Architectural Solar Canopies

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Page

ABOUT US

Our vision is to create innovative and architectural solar solutions. Using our 32 years experience in the tensile industry we believe we are well placed to reaslise our vision.

We have sourced a 3.5mm thick flexible solar panel that allows us the freedom to create architectural tensile solutions which provide not only solar power but also shade and a waterproof footprint where required.

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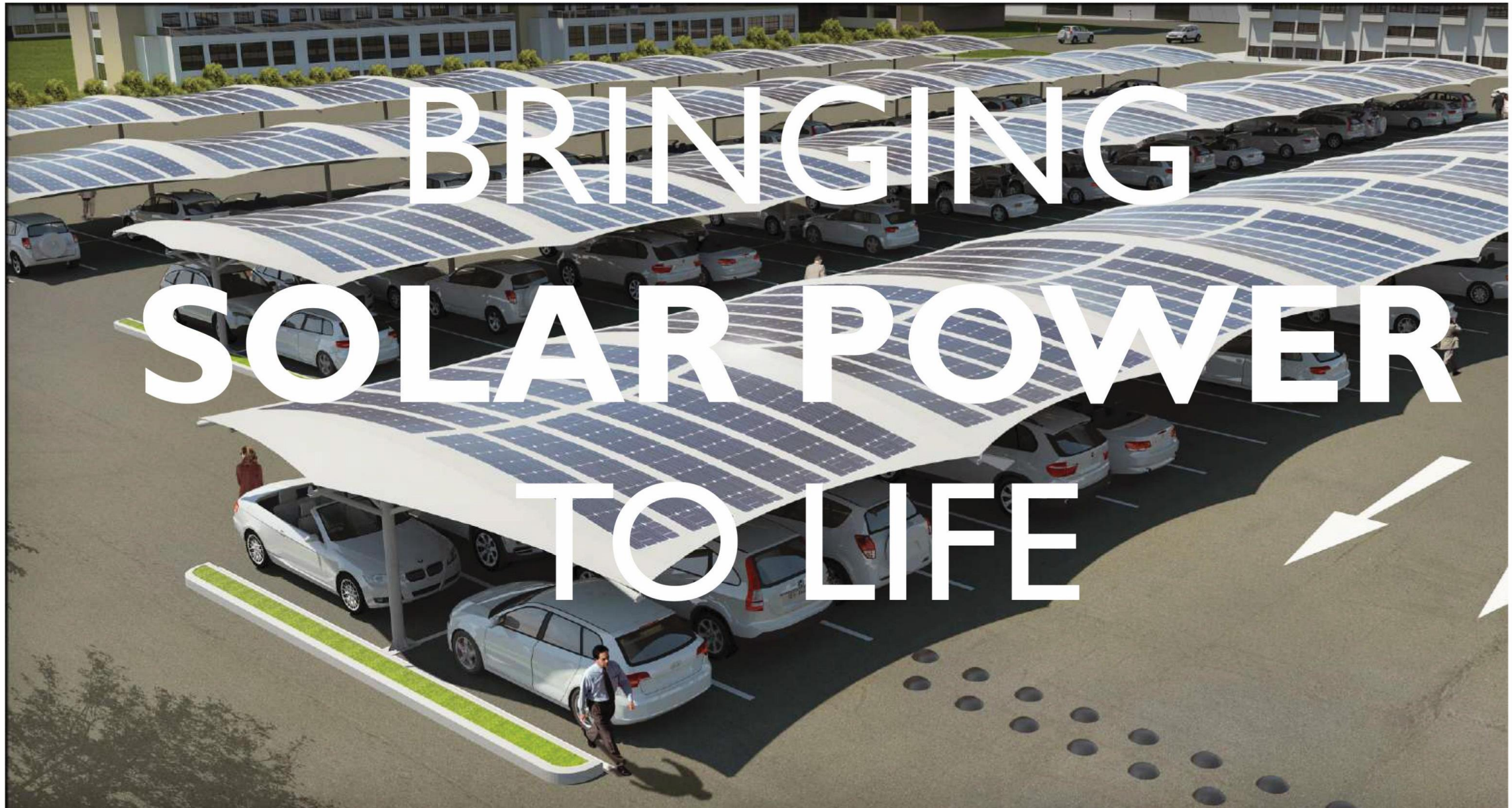
2022 by the numbers

30 years exprience
1 000's of projects
10 000's of structures
47 countries
88 standard designs
10 000's of engineering & design hours


BRINGING
SOLAR POWER
TO LIFE

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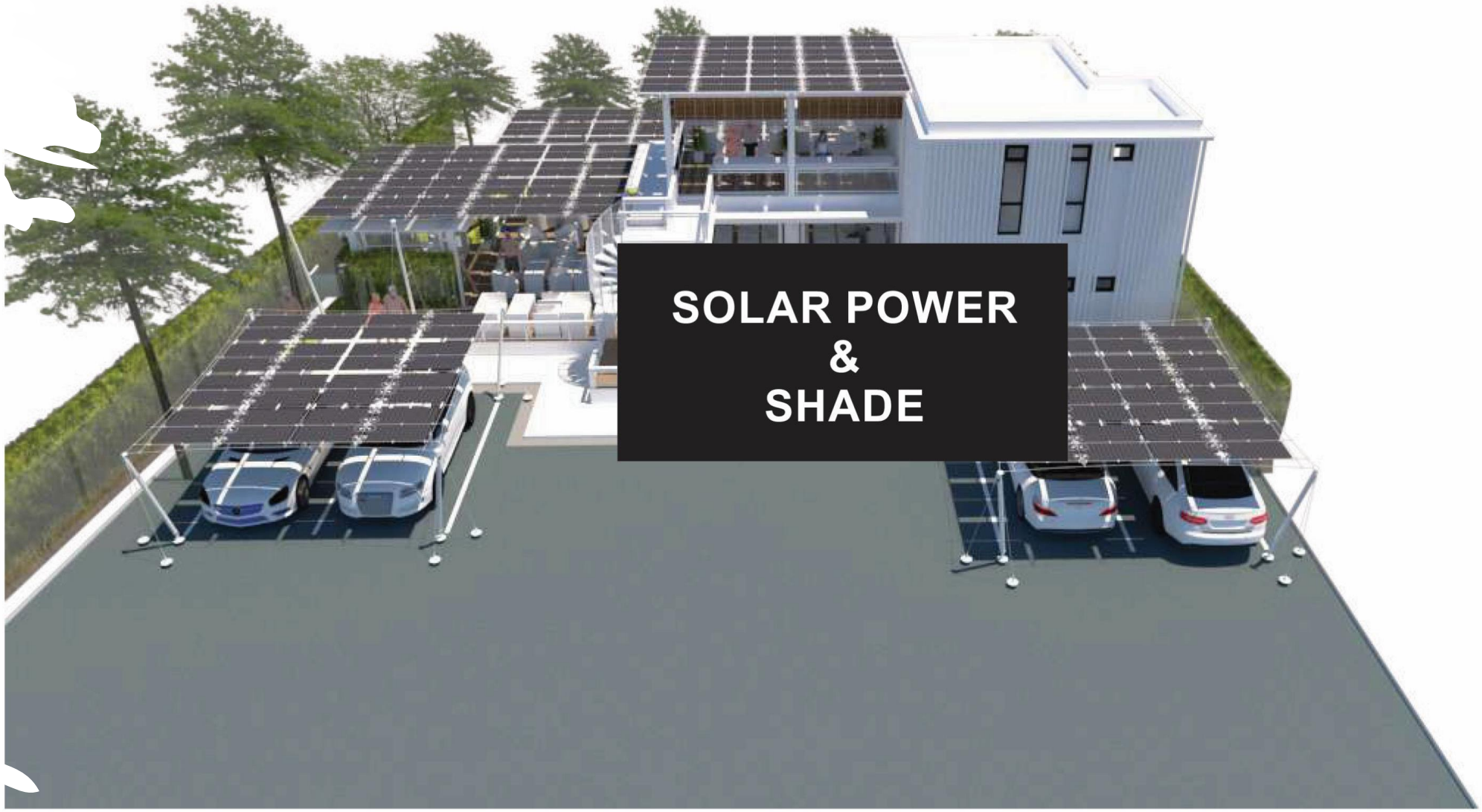

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FINDING YOU IN EVERY DETAIL

When deciding on the perfect design for your needs there are a number of criteria that need to be taken into account.

Amongst these is how much power we need to provide. What is the expected lifespan of the structure. Do you require the structure to provide shade, hail and or rain protection. What is the general layout of the area we have at our disposal.

Function of the structure to provide shade or rain protection. What weather conditions can we expect & what weather conditions need to be taken into account in the design.

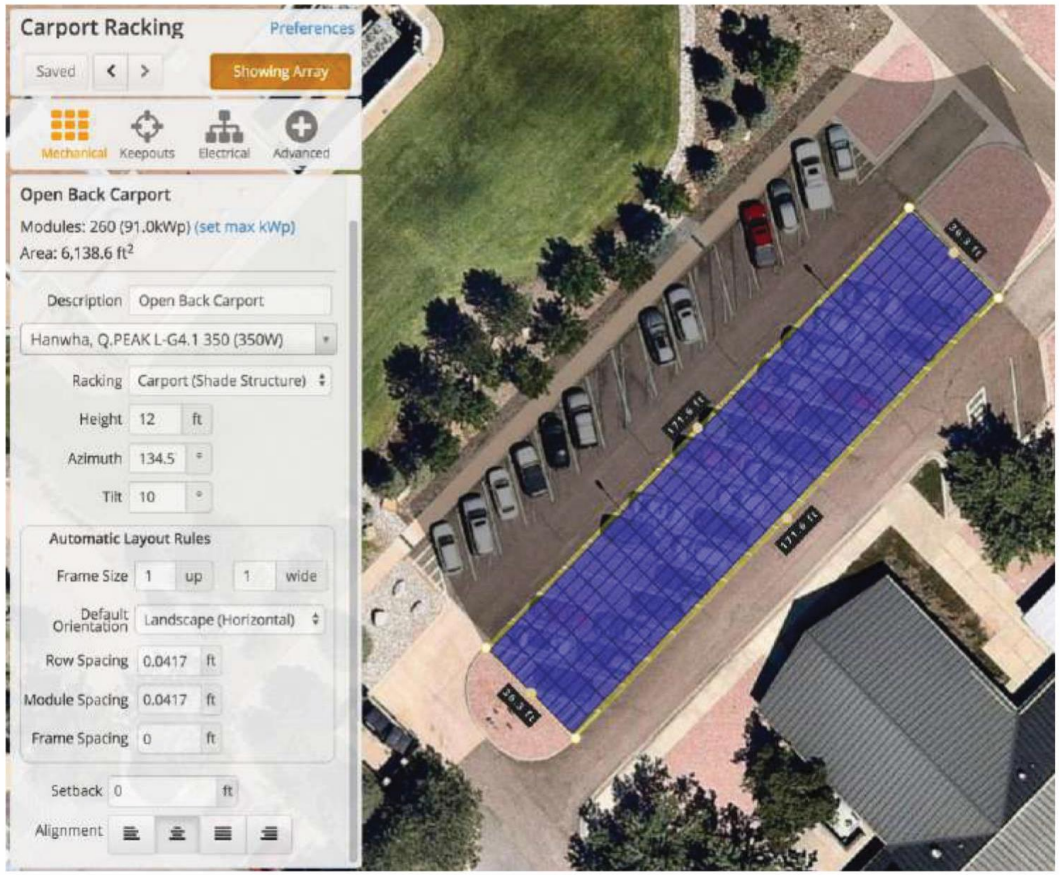
.

