Reference Only

DRAWING LIST

DRAWING NO.	TITLE OF DRAWING		
PV- 000	DRAWING LIST		
PV- 001	OVERALL LAYOUT AT JAIP		
PV- 002	SINGLE LINE DIAGRAM FOR JAIP PV GENERATION SYSTEM		
PV- 003	Monitoring system Single Line Diagram		
PV- 004	S401-36 RMU and Transformer House Single Line Diagram		
PV- 005	S401-37 RMU and Transformer House Single Line Diagram		
PV- 006	S401-38 RMU and Transformer House Single Line Diagram		
PV- 007	S401-39 RMU and Transformer House Single Line Diagram		
PV- 008	CASE-1 UNDP 11 Hanger PV Module New Installation Plan		
PV- 009	CASE-4 Expansion Area in Existing PV Station PV Module New Installation Plan		
PV- 010	CASE-7 Zone-A Hanger PV Module New Installation Plan		
PV- 011	CASE-8 Zone-E Hanger PV Module New Installation Plan		
PV- 012	CASE-1 UNDP 11 Hanger Excavation and Piping Plan		
PV- 013	CASE-7 Zone-A Hanger Excavation and Piping Plan		
PV- 014	CASE-6 Zone-B Hanger Excavation and Piping Plan		
PV- 015	Existing PV Monitoring Room Revise Single Line Diagram		
PV- 016	Existing PV Monitoring Room Revise Plan		
PV- 017	S401-36 RMU and Transformer House Revise Plan		
PV- 018	S401-37 RMU and Transformer House Revise Plan		
PV- 019	S401-38 RMU and Transformer House Revise Plan		
PV- 020	S401-39 RMU and Transformer House Revise Plan		
PV- 021	New Monitoring System Single Line Diagram		
PV- 022	S401-36 RMU and Transformer House PV Module Connection Single Line Diagram		
PV- 023	S401-37 RMU and Transformer House PV Module Connection Single Line Diagram		
PV- 024	S401-38 RMU and Transformer House PV Module Connection Single Line Diagram		
PV- 025	S401-39 RMU and Transformer House PV Module Connection Single Line Diagram		
PV- 026	New Monitoring Room Plan		
PV- 027			
PV- 028			

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CONSULTANT
KANDENKO ENGINEERING & CONSTRUCTION

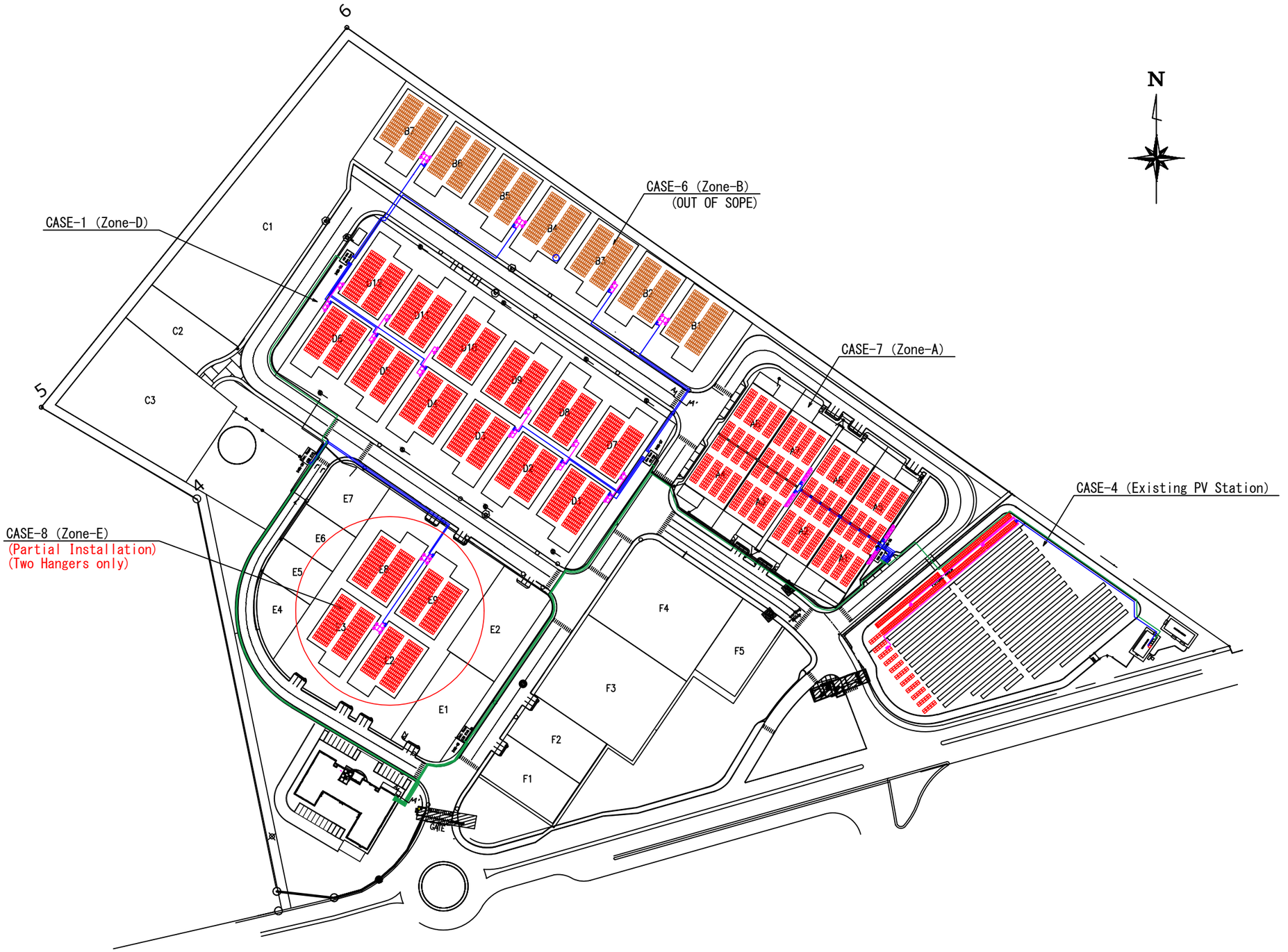
PROJECT TITLE
Jericho Agro-Industrial Park:
Development of Solar Array for
JAIP Tenants

PROJECT No.
PAL10-00102699

DRAWING TITLE

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
		PV-000



Reference Only

Legend:-

- High Voltage Cables
- Low Voltage Cables
- Power Conditioner (Inverter)
- AC Collection Box
- XLPE 14mm2
- XLPE 150mm2
- Fober-Opti/ RS-485 cable for data communication

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OWNER: PIEFZA

IMPLEMENTING AGENCY: UNDP/PAPP

CONSULTANT: KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE: Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

PROJECT No.: PAL10-00102699

DRAWING TITLE: OVERALL LAYOUT AT JAIP

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
NO SCALE		PV-001

Reference Only

Zone-C

Water TANK

Administration BLD

S401-39
Tr : 630A×1

11kV Distribution Line

S401-38
Tr : 630A×1

Zone-D

Zone-E

PCS :E3-1 PCS :E3-2 PCS :E8-1 PCS :E8-2
JBE1 JBE2
PCS :E2-1 PCS :E2-2 PCS :E9-1 PCS :E9-2

Partial Installation
(2 Hangers only)

11kV Distribution Line

PCS :D6-1 PCS :D6-2 JBD6 PCS :D12-1 PCS :D12-2
PCS :D5-1 PCS :D5-2 JBD5 PCS :D11-1 PCS :D11-2
PCS :D4-1 PCS :D4-2 JBD4 PCS :D10-1 PCS :D10-2
PCS :D3-1 :3-2 JBD3 PCS :D9-1 PCS :D9-2
PCS :D2-1 PCS :D2-2 JBD2 PCS :D8-1 PCS :D8-2
PCS :D1-1 PCS :D1-2 JBD1 PCS :D7-1 PCS :D7-2

11kV Distribution Line

PCS :B7-1 PCS :B7-2
JBB4
PCS :B6-1 PCS :B6-2
PCS :B5-1 PCS :B5-2
JBB3
PCS :B4-1 PCS :B4-2

Zone-B

PCS :B3-1 PCS :B3-2
JBB2
PCS :B2-1 PCS :B2-2
JBB1
PCS :B1-1 PCS :B1-2

S401-40
Tr : 630A×1

11kV Distribution Line

S401-37
Tr : 630A×1

Zone-A

PCS :A4-1 PCS :A4-2 JBA1 JBA2 PCS :A8-1 PCS :A8-2
PCS :A3-1 PCS :A3-2 PCS :A7-1 PCS :A7-2
PCS :A2-1 PCS :A2-2 JBA3 JBA4 PCS :A6-1 PCS :A6-2
PCS :A1-1 PCS :A1-2 PCS :A5-1 PCS :A5-2

S401-36
Tr : 1000A×1, 630A×1

11kV Distribution Line

Green Area 1

Zone-F

Green Area 2

GATE

Main GATE

Ex
Ex
Ex
PCS
RMU
Existing PV St.

JDECO POLE

JDECO National Grid

33kV Distribution Line

33kV Distribution Line

11kV Distribution Line

Main
Sub-Station
20MW×2

Legend :

PCS :B7-1 — New Power Conditioner

S401-38 — RMU and Tr Room

11kV Distribution Line

Low Voltage Distribution Line

PV Electric Power Distribution Line

Zone-A — Zone Name

Zone Area

AC Collection Box

EX. Customer Distribution Line

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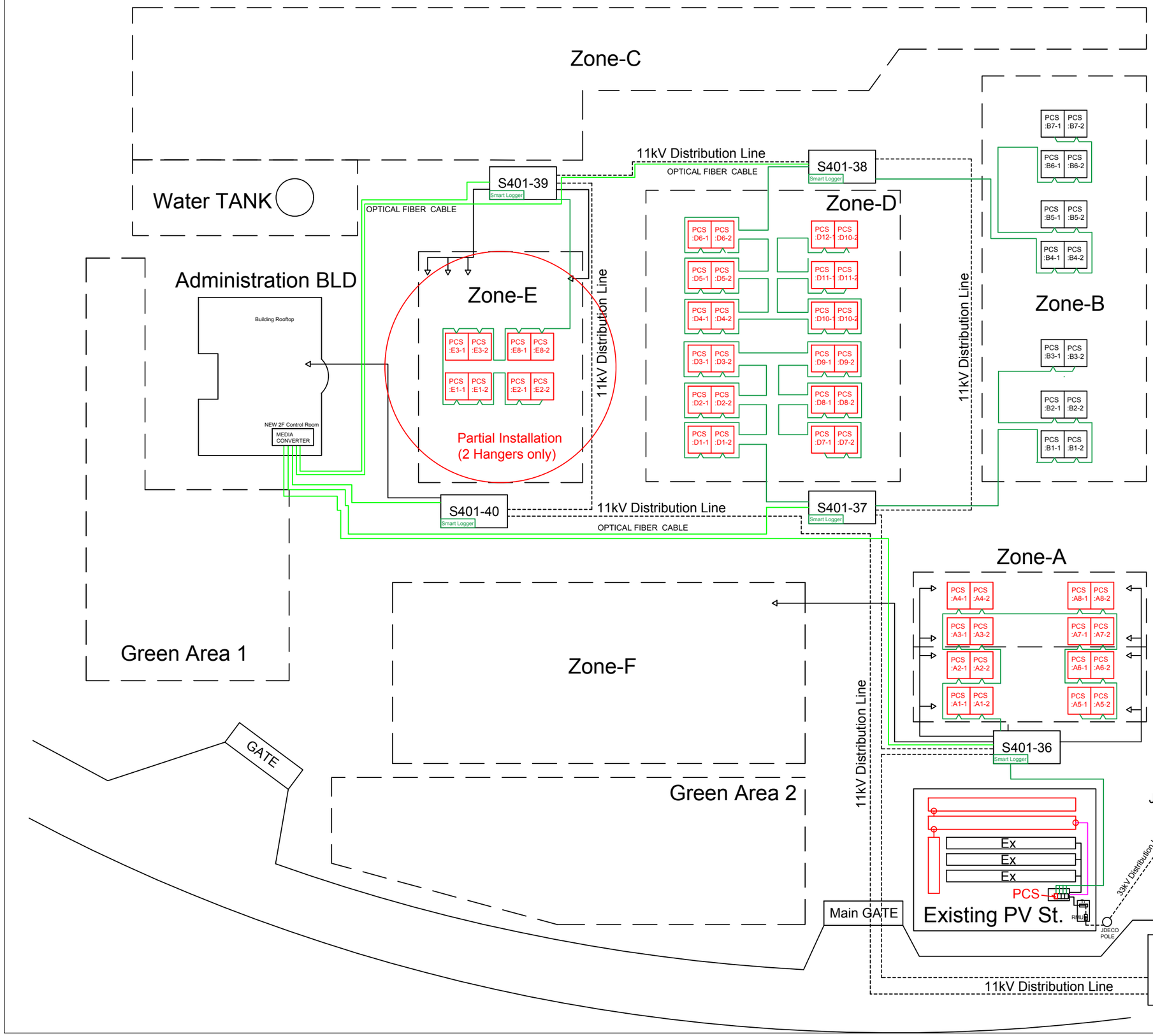
PROJECT TITLE
Jericho Agro-Industrial Park:
Development of Solar Array for JAIP Tenants

PROJECT No.
PAL10-00102699

DRAWING TITLE
11kV and Low Voltage Line Diagram

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
		PV-002



Reference Only

Legend :

- PCS :B7-1 — New Power Conditioner
- S401-38 — RMU and Tr Room
- 11kV Distribution Line
- Low Voltage Distribution Line
- Zone-A — Zone Name
- Zone Area
- AC Collection Box
- Customer Distribution Line
- Smart Logger
- Optical Fiber Cable
- RS-485 cable

DONOR: The Goverment of Japan

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IMPLEMENTING AGENCY: UNDP/PAPP

CONSULTANT: KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE: Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

PROJECT No.: PAL10-00102699

DRAWING TITLE: Smart Logger Communication Line Diagram

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
		PV-003

Reference Only

S401-36

11kV Ring Main Unit

To Sub-Station

To S401-37

Wh NEW

1000+630kVA Transformer

Wh NEW

250A

LV Connection Board

Distribution Board

50A

Wh EX

ELR 25A

ELR 25A

ELR 25A

16A 16A 10A 10A 16A 16A

No.1-4 Power

No.5 Spare

No.11,12 Light

No.13 Spare

No.21 Spare

No.22 Spare

New Install LV Board

Wh NEW

ELCB 400AF/250AT

NEW Ex. PV St.

XLPE150mm2-4C

XLPE150mm2-4C

XLPE150mm2-4C

XLPE150mm2-4C

XLPE150mm2-4C

NEW JBA1

380/220

100/75

XLPE14mm2-4C

PCS 36.0kV (Power Conditioner)

A3-1 A3-2 A4-1 A4-2

NEW JBA2 NEW JBA3 NEW JBA4

XLPE14mm2-4C

×4 ×4 ×4

PCS 36.0kV (Power Conditioner) A7-1,2 A8-1,2

PCS 36.0kV (Power Conditioner) A1-1,2 A2-1,2

PCS 36.0kV (Power Conditioner) A5-1,2 A6-1,2

Zone-A

Legend :

- Power Conditioner
- Wh kWh Meter
- ELCB
- ECCB or ELR
- 250A FUSE
- TRANSFORMER

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CONSULTANT

KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE

Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

PROJECT No.

