

# REQUEST FOR LEGISLATIVE ACTION

Completed by County Counselor's Office:

Res/Ord No.: 19263

Sponsor(s): Tony Miller

Date: September 26, 2016

SUBJECT	Action Requested <input checked="" type="checkbox"/> Resolution <input type="checkbox"/> Ordinance  Project/Title: <u>Authorizing the Purchase and Installation of Shade Canopy Structures for the Parks + Rec Department to PlayPower/USA Shade of Monett, MO under the term and conditions of Request for Proposals No. 25-16.</u>																												
BUDGET INFORMATION <i>To be completed By Requesting Department and Finance</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Amount authorized by this legislation this fiscal year:</td> <td style="text-align: right;">\$55,150.00</td> </tr> <tr> <td>Amount previously authorized this fiscal year:</td> <td></td> </tr> <tr> <td>Total amount authorized after this legislative action:</td> <td style="text-align: right;">\$55,150.00</td> </tr> <tr> <td>Amount budgeted for this item * (including transfers):</td> <td style="text-align: right;">\$55,150.00</td> </tr> <tr> <td>Source of funding (name of fund) and account code number:</td> <td></td> </tr> <tr> <td>Park Enterprise Fund, Enterprise, Other Improvements – 300-5300-58060</td> <td style="text-align: right;">\$49,457.45</td> </tr> <tr> <td>Park Fund, Capital Projects, Other Improvements - 003-1608-58060</td> <td style="text-align: right;">\$ 5,692.55</td> </tr> <tr> <td><b>Total</b></td> <td style="text-align: right;"><b>\$55,150.00</b></td> </tr> </table> <p>* If account includes additional funds for other expenses, total budgeted in the account is: \$</p> OTHER FINANCIAL INFORMATION:  <input type="checkbox"/> No budget impact (no fiscal note required) <input type="checkbox"/> Term and Supply Contract (funds approved in the annual budget); estimated value and use of contract: Department: _____ Estimated Use: \$ _____  Prior Year Budget (if applicable): _____ Prior Year Actual Amount Spent (if applicable): _____	Amount authorized by this legislation this fiscal year:	\$55,150.00	Amount previously authorized this fiscal year:		Total amount authorized after this legislative action:	\$55,150.00	Amount budgeted for this item * (including transfers):	\$55,150.00	Source of funding (name of fund) and account code number:		Park Enterprise Fund, Enterprise, Other Improvements – 300-5300-58060	\$49,457.45	Park Fund, Capital Projects, Other Improvements - 003-1608-58060	\$ 5,692.55	<b>Total</b>	<b>\$55,150.00</b>												
Amount authorized by this legislation this fiscal year:	\$55,150.00																												
Amount previously authorized this fiscal year:																													
Total amount authorized after this legislative action:	\$55,150.00																												
Amount budgeted for this item * (including transfers):	\$55,150.00																												
Source of funding (name of fund) and account code number:																													
Park Enterprise Fund, Enterprise, Other Improvements – 300-5300-58060	\$49,457.45																												
Park Fund, Capital Projects, Other Improvements - 003-1608-58060	\$ 5,692.55																												
<b>Total</b>	<b>\$55,150.00</b>																												
PRIOR LEGISLATION	Prior ordinances and (date): _____ Prior resolutions and (date): _____																												
CONTACT INFORMATION	RLA drafted by (name, title, & phone): Jessica Johnson, Senior Buyer, 881-3465																												
REQUEST SUMMARY	The Parks + Rec Department requested the Design, Permitting, Fabrication, Construction and Installation of Shade Canopy Structures for the Frank White Jr. Softball Complex. The Purchasing Department issued Request for Proposals No. 25-16 in response to that request.  A total of seventeen notifications were distributed and three responses were received and evaluated by a three person committee consisting of Parks + Rec Department personnel as follows: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Evaluation Criteria (1 lowest, 10 highest)</th> <th style="text-align: center;">ABCreative</th> <th style="text-align: center;">McCown Gordon Construction</th> <th style="text-align: center;">PlayPower/USA Shade</th> </tr> </thead> <tbody> <tr> <td>Responsiveness to RFP (5%)</td> <td style="text-align: center;">8</td> <td style="text-align: center;">8</td> <td style="text-align: center;">8</td> </tr> <tr> <td>Proposed Method of Performance (15%)</td> <td style="text-align: center;">9</td> <td style="text-align: center;">9</td> <td style="text-align: center;">9</td> </tr> <tr> <td>Equipment Proposed (30%)</td> <td style="text-align: center;">9</td> <td style="text-align: center;">10</td> <td style="text-align: center;">10</td> </tr> <tr> <td>Experience, Qualifications &amp; References (15%)</td> <td style="text-align: center;">10</td> <td style="text-align: center;">7</td> <td style="text-align: center;">10</td> </tr> <tr> <td>Pricing (35%)</td> <td style="text-align: center;">8</td> <td style="text-align: center;">1</td> <td style="text-align: center;">10</td> </tr> <tr> <td><b>Total Weighted Score</b></td> <td style="text-align: center;"><b>60%</b></td> <td style="text-align: center;"><b>58%</b></td> <td style="text-align: center;"><b>63%</b></td> </tr> </tbody> </table> <p>Pursuant to Section 1054.6 of the Jackson County Code, the Director of Finance and Purchasing recommends the award for the Purchase and Installation of Shade Canopy Structures for the Parks + Rec Department to PlayPower/USA Shade of Monett, MO as the lowest and best proposal received.</p>	Evaluation Criteria (1 lowest, 10 highest)	ABCreative	McCown Gordon Construction	PlayPower/USA Shade	Responsiveness to RFP (5%)	8	8	8	Proposed Method of Performance (15%)	9	9	9	Equipment Proposed (30%)	9	10	10	Experience, Qualifications & References (15%)	10	7	10	Pricing (35%)	8	1	10	<b>Total Weighted Score</b>	<b>60%</b>	<b>58%</b>	<b>63%</b>
Evaluation Criteria (1 lowest, 10 highest)	ABCreative	McCown Gordon Construction	PlayPower/USA Shade																										
Responsiveness to RFP (5%)	8	8	8																										
Proposed Method of Performance (15%)	9	9	9																										
Equipment Proposed (30%)	9	10	10																										
Experience, Qualifications & References (15%)	10	7	10																										
Pricing (35%)	8	1	10																										
<b>Total Weighted Score</b>	<b>60%</b>	<b>58%</b>	<b>63%</b>																										