Prefered design. There are many designs that we can offer in both standard and bespoke designs. We work with you to determine the best fit for your requirements.

Do you require an engineer's sign off on the project or do you just require the structural analysis report that we routinely offer to our clients for each project we undertake.

Helioscope

We use Helioscope a web-based sales and design tool for solar professionals with the power to completely reshape the proposal generation process. From its robust 3D design engine and bankable energy yield simulator to its detailed financial calculator and drag-and-drop proposal editor.



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PEAK POWER REQUIRED

Average of AC Power			
Time	PV Power	Load	Battery
00:00	0,00	7,69	-7,69
01:00	0,00	3,08	-3,08
02:00	0,00	3,08	-3,08
03:00	0,00	7,08	-7,08
04:00	0,00	3,08	-3,08
05:00	0,00	3,69	-3,69
06:00	0,12	9,61	-9,49
07:00	4,27	3,69	0,58
08:00	9,22	3,69	5,53
09:00	13,25	7,48	5,78
10:00	15,92	3,01	12,91
11:00	16,40	3,01	13,39
12:00	16,71	7,01	9,70
13:00	16,23	3,01	13,22
14:00	14,52	3,01	11,52
15:00	11,57	7,01	4,57
16:00	7,70	3,01	4,70
17:00	2,99	4,93	-1,94
18:00	0,04	7,69	-7,65
19:00	0,00	3,69	-3,69
20:00	0,00	3,69	-3,69
21:00	0,00	7,69	-7,69
22:00	0,00	3,69	-3,69
23:00	0,00	3,69	-3,69
Grand Total	128,94	116,27	12,67

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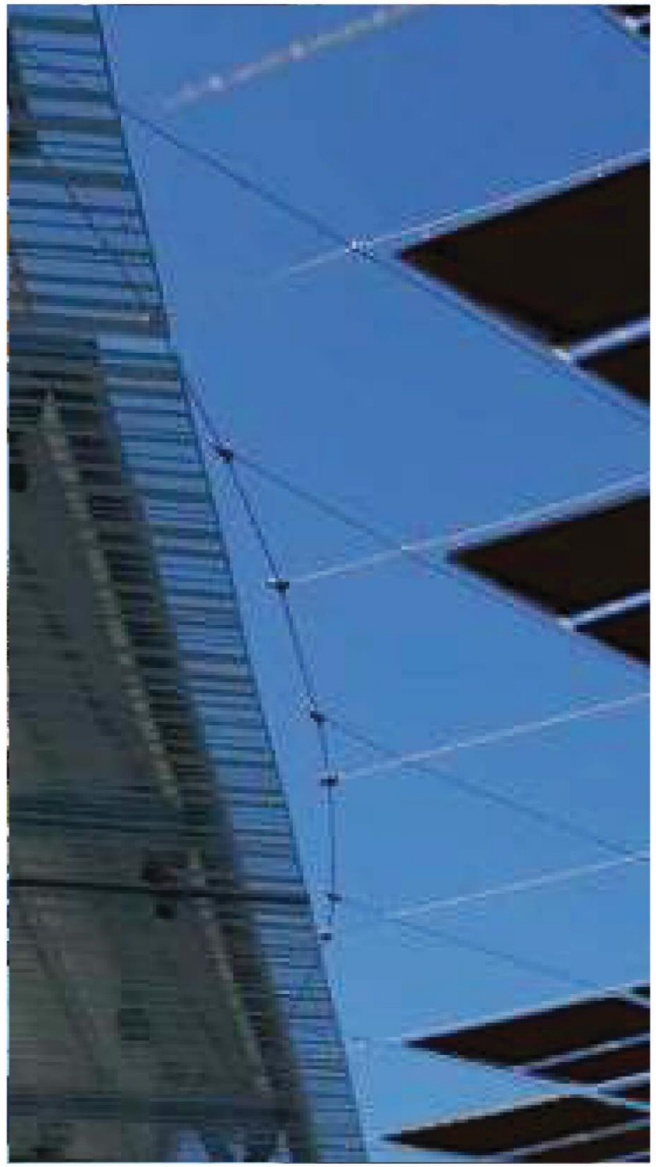
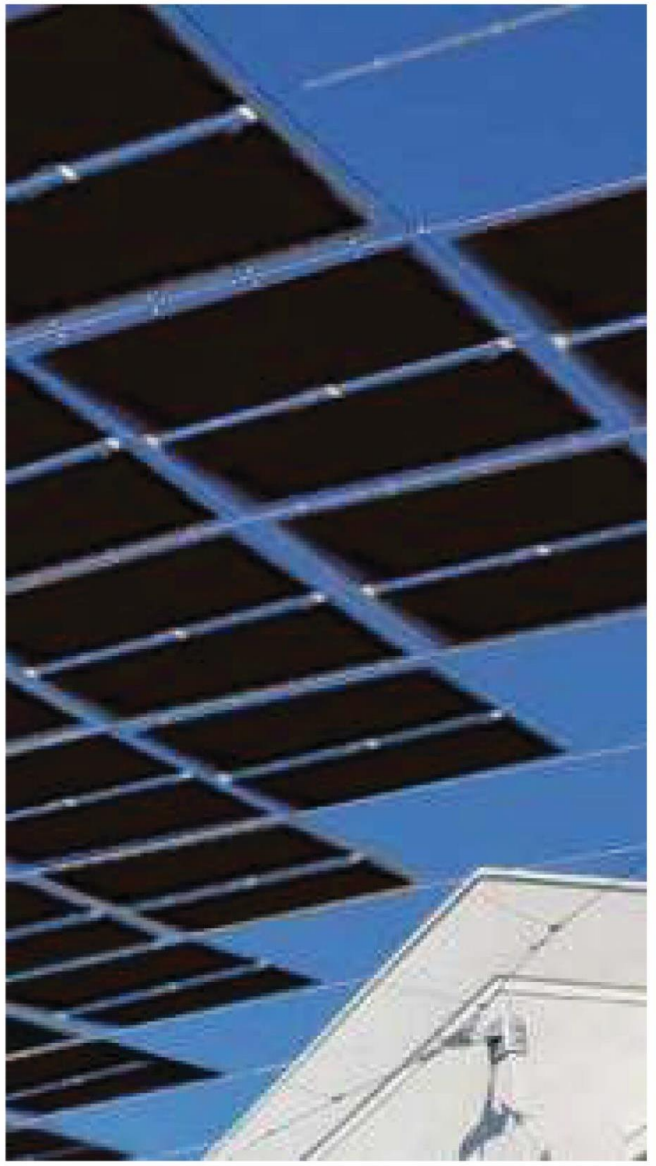
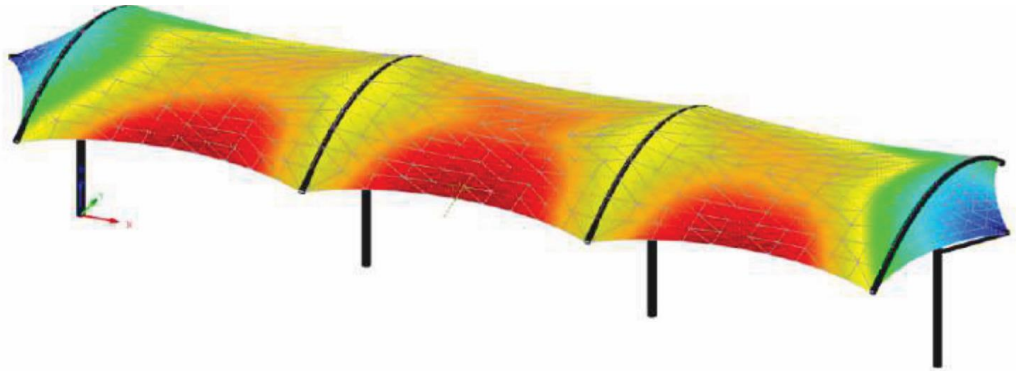


Services

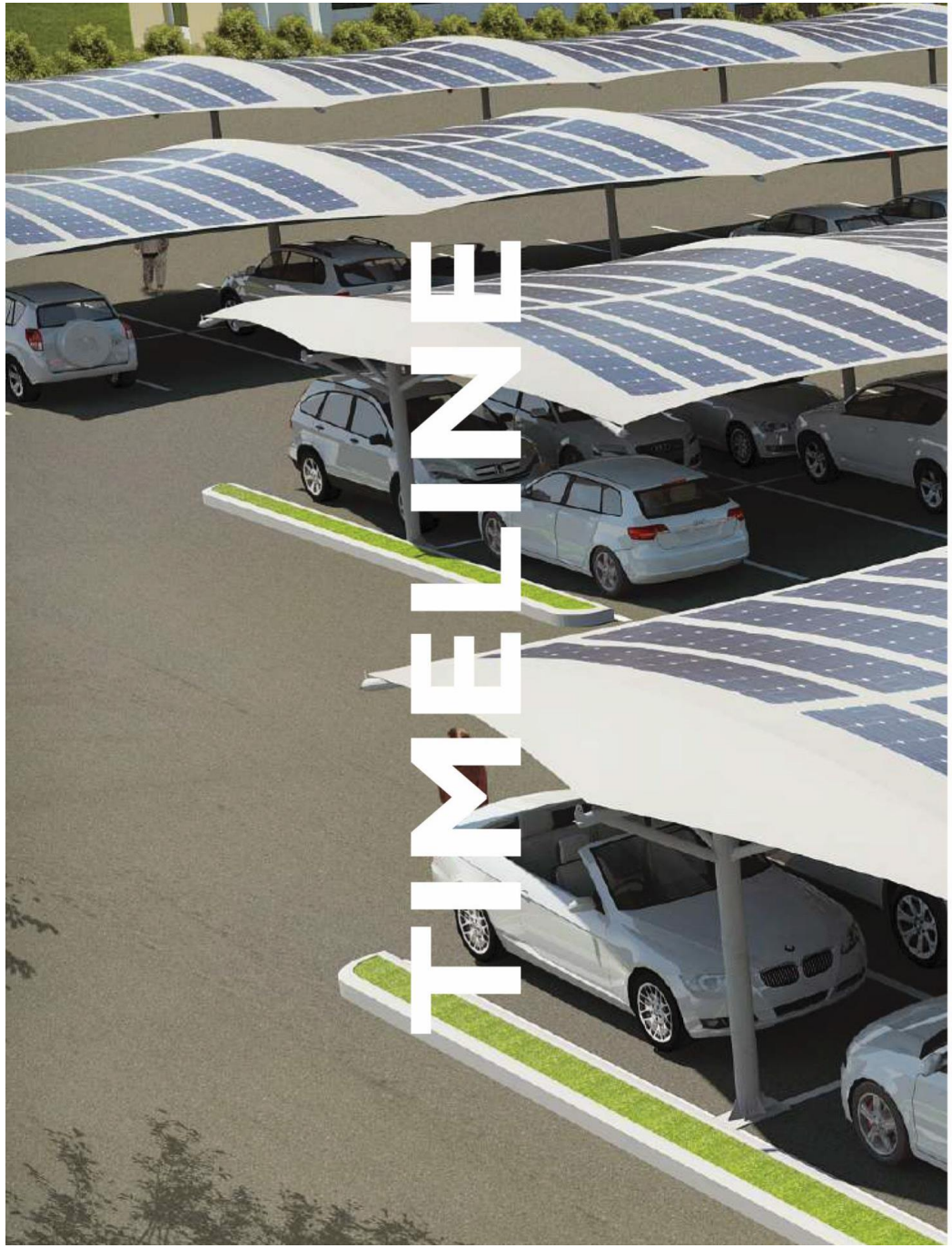
- conceptual design
- 3D model
- renders
- layout drawing
- structural analysis (for your region)
- fabrication drawings
- foundation layouts
- steel cutting list
- hardware list
- membrane pattern
- cable detail & lengths
- assembly instructions
- Solar requirements





