

EXPERIENCE MATTERS.

ADVANCED



ROOFING, INC.

ESTABLISHED 1983



# Proposal Package

## Cotherman Distilling – Solar Carport

Established in 1983, Advanced Roofing is a full-service commercial roofing company that specializes in re-roofing, HVAC, renewable energy, and preventative maintenance. Our **"Commitment to Quality"** ensures your customer experience by providing the best value roof solution with premium materials and excellent craftsmanship. Advanced Roofing has been named one of the **top ten roofing contractors** in the United States. Licensed and insured, Advanced Roofing's dedication to safety, professionalism, and quality work is signified through the **satisfaction of thousands** of customers.

***Advanced Roofing has your solutions all under one roof.***

# Cover Letter

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November 13, 2015

Mr. Michael Cotherman  
Cotherman Distilling Co.  
933 Huntley Ave  
Dunedin, FL 34698

**Re: Cotherman Distilling Co. – Solar Carport Proposal**

Dear Mr. Cotherman,

Thank you for the opportunity to provide a proposal/bid for your upcoming solar project. I have enclosed our Advanced Roofing Capabilities Brochure for your review. Advanced Roofing is the largest re-roofing company in Florida and is continuously rated within the Top 20 roofing contractors in the country. We specialize in re-roofing of occupied buildings. We are approved with all roofing manufacturers to offer their highest warranties, ranging from 20-30 Year No Dollar Limit (N.D.L.) Warranties. We also offer the following services to complement our re-roofs:

- State Licensed A/C Contractor
- State Licensed Lightning Protection Contractor
- State Licensed Solar Power Contractor
- State Licensed General Contractor to handle structural repairs
- We own all our own Cranes, including 2 – 330' GCI Tower Cranes
- Emergency Repair and Preventive Maintenance
- In-house Sheet Metal Fabrication
- In-house Dumpster and Tractor Trailers
- In-house Engineering
- Roof Express Roof Evaluation Software
- Infrared Moisture Surveys
- Bonding Capability up to 150 Million

If there is any pre-qualification information you require, please let me know and we will fill it out promptly. Advanced Roofing has been in business for 31 years with an impeccable record of keeping our clients dry. Should you have any questions, please feel free to contact me at (954) 522-6868 xt.1060.

Sincerely,

*Clint Sockman*

Clint Sockman, CSI, CDT  
Vice President

P.S. South Florida has seen many roofing contractors come and go, but we are proud to say we have been a part of this community; which we have been actively involved in since 1983, and are here to stay. We hope our portfolio will help you to be able to evaluate who you want as your long-term partner to give you the best value to meet your roofing needs.

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# Introduction to Advanced Roofing

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## Our experience

Advanced Roofing has been in business since 1983, growing steadily on our overriding "**Commitment to Quality**", which has made us the number one commercial re-roofing company in Florida. While our specialty is re-roofing occupied commercial buildings per architect or consultant specification, we offer a full range of roofing systems to meet all your roofing needs, using the **best materials** and offering the **best warranties**.

## Your experience working with us

For us, it's not just about getting the job done right and on time. It's about making the **entire process** from bidding to completion headache and **hassle-free** for you. We think you should be informed, involved and in control from the start and with locations throughout Florida, we've got you covered. When we say we'll do something, you can swear by it. At least, that's what a long list of satisfied customers tell us.

## Professional Solutions. On Time. On Budget. We are Advanced!

Over the years the most important thing we've learned is that **your experience** is what truly validates **ours**. It's not just about getting the job done right and on time. It's about making the entire process headache and hassle free. We want you to feel informed, involved and in control from the very beginning. No surprises. No Second Thoughts.

At Advanced Roofing, we'll always stand behind our "Commitment to Quality." We've just advanced our thinking somewhat. Today we're further committed to the quality of your experience. To all of us who work here, that's definitely what matters most.

## Company Legal Name

Advanced Roofing, Inc  
1950 NW 22<sup>nd</sup> St  
Fort Lauderdale, FL 33311  
[www.advancedroofing.com](http://www.advancedroofing.com)

## Corporation

Fed ID Number – 59-2360591  
Type of business: Private S-Corporation  
State of incorporation: Florida  
Date of incorporation: 10/08/1983

## Professional Licenses

Roofing Contractor - License #CC-C024413  
General Contractor- License #CG-C1507377  
Mechanical Contractor- License #CA-C046188  
Solar Contractor- License #CV-C56792  
LEED AP  
View more [professional licenses](#) online

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## Bank:

Bank United  
900 SE 3<sup>rd</sup> Avenue  
Suite 200  
Fort Lauderdale, FL 33316

## Surety:

The Guarantee Company of North America, USA  
**Surety Agent:**  
Michael Marino  
American Global LLC  
1450 Brickell Avenue, Suite 1400  
Miami, FL 33131

Limits up to:  
\$40MM Single Project  
\$150MM Aggregate  
\$1BB Ground Mount

## Insurance Agent:

Frank H Furman, Inc.  
1314 East Atlantic Blvd  
Pompano Beach, FL 33061  
Account Manager: Cheryl Stipp

**Gen Lib:** \$2MM aggregate

# Top Criteria – Our Commitment to Quality

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Compiled below is a list of important criteria for any business owner to consider when selecting the right contractor for roofing projects. Advanced Roofing has a documented history of meeting and exceeding expectations in each category. Before selecting any roofing professional, research whether the prospective company satisfies these key areas of concern.

## 1. Longevity in Business

Your roof will last over 20 years, so you want to make sure your roofing contractor will still be around. We suggest using a contractor with at least 10 years in the South Florida Market

*Check out your employer's history on [www.sunbiz.org](http://www.sunbiz.org).*

## 2. Financial Stability and Bonding

Contractors go under because they do not have proper financials in place.

*Ask for audited financials, bank references, surety information and/or check online at [www.db.com](http://www.db.com)*

## 3. Permit Processing

The #1 reason for delays in projects is incorrect permitting. Choose a contractor that can show you how many permits they process in your city.

*Ask your contractor how many permits they process on a monthly basis.*

## 4. Extended Warranties

Only contractors with enough experience, square feet installed, and repair ratio can offer you an extra 5 to 10 years on your warranty.

*Check with the manufacturer and make sure your warranty gets registered.*

## 5. All Under One Roof

Using multiple contractors or subcontractors for different trades as Sheet Metal and AC will lead to longer timelines and finger pointing.

*Ask your roofer who will be working on your roof.*

## 6. Safety

South Florida has many tall buildings and without safety protocols and management, an accident can stop or delay your project.

*Ask for your roofer's EMR ratio.*

## 7. 24/7 Service

It's 11PM in August and your roof starts leaking. Who do you call?

*Require access to your roofing contractor 24/7 in case of unexpected emergencies.*

## 8. Reputation, Pride, and Integrity

Pictures can say a thousand words. Choosing a contractor that can back up their claims of quality with job pictures, both during the installation and of the final product, can help prevent surprises in quality and professionalism.

*Ask your roofing contractor for pictures and references of completed projects and in-progress photos.*

## 9. Repairs

You have a job to do and it should not be the roof.

*Ask for references from customers 5 years past and ask how many repairs were needed after installation.*

## 10. Community

Feel good about purchasing your new roof.

*Ask your potential roofing contractors what they do for the community, in addition to their clients.*

## 11. Best Value Proposition

Know what you getting for your money

*The price is competitive but over the life of the roof, which bid is your lowest cost/ROI.*



**Florida's Premiere Commercial Solar Contractor**  
Committed to Quality

**To:**  
Mr. Michael Cotherman  
Cotherman Distilling Co.  
933 Huntley Ave.  
Dunedin, FL 34698

**Job Name:**  
Cotherman Distilling – Carport Solar

**Address:**  
933 Huntley Ave.  
Dunedin, FL 34698

**Date:**  
November 13, 2015

**Reference:**  
**AGT Super Span Steel Carport Solar Proposal**

Page 1 of 2

We are pleased to submit the following budgetary proposal for your consideration on the above referenced premises as follows. We agree to provide all labor, material, tools, equipment and proper insurance with excess liability of eleven (11) million dollars.

**WORK SCOPE**

**PREPARATORY WORK**

- Design photovoltaic system in accordance with manufacturer's specifications.
- Provide string sizing, electrical engineering, structural engineering and layouts required for permitting.
- Provide all documents required to secure all necessary permits and approvals.
- Provide detailed soil analysis and foundation design from exiting geotechnical information.
- Provide all surveying required foundation placement.

**CUSTOM FABRICATED AGT SUPER SPAN STEEL CARPORT STRUCTURE**

- Furnish and Install spread concrete foundations per final engineering drawings.
- Furnish and Install AGT custom steel framed carport structure consisting HSS structural uprights, Long span steel mains and 10" deep "Z" purlin module supports. All steel members to be hot dip galvanized finished or Industrial Marine Grade Urethane Paint Finished.

**HANWHA Q CELLS 310W PHOTOVOLTAIC MODULES**

Furnish and install forty (40) 310W solar modules. A total 12,400 watts (DC) will be installed.

**SMA TRIPOWER 12000TL US INVERTERS**

Furnish and install one (1) SMA TriPower 12000TL US Series inverters as detailed by wiring schematic per site.

