

ADDRESS  
LOT 151, DP755475  
211 VINE LN  
BOGGABRI,  
NSW 2382

COORDINATES  
-30.674655°, 150.026383°



REFERENCES


REVISIONS

C	2020.12.10	MINOR REVISIONS	JM	JM	SS	JM	
B	2020.12.03	MINOR REVISIONS	JM	JM	SS	JM	
A	2020.10.16	FIRST ISSUE	JM	JM	SS	JM	
REV.	DATE	DESCRIPTION	DRWN.	DESIGNED	CHKD.	APPR.	

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TITLE  
PROVIDENCE ASSET GROUP  
BOGGABRI SOLAR FARM  
LOCATION DETAIL

DWG No. 10020-G-GAD-01-1

SCALE  
AS SHOWN  
REVISION  
C  
PAPER SIZE  
A3



A

B

C

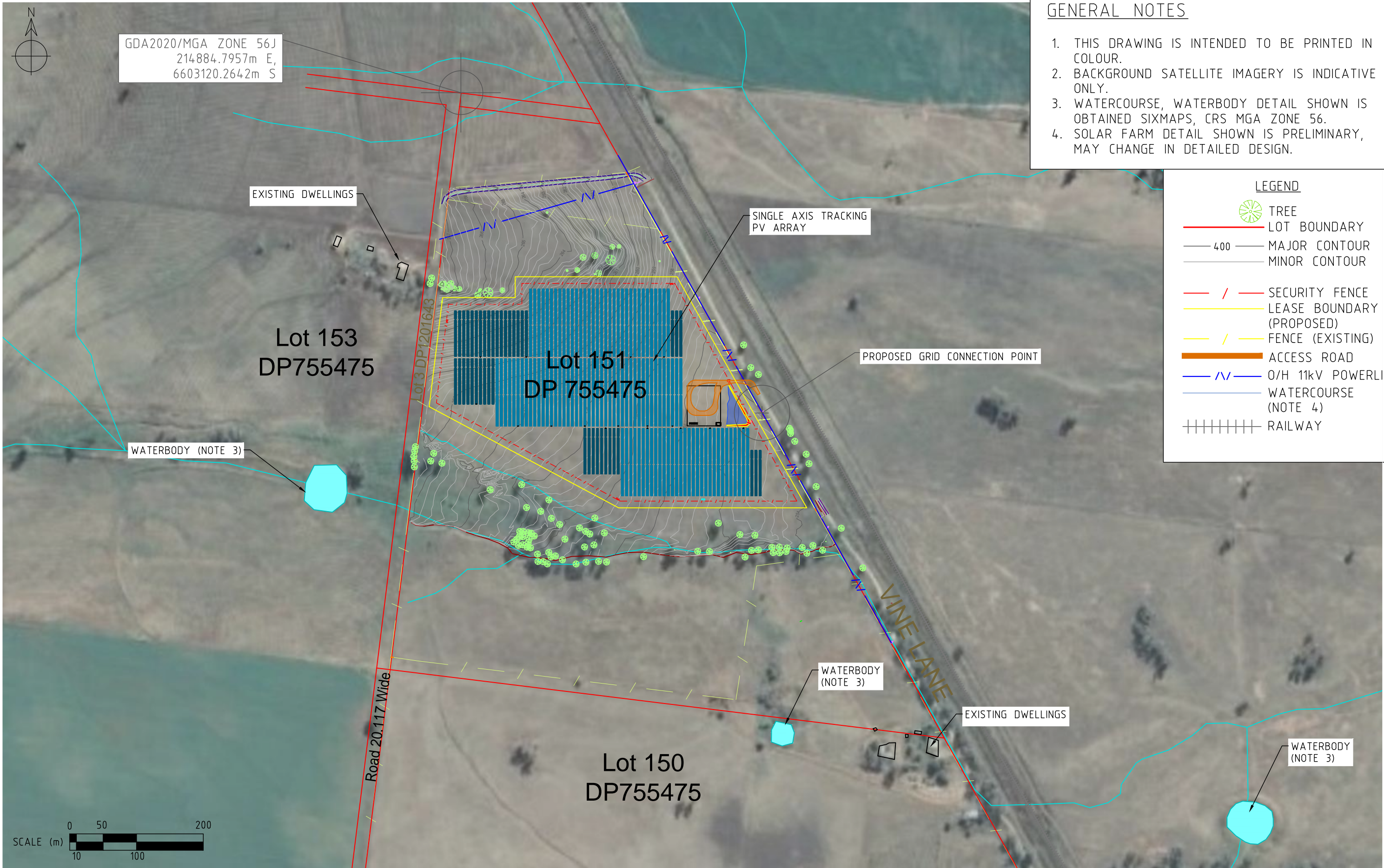
D

A

B

C

D



GENERAL NOTES

1. THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR.
2. BACKGROUND SATELLITE IMAGERY IS INDICATIVE ONLY.
3. WATERCOURSE, WATERBODY DETAIL SHOWN IS OBTAINED SIXMAPS, CRS MGA ZONE 56.
4. SOLAR FARM DETAIL SHOWN IS PRELIMINARY, MAY CHANGE IN DETAILED DESIGN.

LEGEND

- TREE
- LOT BOUNDARY
- 400 MAJOR CONTOUR
- MINOR CONTOUR
- SECURITY FENCE
- LEASE BOUNDARY (PROPOSED)
- FENCE (EXISTING)
- ACCESS ROAD
- O/H 11kV POWERLINE
- WATERCOURSE (NOTE 4)
- RAILWAY



REFERENCES		REVISIONS					
		D	2020.12.10	ISSUED WITH CHANGES	JM	JM	SS
		C	2020.11.23	ISSUED WITH CHANGES	JM	JM	SS
		B	2020.11.18	ISSUED WITH CHANGES	JM	JM	SS
		A	2020.11.04	FIRST ISSUE	JM	JM	SS
REV.	DATE	DESCRIPTION		DRWN.	DESIGNED	CHKD.	APPR.

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TITLE		SCALE
PROVIDENCE ASSET GROUP		1:5300
BOGGABRI SOLAR FARM		REVISION
GENERAL ARRANGEMENT		D
OVERVIEW		PAPER SIZE
DWG No.	10020-G-GAD-02-1	A3



A

B

C

D


A


B


C


D


LEGEND


 TREE


 MAJOR CONTOUR


 MINOR CONTOUR


 TOP OF CREEK


 SECURITY FENCE

 FENCE (EXISTING)

 LEASE BOUNDARY (PROPOSED)

 PV TABLE

 O/H 11kV POWERLINE

 WATERCOURSE

SYSTEM SUMMARY

ELECTRICAL CONFIGURATION:

TOTAL PV PLANT CAPACITY (DC): 6.289 MWp

TOTAL INVERTER CAPACITY (AC): 4.95MVA

PV PLANT MAXIMUM EXPORT CAPACITY (AC): 4.95MW

DC:AC RATIO: 1.27

STRINGS OF 28 PV MODULES.

208 PV STRINGS PER INVERTER.

416 PV STRINGS TOTAL.

PV MODULES:

MFR: LONGI SOLAR

MODEL: LR5-72HPH-540M

NAMEPLATE: 540Wp

QUANTITY: 11,648 MODULES

INVERTERS:

MFR: SUNGROW

MODEL: SG2475HV

NAMEPLATE: 2475kVA

QUANTITY: 2

MV POWER STATION:

MFR: SUNGROW

MODEL: SG4950HV-MV

QUANTITY: 1

TRACKER ARRAY:

TYPE: GROUND MOUNT SINGLE AXIS TRACKING

CONFIGURATION: INDEPENDENT TYPE

MFR: NEXTRACKER

RANGE OF MOTION: ±60°

PITCH: 6.25m

GCR: 36.096%

QUANTITIES:

...43 OF 2 STRING TRACKERS

...110 OF 3 STRING TRACKERS

...153 TRACKERS TOTAL

FENCED AREA: 120,607 m<sup>2</sup>

LEASE AREA: 134,919 m<sup>2</sup>

GENERAL NOTES:

1. SITE ACCESS VIA VINE LANE.

2. DETAIL SHOWN IS PRELIMINARY, MAY CHANGE IN DETAILED DESIGN.

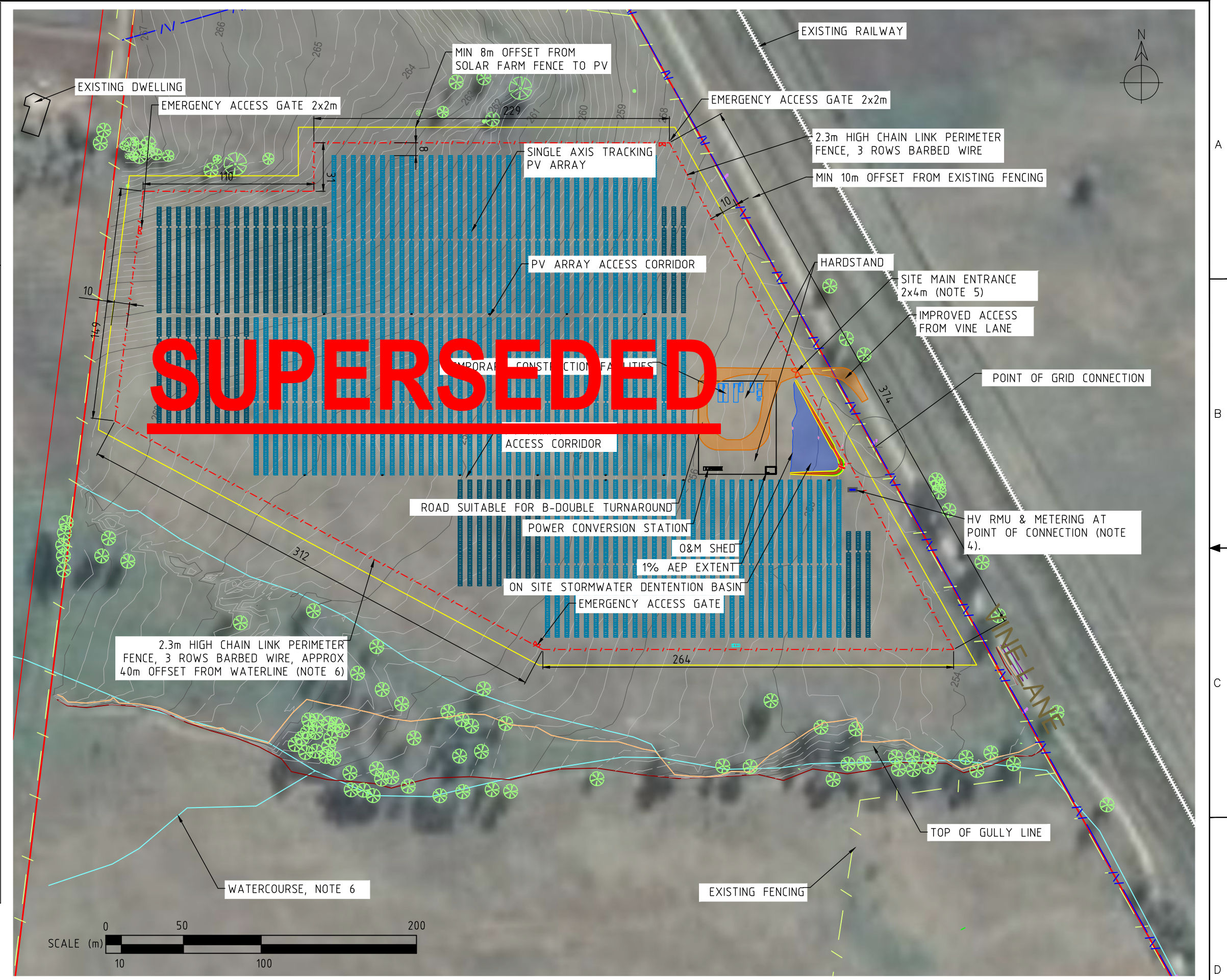
3. CLEARANCE BETWEEN SOLAR TRACKER ARRAY & SITE SECURITY FENCE TYPICALLY 10m


4. HV RMU & METERING (LOCATION AND TYPE TO BE DETERMINED, IS SUBJECT TO ESSENTIAL ENERGY FEEDBACK).

5. FOR SECURITY GATE DETAILS REFER TO DRAWING 10020-C-DET-02-1.

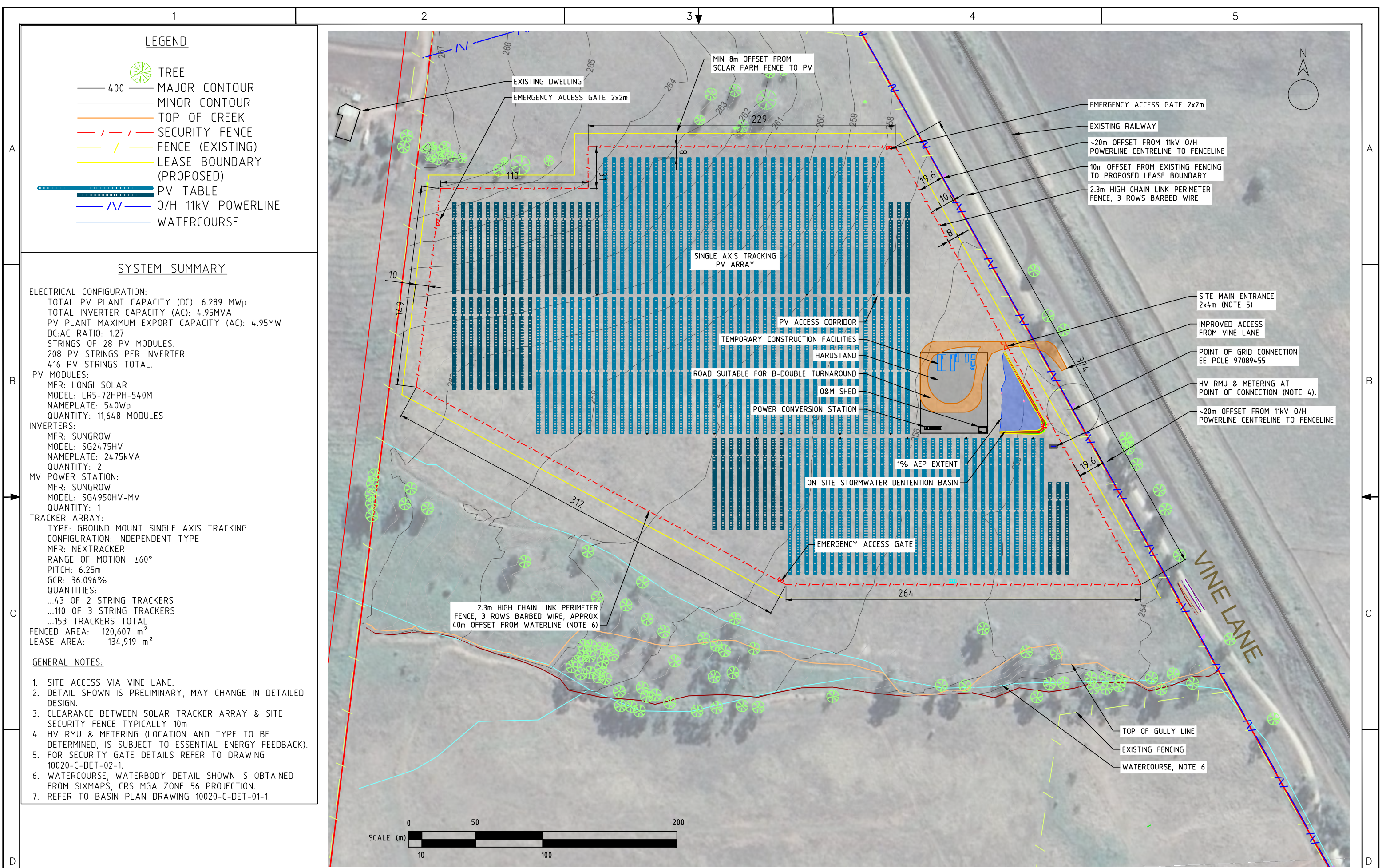
6. WATERCOURSE, WATERBODY DETAIL SHOWN IS OBTAINED FROM SIXMAPS, CRS MGA ZONE 56 PROJECTION.