FAIL

LET US DESIGN YOU NEXT..



TIMELINE

DESIGN

In general the design process takes about 7 working days. This includes the layout drawings, renders and membrane patterns.

ANALYSIS

Structural analysis is conducted by country and by region in accordance with the required wind load codes of the region. This process can take up to a week depending on the complexity of the design.

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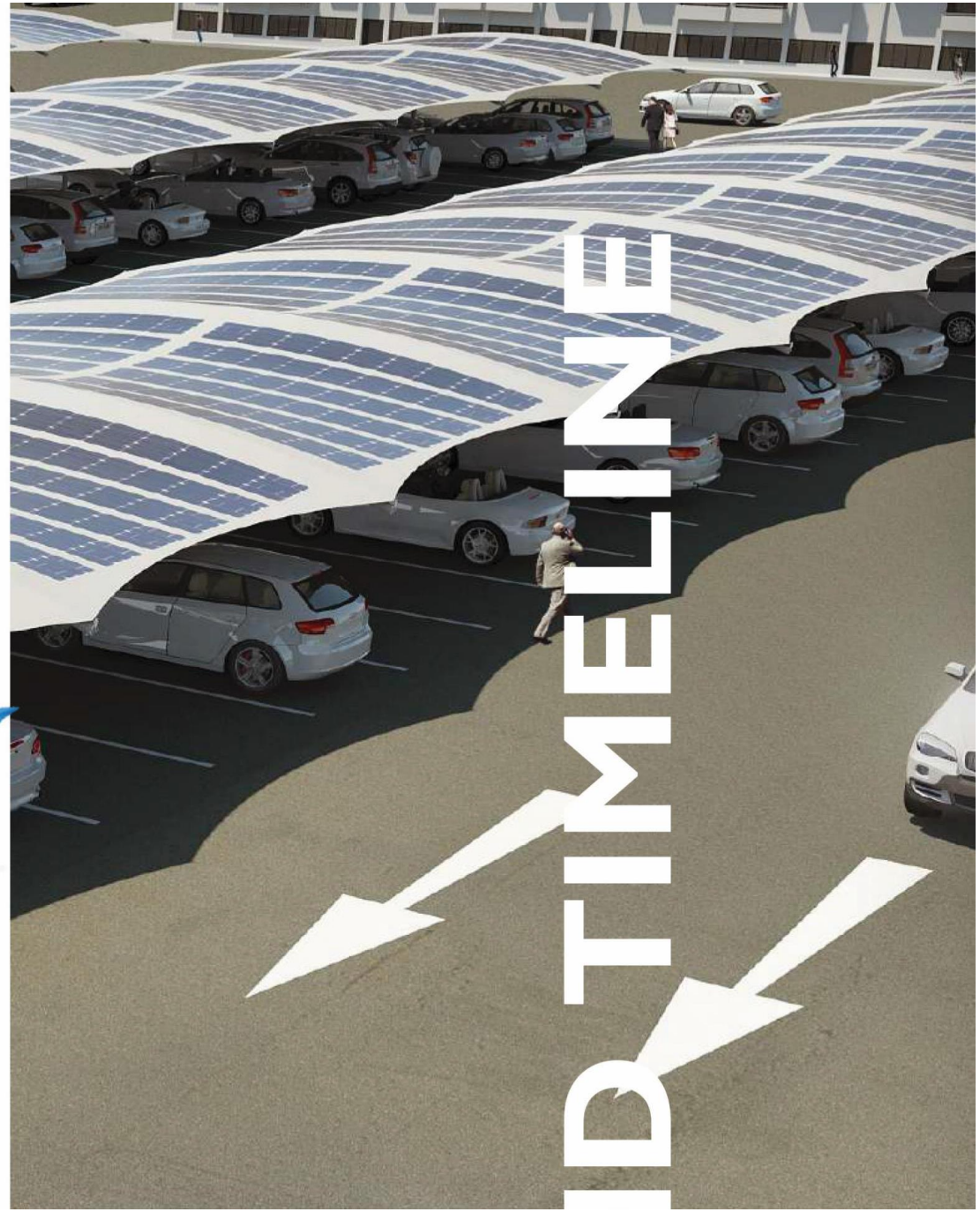
FABRICATION

Fabrication process takes about 4-6 weeks. This will includes the costing, procurement, receipt of materials, fabrication & coating.

INSTALLATION

The time on site is totally dependant on the complexity of the structure. Site visits are normally broken up into foundations



1 3D

The Solaris Architectural Solar panels can be curved into 3D shapes.

2 Designs

We offer our Solaris Architectural Solar solutions in standard designs as well as architectural custom designs.

3 Accreditations

Electrical Contractor in terms of regulation 6(4) of the Electrical Installation Regulations
PQRS Accredited Solar PV Training
ECB Listed Contractor

Flexible Solar Panels

Weight - Panels weigh 2.9kgs per sqm (less than 30% of traditional glass panels)
Thickness - Thickness 1.8mm
Flexible - Smallest bending radius of 0.3m, no cell cracks, no power loss
Hail - Can ensure hail strikes without cell cracks or power loss
Easy-to-install - No need for PV support bracket, modules can be directly bonded to installation surface by weather-resistant glue
Aesthetics - Module's surface and texture can be customized to meet aesthetic requirements
GlareIntensityisLessThan10%ofTraditional Glass Modules
Super Strong Resistance to Cell Cracks After Sharp Bending
Quality Assurance - TUV Nord Cert GmbH

PRODUCT SPECIFICATION

Module type			000A-460	000A-465	000A-470	000A-475	000A-480
Peak-power	PMPP	[W]	460	465	470	475	480
Power-tolerance	0~+3%	[W]	0~5W	0~5W	0~5W	0~5W	0~5W
Peak-voltage	VMPP	[V]	38.24	38.37	38.5	38.63	38.76
Peak-current	IMPP	[A]	12.02	12.11	12.2	12.29	12.38
Peak-current voltage	Voc	[V]	45.4	45.53	45.66	45.79	45.82
Short-circuit current	Isc	[A]	12.54	12.62	12.7	12.78	12.86
Fuse-current		[A]	20				
Maximum-system voltage	IEC/UL	[v]	1000/1500V DC (IEC)				

Size	2250*1130mm (+2/-2)		
Front-plate material	Fluorine membrane front plate	Junction-box	Triad Junction box IP68
Jointing-material	POE polyolef	Output-terminal	MC4
Backboard-material	Reinforcement materials	Cell	Monocrystal PERC
thickness	1.8 mm	Quality-assurance	10 years warranty 25 years power warranty
weight	7.62 kg	Panel-certification	IEC 61646, IEC 61730
Single-area weight	3.0 kg/m2		

NOCT	[℃]	45+2℃
Temperature-coefficient of PMPP	[%/℃]	-0.37
Temperature-coefficient of Voc	[%/℃]	-0.28
Temperature-coefficient of Isc	[%/℃]	0.05

