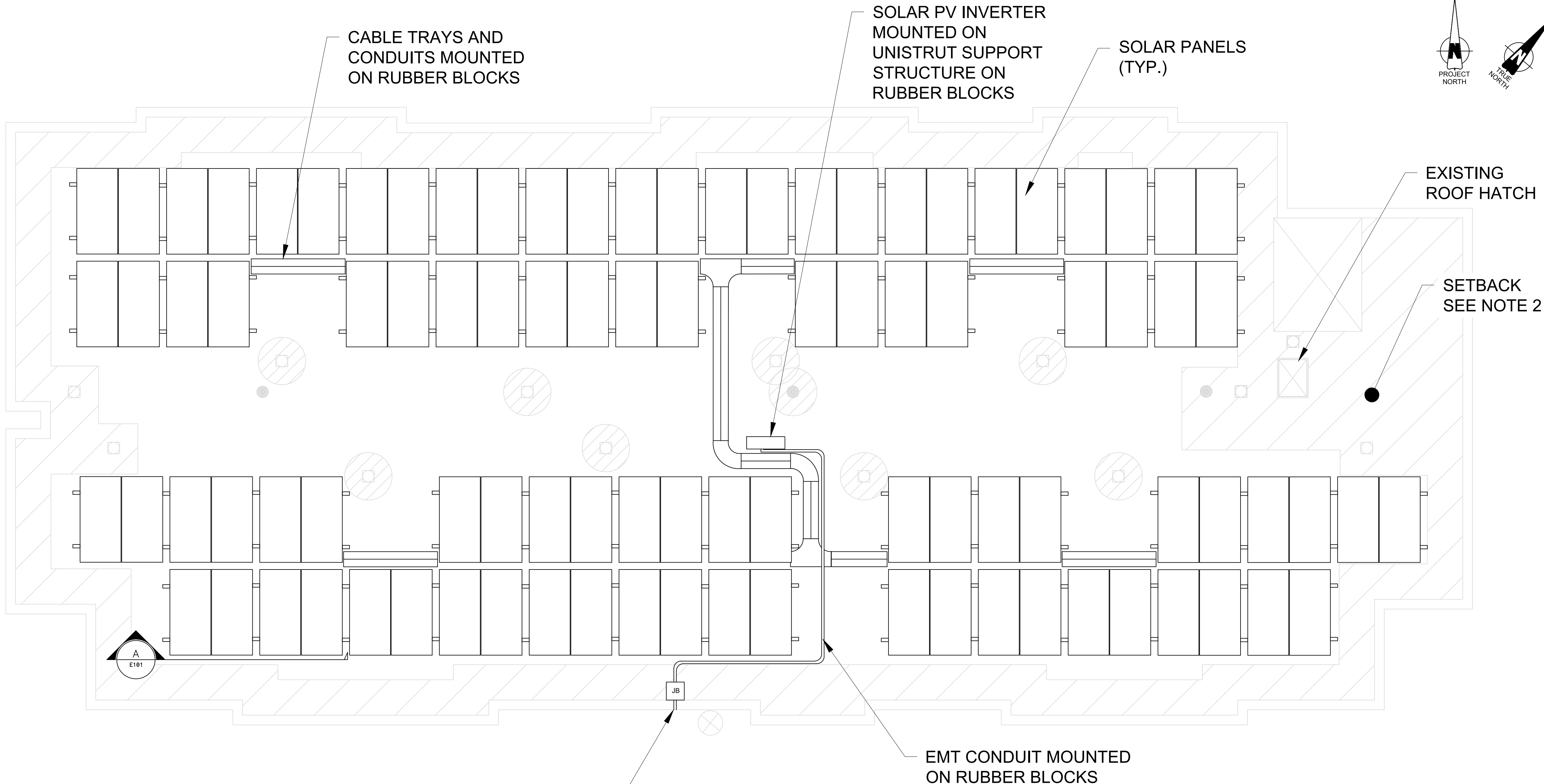


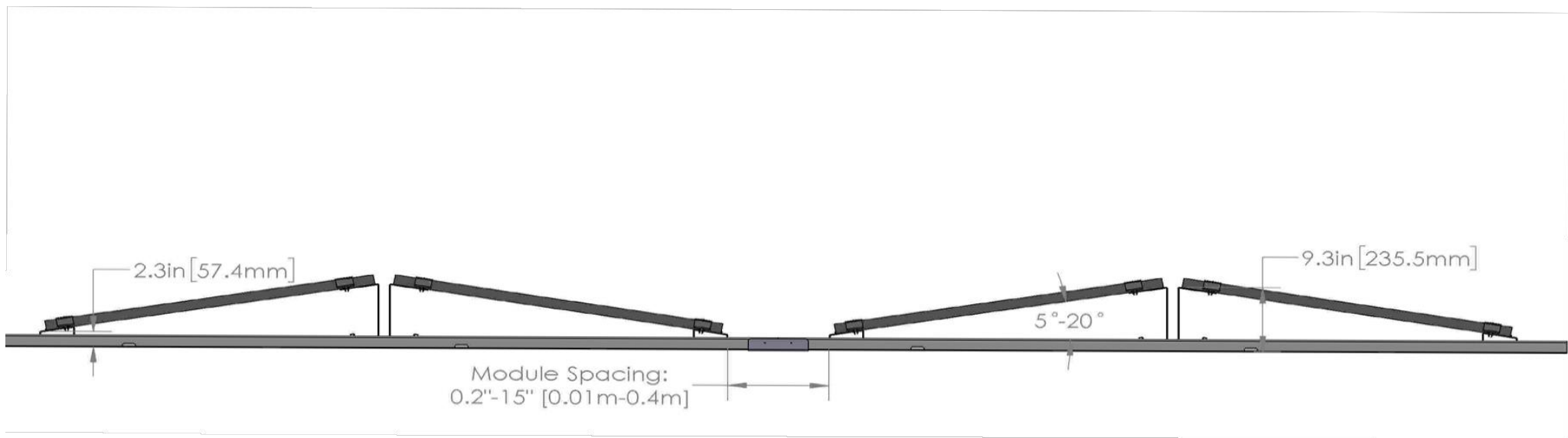
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PRINT DATE: 2026/07/10 / PAPER SIZE: ISO L (841.00 x 594.00 MM)
PATH: C:\Users\sava.radojicic\OneDrive\Documents\300_CONC_DES\310_Des_Dwg\PV\Layout\Lanark PV\Layout.dwg / LAYOUT: Layout