CLEARANCE	<input type="checkbox"/> Tax Clearance Completed (Purchasing & Department) N/A <input type="checkbox"/> Business License Verified (Purchasing & Department) N/A <input checked="" type="checkbox"/> Chapter 6 Compliance - Affirmative Action/Prevailing Wage (County Auditor's Office)	
ATTACHMENTS	Memo from Tina Spallo, Parks + Rec with supporting evaluation documentation; Proposal Recap; Pertinent pages from PlayPower/USA Shade's proposal.	
REVIEW	Department Director: <i>[Signature]</i>	Date: 9-16-16
	Finance (Budget Approval): If applicable <i>Mary Rasmussen</i>	Date: 9/19/16
	Division Manager: <i>Mary Jane Bowers</i>	Date: 9/21/16
	County Counselor's Office:	Date:

Fiscal Information (to be verified by Budget Office in Finance Department)

- This expenditure was included in the annual budget.
- Funds for this were encumbered from the \_\_\_\_\_ Fund in \_\_\_\_.
- There is a balance otherwise unencumbered to the credit of the appropriation to which the expenditure is chargeable and there is a cash balance otherwise unencumbered in the treasury to the credit of the fund from which payment is to be made each sufficient to provide for the obligation herein authorized.
- Funds sufficient for this expenditure will be/were appropriated by Ordinance #
- Funds sufficient for this appropriation are available from the source indicated below.

Account Number:	Account Title:	Amount Not to Exceed:

- This award is made on a need basis and does not obligate Jackson County to pay any specific amount. The availability of funds for specific purchases will, of necessity, be determined as each using agency places its order.
- This legislative action does not impact the County financially and does not require Finance/Budget approval.



# MEMORANDUM

To: Jessica Johnson, Senior Buyer, Purchasing Dept.

From: Tina Spallo, Supt. of Recreation, Parks + Rec Dept. 

Re: RFP No. 25-16 Shade Canopy Structures

Date: September 15, 2016

---

I have reviewed the bids submitted for the furnishing and installation of (10) shade canopy structures at the Frank White, Jr. Softball Complex. I recommend the award be given to PlayPower/USA Shade due to their ability to provide the specified equipment and installation at the lowest bid price.