Can endure hail strikes without cell cracks and power loss

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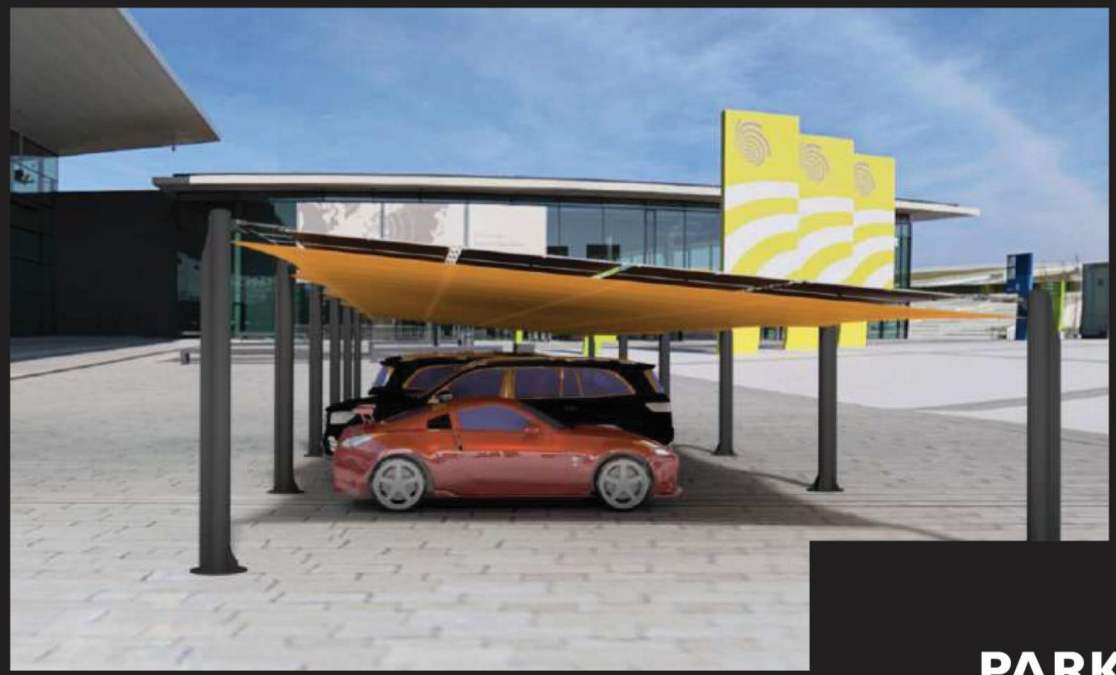
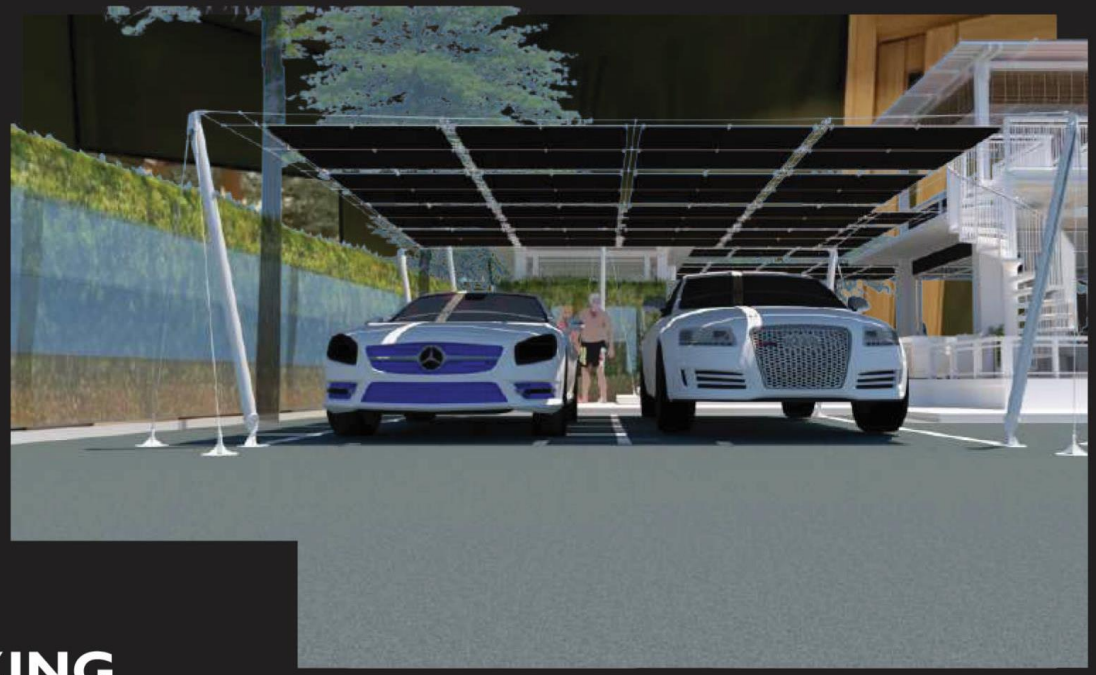
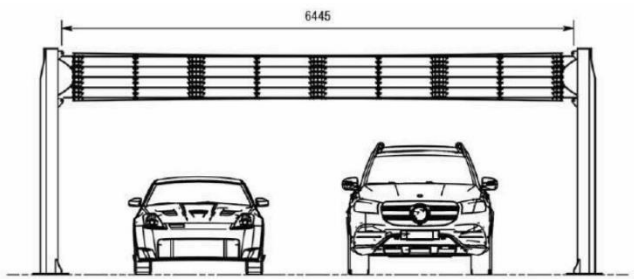
DESIGNS

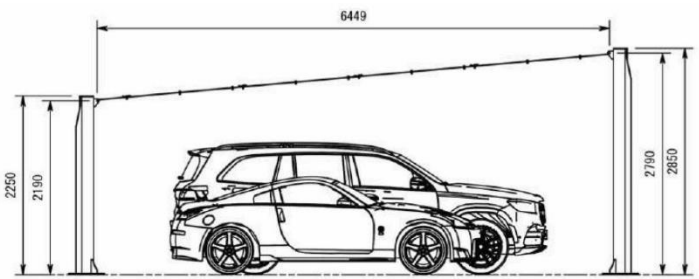




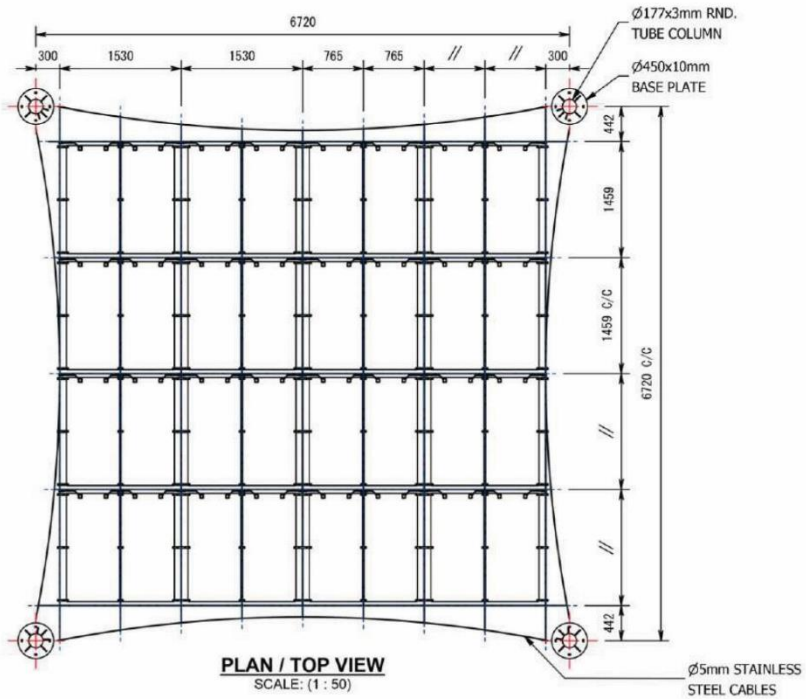
PARKING AREAS



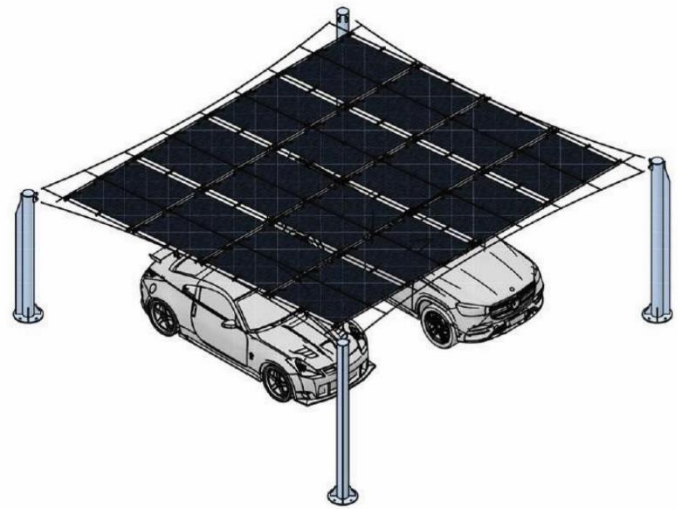
SIDE VIEW
SCALE: (1 : 50)



SIDE VIEW
SCALE: (1 : 50)



PLAN / TOP VIEW
SCALE: (1 : 50)



SIDE VIEW
SCALE: (1 : 60)

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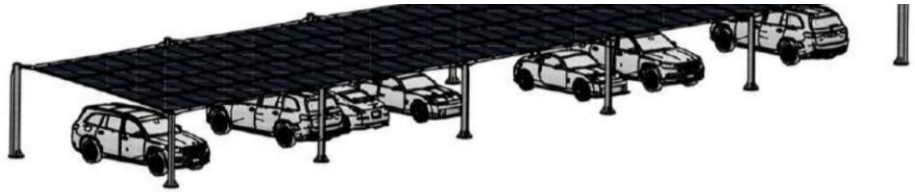
DRAWN BY	DRAWN DATE	DESIGN BY	DESIGN DATE	PROJECT TITLE	WEIGHT
Sandor Dezso Balazs					

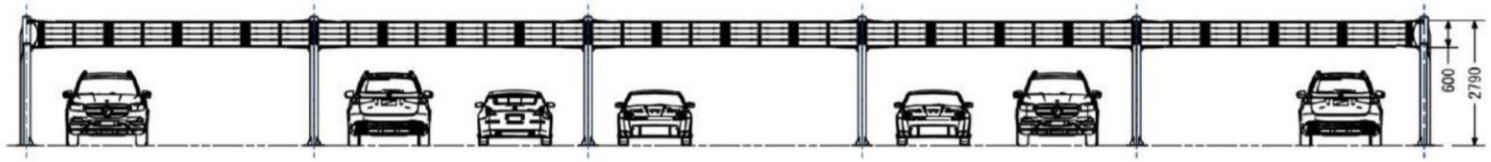
PAPER SIZE	SCALE	DRAWING NUMBER		APPROVED BY	APPROVED DATE	DESCRIPTION
A3	1 : 50	10101_PA_0001	DO NOT SCALE IF ANYTHING IS UNCLEAR, SEEK CLARIFICATION!			

SPORT SA

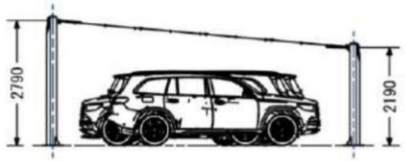


SIDE VIEW
SCALE: (1 : 150)

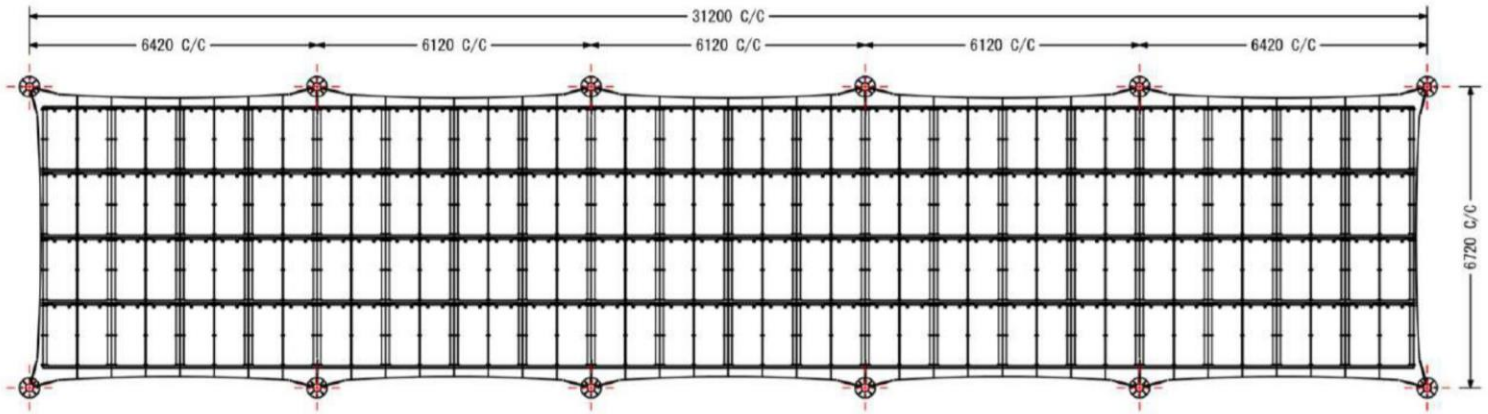
Max Rated Power:	**25.6 Kilowatts**
Tolerance:	**+/- 3%**
Normal Operating Cell Temp:	**47°C | +/- 2°C**
Operating Temprature:	**-40°C to 85°C**
Application Class:	**Class A**



