

CITY OF TEMPE, ARIZONA
PUBLIC WORKS DEPARTMENT
DIVISION OF ENGINEERING

JOB ORDER NO. 3 TO HUNTER CONTRACTING CO.
THROUGH EXISTING CONTRACT NO. C2015-283

**LIGHTING IMPROVEMENTS – STROUD PARK SOCCER FIELD & BASKETBALL
COURT**

PROJECT NO. 6303081A

This **JOB ORDER NO. 3** is entered into on this 8th day of December, 2016, by and between the **City of Tempe**, an Arizona municipal corporation (“City”) and **Hunter Contracting Co.**, an Arizona corporation (“JOC”), through the existing Contract made and entered into by and between the parties on December 17, 2015, (Contract No. C2015-283) along with that certain Addendum No. 1 entered into on August 19, 2016 (collectively “Contract”).

SECTION 1 – JOB ORDER PRICE AND WORK LOCATION: JOC shall furnish any and all plant, materials, labor, construction equipment, services and transportation (all applicable taxes included) required for performing all work for the construction of Lighting Improvements – Stroud Park Soccer Field & Basketball Court, (Project No. 6303081A) (“Project”) for the sum of One Hundred Fourteen Thousand Seven Hundred Eighty and 19/100 Dollars (\$114,780.19), as detailed in the Proposal (Exhibit “A”) attached hereto and incorporated herein by this reference, and the work as described in the Technical Specifications (Exhibit “B”), and to completely and totally construct the same and install the materials therein for the Project, in a good and workmanlike and substantial manner and to the satisfaction of City or its properly authorized agents and strictly pursuant to and in conformity with the Specifications and Plans for the Project and other documents that may be requested by City through its Engineer or other properly authorized agents, as provided herein.. The full street or physical address of the construction work location (“Work Location”) is 6818 S. Los Feliz Dr., Tempe, Arizona. JOC shall list the Work Location in any subcontract related to this job order at any level and each subcontractor shall likewise include the Work

likewise include the Work Location in any of its subcontracts.

SECTION 2 – REQUIRED SUBMITTALS: JOC shall submit the completed forms referenced in the Forms Appendix (Exhibit “C”) attached hereto to City for approval prior to receipt of a Notice to Proceed issued by City for the Project.

SECTION 3 – AMENDMENT: City of Tempe Contract No. C2015-283, as amended on August 19, 2016, the terms and conditions contained therein and all exhibits attached to the Contract and to this Job Order No. 3, are by reference incorporated into this Job Order No. 3. All provisions of the underlying Contract where not inconsistent with this Job Order No. 3 shall remain binding on the parties.

SECTION 4 – JOB ORDER TERM: Work shall start as soon as practicable, and in no case later than seven (7) calendar days after the Notice to Proceed is issued by City, and shall be completed within one hundred twenty (120) calendar days thereafter.

[SIGNATURE PAGE TO FOLLOW]

Lighting Improvements – Stroud Park Soccer Field & Basketball Court
Project No. 6303081A

DATED this 8th day of December, 2016.

CITY OF TEMPE, ARIZONA

By: _____
Mark W. Mitchell, Mayor

By: _____
Public Works Director

ATTEST:

Recommended by:

Brigitta M. Kuiper, City Clerk

Deputy PW Director/Interim City Engineer

APPROVED AS TO FORM:

Judith R. Baumann, City Attorney

JOC warrants that the person who is signing this Job Order on behalf of the JOC is authorized to do so and to execute all other documents necessary to carry out the terms of this Job Order.

HUNTER CONTRACTING, CO.

By: _____
Signature

Printed Name

Its: _____
Title

Federal I.D. No./Social Security No.



EXHIBIT A

JOB ORDER AGREEMENT PROPOSAL

Project Name: Lighting Improvements Stroud Park		Date: 9/29/2016
Project Number: 6303081A		
Contract Number:		
JOC Number:		
Job Order Agreement Number:		
CONSTRUCTION SERVICES		AMOUNT
DIRECT COSTS		
A.	Cost of Construction (Labor, Materials, Equipment, Warranty)	\$71,895.00
B.	General Conditions (Excluding Bonds and Insurance)	\$25,316.54
C.	SUBTOTAL DIRECT COSTS	\$97,211.54
D.	Construction Fee (Overhead & Profit) 10.00%	\$9,721.15
E.	TOTAL	\$106,932.69
INDIRECT COSTS		CALCULATED RATE:
F.	Insurance 1.12%	\$1,197.65
G.	Payment and Performance Bond 0.85%	\$908.93
H.	Sales Tax 5.265%	\$5,740.92
K. TOTAL JOA PROPOSAL		\$114,780.19

ASSUMPTIONS AND CLARIFICATIONS:

1. Project duration - 5-weeks of construction
2. Contract time will begin once materials are procured.
3. Off-Duty Officer is not included
4. Survey and As-Builts are excluded
5. Quality Control Testing is excluded
6. A construction yard will be setup onsite
7. Repairs of broken irrigation lines is included. Turf and Landscape restoration is excluded. Trenches will be backfilled with dirt and turf will re-establish naturally during Spring. Due to location of conduit & light pole in relation to existing trees on north side of playground, surrounding tree survivability is not guaranteed and replacements trees are excluded.
8. Public notification and outreach will be complete by Tempe.

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Project Name: Lighting Improvements Stroud Park	Date: 9/29/2016
Project Number: 6303081A	
Contract Number:	
JOC Number:	
Job Order Agreement Number:	

GENERAL CONDITIONS

CBS	Description	Qty	UM	Unit Cost	Total Cost
15.1.1	SWPPP, Prevention Plan & Set-Up (Wattles @ Inlets & Yard)	1	LS	\$ 384.00	\$ 384.00
15.1.2	Dust Control Permit	1	EA	\$ -	\$ -
15.1.3	Clean - Up	1	LS	\$ 1,070.04	\$ 1,070.04
15.1.4	Irrigation Repairs	1	LS	\$ 1,000.00	\$ 1,000.00
15.1.5	Private Locating	1	LS	\$ 675.00	\$ 675.00
15.2.1	Temp Facilities	1	LS	\$ 1,110.00	\$ 1,110.00
15.2.2	Supervision	25	DY	\$ 784.10	\$ 19,602.50
	Project, Manager	50	HR	\$ 70.24	
	Superintendent	200	HR	\$ 64.05	
	Truck, Pick Up	250	HR	\$ 12.50	
15.2.3	Traffic Control/Barricading	25	DY	\$ 30.00	\$ 750.00
15.2.5	Construction Water	1	LS	\$ 725.00	\$ 725.00
	GENERAL CONDITIONS - SUBTOTAL				\$ 25,316.54

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**Lighting Improvements for Stroud Park - Basketball Court, Soccer Field and Playground
City of Tempe JOC**