7. \*\*REFER TO BASIN PLAN DRAWING (TBC)\*\*.



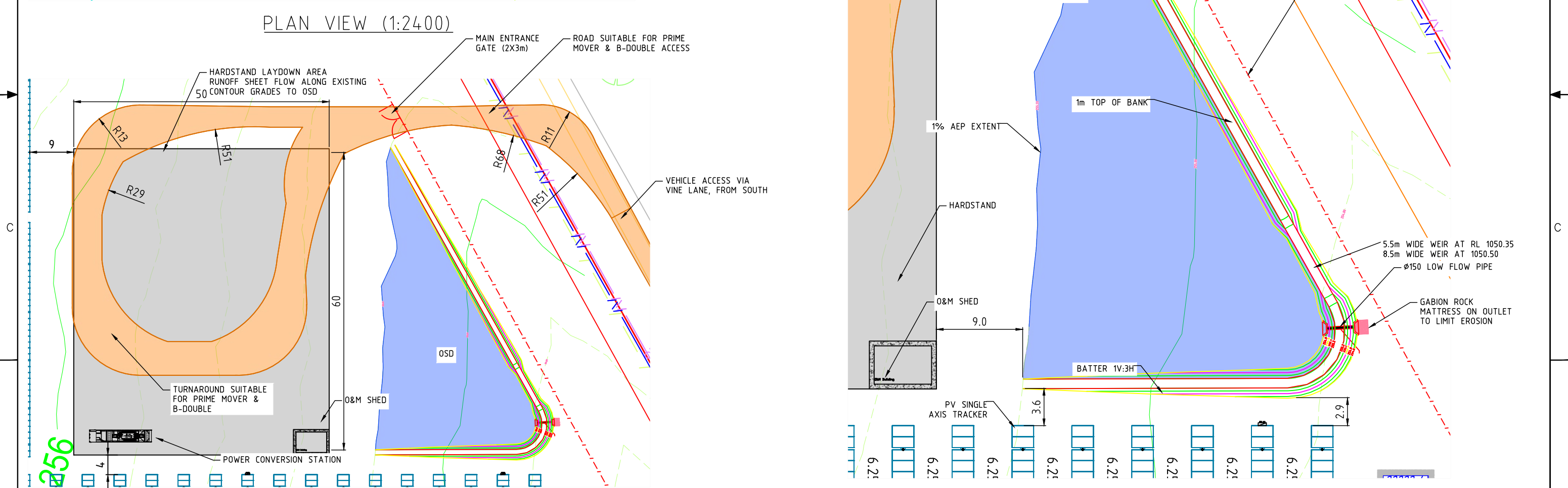
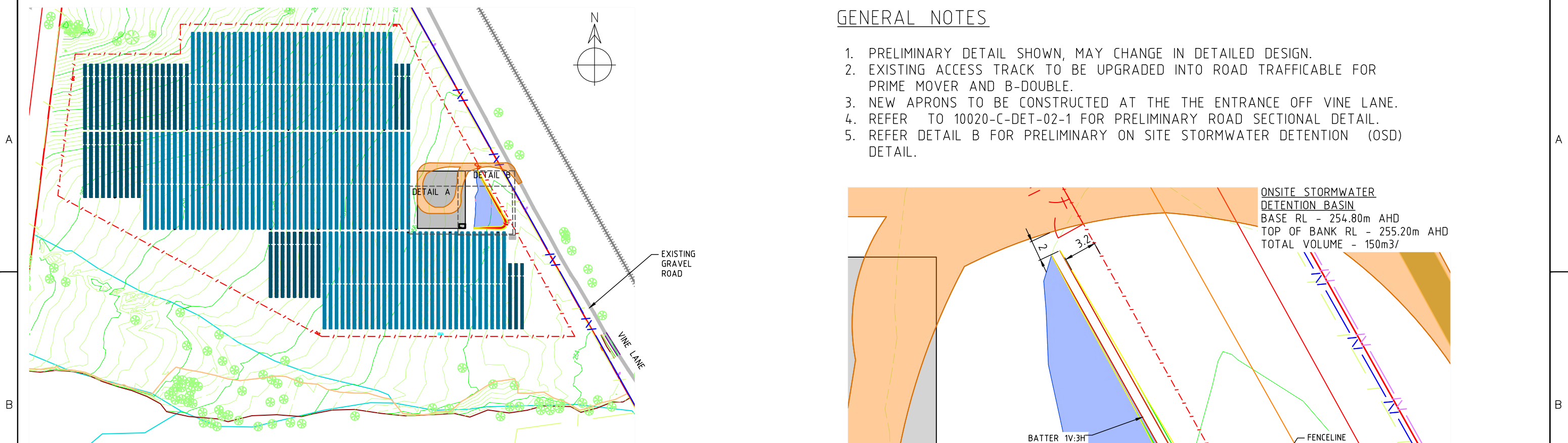
 PROVIDENCE ASSET GROUP 	REFERENCES		REVISIONS					THIS DRAWING IS THE PROPERTY OF PROVIDENCE ASSET GROUP AND IS NOT TO BE COPIED (IN WHOLE OR IN PART) FOR ANY PURPOSE OR DISCLOSED TO OTHER PARTIES WITHOUT THE APPROVAL OF PROVIDENCE ASSET GROUP OR AN AUTHORIZED AGENT.	TITLE PROVIDENCE ASSET GROUP BOGGABRI SOLAR FARM GENERAL ARRANGEMENT SYSTEM DETAIL DWG No. 10020-G-GAD-02-2	SCALE 1:2500		
										REVISION C		
		C		2020.12.10	ISSUED WITH CHANGES	JM	JM			SS	JM	
		B		2020.11.23	MINOR AMENDMENTS	JM	JM			SS	JM	
		A		2020.11.13	FIRST ISSUE	JM	JM			SS	JM	PAPER SIZE A3
		REV.	DATE	DESCRIPTION	DRWN.	DESIGNED	CHKD.	APPR.				





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			D	2021.03.26	ISSUED WITH CHANGES	JM	JM			SS	JM	REVISION D
			C	2020.12.10	ISSUED WITH CHANGES	JM	JM			SS	JM	PAPER SIZE A3
			B	2020.11.23	MINOR AMENDMENTS	JM	JM			SS	JM	
			A	2020.11.13	FIRST ISSUE	JM	JM			SS	JM	
			REV.	DATE	DESCRIPTION	DRWN.	DESIGNED			CHKD.	APPR.	