SIDE VIEW
SCALE: (1 : 110)



SIDE VIEW
SCALE: (1 : 110)



PLAN / TOP VIEW
SCALE: (1 : 110)

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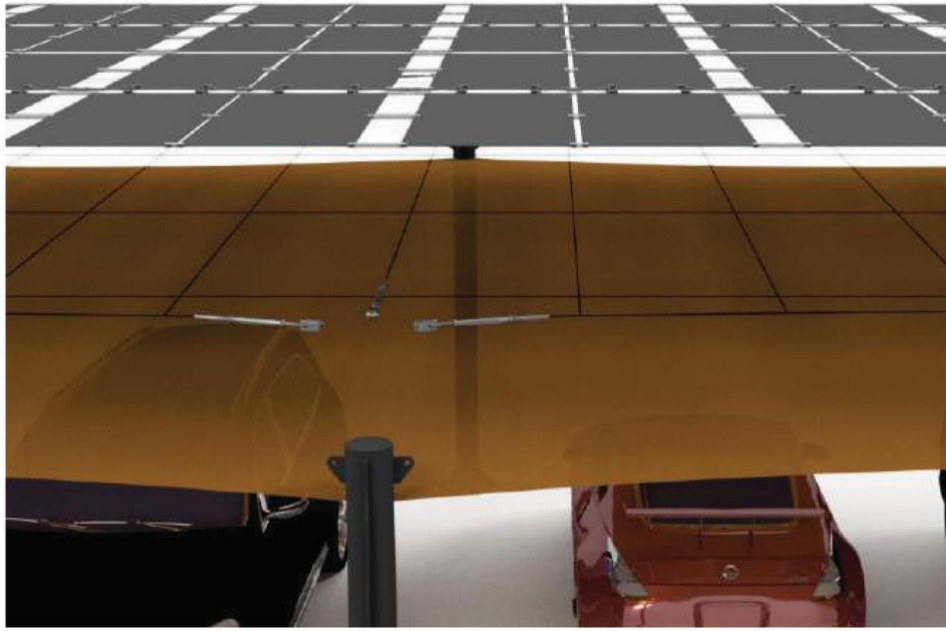
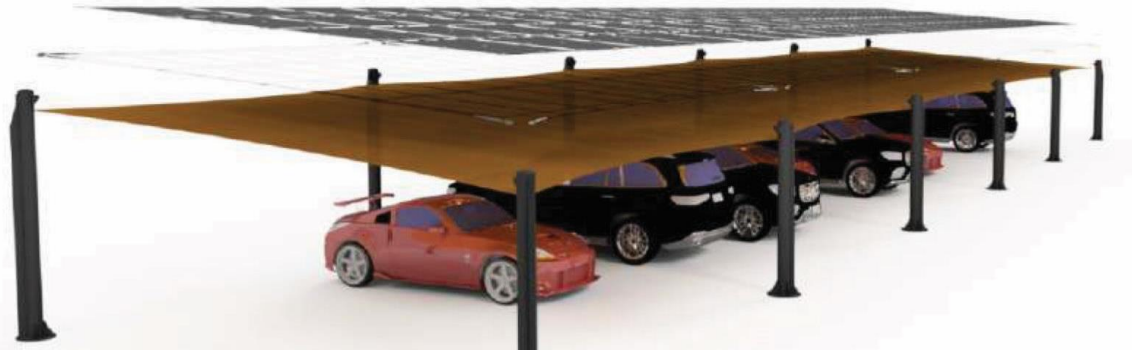
SOLARISPORT MU





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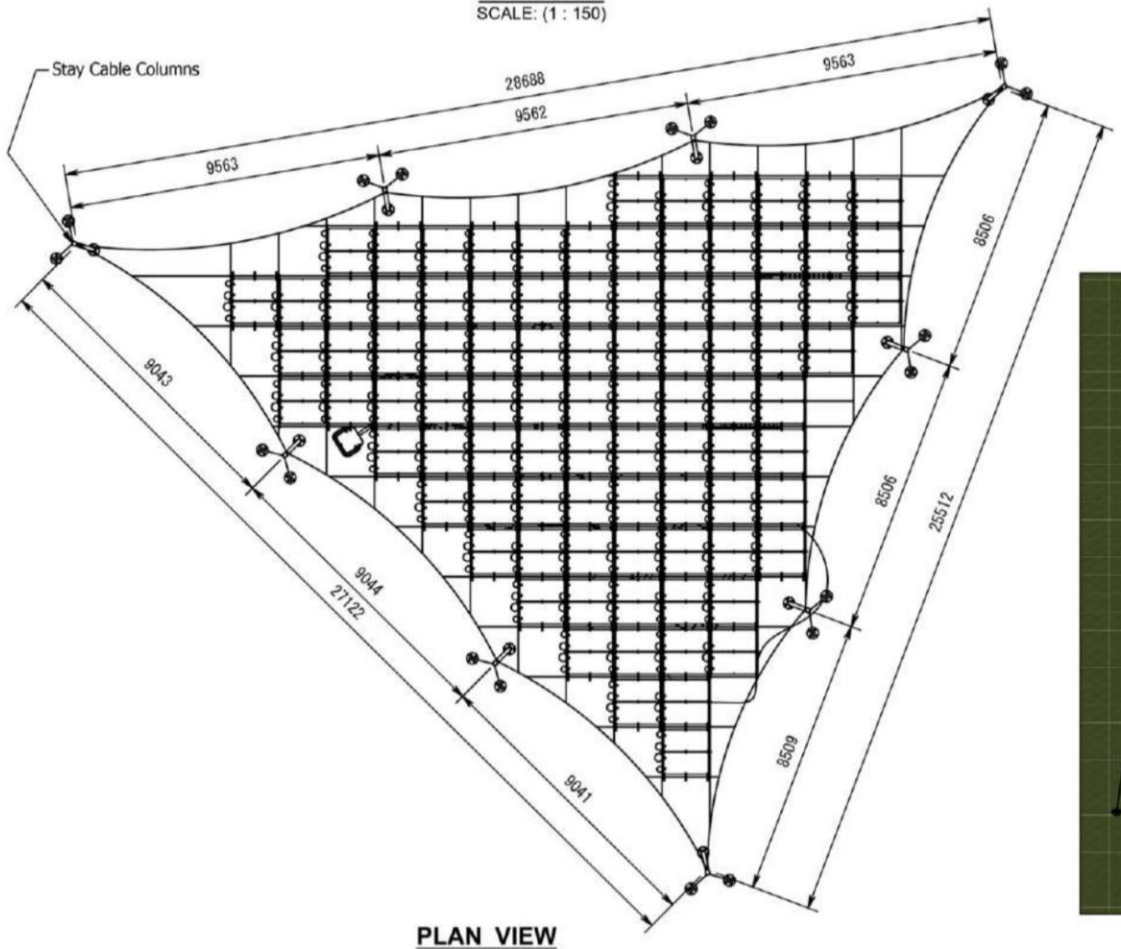
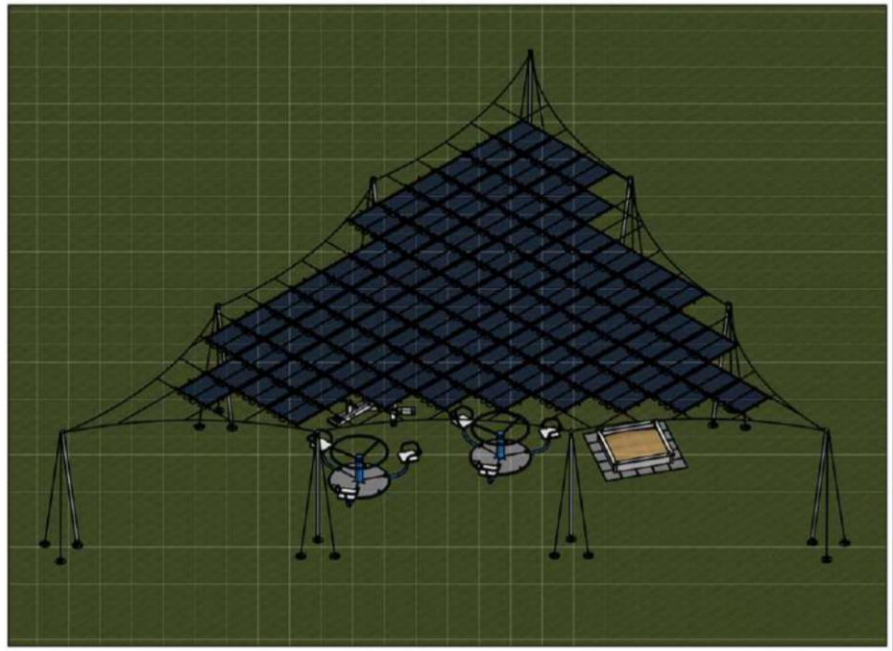
BARRELPORT MU

SIDE VIEW
SCALE: (1 : 150)



PLAN VIEW
SCALE: (1 : 150)

Rated Max Power:	**30.7 Kilowatts**
Tolerance:	**+/- 3%**
Normal Operating Cell Temp:	**47°C | +/- 2°**
Operating Temprature:	**-40°C to +85°C**
Application Class:	**Class A**