This one time purchase will be funded from budget numbers

300-5300-58060 \$49,457.45

003-1608-58060 \$ 5,692.55

If you have any questions please do not hesitate to contact me at 816-503-4872.

Commodity: Shade Canopy Structures

Vendor: ABCreative of De Soto, KS

Bid Recap		Quote			
REQUIRED SUBMITTALS	Yes/No	Item #	Item Name	Unit Price	Price for 10 units
Attended Pre-Proposal	Yes	1	Canopy	\$5,676.00	\$ 56,760.00
Construction Schedule for Delivery para 4.2.2	No	2	Force Account	\$2,000.00	\$ 2,000.00
Shop Drawings para 4.2.3	Yes	3	Total		\$ 58,760.00
Original plus 4 copies of proposal	Yes				
Cover Letter	Yes				
General Background	Yes				
References (3)	Yes				
Personnel Qualifications	Yes				
Section 4.0 written response	Yes				
Manufacturer's specs/warranty info	Yes				
Pricing	Yes				
CUP (0%, 0%, 0%)	Yes				
Affidavit	Yes				
Receipt of Addenda	Yes				
Exceptions	No				
Compliance Review Form or Certificate	Yes				

**COMMENTS:**

No Exceptions Requested.  
 Construction Schedule for Delivery not included.

**Vendor: McCown Gordon Construction of Kansas City, MO**

Bid Recap		Quote			
REQUIRED SUBMITTALS	Yes/No	Item #	Item Name	Unit Price	Price for 10 units
Attended Pre-Proposal	Yes	1	Canopy	\$9,241.90	\$ 92,419.00
Construction Schedule for Delivery para 4.2.2	No	2	Force Account	\$2,000.00	\$ 2,000.00
Shop Drawings para 4.2.3	Yes	3	Total		\$ 94,419.00
Original plus 4 copies of proposal	Yes				
Cover Letter	Yes				
General Background	Yes				
References (3)	Yes				
Personnel Qualifications	Yes				
Section 4.0 written response	Yes				
Manufacturer's specs/warranty info	Yes				
Pricing	Yes				
CUP (0%, 0%, 0%)	Yes				
Affidavit	Yes				
Receipt of Addenda	No				
Exceptions	Yes				
Compliance Review Form or Certificate	Yes				

**COMMENTS:**

Exceptions Requested.  
Construction Schedule for Delivery not included.

**Vendor: PlayPower/USA Shade of Monett, MO**

Bid Recap

Quote

REQUIRED SUBMITTALS	Yes/No	Item #	Item Name	Unit Price	Price for 10 units
Attended Pre-Proposal	Yes	1	Canopy		\$ 53,150.00
Construction Schedule for Delivery para 4.2.2	No	2	Force Account	\$2,000.00	\$ 2,000.00
Shop Drawings para 4.2.3	Yes	3	Total		\$ 55,150.00
Original plus 4 copies of proposal	Yes				
Cover Letter	Yes				
General Background	Yes				
References (3)	Yes				
Personnel Qualifications	Yes				
Section 4.0 written response	Yes				
Manufacturer's specs/warranty info	Yes				
Pricing	Yes				
CUP (0%, 0%, 0%)	Yes				
Affidavit	Yes				
Receipt of Addenda	Yes				
Exceptions	No				
Compliance Review Form or Certificate	Yes				

**COMMENTS:**

No exceptions requested.  
 No construction schedule for delivery included.





**ATTACHMENT 2**  
 Jackson County Missouri - Department of Public Works - Engineering Division  
**PROPOSAL FOR**  
**FRANK WHITE, JR. SOFTBALL COMPLEX: T-CANTILEVER CANOPIES OVER**  
**PUBLIC BLEACHERS AT THE FIVE FIELDS**  
**COUNTY PROJECT NO. 3206, RFP NO. 25-16**

Item No.	Description	Units	No. Units	Unit Price	Total Price
	<b>Jackson County Parks + Rec Bid Items</b>				
1	New T-Cantilever Canopies for Public Bleachers (24'L x 12'W) with 2 Posts Support Systems and No Overhangs - Design, Supply and Install. Installation of Circular Concrete Pier footings for each post will be performed by Others. See Note 1	EACH	10		\$ 53,150. —
2	Force Account	Lump Sum	1	\$2,000.00	\$2,000.00
				<b>Total Amount Bid for Project (Items 1 to 2) =</b>	\$ 55,150. —