9/29/2016

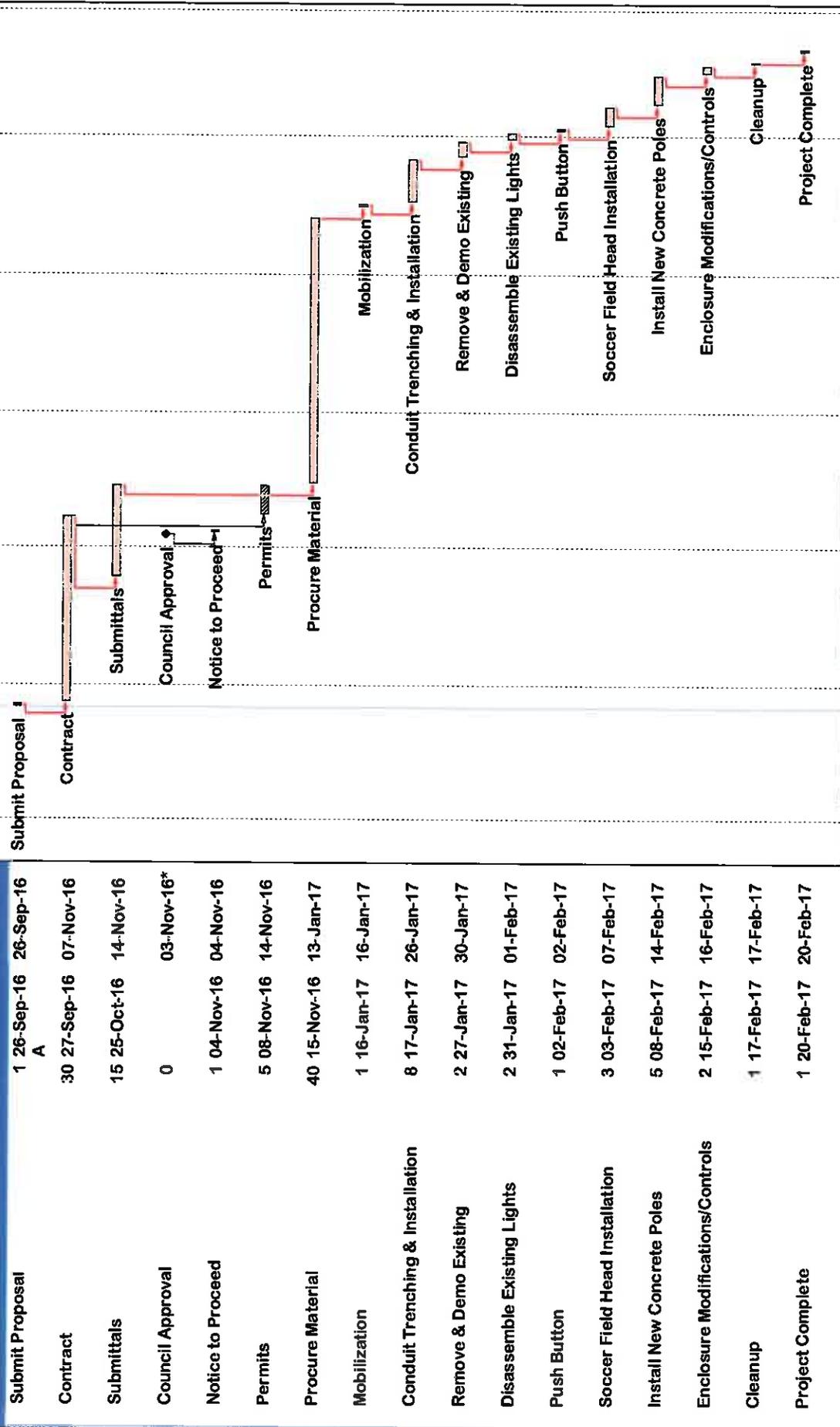
STROUD PARK - Bid Schedule

Bid Item	Description	Quantity	UM	Unit Price	Total Price
1	CONDUIT, CONDUCTORS AND BOND WIRES, SIZED PER PLANS, INCLUDING TRENCHING AND BACKFILL	1	LS	\$ 14,435.00	\$ 14,435.00
2	CONCRETE PULL BOX	2	EA	\$ 375.00	\$ 750.00
3	MODIFICATIONS EXISTING ELECTRICAL SERVICE ENTRANCE SECTION AND CONTROL EQUIPMENT	1	LS	\$ 820.00	\$ 820.00
4	BASKETBALL COURT LIGHT AND CONCRETE POLE WITH DIRECT EMBEDDED FOUNDATION	4	EA	\$ 2,650.00	\$ 10,600.00
5	TOT LOT LIGHT AND CONCRETE POLE WITH DIRECT EMBEDDED FOUNDATION	3	EA	\$ 3,800.00	\$ 11,400.00
6	SOCCER FIELD LIGHT AND BULL HORN MOUNT ON EXISTING CONCRETE POLE	4	EA	\$ 6,900.00	\$ 27,600.00
7	REMOVAL OF EXISTING POLES & FIXTURES	2	EA	\$ 1,420.00	\$ 2,840.00
8	REMOVAL OF EXISTING FIXTURES FROM POLES TO REMAIN	12	EA	\$ 100.00	\$ 1,200.00
9	POLE MOUNTED PUSH BUTTON AND RECEPTACLE	1	EA	\$ 2,250.00	\$ 2,250.00
DIRECT COST TOTAL - STROUD PARK					\$ 71,895.00

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Tempe JOC - Stroud Park - Lighting Improvements

Activity Name	Original Start	Finish
Tempe JOC - Stroud Park Lighting Improvements	1 26-Sep-16	26-Sep-16



Printed On: 26-Sep-16

Hunter CONTRACTING CO.

Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone
 Summary

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Compare and Award
HUNTER CONTRACTING COMPANY

Job Code: 16-198 Stroud 9 22 16

Description: Stroud Park Estimate - Tempe Parks JOC (Use Contract Labor Rates) -

Cost Items
 (1 of 1)

Awarded

Quote Group	Code	Description	Quantity	Unit	Unit Price	Total	Electrical	Quote Description:	Unit Price	Total	Electrical	Quote Description:	Unit Price	Total	Electrical
Electrical	1	CONDUIT, CONDUCTORS AND BOND WIRES, SIZED PER PLANS, INCLUDING TRENCHING AND BACKFILL	1.00	LS	71,895.00	71,895.00	Electrical	Quoted Items Total:	0.00	0.00	Electrical	Quoted Items Total:	0.00	0.00	Electrical
Electrical	2	CONCRETE FULL BOX MODIFICATIONS EXISTING	2.00	EA	76,972.00	153,944.00	Electrical	Special Conditions:	0.00	0.00	Electrical	Special Conditions:	0.00	0.00	Electrical
Electrical	3	ELECTRICAL SERVICE ENTRANCE SECTION AND CONTROL EQUIPMENT	1.00	LS	76,972.00	76,972.00	Electrical	Quoted Total:	71,895.00	76,972.00	Electrical	Quoted Total:	71,895.00	76,972.00	Electrical
Electrical	4	BASKETBALL COURT LIGHT AND CONCRETE POLE WITH DIRECT EMBEDDED FOUNDATION	4.00	EA	10,600.00	42,400.00	Electrical	Last Update:	9/22/2016 11:26:32 AM	9/22/2016 3:38:31 PM	Electrical	Last Update:	9/22/2016 2:30:28 PM	9/22/2016 2:34:02 PM	Electrical
Electrical	5	TOT LOT LIGHT AND CONCRETE POLE WITH DIRECT EMBEDDED FOUNDATION	3.00	EA	11,400.00	34,200.00	Electrical	Comparable Total:	71,895.00	76,972.00	Electrical	Comparable Total:	71,895.00	76,972.00	Electrical
Electrical	6	SOCCER FIELD LIGHT AND BULL HORN MOUNT ON EXISTING CONCRETE POLE	4.00	EA	27,600.00	110,400.00	Electrical	Buyer's Special Terms & Conditions:			Electrical	Buyer's Special Terms & Conditions:			Electrical
Electrical	7	REMOVAL OF EXISTING POLES & FIXTURES	2.00	EA	2,840.00	5,680.00	Electrical	Seller's Special Terms & Conditions:			Electrical	Seller's Special Terms & Conditions:			Electrical
Electrical	8	REMOVAL OF EXISTING FIXTURES FROM POLES TO REMAIN	12.00	EA	1,200.00	14,400.00	Electrical	Kindred Electric, Inc.			Electrical	Kindred Electric, Inc.			Electrical
Electrical	9	POLE MOUNTED PUSH BUTTON AND RECEPTACLE	1.00	EA	2,250.00	2,250.00	Electrical				Electrical				Electrical
					14,435.00	14,435.00	Electrical				Electrical				Electrical
					375.00	750.00	Electrical				Electrical				Electrical
					820.00	820.00	Electrical				Electrical				Electrical
					2,850.00	11,400.00	Electrical				Electrical				Electrical
					3,800.00	11,400.00	Electrical				Electrical				Electrical
					6,900.00	27,600.00	Electrical				Electrical				Electrical
					1,420.00	2,840.00	Electrical				Electrical				Electrical
					100.00	1,200.00	Electrical				Electrical				Electrical
					2,250.00	2,250.00	Electrical				Electrical				Electrical
					10,472.00	10,472.00	Electrical				Electrical				Electrical
					500.00	500.00	Electrical				Electrical				Electrical
					500.00	500.00	Electrical				Electrical				Electrical
					8,000.00	36,000.00	Electrical				Electrical				Electrical
					7,000.00	21,000.00	Electrical				Electrical				Electrical
					5,185.00	20,740.00	Electrical				Electrical				Electrical
					6,880.00	20,640.00	Electrical				Electrical				Electrical
					6,820.00	27,280.00	Electrical				Electrical				Electrical
					480.00	960.00	Electrical				Electrical				Electrical
					85.00	1,020.00	Electrical				Electrical				Electrical
					3,980.00	3,980.00	Electrical				Electrical				Electrical
					11,315.00	11,315.00	Electrical				Electrical				Electrical
					370.00	740.00	Electrical				Electrical				Electrical
					1,400.00	1,400.00	Electrical				Electrical				Electrical
					5,988.75	15,975.00	Electrical				Electrical				Electrical
					3,085.33	9,256.00	Electrical				Electrical				Electrical
					6,243.76	24,975.00	Electrical				Electrical				Electrical
					3,000.00	6,000.00	Electrical				Electrical				Electrical
					150.00	1,800.00	Electrical				Electrical				Electrical
					1,700.00	1,700.00	Electrical				Electrical				Electrical

