

**FIRST AMENDMENT  
TO  
CONSTRUCTION SERVICES AGREEMENT  
BETWEEN  
THE TOWN OF FOUNTAIN HILLS  
AND  
BARBAGALLO ELECTRIC, LLC**

THIS FIRST AMENDMENT TO CONSTRUCTION SERVICES AGREEMENT (this "First Amendment") is made as of November 3, 2011, between the Town of Fountain Hills, an Arizona municipal corporation (the "Town") and Barbagallo Electric, LLC, an Arizona limited liability company (the "Contractor").

RECITALS

A. The Town and Contractor entered into a Construction Services Agreement, dated June 20, 2011, for Contractor to provide construction and the installation services of fire station emergency generators at Fountain Hills Fire Stations No. 1 and No. 2 (the "Original Agreement").

B. The Original Agreement was amended once by change order on March 7, 2011 ("Change Order No. 1"), to modify the scope of work to include the installation of a window with fire-rated material, and to increase the compensation due to the Contractor by \$900.00 from \$21,890.00 to \$22,790.00. The Original Agreement and Change Order No. 1 are collectively referred to herein as the "Agreement."

C. The Town has determined that additional construction services are required from the Contractor for project completion and closeout due to modifications requested by the Town (the "Additional Services").

D. The Town and the Contractor desire to enter into this First Amendment to (i) modify the scope of work of the Agreement to include the Additional Services necessary for successful completion of the Work, (ii) extend the term of the Agreement to permit completion of the Additional Services and (iii) increase the compensation due to the Contractor under the Agreement as consideration for the Additional Services.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals, which are incorporated herein by reference, the following mutual covenants and conditions, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Town and the Contractor hereby agree as follows:

1. Term of Agreement. The term of the Agreement is hereby extended through January 2, 2012.

2. Scope of Work. The Contractor shall provide the Additional Services as set forth in Change Order No. 2, attached hereto as Exhibit A and incorporated herein by reference.

3. Compensation. The Contractor's total compensation under the Agreement shall be increased by no more than \$8,316.00 from \$22,790.00 to \$31,106.00 as consideration for the Additional Services as more particularly set forth in Exhibit A.

4. Effect of Amendment. In all other respects, the Agreement is affirmed and ratified and, except as expressly modified herein, all terms and conditions of the Agreement shall remain in full force and effect.

5. Non-Default. By executing this First Amendment, the Contractor affirmatively asserts that (i) the Town is not currently in default, nor has been in default at any time prior to this First Amendment, under any of the terms or conditions of the Agreement and (ii) any and all claims, known and unknown, relating to the Agreement and existing on or before the date of this First Amendment are forever waived.

6. Conflict of Interest. This First Amendment and the Agreement may be cancelled by the Town pursuant to ARIZ. REV. STAT. § 38-511.

[SIGNATURES ON FOLLOWING PAGES]

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the date and year first set forth above.

“Town”

TOWN OF FOUNTAIN HILLS, an Arizona municipal corporation

J. A. Ghetti  
Julie Ghetti, Interim Town Manager

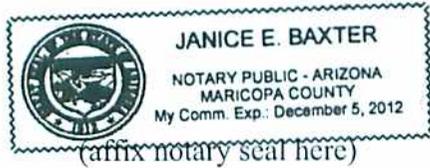
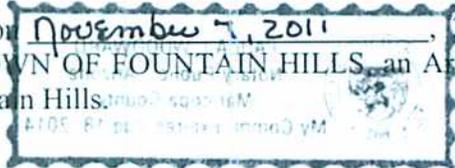
ATTEST:

Bevelyn J. Bender  
Bevelyn J. Bender, Town Clerk

(ACKNOWLEDGMENT)

STATE OF ARIZONA        )  
  ) ss.  
COUNTY OF MARICOPA    )

This instrument was acknowledged before me on November 7, 2011, 2011, by Julie Ghetti, the Interim Town Manager of the TOWN OF FOUNTAIN HILLS, an Arizona municipal corporation, on behalf of the Town of Fountain Hills.



Janice E. Baxter  
Notary Public in and for the State of Arizona

**"Contractor"**

BARBAGALLO ELECTRIC, LLC an Arizona  
limited liability company

By: Barbagallo Electric LLC

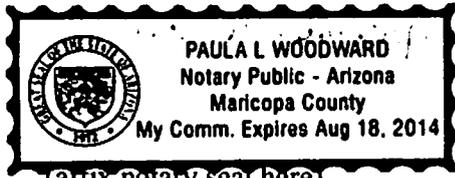
Name: Vincent Barbajallo

Title: owner

(ACKNOWLEDGMENT)

STATE OF ARIZONA        )  
  ) ss.  
COUNTY OF MARICOPA    )

This instrument was acknowledged before me on October 26, 2011,  
by Vincent Barbajallo as owner of BARBAGALLO ELECTRIC, LLC, an  
Arizona limited liability company, on behalf of the company.



(affix notary seal here)

Paula L Woodward  
Notary Public in and for the State of Arizona

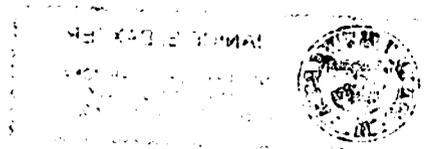


EXHIBIT A  
TO  
FIRST AMENDMENT  
TO  
CONSTRUCTION SERVICES AGREEMENT  
BETWEEN  
THE TOWN OF FOUNTAIN HILLS  
AND  
BARBAGALLO ELECTRIC, LLC

[Change Order No. 2]

See following pages.