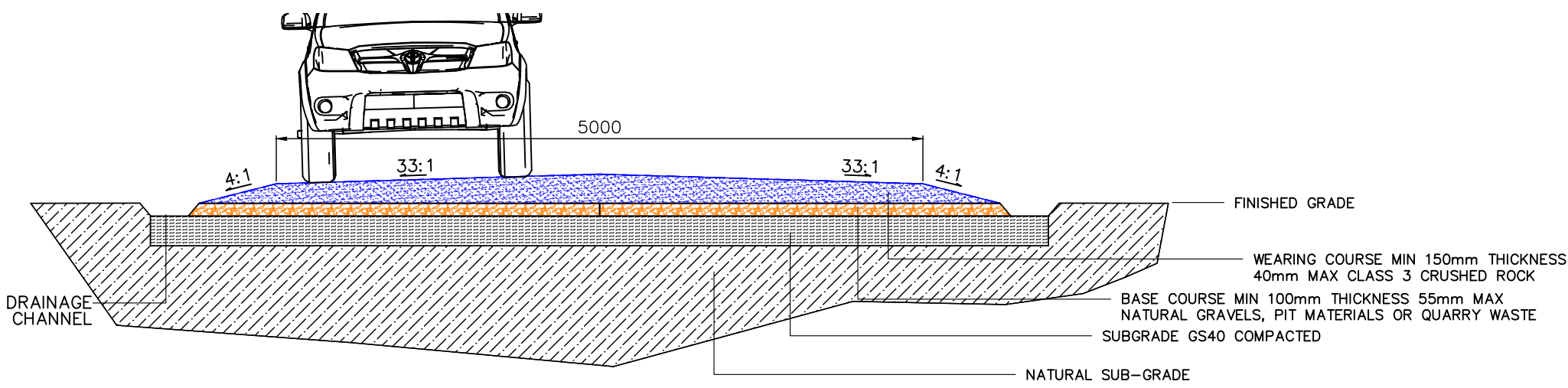




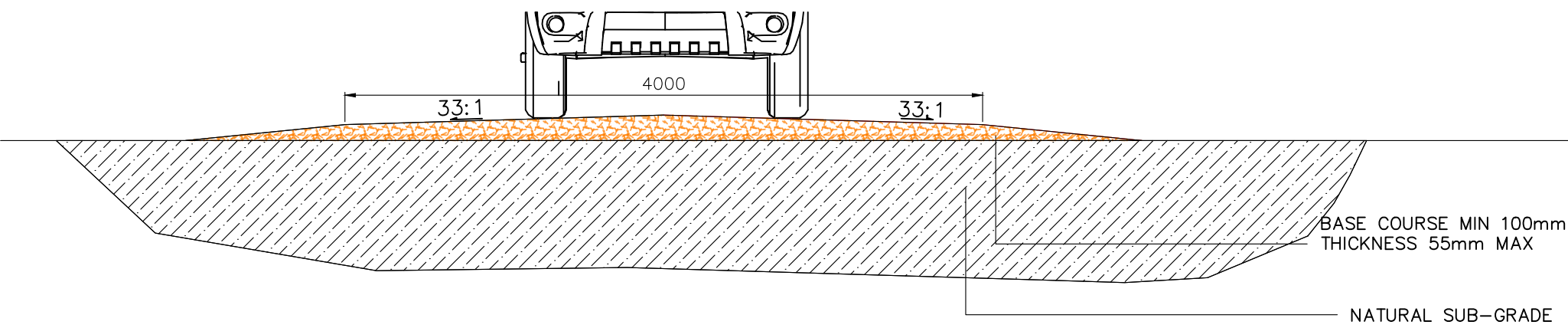
PROVIDENCE ASSET GROUP		Balance		REV. DATE DESCRIPTION		DRWN. DESIGNED		CHKD. APPR.		THIS DRAWING IS THE PROPERTY OF PROVIDENCE ASSET GROUP AND IS NOT TO BE COPIED (IN WHOLE OR IN PART) FOR ANY PURPOSE OR DISCLOSED TO OTHER PARTIES WITHOUT THE APPROVAL OF PROVIDENCE ASSET GROUP OR AN AUTHORIZED AGENT.		TITLE PROVIDENCE ASSET GROUP BOGGABRI SOLAR FARM CIVIL DETAIL		SCALE AS SHOWN REVISION A		PAPER SIZE A3	
A		2020.12.11		FIRST ISSUE		JM		JM		SS		JM		DWG No. 10020-G-GAD-02-2			

GENERAL NOTES

- 1. DETAILS SHOWN ARE PRELIMINARY, PAVEMENT DESIGN SUBJECT TO FINAL TRAFFICABILITY ASSESSMENT.
- 2. TRAFFIC LANE TYPICAL WIDTHS OF 4m TO 5m AS SHOWN. SECTIONS MAY BE WIDER THAN SHOWN TO ACCOMMODATE REQUIRED VEHICLE TURNING CIRCLES.
- 3. ALL ROADS TO HAVE ADEQUATE CROSS FALL FROM CENTER AND SHALL MAINTAIN MINIMUM LAYER THICKNESSES PER THE PAVEMENT DESIGNS.
- 4. ACCESS ROAD SHALL BE RAISED MINIMUM 150mm ABOVE EXISTING GROUND LEVEL.



1 SITE ACCESS ROAD SECTION



2 PV ARRAY ACCESS ROAD SECTION



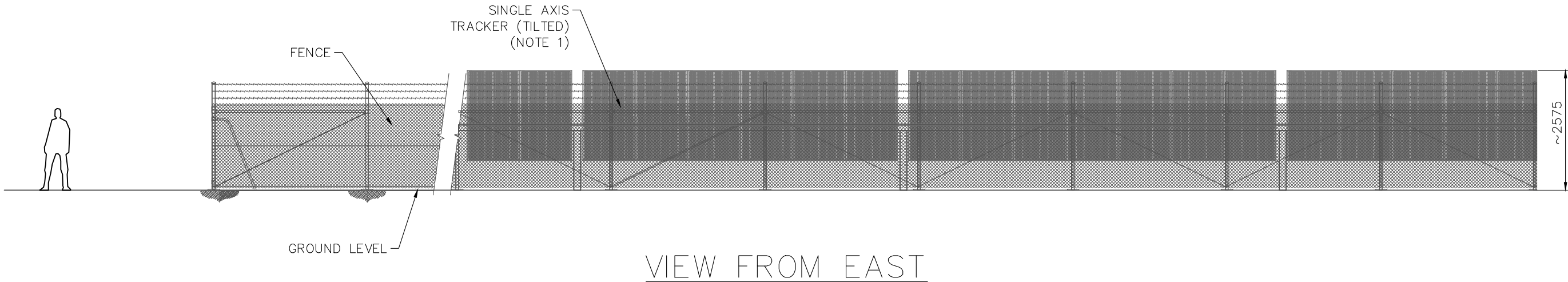
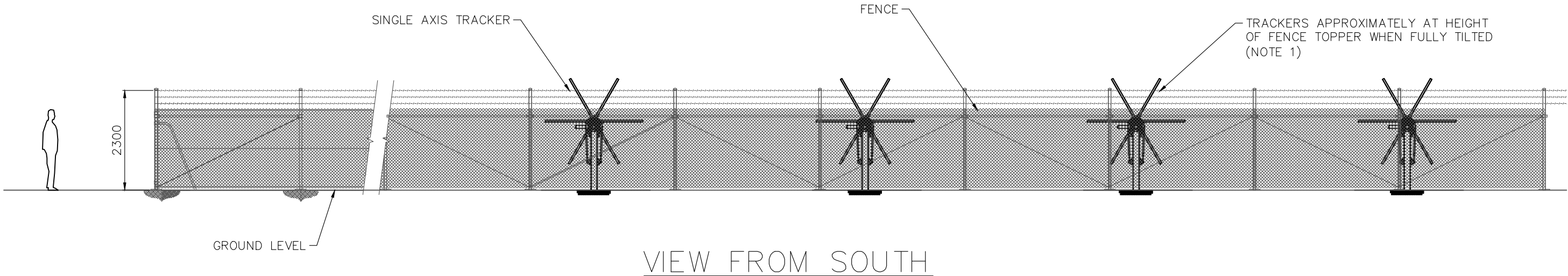
REV.	DATE	DESCRIPTION	DRWN.	DESIGNED	CHKD.	APPR.
A	2020.12.08	FIRST ISSUE	JM	JM	SS	JM

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	PROVIDENCE ASSET GROUP BOGGABRI SOLAR FARM ROAD SECTION DETAIL	AS SHOWN
	DWG No. 10020-C-DET-06-1	PAPER SIZE A3



GENERAL NOTES

- 1. NB DETAIL PRESENTED IS PARALLEL PROJECTION. PV TRACKERS WILL BE 1-MODULE-IN PORTRAIT SINGLE AXIS TRACKING TYPE, AND WILL BE POSITIONED SUFFICIENTLY FAR FROM THE FENCELINE AS TO APPEAR SMALLER THAN AS SHOWN.
- 2. PRELIMINARY EQUIPMENT SELECTION:  
PV MODULE: LONGI LR5-72HPH-540M  
TRACKING SYSTEM: NEXTRACKER NX HORIZON  
DETAIL PRESENTED IS BASED UPON EQUIPMENT SELECTION, MAY CHANGE DURING DETAILED DESIGN.
- 3. GROUND LEVEL SIMPLIFIED TO CONSTANT ELEVATION, GROUND LEVEL VARIES ACROSS SITE.
- 4. REFER TO 10020-C-DET-02-1 FOR FENCING DETAIL.
- 5. LANDSCAPING EXTERNAL TO FENCE NOT SHOWN.