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10/11/16

Kimbrell Electric, Inc.
7593 North 73rd Drive
Glendale, AZ 85303
(602) 265-2111 Fax: (623) 931-9963

PROPOSAL

September 22, 2016

To: Hunter Contracting Co
Address: 701 North Cooper Road
Gilbert, Arizona 85233
Ph: 480-632-4956
Email: jackiej@huntercontracting.com
Attn: Jackie Johnson

Job Name/Location:

Tempe JOC Stroud Park

We hereby submit specifications and estimates for: Electrical, per the following Plan(s) and Sheet(s) Numbers;
Engineer: Wright Engineering Sheet(s) No.: 1-7 Plan Date: 8/15/16

Scope:

Price below represents the cost to supply and install (3) new Area lights, (16) replacement fixtures, pull boxes, Push button pole, push buttons, removal of (2) area lighting, removal of (12) Sports Lights, trench, conduit, wire, jack hammer foundations below grade.

See attached bid items

Sales tax Value added to total \$0.00

Upon your Acceptance, All Terms and Conditions as Outlined in this Proposal, become a Part Of or an Attachment To the Contract.
Please Note Our Exclusions, below.

Exclusions: Unless Otherwise Noted Above

Taxes, Bond, Permits, Atypical Insurance, Testing, Engineering Fees, Utility Charges, Painting, Saw Cutting, Allowance, Striping, Concrete & Asphalt Repair, Landscape Repair, Temporary Power, Patching, Survey, Non Electrical Sleeves, Private Utility locating, Hard dig or Rock Excavation, Spoil Removal & Haul Off, Traffic Control, Off Duty Police Officer, & Special Systems Wire, Trench Plates, Trench Protection, Charges for Powerline or De-Energizing Lines, Construction Water, Dust Control, Track Out, Staging Yard, Signage, Weekend or Overtime.

All Material Secured on site to be paid with Progress Payments.

We hereby propose to furnish material and labor - complete in accordance with the above specifications for the sum of: **\$71,895.00**

Note: This proposal is based on prices quoted for concrete, electrical conduit, wiring and other electrical products as of the date of this proposal. Due to rapidly rising prices in concrete, steel and copper, this proposal is subject to increase if products increase prior to the execution of a written agreement, by the amount of increases quoted by our intended suppliers and/or subcontractors. (We will provide proof of any increase, upon request)

All material is guaranteed to be as specified. All work to be completed in a professional manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Worker's Compensation Ins.

Authorized Signature _____
John Kimbrell

Note: This proposal may be withdrawn by Kimbrell Electric, Inc., if not accepted within 15 days.

Acceptance of Proposal - The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Signature Date

"The Bitterness of Poor Quality, Lingers Long After the Sweet Low Price is Forgotten"

BBJ
10/11/16

**Lighting Improvements for Stroud Park - Basketball Court, Soccer Field and Playground
City of Tempe JOC**



KIMBRELL ELECTRIC, INC
Company Name

STROUD PARK - Bid Schedule

Bid Item	Description	Quantity	UM	Unit Price	Total Price
1	CONDUIT, CONDUCTORS AND BOND WIRES, SIZED PER PLANS, INCLUDING TRENCHING AND BACKFILL	1	LS	\$ 14,435.00	\$ 14,435.00
2	CONCRETE PULL BOX	2	EA	\$ 375.00	\$ 750.00
3	MODIFICATIONS EXISTING ELECTRICAL SERVICE ENTRANCE SECTION AND CONTROL EQUIPMENT	1	LS	\$ 820.00	\$ 820.00
4	BASKETBALL COURT LIGHT AND CONCRETE POLE WITH DIRECT EMBEDDED FOUNDATION	4	EA	\$ 2,650.00	\$ 10,600.00
5	TOT LOT LIGHT AND CONCRETE POLE WITH DIRECT EMBEDDED FOUNDATION	3	EA	\$ 3,800.00	\$ 11,400.00
6	SOCCER FIELD LIGHT AND BULL HORN MOUNT ON EXISTING CONCRETE POLE	4	EA	\$ 6,900.00	\$ 27,600.00
7	REMOVAL OF EXISTING POLES & FIXTURES	2	EA	\$ 1,420.00	\$ 2,840.00
8	REMOVAL OF EXISTING FIXTURES FROM POLES TO REMAIN	12	EA	\$ 100.00	\$ 1,200.00
9	POLE MOUNTED PUSH BUTTON AND RECEPTACLE	1	EA	\$ 2,250.00	\$ 2,250.00
10			EA		\$ -
11			EA		\$ -
TOTAL - STROUD PARK				\$	71,895.00

Subcontractor to verify quantities and list applicable quantities (if different).

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10/11/16



SPECTRA Electrical Services
 2519 W. Geneva Drive
 Tempe, Arizona 85282
 (480) 446-7200
 fax (480) 446-7300

BID PROPOSAL - "ELECTRICAL"

CUSTOMER: Hunter Contracting
ADDRESS: 701 N Cooper Rd
Gilbert, AZ 85233
CONTACT: Jackie Johnson
E-MAIL: jackie@huntercontracting.com
PROJECT NAME: Lighting Improvements - Stroud Park

PROPOSAL DATE: 22-Sep-16
PROPOSAL TIME: 12:00 PM
PROPOSAL #: 16-0441
REV #: 1
PROPOSAL TYPE: Lump Sum

I. SCOPE OF WORK

This proposal has been prepared by SES and is submitted in strict confidence, based upon the following bid documents -

E-Sheets: SE1.2, SE2.1, SE3.1, SE3.2

Dated: 5/27/2016

Specifications: Per Plans

Dated: 5/27/2016

Engineer: Wright Engineering

Addendum: N/A
Dated: N/A

Addendum: N/A
Dated: N/A

Addendum: N/A
Dated: N/A

Addendum: N/A
Dated: N/A

II. CLARIFICATIONS / INCLUSIONS / EXCLUSIONS

- a.) This proposal shall remain valid for 30 days from the date indicated above.
- b.) SES reserves the right to negotiate a fair and equitable contract or subcontract agreement.
- c.) Please reference the Attachments 'A', 'B' etc. for proposal clarifications, inclusions & exclusions.

III. SPECIAL NOTE:

The proposal price for this project has been calculated based on the current prices and availability for the *commodity MATERIALS listed below. However, the market for the materials that are hereafter specified is considered to be volatile and sudden price could occur. Spectra Electrical Services, Inc. (hereinafter referred to as SES) agrees to use our best effort to obtain the lowest possible prices increases or lack of availability from available material suppliers, but should there be an increase in excess of 5% in the prices of these specified materials that are purchased after execution of a contract for use in this project, the Owner agrees to pay the cost increase above 5% to SES. Any claim by SES for payment of a cost increase, as provided above, shall require written notice delivered by SES to the Owner / General Contractor stating the increase cost, the material or materials in question and the source of supply supported by invoices or bills of sale. *Commodity MATERIALS definition is as follows: PVC, Steel, Copper, Aluminum and All Petroleum Based Products.

IV. BASE BID COST PROPOSAL

Base Bid:	\$ 78,972

YEAR	EMR
2016	0.67
2015	0.64
2014	0.77



Thank you,
Spectra Electrical Services, Inc.