AC CABLE TRANSITION FROM ROOF TO WALL
THROUGH A JUNCTION/PULL BOX C/W
APPROPRIATE FITTINGS.

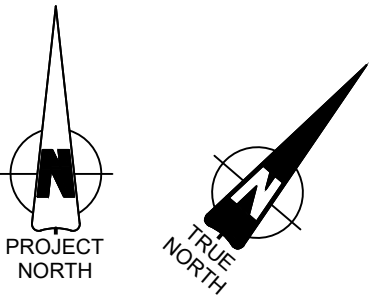
SEAL ALL OPENINGS WITH WEATHERPROOF
AND FIRE-RATED SEALANTS AS REQUIRED.



A E101 EAST-WEST RACKING DETAIL – TYPICAL
NTS

FOR TENDER

NOT TO BE USED FOR CONSTRUCTION



- NOTES:
1. ENSURE RACKING EQUIPMENT CLEARS BUILDING ROOF DRAINS.
 2. SOLAR EQUIPMENT TO HAVE A MINIMUM SETBACK OF 1000 mm WITH EQUIPMENT DOORS OPEN. ROOFTOP VENTS TO HAVE A MINIMUM SETBACK OF 500 mm. SOLAR ARRAYS TO HAVE A MINIMUM SETBACK OF 1000 mm FROM THE EDGE OF THE ROOF.
 3. INSTALL PREFABRICATED STEPS OVER CABLE TRAYS / CONDUITS THAT CROSS MAIN WALKWAYS. LOCATION OF STEPS TO BE COORDINATED WITH FINAL DESIGN TO REDUCE SHADING IMPACTS AND ENSURE SUFFICIENT CLEARANCES FOR WALKWAYS.
 4. AC AND DC CONDUITS, CABLE TRAYS, INVERTER SUPPORT AND ASSOCIATED WIRING INSTALLED ON THE ROOF SHALL BE SECURED AND SUPPORTED ABOVE THE ROOF SURFACE USING APPROVED DURABLOK-TYPE RUBBER ROOFTOP SUPPORTS, OR APPROVED EQUAL, SUITABLE FOR CABLE TRAY AND CONDUIT APPLICATIONS. DIRECT CONTACT WITH THE ROOF MEMBRANE SHALL BE MINIMIZED.
 5. USE WALL-MOUNTED JUNCTION BOX FOR AC CABLE TRANSITION OVER PARAPET WALL. EMT CONDUIT FROM SOLAR PV INVERTER, OVER PARAPET AND ALONG EXTERIOR WALL WHERE REQUIRED. ALL EXTERIOR BOXES AND FITTINGS SHALL BE WEATHER-SUITABLE AND ACCESSIBLE.
 6. INVERTER TO BE CONNECTED TO THE DATA LOGGER.
 7. PROVIDE UNISTRUT SUPPORT TO INVERTER AND PROTECTIVE COVER / SUNSHADE AS REQUIRED BY MANUFACTURER'S INSTALLATION MANUAL. MAINTAIN ALL REQUIRED CLEARANCES FOR VENTILATION, ACCESS, AND HEAT DISSIPATION (SEE DETAIL C IN DRAWING S400).
 8. COORDINATE PLACEMENT OF ROOFTOP INVERTER WITH STRUCTURAL FOR ROOF SPECIFICATIONS AND WEIGHT BEARING CAPABILITIES, AND REFER TO RACKING SYSTEM SUPPLIER'S INSTALLATION GUIDELINES FOR BALLAST PLACEMENT, SUPPORT LOCATION, AND RACKING SYSTEM LAYOUT.
 9. FALL ARREST SYSTEM SHALL BE UTILIZED FOR ALL WORK ON THE ROOF. EXISTING ROOF-MOUNTED ANCHOR POINTS SHALL BE USED FOR TIE-OFF IN ACCORDANCE WITH APPLICABLE OCCUPATIONAL HEALTH AND SAFETY REGULATIONS AND CSA STANDARDS. CONTRACTOR SHALL VERIFY CONDITION AND CERTIFICATION OF ALL ANCHOR POINTS PRIOR TO USE.