FIFTY FIVE THOUSAND, ONE HUNDRED FIFTY DOLLARS

Total Amount Bid – Typed or Written

PLAYPOWER / USA Shade

Firm Name

1. The County will utilize their concrete contractor to install the Circular Concrete Pier Footings for each of the T-Cantilever Canopies posts (total of 20 posts requiring footings for all 10 Canopies). The Canopy Contractor shall coordinate with the County's Concrete Contractor the Designs, and Specifications per Manufacturer recommendations on the diameter and depth of the footing, reinforcing of the footing, etc. See construction plans and contract specifications for additional details.
2. Each of the 5 Softball Fields have 2 each Public Bleachers near 2 each Dugouts that will have a T-Cantilever Canopy over them. Therefore, 10 T-Cantilever Canopies are being bid.
3. The County reserves the right to adjust the quantities up or down to any and all bid items to accommodate available funds.



## **Statement of Warranty for USA SHADE brands Shade Structures - Sun Ports - VPS - Shade Concepts**

### **General:**

- USA SHADE provides a limited warranty on all USA SHADE-supplied labor and materials. No other warranty is implied.
- The warranty set forth shall be the purchaser's sole and exclusive warranty, and is void if structures are not paid for in full.
- The warranty is void if any changes, modifications, additions or attachments are made to the structures without the prior written consent of USA SHADE.
- The warranty is void if the structures are not assembled in strict compliance with USA SHADE specifications.
- The warranty will be void if regular maintenance is not performed. This is particularly critical in regions where dirt/sand may cause abrasion of fabric.
- The warranties below are effective from the date of sale, or, if assembled by USA SHADE, the date of construction completion.
- USA SHADE reserves the right to repair or replace any item covered by this warranty.
- Purchaser shall notify USA SHADE in writing, detailing any defects for which a warranty claim is being made.
- USA SHADE shall not in any event be liable for indirect, special, consequential, or liquidated damages.
- USA SHADE specifically denies the implied warranties of fitness for a particular purpose and merchantability.
- No signs, objects, fans, light fixtures, etc., may be hung from the structures, unless specifically engineered by USA SHADE. These items may interfere with the fabric, voiding the warranty.
- The warranty shall be void if damage to the steel frame or fabric top is caused by misuse, willful or intentional damage, vandalism, any Act of God (ie. hurricane, tornado, micro/macroburst), including, but not limited to, ice, snow, or wind in excess of applicable building code parameters.
- For all units assembled by USA SHADE the "Customer Checklist and Sign-off" form must be signed and returned to USA SHADE within 10 business days from the date of construction completion, or USA SHADE will not be held responsible for any damage to the structures. The warranty will also be considered null and void until this checklist is received by USA SHADE.

### **Shadesure™ Fabric:**

- Shadesure™ fabrics carry a 10-year limited manufacturer's warranty from the date of assembly, against failure from significant fading, deterioration, breakdown, mildew, outdoor heat, cold, or discoloration, with the exception of Red and Coolbrella™ fabrics, which carry a 3-year limited warranty.
- This warranty shall be void if damage to the fabric is caused by contact with chemicals, misuse, vandalism, any Act of God (ie. hurricane, tornado, micro/macroburst), including, but not limited to, ice, snow, or wind in excess of the applicable building code parameters.
- All fabric tops are warranted for winds/gusts up to 90mph and prior to snow or ice accumulation.
- All fabric curtains, valances and flat vertical panels are not covered under the warranty.
- USA SHADE structures are designed to eliminate friction between the rafters and fabric. The warranty will be voided if any modification or attachment is made to the rafter(s). The fabric will wear/tear should any object be placed between the rafter and the fabric, voiding the warranty.
- Labor for the removal, assembly, and/or freight will be covered for a period of 1 year, where the structures supplied and assembled by USA SHADE are defective. In all cases where the structures are not assembled by USA SHADE, or its agents, all labor for the removal, assembly, and/or freight will be at the customers' expense, and the warranty will only be applicable to the repair or replacement of the defective materials.