**ACCESSORIES**

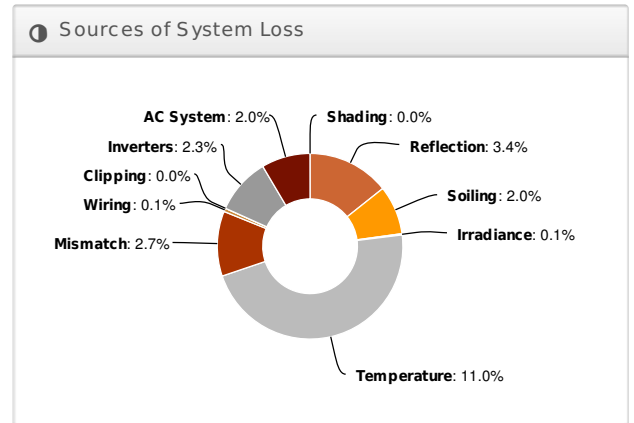
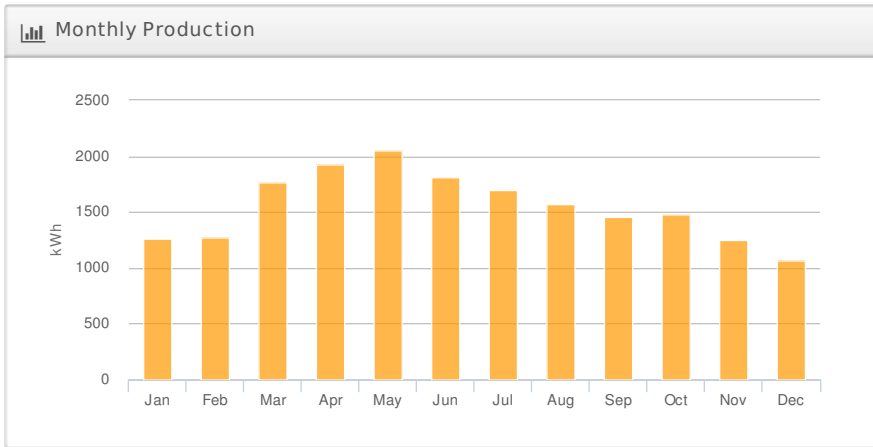
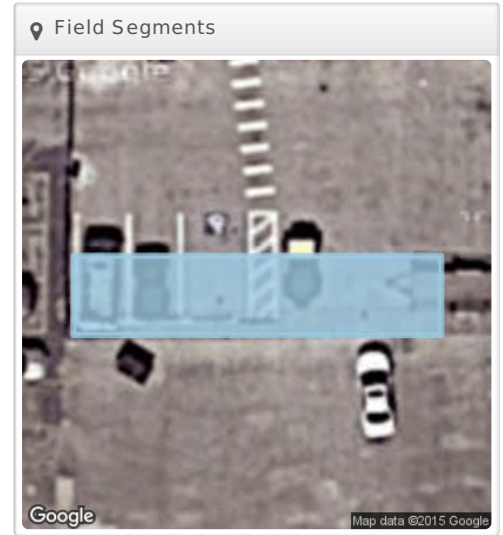
- Furnish and install all DC wiring needed for installation.
- Furnish and install AC collection panel at canopy and terminate AC feed from Inverters to final interconnection point to be determined.
- All AC wiring, trenching, data monitoring and interconnection work to be included.
- All permit and interconnection fees are included in this proposal.



### Design 1 Cotherman Distilling, 933 Huntley Avenue Dunedin Florida

Report	
Project Name	Cotherman Distilling
Project Description	Cotherman Distilling
Project Address	933 Huntley Avenue Dunedin Florida
Prepared By	alex lopez alexl@agt.com

System Metrics	
Design	Design 1
Module DC Nameplate	12.4 kW
Inverter AC Nameplate	12.0 kW Load Ratio: 1.03
Annual Production	18.61 MWh
Performance Ratio	78.4%
kWh/kWp	1,500.6
Weather Dataset	TMY, 10km grid (28.05,-82.75), NREL (prospector)
Simulator Version	153 (443094f0ad-ea93f843ef-fce6caf820-00aa14f623)



Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m <sup>2</sup> )	Annual Global Horizontal Irradiance	1,851.8	
	POA Irradiance	1,913.8	3.3%
	Shaded Irradiance	1,913.8	0.0%
	Irradiance after Reflection	1,849.3	-3.4%
	Irradiance after Soiling	1,812.3	-2.0%
	<b>Total Collector Irradiance</b>	<b>1,812.3</b>	<b>0.0%</b>
Energy (kWh)	Nameplate	22,474.9	
	Output at Irradiance Levels	22,462.9	-0.1%
	Output at Cell Temperature Derate	19,993.3	-11.0%
	Output After Mismatch	19,461.5	-2.7%
	Optimal DC Output	19,434.0	-0.1%
	Constrained DC Output	19,433.8	0.0%
	Inverter Output	18,986.8	-2.3%
	<b>Energy to Grid</b>	<b>18,607.1</b>	<b>-2.0%</b>
Temperature Metrics			
	Avg. Operating Ambient Temp	23.3 °C	
	Avg. Operating Cell Temp	40.6 °C	
Simulation Metrics			
	Operating Hours	4680	
	Solved Hours	4680	

Condition Set												
Description	Condition Set 1											
Weather Dataset	TMY, 10km grid (28.05,-82.75), NREL (prospector)											
Solar Angle Location	Meteo Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type	a	b	Temperature Delta								
	Fixed Tilt	-3.56	-0.075	3°C								
	Flush Mount	-3	-0.0455	3°C								
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	2.00%											
Module Characterizations	Module	Characterization										
	Q.PRO L 310 (Hanwha Q Cells)	Manufacturer Default, PAN										
Component Characterizations												
Device	Characterization											
Sunny Tripower 12000TL (SMA)	Default Characterization											



Component	Name	Count
Inverter	Sunny Tripower 12000TL (SMA)	1 (12.0 kW)
Combiner	1 pole Combiner	1
Combiner	2 pole Combiner	1
Strings	10 AWG (Copper)	2 (137.3 ft)
Module	Q.PRO L 310 (Hanwha Q Cells)	40

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	6	20	Along Racking

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules
Field Segment 1	Flush Mount	Vertical (Portrait)	5°	180°	0.0 ft	1x1	40	40

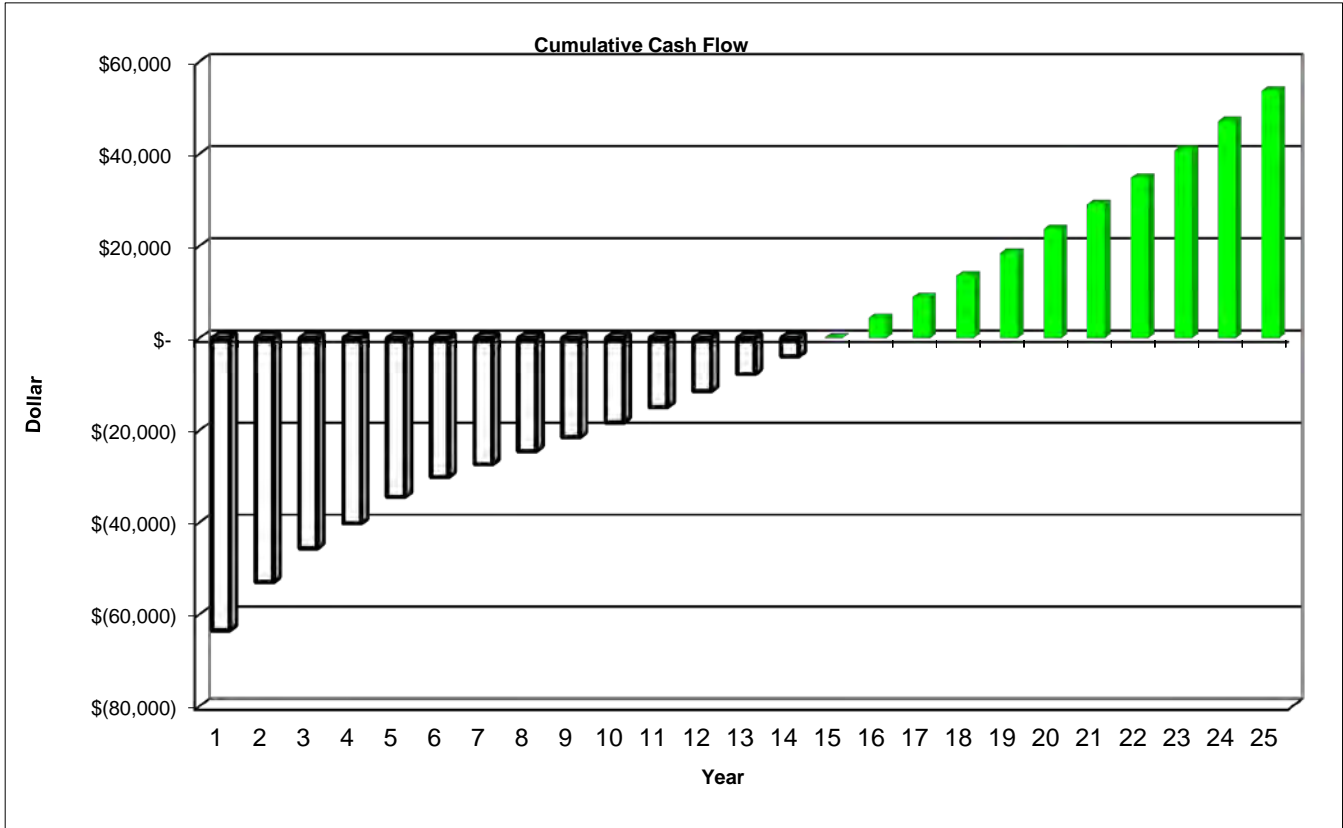
### Detailed Layout












Cotherman Distilling Co  
 Super Span Option  
 Cotherman Distilling Co

Project Information		
Customer Type	commercial	
System Assumptions		
Size of System (watts):	12,400	per watt
System cost (per watt):	\$ 8.00	per watt
Financial Information		
Value of Renewable Energy Credit (RECs):	\$ -	per MWh
Price of Electricity (kwh):	\$ 0.1100	per kWh
Production		
Location:	Miami	
Average peak sun hours:	5.1	
Efficiency Factor (kWh/watt/year):	1.50	
Annual Production (kWh):	18,600	
Results		
Value of Installed Photovoltaic System:	\$	99,200.00
	Year 1	Year 1-6 Total
Federal Investment Tax Credit:	\$ 29,760.00	\$ 29,760.00
Depreciation Savings:	\$ 5,902.40	\$ 29,512.00
FPL REBATE Less Tax Effect:	\$ -	\$ -
Estimated Energy Savings:	\$ 2,046.00	\$ 13,916.71
Estimated REC income less taxes:	\$ -	\$ -
Total incentives, savings, and revenue:	\$ 37,708.40	\$ 73,188.71
Total Tax Incentives:	\$ 35,662.40	\$ 59,272.00
Percentage of system value:	35.95%	59.75%
Return on Investment (ROI):	14 years	



The calculations contained in this financial model are for illustrative purposes only. The calculations are based on certain assumptions regarding the interpretation of the Internal Revenue Code and applicable state tax laws. Specifically, the financial model is based on the assumption of an imputed interest rate of 1.76% for purposes of the loan being provided to purchase the renewable energy equipment. Although the calculations and financial results in the financial model are believed to be reasonable under the assumptions used, they may or may not be accurate in all situations. The calculations were not prepared as, and are not intended to be, an opinion on or a guarantee of the results shown. Investors should consult with their own accountants, attorneys and/or financial advisors for professional advice before investing.