REFERENCES		REVISIONS					
REV.	DATE	DESCRIPTION		DRWN.	DESIGNED	CHKD.	APPR.
C	2020.12.07	MINOR REVISIONS		JM	JM	SS	JM
B	2020.12.03	MINOR REVISIONS		JM	JM	SS	JM
A	2020.11.06	FIRST ISSUE		JM	JM	SS	JM

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TITLE	SCALE
PROVIDENCE ASSET GROUP	DNS
BOGGABRI SOLAR FARM	REVISION
SITE ELEVATION DETAIL	C
DWG No. 10020-G-DET-01-1	PAPER SIZE
	A3

A

A

B

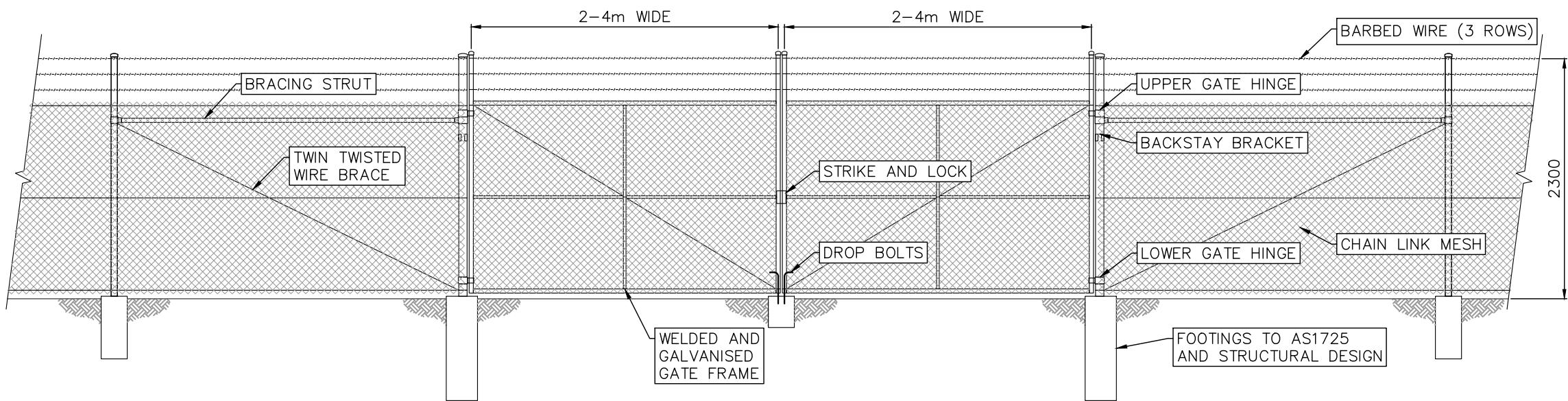
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C

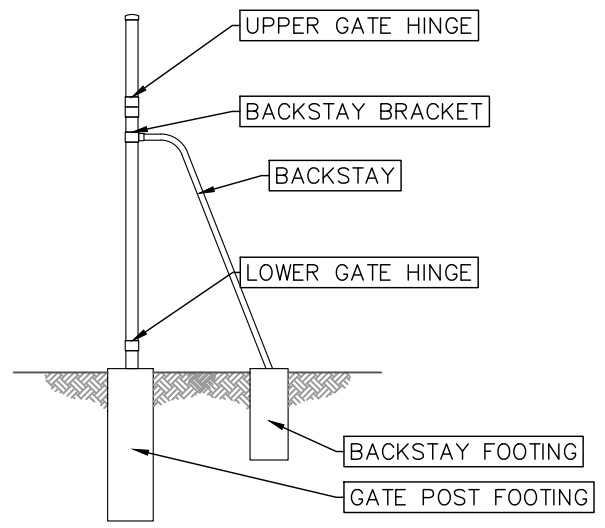
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D

D



TYPICAL FENCE & GATE ELEVATION



TYPICAL BACKSTAY ELEVATION

### GENERAL NOTES

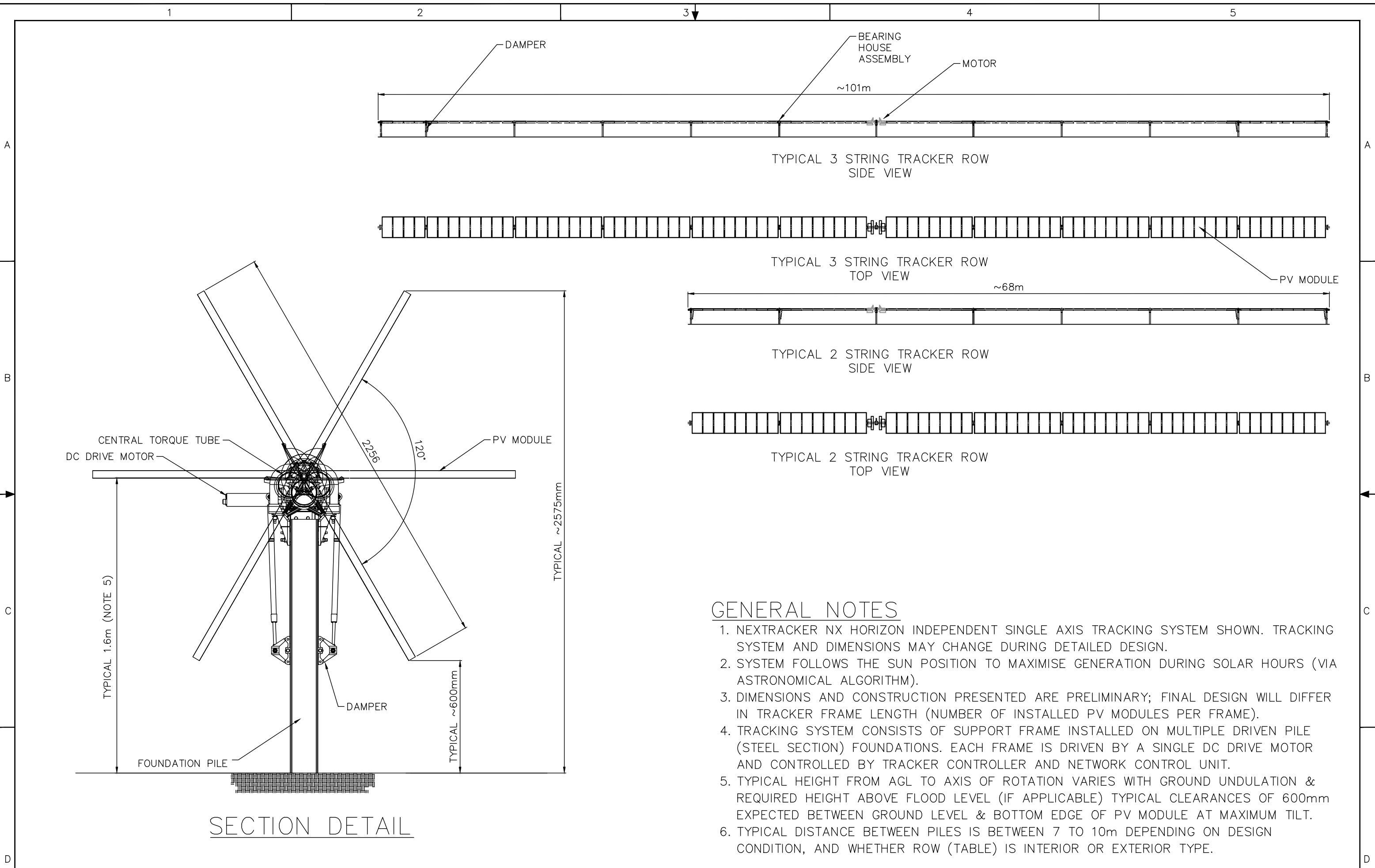
1. SOLAR FARM PERIMETER FENCE TO BE GALVANISED CHAIN LINK MESH FENCE WITH 3 ROWS BARBED WIRE.
2. NOMINAL MESH HEIGHT TO BE 1800mm.
3. NOMINAL OVERALL HEIGHT TO BE 2300mm +/- 100mm.
4. ALL FENCING COMPONENTS AND FOOTINGS TO COMPLY WITH AS 1725.
5. GATE WIDTH AS PER GA LAYOUT DRAWINGS.
6. BRACING STRUT AND WIRE BRACE REQUIRED AT ENDS, CORNERS AND GATES. DIAGONAL BRACE STRUT MAY ALSO BE USED IN LIEU OF BRACE & WIRE.
7. INTERMEDIATE BRACED PANEL CONSISTING OF TWIN TWISTED WIRE BRACE ON BOTH DIAGONALS REQUIRED AT MAX. 150m INTERVALS.
8. PERSONNEL ACCESS GATES REQUIRE BRACING STRUTS ON BOTH SIDES.
9. FOOTING DESIGN TO BE CONFIRMED DURING DETAILED DESIGN.
10. FENCE GENERALLY NOT REQUIRED TO BE EARTHED UNLESS IN CLOSE IS PROXIMITY TO ELECTRICAL COMPONENTS OR AS REQUIRED WITHIN UTILITY EASEMENTS OR SIMILAR. TO BE DETERMINED DURING DETAILED DESIGN.