- USA SHADE reserves the right, in cases where certain fabric colors have been discontinued, to offer the customer a choice of available colors to replace the warranted fabric of the discontinued color. USA SHADE does not warrant that any particular color will be available for any period of time, and reserves the right to discontinue any color for any reason, without recourse by the owner of the discontinued fabric color.

**Colourshade® FR Fabric:**

- Colourshade® FR fabrics carry a 5-year limited manufacturer's warranty from the date of assembly, against failure from significant fading, deterioration, breakdown, mildew, outdoor heat, cold, or discoloration, with the exception of FR Red and Coolbrella™ fabrics, which carry a 3-year limited warranty. Should the fabric need to be replaced under the warranty, USA SHADE will manufacture and ship a new fabric at no charge for 5 years.
- This warranty shall be void if damage to the fabric is caused by contact with chemicals, misuse, vandalism, any Act of God (ie. hurricane, tornado, micro/macroburst), including, but not limited to, ice, snow, or wind in excess of the applicable building code parameters.
- All fabric tops are warranted for winds/gusts up to 90mph and prior to snow or ice accumulation.
- All fabric curtains, valances and flat vertical panels are not covered under the warranty.
- USA SHADE structures are designed to eliminate friction between the rafters and fabric. The warranty will be voided if any modification or attachment is made to the rafter(s). The fabric will wear/tear should any object be placed between the rafter and the fabric, voiding the warranty.
- Labor for the removal, assembly, and/or freight will be covered for a period of 1 year, where the structures supplied and assembled by USA SHADE are defective. In all cases where the structures are not assembled by USA SHADE or its agents, all labor for the removal, assembly and/or freight will be at the customers' expense, and the warranty will only be applicable to the repair or replacement of the defective materials.
- USA SHADE reserves the right, in cases where certain fabric colors have been discontinued, to offer the customer a choice of available colors to replace the warranted fabric of the discontinued color. USA SHADE does not warrant that any particular color will be available for any period of time and reserves the right to discontinue any color for any reason, without recourse by the owner of the discontinued fabric color.

*NOTE: Shadesure™ and Colourshade® FR fabric warranties cover fabric tops up to 40' in length. Fabric tops over 40' in length are covered by a non-prorated 5-year warranty. Additionally, fabric tops made from other fabric types (ie. Sunbrella®) will include their respective manufacturer's warranty.*

Shadesure and Coolbrella are trademarks of USA SHADE & Fabric Structures.

Colourshade is a registered trademark of Multiknit Pty. Ltd.

Sunbrella is a registered trademark of Glen Raven Custom Fabrics, LLC.

**Steel:**

- The structural integrity of the steel is warranted for 10 years.
- Workmanship and powder coated surfaces are warranted for 1 year.
- This warranty shall be void if damage to the steel frame is caused by misuse, vandalism, any Act of God (ie. hurricane, tornado, micro/macroburst), including, but not limited to, ice, snow, or wind in excess of applicable building code parameters.

**Thread:**

- USA SHADE warranties its sewing thread for a period of 10 years.
- The thread will be free from defects in material/workmanship and will not be damaged by exposure to sunlight, weather, or water.





**USA SHADE**  
& Fabric Structures

Corporate Headquarters  
8505 Chancellor Row Dallas, TX 75247  
P. 214.905.9500 F. 214.905.9514 TF. 800.966.5005

- This warranty does not cover damage from fire, cuts, vandalism, misuse, or any Act of God (ie. hurricane, tornado, micro/macroburst), including, but not limited to, ice, snow, or wind in excess of the applicable building code.
- Labor for the removal, assembly and/or freight of tops with damage caused by thread, will only be covered in instances where USA SHADE has assembled the unit. In all cases where units were not assembled by USA SHADE, all labor for the removal, assembly and/or freight will be for the customers account and the warranty will only be applicable to the repair or replacement of defective materials.

**SECTION 13 31 23  
PRE-ENGINEERED SHADE STRUCTURES**

**PART 1 – GENERAL**

**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections apply to this section.

**1.2 SUMMARY**

- A. The shade structure contractor shall be responsible for the design, engineering, fabrication, supply, and installation of the work specified herein. The intent of this specification is to have only one single contractor be responsible for all the above functions.