**Town of Fountain Hills**  
 16705 E Avenue of the Fountains  
 Fountain Hills, AZ 85268  
 Phone: 480-816-5100  
 Fax: 480-837-3145

**Contact:** Mike Koveikis  
  
**E-mail:** [mkoveikis@fh.az.gov](mailto:mkoveikis@fh.az.gov)

**Change Order No.:** 2012-101.1

**Vendor #:** 1119

**Date:** November 3, 2011

**Vendor Name:** Barbagallo Electrical

**Phone:** 480-212-2473

**Fax:** 480-816-1125

**Contact:** Vincent Barbagallo

**Name of Project/Contract:** Fire Station Emergency Generators

**Contract #:** 2012-101 **Contract Effective Date:** June 16, 2011

**Project Completion Date:** January 2, 2012

**Description of Proposed Change Order:**

Install surge protectors at Fire Stations #1 and #2 that will protect emergency generators and electrical/communication equipment within the fire stations from power surges. Install concrete bollards at emergency generator sites.

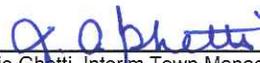
**Summary of Change Orders:**

Amount		Contract Time
<u>\$21,890.00</u>	Original Contract	
<u>\$900.00</u>	Change Order # 1	Original Contract: _____ days
<u>\$8,316.00</u>	Change Order # 2	Previous C.O.s: _____ days
_____	Change Order # _____	This Change Order: _____ days
_____	Change Order # _____	Total All C.O.s: _____ days
_____	Change Order # _____	Revised Contract: _____ days
<u>\$9,216.00</u>	Change Order # _____	
_____	Total of All Change Orders	
<u>\$31,106.00</u>	Revised Total Contract	

IT IS AGREED BY THE VENDOR that this Change Order includes any and all costs associated with or resulting from the change order herein, including all impact, delay and acceleration costs. Other than the dollar amount and time allowance listed above, there shall be no further time or dollar compensation as a result of this Change Order. This document shall become an amendment to the initial contract listed above and all conditions, stipulations and covenants of the initial contract shall apply hereto and shall remain in full force and effect.

**Town:**

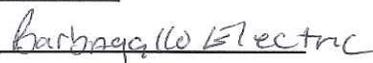
TOWN OF FOUNTAIN HILLS

By:   
 Julie Ghetti, Interim Town Manager

ATTEST:   
 Bevelyn J. Bender, Town Clerk

**Vendor:**

Barbagallo Electric

By: 

Name: Vincent Barbagallo

Title: ono

**FOR FOUNTAIN HILLS USE ONLY**

<b>G/L Code:</b>	<u>CIPF</u>	<u>8020</u>	<u>F4021</u>	<u>\$ 8,316.00</u>
	<small>Org</small>	<small>Object</small>	<small>Proj#</small>	
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>\$</u>
	<small>Org</small>	<small>Object</small>	<small>Proj#</small>	
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>\$</u>
	<small>Org</small>	<small>Object</small>	<small>Proj#</small>	



# Proposal/Invoice

Licensed Bonded & Insured  
 C11-254977 L11-254978

16605 E. Palisades #110/PMB 183  
 Fountain Hills, AZ 85268  
 Fax 480.816.1125  
[www.barbagalloelectric.com](http://www.barbagalloelectric.com)

DATE: OCTOBER 18, 2011

TO: THE TOWN OF FOUNTAIN HILLS  
 [Name] Mike Stretch  
 [Company Name]  
 [Street Address]  
 [City, ST ZIP Code]  
 [Phone]

FOR: FOUNTAIN HILLS FIRE DEPARTMENT 1 AND 2  
 [Project or service description] bollards installation  
 [P.O. #]

DESCRIPTION	AMOUNT
<p>Scope of work installs 8 new bollards 6 inches round by 6ft long. 2 ft will be incased with concrete and 4 ft will be above finish floor. Bollards will be filled solid with concrete.</p> <p>Barbagallo Electrical will provide all material and labor as needed for this project.</p> <p>Bollards will be painted yellow Labor and material - 3,600</p> <p>Thank you for the opportunity to bid this project. Vince Barbagallo, Barbagallo Electrical            10/11/11</p> <p>TOTAL \$ 3,960.00</p>	
	<p><b>SUBTOTAL</b> \$3,600</p>
<p>The prices, specifications, and conditions are satisfactory and hereby accepted. Barbagallo Electrical, LLC is authorized to complete all work as specified. Payment is due in full upon completion of the work listed, unless terms are otherwise specified in the proposal. Any requested additions or changes to the scope of work of this proposal that requires extra cost will require additional charges above and beyond those listed above.</p>	<p><b>SALES TAX %</b> 10%</p>
	<p><b>SALES TAX</b> \$360.00</p>
	<p><b>TOTAL</b> \$3,960</p>