Prepared By Ryan Risselman

Reviewed By Kyle Knopp

Accepted By:
Hunter Contracting

Printed Name / Title

Signature / Date

BBJ
 10/11/16



SPECTRA Electrical Services
 2519 West Geneva Drive
 Tempe, Arizona 85282
 p. 480.446.7200
 f. 480.446.7300

ATTACHMENT 'A' - CLARIFICATIONS (STANDARD)

PROJECT NAME: Lighting Improvements - Stroud Park PROPOSAL #: 16-0441
 PROPOSAL DATE: 22-Sep-16 PROPOSAL TYPE: Lump Sum

ITEM	Included	Excluded	NOTES
Allowances & Contingencies		X	Unless specifically noted in this Proposal
Bid Bond		X	
Payment & Performance Bond		X	Not included in base bid.
Excess and/or Wrap Insurance		X	
Sales & Use Taxes		X	
Permits and/or associated Fees		X	
Engineered Drawings		X	Also excludes Light pole base structural calculations
Responsibility for design meeting code		X	
Handling of or Disposal of Hazardous Waste		X	Also excludes all fees, packaging & crating
Code Upgrades to existing systems		X	
Warranty or Freight claims		X	For equipment provided by others
Third Party Testing		X	Switchgear Only
Spare Parts		X	
Additional / Relocated fixtures, fire alarm, battery packs, equipment etc requested by the AHJ, GC or Owner		X	
As-Built Drawings for our Work - "redline" type	X		SES will provide "redline" As-Built drawings on a clean set of drawings
As-Built Drawings for our Work - CAD		X	
Reprographic & CAD file fees of any kind		X	All drawings and copies for construction by GC / Owner
1-Year Warranty - Labor & Material	X		From the date of substantial completion for each respective project component (i.e. Building A, Building B, etc.)
Lighting Fixture Support / Sack Wire		X	To be furnished by Others, PRIOR to SES setting lights in grid, etc. - SES to tie off at corner(s) of light fixtures.
Jobsite Storage		X	In a secure location provided by Others, including exterior placement of storage trailers, containers, etc.
Jobsite Office		X	
Dumpster for disposal of construction debris		X	By Others
Temporary Power & Lighting		X	
Demolition		X	Per Scope
Standard Time Labor	X		This proposal is based upon working eight hour days Monday thru Friday, during daylight hours between 5:00AM & 5:00PM with consideration for seasonal daylight availability.
Premium, Holiday or Shift Time Labor		X	
Standard Material Lead Times	X		
Expedited Manufacture/Delivery of Materials		X	Costs available upon request
Coordination of Other Trades		X	
Power Utility - Design & Fees		X	
Power Utility - Equipment Cost & Install		X	
Power Utility - Primary Conduit(s)		X	
Power Utility - Secondary Conduit(s)		X	
Telco and/or Cox Utility - Design & Fees		X	
Telco and/or Cox Utility - Equipment Cost & Install		X	
Telco and/or Cox Utility - Conduit(s)		X	
Asphalt Cutting / Patchback		X	
Concrete Cutting / Patchback		X	
Trenching & Backfill	X		No Soils Report Exclusions: Shoring equipment of any kind. Spectra reserves the right to charge for unknown conditions and/or obstructions.
Rock / Coliche Digging		X	
Native Soil Backfill	X		
Imported Backfill		X	
Export of Spoils		X	Spoils to be spread on site
Concrete Form Work		X	Also excludes augering of pole light bases
Painting & Patching		X	Factory finishes only
Generator & Transfer Sw		X	
Generator Fuel		X	By Spectra when applicable for startup only
Generator Fuel Piping, Exhaust & Radiator work		X	By Mechanical when applicable
Confined space or asbestos requirements		X	
UPS / Batteries		X	
Fire Alarm System		X	
Duct Smoke Detector - Purchase		X	
Duct Smoke Detector - Installation		X	By Mechanical
Cable Tray		X	
Security System		X	See Alternates When Applicable: Includes stubups to accessible ceiling only. (Equipment, cabling, cable supports & fireproofing by others for any Vendor that's not a subcontractor of Spectra Electrical Services Inc)
Telephone System		X	
CCTV / MATV System		X	
Voice / Data / Com System		X	
Energy Mgt / Bld Automation System		X	
Combo-Motor Starters for Mechanical / HVAC		X	Supplied & installed by Mechanical
HVAC Equipment - Controls Conduit		X	
HVAC Equipment - Controls Wiring		X	
Access Panels		X	

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10/11/16



SPECTRA Electrical Services
 2519 West Geneva Drive
 Tempe, Arizona 85282
 p. 480.446.7200
 f. 480.446.7300

ATTACHMENT 'B' - CLARIFICATIONS (JOB SPECIFIC)

PROJECT NAME: Lighting Improvements - Stroud Park
 PROPOSAL DATE: 22-Sep-16

PROPOSAL #: 16-0441
 PROPOSAL TYPE: Lump Sum

ITEM	Included	Excluded	NOTES
Water for compaction		X	By Hunter Contracting
Security Fencing		X	By Hunter Contracting
SPECIFIC SCOPE ITEMS			
Each day return area lighting to working status	x		
Trenching & mechanical compaction for backfill	x		
Provide and install new conduit & wire	x		
Provide and install (3) new pull boxes	x		
Provide and install (7) new concrete light poles	x		
Provide and install (7) new fixtures on above poles	x		
Provide and install (12) new heads on existing soccer field poles, with custom bullhorn.	x		
Provide and install (2) JMT brand galvanized square steel poles with push buttons	x		
Provide and install new contactors & controls	x		
Auger holes for new lights to be installed per details on sheet SE3.2	x		
Existing sport court poles to be removed and disposed.	x		
Existing sport court pole bases to be reduced to 36" below grade. Leveled with clean backfill.	x		
Spectra to coordinate with Hunter for inspections	x		
CONSTRUCTION SCHEDULE			
Fixture Procurement			8 weeks from approved submittals
Trench, install conduit, back fill			7 days
Install new heads on Soccer Field			2 days
Install new concrete poles			5 days
Install new push buttons & controls			1 day
Pull new wire & terminate			4 days
Estimated Construction duration			4-5 weeks
Float			1 week

BBJ
10/11/16

**Lighting Improvements for Stroud Park - Basketball Court, Soccer Field and Playground
City of Tempe JOC**



Spectra Electrical Services
Company Name

STROUD PARK - Bid Schedule

Bid Item	Description	Quantity	UM	Unit Price	Total Price
1	CONDUIT, CONDUCTORS AND BOND WIRES, SIZED PER PLANS, INCLUDING TRENCHING AND BACKFILL	1	LS	\$ 10,472.00	\$ 10,472.00
2	CONCRETE PULL BOX	2	EA	\$ 500.00	\$ 1,000.00
3	MODIFICATIONS EXISTING ELECTRICAL SERVICE ENTRANCE SECTION AND CONTROL EQUIPMENT	1	LS	\$ 500.00	\$ 500.00
4	BASKETBALL COURT LIGHT AND CONCRETE POLE WITH DIRECT EMBEDDED FOUNDATION	4	EA	\$ 9,000.00	\$ 36,000.00
5	TOT LOT LIGHT AND CONCRETE POLE WITH DIRECT EMBEDDED FOUNDATION	3	EA	\$ 7,000.00	\$ 21,000.00
6	SOCCER FIELD LIGHT AND BULL HORN MOUNT ON EXISTING CONCRETE POLE	4	EA	\$ 1,250.00	\$ 5,000.00
7	REMOVAL OF EXISTING POLES & FIXTURES	2	EA	\$ 750.00	\$ 1,500.00
8	REMOVAL OF EXISTING FIXTURES FROM POLES TO REMAIN	12	EA	\$ 250.00	\$ 3,000.00
9	POLE MOUNTED PUSH BUTTON AND RECEPTACLE	1	EA	\$ 500.00	\$ 500.00
10			EA		\$ -
11			EA		\$ -
TOTAL - STROUD PARK				\$	78,972.00

Subcontractor to verify quantities and list applicable quantities (if different).

BBJ
10/11/16

**Lighting Improvements for Stroud Park - Basketball Court, Soccer Field and Playground
City of Tempe JOC**



ARIZONA TRAFFIC SIGNAL

Company Name

STROUD PARK - Bid Schedule

Bid Item	Description	Quantity	UM	Unit Price	Total Price
1	CONDUIT, CONDUCTORS AND BOND WIRES, SIZED PER PLANS, INCLUDING TRENCHING AND BACKFILL	1	LS	\$ 11,315.00	\$ 11,315.00
2	CONCRETE PULL BOX	2	EA	\$ 370.00	\$ 740.00
3	MODIFICATIONS EXISTING ELECTRICAL SERVICE ENTRANCE SECTION AND CONTROL EQUIPMENT	1	LS	\$ 1,400.00	\$ 1,400.00
4	BASKETBALL COURT LIGHT AND CONCRETE POLE WITH DIRECT EBMEDDED FOUNDATION	4	EA	\$ 5,185.00	\$ 20,740.00
5	TOT LOT LIGHT AND CONCRETE POLE WITH DIRECT EMBEDDED FOUNDATION	3	EA	\$ 6,880.00	\$ 20,640.00
6	SOCCER FIELD LIGHT AND BULL HORN MOUNT ON EXISTING CONCRETE POLE	4	EA	\$ 6,820.00	\$ 27,280.00
7	REMOVAL OF EXISTING POLES & FIXTURES	2	EA	\$ 480.00	\$ 960.00
8	REMOVAL OF EXISTING FIXTURES FROM POLES TO REMAIN	12	EA	\$ 85.00	\$ 1,020.00
9	POLE MOUNTED PUSH BUTTON AND RECEPTACLE	1	EA	\$ 3,980.00	\$ 3,980.00
10			EA		\$ -
11			EA		\$ -
TOTAL - STROUD PARK				\$	88,075.00

Subcontractor to verify quantities and list applicable quantities (if different).