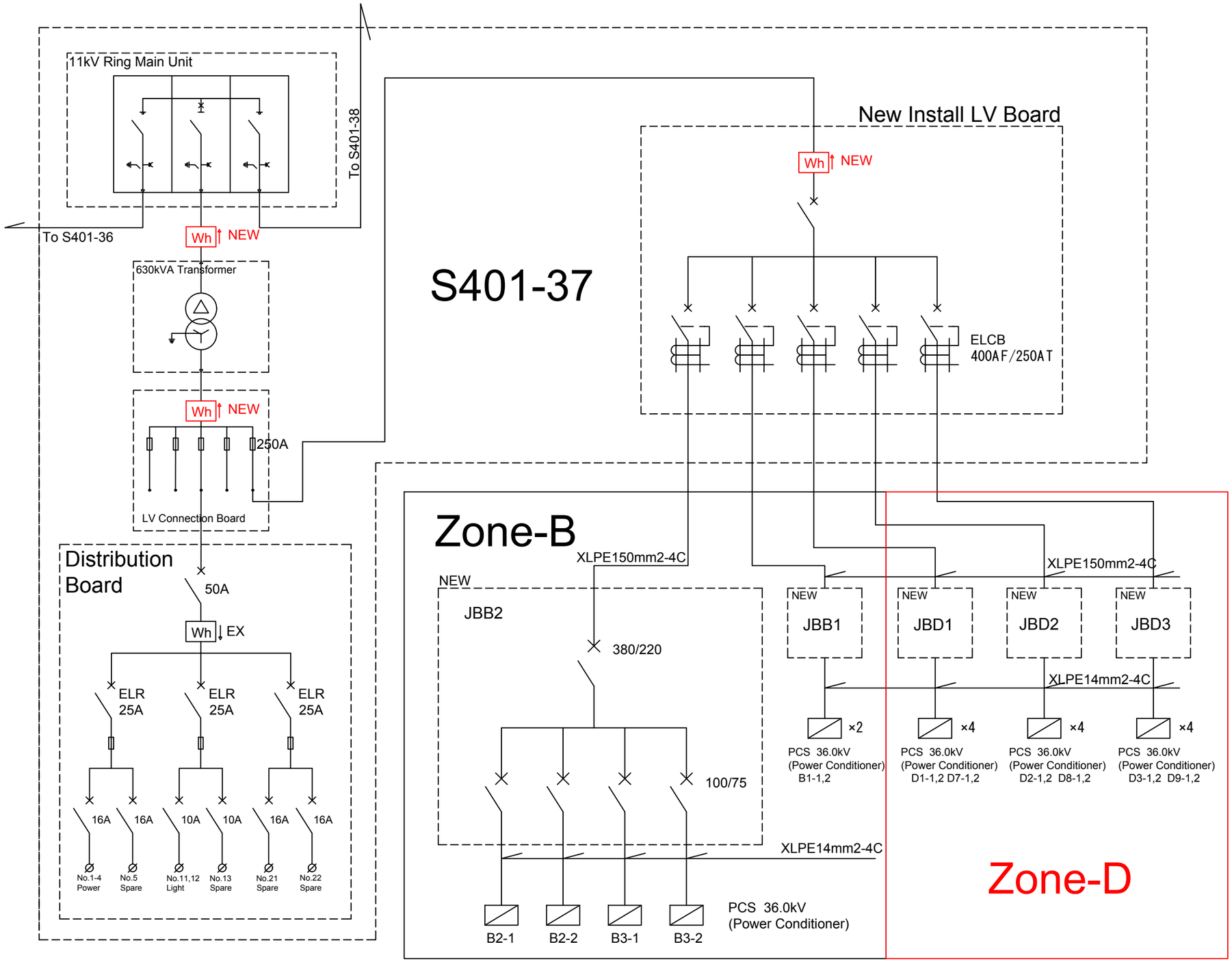
PAL10-00102699

DRAWING TITLE

S401-36 RMU and Tr House Revise Diagram

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
		PV-004



Reference Only

Legend :

- Power Conditioner
- Wh kWh Meter
- ELCB
- ECCB or ELR
- 250A FUSE
- TRANSFORMER

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CONSULTANT
KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE
Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

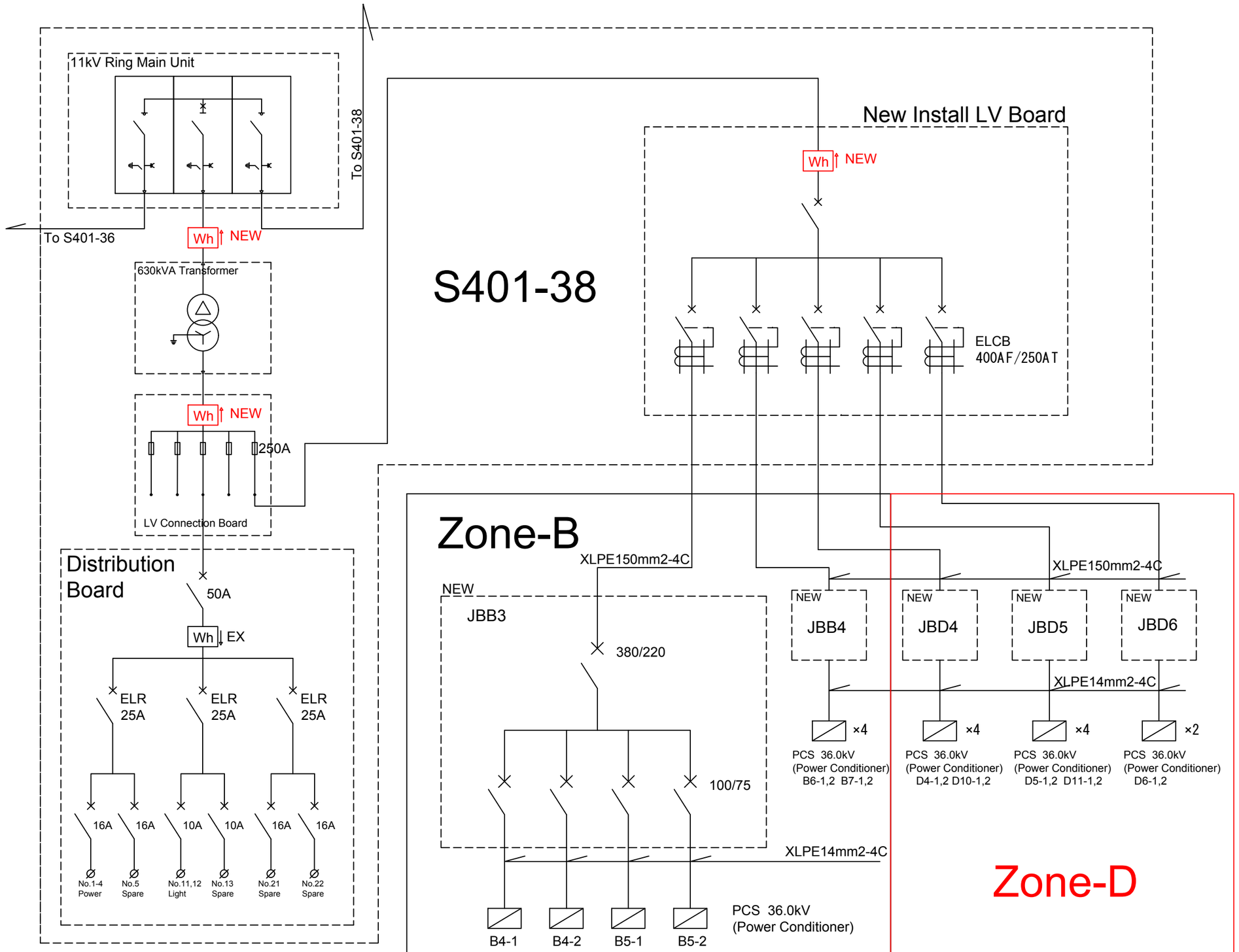
PROJECT No.
PAL10-00102699

DRAWING TITLE
S401-37 RMU and Tr House Revise Diagram

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
		PV-005

Reference Only



Legend :

- Power Conditioner
- Wh kWh Meter
- ELCB
- ECCB or ELR
- 250A FUSE
- TRANSFORMER

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CONSULTANT
KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE
Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

PROJECT No.
PAL10-00102699

DRAWING TITLE
S401-38 RMU and Tr House Revise Diagram

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
		PV-006

Reference Only

S401-39

11kV Ring Main Unit

To S401-40

To S401-38

Wh NEW

630kVA Transformer

Wh NEW

250A

LV Connection Board

Distribution Board

50A

EX Wh

ELR 25A | ELR 25A | ELR 25A

16A 16A | 10A 10A | 16A 16A

No.1-4 Power | No.5 Spare | No.11,12 Light | No.13 Spare | No.21 Spare | No.22 Spare

New Install LV Board

Wh NEW

ELCB 400AF/250AT

XLPE150mm2-4C

NEW JBE1

380/220

100/75

XLPE14mm2-4C

E2-1 | E2-2 | E3-1 | E3-2

PCS 36.0kV (Power Conditioner)

NEW JBE2

×4

PCS 36.0kV (Power Conditioner) E8-1,2 E9-1,2

Zone-E

Partial Installation (2 Hangers only)

Legend :

- Power Conditioner
- Wh kWh Meter
- ELCB
- ECCB or ELR
- 250A FUSE
- TRANSFORMER

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IMPLEMENTING AGENCY: UNDP/PAPP

CONSULTANT: KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE: Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

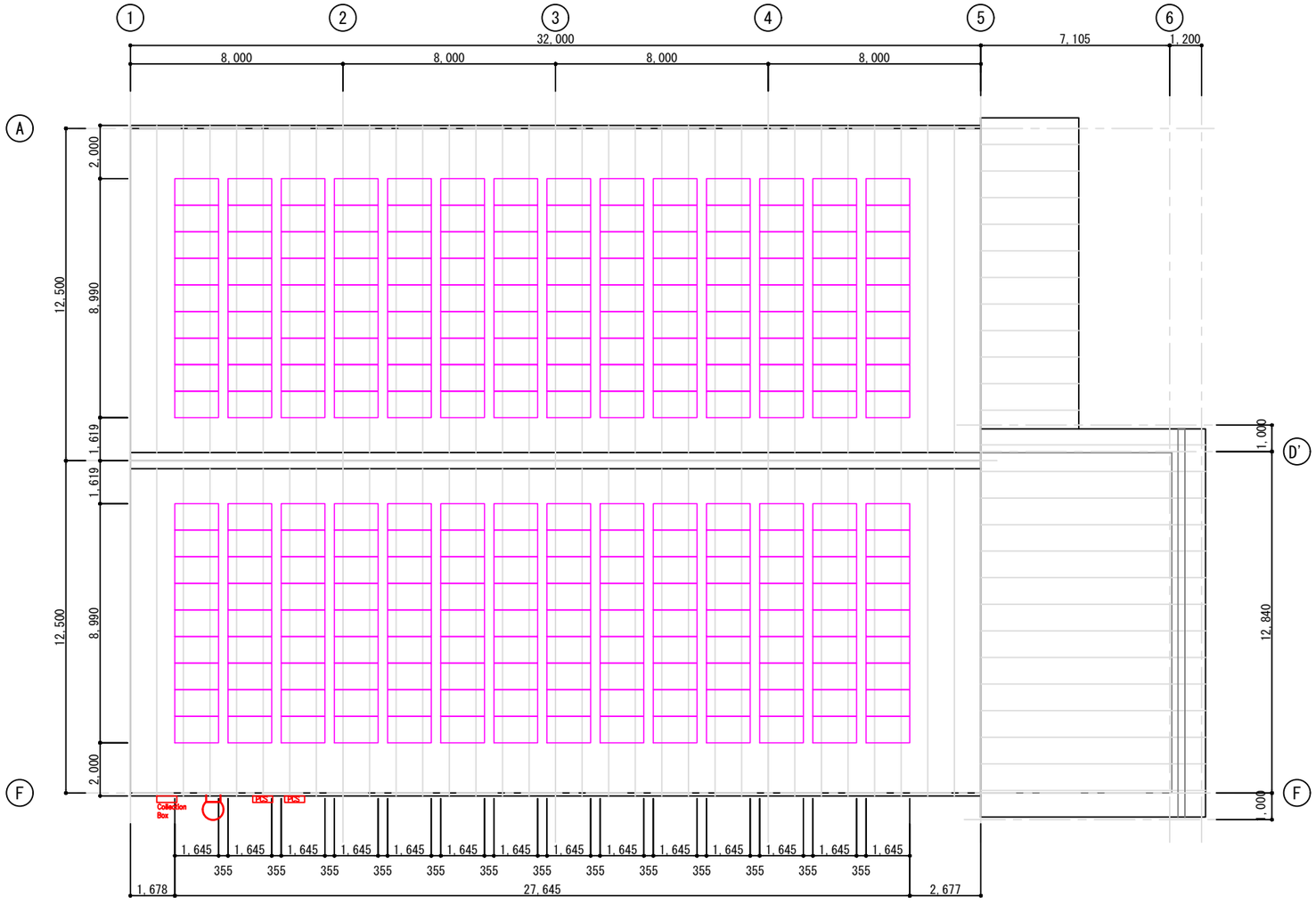
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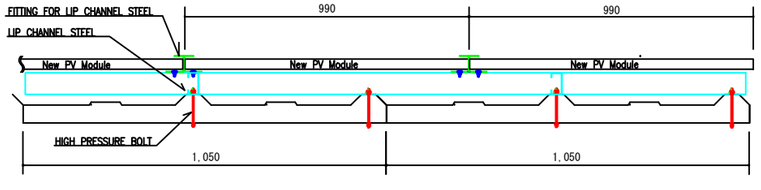
DRAWING TITLE: S401-39 RMU and Tr House Revise Diagram

ELECTRICAL:	
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CHECKED : KanDenKo	
APPROVED : UNDP	

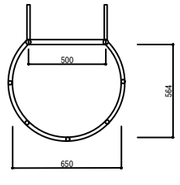
SCALE	DATE	DRAWING No.
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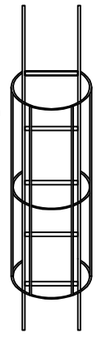
Zone-D





DETAIL : Ladder with fall prevention protection





Reference Only

PV-Module:

Manufacturer	:	
Type	:	
	:	Poly-crystalline cells

OUTPUT CHARACTERISTICS

Maximam Output	:	280.0W
Max. Power Voltage	:	32.70V
Max. Power Current	:	8.57A
Open Circuit Voltage	:	38.70V
Short Circuit Current	:	9.13A
	:	1645x990x35
	:	17.9kg
Total facilities capacity	:	280W/㎡ x 252nos= 78.12kW
Amount of Modules	:	21strings x 12Arrays= 252nos
Shape of the Roof	:	Bending Slope Roof

DONOR: The Goverment of Japan (From the People of Japan)