Authorized Signature

Date

Proposal Valid Until



# Proposal/Invoice

Licensed Bonded & Insured  
C11-254977 L11-254978

16605 E. Palisades #110/PMB 183  
Fountain Hills, AZ 85268  
Fax 480.816.1125  
[www.barbagalloelectric.com](http://www.barbagalloelectric.com)

DATE: OCTOBER 18, 2011

TO: TOWN OF FOUNTAIN HILLS  
{Name} Stretch  
{Company Name}  
{Street Address}  
{City, ST ZIP Code}  
{Phone}

FOR: FIRE STATION 1  
{Project or service description}  
{P.O. #} Surge Protection  
9/9/2011

DESCRIPTION	AMOUNT
<p>Provide and install 400 amp single phase surge protector for main gear. This will protect entire building and generator. Labor-\$400, material- \$1,600</p> <p>Specifications will be email on another attachment.</p> <p>Thank you for the opportunity to bid this project. Vince Barbagallo, Barbagallo Electric</p>	

The prices, specifications, and conditions are satisfactory and hereby accepted. Barbagallo Electrical, LLC is authorized to complete all work as specified. Payment is due in full upon completion of the work listed, unless terms are otherwise specified in the proposal. Any requested additions or changes to the scope of work of this proposal that requires extra cost will require additional charges above and beyond those listed above.

SUBTOTAL	\$2,060
SALES TAX %	%
SALES TAX	\$206
TOTAL	\$2,266

Authorized Signature

Date

Proposal Valid Until

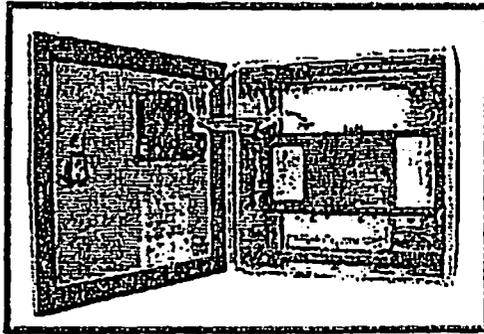
400A 1Ø Fire Station 1



ADVANCED PROTECTION  
TECHNOLOGIES INC.

TEXAS Series

Type 1 Surge Protective Device/SPD/TVSS



**Features:**

- UL 1449 Third Edition Listed (Sept 2009)
- 100kA – 500kA per phase ratings
- Type 1 SPD –
  - All UL required OCP & Safety Coordination included inside
  - Can be installed line-side or load-side of main disconnect
- 20kA Inominal (most models)
- 200kA SCCRs (most models)
- UL 96A Lightning Protection Master Label compliant (@20kA In)
- Voltage Specific Design – Highly configurable
- All MOV suppression elements monitored
- Optional Rotary Disconnect Switch

**Performance Specifications**

- | Surge Capacities | L-N   | L-G   | N-G   |
|------------------|-------|-------|-------|
| 100kA/phase      | 50kA  | 50kA  | 50kA  |
| 150kA/phase      | 100kA | 50kA  | 50kA  |
| 200kA/phase      | 100kA | 100kA | 100kA |
| 250kA/phase      | 150kA | 100kA | 100kA |
| 300kA/phase      | 150kA | 150kA | 150kA |
| 400kA/phase      | 200kA | 200kA | 200kA |
| 500kA/phase      | 250kA | 250kA | 250kA |
- UL 1449 Third Edition Listed, cUL, UL 1283 R/C
  - UL 1449-3 Type 1 SPD (cUL Type 2 optional)
  - UL 1449-3 tested Inominal: 20kA & 10kA
  - UL 1449-3 tested SCCR: 200kA & 100kA
  - UL 1449-3 Voltage Protection Ratings (VPRs):
    - 208Y/120V: as low as 600V
    - 480Y/277V: as low as 1000V
  - Less than 1 nanosecond response time
  - Repetitive Impulse: 5,000 hits
  - AC Sinewave Tracking Filter with EMI/RFI Filtering up to -50dB from 10kHz to 100MHz

**Diagnostic Monitoring**

- 100% monitoring – Every MOV is monitored, incl. N-G
- Green LED Status Indicator per phase
- Red LED service indicator
- Audible Alarm with Silence Switch
- Test Function: toggles red service LED, audible alarm & dry contact (if equipped)
- N-G overvoltage detection
- Phase Loss monitoring (toggles LED & dry contacts)
- Electrically isolated circuitry ensures surges do not damage diagnostics
- Form C Dry Contacts, 240V, 5A (two sets)
- Optional Surge Counter, six-digit LCD, with test function, reset & no-maintenance Eprom memory

**Design Features**

- Designed, Manufactured & Tested consistent with:
  - ANSI/IEEE C62.411-2002, C62.41.2-2002, and C62.45-2002
  - NEMA LS-1
  - NEC Article 285
  - IEC 61643
- High Energy Parallel Design for Category C3 & C-High applications
- For External Mounting next to Switchgear, Motor Controls Centers or Panelboards
- Individually Fused & Thermally Protected MOVs
- Large-Block, 34mm square, 50kA MOVs
- Replaceable Module Construction
- Solid State Bidirectional Operation