C	2026/07/10	ISSUED FOR TENDER	N.D.
B	2026/06/29	ISSUED FOR TENDER REVIEW	N.D.
A	2026/05/19	ISSUED FOR 75% REVIEW	N.D.
No.	Date	Description	By

DESIGNED BY		APPROVED BY	
ENGINEER:			



CLIENT:

LANARK COUNTY

LANARK DEEP 24 BOURKE ST.
SMITHS FALLS, ON, K7A 3L9

PROJECT NAME:

LANARK DEEP RETROFIT

SHEET TITLE:

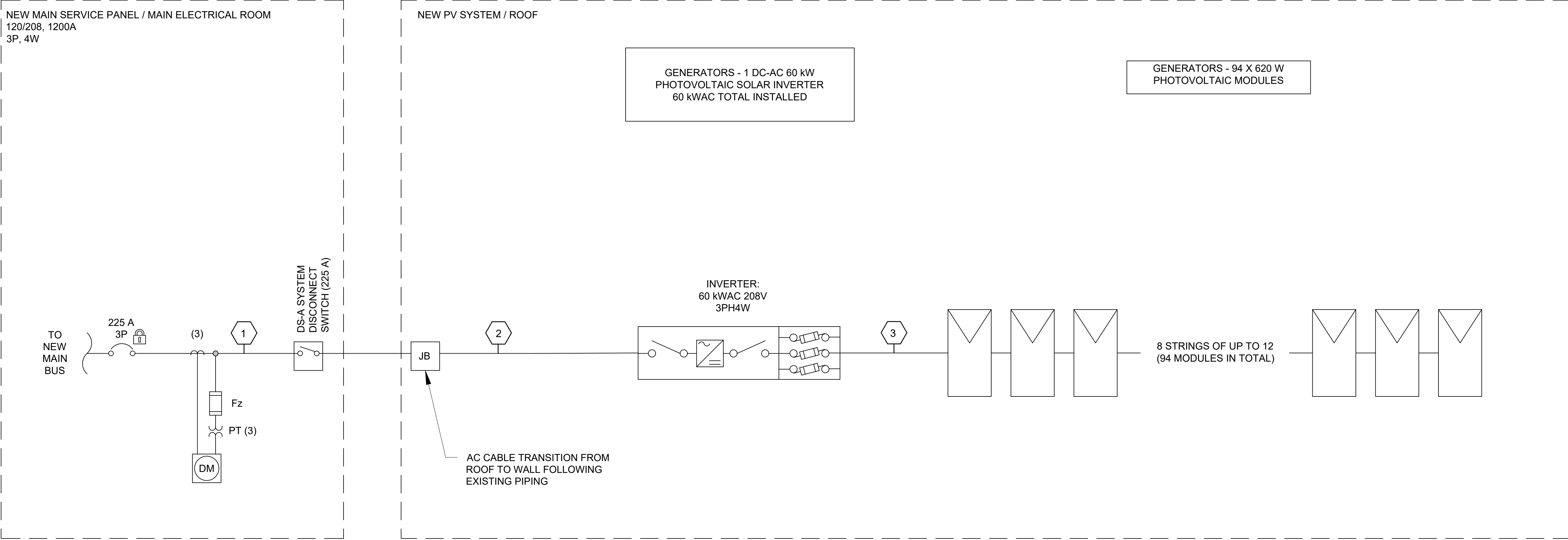
PV LAYOUT

24 BOURKE ST
SMITHS FALLS, ON, K7A 3L9

DISCIPLINE:		ELECTRICAL	
DRAFTER:	S. RADOJICIC	SCALE:	15:1
DESIGNER:	S. RADOJICIC	DATE:	2026/05/19
CHECKER:	M. WRIGHT, P.ENG.	APPROVER:	N. DUFFAYADAR, P.ENG.
PROJECT No:	A0002067	DRAWING No:	E101
SHEET No:	1 of 1		

TITLEBLOCK A1 VERT ENG 3.0

PRINT DATE: 2026/07/10 / PAPER SIZE: ISO full bleed A1 (841.00 x 594.00 MM)
PATH: C:\Users\sava.radojicic\OneDrive\Documents\300_CONC_DES\310_Des_Dwg\PV\SLD\Lanark PV-SLD.dwg / LAYOUT: SLD



1 SINGLE LINE DIAGRAM
SCALE: NTS

SYSTEM SUMMARY			
MODULE MODEL	THORNOVA TS-BGT66(600-620)-G11	SOLAR PV INVERTER MODEL	SOLIS S5-GC60K-LV-US
MODULE STC DC RATING	620 W	RATED DC INPUT POWER	60 kW
MODULE OPEN CIRCUIT VOLTAGE (VOC)	49.60	NO. OF INVERTERS	1
MODULE SHORT CIRCUIT CURRENT (ISC)	15.92	RACKING SYSTEM	EAST - WEST
MODULES PER SOURCE CIRCUIT (STRING)	12	MODULE TILT	5°
SOURCE CIRCUIT (STRING) VOLTAGE (VSTRING)	800 V	ARRAY AZIMUTH	141.95°
NO. OF SOURCE CIRCUITS (STRINGS)	8	SITE LATITUDE	44.8958°
TOTAL MODULE COUNT	94	RECORD LOW TEMPERATURE	-32.2
TOTAL STC DC SYSTEM SIZE	58.28 kW	AVERAGE HIGH TEMPERATURE	37.3
TOTAL DC OVER BUILD RATIO	0.97		