BBJ
10/11/16



ROSENDIN
ELECTRIC

Jason Alva
Special Projects
Group

9/21/2016

Hunter
CONTRACTING CO.

Attention: Jackie Johnson

RE: City Of Tempe Stroud Park

Rosendin Electric is pleased to provide your firm with our quotation for
Base Bid: 91,700.00

SCOPE OF WORK

1. We are quoting all work as straight time (7-3:30). Shift work and overtime work is excluded.
2. Our quotation is based upon a mutually acceptable contract.
3. Provide & install new pole lights as specified per plans SE2.1
4. Provide Ground Rods & Ground wire at the new pole lights as indicated per drawing SE2.1
5. Provide branch conduit and wire to each new pole light
6. Provide new ground boxes, contactors pushbuttons per SE2.1
7. Provide trenching and native backfill.
8. Pole Bases and removal per the per SE2.1, SE3.1, SE3.2
9. Provide equipment to comply with Dust Control
10. All other item not clearly shown per the above referenced plans pages will become an extra cost over and above the base bid pricing.

CLARIFICATIONS

1. Proposal is based on the plans specifically dated 5/2016 addendums Acknowledged 0
2. Proposal is based on electrical specifications on sheet dated: 5/16
3. We propose to use 1/2" EMT for a minimum conduit.
4. We have not included temporary lighting or power in this proposal.

EXCLUSIONS

1. Taxes
2. Bonding.
3. Engineering.
4. Seismic engineering or special support system.
5. Expediting.
6. Any X-ray or scanning required for layout of core drilling or saw cutting of existing concrete. Patching of any block, concrete, or asphalt.
7. Painting of any conduit, raceway, or equipment.
8. Painting and patching of any walls, ceiling, sheetrock, and/or any other surface.
9. Underground trench and backfill is per the following exclusions:
 - o Concrete and/or slurry encasement.
 - o Density testing of trench backfill, any hard dig or boring.

Building Quality
Building Value
Building People

Note: This proposal may be withdrawn by us if not accepted within 30 days.

100% Employee Owned
1375 West Drivers Way
Tempe, AZ 85284
Phone: (480) 921-4022
Fax: (480) 921-4144

BBJ
10/11/16



ROSENDIN ELECTRIC

Jason Alva
*Special Projects
Group*

- Concrete or Asphalt cutting, removal and replacement
 - Barricades, fencing, steel plates and traffic control.
 - Any unknown or unmarked underground utilities, irrigation lines, structures or debris, natural or manmade, or hard dig conditions that conflict with this project as proposed can cause the affected work to be done at a time and material basis. Rosendin Electric or its subcontractors is not responsible for damage or results of damage to unknown or unmarked utilities, public or private.
 - Water to be supplied by the General Contractor.
 - Removal and haul off of spoils.
10. Any support wires for light fixtures.
 11. Any and all removal of onsite debris
 12. Any changes to the electrical distribution system except as noted elsewhere within this proposal.
 13. Correction of existing code violations.
 14. Dumpsters, disposal of any hazardous waste, abatement and remediation.
 15. This proposal is based solely on usual cost elements, i.e. labor, material, and normal markups, and is presented under the assumption that the work will be readily available and will remain uninterrupted allowing for a reasonable and logical flow of production with minimal or no disruptions to the normal sequence of operation and does not allow for extended overhead, accelerations, or overtime labor rates.
 16. Dust Control Permits

We are looking forward to working with your firm on this project and if we can be of any further assistance, please feel free to call.

Respectfully,

Jason Alva
ROSENDIN ELECTRIC, INC
O: 480-921-4022
M: 480-528-2113
Jalva@rosendin.com

*Building Quality
Building Value
Building People*

Note: This proposal may be withdrawn by us if not accepted within 30 days.

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*BBJ
10/11/16*

**Lighting Improvements for Stroud Park - Basketball Court, Soccer Field and Playground
City of Tempe JOC**



Rosendin Electric Inc.
Company Name

STROUD PARK - Bid Schedule

Bid Item	Description	Quantity	UM	Unit Price	Total Price
1	CONDUIT, CONDUCTORS AND BOND WIRES, SIZED PER PLANS, INCLUDING TRENCHING AND BACKFILL	1	LS	\$ 28,894.00	\$ 28,894.00
2	CONCRETE PULL BOX	2	EA	\$ 600.00	\$ 1,200.00
3	MODIFICATIONS EXISTING ELECTRICAL SERVICE ENTRANCE SECTION AND CONTROL EQUIPMENT	1	LS	\$ 2,000.00	\$ 2,000.00
4	BASKETBALL COURT LIGHT AND CONCRETE POLE WITH DIRECT EMBEDDED FOUNDATION	4	EA	\$ 3,968.75	\$ 15,875.00
5	TOT LOT LIGHT AND CONCRETE POLE WITH DIRECT EMBEDDED FOUNDATION	3	EA	\$ 3,085.33	\$ 9,255.99
6	SOCCER FIELD LIGHT AND BULL HORN MOUNT ON EXISTING CONCRETE POLE	4	EA	\$ 6,243.75	\$ 24,975.00
7	REMOVAL OF EXISTING POLES & FIXTURES	2	EA	\$ 3,000.00	\$ 6,000.00
8	REMOVAL OF EXISTING FIXTURES FROM POLES TO REMAIN	12	EA	\$ 150.00	\$ 1,800.00
9	POLE MOUNTED PUSH BUTTON AND RECEPTACLE	1	EA	\$ 1,700.00	\$ 1,700.00
10			EA		\$ -
11			EA		\$ -
TOTAL - STROUD PARK				\$	91,700.00

Subcontractor to verify quantities and list applicable quantities (if different).

BBJ
10/11/16

EXHIBIT B

**City of Tempe
Public Works Department
Division of Engineering**

**Lighting Improvements for
Stroud Park -
Basketball Court, Soccer Field and Playground**

**COT Project no.
6303081A**

Final Technical Specifications

Prepared for:

City of Tempe, Arizona

Prepared by:



September 2016



Expires 3-31-17

PROPOSED WORK

The proposed work at Stroud Park includes the installation of new basketball court, soccer field and playground lighting, and the removal and proper disposal of the existing basketball court, soccer field and playground lighting. The completion of this work will also include new conduit, trench and conductors, and other miscellaneous items to complete the lighting and electrical upgrades.

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SECTION 26 00 00 – ELECTRICAL

PART 1

1.1 GENERAL ELECTRICAL

- A. This section describes in general, requirements of the electrical and related items and work necessary for the complete job indicated by the contract documents. The general conditions are applicable to this section and shall form a part of the contract.

1.2 GENERAL ELECTRICAL LIST OF WORK

- A. The work of this section and related work described in other sections is indicated on the Drawings and included, but not necessarily limited to:
1. Modifications to existing 200A 120/240V 3Ø 4W, NEMA 3R Service Entrance Section and Lighting Control Equipments including all sub-panels, circuit breakers, controls and lighting contactors as shown on plans and as necessary to complete the job in a workmanlike manner.
 2. All other electrical equipment and services needed to complete a usable and operable facility in accordance with all pertinent codes and regulations;
 3. Branch circuits for power and lighting;
 4. Lighting fixtures, poles, pole bases;
 5. Trenching and backfilling for underground electrical installation.

1.3 QUALITY ASSURANCE

- A. For the actual fabrication, installations, and testing of the work of this Section, use only thoroughly trained and experienced personnel who are completely familiar with the requirements of this work and with the installation recommendations of the manufacturers of the specified items.
- B. In acceptance or rejection of installed electrical system, no allowance will be made for lack of skill on the part of the installers.