### Environmental Offsets

Annual CO2 offsets (lbs):	25,891	
Number of Cars not driven for the year:	2.37	
Gallons of gasoline not burnt for the year:	1,469	
Barrels of foreign oil not needed for the year:	30.11	
Equivalent acres of trees to absorb carbon:	2.94	
Pounds of propane not used for the year:	9,709	
Equivalent tons of waste recycled for the year:	4.46	

Calculation: CO2 offsets calculated using Environmental Protection Agency  
<http://www.epa.gov/cleanenergy/energy-resources/calculator.html>

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Assumptions	
Customer Type	commercial
Base Assumptions	
Estimated Cost of Money Earned Percentage	6.00%
Average Increase in Electricity Costs	5.00%
Customers Federal Tax Bracket	35.00%
Interest Earned on Funds	0%
Federal And State Incentives	
Federal Investment Tax Credit %:	30%
Florida Power and Light Rebate: \$	2.00
Renewable Energy Certificates (REC's) / Mwh \$	-
Depreciation Method	
	Half Year Convention
Financing Assumptions	
Rate	50.00%
Term (years)	10
Loan to Value	0.00%
Levelized Cost of Electricity	
Expected lifetime	25
Division Factor	12.78
Cost per watt after incentives	\$ 3.54

Size of System		12,400 Watts
Investment in Solar System	\$	99,200.00
Incentives		
Federal ITC	\$	29,760.00
State Rebate	\$	-
less Tax Effect (State Rebate)	\$	-
	\$	<u>29,760.00</u>
Total Investment in System	\$	<b>69,440.00</b>
NPV of Depreciation Savings	\$	25,483.97
Annual Energy Production (kwh)		18,600
Renewable Energy Certificates (REC's) Produced		19
Annual Energy Savings - Year 1	\$	2,046.00
25 Year Accumulated Savings	\$	97,649.64

<b>Cash Flow</b>			
<b>Year</b>	<b>Energy Savings</b>	<b>Florida Incentive Program</b>	<b>Federal Tax Credit</b>
0			
1	\$ 2,046.00		\$ 29,760.00
2	\$ 2,148.30	\$ -	
3	\$ 2,255.72		
4	\$ 2,368.50		
5	\$ 2,486.93		
6	\$ 2,611.27		
7	\$ 2,741.84		
8	\$ 2,878.93		
9	\$ 3,022.87		
10	\$ 3,174.02		
11	\$ 3,332.72		
12	\$ 3,499.35		
13	\$ 3,674.32		
14	\$ 3,858.04		
15	\$ 4,050.94		
16	\$ 4,253.49		
17	\$ 4,466.16		
18	\$ 4,689.47		
19	\$ 4,923.94		
20	\$ 5,170.14		
21	\$ 5,428.65		
22	\$ 5,700.08		
23	\$ 5,985.08		
24	\$ 6,284.34		
25	\$ 6,598.55		
	<b>\$ 97,649.64</b>	<b>\$ -</b>	



Year	Depreciation Savings	Net Cash Flow	Cumulative Cash Flow	Interest Earned
0	\$	(99,200.00)	\$ (99,200.00)	
1	\$ 4,006.70	\$ 35,812.70	\$ (63,387.30)	\$ -
2	\$ 8,370.80	\$ 10,519.10	\$ (52,868.19)	\$ -
3	\$ 5,058.92	\$ 7,314.64	\$ (45,553.56)	\$ -
4	\$ 3,055.98	\$ 5,424.48	\$ (40,129.07)	\$ -
5	\$ 3,291.67	\$ 5,778.60	\$ (34,350.48)	\$ -
6	\$ 1,699.89	\$ 4,311.16	\$ (30,039.31)	\$ -
7	\$ -	\$ 2,741.84	\$ (27,297.48)	\$ -
8	\$ -	\$ 2,878.93	\$ (24,418.55)	\$ -
9	\$ -	\$ 3,022.87	\$ (21,395.68)	\$ -
10	\$ -	\$ 3,174.02	\$ (18,221.66)	\$ -
11	\$ -	\$ 3,332.72	\$ (14,888.94)	\$ -
12	\$ -	\$ 3,499.35	\$ (11,389.59)	\$ -
13	\$ -	\$ 3,674.32	\$ (7,715.26)	\$ -
14	\$ -	\$ 3,858.04	\$ (3,857.23)	\$ -
15	\$ -	\$ 4,050.94	\$ 193.71	\$ -
16	\$ -	\$ 4,253.49	\$ 4,447.20	\$ -
17	\$ -	\$ 4,466.16	\$ 8,913.36	\$ -
18	\$ -	\$ 4,689.47	\$ 13,602.83	\$ -
19	\$ -	\$ 4,923.94	\$ 18,526.78	\$ -
20	\$ -	\$ 5,170.14	\$ 23,696.92	\$ -
21	\$ -	\$ 5,428.65	\$ 29,125.56	\$ -
22	\$ -	\$ 5,700.08	\$ 34,825.64	\$ -
23	\$ -	\$ 5,985.08	\$ 40,810.73	\$ -
24	\$ -	\$ 6,284.34	\$ 47,095.06	\$ -
25	\$ -	\$ 6,598.55	\$ 53,693.62	\$ -
	\$ 25,483.97	\$ 53,693.62	\$ 23,696.92	



Production

Location: Miami

Average peak sun hours:	5.1
Solmetric Sun availability percentage:	100%
Assumed system efficiency (85% default):	81%
Efficiency Factor (kWh/watt/year):	1.50
Annual Production (kWh):	18,600

<b>Depreciation</b>	<b>Depreciable</b>			
SOLAR SYSTEM	basis	Depreciation	Tax Savings	Cost of Money
	\$ 84,320.00			
Bonus Depreciation			\$ -	
Year 1		\$ 16,864.00	\$ 5,902.40	1,895.70
Year 2		\$ 26,982.40	\$ 9,443.84	1,073.04
Year 3		\$ 16,189.44	\$ 5,666.30	607.38
Year 4		\$ 9,713.66	\$ 3,399.78	343.80
Year 5		\$ 9,713.66	\$ 3,399.78	108.11
Year 6		\$ 4,856.83	\$ 1,699.89	-
			<b>\$ 29,512.00</b>	<b>4,028.03</b>

<b>Accelerated Depreciation</b>						
Year	1	2	3	4	5	6
None	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Half Year Convention	20.00%	32.00%	19.20%	11.52%	11.52%	5.76%
Mid-Quarter Convention Placed in Service in 1st Quarter	35.00%	26.00%	15.60%	11.01%	11.01%	1.38%
Mid-Quarter Convention Placed in Service in 2nd Quarter	25.00%	30.00%	18.00%	11.37%	11.37%	4.26%
Mid-Quarter Convention Placed in Service in 3rd Quarter	15.00%	34.00%	20.40%	12.24%	11.30%	7.06%
Mid-Quarter Convention Placed in Service in 4th Quarter	5.00%	38.00%	22.80%	13.68%	10.94%	9.58%
Straight Line Depreciation (5 Year)	10.00%	20.00%	20.00%	20.00%	20.00%	10%

<b>Peak Sun Hours</b>	<b>Year</b>
Daytona Beach	5.1
Jacksonville	4.8
Key West	5.3
Miami	5.1
Tallahassee	5
Tampa	5.2
West Palm Beach	5.1

	Jan	Feb	Mar	Apr	May	Jun
Daytona Beach	3.7	4.4	5.5	6.8	7	7
Jacksonville	3.5	4.3	5.2	6.9	7.1	6.8
Key West	4.1	4.9	6	6.9	6.8	6.7
Miami	4	4.7	5.8	6.7	6.9	6.3
Tallahassee	3.4	4.4	5.3	6.7	6.9	7
Tampa	3.7	4.5	5.6	6.8	7.1	6.9
West Palm Beach	3.8	4.6	5.7	6.8	7	6.6
	Jul	Aug	Sep	Oct	Nov	Dec
Daytona Beach	6.6	6.3	5.5	4.8	3.7	3.3
Jacksonville	6.4	5.9	5.4	4.5	3.8	3.2
Key West	6.4	6.2	5.5	5.1	4.3	3.8
Miami	6.7	6	5.7	4.9	4	3.7
Tallahassee	6.4	6.2	5.7	5	3.8	3.1
Tampa	6.4	6.3	5.4	4.9	4	3.5
West Palm Beach	6.6	6.3	5.6	4.8	3.9	3.5

# We Make Solar Carports Designed to Last a Lifetime

*"Our unique ability to site specific engineer to any condition combined with in-house fabrication and installation capabilities allow us to competitively price our solutions offering customers a first in class renewable energy solution on time, on budget."*

Beautiful

Renewable Energy

Protection

## About Advanced Green Technologies

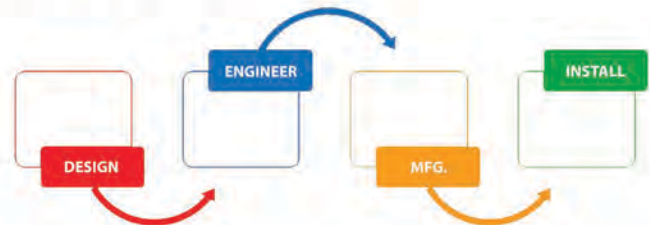
Advanced Green Technologies (AGT) is a solar energy contractor specializing in design, procurement, and construction (EPC) services for commercial, industrial, and utility scale solar projects throughout North America and the Caribbean.