**1.3 REFERENCES**

- A. Shade Structures must comply with the latest revision of applicable codes and regulations including IBC 2012.
- B. American Society for Testing Materials (ASTM)
- C. American Welding Society: Structural Welding Code AWS D1.1: Symbols for Welding and Nondestructive Testing AWS 2.3.
- D. International Accreditation Services (IAS)
- E. American Institute of Steel Construction (AISC): Specifications for the design, fabrication, and erection of structural steel.

**1.4 SUBMITTALS**

- A. Provide proof of installed reference sites with six structures for similar scope of project and installation that are engineered to IBC 2012 Specifications.
- B. Provide a minimum of 13 fabric samples to demonstrate fabric color range and powder color selections.
- C. Provide proof of all quality assurance items including:
  - 1. A list of at least three reference projects that have been installed in the last 10 years.
  - 2. Proof of general liability, professional liability, and umbrella insurance as per section 1.5 C.
  - 3. Proof of a minimum of \$6,000,000 aggregate bonding capacity as per Section 1.5 D.
  - 4. Proof of IAS Certification per Section 1.5 E.
  - 5. Proof of a Corporate Safety Program along with an Injury & Illness Prevention Program.
  - 6. Proof of Corporate Quality Control Manual as per Section 1.5 F

**1.5. QUALITY ASSURANCE**

Fabrication and erection are limited to firms with proven experience in design and construction of fabric shade structures and such firms shall meet the following minimum requirements. No substitutions shall be allowed for the following:

- A. A single shade contractor shall design, engineer, manufacture, and erect the fabric shade structures including the foundations.
- B. All bidders shall have at least 15 years' experience in the design, engineering, manufacturing, and installation of shade structures.
- C. All bidders shall engineer to IBC 2012 requirements with similar scope.
- D. All bidders shall be able to provide proof of a minimum of \$1,000,000 general/public liability insurance, \$3,000,000 professional liability (PL) insurance, and an additional \$5,000,000 umbrella/excess liability insurance.

- E. All bidders shall be licensed and bonded with a minimum bonding capacity of \$6,000,000.
- F. Steel manufacturer shall be accredited by IAS (International Accreditation Service) for Structural Steel Fabrication under IBC 2012 Section 1704.2.2.
- G. The shade contractor shall have a Corporate Quality Control program and manual describing their complete quality assurance program.
- H. All bidders must have an in-house warranty & service department and local office to assist in repairs and service calls.

#### 1.6 PROJECT CONDITIONS

- A. Field Measurements: Verify layout information for the shade structure(s) shown on the project drawings in relation to the property survey and existing structures, and verify locations by field measurements prior to construction for the shade structures.

#### 1.7 WARRANTY

- A. The successful bidder shall provide a 12-month warranty on all labor and materials.
- B. A supplemental warranty from the manufacturer shall be provided for a period of 10 years on fabric and 20 years on the structural integrity of the steel from the date of substantial completion.
- C. The warranty shall not deprive the Owner of other rights under the provisions of the Contract Documents and will be in addition to and run concurrent with other warranties made by the Contractor under requirements of the Contract Documents.

### PART 2 – PRODUCTS

#### 2.1 GENERAL

- A. Scope: The fabric project shall consist of ten (10) T Cantilever Shade Structures.
- B. The structure is 24' x 12' with a 12.5' entry height. The columns will be a minimum of 5" x 5" HSS Structural Steel.
- C. The structures shall be manufactured by Shade Structures, Inc. or approved equivalent and include the structural steel frame, fabric roof, steel cables, all fasteners, and installation. Project management and foundations will also be included.

Contact: Shade Structures, Inc.  
USA SHADE & Fabric Structures  
8505 Chancellor Row  
Dallas, Texas 75247  
Contact Name: John McMaster  
Phone: (913) 907-0790

- D. To qualify as an approved equivalent, please submit product documentation, fabric samples and all quality assurance criteria as per Section 1.4 at least 10 days prior to bid date. Approved equals will be issued per addendum prior to bid date.
- E. The shade structure shall conform to the current adopted version of the International Building Code 2012 and local agency additions and amendments.
- F. All shade structures are engineered and designed to meet a minimum of 150mph frame only and 90 mph wind load with fabric attached, Exposure C and live load of 5 lbs/sf<sup>2</sup>. All shade structures shall be engineered with a zero wind pass-through factor on the fabric. When ASD Steel Design Method is used based on IBC 2012 Section 1605.3.1 the Dead + 0.75 of Live + 0.75 of Wind Load cases must be combined. NO EXCEPTIONS.
- G. Steel:
  - 1. All steel members of the shade structure shall be designed in strict accordance with the requirements of the "American Institute of Steel Construction" (AISC)



Specifications and the "American Iron and Steel Institute" (AISI) Specifications for Cold Formed Members and manufactured in a IAS (International Accreditation Service) accredited facility for Structural Steel Fabrication as per IBC 2012 Section 1704.2.2.