1.4 CODES AND ORDINANCES

- A. Install all work in accordance with the National Electrical Code and its latest revisions, with any City of Tempe requirements, and with all pertinent requirements and standard specifications.

1.5 CERTIFICATES

- A. All work included shall comply with all State and Local rules and regulations. Furnish to the Owner all certificates of inspection and approval as required.

1.6 EXAMINATION OF PREMISES

- A. Prior to submitting proposal, the bidder shall examine all general construction drawings and visit construction site to become familiar with existing conditions under which he will have to operate and which will in any way affect the work under this contract. No subsequent allowance will be made in this connection in behalf of the Contractor for any error or negligence on his part.
- B. Prior to ordering any materials or doing any work, verify dimensions at the site, correctness of dimensions will be this Contractor's responsibility. No extra charge or compensation will be allowed for differences between actual dimensions and dimensions indicated on drawings. Immediately report differences to Engineer and do not proceed with work until Engineer renders his decision.

1.7 CONCRETE, EXCAVATION, FILL AND BACKFILL

- A. Furnish all concrete, excavation, fill and backfill, and steel required for this work unless specifically noted otherwise.
- B. Concrete shall be Class "A", 3000 p.s.i. and shall be mixed, placed and cured in conformance with M.A.G. Specifications.
- C. Backfill conduit trenches in a manner to prevent disturbance to the pipes or conduits. Fill under and around pipes thoroughly to a point approximately 6" above the top of the pipe and compact.
- D. Compaction of backfill shall be horizontal lifts not exceeding 6" in thickness. Compact to 85 percent of maximum density at optimum moisture content in accordance with local codes and standards.
- E. All existing landscape and hardscape areas must be replaced in kind after construction of electrical trenches and installation of electrical equipment.

1.8 ELECTRICAL DRAWINGS

- A. The drawings are generally diagrammatic and indicate the manner, method and nature of the installation. The Specifications denote the style and quality of material and workmanship. Where a conflict exists between the Drawings and Specifications, promptly notify the Engineer. The Engineer will make the proper interpretation and his decision will be final.
- B. Any items not mentioned in these specifications or not indicated on the plans but which are necessary for successful and efficient operation of the work shall be held to be implied and shall be furnished and installed as part of the contract.

1.9 STANDARD OF MATERIAL AND WORKMANSHIP

- A. All materials shall be new and shall conform to UL Standards in every case where such a standard has been established and shall bear the UL label. All work shall be performed in a workmanship manner in accordance with the best-accepted standards and shall present a neat mechanical appearance when completed.

- B. Ratings of all electrical equipment shall be in accordance with National Electrical Manufacturers Association. (NEMA).

1.10 PAINTING

- A. All exposed electrical equipment, conduit, flush panel fronts, transformers, switches, switchboards, panels panel mounting boards, and similar items shall be painted as specified under the Painting Section of the MAG Specifications per City's request.

1.11 TEMPORARY POWER

- A. Provide temporary power as required by the job. This service shall be maintained throughout the entire job as the work progresses.

1.12 CLEANING UP PROCESS

- A. At all times keep the premises free from accumulation of waste materials or rubbish caused by employees. Metal floor plans shall be provided for pipe threading machines and benches and shall be used at all times to prevent concrete floors from becoming oil soaked. Upon completion of the job remove all debris, clean all switchplates, fixtures, panel trims and in general leave the premises in a clean and tidy condition.

1.13 FINAL INSPECTIONS AND TESTS

- A. Furnish all meters, cable, connection and apparatus necessary for making tests.
- B. Test system for shorts and grounds. Faulty wiring shall be removed and replaced. Any device, apparatus or fixture installed showing substandard performance shall be removed and replaced as directed by the City Inspector.

1.14 UTILITIES

- A. Location Of Underground Utilities
 - a. The Contractor shall notify the interested "Utilities" prior to the start of construction, and shall ascertain the locations of the various underground utilities either shown on the plans and/or may be brought to his attention. The exact locations of these underground utilities shall be determined by excavations made by the Contractor prior to any trenching operations.
- B. Damage To Existing Utilities
 - a. The Contractor shall assume full responsibility for all damage to all utilities due to his operations, and shall repair the damaged utilities as required herein, at his own expense. Damaged water and irrigation lines shall be replaced in kind.

1.15 GUARANTEE

- A. Fully guarantee all work under this Section for a period of one year from the date of final acceptance by the City, against imperfect workmanship or failure or malfunction of materials

and/or equipment due to faulty or imperfect workmanship. Give this guarantee in writing to the City at the time of issuing final certificate. Work found to be defective within period shall be replaced without cost to the City.

1.16 SHOP DRAWINGS

- A. All data shall be submitted at one time, bound and indexed in an orderly manner. Prior to starting work, submit to the Engineer for approval, six (6) sets of shop drawings, panels, lighting fixtures, poles, and all other equipment to be fabricated.

1.17 DOCUMENTS

- A. The contractor shall preserve all manufacturers' paperwork that is shipped with equipment assemblies, lighting control panel components and field installed components. All literature accompanying each and every item shall be considered a part of that item such as specification sheets, installation instructions, operating and maintenance write-ups, etc.
- B. As built shall be provided to the City and shall be of the highest quality. Poor quality copies will not be accepted.

SECTION 26 05 00 - COMMON WORK RESULTS FOR ELECTRICAL

2.1 WIRE AND CABLE

2.2 GENERAL:

- A. Conductors shall be soft drawn, annealed copper having conductivity of not less than 98% of that of pure copper, have a uniform in cross-section, free from flaws, scale and other imperfections.
- B. All interior branch wiring shall be Type "XHHW" 600 volt, unless otherwise noted and a minimum of 12 AWG except for control wiring which shall be a minimum of 14 AWG.
- C. Wire 8 AWG and larger shall be stranded.
- D. Manufacturers shall be Simplex, General Cable, Okonite, Rome Cable, Anaconda, General Electric and Kaiser or approved equal.

2.3 INSTALLATIONS

- A. Install all wire and cable in conduit.
- B. No running splices in conduit shall be accepted.
- C. Make all above ground connections and splices for #10 wire and smaller with Buchanan "B-Cap", 3-M "Scotchlok", or Ideal "Wing Nut" preinsulated wire connector (sizes as recommended by manufacturer). Make connection and splices for #8 conductors and larger with solderless pressure or compression type connectors by O.Z., Burndy, Buchanan, T & B, or Illsco. Tape all splices with plastic so insulation is at least equivalent to insulation of

conductor. Thoroughly clean ends before splicing. Where plastic tape is used and there is any danger of insulation damage from pressure of joint against non-current carrying metal parts, use friction tapes for additional protection. Vinyl plastic tape shall be Scotch #33 or Plymouth.

- D. Make all underground cable and conductor splices in a pull box or j-box and connected and insulated with a Tyco Electronics Gelcap-sl or connected with copper compression h-tap connector or approved equal and insulated with a 3M Scotchcast splice kit 85 series or Tyco Electronics Gelcap or City of Tempe approved equal.
- E. All wires in panelboards, gutters, switchboards, wireways and pull boxes shall be neatly arranged with terminations located directly opposite terminals and routed in a neat and workmanlike manner through spaces where the wire passes.
- F. Exercise due care when pulling wire and cable through raceways, to prevent conductors from kinking and injuring insulations.
- G. UL approved pulling compounds may be applied to the conductors to insure ease of pulling. Under no circumstances shall any medium containing water, acid or petroleum base be used.
- H. Leave no less than 6" of wire at each outlet for connection to lighting fixture, switch receptacle, and other pieces of equipment. Where wires feed through an outlet or junction box, neatly tuck a 6" long loop in bottom of box.
- I. Control wiring and all other stranded wiring to screw connections shall be provided with T & B "STA-KON" terminals.
- J. Solid conductors shall loop tightly and completely around terminal screws on all wiring devices.