REV. DATE		DESCRIPTION		DRWN.	DESIGNED	CHKD.	APPR.
REFERENCES	C	2020.12.07	MINOR REVISIONS	JM	JM	SS	JM
	B	2020.12.04	MINOR REVISIONS	JM	JM	SS	JM
	A	2020.10.19	ISSUED FOR INFORMATION	JM	JM	SS	JM

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TITLE		SCALE
PROVIDENCE ASSET GROUP		DNS
GLEN INNES SOLAR FARM		REVISION
SECURITY FENCING DETAIL		C
TYPICAL		PAPER SIZE
DWG No. 10030-C-DET-02-1		A3





GENERAL NOTES

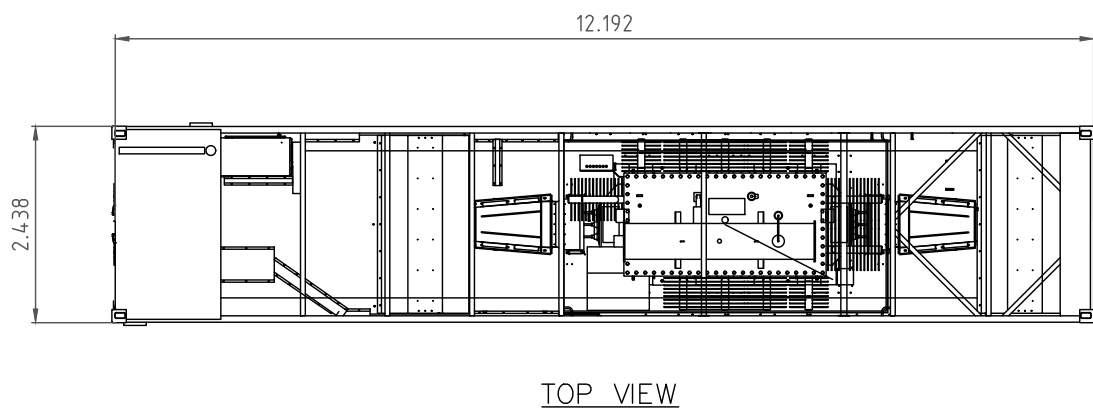
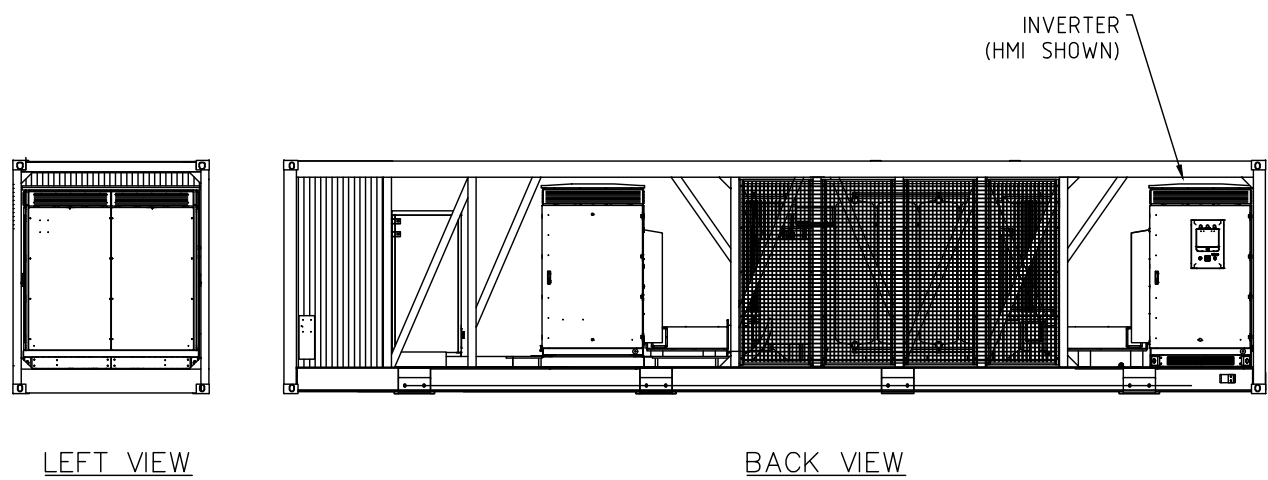
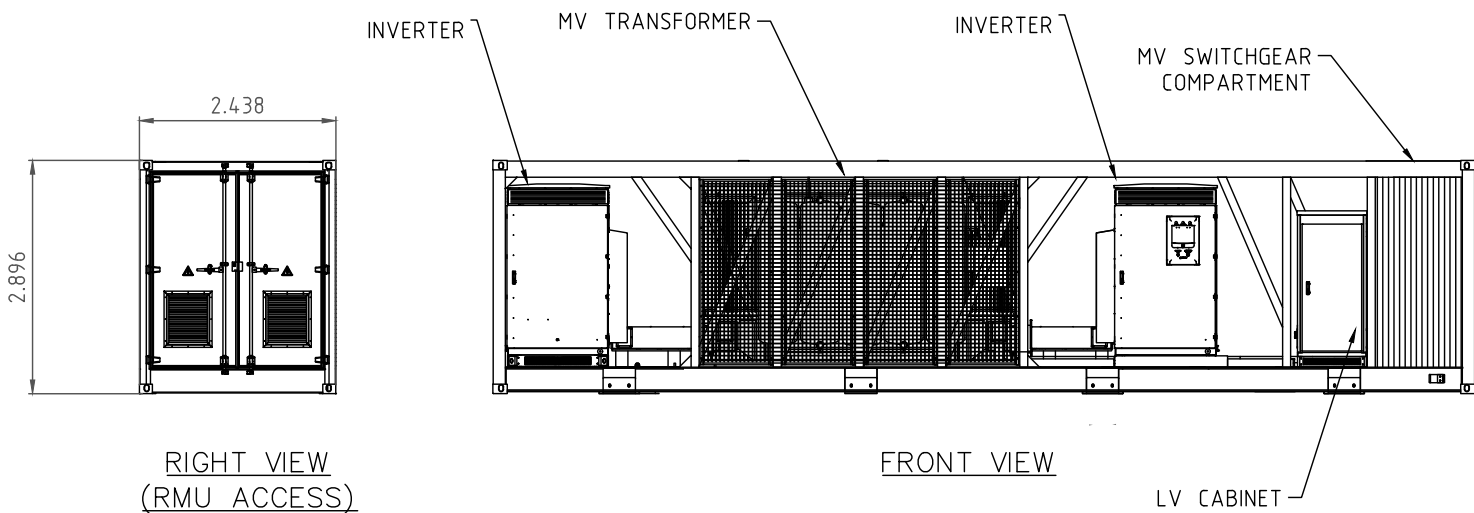
- 1. NEXTRACKER NX HORIZON INDEPENDENT SINGLE AXIS TRACKING SYSTEM SHOWN. TRACKING SYSTEM AND DIMENSIONS MAY CHANGE DURING DETAILED DESIGN.
- 2. SYSTEM FOLLOWS THE SUN POSITION TO MAXIMISE GENERATION DURING SOLAR HOURS (VIA ASTRONOMICAL ALGORITHM).
- 3. DIMENSIONS AND CONSTRUCTION PRESENTED ARE PRELIMINARY; FINAL DESIGN WILL DIFFER IN TRACKER FRAME LENGTH (NUMBER OF INSTALLED PV MODULES PER FRAME).
- 4. TRACKING SYSTEM CONSISTS OF SUPPORT FRAME INSTALLED ON MULTIPLE DRIVEN PILE (STEEL SECTION) FOUNDATIONS. EACH FRAME IS DRIVEN BY A SINGLE DC DRIVE MOTOR AND CONTROLLED BY TRACKER CONTROLLER AND NETWORK CONTROL UNIT.
- 5. TYPICAL HEIGHT FROM AGL TO AXIS OF ROTATION VARIES WITH GROUND UNDULATION & REQUIRED HEIGHT ABOVE FLOOD LEVEL (IF APPLICABLE) TYPICAL CLEARANCES OF 600mm EXPECTED BETWEEN GROUND LEVEL & BOTTOM EDGE OF PV MODULE AT MAXIMUM TILT.
- 6. TYPICAL DISTANCE BETWEEN PILES IS BETWEEN 7 TO 10m DEPENDING ON DESIGN CONDITION, AND WHETHER ROW (TABLE) IS INTERIOR OR EXTERIOR TYPE.

