TD	INPUT : 5A, OUTPUT : DC 4~20mA 50HZ	DT-1AA1A B	DAEJOO ID SYSTEM.,LTD						1	1	1	1	1	1																											6	
113	FAN	1P AC220V 50Hz 38W	DAN-081	Dongkum						2	2	2	2	2	2																											12	

AS BUILT

Rev	Description	Drawn	Checked	Approved	Date
1	AS BUILT	GS, Hwang	IY, Ryu	-	July, 25. 2017

CONSULTANTS

Hankuk Engineering Consultants (H.E.C)

SUNG JI ENG — SUNG JI Engineering

IWM — Institute of Water Medelling

CLIENT

WASA — DHAKA WATER SUPPLY AND SEWERAGE AUTHORITY

CONTRACTOR

HYUNDAI Rotem — HYUNDAI ROTEM COMPANY

Notes:
1. All dimensions are in millimetres and all levels in metres PWD unless shown otherwise.
2.

DRAWING SCALE: Not in Scale

ORIGINAL DRAWING SIZE: A3 - 420x297

DRAWING No.: **E-VP-E-020**

REV.:

PROJECT: Well Field Construction Project at Tetulzhora-Bhakurta Area of Savar Upazilla(Part-1)

TITLE: **Material List for Electrical Panel Board 3/3**

STATUS: FOR APPROVAL

DESIGNED	DRAWN	CHECKED	APPROVED BY
KH,Yook	GS, Hwang	IY, Ryu	
DATE March, 10, 2017	DATE March, 10, 2017	DATE March, 10, 2017	DATE