SIDE VIEW
SCALE: (1 : 175)

est.../2014
IDT tensile
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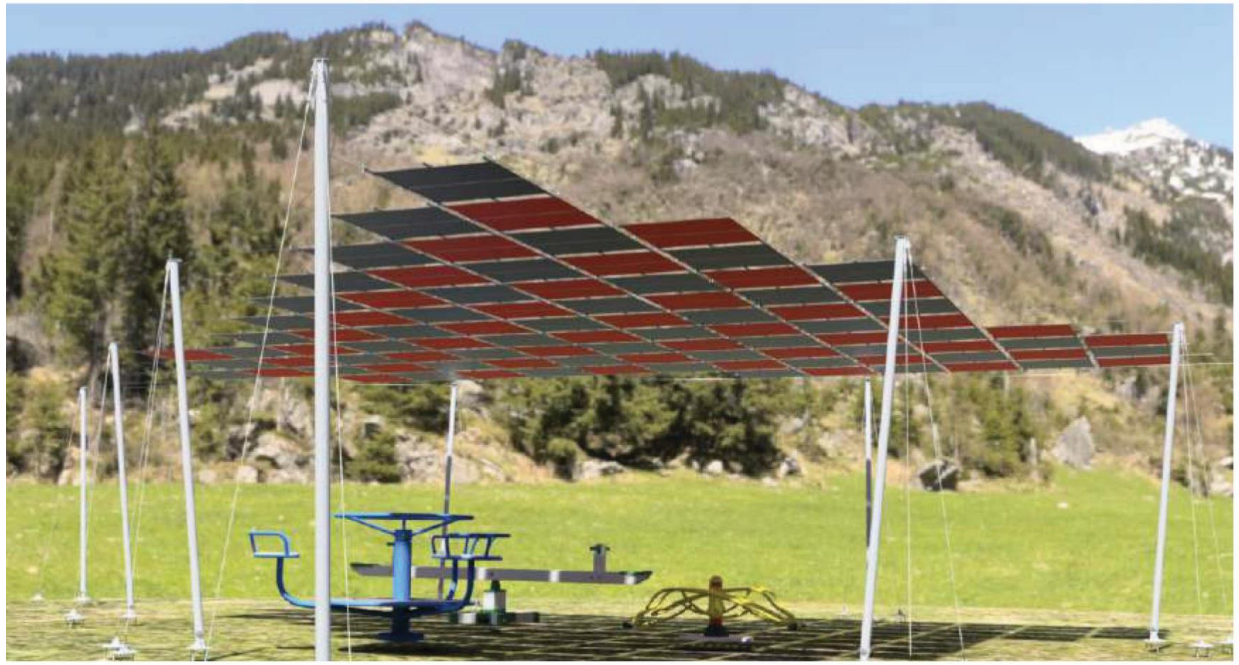
drawn by	date last	design by	design 2nd	project title	sheet
Sandor Dezso Balazs					



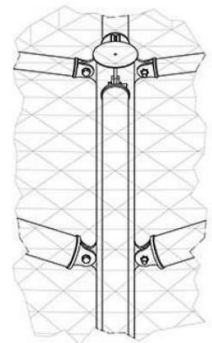
PARTS LIST

ITEM	ITEM QTY	BASE QTY	PART NUMBER	DESCRIPTION	MATERIAL	MASS
1	2	1	10226-WA-0002	Long Arm 01 Assembly	Weld - Mild Steel	50,40 kg
2	2	1	10226-WA-0004	Long Arm 02 Assembly	Weld - Mild Steel	35,87 kg
3	2	1	10226-WA-0003	Strut Arm 01 Assembly	Weld - Mild Steel	25,54 kg
4	2	1	10226-WA-0005	Strut Arm 02 Assembly	Weld - Mild Steel	28,81 kg
5	1	1	10226-MA-0001	Membrane 01 Assembly		0,874 kg
6	2	1	10226-WA-0001	Column 01 Assembly	Weld - Mild Steel	158,09 kg
7	24	1	10226-DIN-125A-0001	M20 Flat Washer	Steel - Mild	0,02 kg
8	12	1	10226-DIN-934-0001	M20x2.5 Hex Nuts	Steel - Mild	0,07 kg
9	12	1	10226-DIN-933-0001	M20x70 Hex Head Screw (Partially Threaded)	Steel - Mild	0,28 kg
10	1	1	10226-CB-0001	1250x1250x1400 Concrete Base	Concrete - C30 / C37	5263,61 kg

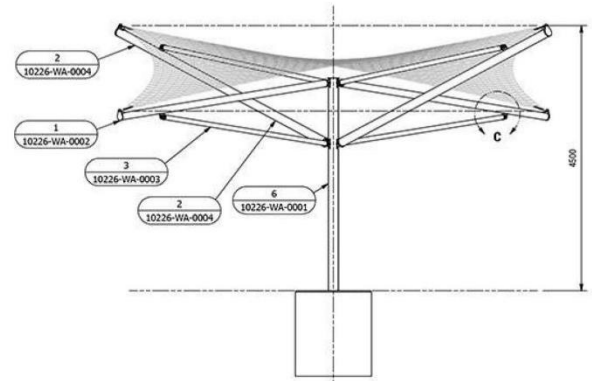
GENERAL NOTES:
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
- DRAWINGS ARE NOT TO BE SCALED UNLESS SPECIFIC DIRECTIONS ARE SUPPLIED.
- SETTING OUT T.B.C & AGREED ON SITE.
- U.N.O DENOTES UNLESS NOTED OTHERWISE.

FABRICATION NOTES:
- ALL WELDS TO BE 5MM FILLET WELD U.N.O.
- ALL STEEL TO BE IN ACCORDANCE WITH SANS 20025.
- ALL STEEL TO BE FREE FROM BURS & SHARP EDGES.

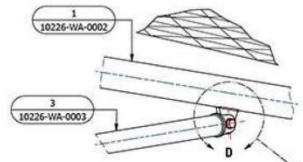
COATING NOTES:
- STEEL TO BE FREE FROM CORROSION & DEGREASED PRIOR TO INITIAL PRIMER APPLICATION.



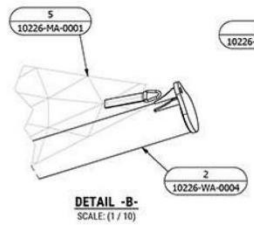
DETAIL -A-
SCALE: (1 / 12)



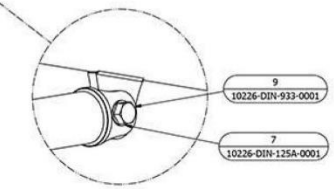
FRONT VIEW
SCALE: (1 :45)



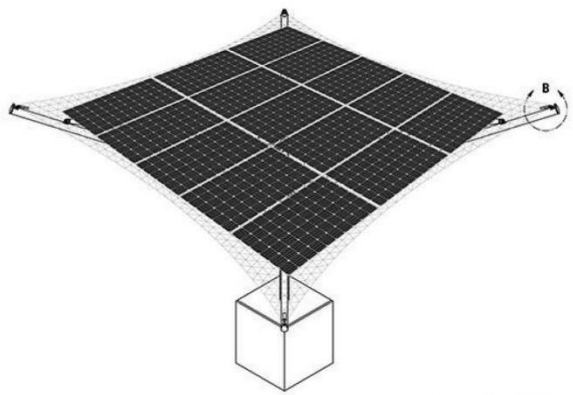
DETAIL -C-
SCALE: (1 : 10)



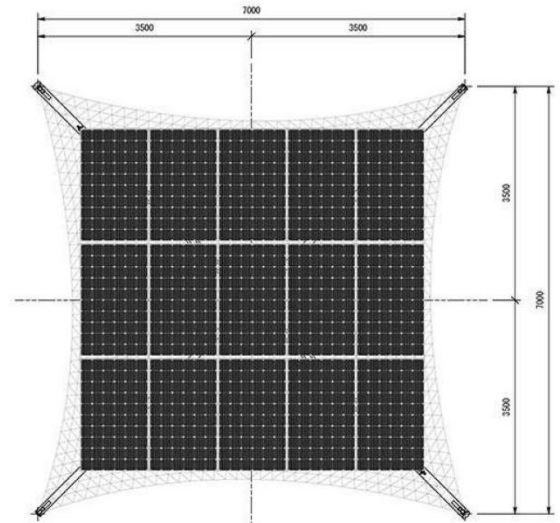
DETAIL -B-
SCALE: (1 / 10)



DETAIL -D-
SCALE: (1 / 4)



ISOMETRIC VIEW
SCALE: (1 : 50)



PLAN / TOP VIEW
SCALE: (1 :45)

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Paul Jacobs	2022/03/01			10226 - 7x7 Centre Post Hypar	Centre Post Hypar
A2	1:45	10226-PA-0001	DO NOT SCALE		

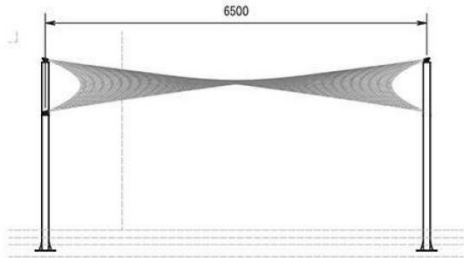

STARBUCKS COFFEE
SANDWICH
CREAM
PANCAKE
MUFFIN
SUGAR


UCKS COFFEE

PARTS LIST

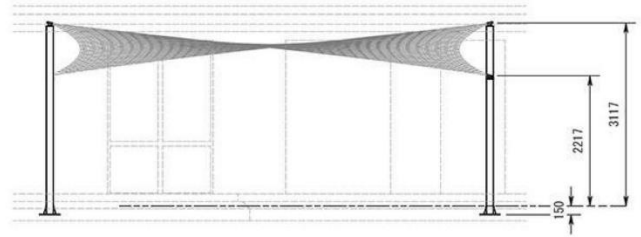
ITEM	ITEM QTY	BASE QTY	PART NUMBER	DESCRIPTION	MATERIAL	MASS
1	1	1	10054-GRID-0001		Generic	0.00 kg
2	2	1	10054-WA-0001	Membrane 01 Assembly		8.229 kg
3	2	1	10054-WA-0002	Membrane 01 Assembly		6.583 kg
4	1	1	10054-MA-0001	Membrane 01 Assembly		0.000 kg

AREA 11541406.695 mm^2 MASS 29.624 kg DENSITY 1.148 g/cm^3 VOLUME 25806984.370 mm^3

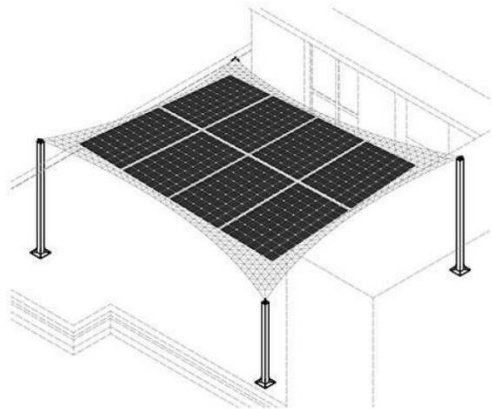


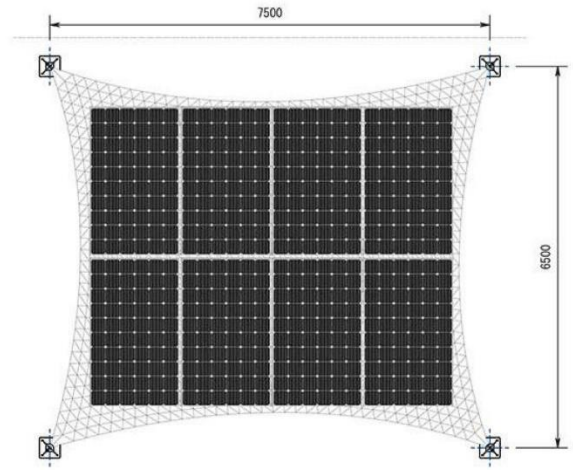
VIEW A-A
SCALE 1 : 65

A →



SIDE VIEW2
SCALE: (1 : 65)