2. All connections shall have a maximum internal sleeving tolerance of .0625 inches using high tensile strength steel sections with a minimum sleeve length of 6 inches.

3. All non-hollow structural steel members shall comply with ASTM A-36. All hollow structural steel members shall be cold formed, high strength steel and comply with ASTM A-500, Grade C. All steel plates shall comply with ASTM A-572, Grade 50. All galvanized steel tubing shall be triple coated for rust protection using an in-line electro-plating coat process. All galvanized steel tubing shall be internally coated with zinc and organic coatings to prevent corrosion.

H. Welding:

1. All shop-welded connections of the shade structure shall be designed and performed in strict accordance with the requirements of the "American Welding Society" (AWS) Specifications. Structural welds shall be made in compliance with the requirements of the "Prequalified" welded joints where applicable and by certified welders. No onsite or field welding shall be permitted.
2. All full penetration welds shall be continuously inspected by an independent inspection agency and shall be tested to the requirement of IBC 2012 and local agency additions and amendments.

I. Powder Coating:

1. Galvanized steel tubing preparation prior to powder coating shall be executed in accordance to solvent cleaning SSPC-SP1. Solvent such as water, mineral spirits, xylol, toluol, which are to be used to remove foreign matter from the surface. A mechanical method prior to solvent cleaning prior to surface preparation shall be executed according to Power Tool Cleaning SSPC-SP3 and utilizing wire brushed abrasive wheels and needle gun, etc.
2. Carbon structural steel tubing preparation prior to powder coating shall be executed in accordance to commercial blast cleaning SSPC-SP6 or NACE #3. A commercial blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, mill scale, rust, coating, oxides, corrosion, products and other foreign material.
3. Powder coating shall be sufficiently applied, with a minimum three mils thickness and cured at the recommended temperature to provide proper adhesion and stability to meet salt spray and adhesion tests as defined by the American Society of Testing Materials.
4. Powder used in the powder coat process shall have the following characteristics:
  - a. Specific Gravity: 1.68 +/- 0.05
  - b. Theoretical coverage: 114 +/- 4ft<sup>2</sup>/lb/mil
  - c. Mass loss during cure: <1%
  - d. Maximum storage temperature: 75°F
  - e. POWDURA® Super Durable TGIC-Free Polyester provides better exterior durability, UV resistance and gloss retention than standard TGIC powders. Further, it accepts and holds onto electrical charge better and longer than standard TGIC powders, improving transfer efficiency by 10% more. The technology's non-toxic, TGIC-free properties also contribute to making it a greener solution for metal finishers.
  - f. Rust Protection Powder Under Coat Primer will be required on all structures. POWDURA® Epoxy Powder Coating Z.R. Primer shall be applied in accordance with the manufacturers' specifications. Primer should be fused only and then top coated with the selected powder coat to ensure proper intercoat adhesion.

J. Tension Cable: Steel cable is determined based on calculated engineering loads.

1. For light and medium loads, ¼" (nominal) galvanized 7 x 19 strand cable to be used.
2. For heavy loads, 3/8" (nominal) galvanized 7 x 19 cable to be used.