CABLE SCHEDULES:

- 1 1-4/C, 4/0 AWG RW90 Cu, 1-#4 AWG Cu BONDING CONDUCTOR IN 63mm EMT CONDUIT
- 2 1-4/C, 4/0 AWG RW90 Cu, 1-#4AWG Cu BONDING CONDUCTOR IN 63mm EMT CONDUIT
- 3 2-1/C, 2000V, #10 AWG RPV90, Cu, #6 AWG, Cu BONDING CONDUCTOR, IN CABLE TRAY (PER STRING)

LEGEND	
	SOLAR PV MODULE
	INVERTER
	DC STRING FUSES
	JUNCTION BOX
	AC DISCONNECT SWITCH
	DIGITAL METER
	LOCKABLE CIRCUIT BREAKER

- NOTES:
- METERING AND SYSTEM PROTECTION WILL BE DONE AT NEW MAIN SERVICE PANEL. REFER TO DRAWING ELECTRICAL BUILDING E002 FOR MORE INFORMATION.
 - SOLAR SYSTEM GROUNDING TO BE INTERCONNECTED TO BUILDING GROUNDING GRID. PV RACKING SYSTEM AND MODULE FRAMES SHALL BE BONDED AND CONNECTED TO THE SAME GROUNDING SYSTEM IN ACCORDANCE WITH CEC SECTION 64.
 - CONTRACTOR TO COMPLY WITH REQUIREMENTS OF THE CEC RULE 64-218 AND CSA C22.2.
 - AC DISCONNECT SWITCH TO BE MOUNTED WITHIN 3 m OF NEW MAIN SERVICE PANEL.
 - SOLAR PV INVERTER TO HAVE INTEGRATED AC AND DC DISCONNECTS
 - CONTRACTOR SHALL ENSURE SAME CONDUCTOR MATERIAL (ALUMINUM/COPPER) IS USED OR DISSIMILAR METALS ARE INTERCONNECTED WITH APPROVED HARDWARE.
 - PROVIDE AND INSTALL CURRENT AND VOLTAGE TAPS FOR THE DIGITAL METERING.
 - PROVIDE A SET OF LUGS PER SET OF CABLES PER CIRCUIT BREAKER.

C	2026/07/10	ISSUED FOR TENDER	N.D.
B	2026/06/29	ISSUED FOR TENDER REVIEW	N.D.
A	2026/05/19	ISSUED FOR 75% REVIEW	N.D.
No.	Date	Description	By

STAMPS:			
DESIGNED BY			
APPROVED BY			



CLIENT:

LANARK COUNTY

LANARK DEEP 24 BOURKE ST.
SMITHS FALLS, ON, K7A 3L9

PROJECT NAME:

LANARK DEEP RETROFIT

SHEET TITLE:

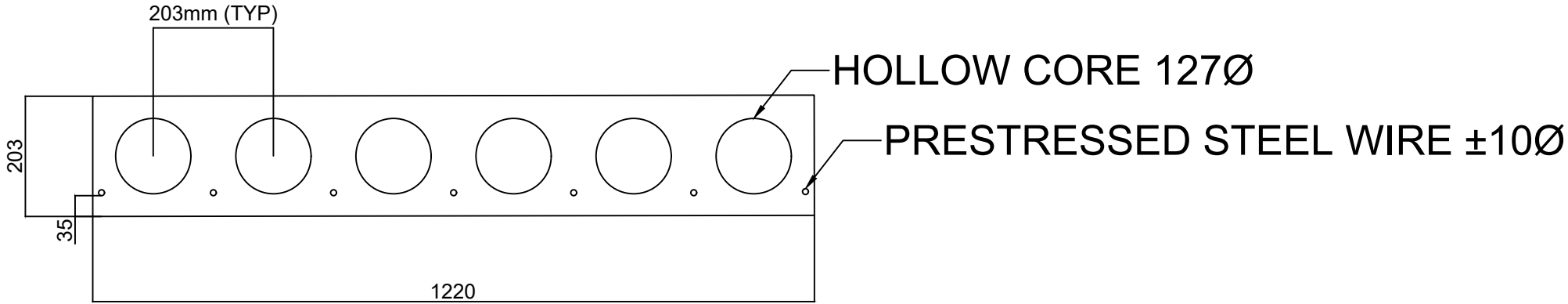
PV
SINGLE LINE DIAGRAM

24 BOURKE ST
SMITHS FALLS, ON, K7A 3L9

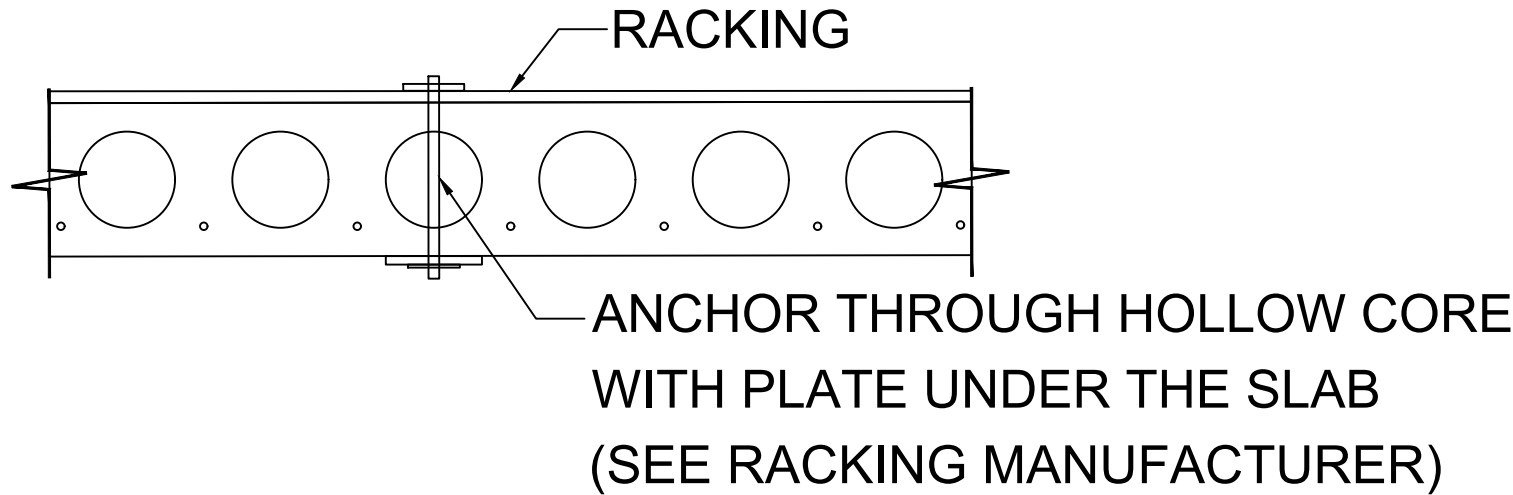
DISCIPLINE:	
ELECTRICAL	
DRAFTER: S. RADOJICIC	SCALE: NTS
DESIGNER: S. RADOJICIC	DATE: 2026/05/19
CHECKER: M. WRIGHT, P.ENG.	APPROVER: N. DUFFAYADAR, P.ENG.
PROJECT No: A0002067	DRAWING No: E601
SHEET No:	1 of 1

FOR TENDER

NOT TO BE USED FOR CONSTRUCTION



A
-
EXISTING SLAB SECTION
1:10



B
-
ANCHOR IN SLAB
1:10

- NOTES:
1. ALL MEASUREMENTS ARE IN mm UNLESS STATED OTHERWISE
 2. MAXIMUM ONE ANCHOR PER WIDTH OF SLAB (1220 mm)
 3. ANCHORS MUST BE AT LEAST 600 mm FROM THE END OF A SLAB LENGHT AND AT LEAST 600 mm FROM EACH OTHER
 4. ANCHORS MUST BE DRILLED IN THE CENTER OF HOLLOW CORE WITHOUT DAMAGING THE PRESTRESSED STEEL WIRE

FOR TENDER

NOT TO BE USED FOR CONSTRUCTION

B	2026/07/10	ISSUED FOR TENDER	J.C.R.
A	2026/06/29	ISSUED FOR TENDER REVIEW	J.C.R.
No.	Date	Description	By

STAMPS:

DESIGNED BY

APPROVED BY

ENGINEER:

CLIENT:

LANARK COUNTY

LANARK DEEP 24 BOURKE ST.
SMITHS FALLS, ON, K7A 3L9

PROJECT NAME:

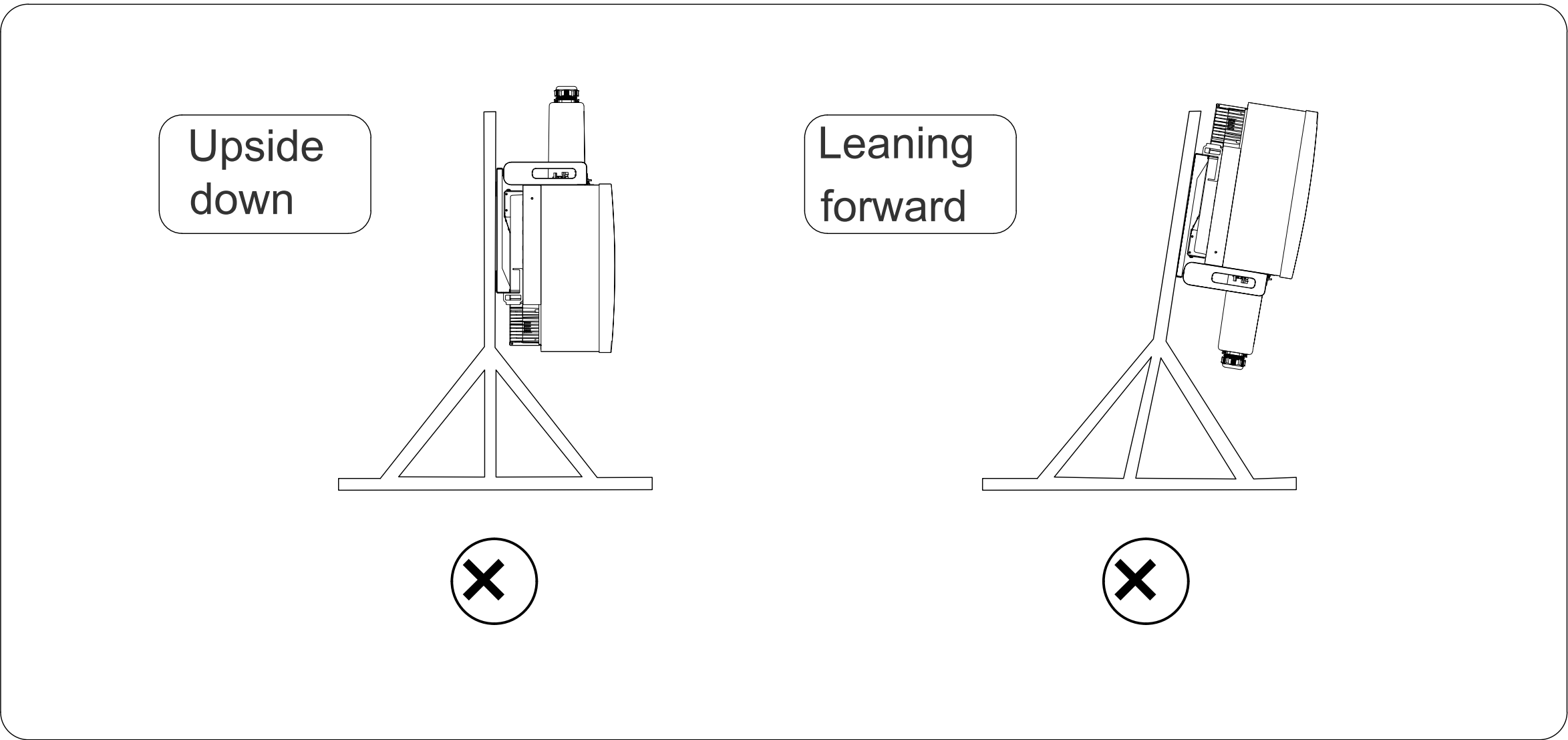
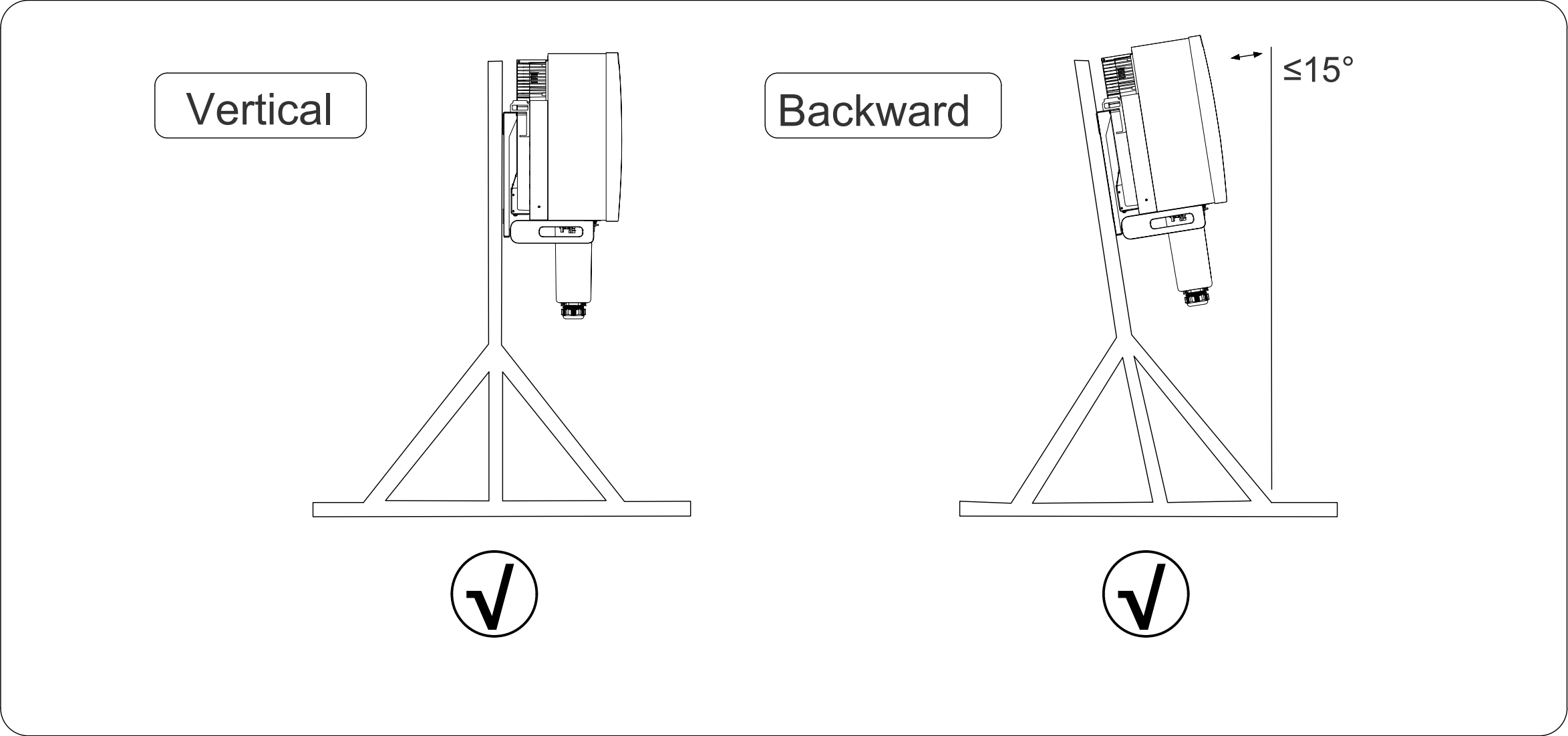