**Physical Specifications**

- Relative Humidity Range: 0-95% non-condensing
- Operating Frequency: 47-63Hz
- Operating Temperature: -25°C (-15°F) to +60°C (140°F)
- Weight: 24 lbs (11 kg)
- Standard NEMA 1/12/3R/4 enclosure
- Standard size: 12" x 12" x 7.5" (305mm x 305mm x 191mm)
- Lug size #2 - #14 AWG (w/opt. disconnect: #6 - #1/0)
- Typical connection: 46 AWG and 60A breaker

**Quality, Standards & Validation**

- UL 1449 Third Edition, cUL, UL 1283 R/C
- UL file: VZCA.E321351 at [www.UL.com](http://www.UL.com)
- RoHS-compliant
- IEC 61643, CE
- 10 year warranty (longer optional)
- Burn-In tested Prior to Shipment
- ISO 9001:2008 Quality Management System
- ISO 17025:2005 Laboratory Qualification
- Made in USA



Advanced Protection Technologies

14550 58th Street North • Clearwater, Florida 33760  
(800) 237-4567 • (727) 535-6339 • Fax (727) 539-8955

# Fire Station 1

## TEXAS MODEL NUMBER CONFIGURATION & OPTIONS

TE   XAS     ...

### Voltage Codes for Electrical System

- Common North American Systems:**
- 01 = 240/120V Split Phase - 1Ø 3W+Grnd (Fig 1)
  - 02 = 208Y/120V Wye - 3Ø 4W+Grnd (Fig 2)
  - 03 = 240/120V High Leg Delta (B High) (Fig 3)
  - 04 = 480Y/277V Wye - 3Ø 4W+Grnd (Fig 2)
  - 05 = 480V Delta - 3Ø 3W+Grnd (Fig 4) & HRG Wye (450kA replaces 400kA or 500kA)
  - 08 = 600Y/347V Wye - 3Ø 4W+Grnd (Fig 2)
- Other Available Systems - Confirmation encouraged:**
- 15 = 254/127V Split Phase - 1Ø 3W+Grnd (Fig 1)
  - 18 = 480/277V 2-Pole, (480/240V Split Phase) (Fig 1)
  - 21 = 220V/127V Wye - 3Ø 4W+Grnd (Fig 2)
  - 41 = 520Y/300V Wye - 3Ø 4W+Grnd (Fig 2)
  - 42 = 415Y/240V Wye - 3Ø 4W+Grnd (Fig 2)
  - 43 = 400Y/230V Wye - 3Ø 4W+Grnd (Fig 2)
  - 44 = 440Y/250V Wye - 3Ø 4W+Grnd (Fig 2)
  - 51 = 480V B Corner Grnd Delta, 3Ø 3W+Grnd (Fig 5) (450kA replaces 400kA or 500kA)
  - 06 = 240V Delta - 3Ø 3W+Grnd (Fig 4) (450kA replaces 400kA or 500kA)
  - 61 = 240V B Corner Grnd Delta, 3Ø 3W+Grnd (Fig 6) (450kA replaces 400kA or 500kA)
  - 07 = 380Y/220V Wye - 3Ø 4W+Grnd (Fig 2)
  - 09 = 600V Delta - 3Ø 3W+Grnd (Fig 4) & HRG Wye (Available: 100kA, 150kA, 200kA, 250kA)
  - 91 = 600V B Corner Grnd Delta, 3Ø 3W+Grnd (Fig 6) (Available: 100kA, 150kA, 200kA, 250kA)
  - 11 = 120V Single Phase (Fig 5)
  - 12 = 240V Single Phase (Fig 5) - Not split phase
  - 13 = 127V Single Phase (Fig 5)
  - 14 = 300V Single Phase (Fig 5)
  - 16 = 277V Single Phase (Fig 5)
  - 17 = 480V Single Phase (1 Hot, 1 Neu, 1 Grnd) (Fig 5)

### Surge Current Rating

- 10 = 100kA/Phase
- 15 = 150kA/Phase
- 20 = 200kA/Phase
- 25 = 250kA/Phase
- 30 = 300kA/Phase
- 40 = 400kA/Phase
- 45 = 450kA/Phase
- Voltage Codes 05, 51, 06 & 01)
- 50 = 500kA/Phase

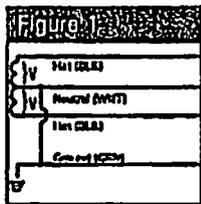
### Options

- X = Surge Counter, six-digit LCD counter includes maintenance-free Eprom memory backup
  - E = Remote Locatable Display on 4 ft Cable custom cable lengths available
  - F = Noise Filtering - Extended Range & Attenuation (available on 400kA & 500kA models)
  - D = Rotary Disconnect Switch, Bussmann, UL98
  - T = Thru-Door Rotary Disconnect Switch, Bussmann, UL98, E1 enclosure only (Consult factory for other disconnect switch options)
  - 2 = Type 2 SPD Bearing cUL Mark
- Delete Options - Consult Factory for Order Code**
- Delete L-N Protection (reduces kA rating)
  - Delete L-G Protection (reduces kA rating)
  - Delete N-G Protection (reduces kA rating)
  - Delete Noise Filtering

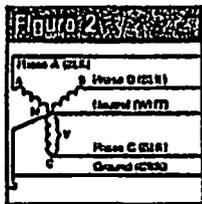
Available Accessory (order separately)  
RM = Remote Monitor