## K. Fabric Roof Systems

1. UV shade fabric is made of UV stabilized Shadesure® cloth as manufactured by MultiKnit Ltd and made of a UV stabilized high-density polyethylene mesh. Mesh shall be raschel knitted with monofilament and tape yarn filler to ensure that material will not unravel if cut. Panels to be 10ft. wide.
2. Fabric Properties:
  - a. Life Expectancy: A minimum of 8 years continuous exposure to the sun
  - b. Fading: Minimum fading after 5 years (3 years for red)
  - c. Fabric Mass: 2.43-2.58 oz/sqft (190-200g/sm)
  - d. Fabric Width: 9.8425 (3m)
  - e. Roll Length: 164.04 (50m)
  - f. Roll Dimensions: 62.99"x16.5354" (160 cm x 42 cm)
  - g. Roll Weight: +/- 66 lbs (+/-30 kg)
  - h. Minimum Temperature: -13°F (-25° C)
  - i. Maximum Temperature: +176°F (80° C)
3. Stitching & Thread:
  - a. All sewing threads are to be double stitched.
  - b. Thread shall be GORE Tenara Sewing Thread manufactured from 100% expanded PTFE (Teflon); mildew resistant exterior approved thread. Thread shall meet or exceed the following:
    - i.1) Flexible temperature range
    - i.2) Very low shrinkage factor
    - i.3) Extremely high strength, durable in outdoor climates
    - i.4) Resists flex and abrasion of fabric
    - i.5) Unaffected by cleaning agents; acid rain, mildew, salt water and rot resistant, unaffected by most industrial pollutants
    - i.6) Treated for prolonged exposure to the sun

## 2.2 SHIPPING AND HANDLING

- A. All steel surfaces touched by tie down straps are to be padded before final clinching. This can be accomplished by using carpet pads or factory manufactured padding.
- B. All dunnage must be padded before painted products are set in place. Smaller and loose pieces must be padded and totally separate from paint padding.
- C. Unloading: Lift forks to be covered with padding. All dunnage must be padded vertically and horizontally to prevent damage to painted surfaces. When unloading, take care to prevent tools and other hard surface items from making contact.

## PART 3 – EXECUTION

### 3.1 INSTALLATION

- A. Installation of shade structures shall be performed by a bonded contractor by the State of Missouri.
- B. The contractor installing the structure shall comply with manufactures instructions for assembly, installation, and erection per approved drawings.
- C. Concrete:
  - i.6.1. Unless noted otherwise for footing and piers by General Contractor's Engineer, concrete specification for footings, piers, slabs, curbs and walkways shall meet a minimum 3,500 psi at 28-day strength.

i.6.2. Concrete work is executed in strict accordance with the latest American Concrete Institute Building Code (ACI 318-99).

i.6.3. Slump 4" maximum.

i.6.4. Whenever daily ambient temperatures are below 80 degrees Fahrenheit, the contractor may have mix accelerators and hot water added at the batch plant.

a. Temperature range between 75-80 degrees, 1% accelerator High Early (non-calcium)

b. Temperature range between 70-75 degrees, 2% accelerator High Early (non-calcium)

c. Temperature range below 70 degrees, 3% accelerator High Early (non-calcium)

i.6.5. The contractor shall not pour any concrete when daily ambient temperature is below 55 degrees Fahrenheit.

Temperature Range	% Accelerator	Type Accelerator
75-80 degrees	1%	High Early (non-calcium)
70-75 degrees	2%	High Early (non-calcium)
Below 70 degrees	3%	High Early (non-calcium)

D. Foundations:

1. All Anchor Bolts set in new concrete shall be ASTM A-325

2. All Anchor Bolts shall be Hot Dipped Galvanized

3. Footings shall be a minimum:

Minimum footing size of 30" diameter x 4' depth and placed in accordance with / and conform to manufacturers engineered specifications and drawings.

### 3.2 SAFETY PROCEDURES

A. The Contractor is responsible for the coordination of work with other trades.

B. All staff personnel are to be dressed and conduct themselves in accordance with OSHA Standards. All staff must be properly trained for equipment that they might use. Safety is a top priority.

C. All vehicles and machinery are to be properly licensed and insured and must be operated by licensed operators in accordance with OSHA Standards. All cranes and lifts must be operated in accordance with manufacturer's guidelines.

D. The handling of steel during installation is critical. Exercise care when lifting items so that it does not come into contact with other surfaces. Clean sand and other deleterious material from structural items before moving or lifting. Before installation, all items are to be washed with soap and water and dried with cloths. All grease, dust, oils, and other latent materials are to be removed during this washing. When pouring concrete pour backs at columns, protect paint by using plastic and tape to prevent concrete from splashing on finish surfaces.

E. All concrete must be cut with a wet diamond blade to ensure that it leaves a clean finish. If at any stage the existing remaining surface lifts, creating a tripping hazard, additional saw cutting will be required so as to leave a neat and uniform joint.

F. Cover all open holes at all times with solid plywood and spoils to prevent access until concrete is poured.

G. All equipment and/or product must be stored inside fenced area.

**END OF SECTION 13 31 23**