Established in 2007, AGT is an experienced solar contractor completing more than 150+ Megawatts of renewable energy solutions across many market segments including education, defense, government, manufacturing, retail, and local utilities.

From initial project planning and construction to ongoing operations and maintenance, AGT delivers a comprehensive turnkey solar energy solution that you will be happy with from start to finish.

## Single Source Provider

At AGT, we take a single-point responsibility for the entire solar carport project starting with design and fabrication to installation and service. This approach allows us to streamline a project and provide our clients with a first in class renewable energy solutions at the lowest cost per kWh.



*"Advanced completed the project on time and on budget, with no safety incidents. The installed solar system is operating as planned, and producing clean energy for our schools." - Cresskill School Board*



ADVANCED GREEN



TECHNOLOGIES

Get in Touch:

**(888) 735-2641**

webmaster@agt.com  
www.AGT.com

#PV-101913-002781 | #CVC56792 | #CGC1507377



# RENEWABLE ENERGY SOLVED



## Solar Carport Solutions



### Single Slope

5° - 20° Slope  
180 MPH Max Wind Speeds  
Up to 50' Wide Coverage



### Double Slope

Tilt Angle Optimization  
180 MPH Max Wind Speeds  
Up to 50' Wide Coverage



### Super Span

Highest Power Density  
180 MPH Max Wind Speeds  
Up to 100' Wide Coverage



### Benefits of Solar Carports

- Generate Revenue from Parking Lot
- Reduce Energy Costs
- Increase Property Value
- Protect Vehicles from the Sun and Rain
- Reduce Carbon Footprint
- Use as HR Recruiting Tool
- Tax Incentives Available



### Features of Solar Carport

- Canopy Lighting
- Electric Car Charging Station
- Integrate into Existing Parking Garage
- Multiple Finish Options
- Satisfy Wind Speeds up to 180 MPH
- Security Camera Integration
- Water Control Rain Deck
- Variations Available for All Designs

## For More Information





## Key Features

- 1 Durable and Robust Design:**  
4000 Pa Wind Load / 7000 Pa Snow Load;  
Certified to withstand Category 3-4 hurricane winds
- 2 Predictable Output:**  
Positive power sorting, 0 to +5W
- 3 Low Light Performance:** Excellent performance even under low irradiation
- 4 Innovative Solution:**  
UL Certified to 1000V for optimized system designs;  
Anti-reflective glass with self-cleaning hydrophobic layer
- 5 Harsh Environment:** Verified against salt mist and ammonia corrosion
- 6 Tariff Free:** High performance Taiwan cells

## Quality and Environmental Certificates

- ISO 9001 quality standards and ISO 14001 environmental standards
- OHSAS 18001 occupational health and safety standards
- UL 1703 600V and 1000V certification
- CEC listed



## About Hanwha Solar

Hanwha Solar is a vertically integrated manufacturer of photovoltaic modules designed to meet the needs of the global energy consumer.

- High reliability, guaranteed quality, and excellent cost-efficiency due to vertically integrated production and control of the supply chain
- Optimization of product performance and manufacturing processes through a strong commitment to research and development
- Global presence throughout Europe, North America and Asia, offering regional technical and sales support

# Electrical Characteristics

## Electrical Characteristics at Standard Test Conditions (STC)

Power Class	285 W	290 W	295 W	300 W	305 W
Maximum Power (P <sub>max</sub> )	285 W	290 W	295 W	300 W	305 W
Open Circuit Voltage (V <sub>oc</sub> )	44.8 V	45.1 V	45.3 V	45.5 V	45.7 V
Short Circuit Current (I <sub>sc</sub> )	8.53 A	8.57 A	8.65 A	8.72 A	8.80 A
Voltage at Maximum Power (V <sub>mpp</sub> )	35.9 V	36.2 V	36.4 V	36.5 V	36.7 V
Current at Maximum Power (I <sub>mpp</sub> )	7.95 A	8.02 A	8.12 A	8.22 A	8.32 A
Module Efficiency (%)	14.7 %	15.0 %	15.3 %	15.5 %	15.8 %

P<sub>max</sub>, V<sub>oc</sub>, I<sub>sc</sub>, V<sub>mpp</sub> and I<sub>mpp</sub> tested at Standard Testing Conditions (STC) defined as irradiance of 1000W/m<sup>2</sup> at AM 1.5 solar spectrum and a temperature of 25±2°C. Module power class have positive power sorting: 0 to +5W. Measurement tolerance: +/- 3% (P<sub>max</sub>)

## Electrical Characteristics at Normal Operating Cell Temperature (NOCT)

Power Class	285 W	290 W	295 W	300 W	305 W
Maximum Power (P <sub>max</sub> )	207 W	210 W	214 W	218 W	222 W
Open Circuit Voltage (V <sub>oc</sub> )	41.7 V	41.9 V	42.1 V	42.3 V	42.5 V
Short Circuit Current (I <sub>sc</sub> )	6.89 A	6.92 A	6.98 A	7.04 A	7.11 A
Voltage at Maximum Power (V <sub>mpp</sub> )	32.4 V	32.7 V	32.9 V	33.0 V	33.2 V
Current at Maximum Power (I <sub>mpp</sub> )	6.39 A	6.43 A	6.51 A	6.61 A	6.69 A
Module Efficiency (%)	13.4 %	13.6 %	13.8 %	14.1 %	14.4 %

P<sub>max</sub>, V<sub>oc</sub>, I<sub>sc</sub>, V<sub>mpp</sub> and I<sub>mpp</sub> tested at Normal Operating Cell Temperature (NOCT) defined as irradiance of 800W/m<sup>2</sup>; 20°C; Wind speed 1m/s. Measurement tolerance: +/- 3% (P<sub>max</sub>)

## Temperature Characteristics

Normal Operating Cell Temperature (NOCT)	45°C +/- 3°C
Temperature Coefficients of P	- 0.43 % / °C
Temperature Coefficients of V	- 0.32 % / °C
Temperature Coefficients of I	+ 0.05 % / °C

## Maximum Ratings

Maximum System Voltage	600V or 1000 V (UL)
Series Fuse Rating	15 A
Maximum Reverse Current	Series fuse rating multiplied by 1.35

# Mechanical Characteristics

Dimensions	1956mm x 988mm x 45 mm
Weight	27±0.5kg
Frame	Aluminum alloy, available in silver or black finish
Front	Tempered glass
Encapsulant	EVA
Back Cover	White or black back sheet
Cell Technology	Polycrystalline (Taiwan)
Cell Size	156 mm x 156 mm (6in x 6in)
Number of Cells (Pieces)	72 (6 x 12)
Junction Box	Protection class IP67 with bypass-diode
Output Cables	Solar cable: 4 mm <sup>2</sup> ; length: 1200 mm
Connector	Amphenol H4

## System Design

Operating Temperature	- 40 °C to 85 °C
Hail Safety Impact Velocity	25 mm at 23 m/s
Fire Safety Classification (IEC 61730)	Class C
Static Load Wind / Snow	4000Pa/7000Pa

## Packaging and Storage

Storage Temperature	- 40 °C to 85 °C
Packaging Configuration	22 pieces per pallet
Loading Capacity (40 ft. HQ Container)	484 pieces

## Nomenclature:

eg. HSL72P6-PB-0-245TW

HSL72P6-PB- -xxx

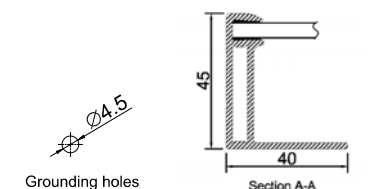
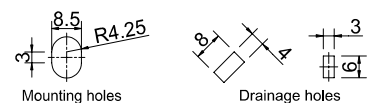
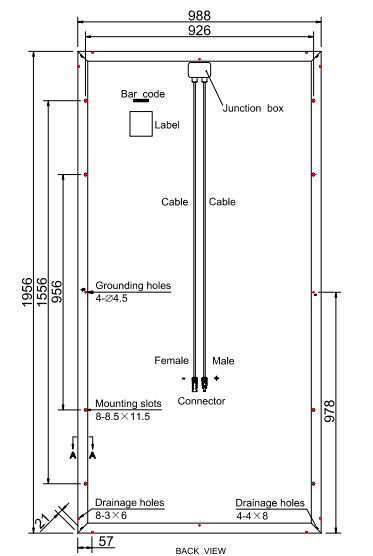
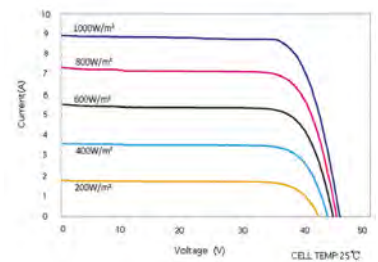
Code	Certification	Code	Frame / Backsheet
0	600V (UL)	T	Silver / White
4	1000V (UL)	TW	Black / White
		TB	Black / Black

xxx represents the power class

## Performance at Low Irradiance:

The typical efficiency at 200 W/m<sup>2</sup> in relation to 1000 W/m<sup>2</sup>, (25°C, AM 1.5) is at least 96 % of STC efficiency.