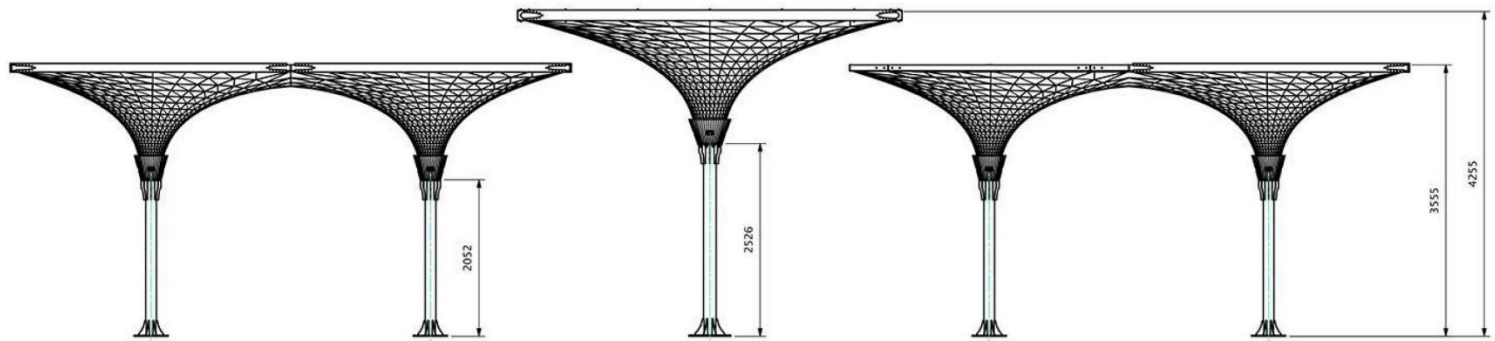


PLAN / TOP VIEW
SCALE: (1 : 65)

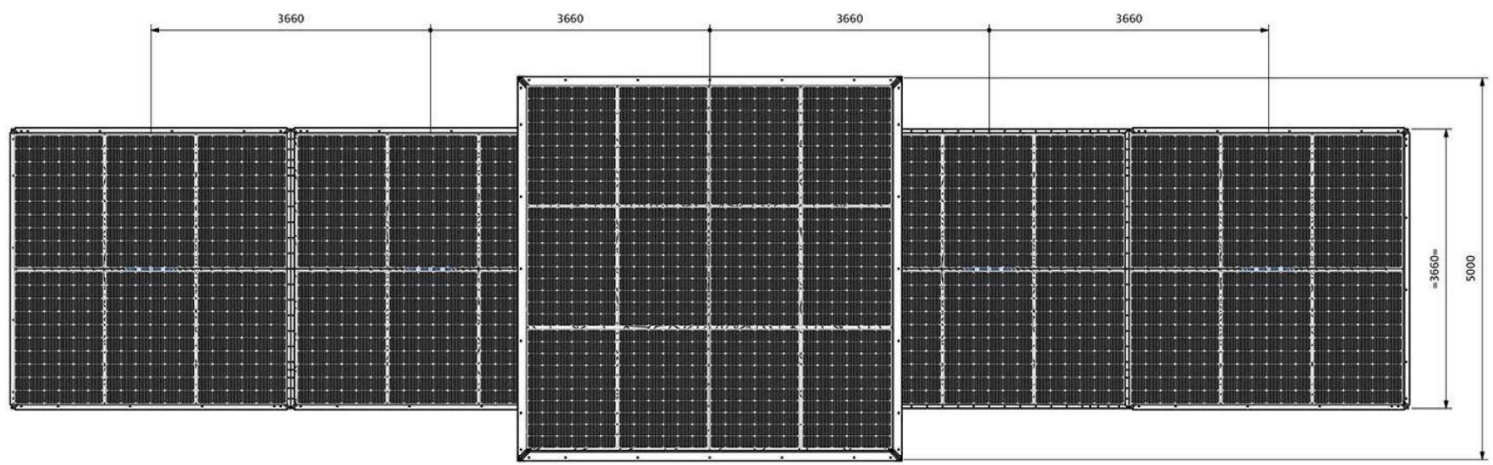
D1 TENSILE EST.../2014	IN DEMAND TRADING (PTY) LTD THE CONTENT OF THIS DRAWING IS THE SOLE PROPERTY OF IN DEMAND TRADING (PTY) LTD. & MAY NOT BE COPIED OR DIVULGED TO ANY THIRD PARTY WITHOUT WRITTEN CONSENT. In Demand Trading (Pty) Ltd | Reg Number: 2014/057552/07 | VAT Number: 4560746		SCALE 1:65 SIZE A3 REV SHT # 1	PROJECT 10054 - Nedbank Headoffice Courtyard DESCRIPTION Membrane 01 Assembly SUBJECT	FIRST ANGLE PROJECTION DO NOT SCALE IF ANYTHING IS UNCLEAR, ASK FOR CLARIFICATION!	COMPONENT # 10054-PA-0001 DRAWN BY DATE CHECKED BY DATE APPROVED BY DATE

Architectural Solar

Tensile Sail



FRONT ELEVATION



PLAN VIEW

CLIENT NAME:

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TENSILE TULIP

FIRST ANGLE PROJECTION

SHEET SIZE	DRAWING NUMBER	REV.	SCALE
A3	-SA--	A	1:50

DIMENSIONS SHALL NOT BE OBTAINED BY MEANS OF SCALING OF THE DRAWING.

SHEET 1 OF 1

DRAWN BY	DRAWN DATE
Paul Jacobs	1/5/2016
CHECKED BY	CHECKED DATE
Marc Du Plessis	

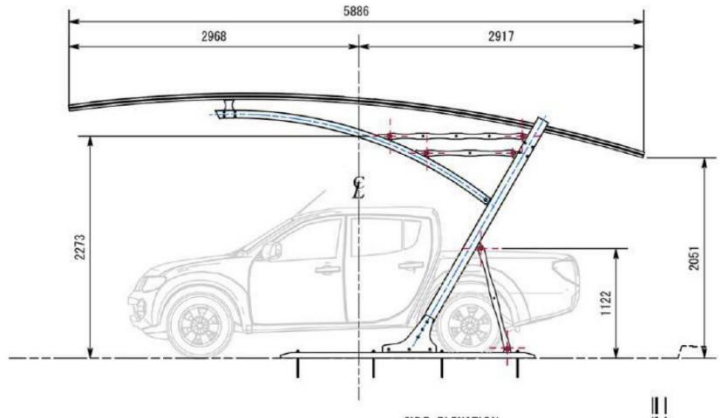
ISSUED FOR:

CONSTRUCTION

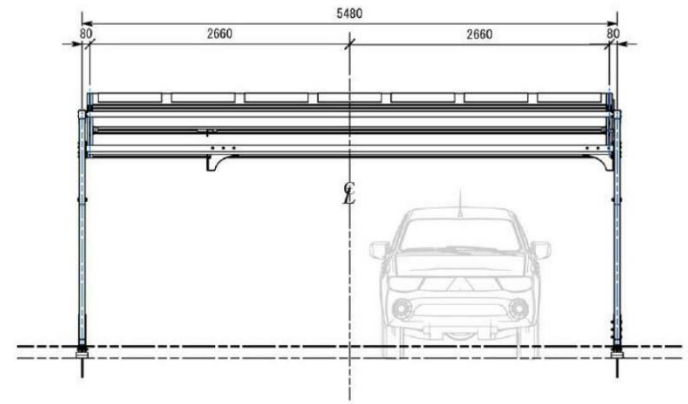
SOLARIS
architectural solar

Architectural Solar

Charging Stations



SIDE ELEVATION



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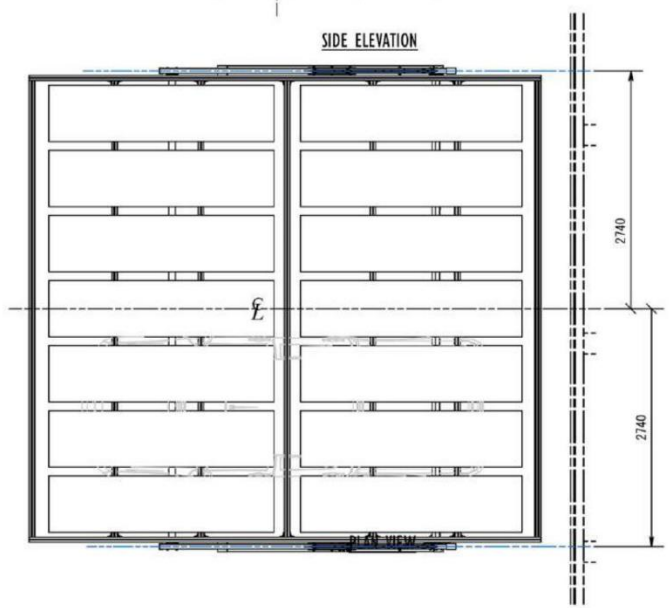

PLAN VIEW

ISOMETRIC VIEW

EST. . . / / 2014 IDT TENSILE

IN DEMAND TRADING (PTY) LTD

In Demand Trading (Pty) Ltd | Reg Number: 2014/092532/07 | VAT Number: 4560766

287 Honeydew West Road | Unit 98, Shopping Stores Garden | Northriding, 2162 | Tel: +27 (0) 791-1889 | Fax: +27 (0) 86 525-4508

DRAWN BY: Paul Jacobs	DRAWN DATE	CHECKED BY	CHECKED DATE	PROJECT TITLE	SHEET	
PAPER SIZE: A3	SCALE: 1 : 40	DRAWING NUMBER: 10169-PA-0003	DO NOT SCALE	APPROVED BY	APPROVED DATE	DESCRIPTION

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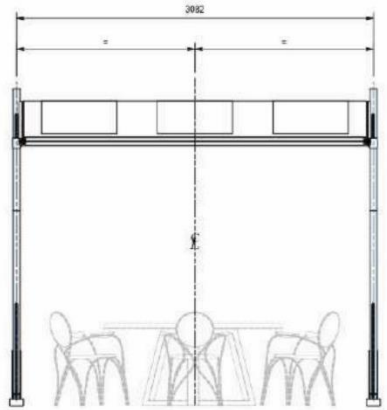
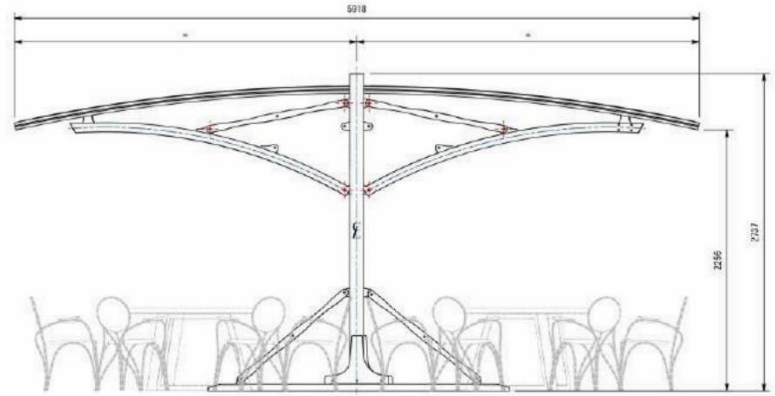
BARREL ARCH