REFERENCES				REVISIONS			
				D	2020.12.07	MINOR REVISIONS	JM JM SS JM
				C	2020.11.23	RE-ISSUED WITH CHANGES	JM JM SS JM
				B	2020.11.18	RE-ISSUED WITH CHANGES	JM JM SS JM
				A	2020.10.19	FIRST ISSUE	JM JM SS JM
REV.	DATE	DESCRIPTION		DRWN.	DESIGNED	CHKD.	APPR.

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TITLE		SCALE
PROVIDENCE ASSET GROUP		DNS
BOGGABRI SOLAR FARM		REVISION
PV MOUNTING SYSTEM DETAIL		D
		PAPER SIZE
DWG No. 10020-E-DET-01-1		A3





GENERAL NOTES

1. POWER CONVERSION STATION (PCS) CONSISTS OF CENTRAL PV INVERTERS, MV TRANSFORMER, MV SWITCHGEAR AND AUXILIARY PLANT. PCS IS CONTAINERISED AND RAISED ABOVE GROUND LEVEL ON CONCRETE OR DRIVEN STEEL PILE FOOTINGS.
2. TYPICAL PILE FOOTINGS WITH SURROUND OF COMPACTED EARTH WITH ~100MM BLUE METAL TOP LAYER.
3. PCU SHOWN IS THE SUNGROW SG4950HV-MV MEDIUM VOLTAGE POWER STATION SYSTEM. THE PCS MAKE AND MANUFACTURER MAY BE SUBJECT TO CHANGE.

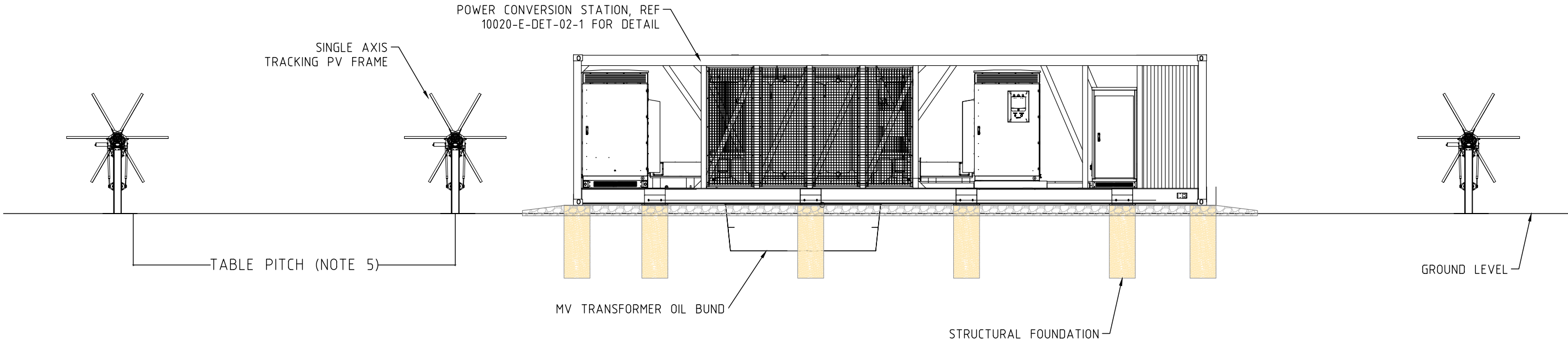
REV		DATE	DESCRIPTION	DRWN.	DESIGNED	CHKD.	APPR.
REV	DATE						
C	2020.12.07		MINOR AMENDMENTS	JM	JM	SS	JM
B	2020.11.23		MINOR AMENDMENTS	JM	JM	SS	JM
A	2020.11.18		FIRST ISSUE	JM	JM	AA	JM

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GENERAL NOTES

- 1. TYPICAL INSTALLATION DETAIL SHOWN, MAY CHANGE DURING DETAILED DESIGN.
- 2. TYPICAL INSTALLATION SHOWN; PCS RAISED ABOVE GROUND LEVEL ON CONCRETE/STRUCTURAL PILE FOUNDATIONS, WITH BLUE METAL SURROUND. FOR LOW LYING AREAS SKID REQUIRES RAISING ABOVE FLOOD LEVEL BY COMPACTED EARTH MOUND. TYPICAL 1:3 BATTER, WITH ONE SIDE MIN 1:6 FOR PEDESTRIAN ACCESS, SUBJECT TO FINAL DESIGN.
- 3. SINGLE AXIS TRACKER ASSEMBLY – FULL HEIGHT TYPICALLY 2.575m AGL, +/- 0.5m DEPENDING ON GROUND TOPOGRAPHY. TYPICALLY 1.6m AGL, +/- 0.5m WHEN IN FLAT POSITION.
- 4. MINIMUM CLEARANCE OF 600MM BETWEEN GROUND LEVEL AND PV MODULE EDGE AT MAXIMUM ROTATION TO BE MAINTAINED.
- 5. SINGLE AXIS TRACKING FRAME – TYPICAL TABLE PITCH OF 6.0 – 7.0m
- 6. COMBINER BOX TYPICALLY 1.5m +/- 0.5m HIGH.



REFERENCES		REVISIONS					
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A	2020.11.18	FIRST ISSUE		JM	JM	SS	JM

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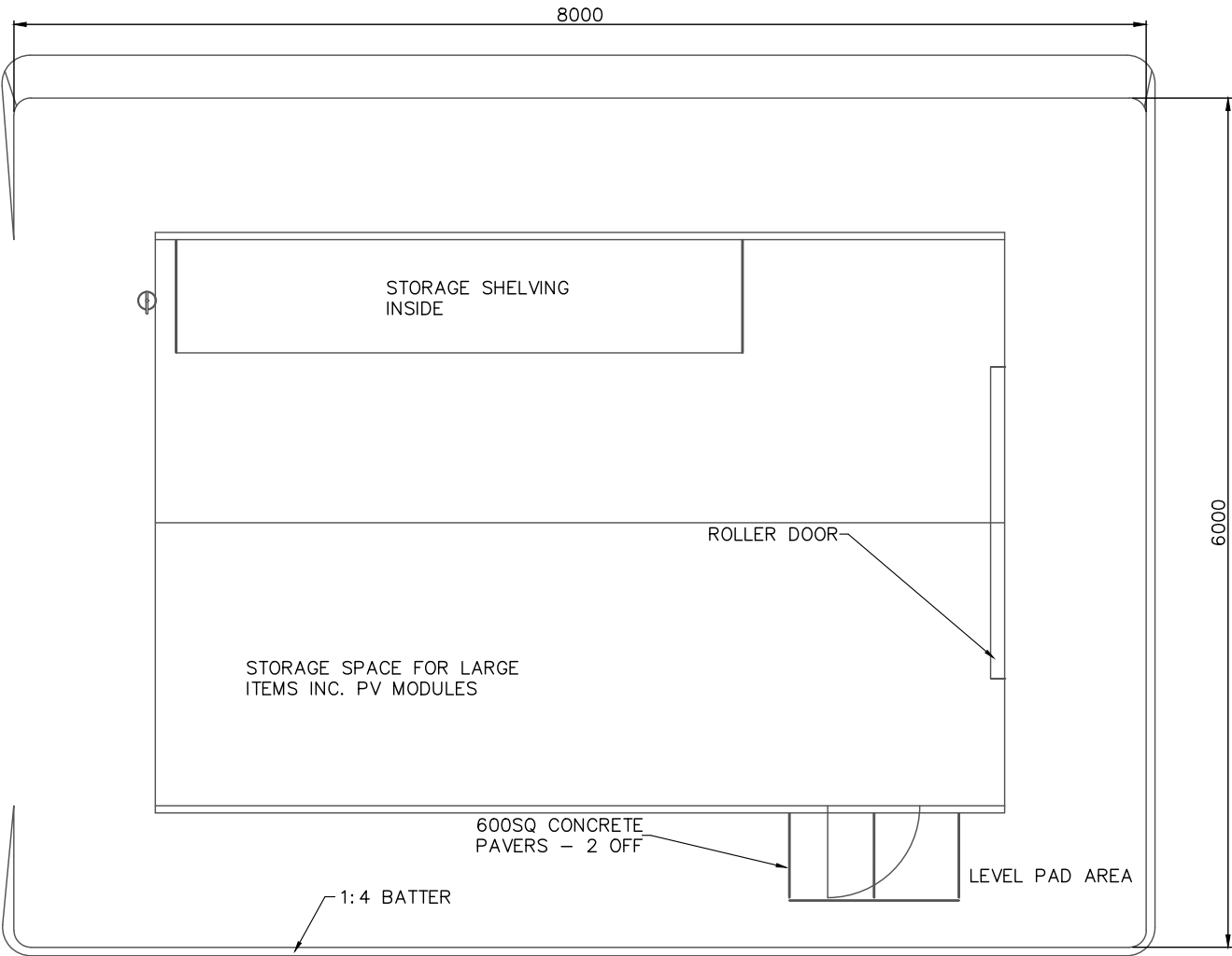
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PROVIDENCE ASSET GROUP	
BOGGABRI SOLAR FARM	
POWER CONVERSION STATION DETAIL	
SHEET 2	
DWG No.	10020-E-DET-02-2