OWNER: PIEFZA

IMPLEMENTING AGENCY: UNDP/PAPP

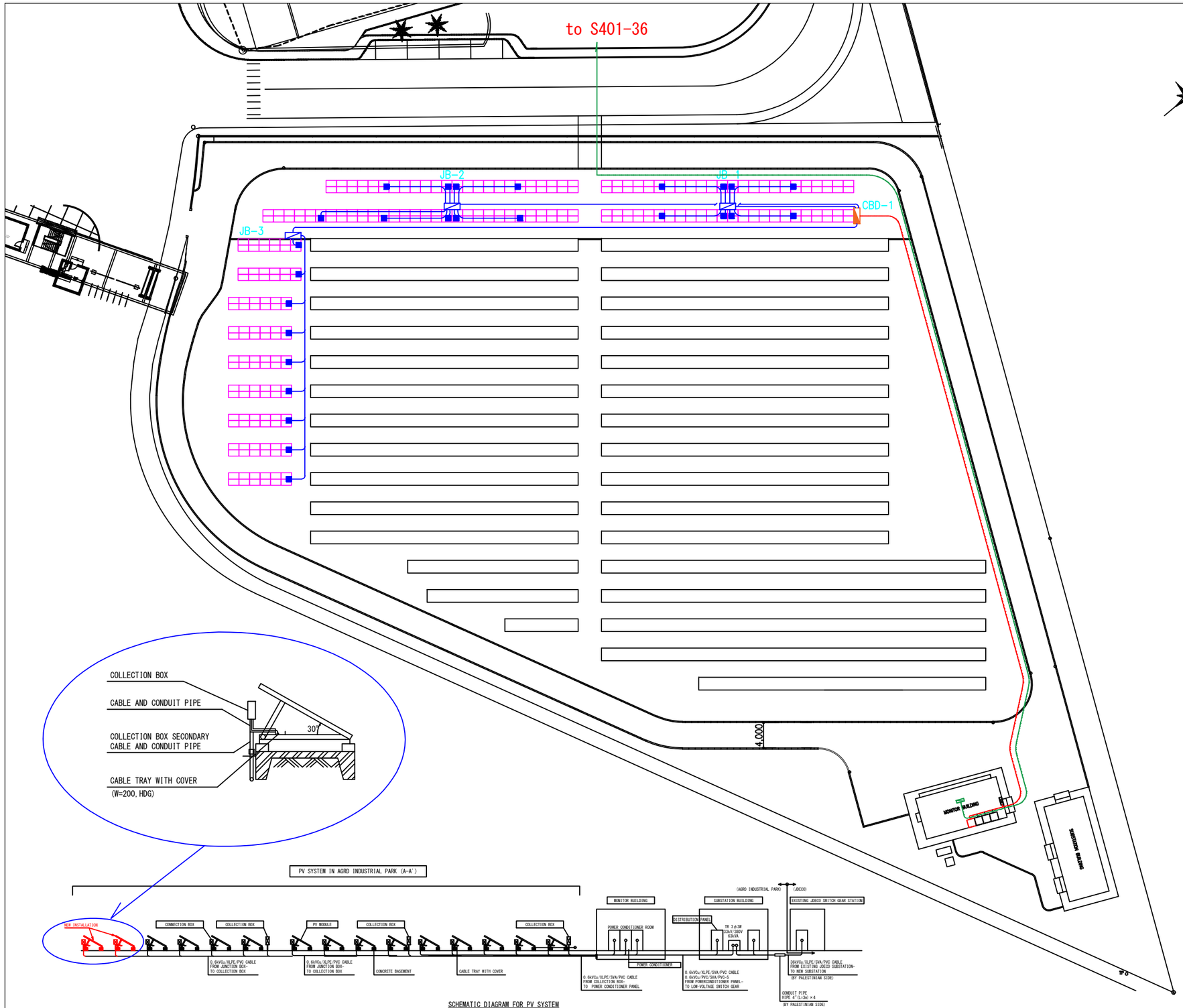
CONSULTANT: KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE: Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

PROJECT No.: PAL10-00102699

DRAWING TITLE: PLAN OF THE ROOFTOP OF THE WAREHOUSE NEW INSTALLATION Zone-D

ELECTRICAL:		
DRAWN : Giken Design Office JP		
CHECKED : KanDenKo		
APPROVED : UNDP		
SCALE 1:200	DATE	DRAWING No. PV-008



SCHEMATIC DIAGRAM FOR PV SYSTEM

Reference Only

PV-Module:

Manufacturer :
:
: Poly-crystalline cells

OUTPUT CHARACTERISTICS

Maximam Output	:	280.0W
Max. Power Voltage	:	32.70V
Max. Power Current	:	8.57A
Open Circuit Voltage	:	38.70V
Short Circuit Current	:	9.13A
	:	1645x990x35
	:	17.9kg
Total facilities capacity	:	280W/枚×312nos=87.36kW
Amount of Modules	:	12strings×26Arrays=312nos
Shape of the Roof	:	Bending Slope Roof

Legend :

- Power Conditioner
- Collection Box
- Connection Box
- PV Module
- XLPE 150mm2 for LV Distribution Line
- Optical fiber cable for Communication Line

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OWNER: PIEFZA

IMPLEMENTING AGENCY: UNDP/PAPP

CONSULTANT: KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE: Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

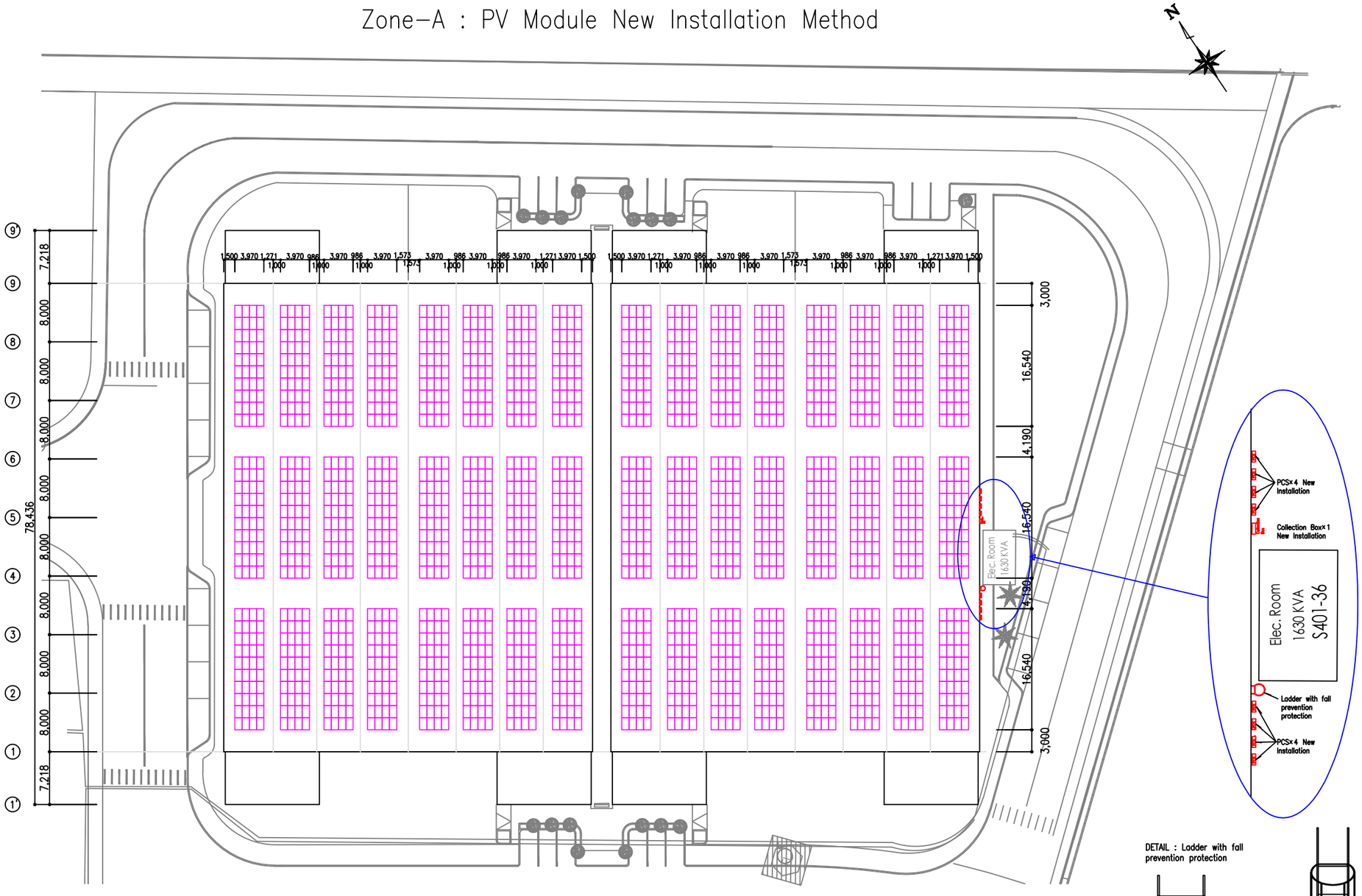
PROJECT No.: PAL10-00102699

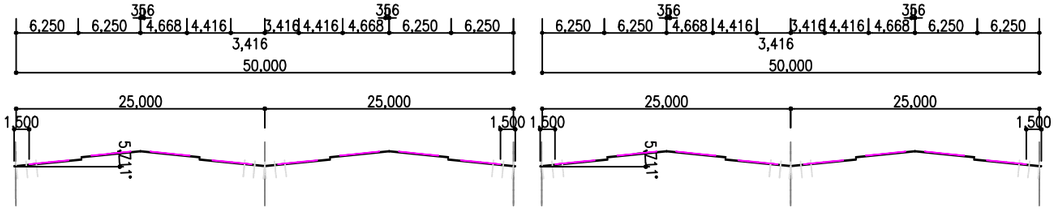
DRAWING TITLE: PLAN OF EXPANSION AREA IN EXISTING PV STATION PV NEW INSTALLATION

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

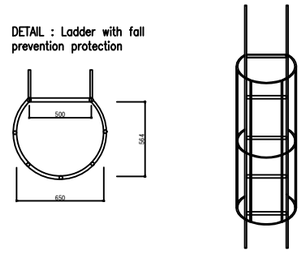
SCALE	DATE	DRAWING No.
		PV-009

Zone–A : PV Module New Installation Method

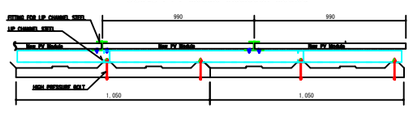




DETAIL : Ladder with fall prevention protection



DETAIL : PV Module Instllation Method



PV–Module:

Manufacturer	:	
Type	:	
	:	Poly–crystalline cells

OUTPUT CHARACTERISTICS

Maximam Output	:	280.0W
Max. Power Voltage	:	32.70V
Max. Power Current	:	8.57A
Open Circuit Voltage	:	38.70V
Short Circuit Current	:	9.13A
	:	1645x990x35
	:	17.9kg
Total facilities capacity	:	280W/㎡ x 1920nos= 537.6kW
Amount of Modules	:	20strings x 96Arrays= 1920nos
Shape of the Roof	:	Bending Slope Roof

Legend :

PCS	Power Conditioner
Collection Box	Collection Box
	PV Module

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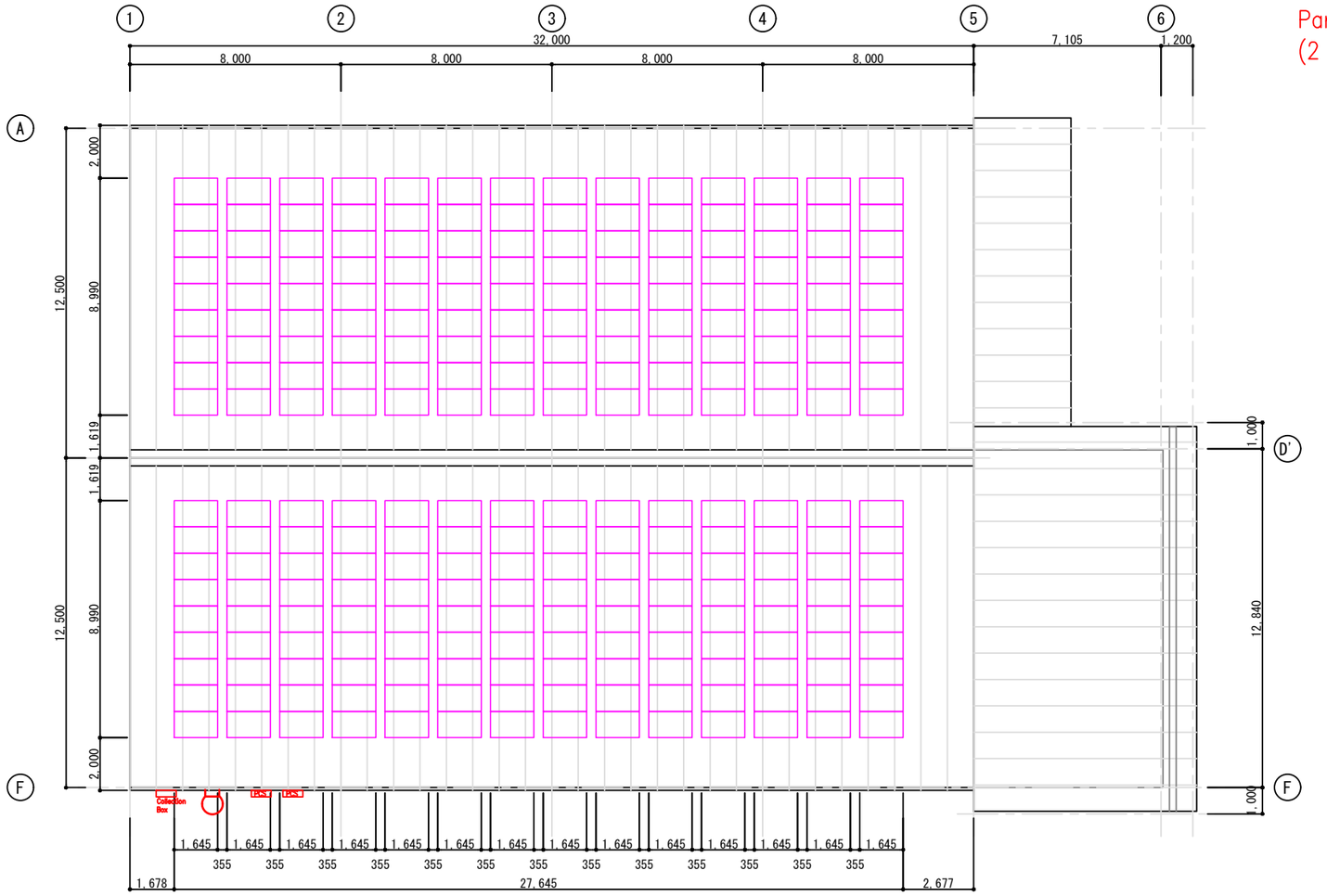
CONSULTANT
KANDENKO ENGINEERING & CONSTRUCTION

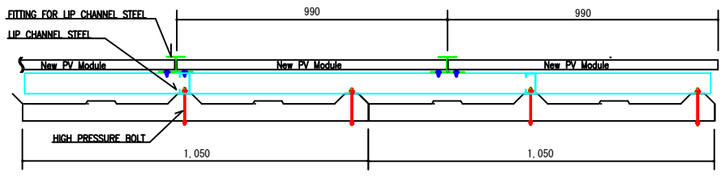
PROJECT TITLE	Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants
PROJECT No.	PAL10-00102699
DRAWING TITLE	PLAN OF THE ROOFTOP OF THE WAREHOUSE NEW INSTALLATION Zone–A
ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	
SCALE	
DATE	
DRAWING No.	PV–010