### Enclosure Rating

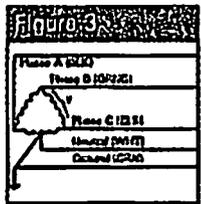
- E1 = NEMA 1/12/3R/4 (size: 12" x 12" x 7.5")
- 4X = NEMA 4X Non-Metallic (size: 14" x 12" x 6") (polycarbonate, display inside clear front door)
- 4S = NEMA 4X Stainless Steel (size: 12" x 12" x 6") (display inside door)
- FM = NEMA 1 Flush Mount (wall cavity size: 12" x 12" x 6" deep)
- P1 = NEMA 1 pullbox 'indoor' (size: 12" x 12" x 6") Includes 'E' option (Optional rotary disconnect increases enclosure sizes to 16" x 14" x 6" on models > 300kA)



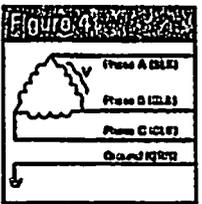
**SPLIT**  
2 Hots, 1 Neu, 1 Grnd



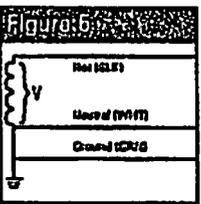
**WYE**  
3 Hots, 1 Neu, 1 Grnd



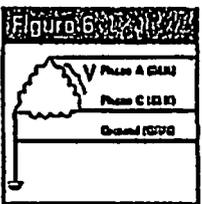
**H-LEG DELTA (B High)**  
3 Hots, (B High), 1 Neu, 1 Grnd



**DELTA & HRG WYE**  
3 Hots, 1 Grnd



**SINGLE POLE**  
1 Hot, 1 Neu, 1 Grnd



**CORNER GROUND DELTA (B grounded)**  
2 Hots, 1 Grnd

## Performance Data

Common North American Systems		UL 1449 THIRD Edition (Sept 2009) Test Data							
		Voltage Protection Ratings (VPR - 3kA)							
		L-N	L-G	N-G	LL	Type	In	SCCR	MCOV
01	240/120V Split Phase (<300kA)	700	700	700	1200	Type 1	70kA	100kA	150
01	240/120V Split Phase (>300kA)	700	600	600	1000	Type 1	70kA	100kA	150
02	208Y/120V 3Ø Wye (<300kA)	700	700	700	1200	Type 1	70kA	200kA	150
02	208Y/120V 3Ø Wye (>300kA)	700	600	600	1000	Type 1	70kA	200kA	150
03	240Y/120V High Leg Delta (<300kA)	700/1200	700/1200	700	1800	Type 1	70kA	200kA	150 / 320
03	240Y/120V High Leg Delta (>300kA)	1200	1200	1200	2000	Type 1	70kA	200kA	220
04	480Y/277V 3Ø Wye (<300kA)	1200	1000	1000	1800	Type 1	70kA	250kA	320
04	480V 3Ø Delta (<300kA)	-	1800	-	1800	Type 1	10kA	200kA	550
05	480V 3Ø Delta (>450kA)	-	1800	-	1800	Type 1	70kA	200kA	650
08	600Y/347V 3Ø Wye (<300kA)	1500	1500	1500	2500	Type 1	10kA	200kA	470
08	600Y/347V 3Ø Wye (>300kA)	1500	1500	1500	2500	Type 1	70kA	200kA	470

### Other Available Systems:

Please see supplementary data sheet, contact us at info@aptvss.com, or confirm at www.LL.com using CCN of VZCA  
Optional disconnect switch may increase VFRs

Advanced Protection Technologies  
14550 58th Street North · Clearwater, Florida 33760  
(800) 237-4567 · (727) 535-8339 · Fax (727) 539-8955  
www.aptvss.com · info@aptvss.com





# Proposal/Invoice

Licensed Bonded & Insured  
 C11-254977 L11-254978

16605 E. Palisades #110/PMB 133  
 Fountain Hills, AZ 85268  
 Fax 480.816.1125  
[www.barbagalloelectric.com](http://www.barbagalloelectric.com)

DATE: OCTOBER 18, 2011

TO: TOWN OF FOUNTAIN HILLS  
 [Name] Stretch  
 [Company Name]  
 [Street Address]  
 [City, ST ZIP Code]  
 [Phone]

FOR: FIRE STATION 2  
 [Project or service description]  
 [P.O. #]  
 9/9/2011

DESCRIPTION	AMOUNT
Provide and install two 200 amp surge protectors. One for each panel which will protect entire building and generator. Material- \$1,400, labor- \$500 Thank you for the opportunity to bid this project, Vince Barbagallo, Barbagallo Electric	
SUBTOTAL	\$1,900
SALES TAX %	%
SALES TAX	\$190
TOTAL	\$2,090

The prices, specifications, and conditions are satisfactory and hereby accepted. Barbagallo Electrical, LLC is authorized to complete all work as specified. Payment is due in full upon completion of the work listed, unless terms are otherwise specified in the proposal. Any requested additions or changes to the scope of work of this proposal that requires extra cost will require additional charges above and beyond those listed above.