Various Irradiance Levels



# SUNNY TRIPOWER

12000TL-US / 15000TL-US / 20000TL-US / 24000TL-US



### Design flexibility

- 1000 V DC or 600 V DC
- Two independent DC inputs
- 15° to 90° mounting angle range
- Detachable DC Connection Unit

### System efficiency

- 98% CEC, 98.5% Peak
- 1000 V DC increases system efficiency
- OptiTrac advanced MPPT
- OptiTrac Global Peak MPPT

### Enhanced safety

- Integrated DC AFCI
- Floating system with all-pole sensitive ground fault protection
- Reverse polarity indicator

### Future-proof

- Complete grid management feature set
- Cluster Controller, WebConnect/Speedwire
- Bi-directional Ethernet communications
- Ability to satisfy future utility requirements

## SUNNY TRIPOWER

12000TL-US / 15000TL-US / 20000TL-US / 24000TL-US

The ultimate solution for decentralized PV plants

The world's best-selling three-phase PV inverter, the SMA Sunny Tripower TL-US, is raising the bar for decentralized commercial PV systems. This three-phase, transformerless inverter is UL listed for up to 1000 V DC maximum system voltage and has a peak efficiency above 98 percent, while OptiTrac Global Peak minimizes the effects of shade for maximum energy production. The Sunny Tripower delivers a future-proof solution with full grid management functionality, cutting edge communications and advanced monitoring. The Sunny Tripower is also equipped with all-pole ground fault protection and integrated AFCI for a safe, reliable solution. It offers unmatched flexibility with a wide input voltage range and two independent MPP trackers. Suitable for both 600 V DC and 1,000 V DC applications, the Sunny Tripower allows for flexible design and a lower levelized cost of energy.

[www.SMA-America.com](http://www.SMA-America.com)



Technical data	Sunny Tripower 12000TL-US	Sunny Tripower 15000TL-US	Sunny Tripower 20000TL-US	Sunny Tripower 24000TL-US
<b>Input (DC)</b>				
Max. usable DC power (@ cos φ = 1)	12250 W	15300 W	20400 W	24500 W
Max. DC voltage*	1000 V	1000 V	1000 V	1000 V
Rated MPPT voltage range	300 V...800 V	300 V...800 V	380 V...800 V	450 V...800 V
MPPT operating voltage range	150 V...1000 V	150 V...1000 V	150 V...1000 V	150 V...1000 V
Min. DC voltage / start voltage	150 V / 188 V	150 V / 188 V	150 V / 188 V	150 V / 188 V
Number of MPP tracker inputs	2	2	2	2
Max. input current / per MPP tracker input	66 A / 33 A	66 A / 33 A	66 A / 33 A	66 A / 33 A
<b>Output (AC)</b>				
AC nominal power	12000 W	15000 W	20000 W	24000 W
Max. AC apparent power	12000 VA	15000 VA	20000 VA	24000 VA
Output phases / line connections	3 / 3-N-PE			
Nominal AC voltage	480 / 277 V WYE			
AC voltage range	244 V...305 V			
Rated AC grid frequency	60 Hz			
AC grid frequency / range	50 Hz, 60 Hz / -6 Hz...+5 Hz			
Max. output current	14.4 A	18 A	24 A	29 A
Power factor at rated power / adjustable displacement	1 / 0.8 leading...0.8 lagging			
Harmonics	< 3 %			
<b>Efficiency</b>				
Max. efficiency	98.2 %	98.2 %	98.5 %	98.5 %
CEC efficiency	97.5%	97.5%	97.5%	98.0%
<b>Protection devices</b>				
DC reverse polarity protection	●	●	●	●
Ground fault monitoring / Grid monitoring	●	●	●	●
All-pole sensitive residual current monitoring unit	●	●	●	●
DC AFCI compliant to UL 1699B	●	●	●	●
AC short circuit protection	●	●	●	●
Protection class / overvoltage category	I / IV	I / IV	I / IV	I / IV
<b>General data</b>				
Dimensions (W / H / D) in mm (in)	665 / 650 / 265 (26.2 / 25.6 / 10.4)			
Packing dimensions (W / H / D) in mm (in)	780 / 790 / 380 (30.7 / 31.1 / 15.0)			
Weight	55 kg (121 lbs)			
Packing weight	61 kg (134.5 lbs)			
Operating temperature range	-25°C...+60°C			
Noise emission (typical)	51 dB(A)			
Internal consumption at night	1 W			
Topology	Transformerless			
Cooling concept	OptiCool			
Electronics protection rating	NEMA 3R			
<b>Features</b>				
Display / LED indicators (Status / Fault / Communication)	- / ●	- / ●	- / ●	- / ●
Interfaces: Speedwire / RS485	● / ○	● / ○	● / ○	● / ○
Mounting angle range	15°...90°	15°...90°	15°...90°	15°...90°
Warranty: 10 / 15 / 20 years	● / ○ / ○	● / ○ / ○	● / ○ / ○	● / ○ / ○
Certifications and approvals	UL 1741, UL 1998, UL 1699B, IEEE 1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1			
NOTE: US inverters ship with gray lids / ● Standard features ○ Optional features – Not available / Data at nominal conditions				
*Suitable for 600 V DC max. systems				
Type designation	STP 12000TL-US-10	STP 15000TL-US-10	STP 20000TL-US-10	STP 24000TL-US-10



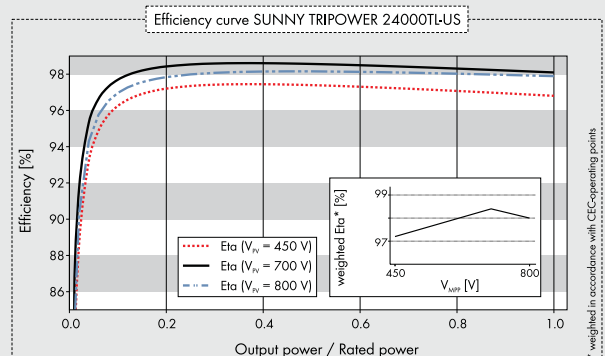
RS485 interface  
DM-485CB-US-10



Connection Unit  
CU 1000-US-10



SMA Cluster Controller  
CLCON-10



# Products and Services

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Advanced Roofing offers a variety of products and services to fit a variety of project needs and budgets:

## Re-Roofing

Advanced Roofing offers a wide variety of roof systems to fit your needs, and is certified by every major material manufacturer to install the highest quality roofing systems with the best warranties. Our goal is to make the re-roofing process easy and hassle free for you, the customer.

Re-roofing commercial buildings is a highly technical process. We have found roofing companies that start in new construction and go into re-roofing, fail. Our experience constantly improves from protecting the property, documentation, existing conditions, pre-construction, job meetings, code compliance, involving building departments, manufacturers representatives, close out and getting other recommendations from you.



Our Roofing Department has over 300 expertly-trained construction managers, foremen, roofing mechanics, and laborers. They are all trained in safety procedures.

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## Roof Repairs

Advanced Roofing is available 24 hours a day, and most of the time, can handle your problem within 24 hours. Advanced Roofing prides itself on providing the best service possible. Advanced Roofing's dedication to clients has allowed Advanced Roofing to grow, expand, and service the roofing needs of some of Florida's biggest businesses.

Since 1983, our service department has helped increase our customers' return on their new roof investment. Our roof repair division handles all major and minor problems that may occur on your roof quickly, efficiently, and at a reasonable cost.

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## Roof Restoration

In this tough economy, it may be difficult to afford a complete roof replacement. With a coating or regravelling from Advanced Roofing, you can extend the life of your current roof at a more affordable price. With coating and regravelling, you can prolong the life of your roof for 5-15 years at 50% of the cost of replacement, and save energy in the process.

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## Preventative Maintenance

Preventative maintenance on your roof system is something that should be taken into careful consideration. At Advanced Roofing, we make sure your roof is in tip-top shape year-round. To ensure your roof is functioning properly, it is important to perform semi-annual inspections. These measures of preventative maintenance help to fix problems before further damage incurs, stop roof problems before they start, and guarantee that your roof has a longer service life.

With over 325 buildings, totaling over 9 million square feet of roof, under Advanced Roofing's proactive maintenance program, our commitment to service speaks for itself.

## Design Build

At Advanced Roofing, Inc., we can design your project from the ground up. We offer comprehensive analysis of your structure and can design plans to fit your needs. We provide you with the options you need to make your building exactly what you dream of, and execute the job with our personal commitment. With in-house divisions of steel, air conditioning and roofing, lightning protection, renewable energy, sheet metal, and more, you can count on Advanced to design the best solution for your project needs.

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## Sheet Metal

Advanced Roofing has secured the most advanced sheet metal production equipment in the world and maintains its own in-house sheet metal department. This allows Advanced to fabricate every panel, coping cap, counter flashing, gutters, and any detail metal the job requires.

Advanced Roofing is also ahead of the curve by being one of the few roofing contractors that owns and uses a plasma cutter. This incredibly accurate instrument makes precise cuts, and allows specially fabricated pieces to get on your roof without delay. Additionally, Advanced uses a computerized break to ensure the accuracy of our sheet metal work. The pre-programmed break can accurately shape 5-10 pieces of metal at a time with precision accuracy.

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## Waterproofing

Waterproofing treats a surface to prevent water from passing under hydrostatic pressure. It is commonly used to protect roofs, as well as floors, walls and basements, pools, planters and fountains.

Advanced Roofing, Inc. offers waterproofing services to fit your roofing needs. Our Waterproofing Division was created to work hand-in-hand with our Roofing and Service divisions. Waterproofing can be an excellent way to protect your business from water intrusion, whether it's from your roof, your walls, or even your floor. Water intrusion can be one of the most costly types of damage; our commercial roofing experience helps us identify your problem, and solve it before the damage starts.



## Cranes

Our crane division works hand-in-hand with our roofing and A/C divisions, hoisting A/C units, fans and cooling towers, and delivering materials to high-rise roofs. No matter the building size, we have the right size crane for the job. We have a fleet of 5 23 ½-ton boom trucks, a 35-ton boom truck, a 65-ton hydro, a 75 ton hydro crane and 2 mobile hydraulic tower cranes with tip heights of 330 feet.

Scheduling is crucial in any construction company with our cranes your project flows smoothly. Our crane division has been in service for over 15 years, with 6 full-time operators. We have worked with other crane companies such as General Crane, Precision Crane, Hunter Crane, and Crane Services. We are always taking on new challenges and looking forward to greater heights in the future.

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## Air Conditioning

Established in 1994, Advanced Air Systems is a subsidiary of Advanced Roofing. As a full-service HVAC contractor, Advanced Air Systems provides excellent service to air conditioning, heating, and ventilation systems on time and on budget.