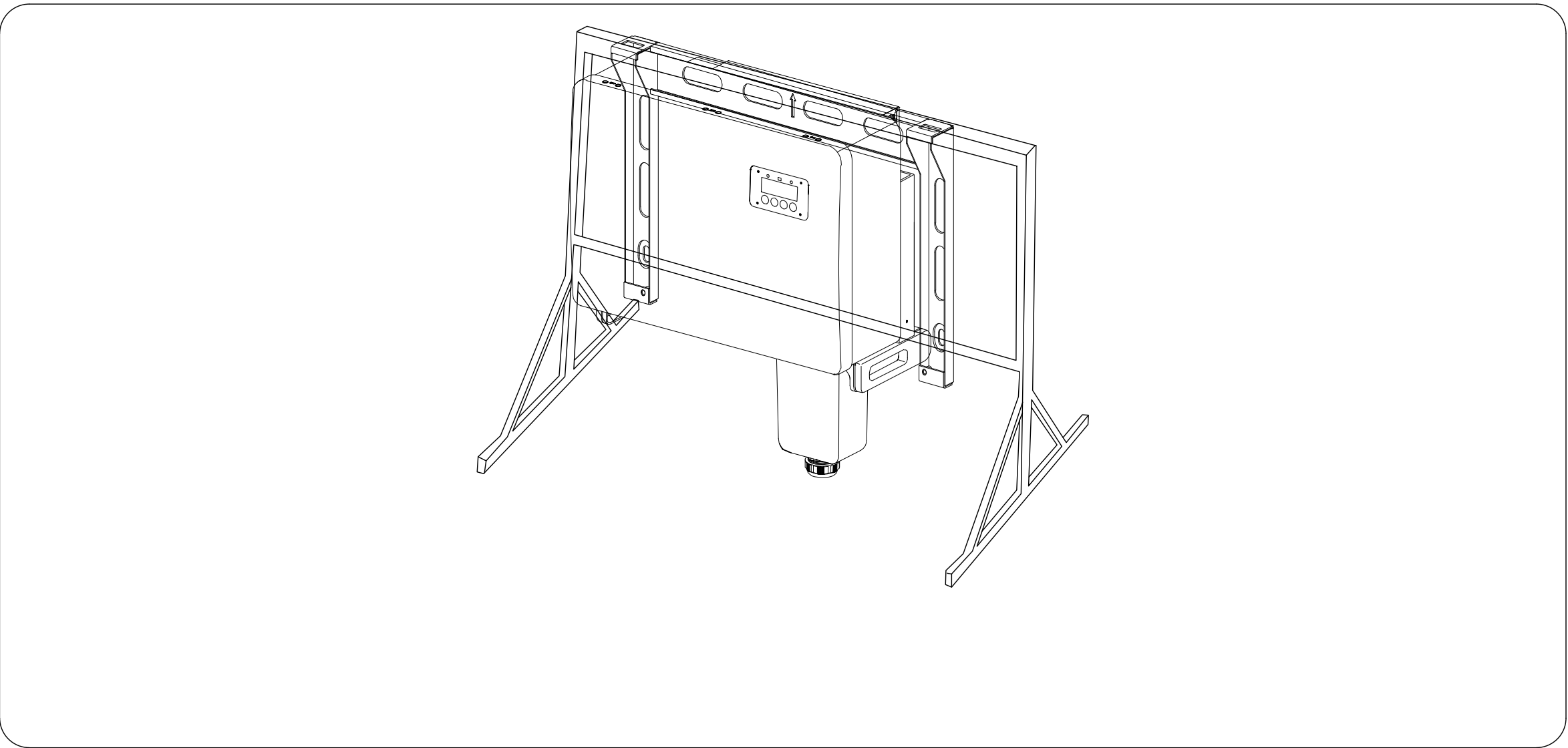
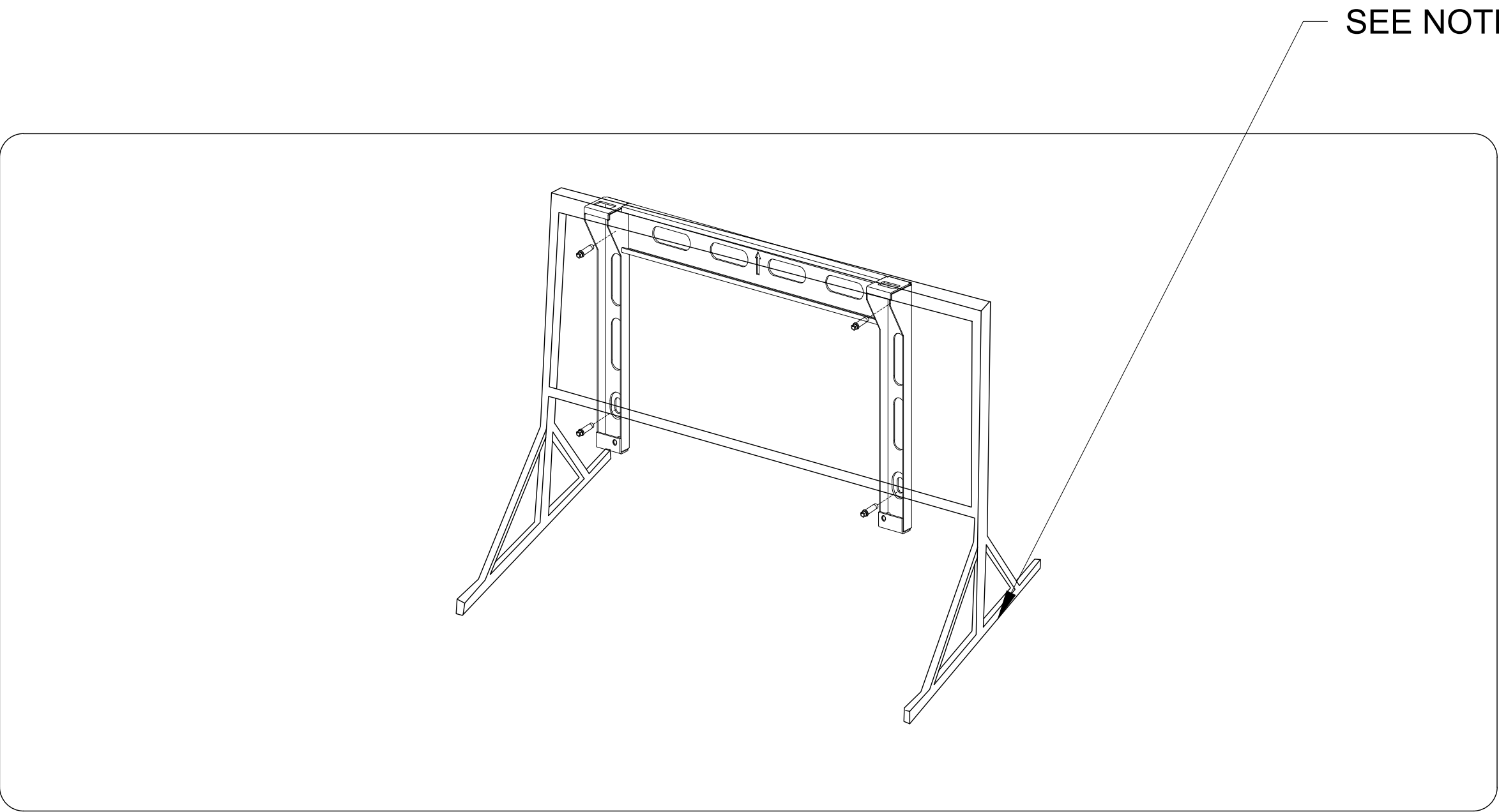
LANARK DEEP RETROFIT DESIGN