Authorized Signature

Date

Proposal Valid Until

200A 3Ø

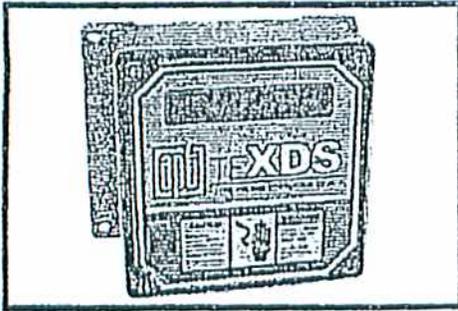
Fire station 2



ADVANCED PROTECTION  
TECHNOLOGIES INC.

TEXDS Series

Type 1 Surge Protective Device/SPD/TVSS



**Features:**

- UL 1449 Third Edition Listed (Sept 2009)
- 100kA – 200kA per phase ratings
- Type 1 SPD –
  - All UL required OCP & Safety Coordination included inside
  - Can be installed line-side or load-side of main disconnect
- 20kA Inominal ( $I_n$ ) (most models)
- 200kA SCCR (most models)
- UL 96A Lightning Protection Master Label compliant (@20kA  $I_n$ )
- Voltage Specific Design – Highly configurable
- All MOV suppression elements monitored

**Performance Specifications**

- | Surge Capacities | L-N   | L-G   | N-G   |
|------------------|-------|-------|-------|
| 100kA/phase      | 50kA  | 50kA  | 50kA  |
| 150kA/phase      | 100kA | 50kA  | 50kA  |
| 200kA/phase      | 100kA | 100kA | 100kA |
- UL 1449 Third Edition Listed, UL 1283 R/C and cUL
  - UL 1449-3 Type 1 SPD (cUL Type 2 optional)
  - UL 1449-3 tested Inominal ( $I_n$ ): 20kA & 10kA
  - UL 1449-3 tested SCCR: 200kA & 100kA
  - UL 1449-3 Voltage Protection Ratings (VPRs):
    - 208Y/120V: as low as 600V
    - 480Y/277V: as low as 1000V (data table on back)
  - Less than 1 nanosecond response time
  - Repetitive Impulse: 5,000 hits
  - AC Sinewave Tracking Filter with EMI/RFI Filtering up to -50dB from 10kHz to 100MHz

**Physical Specifications**

- Relative Humidity Range: 0-95% non-condensing
- Operating Frequency: 47-63Hz
- Operating Temperature: -25°C (-15°F) to +60°C (140°F)
- Weight: 5 lbs (2.3 kg)
- NEMA 4X Polycarbonate enclosure – UL 746C(I1) & UL 94-5VA
- Dimensions: 6" x 6" x 4" (152mm x 152mm x 102mm) (excluding removable mounting feet)
- Lug size: #8 - #10 AWG
- Typical connection: #8 AWG and 40A breaker

**Design Features**

- Designed, Manufactured & Tested consistent with:
  - ANSI/IEEE C62.41.1-2002, C62.41.2-2002, and C62.45-2002
  - NEMA LS-1
  - NEC Article 285
  - IEC 61643, CE
- High Energy Parallel Design for Category C3 & C-High applications
- For External Mounting next to Switchgear, Motor Controls Centers or Panelboards
- Individually Fused & Thermally Protected MOVs
- Large-Block, 34mm square, 50kA MOVs
- Solid State Bidirectional Operation

**Diagnostic Monitoring:**

- 100% monitoring – Every MOV is monitored, incl. N-G
- Green LED Status indicator per phase
- Red LED service indicator
- Phase Loss monitoring (toggles LED & dry contact)
- Electrically isolated circuitry ensures surges do not damage diagnostics
- Optional: Audible Alarm & Form C Dry Contact (Contact rated 240V, 5A)

**Quality, Standards & Validation:**

- UL 1449 Third Edition, cUL, UL 1283 R/C
- UL file: VZCA.E321351 at [www.UL.com](http://www.UL.com)
- RoHS-compliant
- IEC 61643, CE
- 10 year warranty (longer optional)
- Burn-In tested Prior to Shipment
- ISO 9001:2008 Quality Management System
- ISO 17025:2005 Laboratory Qualification
- Made in USA



Advanced Protection Technologies

14550 59th Street North - Clearwater, Florida 33760

(800) 237-4567 · (727) 535-6339 · Fax (727) 539-8955

[www.apptvss.com](http://www.apptvss.com) · [info@apptvss.com](mailto:info@apptvss.com)

[www.aoltsuna.com](http://www.aoltsuna.com) · [info@aoltsuna.com](mailto:info@aoltsuna.com)



# Proposal/Invoice

Licensed Bonded & Insured  
 C11-251977 L11-251978

16605 E. Palisades #110/PMB 183  
 Fountain Hills, AZ 85268  
 Fax 480.816.1125  
[www.barbagalloelectric.com](http://www.barbagalloelectric.com)

DATE: OCTOBER 18, 2011

TO: TOWN OF FOUNTAIN HILLS  
 [Name] Stretch  
 [Company Name]  
 [Street Address]  
 [City, ST ZIP Code]  
 [Phone]

FOR: FIRE STATION 2  
 [Project or service description]  
 [P.O. #]  
 9/9/2011

DESCRIPTION	AMOUNT
Provide and install two 200 amp surge protectors. One for each panel which will protect entire building and generator. Material- \$1,400, labor- \$500 Thank you for the opportunity to bid this project. Vince Barbagallo, Barbagallo Electric	
	SUBTOTAL \$1,900
	SALES TAX % %
	SALES TAX \$190
	TOTAL \$2,090

The prices, specifications, and conditions are satisfactory and hereby accepted. Barbagallo Electrical, LLC is authorized to complete all work as specified. Payment is due in full upon completion of the work listed, unless terms are otherwise specified in the proposal. Any requested additions or changes to the scope of work of this proposal that requires extra cost will require additional charges above and beyond those listed above.