2.4 CONDUIT RACEWAYS

- A. Conduit systems shall be rigid galvanized steel, non-metallic fiber or Polyvinylchloride (PVC) plastic as specified herein, or as indicated on the plans. All systems shall be continuous.
- B. Rigid steel conduit shall be heavy walled, hot dipped, galvanized or sheardized. Use rigid steel conduit in concrete slabs on grade, in exposed locations such as tunnels and equipment rooms, where exposed to weather, and where buried in earth. Make all joints with standard couplings or unions; use of running threads is prohibited. Ream conduit ends after cutting use double lock nuts at terminations. Use insulated bushings throughout.
- C. No conduit placed in a concrete slab be greater than ¾" trade size diameter and no conduit smaller than ½" shall be installed underground. No conduit shall be imbedded in a slab that is less than 3-½" thick except for local offsets. Unless otherwise noted or specified, tops of underground conduit or ducts shall not be less than 18" below grade. Assemble joints together using approved couplings to make watertight joints.
- D. Schedule 40 PVC electrical conduits, UL listed may be used for direct burial of underground branch circuits (with bond wire). All bends shall be manufactured, not field made.
- E. GENERAL: Stubs and risers above grade to panels and cabinets shall be rigid steel conduit and shall be grounded as described under "grounding".
- F. Where exposed, install conduit parallel to walls and partitions; do not cross-window openings.

- G. All conduit bends 45 degrees and larger, and 2 inches and above shall be manufactured bends or field make with hydraulic bender.
- H. Coat Metallic conduit below grade or encased in concrete with two coats of Koppers Bitumastic, or half lap with Scotch Wrap #50, minimum thickness to be 20 mils.

2.5 CONDUIT FITTINGS

- A. Provide double lockouts and bushings at all rigid conduit terminations except at threaded hubs. Bushings shall be O.Z. type "A" molded bakelite except for 2" conduit and shall be O.Z. type "B" or type "BL" where groundings is required.

SECTION 26 05 26 – GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

3.1 GROUNDING

- A. The neutral conductors and all other exposed non-current carrying metal parts as required by Code shall be grounded. Grounding bushings shall be used as required and shall be O.Z. insulated Type "BL", or approved equal. No grounding shall be made to gas piping. Where equipment or devices are served by non-metallic ducts, enclosure shall be grounded by means of a code size bare or green insulated equipment ground wire installed in the duct with the current carrying conductors and be bonded securely in each cabinet terminating the ground wire. Copper jumpers shall bridge flexible conduit and be installed with ground wire. All service grounds shall be in accordance with the "UFER" ground.
- B. All panels containing ground or bonding wires shall be equipped with a ground bus for terminating all such wires.
- C. See Concrete Section for description of concrete reinforcement grounding.

SECTION 26 05 33 – RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

4.1 GUTTER, PULLBOXES AND JUNCTION BOXES

- A. Boxes shall be fabricated from code gauge steel without knockouts and a minimum 14 gauge front cover. Finish shall be galvanized steel or phosphate undercoating, with 2 finish coats hammer gray or bake enamel.
- B. Junction boxes shown outside flush or surface mounted shall be watertight all welded construction with neoprene gasketed screwed covers NEMA Type 3R.
- C. All pull boxes to be furnished and installed for lighting as a part of the electrical system, shall have an etched polyethylene face, anchored in concrete, with an ultraviolet inhibitor.

- D. Unless specified otherwise, pull box covers shall be of "fiberlight" material, polyester pre-mix with Calcium Carbonate, and shall be equipped with bolt-down covers. Covers on pull boxes installed as part of the lighting systems shall be marked "ELECTRICAL".

SECTION 26 09 23 – LIGHTING CONTROL DEVICES

5.1 LIGHTING CONTACTORS

- A. Lighting contactors shall be sized to facilitate all the lighting circuits within the pedestal or panel, and shall be Square D, Cutler Hammer, Furnas, Allen Bradley, Siemens or approved equal.

SECTION 26 56 00 - EXTERIOR LIGHTING

6.1 GENERAL

- A. Work covered under this section includes manufacturing, equipping, wiring and assembling of all lighting fixtures. Provide lighting fixtures complete for each and every light outlet in the type, quality and size of fixture indicated on the drawings.
- B. Check the drawings with the fixture schedules for completeness, as numbers on the schedule are for the purpose of indicating the general type, quality and size of fixtures that will be required. The use of catalog numbers for a fixture does not necessarily include all the required accessories that may be demanded for a complete installation.
- C. Provide all light-sources, lamps and other light producing media called for and suitable for specified equipment and functions. Unless otherwise called for, all lamps operating without controlling ballasts or transformers, operate on 120 volts.
- D. The use of a vendor's name and catalog number is for convenience in specifying the quality, style, size finish and performance required and does not intentionally exclude similar equipment available from other manufacturers. Judgment of equality shall be by the Engineer and his acceptance or rejection shall be final.

6.2 INSTALLATION OF LIGHTING FIXTURES

- A. Installation of all lighting fixtures shall be done by qualified and experienced mechanics.
- B. Protect the lighting fixtures from damage during their unloading or removal, storage or installation. Any broken fixtures, glassware, etc., must be replaced with new parts, without any additional expense to the City, undue delay or inconvenience.
- C. Upon completion of the installation of the lighting fixtures and lighting equipment, they must be in first-class operating order and in perfect condition as to finish, etc. Check for proper operation and appearance, alignment of fixtures and proper placement of lenses, louvers, lamps and other light-controlling or modifying appurtenances.

- D. Cleaning – Immediately prior to final inspection, damp clean all glassware, fixture trims, reflectors; clean lamps or install new lamps as directed, with glass and fixtures free of labels.

BID ITEMS (PER BID SCHEDULE)

Payment of the contract items shall be compensation in full for furnishing all overhead, labor, materials, tools, equipment, and appurtenances necessary to complete the work in a good, neat, and satisfactory manner as indicated on the plans, or as specified, with all necessary connections, and appurtenances to the satisfactory use of fully functional, up to code and safe operation of said item. No additional payment will be made for work related to each item unless specifically noted or specified. Measurement will be in place for the completed work with no allowances for waste.

BID ITEM NO. 1 – CONDUIT, CONDUCTORS AND BOND WIRES, SIZED PER PLANS, INCLUDING TRENCHING AND BACKFILL

A. Description:

- a. The work under this item includes the installation of conduit runs including conduit fittings, and appurtenances including jacking, drilling, boring, excavating, backfilling, and compacting at the locations designated on the project plans and in accordance with the details shown on the plans and the requirements of these specifications. The work includes the installation of conductors and ground wires. Proposed work includes pulling wire through conduit, connections to the electrical service, splices, and terminations.

B. Method of Measurement:

- b. Electrical conduit and conductors will be measured as a lump sum unit for all conduit and conductors installed, including trenching and backfill.

C. Basis of Payment:

- c. The accepted quantity for electrical conduit and conductors as measured provided above, will be paid for at the contract unit lump sum price, which price shall be full compensation for the work, complete in place, including excavation, backfill and all else necessary to complete the work. No direct payment will be made for rigid metal conduit bends or rigid non-metallic conduit bends at pull boxes, expansion fittings and coupling fittings, the cost being considered as included in the contract price for the conduit items. No separate measurement or direct payment shall be made for saw cutting, boring, trenching, pavement removal, debris disposal and pavement replacement done as part of conduit installation, the cost being considered as included in the contract price for the conduit items.

BID ITEM NO. 2 – CONCRETE PULL BOX

A. Description:

- a. The work under this item includes the installation of pull boxes, including excavation, backfill, compaction and appurtenances as shown on the project plans.

B. Method of Measurement:

- b. The electrical underground pull box item will be measured as a complete unit installed as instructed in the project plans.

C. Basis of Payment:

- c. The accepted quantity of electrical underground pull boxes, measured as provided above, will be paid for at the contract price each, which price shall be full compensation for the work, complete in place, including excavating and backfilling necessary to complete the work.

BID ITEM NO. 3 – MODIFICATIONS EXISTING ELECTRICAL SERVICE ENTRANCE SECTION AND CONTROL EQUIPMENT

A. Description:

- a. The work and the installation of this item consists of modifying the existing service entrance section and control equipment per plans.

B. Method of Measurement:

- b. The electrical service entrance section and lighting control equipment modifications item will be measured as a complete unit installed as instructed in the project plans.

C. Basis of Payment:

- c. The accepted quantity for the equipment, measured as provided above, will be paid for at the contract unit lump sum price, which shall be full compensation for the work, complete in place, including the cost of purchase and installation of related underground and above ground conduit.

BID ITEM NO. 4 – BASKETBALL COURT LIGHT AND CONCRETE POLE WITH DIRECT EMBEDDED FOUNDATION

A. Description:

- a. The work under this item consists of installing basketball light luminaires, including, lamp, driver/ballast, pole, mast arm and hardware, in accordance with the project plans. The work shall also include all compliance calculations, and submittals necessary for luminaire approval by the Engineer.