SHEET TITLE:

STRUCTURAL DETAIL

24 BOURKE ST
SMITHS FALLS, ON, K7A 3L9

DISCIPLINE:	
STRUCTURAL	
DRAFTER: S. RADOJICIC	SCALE: AS SHOWN
DESIGNER: J.-C. RICHARD, P.ENG.	DATE: 2026/06/29
CHECKER: PIERRE-LUC SÉGUIN, P.ENG.	APPROVER: J.-C. RICHARD, P.ENG.
PROJECT No: A0002067	DRAWING No: S400
SHEET No: 1 of 2	



C

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TYPICAL INVERTER UNISTRUT MOUNTING
NTS

NOTES:

1. SUPPORTS SHALL BE ELEVATED ABOVE THE ROOF SURFACE USING APPROVED DURABLOK-TYPE RUBBER ROOFTOP SUPPORTS, OR APPROVED EQUAL, SO THAT THE INVERTER/SUPPORT SYSTEM IS NOT INSTALLED DIRECTLY ON THE ROOF MEMBRANE.

THIS DETAIL IS PROVIDED FOR REFERENCE ONLY AND SHALL NOT BE USED AS A DETAILED CONSTRUCTION OR SHOP DRAWING.

FOR TENDER

NOT TO BE USED FOR CONSTRUCTION

B	2026/07/10	ISSUED FOR TENDER	J.C.R.
A	2026/06/29	ISSUED FOR TENDER REVIEW	J.C.R.
No.	Date	Description	By

STAMPS:

LICENSED PROFESSIONAL ENGINEER

JEAN CHRISTOPHE RICHARD

100680732

PROVINCE OF ONTARIO

DESIGNED BY

APPROVED BY



CLIENT:

LANARK COUNTY

LANARK DEEP 24 BOURKE ST.

SMITHS FALLS, ON, K7A 3L9

PROJECT NAME:

LANARK DEEP RETROFIT DESIGN

SHEET TITLE:

STRUCTURAL DETAIL

24 BOURKE ST

SMITHS FALLS, ON, K7A 3L9

DISCIPLINE:		STRUCTURAL	
DRAFTER:	S. RADOJICIC	SCALE:	NTS
DESIGNER:	J.-C. RICHARD, P.ENG.	DATE:	2026/06/29
CHECKER:	PIERRE-LUC SÉGUIN, P.ENG.	APPROVER:	J.-C. RICHARD, P.ENG.
PROJECT No:	A0002067	DRAWING No:	S400
SHEET No:	2 of 2		