Zone-E

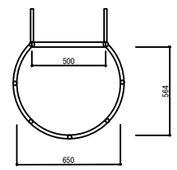
Partial Installation
(2 Hangers only)

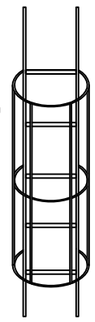
Reference Only





DETAIL : Ladder with fall prevention protection





PV-Module:

Manufacturer	:	
Type	:	
	:	Poly-crystalline cells

OUTPUT CHARACTERISTICS

Maximam Output	:	280.0W
Max. Power Voltage	:	32.70V
Max. Power Current	:	8.57A
Open Circuit Voltage	:	38.70V
Short Circuit Current	:	9.13A
	:	1645x990x35
	:	17.9kg
Total facilities capacity	:	280W/㎡x 252nos= 78.12kW
Amount of Modules	:	21strings× 12Arrays= 252nos
Shape of the Roof	:	Bending Slope Roof

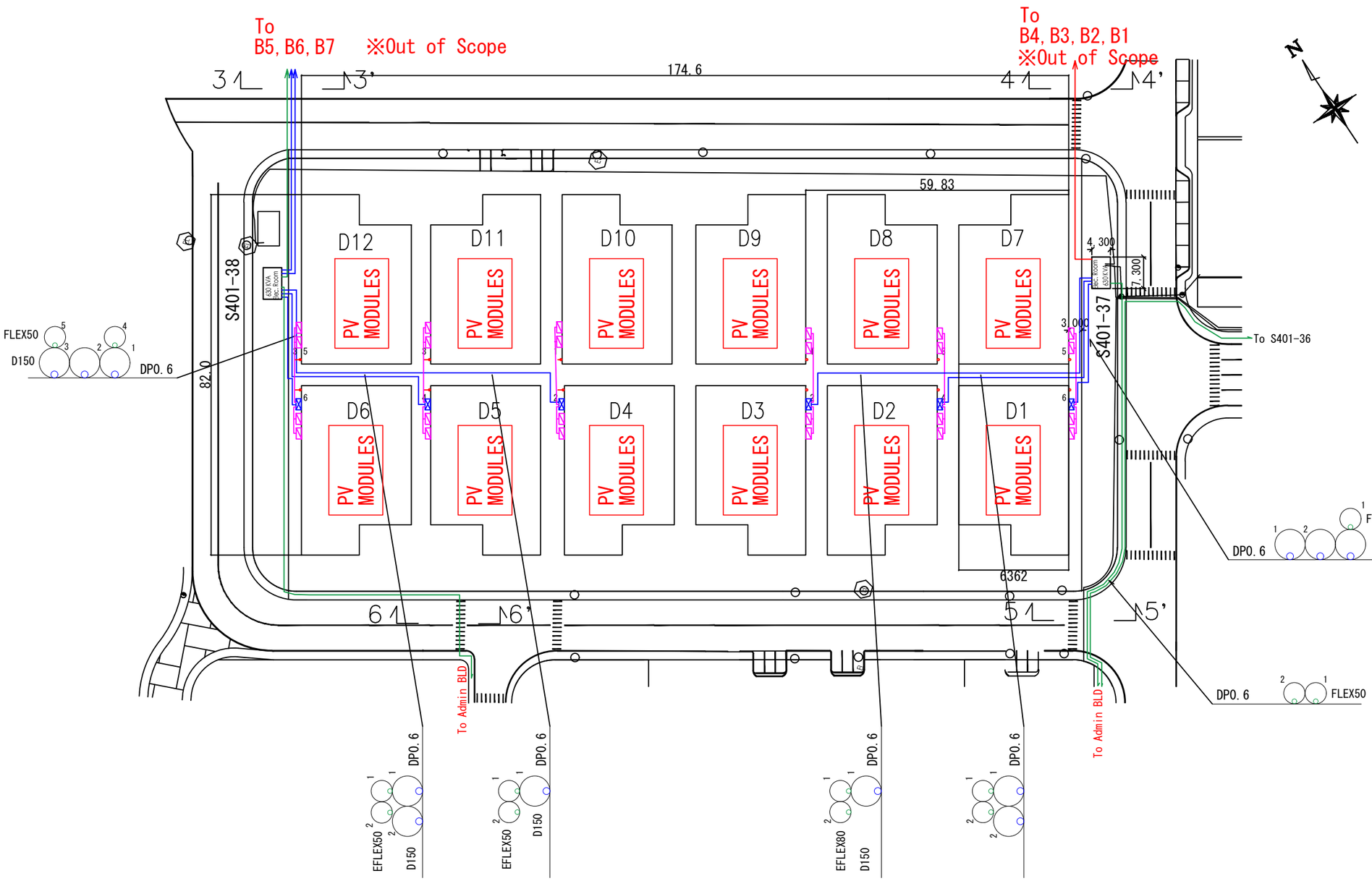
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OWNER: PIEFZA

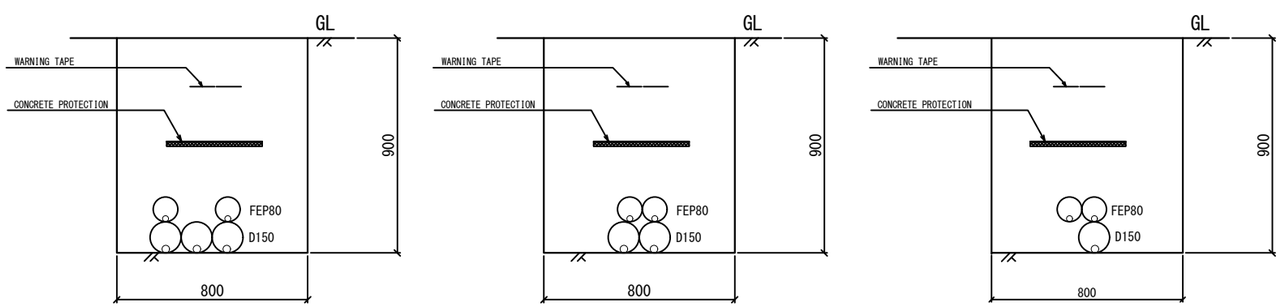
IMPLEMENTING AGENCY: UNDP/PAPP

CONSULTANT: KANDENKO ENGINEERING & CONSTRUCTION

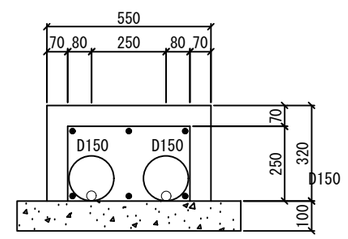
PROJECT TITLE	Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants
PROJECT No.	PAL10-00102699
DRAWING TITLE	PLAN OF THE ROOFTOP OF THE WAREHOUSE NEW INSTALLATION Zone-E
ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	
SCALE 1:200	DATE
DRAWING No. PV-011	



Typical Elevation Detail



SECTION 3-3', 4-4', 5-5', 6-6'



NOTES
LEAN CONCRETE GRADE100, CONCRETE200
REIN FORCEMENT BAR CⅠ(D＜10), CⅡ(D≧10)

Reference Only

Legend
- Power Conditioner
- Collection Box
- XLPE 14mm2
- XLPE 150mm2
- Optical fiber cable or RS485 Line

DONOR: The Goverment of Japan (From the People of Japan)

OWNER: PIEFZA

IMPLEMENTING AGENCY: UNDP/PAPP

CONSULTANT: KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE: Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

PROJECT No.: PAL10-00102699

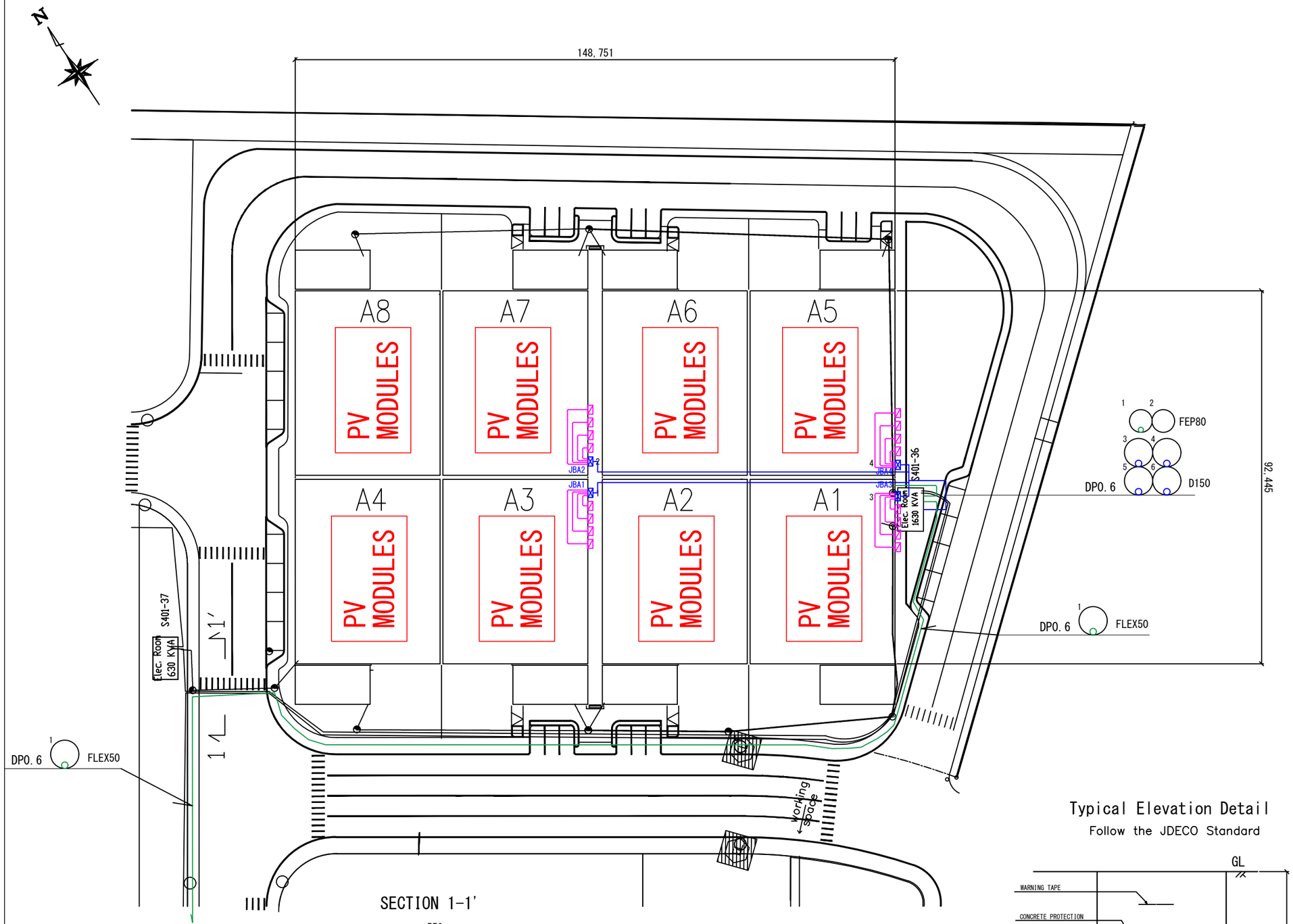
DRAWING TITLE: Zone-D EXCAVATION, PIPING, and CABLING to RMU House

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	
SCALE / DATE	DRAWING No. PV-012

Reference Only

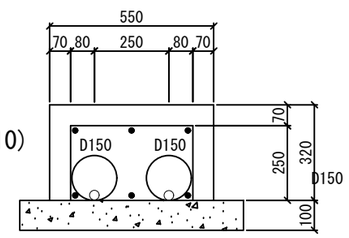
Legend:-

- High Voltage Cables
- Low Voltage Cables
- Power Conditioner (Inverter)
- AC Collection Box
- LV XLPE 14mm2
- LV XLPE 150mm2
- Optical Fiber Cable

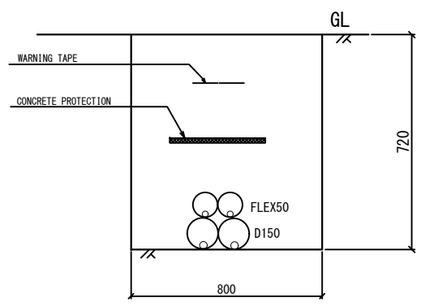


NOTES
LEAN CONCRETE GRADE100, CONCRETE200
REIN FORCEMENT BAR C I (D＜10), C II (D≧10)

SECTION 1-1'



Typical Elevation Detail
Follow the JDECO Standard



DONOR
The Goverment of Japan

OWNER
PIEFZA

IMPLEMENTING AGENCY
UNDP/PAPP

CONSULTANT
KANDENKO ENGINEERING & CONSTRUCTION

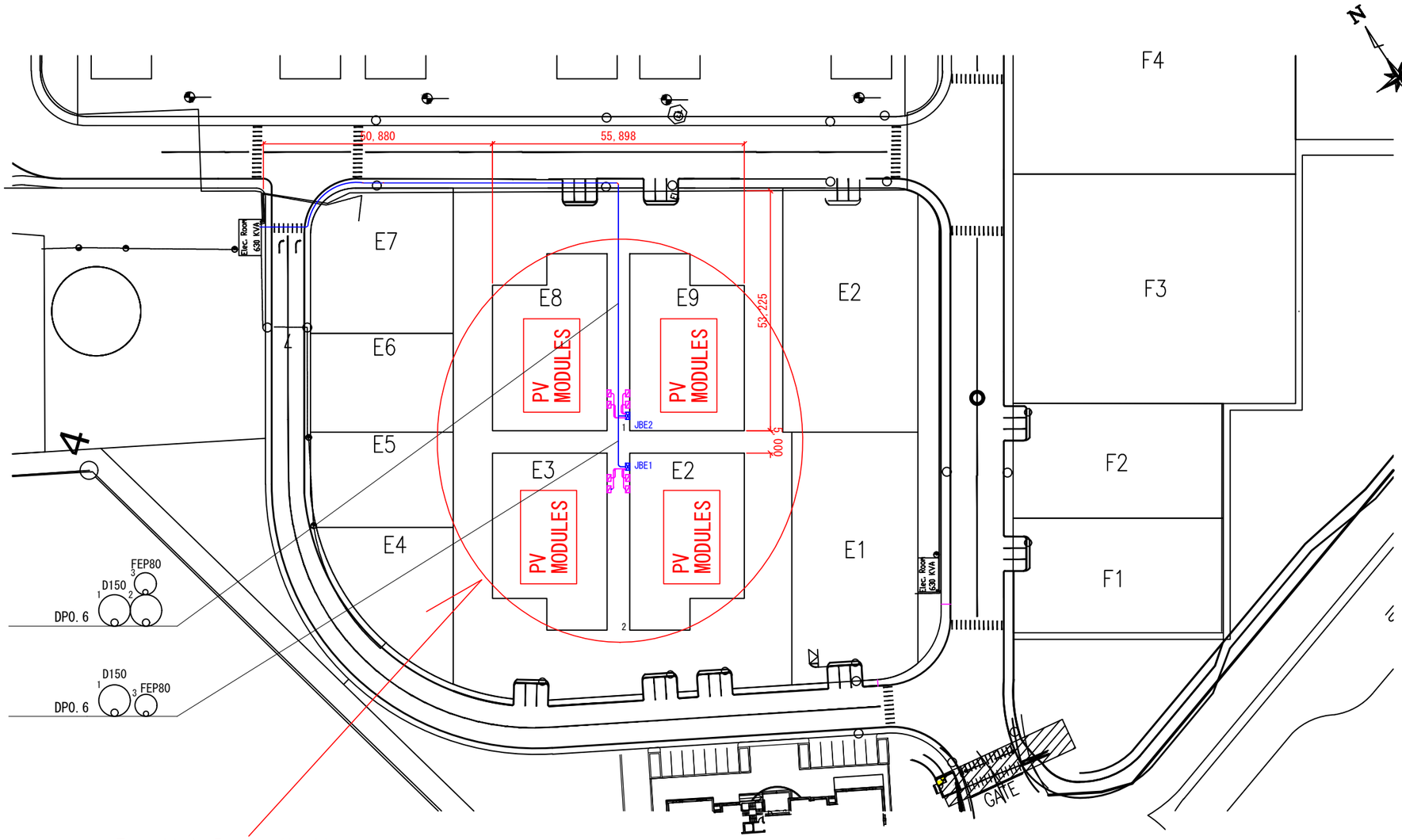
PROJECT TITLE
Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

PROJECT No.
PAL10-00102699

DRAWING TITLE
Zone-A EXCAVATION, PIPING, and CABLING to RMU House

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

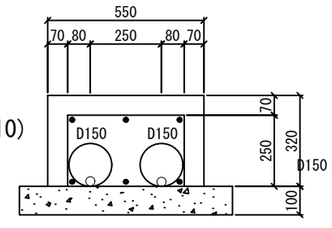
SCALE	DATE	DRAWING No.
1:1000		PV-013



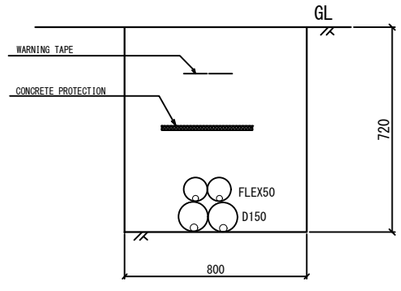
Partial Installation
(2 Hangers only)

NOTES
LEAN CONCRETE GRADE100, CONCRETE200
REIN FORCEMENT BAR C I (D＜10), C II (D≧10)

SECTION 1-1'



Typical Elevation Detail
Follow the JDECO Standard



Reference Only

Legend:-

- High Voltage Cables
- Low Voltage Cables
- Power Conditioner (Inverter)
- AC Collection Box

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PIEFZA

IMPLEMENTING AGENCY
UNDP/PAPP

CONSULTANT
KANDENKO
ENGINEERING & CONSTRUCTION

PROJECT TITLE
Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

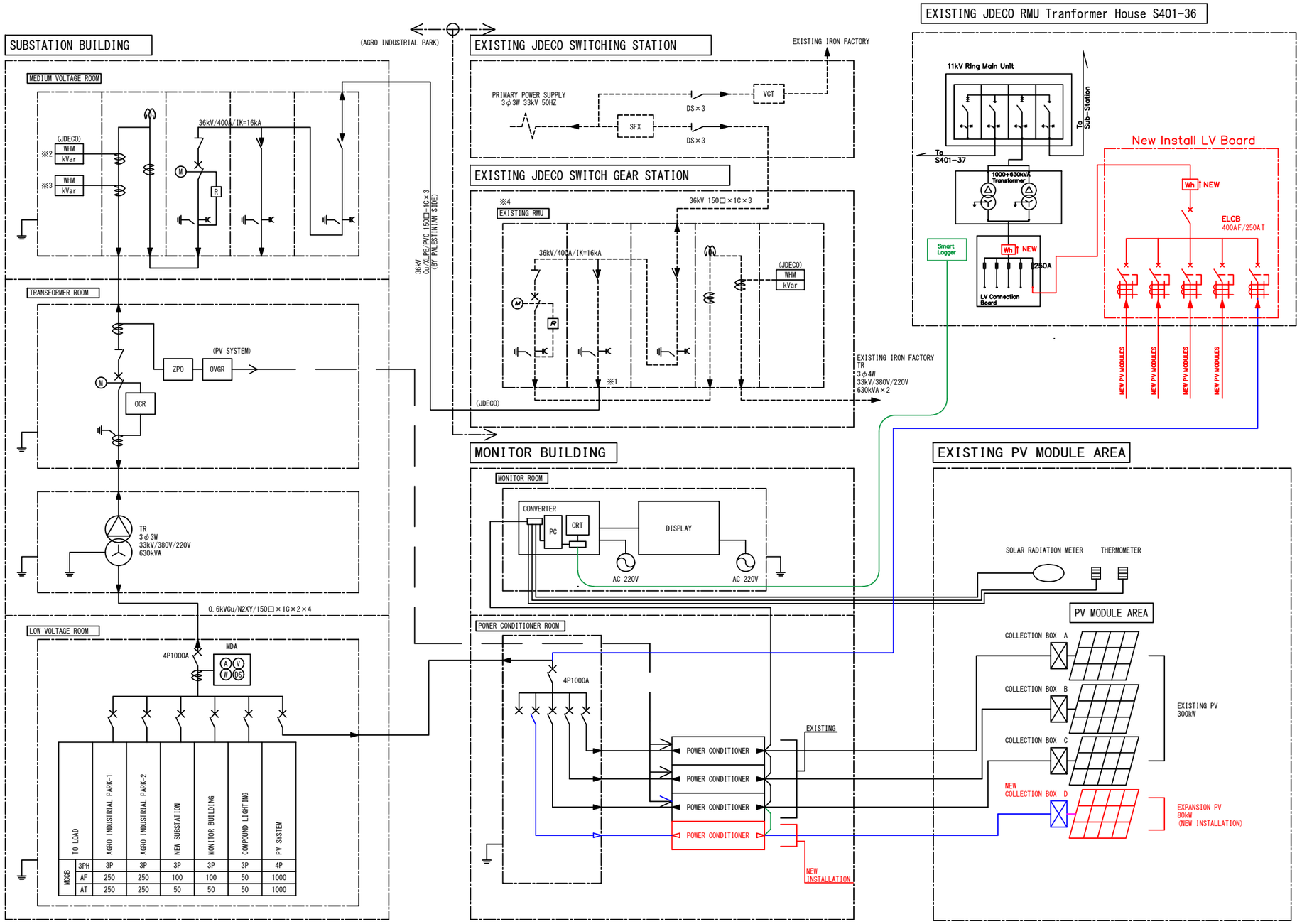
PROJECT No.
PAL10-00102699

DRAWING TITLE
Zone-E EXCAVATION, PIPING, and CABLING to RMU House

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
1:1000		PV-014

Reference Only



SINGLE LINE DIAGRAM FOR PV SYSTEM

LEGEND

SYMBOL	DESCRIPTION
SFX	GAS INSULATED CIRCUIT BREAKER
VCT	VOLTAGE CIRCUIT TRANSFORMER
WHM	WATT HOUR METER
kVar	VAR METER
DS	DISCONNECTING SWITCH
V	VOLTMETER
VS	VOLTMETER CHANGE-OVER SWITCH
A	AMMETER
AS	VOLTMETER CHANGE-OVER SWITCH
W	WATT METER
LBS	LOAD BREAK SWITCH
ZCT	ZERO-PHASE CURRENT TRANSFORMER
ZPD	ZERO-PHASE POTENTIAL DEVICE
OVGR	OVER VOLTAGE GROUND RELAY
OCR	OVER CURRENT RELAY
MCCB	MOLDED CASE CIRCUIT BREAKER
MDA	DIGITAL MULTI METER

DONOR: The Goverment of Japan (From the People of Japan)

OWNER: PIEFZA

IMPLEMENTING AGENCY: UNDP/PAPP

CONSULTANT: KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE: Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

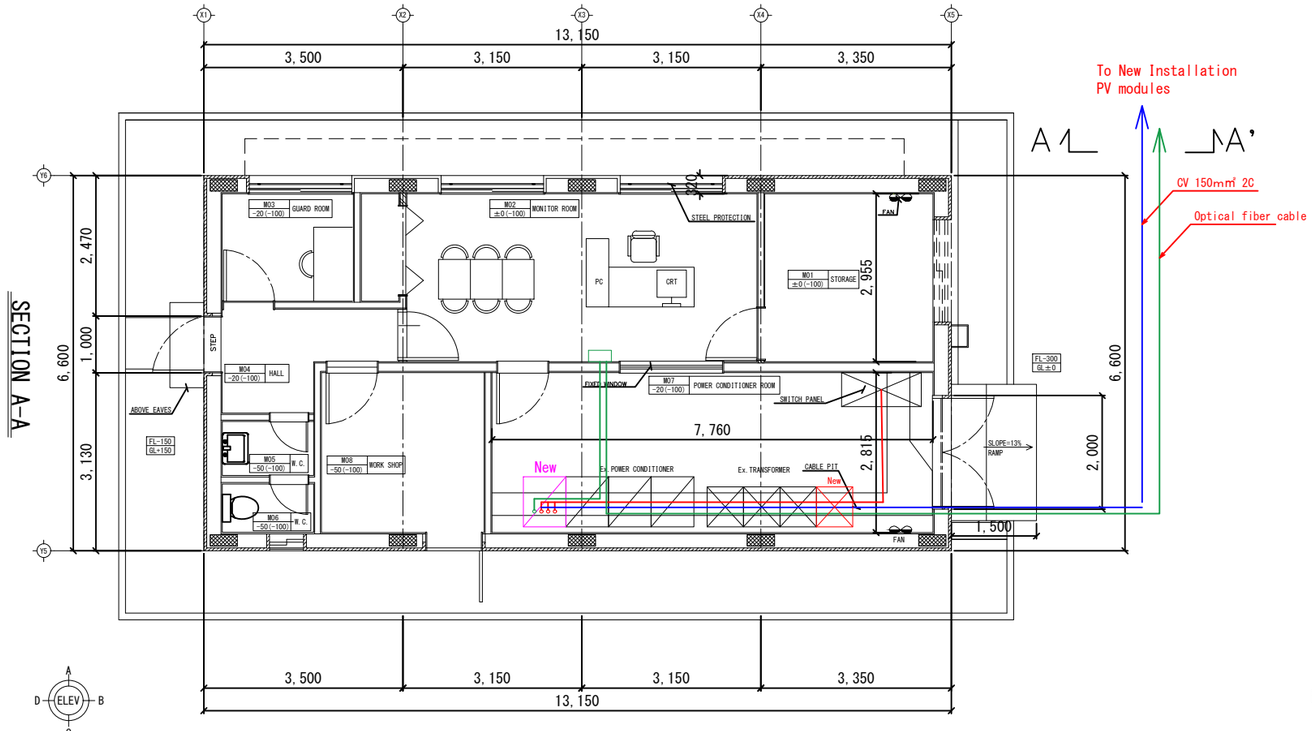
PROJECT No.: PAL10-00102699

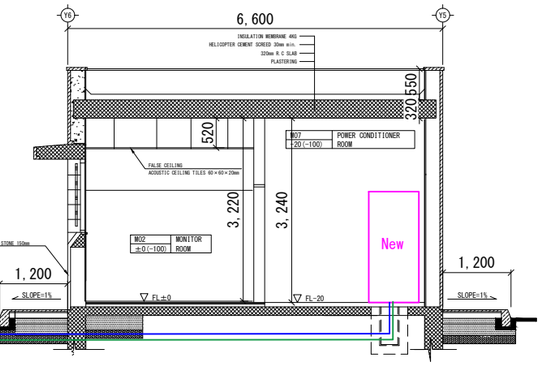
DRAWING TITLE: CASE-4 DIAGRAM OF EXPANSION AREA IN THE EXISTING PV STATION NEW INSTALLATION

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

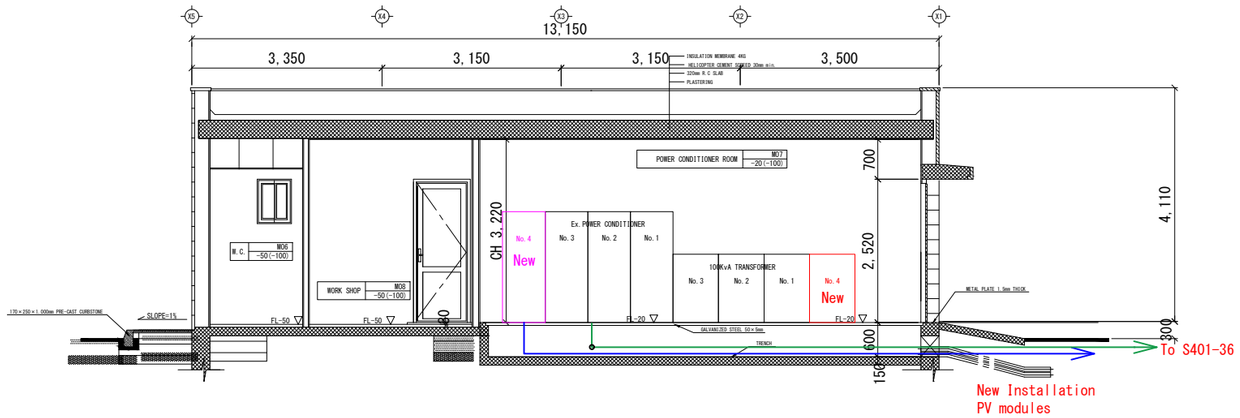
SCALE	DATE	DRAWING No.
NO SCALE		PV-015

Reference Only

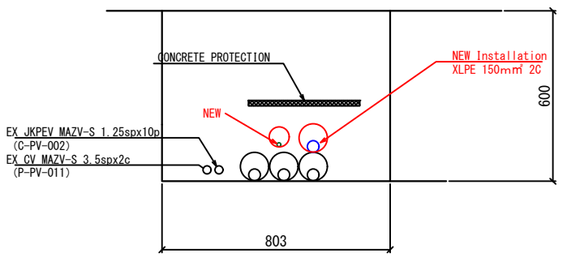




SECTION B-B



A－A' S=1:20



Legend

- Power Conditioner
- Collection Box
- XLPE 14mm2
- XLPE 150mm2
- Optical fiber cable or RS485 Line

DONOR
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PIEFZA

IMPLEMENTING AGENCY
UNDP/PAPP

CONSULTANT
KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE
Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

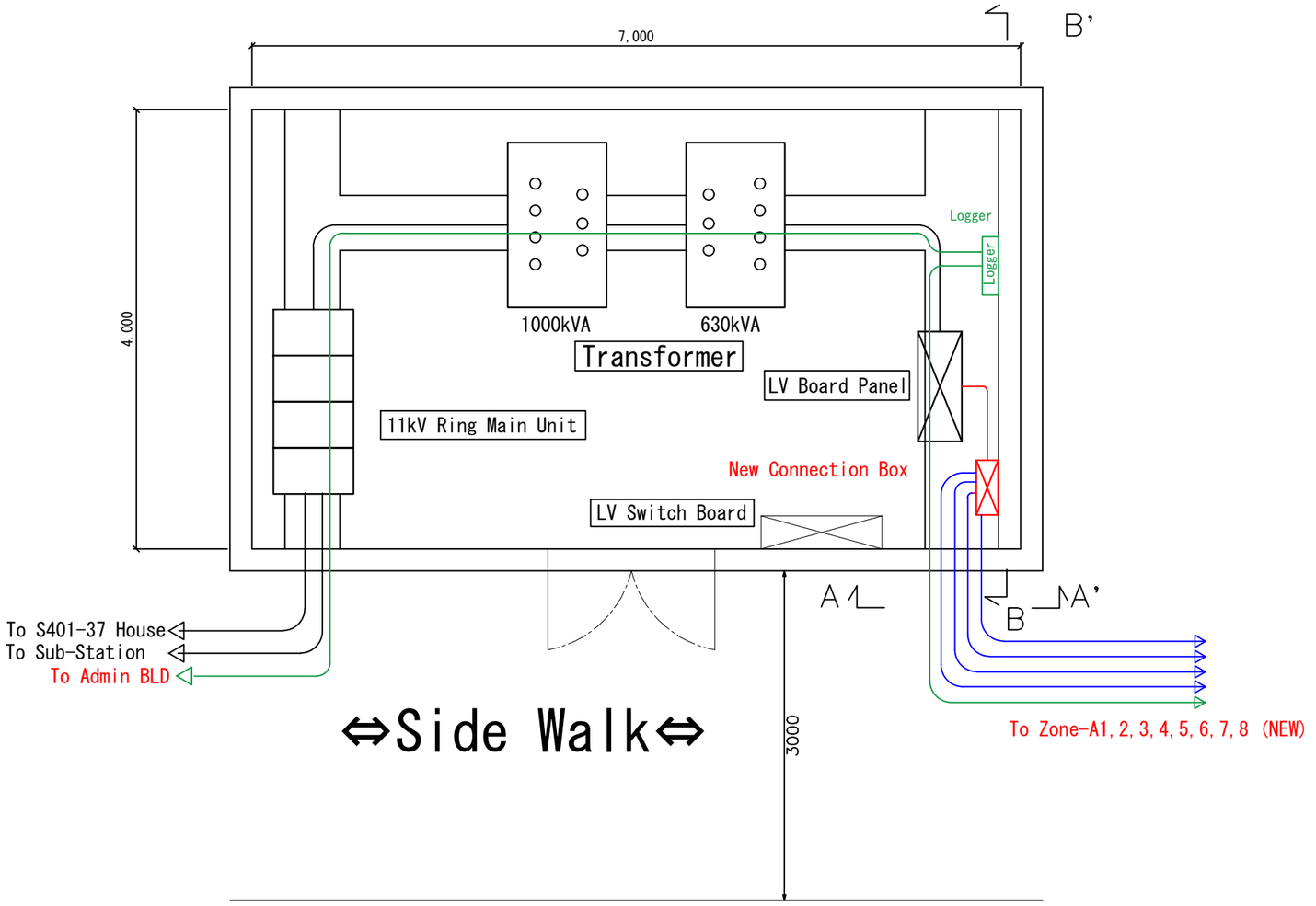
PROJECT No.
PAL10-00102699

DRAWING TITLE
REVISE PLAN OF EXISTING MONITORING ROOM FOR NEW INSTALLATION

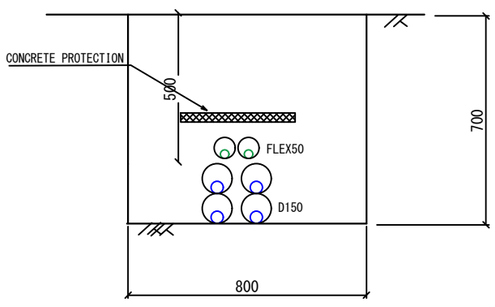
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CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
1:100		PV-016

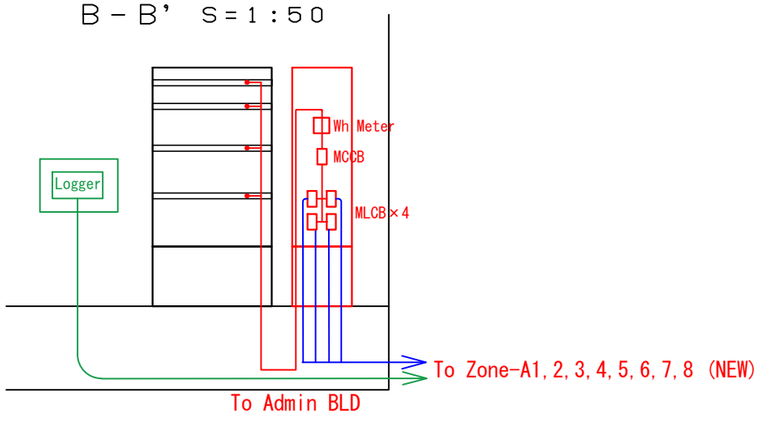
S401-36



A－A' S=1:50



B－B' S=1:50



Reference Only

Legend

LV Electric Power Line

Optical Fiber Cable or RS485 Line

DONOR
The Goverment of Japan

OWNER
PIEFZA

IMPLEMENTING AGENCY
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CONSULTANT
KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE
Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

PROJECT No.
PAL10-00102699

DRAWING TITLE
Ring Main Unit House (S401-36)

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

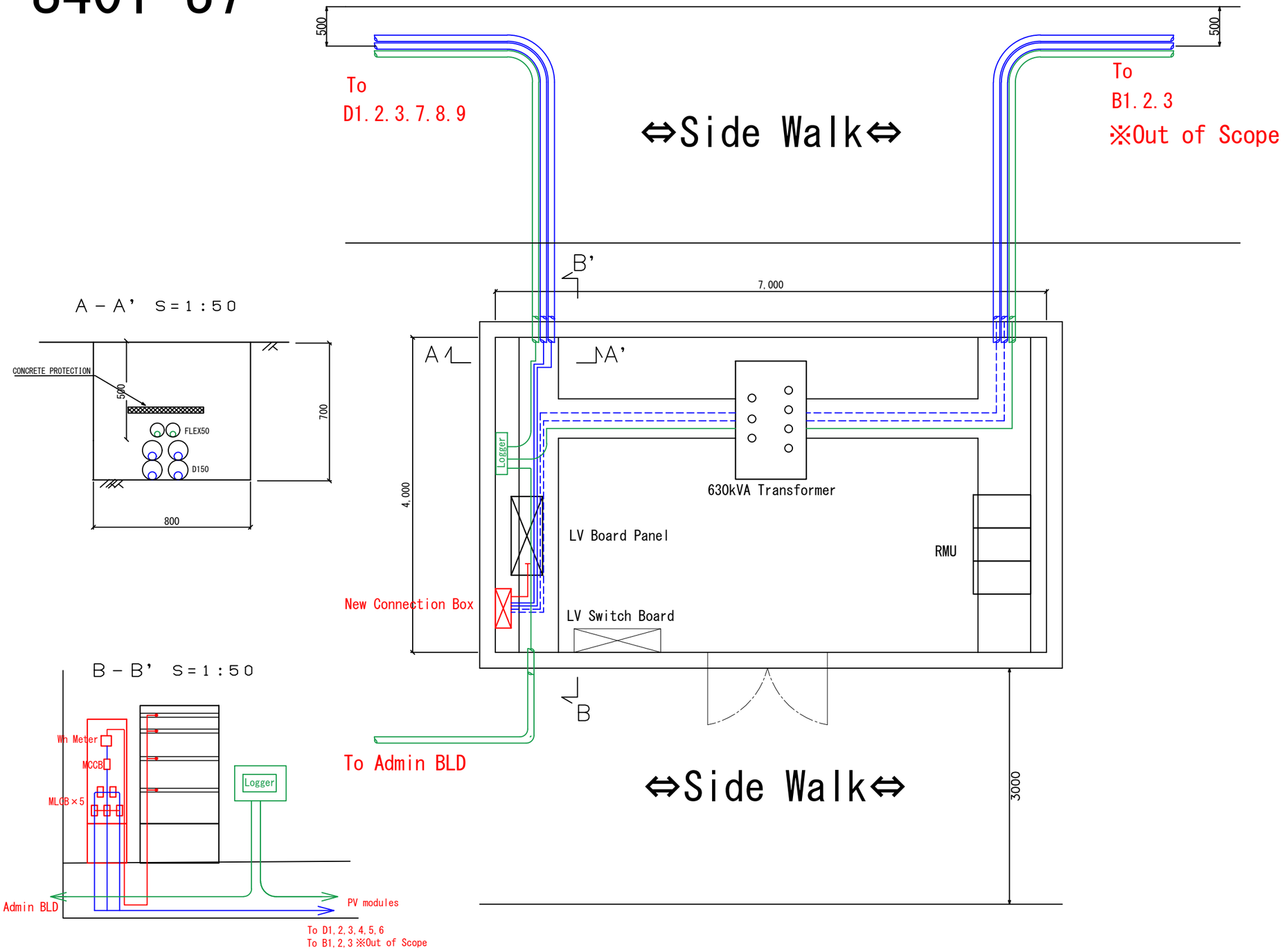
SCALE	DATE	DRAWING No.
1:50		PV-017

S401-37

Reference Only

Legend

- LV Electric Power Line
- Optical Fiber Cable or RS485 Line



A－A' S=1:50

B－B' S=1:50

DONOR	The Goverment of Japan
OWNER	PIEFZA
IMPLEMENTING AGENCY	UNDP/PAPP
CONSULTANT	KANDENKO ENGINEERING & CONSTRUCTION
PROJECT TITLE	Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants
PROJECT No.	PAL10-00102699
DRAWING TITLE	RMU HOUSE (S401-37)
ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	
SCALE 1:50 / DATE / DRAWING No.	PV-018

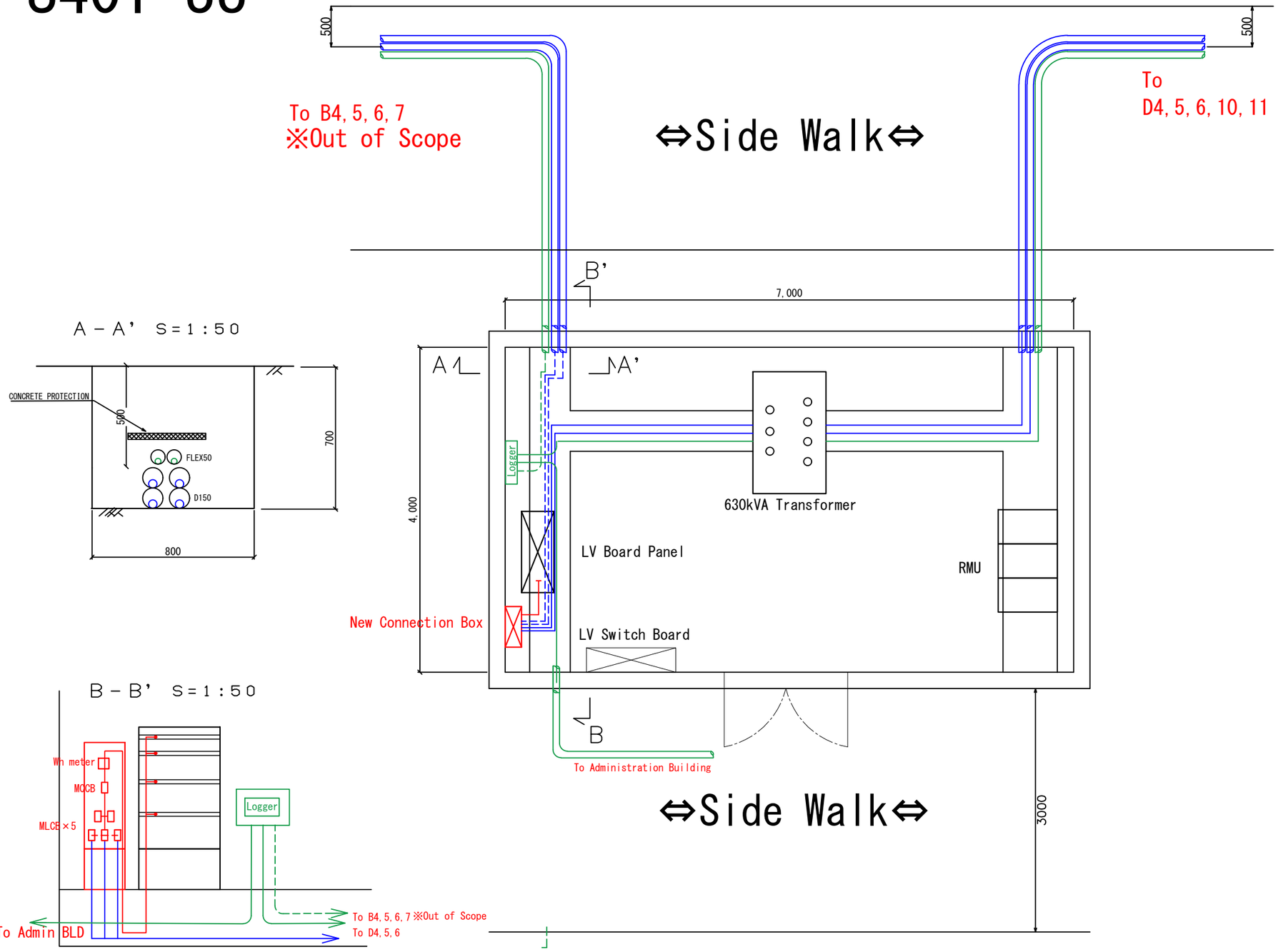
S401-38

Reference Only

Legend

LV Electric Power Line

Optical Fiber Cable or RS485 Line



A－A' S=1:50

B－B' S=1:50

DONOR: The Goverment of Japan (From the People of Japan)

OWNER: PIEFZA

IMPLEMENTING AGENCY: UNDP/PAPP

CONSULTANT: KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE: Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

PROJECT No.: PAL10-00102699

DRAWING TITLE: RMU HOUSE (S401-38)

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
1:50		PV-019

S401-39

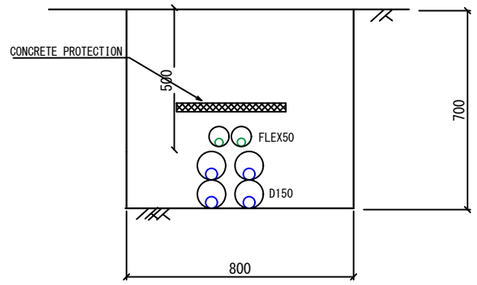
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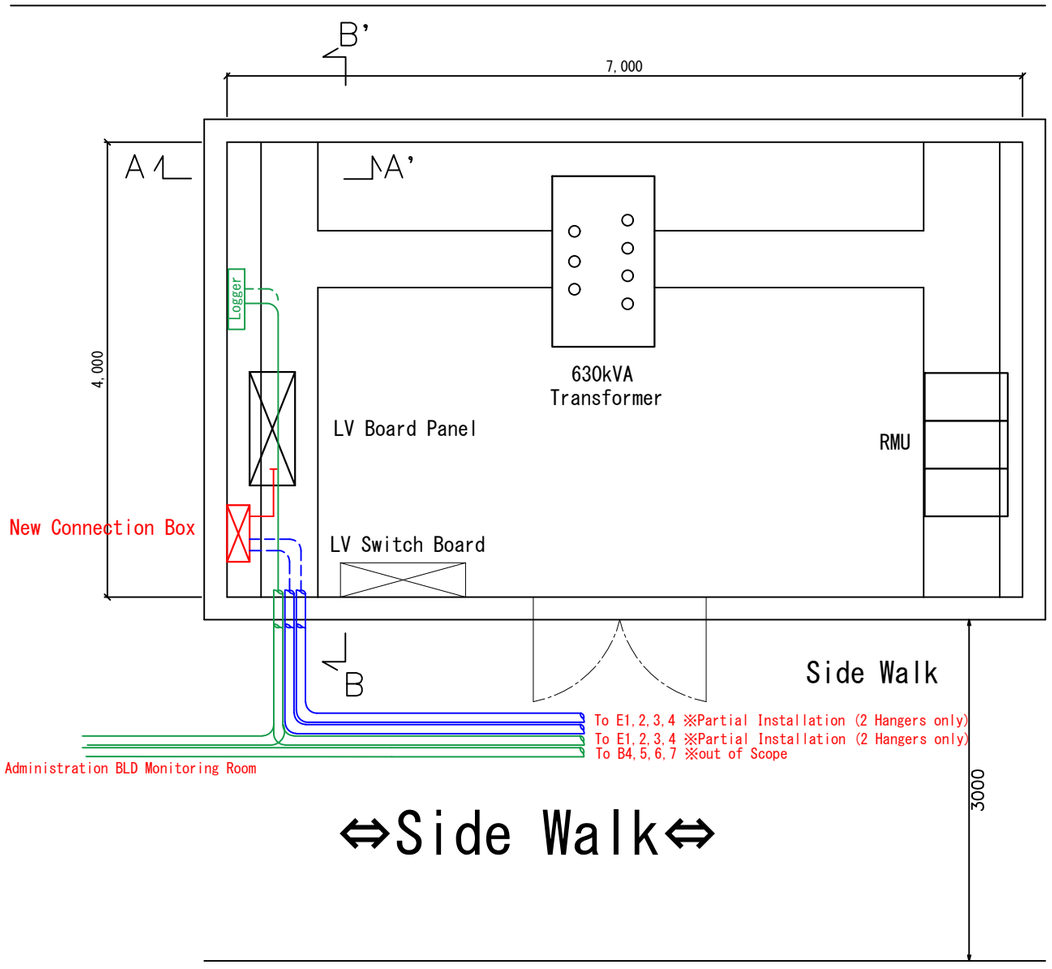
Legend

LV Electric Power Line

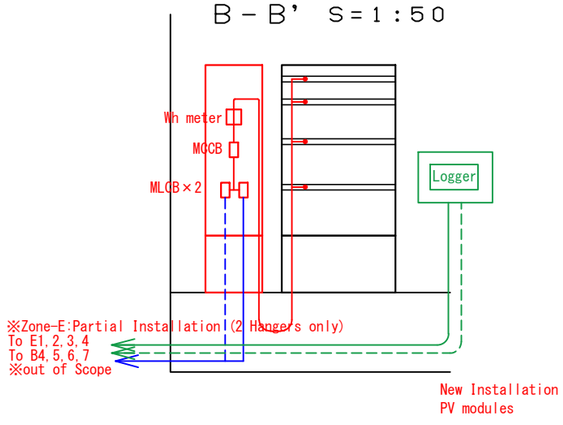
Optical Fiber Cable or RS485 Line

A－A’ S=1:50





B－B’ S=1:50



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OWNER: PIEFZA

IMPLEMENTING AGENCY: UNDP/PAPP

CONSULTANT: KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE: Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

PROJECT No.: PAL10-00102699

DRAWING TITLE: RMU HOUSE (S401-39)

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
1:50		PV-020

Reference Only

Power Converter

Zone-A
3-1 3-2 4-1 4-2
7-1 7-2 8-1 8-2
1-1 1-2 2-1 2-2
5-1 5-2 6-1 6-2
Zone-A

RS485

S401-36 House
Data Logger
Wh meter
PROTOCOL CONVERTER
HUB
MEDIA CONVERTER
UTP

Zone-B
1-1 1-2
2-1 2-2 3-1 3-2
1-1 1-2 7-1 7-2
2-1 2-2 8-1 8-2
3-1 3-2 9-1 9-2
Zone-D

S401-37 House
Data Logger
Wh meter
PROTOCOL CONVERTER
HUB
MEDIA CONVERTER

Zone-B
4-1 4-2 5-1 5-1
6-1 6-2 7-1 7-2
4-1 4-2 10-1 10-2
5-1 5-2 11-1 11-2
Zone-D 6-1 6-2

S401-38 House
Data Logger
Wh meter
PROTOCOL CONVERTER
HUB
MEDIA CONVERTER

Zone-E
2-1 2-2 3-1 3-2
8-1 8-2 9-1 9-2

Partial Installation
(2 Hangers only)

S401-39 House
Data Logger
Wh meter
PROTOCOL CONVERTER
HUB
MEDIA CONVERTER

Optical fiber cable

Optical fiber cable

Existing PV Station Control Room

NEW EX EX EX
PC4 PC3 PC2 PC1
EX
EX
PC
HUB
NEW

Administration Building

NEW CONTROL ROOM : 2nd Floor

TRANSDUCER BOX
Rooftop
Rooftop
AIR TEMPERATURE
PV MODULE AIR TEMPERATURE
SOLAR RADIATION METER
SOLAR RADIATION METER PLANE OF ARRAY

UPS

UTP
MEDIA CONVERTER
HUB

DATA COLLECTION BOX

PERSONAL COMPUTER
A-1 BOARD
A-1 BOARD
D-1 BOARD
REMOTE MONITORING SYSTEM
LAN
USB USB USB DISPLAY PORT
KEY BOARD
PRINTER
MOUSE
41 inch MONITOR ×3 nos

INTERNET
Emergency Error Massage
e-mail alert

Legend:

6-2	Power Conditionaer 36kW
PC4	Power Conditionaer 100kW
Data Logger	Smart logger for Communication Line
Wh meter	Wh Meter for Low Voltage

DONOR
The Goverment of Japan
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IMPLEMENTING AGENCY
UNDP/PAPP

CONSULTANT
KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE
Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

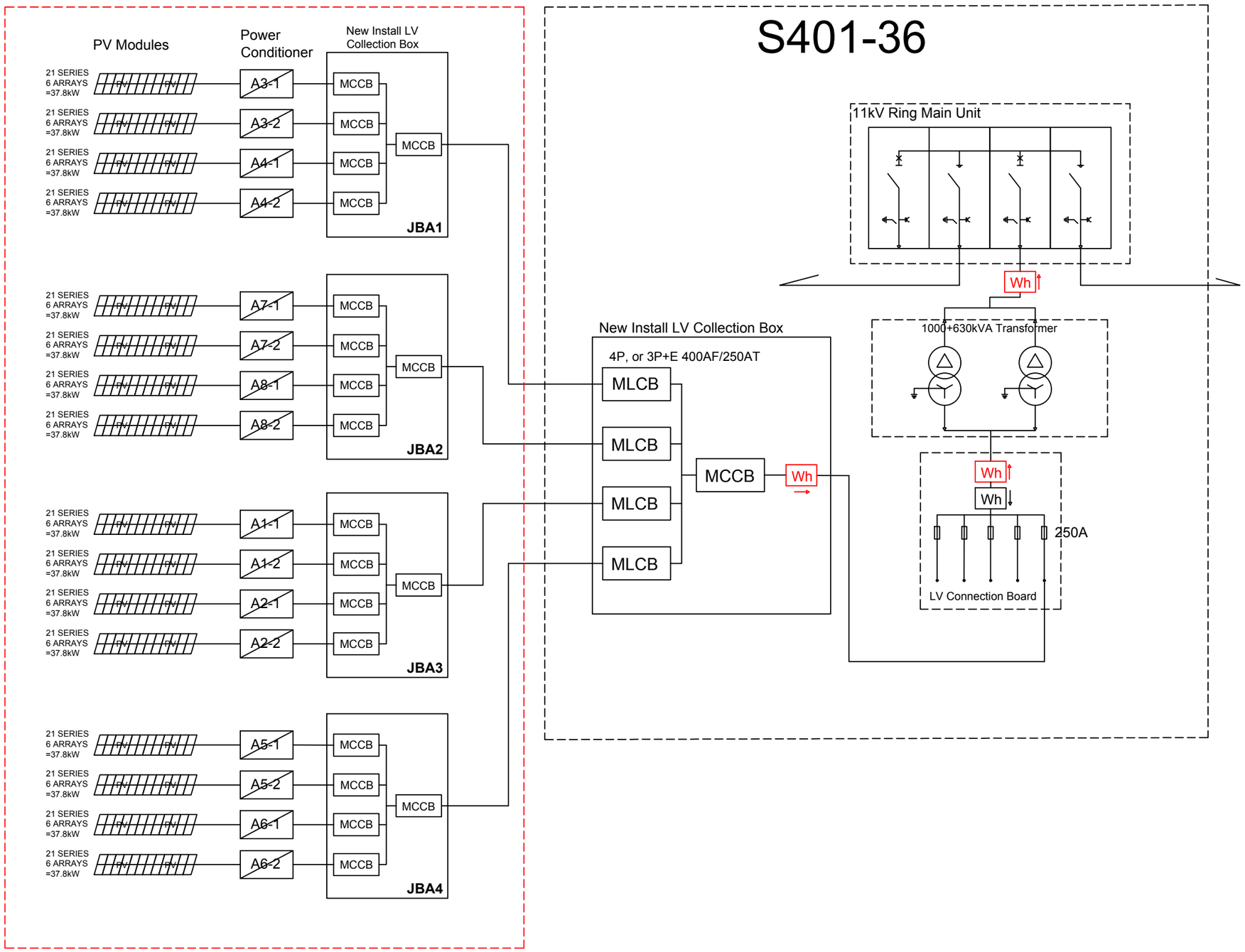
PROJECT No.
PAL10-00102699

DRAWING TITLE
New Remote Mornitoring System Diagram

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
		PV-021

Zone-A



Reference Only

Reference specifications
Manufacturer : Sunerg
Type : Policrystalline 60cells
Size : 1645x990x35
Weight : 17.9kg
Open-circuit Voltage : 38.7V
Peak Power 280Wp
Current at Pmax : 8.57A
A number of Modules :
21series x 12lines = 252nos
Type of Installation :
Rooftop mounted of Hanger

DONOR
The Goverment of Japan
From the People of Japan

OWNER
PIEFZA

IMPLEMENTING AGENCY
UNDP/PAPP

CONSULTANT
KANDENKO ENGINEERING & CONSTRUCTION

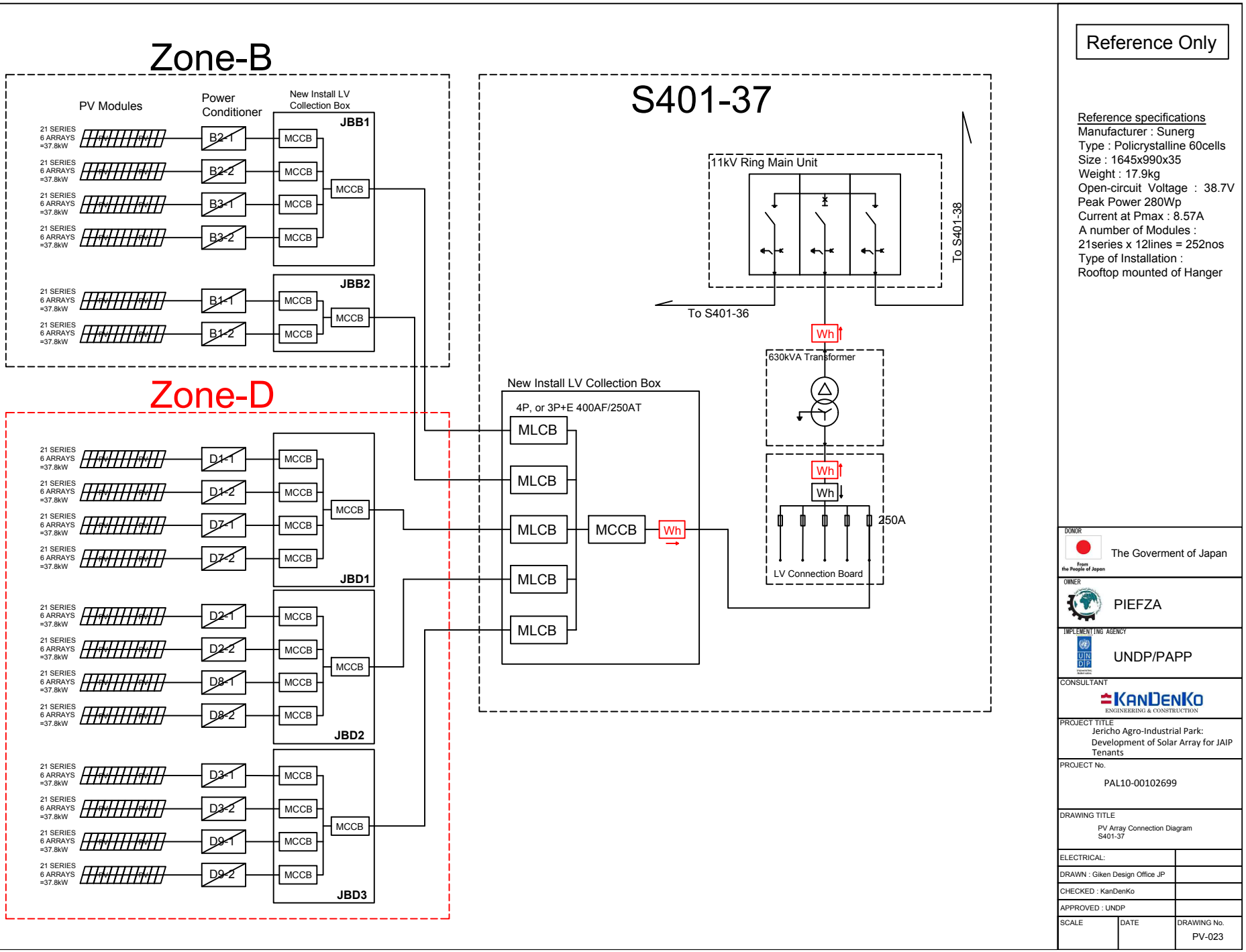
PROJECT TITLE
Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

PROJECT No.
PAL10-00102699

DRAWING TITLE
PV Array Connection Diagram
S401-36

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
		PV-022



Reference Only

Reference specifications
Manufacturer : Sunerg
Type : Policrystalline 60cells
Size : 1645x990x35
Weight : 17.9kg
Open-circuit Voltage : 38.7V
Peak Power 280Wp
Current at Pmax : 8.57A
A number of Modules :
21series x 12lines = 252nos
Type of Installation :
Rooftop mounted of Hanger

DONOR: The Goverment of Japan
OWNER: PIEFZA
IMPLEMENTING AGENCY: UNDP/PAPP
CONSULTANT: KANDENKO ENGINEERING & CONSTRUCTION