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_ Proposal Valid Until \_\_\_\_\_

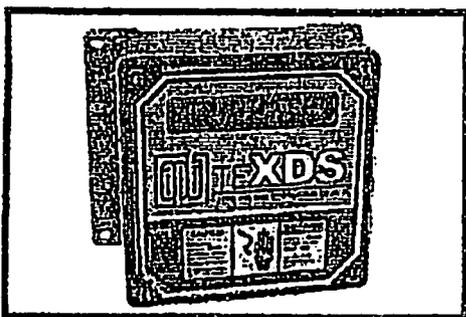
200A 3Ø

Fire Station 2



ADVANCED PROTECTION TECHNOLOGIES INC.

# TEXDS Series Type 1 Surge Protective Device/SPD/TVSS



### Features:

- UL 1449 Third Edition Listed (Sept 2009)
- 100kA – 200kA per phase ratings
- Type 1 SPD –
  - All UL required OCP & Safety Coordination included inside
  - Can be installed line-side or load-side of main disconnect
- 20kA Nominal ( $I_n$ ) (most models)
- 200kA SCCRs (most models)
- UL 96A Lightning Protection Master Label compliant (@20kA  $I_n$ )
- Voltage Specific Design – Highly configurable
- All MOV suppression elements monitored

### Performance Specifications

- | Surge Capacities | L-N   | L-G   | N-G   |
|------------------|-------|-------|-------|
| 100kA/phase      | 50kA  | 50kA  | 50kA  |
| 150kA/phase      | 100kA | 50kA  | 50kA  |
| 200kA/phase      | 100kA | 100kA | 100kA |
- UL 1449 Third Edition Listed, UL 1283 R/C and cUL
  - UL 1449-3 Type 1 SPD (cUL Type 2 optional)
  - UL 1449-3 tested Nominal ( $I_n$ ): 20kA & 10kA
  - UL 1449-3 tested SCCR: 200kA & 100kA
  - UL 1449-3 Voltage Protection Ratings (VPRs):
    - 208Y/120V: as low as 600V
    - 480Y/277V: as low as 1000V (data table on back)
  - Less than 1 nanosecond response time
  - Repetitive Impulse: 5,000 hits
  - AC Sinewave Tracking Filter with EMI/RFI Filtering up to -50dB from 10kHz to 100MHz

### Physical Specifications

- Relative Humidity Range: 0-95% non-condensing
- Operating Frequency: 47-63Hz
- Operating Temperature: -25°C (-15°F) to +60°C (140°F)
- Weight: 5 lbs (2.3 kg)
- NEMA 4X Polycarbonate enclosure – UL 746C(I1) & UL 94-5VA
- Dimensions: 6" x 6" x 4" (152mm x 152mm x 102mm) (excluding removable mounting feet)
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- Typical connection: #8 AWG and 40A breaker

### Design Features

- Designed, Manufactured & Tested consistent with:
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  - NEMA LS-1
  - NEC Article 285
  - IEC 61643, CE
- High Energy Parallel Design for Category C3 & C-High applications
- For External Mounting next to Switchgear, Motor Controls Centers or Panelboards
- Individually Fused & Thermally Protected MOVs
- Large-Block, 34mm square, 50kA MOVs
- Solid State Bidirectional Operation

### Diagnostic Monitoring:

- 100% monitoring – Every MOV is monitored, incl. N-G
- Green LED Status indicator per phase
- Red LED service indicator
- Phase Loss monitoring (toggles LED & dry contact)
- Electrically isolated circuitry ensures surges do not damage diagnostics
- Optional: Audible Alarm & Form C Dry Contact (Contact rated 240V, 5A)

### Quality, Standards & Validation:

- UL 1449 Third Edition, cUL, UL 1283 R/C
- UL file: VZCA.E321351 at [www.UL.com](http://www.UL.com)
- RoHS-compliant
- IEC 61643, CE
- 10 year warranty (longer optional)
- Burn-In tested Prior to Shipment
- ISO 9001:2008 Quality Management System
- ISO 17025:2005 Laboratory Qualification
- Made in USA



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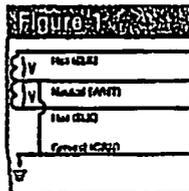
[www.apttvss.com](http://www.apttvss.com) • [info@apttvss.com](mailto:info@apttvss.com) • [www.aptsuina.com](http://www.aptsuina.com) • [info@aptsuina.com](mailto:info@aptsuina.com)

# Fire Station 2

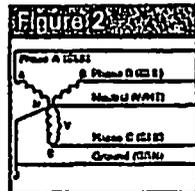
## teXDS Model Number CONFIGURATOR & OPTIONS

TE         XDS         4X    ...