Advanced Air Systems is dedicated to understanding, servicing and installing all air conditioning system makes and models. Our team of experienced technicians is highly trained and knowledgeable, staying up to date with the evolution of the industry.

With our membership in the Green Mechanical Council, a group dedicated to the education of creating and maintaining environmentally sound residential and commercial mechanical systems, Advanced Air Systems takes pride in our efforts to provide and install environmentally safe, highly efficient systems. In addition, Advanced Air Systems also offers various Indoor Air Quality products such as duct cleaning, high end filtration and ultra violet lighting, all to compliment our green initiatives.

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## Lightning Protection

Each year, thousands of properties are damaged or destroyed by lightning. Lightning accounts for more than a third of a billion dollars in property damage annually in the United States. And Florida experiences the highest incidence of lightning strikes in the U.S. In most years, lightning is responsible for more deaths and property loss than tornadoes, hurricanes and floods combined, but of these violent forces of nature, lightning is the only one that can be affordably protected against. Let us assist you in providing protection for your residents, employees and customers.

Advanced Roofing, Inc.'s fully licensed lightning protection professionals have 3 or more years of design, installation and service experience. Ask us about our no charge survey of your building.

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## Solar

With the growing trend of "going green," companies have decided to become more environmentally conscious. Join other responsible companies by creating carbon-free renewable energy on your roof. Clients and consumers are becoming more aware of the environmental impact made by companies they purchase from. By utilizing a solar power system on your roof, you are showing your clients the positive impact you are making on the environment. Solar power is the most affordable it has ever been with a 5- to 10-year return on investment.



## Daylighting

Daylighting can replace electric light 70-80% of daylight hours - in many cases, for less than \$0.015 per kWh over the life of the building.

It is considerably cooler than electric lighting at the same foot candle levels, so it also reduces the cost to air condition the building as well. This can mean tremendous energy savings in buildings that operate during the day, such as schools, offices, warehouses, factories, and retail stores.

# Projects

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Advanced Roofing is proud to conduct work in all segments. Our past and current clients cover many commercial market segments in coordination with multiple trades and disciplines to ensure the best solutions for each and every project, including:

## **Westin Diplomat Resort & Spa – Condominium/Hospitality**

The Westin Diplomat Resort and Spa is located on the beach in Hollywood, Florida. This property offers many resources such as luxurious guest rooms, vast corporate meeting spaces and banquet rooms, as well as, many restaurants and specialty shops. Advanced Roofing re-roofed over 170,000 square feet, including the hotel, convention center and retail areas from May 2008-September 2009.



[See more condominium projects](#)

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## **Federal Reserve Bank of Atlanta, Miami Branch – Federal Government**

The Federal Reserve Bank of Atlanta is part of the central bank of the United States known as the Fed. The Fed provides cash to banks, savings and loans, and clears millions of checks every day.

[See more government projects](#)

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## **Southeast Turbines – Industrial/Warehouse**

Southeast Turbines is a commercial building located next to the Fort Lauderdale Executive Airport. Advanced Roofing installed a GAF Elastomeric TopCoat Roof Restoration System over the 30,000 square feet building. Advanced Roofing also installed new stainless steel commercial grade box gutter and downspouts. There were also several penetrations that had to be eliminated and areas of steel deck replacement.

[See more industrial/warehouse projects](#)

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## **Miramar High School – Educational Institution**

Miramar High School was an extensive, long term project that Advanced Roofing completed in 2 separate phases over a period of a year and a half for the School Board of Broward County. Advanced Roofing re-roofed every building on this large campus, which encompassed more than 240,000 square feet and included many different buildings, multiple deck levels, and different types of roof systems. During the time this re-roofing project was taking place, the school was also undergoing interior renovations.

[See more educational institution projects](#)

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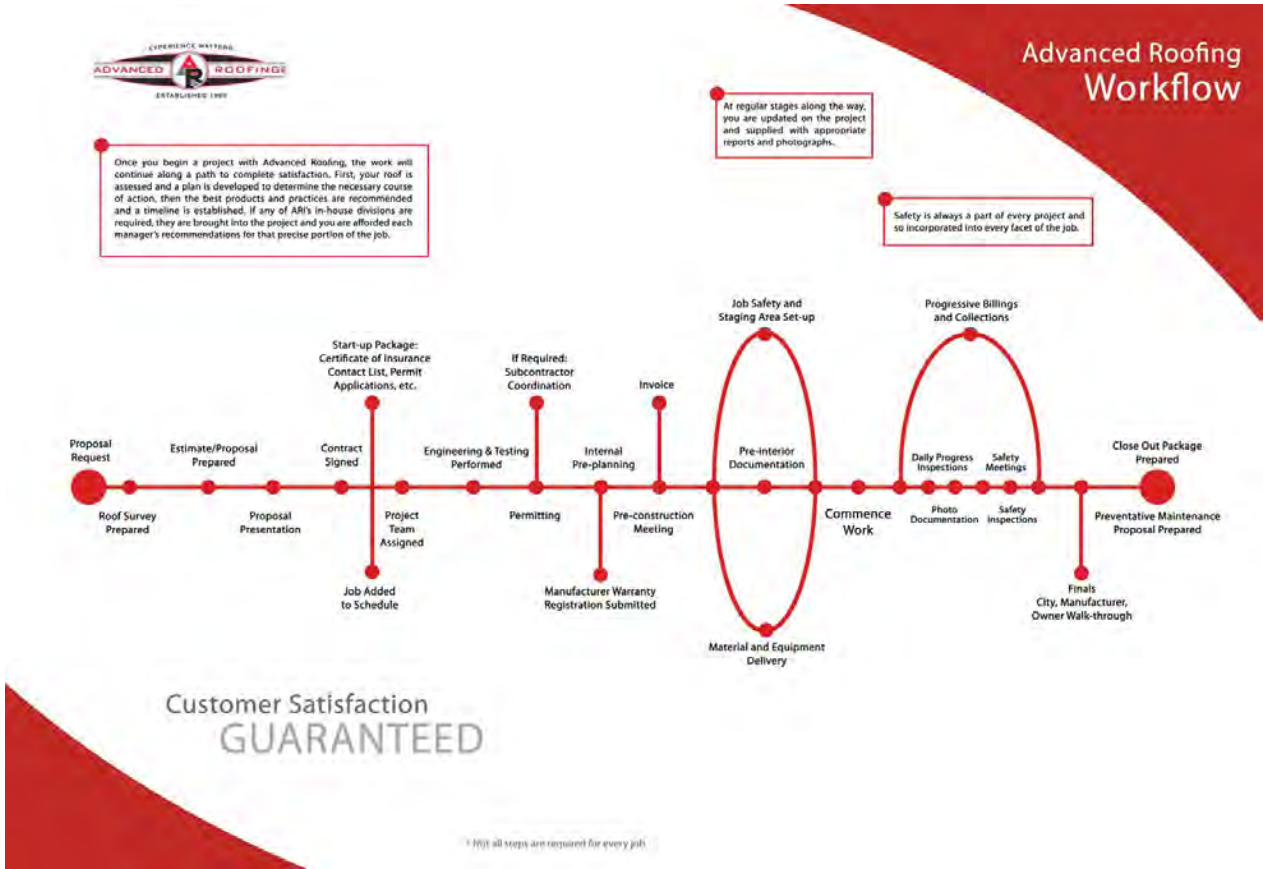


# Project Management

At Advanced Roofing, roofing is our business. That's why we are committed to precision and quality. We work with owners, engineers, architects and consultants to provide the right bid for your project.

We offer a wide variety of systems to fit your needs, and we are certified by major roofing manufacturers to install the highest systems with the best warranties. Our goal is to make the process easy and hassle free for you, the customer.

Our experience constantly improves from protecting the property, documentation, existing conditions, pre-construction, job meetings, code compliance, involving building departments, manufacturers' representatives, close out and getting other recommendations from you.



# Locations Served

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Advanced Roofing is headquartered in Fort Lauderdale, FL with branch offices in Orlando, Jacksonville, and Ft. Myers, FL. Advanced also has licenses and operates in:

- Georgia
- Alabama
- Louisiana
- North Carolina
- Virginia
- Western and Eastern Caribbean Islands
- Puerto Rico and US Virgin Islands
- Bahamas
- Roof Connect Affiliated Markets – Entire US

Advanced Roofing is a founding member of RoofConnect.

RoofConnect is a professional national commercial roofing organization. They specialize in emergency roofing repairs, maintenance and re-roofing but also perform specialty projects that require nationwide labor availability in the construction field. RoofConnect has 60 plus members and 100 locations nationwide. Members have over 7,000 employees and approach revenue of 1 billion dollars annually. RoofConnect is founded and administered by the leading commercial roofers in the United States. All members must adhere to a strict code of ethics and pass several requirements to participate. RoofConnect is a leading national roofing services provider for commercial roofing solutions. Roof Connect gives Advanced the capabilities to work with top tier roofing contractors throughout the United States without sacrificing quality.