FRONT VIEW
SCALE: (1 : 25)



SIDE VIEW
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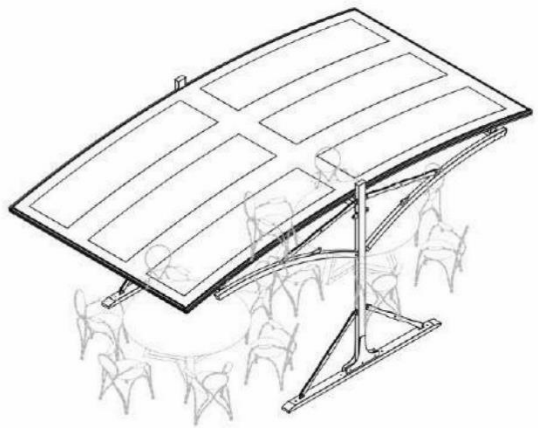
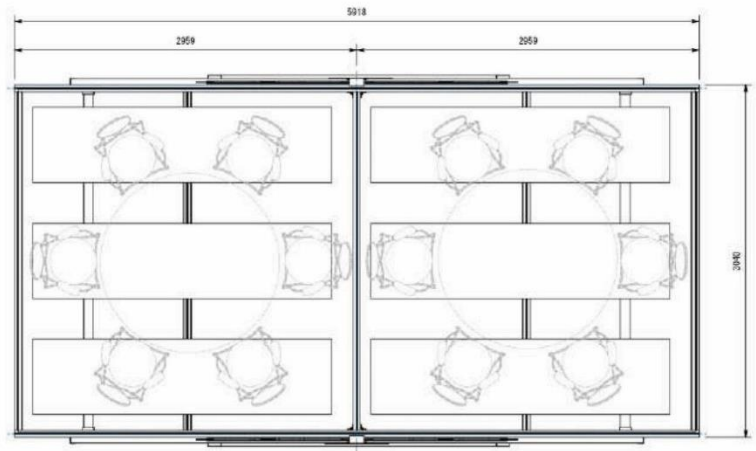


ISOMETRIC VIEW
SCALE: (1 : 35)



PLAN / TOP VIEW
SCALE: (1 : 25)

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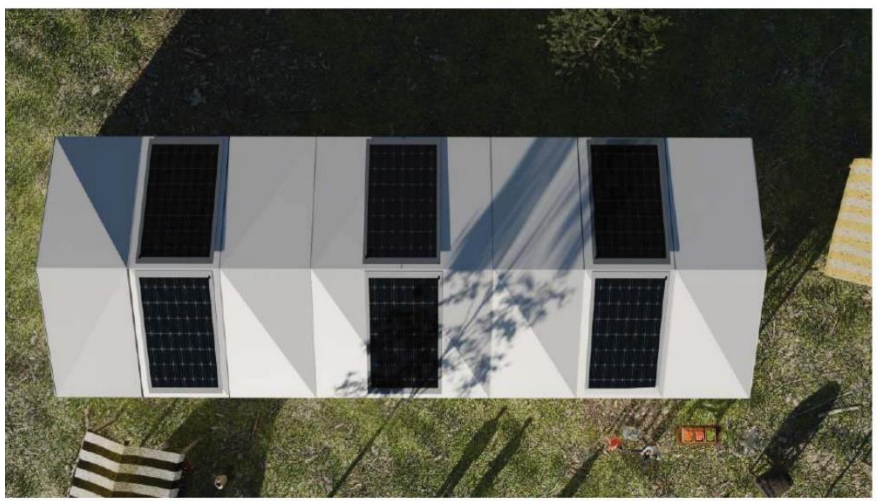
MARQUEES



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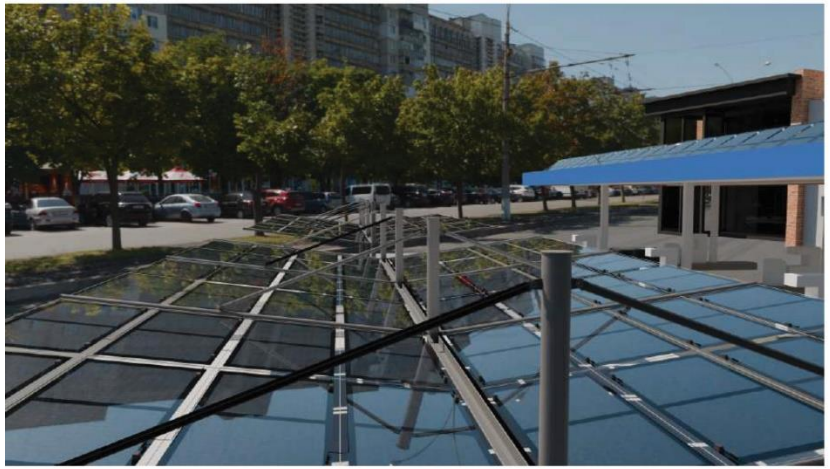
FORECOURTS



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CARAVANS & CAMPERS

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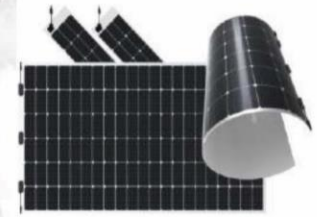
padel court enclosures with solar

Dimensions: 2 250 x 1 130 x 1.8mm
Rated Power (Watt): 470
Warranty: 10 years
Life Expectancy: 25 years



THE FUTURE IS HERE

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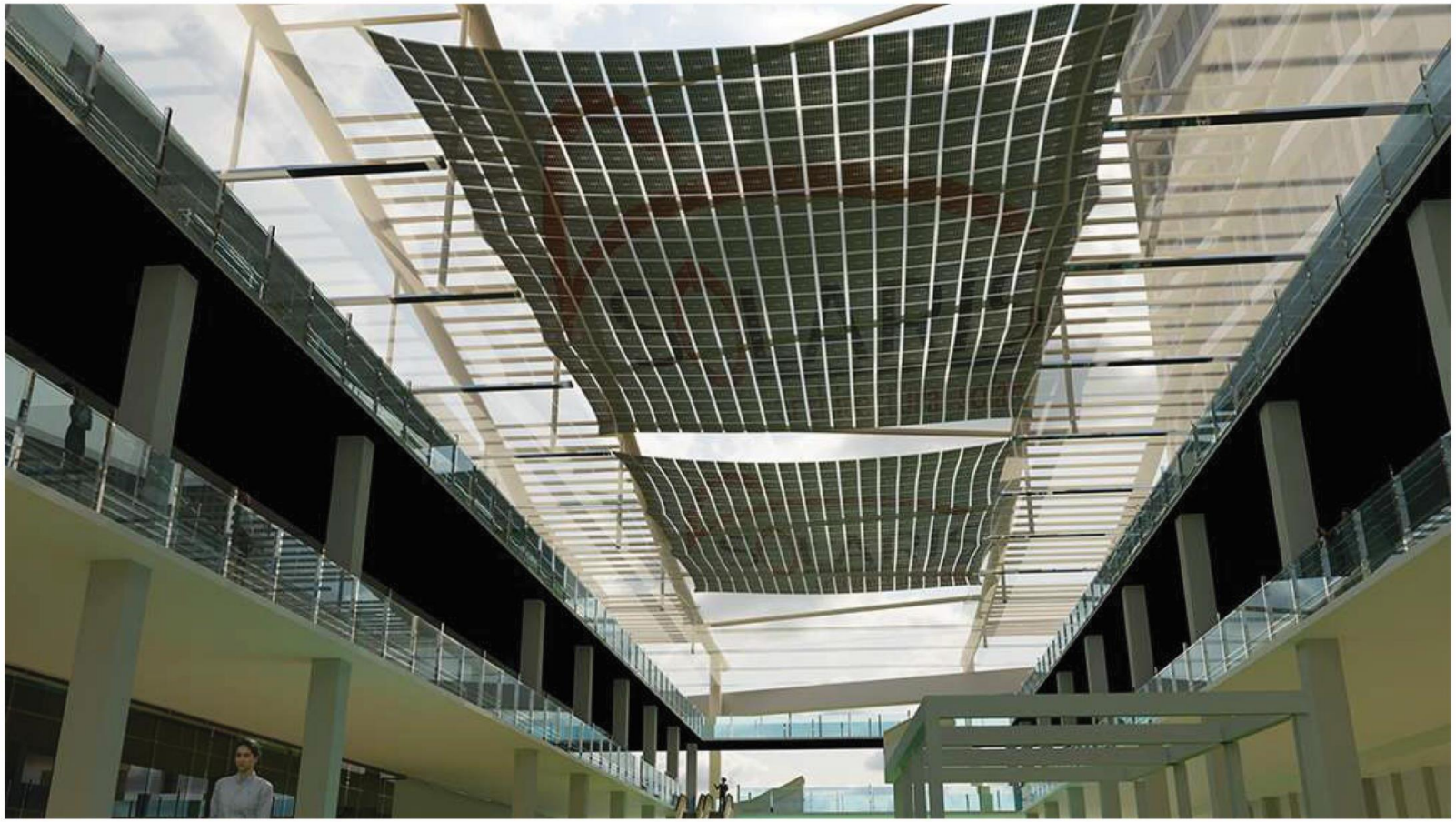
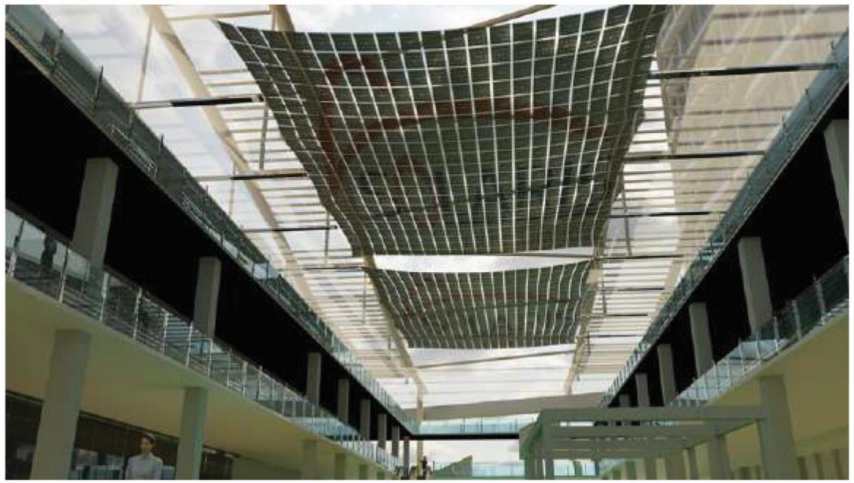
BRANDING





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