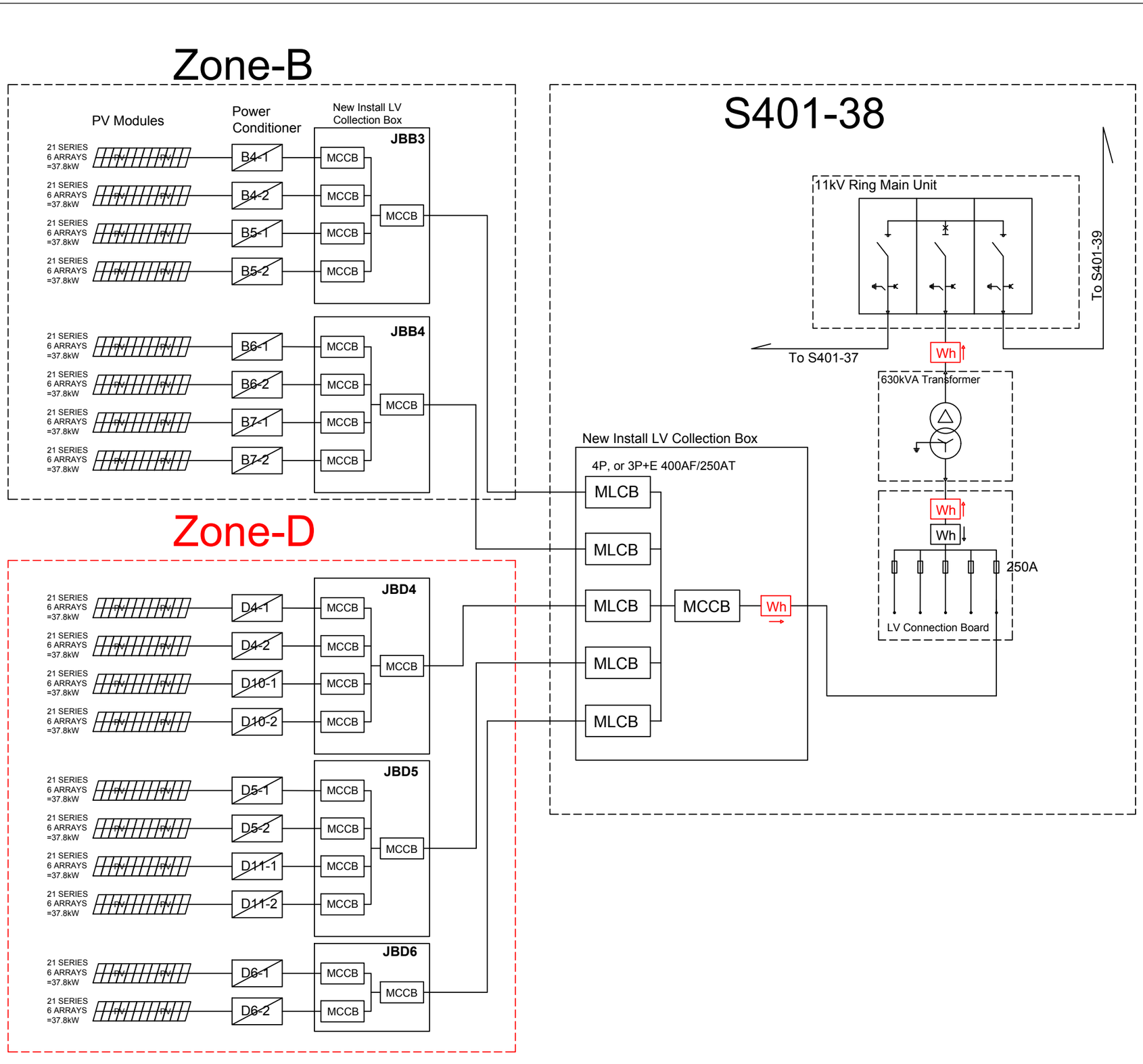
PROJECT TITLE: Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

PROJECT No.: PAL10-00102699

DRAWING TITLE: PV Array Connection Diagram S401-37

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
		PV-023



Reference Only

Reference specifications
Manufacturer : Sunerg
Type : Policrystalline 60cells
Size : 1645x990x35
Weight : 17.9kg
Open-circuit Voltage : 38.7V
Peak Power 280Wp
Current at Pmax : 8.57A
A number of Modules :
21series x 12lines = 252nos
Type of Installation :
Rooftop mounted of Hanger

DONOR
From the People of Japan
The Goverment of Japan

OWNER
PIEFZA

IMPLEMENTING AGENCY
UNDP/PAPP

CONSULTANT
KANDENKO
ENGINEERING & CONSTRUCTION

PROJECT TITLE
Jericho Agro-Industrial Park: Development of Solar Array for JAIP Tenants

PROJECT No.
PAL10-00102699

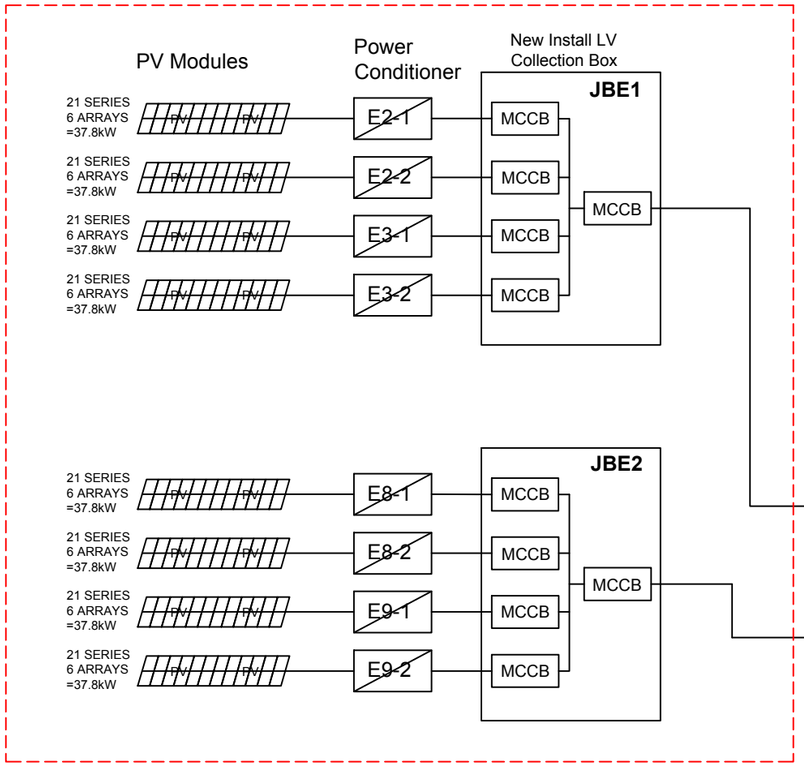
DRAWING TITLE
PV Array Connection Diagram
S401-38

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

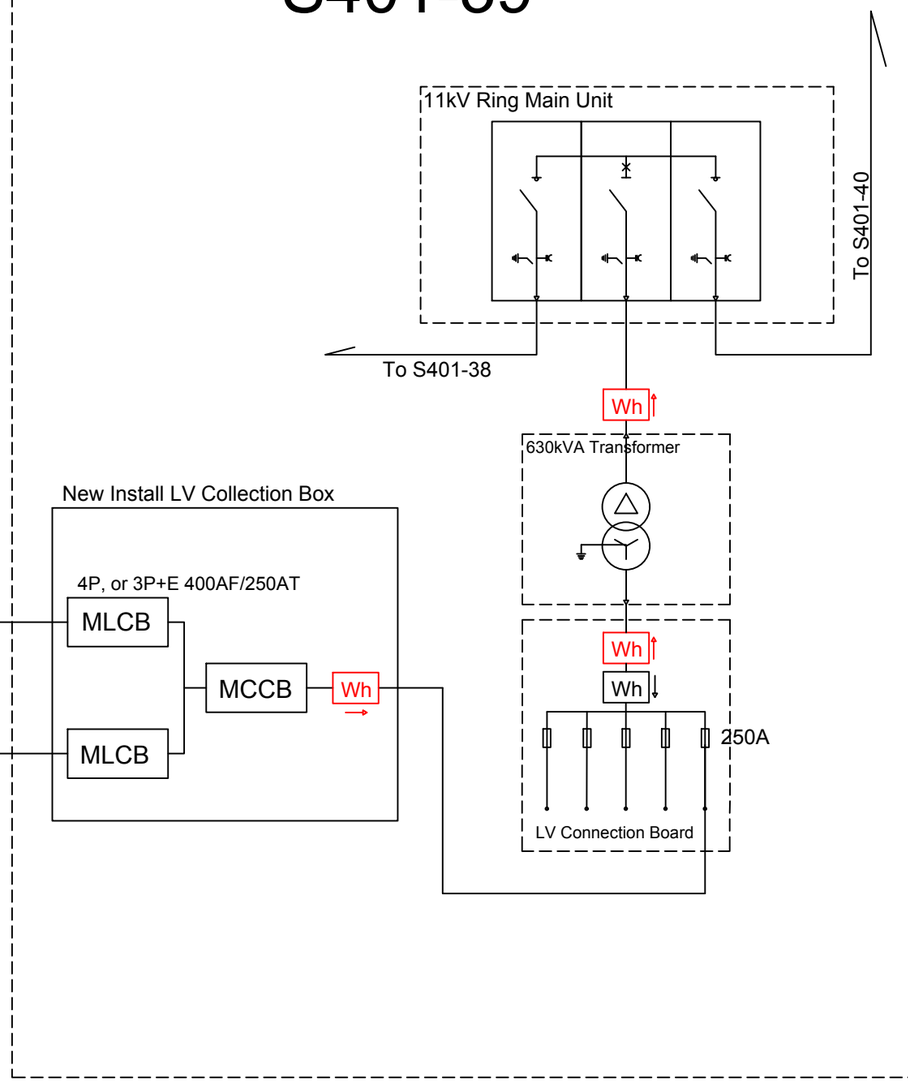
SCALE	DATE	DRAWING No.
		PV-024

Zone-E

Partial Installation
(2 Hangers only)



S401-39



Reference Only

Reference specifications
Manufacturer : Sunerg
Type : Policrystalline 60cells
Size : 1645x990x35
Weight : 17.9kg
Open-circuit Voltage : 38.7V
Peak Power 280Wp
Current at Pmax : 8.57A
A number of Modules :
21series x 12lines = 252nos
Type of Installation :
Rooftop mounted of Hanger

DONOR
From the People of Japan
The Goverment of Japan

OWNER
PIEFZA

IMPLEMENTING AGENCY
UNDP/PAPP

CONSULTANT
KANDENKO ENGINEERING & CONSTRUCTION

PROJECT TITLE
Jericho Agro-Industrial Park:
Development of Solar Array for JAIP Tenants

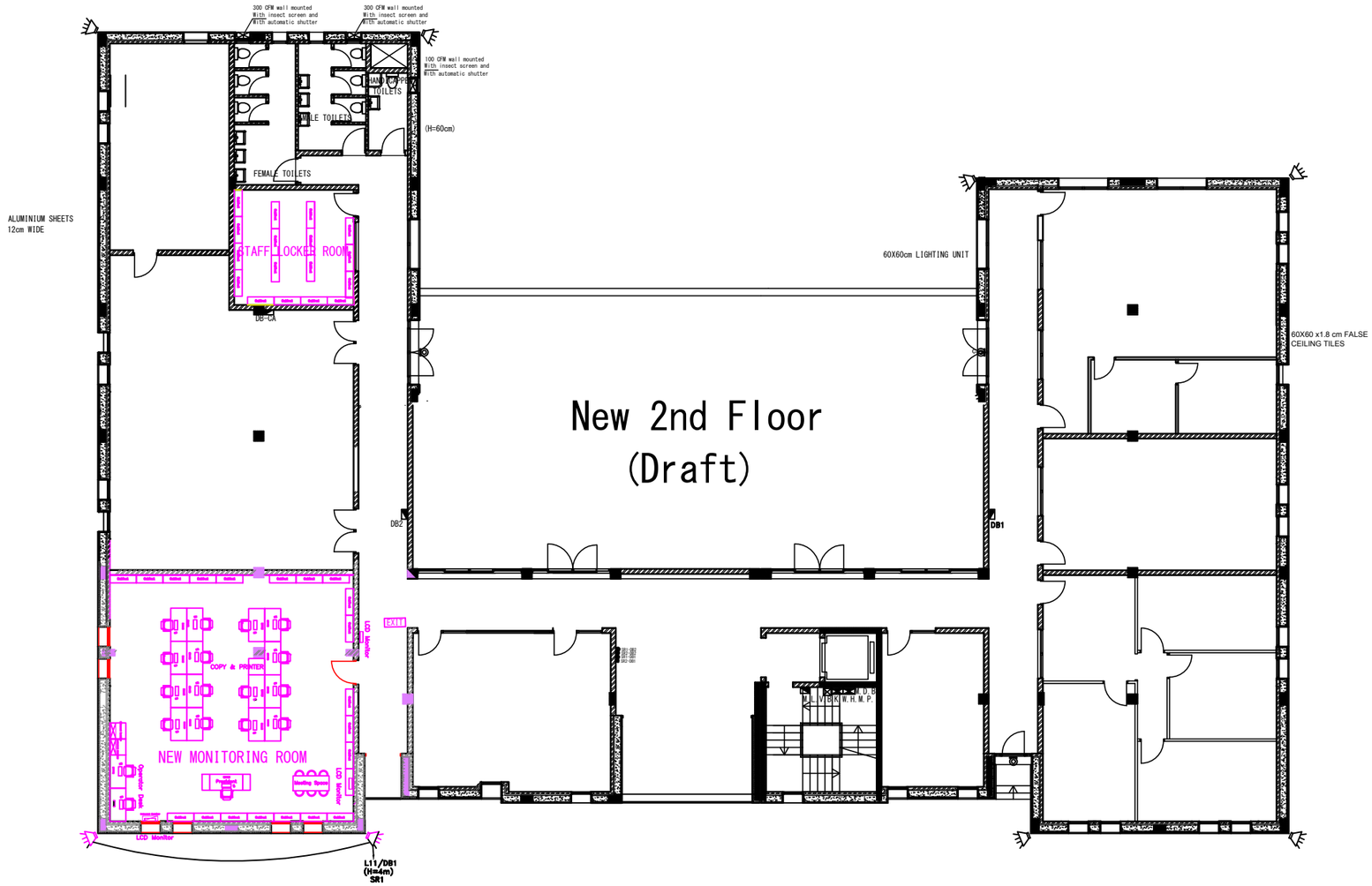
PROJECT No.
PAL10-00102699

DRAWING TITLE
PV Array Connection Diagram
S401-39

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
		PV-025

Reference Only



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UNDP/PAPP

CONSULTANT
KANDENKO
ENGINEERING & CONSTRUCTION

PROJECT TITLE
Jericho Agro-Industrial Park:
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JAIP Tenants

PROJECT No.
PAL10-00102699

DRAWING TITLE
PLAN OF THE ROOFTOP OF THE
WAREHOUSE NEW INSTALLATION
Zone-D

ELECTRICAL:	
DRAWN : Giken Design Office JP	
CHECKED : KanDenKo	
APPROVED : UNDP	

SCALE	DATE	DRAWING No.
1:200		PV-026