## Office Locations

### South Florida

TollFree: (800) 638-6869  
Office: (954) 522-6868  
Fax: (954) 566-2967  
1950 NW 22<sup>nd</sup> St  
Fort Lauderdale, FL 33311

### Central Florida

Toll Free: (866) 365-6071  
Office: (407) 322-1555  
Fax: (407) 322-0010  
200 Northstar Court  
Sanford, FL 32771

### Jupiter, Florida

Toll Free: (800) 638-6869  
1700 Park Lane South  
Unit #2  
Jupiter, FL 33458

# References & Testimonials

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*"It is obvious that your company motto is hard work and extreme professionalism. Your employees are dedicated and worked as a team to effectively get the job completed on time with all of the proper plans, permits and restrictions."*

*"[Advanced] quickly recognized design assist services would be required for this Owner/Design Team and stepped in and provided multiple options which ultimately led to the most practical, economical solution for this client."*

*"[Advanced] is considered one of our valued subcontractors and it is only through the highest standards of professionalism and integrity are they even considered for inclusion on our valued subcontractors list. I would not hesitate to recommend them to any owner or client."*

*"This was an extremely fast track project and [Advanced] was able to quickly navigate through the very complex permitting process after successfully providing design assist services for the Engineering Design Team, and then quickly secure all building materials from reliable sources in a timely manner for on-time installation and completion."*

*"The quality control procedures in place with [Advanced] are very professional and as a matter of fact representatives from the Authority Having Jurisdiction commented favorably on this matter for them, giving them a level of comfort we, frankly, did not see with any other subcontractor."*

*"The added value to this project was the ability of [Advanced] to perform the design assist when it became apparent that the design team for the Owner, our Client, did not possess the skills required to properly provide a workable solution for the Client."*

*"We consider Advanced Roofing, Inc. to be a valuable member of our subcontractor team and absolutely intend to award them the majority of upcoming work on this type project."*

*"[Advanced] was selected after the failure of another subcontractor to perform. They stepped in with a reduced schedule and completed the project on time and well below our initial design budget through design assist and value engineering."*

*"...this level of commitment and team spirit is what makes them one of our valued team of subcontractors."*

## **Our clients are Advanced**

Advanced Roofing is proud to maintain a vast network of past clients who are available for references upon request. A list of these references and projects can be viewed on our [Reference Letters](#) page.



# Team

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In our industry, it's not just how the job's done; it's who the people are, doing it – their skills, their involvement, and their professional demeanor. Hundreds of dedicated individuals make up the team at Advanced Roofing, and not only do they want your respect, they want you to like them. “Nice” is important to us. As is “courteous, efficient, exacting, honest, ethical, flexible, accommodating, logistical, knowledgeable.”

## Robert P. Kornahrens

### CEO, President

Started Advanced Roofing in 1983 and oversees all company operations.

**Experience.** Prior experience consists of 10 years with Triple M Roofing Corporation in New York, Atlanta, and Fort Lauderdale. During his tenure at Triple M, he held numerous field positions encompassing all phases of roofing mechanics. Was eventually promoted to Branch Manager, and set-up/operated new branches in both Atlanta and Fort Lauderdale.

**Education.** B.S. Degree in Business Administration from University of Arizona, 1979.



## Daniel Stokes

### Vice President of Business Development

Joined Advanced Roofing in 1991, and is responsible for sales and estimating. Oversees all estimating, project management, contract negotiations and vendor qualifications.

**Experience.** Nineteen years of experience in the roofing industry. Prior to joining Advanced Roofing, Danny was the General Manager of Cole and Stevens Roofing, Inc., responsible for supervision of all office, sales, and field operations.

**Education.** Associates Degree in Psychology from Moraine Valley Community College in Palos Hills, IL. Numerous credits in business courses from Northern Illinois University.



## Clint Sockman

### Vice President of Renewable Energy

**Experience.** Member of the American Society of Professional Estimators (ASPE). Construction Specifications Institute (CSI). State of Florida licensed solar contractor. Has been in the roofing business since the age of 12.

**Education.** University of Cincinnati, Information Systems minor in International Business.



[View our full team of experienced professionals](#)

# Safety

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In fulfilling our mission, Advanced Roofing Inc., recognizes a commitment to its employees to provide a safe and healthy workplace, an environment free from recognized hazards to the greatest degree possible. Our **Health, Safety and Environmental Programs**, have been created to protect our most valuable resource, our employees. The safety of every employee at Advanced Roofing is the highest priority.

Our objective is to prevent accidents. Therefore, all our activities are conducted according to local, state, and federal safety standards, codes, regulations, and appropriate industry standards.

Our **Health and Safety Plan** is the foundation of our safety program. Each level of management, supervision, and employees are obliged to become familiar with their assigned safety responsibilities, rules, procedures and execution. We will provide the training and resources necessary to achieve our safety goals and management/supervision will be held accountable for the results. A safe workplace is organized, clean, efficient, and uplifting to morale.

We view safety as a learned behavior. We implement the philosophy of **Behavioral Based Safety (BBS)**.

Advanced has more 30/10 hour OSHA trained employees than **anyone else in the state**, and is ranked as one of the **safest roofing contractors** in Florida by Furman Insurance.

## **Bryan Cardona - Corporate Director, Safety**

**Experience:** With eight years experienced in the areas of occupational safety and health management, Bryan leads all company safety operations. Bryan's goal is for Advanced Roofing to continue being an industry leader, promoting a safety culture and OSHA partnerships and alliances.

**Education:** Bryan is an OSHA Authorized Construction Trainer. This training permits him to perform the OSHA training for the 10 and 30 hour courses for our field staff.



# Maintenance and Warranty

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Preventative maintenance on your roof system is something that should be taken into careful consideration. At Advanced Roofing, we make sure your roof is in tip-top shape year-round. To ensure your roof is functioning properly, it is important to perform semi-annual inspections. These measures of preventative maintenance help to fix problems before further damage incurs, stop roof problems before they start, and guarantee that your roof has a longer service life.

## Don't wait... be proactive

- Some advantages of Advanced Roofing's Preventative / Proactive Maintenance Program are:
- Proactive maintenance that ensures your warranty remains intact
- Restoration options for qualifying roofs as opposed to replacement
- All types of roofs qualify -- built-up, modified bitumen, single-ply, metal, and tile

## A warranty is only as strong as the financial strength of the company that issues it

In addition to the **reputation** and **strength** of our company, your warranty is covered by not just our promise, but by our own captive insurance company, ARI Insurance, Inc.

With assets of over **\$2,600,000**, you will have insurance on your warranty to **cover and pay for any warranty repairs** in the unlikely event they are needed.

# Associations & Community Involvement

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Advanced Roofing believes strongly in community involvement, that's why we've committed our entire company to this belief. Here is a list of the organizations we participate in and professional organizations we are a member of:

## Professional Organizations

- National Roofing Contractors Association (NRCA)
- Sheet Metal & Air Conditioning Contractors National Association (SMACNA)
- Associated General Contractors(AGC)
- Roof Connect
- US Green Building Council
- Citizens for Clean Energy
- Florida Solar Energy Center
- American Society for Testing and Materials(ASTM)
- Building Owners & Managers Association (BOMA)
- National Association of Industrial and Office Properties (NAIOP)
- Roof Consultants Institution (RCI)
- Palm Beach County Hotel & Lodging Association
- Community Association Management Professionals (CAMP)
- The Executive Association of Fort Lauderdale
- WinterFest Board of Directors
- Construction Executive Association
- Broward Workshop
- Center of Environmental Invention in Roofing
- TEC Group
- Florida Roofing & Sheet Metal Association (FRSA)
- Construction Specifications Institute (CSI)
- Roofing Contractors of South Florida (RCASF)
- Executives Association of the Palm Beaches
- West Palm Beach Rotary Club
- Palm Beach Roofing & Sheet Metal Association
- Net W Group
- South Florida Building Officials Association

## Community Involvement

- Special Olympics Broward County
- Girl Scouts of Southeast Florida
- Reef Environmental Education Foundation
- Lance Armstrong Foundation
- National Multiple Sclerosis Society
- American Heart Association
- Florida Wildlife Federation
- American Cancer Society
- Huntington's Disease Society of America
- Deliver the Dream Foundation
- Leukemia & Lymphoma Society
- City of Lighthouse Point
- United Way
- South Broward Marine Magnet Programs
- Susan B. Anthony Recovery Center
- Annual Cigna Healthcare Golf Classic
- Habitat for Humanity
- McCormick Tribune Foundation
- Florida Sheriffs Association
- Cardinal Gibbons High School Athletics
- Dan Marino Foundation - Nova Southeastern University
- Links to Literacy
- Winterfest Boat Parade
- Florida Buddhist- Vihara-Disaster Relief Fund
- Military Order of the Purple Heart
- Broward Navy Days
- Riverwalk 100
- First Priority of South Florida
- FAU Athletics
- Jim Moran's Youth Automotive Training Center
- Humane Society of Broward MS 150 Bike Tour
- Frank Stark Celebration Ride
- Boys and Girls Clubs of Broward County
- Pine Crest School
- Cardinal Gibbons
- Boyd Anderson
- Palm Beach, Dade and Broward Schools

# Contract Terms & Conditions

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The following provisions form part of the contract between the parties hereto. Advanced Roofing, Inc. will be referred to as "Advanced":

**GUARANTEE:** Unless otherwise provided in the body of this contract, re-roofing jobs are guaranteed by ARI Insurance, Inc. for two years, the premium for which is included in the contract amount. The guarantee covers any defect in workmanship or in materials supplied by Advanced which cause a leak to the premises. The guarantee does not cover actions beyond the control of Advanced, including but not limited to windstorms, hurricanes, tornados, lightning, plant or animal life, such as termites, damage caused by Owner or other parties, or work done by parties not under the control of Advanced. Mechanical and electrical modifications are not part of Advanced 's responsibility unless included in the scope of work otherwise described herein. The extent of this guarantee shall not exceed the contract amount paid to Advanced Roofing and shall not extend to consequential damages. Claims made under this guarantee shall be made to ARI Insurance, Inc. c/o Advanced Roofing, Inc. Advanced Roofing is authorized to photograph the property in order to determine the scope of services, marketing, or other purposes associated with the project.

**CLAIMS:** All claims for nonfulfillment of the contract shall be made within 30 days from completion of the work. Advanced reserves the right to correct any condition for which it is responsible including damage to other property. In the event others repair or attempt to repair any problem with the work done by Advanced, unless authorized by Advanced in writing, all guarantees and warranties associated with this project shall be void and of no other further force and effect. Advanced shall not be liable for any cost of work or repairs to its work done by others unless previously authorized by Advanced in writing.