SCALE	DNS
REVISION	C
PAPER SIZE	A3

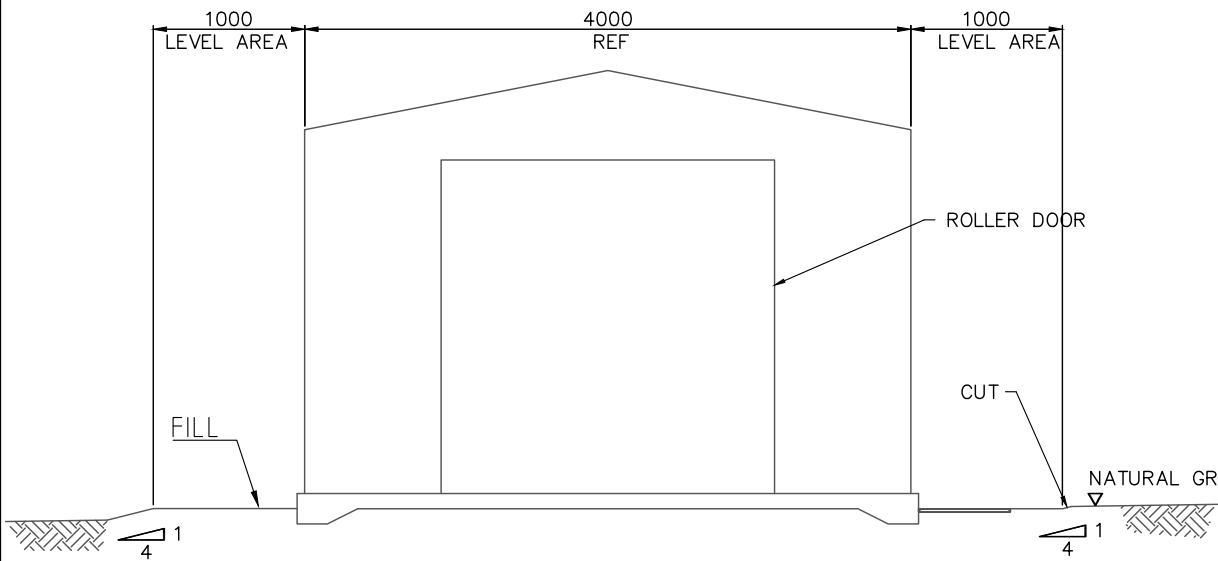


GENERAL NOTES:

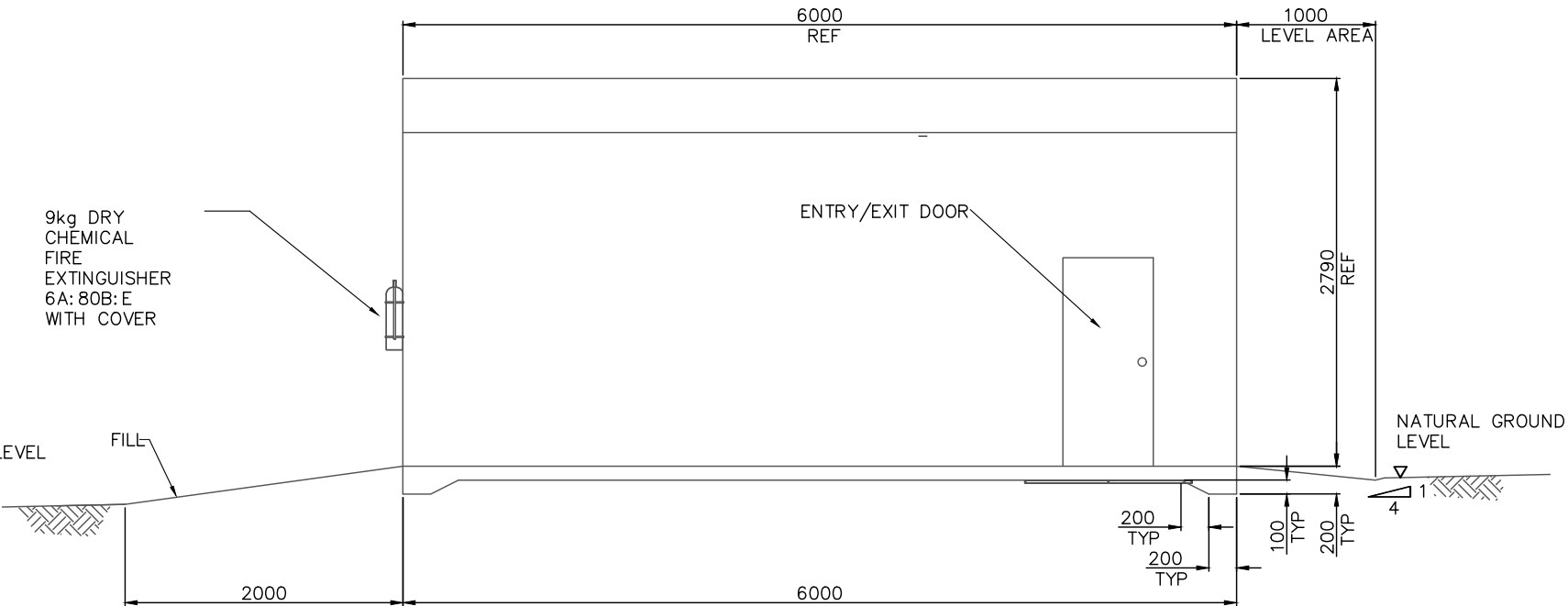
1. DIMENSIONS ARE SHOWN IN MILLIMETERS (mm)
2. SHED DESIGNED AND SUPPLIED BY (TBC).
3. WIND REGION A1, IMPORTANCE LEVEL 2
4. COMPLIES WITH PART B1 OF BUILDING CODE OF AUSTRALIA



PLAN



SIDE ELEVATION



ELEVATION



REFERENCES

REVISIONS

REV.	DATE	DESCRIPTION	DRWN.	DESIGNED	CHKD.	APPR.
C	2020.12.07	MINOR REVISION	JM	JM	SS	JM
B	2020.12.04	MINOR REVISION	JM	JM	SS	JM
A	2020.11.17	FIRST ISSUE	JM	JM	SS	JM

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TITLE  
PROVIDENCE ASSET GROUP  
BOGGABRI SOLAR FARM  
SHED DETAIL  
TYPICAL

DWG No. 10020-C-DET-05-1

SCALE  
AS SHOWN  
REVISION  
C  
PAPER SIZE  
A3