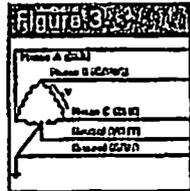
Voltage Code for Electrical System	Surge Current Rating	Options
<p><b>Common North American Systems:</b></p> <p>01 = 240/120V Split Phase - 1Ø 3W+Grnd (Fig 1)                      02 = 208Y/120V Wye - 3Ø 4W+Grnd (Fig 2)                      03 = 240/120V High Leg Delta (B High) (Fig 3)                      04 = 480Y/277V Wye - 3Ø 4W+Grnd (Fig 2)                      05 = 480V Delta - 3Ø 3W+Grnd (Fig 4) &amp; HRG Wye                      08 = 600Y/347V Wye - 3Ø 4W+Grnd (Fig 2)</p> <p><b>Other Available Systems - Confirmation encouraged:</b></p> <p>15 = 254/127V Split Phase - 1Ø 3W+Grnd (Fig 1)                      18 = 480/277V 2-Pole, (480/240V Split Phase) (Fig 1)                      21 = 220Y/127V Wye - 3Ø 4W+Grnd (Fig 2)                      41 = 520Y/300V Wye - 3Ø 4W+Grnd (Fig 2)                      42 = 415Y/240V Wye - 3Ø 4W+Grnd (Fig 2)                      43 = 400Y/230V Wye - 3Ø 4W+Grnd (Fig 2)                      44 = 440Y/250V Wye - 3Ø 4W+Grnd (Fig 2)                      51 = 480V B Corner Grnd Delta, 3Ø 3W+Grnd (Fig 6)                      06 = 240V Delta - 3Ø 3W+Grnd (Fig 4)                      61 = 240V B Corner Grnd Delta, 3Ø 3W+Grnd (Fig 6)                      07 = 380Y/220V Wye - 3Ø 4W+Grnd (Fig 2)                      09 = 600V Delta - 3Ø 3W+Grnd (Fig 4) &amp; HRG Wye                      (Available: 100kA)                      91 = 600V B Corner Grnd Delta, 3Ø 3W+Grnd (Fig 6)                      (Available: 100kA)                      11 = 120V Single Phase (Fig 5)                      12 = 240V Single Phase (Fig 5) - Not split phase                      13 = 127V Single Phase (Fig 5)                      14 = 300V Single Phase (Fig 5)                      16 = 277V Single Phase (Fig 5)                      17 = 480V Single Phase (1 Hot, 1 Neu, 1 Grnd) (Fig 5)</p>	<p>10 = 100kA/Phase                      15 = 150kA/Phase                      20 = 200kA/Phase</p>	<p>A = Audible Alarm &amp; Dry Contacts, Form C, 240V, 5A                      2 = Type 2 SPD Bearing cUL Mark</p> <p><b>Delete Options - Consult Factory for Order Code</b>                      Delete L-N Protection (reduces kA rating)                      Delete L-G Protection (reduces kA rating)                      Delete N-G Protection (reduces kA rating)                      Delete Noise Filtering</p> <p><b>Available Accessory (order separately)</b>                      KITFMXF = Flush Mount Kit                      RM = Remote Monitor</p>
<p><b>Enclosure Rating</b></p> <p>4X = NEMA 4X Non-Metallic (size 6" x 6" x 4")</p>		



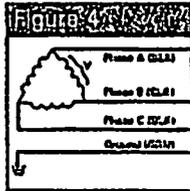
**SPLIT**  
2 Hots, 1 Neu, 1 Grnd



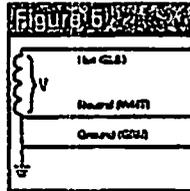
**WYE**  
3 Hots, 1 Neu, 1 Grnd



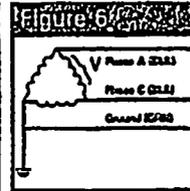
**HI-LEG DELTA (B High)**  
3 Hots, (B HIGH), 1 Neu, 1 Grnd



**DELTA & HRG Wye**  
3 Hots, 1 Grnd



**SINGLE POLE**  
1 Hot, 1 Neu, 1 Grnd



**CORNER GROUND DELTA (B grounded)**  
3 Hots, 1 Grnd

### Performance Data

Common North American Systems	UL 1449 THIRD Edition (Sept 2009) Test Data							
	Voltage Protection Ratings (VPR - 3kA)							
	L-N	L-G	N-G	L-L	Type	In	SCCR	MCOV
01 = 240/120V Split Phase	700	700	600	1000	Type 1	70kA	100kA	150
02 = 208Y/120V 3Ø Wye	700	700	800	1000	Type 1	70kA	700kA	150
03 = 240Y/120V High Leg Delta	700/1200	700/1200	600	1000/2000	Type 1	70kA	700kA	150 / 370
04 = 480Y/277V 3Ø Wye	1200	1200	1200	2000	Type 1	20kA	700kA	370
05 = 480V 3Ø Delta	-	1600	-	7000	Type 1	10kA	700kA	550
08 = 600Y/347V 3Ø Wye	1500	1500	1500	2500	Type 1	10kA	700kA	470

**Other Available Systems:**  
 Please see supplementary data sheet, contact us at info@aptivss.com, or confirm at www.UL.com using CCN of VZCA  
 Optional disconnect switch may increase VPRs

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