**PAYMENT:** Owner has represented to Advanced that it has the funds available to make payment and has further agreed to supply financial records satisfactory to Advanced, prior to commencement of construction. If Advanced in its sole discretion is not satisfied with Owner's current or future ability to pay it may terminate this contract. Final payment is due on the completion of the job and is a condition precedent to any warranty or guarantee obligation of Advanced or ARI Insurance, Inc. Any release, lien waiver or warranty issued pursuant to this project is delivered in escrow subject to payment and may be cancelled for nonpayment. Advanced's right to payment is not contingent upon the acceptance of work done by others and over which Advanced has no control. The prevailing party in any litigation, arbitration or mediation relating to this agreement shall be entitled to recover its reasonable attorneys' fees from the other party for all matters, including, but not limited to appeals. Broward County, Florida, shall be proper venue for any litigation involving this agreement. Interest shall be due on all amounts not paid within 30 days of the date due at eighteen percent per annum from the date payment was due. Owner hereby expressly consents to the exclusive personal jurisdiction of the state and federal courts located in Broward County, Florida for any lawsuit filed arising from or related to this Agreement and waives any argument that any such court lacks jurisdiction or that venue in such forum is not convenient. In the event Owner commences any action arising under this Agreement in another jurisdiction or venue, Advanced shall, at its sole option, be entitled to have the case transferred to one of the jurisdictions and venues above stated, or if such transfer cannot be accomplished under applicable law, Owner consents to have such case dismissed without prejudice.

**UNFORESEEN CONDITIONS:** This proposal is limited to the scope of work described and does not include structural issues which may be discovered during the course of the work. In the event that unforeseen conditions arise that were not apparent upon visual inspection, such additional work shall be performed on a time and material basis over the price stated in this contract. Examples of conditions which will be considered an unforeseen condition giving rise to an increase in the cost of the job would be the discovery of additional roofs during tear-off; or that the original roof was solidly mopped to the deck; deck replacement; deck securement/fastening; deck minimum gauge or deck conditions requiring repair beyond proposal allowance, or any other condition that Advanced should not reasonably have anticipated from visual inspection and included in the price provided for in the contract. It is recommended that a structural engineer inspect the roof deck.

**OWNER RESPONSIBILITIES:** Unless otherwise provided for in the body of this contract, Owner is responsible for any of the following conditions: Asbestos testing and removal expenses, if any; wind uplift and moisture testing if required; engineering and attachment or enhancement of the existing/proposed roof deck system and any structural component of the building; the condition of the existing/proposed deck slope, structural integrity of the deck, method of attachment of the deck, buried conduits, and equipment below the deck or any other structural deficiencies which may contribute to preventing positive drainage on the roof surface; Waterproofing of the building envelope, including windows, doors, or other areas outside the scope of work performed by Advanced. Owner may be responsible for moving or otherwise protecting signs, lighting antennas, satellite dishes or other property or equipment which interferes with the re-roofing of the property and agrees not to hold Advanced liable for damage to same unless Advanced accepted the responsibility therefore.

**PRE-CONSTRUCTION INSPECTION/LEAKS:** Roofs ready for replacement are generally leaky and holding water which may, through no fault of Advanced, leak into the building during the course of the re-roofing process. Advanced shall use best roofing practices to minimize the risk of leaks but owner agrees not to hold it liable for leaks not directly caused as a result of negligent practices. Additionally, interior damage generally pre-exists commencement of the re-roofing project. Owner agrees to provide access to all interior areas and top floor units in order for the parties to document pre-existing damage. The risk is upon Owner, who agrees to indemnify and hold Advanced harmless, against any claim by Owner or any other party seeking to hold Advanced liable for damages where Advanced was not provided access during its pre-construction inspections to the areas in question. Owner also shall have the responsibility to notify its residents of the steps that must be taken to protect their property, which will be contained in the Start-Up letter provided by Advanced. Owner shall also provide the staging area and cooperate to inform and assist in preventing residents or others from entering that area or any area under construction.

**PRICES QUOTED ARE FOR GALVANIZED** flashing, eves drip and gravel stop unless otherwise specified.

**UPLIFT STANDARDS:** All roofing systems will be installed in accordance with both the manufacturer's specifications and building code. Advanced does offer uplift guarantees but unless otherwise specified in this proposal post installation pressures are not guaranteed.

**EXISTING PROPERTY OR EQUIPMENT:** Unless otherwise specified in this contract, Advanced shall not be liable for damage to property or equipment, including signs, lighting fixtures, antennas, satellite dishes or other equipment at the property which is reasonably at risk from the work performed by Advanced. Any expenses incurred by Advanced to protect said property shall be paid for by Owner.



**RISK OF DAMAGE:** It can be expected that the work will cause vibration, which could cause damage to the building or its contents. The Owner is in the best position to secure said property or, in the case of others who occupy interior units, to advise them of the need to do so. Advanced does not assume any risk and shall not be held liable for damage to stained, cracked or damaged ceilings or ceiling components, cracked or damaged plaster, insulation, acoustical tile or personal property or fixtures within or about the building(s), cracks in driveways, curbs and sidewalks or soffit repair or replacement. Additionally, Advanced shall not be liable for damage to parked vehicles or property located in or about the staging area assigned for its use, or for any damage or injury for respiratory problems which may result from the odors associated with its work. The Owner shall advise its tenants and employees of these risks and concerns and take such action as it deems reasonable.

**DELAYS:** Advanced shall not be liable in any respect for any delays caused by strikes, labor disputes, court injunctions, actions by the Owner or by third parties, Acts of God, or other conditions outside of its control. In the event Advanced must remobilize as a result of any action for which the Owner is responsible, or due to weather or other conditions not the responsibility of Advanced, Advanced shall be entitled to an increase of the contract price attributed thereto. If it is necessary to perform additional work in order to protect the property from adverse weather, or to repair work damaged by adverse weather, Advanced will be entitled to a change order for reimbursement for same.

**MATERIAL PRICE CHANGES:** Due to extreme volatility in asphalt prices, the price set forth in this proposal/contract applies only to orders for asphalt products that are ordered and paid for within thirty (30) days of the date of this proposal/contract. All other orders shall be subject to change based upon changes in the price of asphalt-related products charged to Advanced. Similarly, if there is an increase in the price of steel products, isocyanurate insulation or other materials to be used on this project subsequent to making this proposal/contract, the price set forth in this proposal/contract shall be increased to reflect the additional cost to Advanced, who will submit written documentation of the increased charges. A fuel surcharge can be added if the price of fuel increases by more than 5% between the time the contract is signed and commencement.

**BREACH:** In the event Owner terminates or breaches this contract, or if a condition attributable to Owner or Owner's property arises that prevents Advanced from fulfilling the contract, Advanced shall be entitled to be paid that percentage of the contract price as the percentage of work performed; plus for work not performed, all expenses incurred in preparing to perform same, mobilization expenses and profit which would have been realized had the work been completed. If the contract is canceled as a result of strike, labor dispute or conditions not the fault of or attributable to either party hereto, Advanced shall be entitled to recover from Owner that percentage of the contract price as the percentage of work performed; plus for work not performed, all expenses incurred in preparing to perform same, mobilization expenses or other expenses incurred related to the project but not profit for work not performed.

**NO ORAL PROMISES:** There are no promises, representations or understandings outside of this instrument which instrument represents the complete agreement between the parties. No modification of this contract shall be valid unless in writing, signed by the party against whom the change is asserted. Any notification required by this contract shall be made in writing.

**LIMITATION OF LIABILITY:** Advanced Roofing is not liable for any claim for injury or damages, whether based upon a contractual, statutory or tort theory, which result from: (a) natural disasters including but not limited to lightning, windstorm, hail, hurricane, tornado, wind gale force or greater; (b) misuse, neglect, or unauthorized alterations of the roofing system or as a result of or connected with materials supplied or installed by others; (c) exposure to damaging substances such as oil, solvents etc.; (d) failure of the substrate, surface or materials under the roof; (e) improper drainage; (f) lack of recommended maintenance; (g) damage resulting from water entry from any portion of the building structure which is not a part of the roofing system, or (h) any claim related in any way to damage or injuries from mold, spores, fungus, any organic pathogen or exposure to toxic or noxious substances fumes or vapors. Advanced Roofing shall have no obligation under this Contract until all bills for installation, service, and materials have been paid for in full. The Owner will, at its expense initiate an ongoing maintenance program to include keeping all pitch pans filled with mastic, maintaining caulk or sealant around all roof penetrations, cap metal, cover plates, gravel stops, counterflashings, termination bars, exterior scuppers, gutters, down spouts and leader heads, and keeping the roof free of vegetation, trash and debris and such other miscellaneous items necessary to maintain the serviceability of the roofing system. If this roofing system is covered under a manufacturer's Warranty, Advanced is not liable for the provisions thereof. The warranty and liability of Advanced Roofing shall only accrue to and be for the benefit of the original Owner named herein, and is NOT assignable or transferable without prior written approval and inspection by Advanced Roofing.

**TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ADVANCED ROOFING, INC. DISCLAIMS ANY IMPLIED WARRANTY, INCLUDING THE WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, OR LIMITS SUCH WARRANTY TO THE DURATION AND TO THE EXTENT OF THE EXPRESS WARRANTY REPRESENTED BY THIS WARRANTY.**

Advanced Roofing's exclusive responsibility and liability under this warranty has been transferred to ARI Insurance, Inc. and, in the case of a new roof, to make repairs that may be necessary to maintain the roofing system in a watertight condition for the length of Advanced Roofing's warranty period; and in the case of a repair, to repair any additional leaks which result from faulty repair work done by Advanced Roofing. (Owner acknowledges that leaks may come from more than one possible source and that Advanced Roofing does not guarantee that it's repair will stop leaks not associated with the area repaired by it.) Advanced Roofing shall not be liable for its own negligence, or under theories of statutory or strict liability or any other theory of liability other than the exclusive liability set forth in this warranty which Owner agrees is its sole remedy notwithstanding the type or category of damages claimed. Under any circumstance, Advanced Roofing will not be liable for any personal injury claims, or claims for consequential damages to the structure (upon which the roofing system is affixed) or its contents, loss of time or profits or any inconvenience or expense incurred by Owner. Any change to the provisions of this section must be in writing and signed by a corporate officer of Advanced Roofing, Inc.

**ANY CLAIMS FOR CONSTRUCTION DEFECTS ARE SUBJECT TO THE NOTICE AND CURE PROVISIONS OF CHAPTER 558, FLORIDA STATUTES**