B. Method of Measurement:

- b. Sports light items will be measured as a unit for each sport light and pole furnished and installed.

C. Basis of Payment:

- c. The accepted quantities of sports lights measured as provided above will be paid for at the contract unit price each, complete in place, which price shall be full compensation for the work described and specified herein and on the plan, as approved by the Engineer.

BID ITEM NO. 5 – TOT LOT LIGHT AND CONCRETE POLE WITH DIRECT EMBEDDED FOUNDATION

A. Description:

- a. The work under this item consists of installing area light luminaires, including, lamp, driver/ballast, pole, mast arm and hardware, in accordance with the project plans. The work shall also include all compliance calculations, and submittals necessary for luminaire approval by the Engineer.

B. Method of Measurement:

- b. Items will be measured as a unit for each area light and pole furnished and installed.

C. Basis of Payment:

- c. The accepted quantities of area lights measured as provided above will be paid for at the contract unit price each, complete in place, which price shall be full compensation for the work described and specified herein and on the plan, as approved by the Engineer.

BID ITEM NO. 6 – SOCCER FIELD LIGHT AND BULL HORN MOUNT ON EXISTING CONCRETE POLE

A. Description:

- a. The work under this item consists of installing soccer field luminaires, including, lamp, driver/ballast, bull horn mount and hardware, in accordance with the project plans on an existing concrete pole. The work shall also include all compliance calculations, and submittals necessary for luminaire approval by the Engineer.

B. Method of Measurement:

- b. Items will be measured as a unit for each soccer field light furnished and installed.

C. Basis of Payment:

- c. The accepted quantities of soccer field lights measured as provided above will be paid for at the contract unit price each, complete in place, which price shall be full compensation for the work described and specified herein and on the plan, as approved by the Engineer.

BID ITEM NO. 7 – REMOVAL OF EXISTING POLES AND FIXTURES

A. Description:

- a. The work under this item includes removing the existing light pole and light fixture and returning the pole and fixture to the City of Tempe.

B. Method of Measurement:

- b. This item will be measured as a unit for each light assembly removed and returned.

C. Basis of Payment:

- c. The accepted quantity, measured as provided above, will be paid for at the contract unit price each, which price shall be full compensation for the work.

BID ITEM NO. 8 – REMOVAL OF EXISTING FIXTURES FROM POLES TO REMAIN

A. Description:

- a. The work under this item includes removing the existing light fixtures and mast arm and returning the fixture to the City of Tempe.

B. Method of Measurement:

- b. This item will be measured as a unit for each light fixture removed and returned.

C. Basis of Payment:

- c. The accepted quantity, measured as provided above, will be paid for at the contract unit price each, which price shall be full compensation for the work.

BID ITEM NO. 9 – POLE MOUNTED PUSH BUTTON AND RECEPTACLE

A. Description:

- a. The work under this item consists of installing a push button for sport court lighting, including mounting hardware, GFCI receptacle and post on which the push button and receptacle will be mounted.

B. Method of Measurement:

- b. Items will be measured as a unit for each push button, receptacle and pole furnished and installed.

C. Basis of Payment:

- c. The accepted quantities measured as provided above will be paid for at the contract unit price each, complete in place, which price shall be full compensation for the work described and specified herein and on the plan, as approved by the Engineer.

EXHIBIT C

FORMS APPENDIX

The following forms shall be completed and submitted with each Job Order.

LIST OF SUBCONTRACTORSSB-1
STATUTORY PERFORMANCE BONDPB-1
STATUTORY PAYMENT BONDPB-3
AFFIDAVIT OF COMPLIANCE WITH TEMPE CITY CODEAD-1

STATUTORY PERFORMANCE BOND
PURSUANT TO TITLE 34,
CHAPTER 6, OF THE ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS:

That _____ (“Principal”) and _____,
a corporation organized and existing under the laws of the State of _____, with
its principal office in the City of _____ (“Surety”), are held and firmly bound
unto _____ (“Obligee”) in the amount of _____ Dollars
(\$ _____), for the payment whereof, the said Principal and Surety bind themselves,
and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by
these presents.

WHEREAS, the Principal has entered into a certain written Contract with the
Obligee, dated the 8th day of December, 2016, to complete Project No. 6303081A, which
Contract is hereby referred to and made a part hereof as fully and to the same extent as if copied
at length herein.

NOW, THEREFORE, the condition of this obligation is such, that if the principal
faithfully performs and fulfills all of the undertakings, covenants, terms, conditions and
agreements of the contract during the original term of the contract and any extension of the
contract, with or without notice to the surety, and during the life of any guaranty required under
the contract, and also performs and fulfills all of the undertakings, covenants, terms, conditions
and agreements of all duly authorized modifications of the contract that may hereafter be made,
notice of which modifications to the surety being hereby waived, the above obligation is void.
Otherwise it remains in full force and effect.

STATUTORY PAYMENT BOND
PURSUANT TO TITLE 34,
CHAPTER 6, OF THE ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS:

That _____ (“Principal”) and _____,
a corporation organized and existing under the laws of the State of _____,
with its principal office in the City of _____ (“Surety”), as held and firmly
bound unto _____ (“Obligee”) in the amount of _____
Dollars (\$ _____), for the payment whereof, the said Principal and Surety bind
themselves, and their heirs, administrators, executors, successors and assigns, jointly and
severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the
Obligee, dated the 8th day of December, 2016, to complete Project No. 6303081A, which
Contract is hereby referred to and made a part hereof as fully and to the same extent as if copied
at length herein.

NOW, THEREFORE, the condition of this obligation is such, that if the principal
promptly pays all monies due to all persons supplying labor or materials to the principal or the
principal's subcontractors in the prosecution of the work provided for in the contract, this
obligation is void. Otherwise it remains in full force and effect.

Provided, however, that this bond is executed pursuant to the provisions of title
34, chapter 2, article 2, Arizona Revised Statutes, and all liabilities on this bond shall be
determined in accordance with the provisions, conditions and limitations of title 34, chapter 2,
article 2, Arizona Revised Statutes, to the same extent as if they were copied at length in this
agreement.

**CITY OF TEMPE DEPARTMENT OF PUBLIC WORKS
UNCONDITIONAL WAIVER AND RELEASE
FOR CONTRACTOR'S PAYMENT
AND SETTLEMENT OF CLAIMS**

Upon receipt of payment from the City of Tempe, the undersigned:

Contractor's Name: _____

Contractor's Address: _____

The undersigned has been paid and acknowledges having received final payment from the City of Tempe in the amount of \$_____ [state dollar amount for final, total contract amount] for full and final payment of all work, services, equipment, labor, skill and material furnished, delivered and performed by the undersigned for the city or anyone in the construction [or other services] for **LIGHTING IMPROVEMENTS – STROUD PARK SOCCER FIELD & BASKETBALL COURT** and **PROJECT NO. 6303081A** at the location of 6818 S. LOS FELIZ DRIVE; and does hereby waive and release any and all rights to mechanic's liens, any state or federal statutory bond right, any private bond right, any claim for payment and any and all rights under any applicable federal, state or local laws related to claim or payment rights for persons in the undersigned's position held on the above-referenced project against the City of Tempe, for this value received. The undersigned further agrees to defend, indemnify and hold harmless the City of Tempe against any and all liens, claims, suits, actions, damages, charges and expenses whatsoever, which the City may incur arising out of the failure or the undersigned to pay in full for all work, services, equipment, labor, skill and material furnished with regard to the project.

The undersigned, in consideration of the payment acknowledged, hereby warrants that he has already paid or will pay using the monies received from this final payment to promptly pay in full all of his contractors, subcontractors, laborers, materialmen and suppliers for all work, materials, equipment or services provided to the above-referenced project.

Contractor Signature

Date

By (Print Name and Title)

Notice: This document waives rights unconditionally and states that you have been paid for giving up those rights. This document is enforceable against you if signed, even if you have not been paid. If you have not been paid in full, use a conditional release form.

[NOTARY SEAL TO FOLLOW]

STATE OF ARIZONA)
COUNTY OF MARICOPA)

On ____ day of _____, 2016, _____ personally appeared before me, and proved by lawful identification documents to be the person who signed the preceding document in my presence, and who affirmed to me that the contents therein are truthful and accurate to the best of his/her knowledge and belief.

Notary Seal

Notary Public

Printed Name

My Commission Expires:
