

INVITATION TO BID
AND
SPECIFICATIONS
FOR

SECONDARY CONTAINMENT BARRIER SYSTEMS

CITY OF ST. CHARLES
ILLINOIS
2013

SPECIFICATION #130819

BID OPENING: August 19, 2013

CONTENTS

<u>SECTION</u>	<u>TITLE</u>
I.	NOTICE TO BIDDERS
II.	INFORMATION TO BIDDERS
III.	SPECIFICATIONS
IV.	PROPOSAL FORM

SPECIFICATION #130819

BID OPENING : August 19, 2013

SECTION I

NOTICE TO BIDDERS

Sealed bids will be received at the Office of the Purchasing Manager, Two East Main Street, St. Charles, Illinois, **no later than 10:00 a.m., Monday, August 19, 2013**, for Secondary Containment Barrier Systems.

Bids will be opened publicly and read aloud in the Council Chambers at 10:00 a.m., Monday, August 19, 2013.

Specifications and bidder information may be obtained at the Office of the Purchasing Manager, City of St. Charles, 200 Devereaux Way, St. Charles, Illinois.

All sealed envelopes must be clearly marked for which proposal they pertain to.

CITY OF ST. CHARLES

Mike Shortall

Inventory Control & Purchasing Manager

SECTION II
INFORMATION TO BIDDERS

1. **GENERAL CONDITIONS:**

- A. Bids shall be submitted in a sealed envelope, inserted in a larger sealed envelope. Both envelopes shall be clearly marked with the word "Bid", and the name of the project or subject of the bid. (Sec. 2.33.200A of the St. Charles Municipal Code). The outer envelope shall be addressed "Purchasing Manager, City of St. Charles, Two East Main Street, St. Charles, IL 60174." Include a return address on both envelopes. Bids received after the specified time and date will be returned unopened. Bids shall be on City of St. Charles bid form and shall be returned attached to the original specification sheets. Copies are not acceptable. **All bids submitted are binding for sixty (60) calendar days following the date of the bid opening.**
- B. All bid proposals must be signed with the firm name and by an authorized officer or employee of the company. One bid per bidder is allowed.
- C. The award of bids shall be made, after determination of the successful bidder by the City Council, by issuance of a City purchase order from the City of St. Charles purchasing manager to the successful bidder.
- D. The City of St. Charles reserves the right to waive minor specification deviations and reject any or all bids, and to accept the bid, which is in the opinion of the City Council, the lowest conforming bid from a responsible bidder as defined by state law and Sec. 2.33.230 of the St. Charles Municipal Code.
- E. All bids must be quoted on the basis of delivery to the City storeroom, 200 Devereaux Way in St. Charles, IL. The price shall be stated in units and bids made on each item separately. In case of conflict, the unit price shall govern. The City reserves the right to award the bid in aggregate or on individual items.
- F. All taxes, storage, handling and delivery costs incurred prior to receipt of the material by the City must be assumed by the successful bidder.
- G. The City of St. Charles is exempt from paying Illinois Use Tax, Illinois Retailers Occupation Tax, Federal Excise Tax, and Municipal Retailer's Occupation Tax.

The City of St. Charles will supply a copy of its tax exempt. letter for the use of the successful bidder for purchases of goods related to this contract upon request. Bidders should prepare their bid responses assuming that eligible goods will be free of sales tax liability.

The City of St. Charles reserves the right in its sole discretion to determine whether a supplier may utilize the City's tax exemption for purchases of goods.

Abuse of the City's tax exempt status to avoid sales tax liability on other contractor purchases shall not be tolerated and may disqualify the contractor from being awarded future City contracts or business. Additionally, the City reserves the right to pursue other remedies against the contractor to the full extent of the law and State regulations.

- H. Material is to be delivered on a flatbed trailer and ready to be unloaded from the side of the trailer without driving a forklift onto the trailer. Advance notice of 48 hours is required by calling 630-377-4421. Deliveries can be made to the City between the hours of 7:00 a.m. - noon and 12:30 p.m. - 3:30 p.m.
- I. Each bidder shall make an accurate statement in the proposal of the smallest number of calendar days in which delivery can be made after placement of the order.
- J. Any firm bidding this/these unit(s) must have a full service shop which includes parts and service mechanics capable of making any adjustments or repairs as may be required. The firm must also have service truck capabilities.
- K. Materials will be paid within 30 days of receipt/acceptance of same and receipt of invoice, or if a discount is allowed and is advantageous to the City, within five (5) days of receipt/acceptance of same and receipt of the invoice. Bids will be evaluated on both thirty (30) day and discount pricing.

REQUIRED _____ NOT REQUIRED X _____

- L. Travel time (incl. on-site repairs and/or pick up and delivery) **is** included within the labor or service warranty.

REQUIRED X _____ NOT REQUIRED _____

2. **MATERIALS:**

Only new, unused, first quality material and/or equipment shall be offered by the bidder.

3. **BID RESULTS:**

The bidder must supply a self-addressed, stamped envelope for obtaining bid results. **NO** bid results will be given by telephone.

4. **ADDENDUM**

Any interpretation of the specifications will be mailed to each bidder receiving a set of the bid documents. Bidders shall acknowledge receipt of such addendum by returning the addendum form.

5. **BID DEPOSIT**

A 10% bid deposit (certified check, cashiers check, or bank draft) or bid bond is required to accompany this bid. Failure to do so will eliminate the bid.

REQUIRED _____ NOT REQUIRED X _____

6. **PERFORMANCE BOND**

A performance bond in the amount of 100% of the bid submitted is required within ten (10) calendar days of acceptance of the bidder's proposal by the City.

The performance bond of the successful bidder shall have a minimum "A" rating as defined in Best's Key Rating Guide, be conditioned on the faithful performance of the requirements of the contract, and shall have as surety a corporate surety authorized to act as such in Illinois. The performance bond shall cover payment for all labor and material, and insure completion of the project. The bidder will be responsible for all claims for injuries to persons or damages to property or premises arising out of or in connection with his or her operations prior to the acceptance of the finished work or supplies, and that he or she will promptly make payments to all persons supplying him or her or them with labor or materials in the prosecution of the work provided for in the contract; and shall guarantee to indemnify and save the City and its officers and employees harmless from all costs, damages, and expenses arising out of or by reason of the bidder's failure to comply and perform the work and complete the contract in accordance with the specifications.

The performance bond shall be in conformance with the requirements of the Illinois Act in relation to bonds of bidders entering into contracts for public construction. (Illinois Compiled Statutes Ch. 30, Sec. 550/1, et seq.)

REQUIRED _____ NOT REQUIRED X _____

7. **GENERAL GUARANTY**

The bidder agrees to (a) hold the City, its agents, and employees harmless from liability of any nature or kind for the use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented, invention, article, or

appliance furnished or used in the performance of the contract in which the bidder is not the patentee, assignee, licensee, or owner; (b) protect the City against latent defective material or workmanship and to repair or replace any damages or marring occurring in transit or delivery; (c) pay for all permits, licenses, and fees and give all notices and comply with all laws, ordinances, and rules of the City and State of Illinois; (d) indemnify City against all claims for personal injury, death, and/or property damage arising out of the project.

8. **ASSIGNMENT**

Assignment of this contract or any part thereof, or any funds to be received thereunder by the bidder shall be subject to the approval of the City of St. Charles.

9. **DEFAULT**

The contract may be cancelled or annulled by the purchasing manager in whole or in part by written notice of default to the bidder upon nonperformance or violation of contract terms. An award may be made to the next lowest bidder, or articles specified may be purchased on the open market similar to those so terminated. In either event, the defaulting bidder (or his surety) shall be liable to the City for costs to the City in excess of the defaulted contract prices. The bidder shall continue the performance of this contract to the extent not terminated under the provisions of this clause. Failure of the bidder to deliver materials or services within the time stipulated on his or her bid, unless extended in writing by the purchasing manager, shall constitute contract default.

10. **INSURANCE**

Detailed insurance requirements are included under City of St. Charles Insurance Requirements for Bidders.

The bidder **shall** secure and maintain in effect at all times, at his or her expense, insurance of the following kinds and limits to cover all locations of the bidder's operations in connection with work on his or her company's projects, naming the City of St. Charles as an additional insured. The bidder shall furnish Certificates of Insurance to the City before starting construction or within 10 days after the execution of the contract, whichever date is reached first. All insurance policies shall include a non-cancellation clause provision preventing cancellation without 30 days written prior notice to the City. In case of insurance cancellation, bidder shall obtain a new insurance policy in compliance with this paragraph prior to the effective date of cancellation.

Certificates of insurance must be completed on the ACCORD 25-S form, with the cancellation clause revised and revisions initialed. An example is enclosed.

REQUIRED X **NOT REQUIRED** _____

For this specific project, the City of St. Charles is requiring a liability umbrella of

\$ 5,000,000 (aggregate for this project).

REQUIRED X NOT REQUIRED _____

11. **CERTIFICATE OF COMPLIANCE**

All bidders are required to complete the Certificate of Compliance (attached) as per the Illinois Compiled Statutes Ch. 65, Sec. 11-42.1-1, which will be returned with the bid.

12. **HEALTH AND SAFETY ACT**

All work under this contract shall comply with the Occupational Safety and Health Act (OSHA) of 1975, and all other federal, state or local statutes, rules or regulations affecting the work done under the contract.

13. **PREVAILING WAGE RATE**

All work under this contract shall comply with the Prevailing Wage Rate Act of the State of Illinois, Illinois Compiled Statutes Ch. 820, par. 130/31, et seq. and as amended by Public Acts 86-799 and 86-693 and our current City of St. Charles Ordinance with rates to be paid, in effect at the time work is performed. It is not the City's determination to dictate whether the rate is mandated here. The rate is the responsibility of the bidder and the State of Illinois. Successful bidder is responsible for posting and issuing current rates to its employees and subcontractors. Current rates are available through the Illinois Department of Labor (217/762-1710 or www.state.il.us/agency/idol).

The successful bidder and each subcontractor shall submit monthly, in person, by mail, or electronically, a certified payroll to the City of St. Charles. The certified payroll shall consist of records of all laborers, mechanics, and other workers employed by them on the project. The records shall include each worker's name, address, telephone number (when available), social security number, classification or classifications, the hourly wages paid in each period, the number of hours worked each day, and the starting and ending times of work each day. The certified payroll shall be accompanied by a statement signed by the bidder or subcontractor which avers that:

- A. Such records are true and accurate;
- B. The hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required; and
- C. The bidder or subcontractor is aware that filing a certified payroll that he or she knows to be false is a Class B misdemeanor.

The City of St. Charles is required to keep the certification records submitted for a period of not less than three years. Furthermore, these records, except an

employee's address, telephone number, and social security number, shall be made available in accordance with the Freedom of Information Act.

14. **EXECUTION OF CONTRACT, INSURANCE AND PERFORMANCE BOND**

The successful bidder, within ten (10) business days after acceptance of the bidder's offer by the City, shall execute all requested contract documents, supply satisfactory evidence of required insurance, and furnish a satisfactory performance bond when required by the bid documents. In the event that the bidder fails to furnish required documents, insurance, and performance bond within ten (10) business days after acceptance of the bidder's offer by the City, then the City's acceptance of the offer shall automatically terminate, and the bid deposit of the bidder shall be retained by the City as reimbursement for administrative costs.

15. **RELEASE OF BID DEPOSITS**

Within a reasonable time after the bid opening, bid deposits of all except the three lowest responsible bidders will be released. The remaining deposits will be released after the successful bidder has executed the contract documents and furnished evidence of the insurance and bonds required by the bid documents.

16. **EQUAL OPPORTUNITY EMPLOYER**

The City of St. Charles is an equal opportunity employer, and all bidders are required to be equal opportunity bidders as defined by all applicable state and federal laws and regulations.

17. **VETERANS PREFERENCE**

The City of St. Charles, per Illinois Compiled Statutes Ch. 330, par. 55/1-55/3, gives preference to veterans for public works contracts, should a tie bid arise between local OR non-local bidders.

18. **CERTIFICATE OF NON-DISQUALIFICATION**

All bidders are required to submit a completed Certificate of Non-Disqualification (attached), as required under Illinois Compiled Statutes, Ch. 720, Sec. 33 E-11.

19. **PROVISIONS OF ST. CHARLES MUNICIPAL CODE**

All bids and contracts shall be in accordance with Title 2, Ch. 2.33 of the City of St. Charles Illinois Municipal code, as from time to time amended, which shall take precedence over and control all aspects of this contract, and which are incorporated herein by reference.

20. **SURVIVAL**

The provisions hereof shall survive and shall not merge with the resulting purchase order or contract awarded to the successful bidder, but shall be additional terms thereof; and the submission of a bid shall be deemed as acceptance of these terms.

21. **CERTIFICATE OF COMPLIANCE WITH SAFETY STANDARDS**

All bidders are required to submit a completed Certificate of Compliance with Safety Standards (attached).

22. **CERTIFICATE OF COMPLIANCE WITH PUBLIC ACT 87-1257 OF THE ILLINOIS HUMAN RIGHTS ACT**

All bidders are required to submit a completed Certificate of Compliance with Public Act 87-1257 of the Illinois Human Rights Act (attached).

23. **WAIVERS OF MECHANICS LIEN**

A. With each application for payment, submit waivers of mechanics liens from the bidder, subcontractors, and suppliers for the construction period covered by the **current application**. Payment will not be released until the bidder has supplied the City with the waiver of liens.

1. Submit partial waivers on each item for the amount requested, prior to deduction for retainage, on each item.
2. When an application shows completion of an item, submit final or full waivers.
3. The City reserves the right to designate which entries involved in the work must submit waivers.
4. Waiver Delays: submit each application for payment with the bidder's waiver of mechanics lien for the period of construction covered by the application.

A. Initial application for payment: administrative actions and submittals, that must precede or coincide with submittal of the first application for payment, include the following:

1. List of subcontractors.
2. List of principal suppliers and fabricators.
3. Schedule of values.

REQUIRED X _____ NOT REQUIRED _____

**CERTIFICATE OF COMPLIANCE OF
ILLINOIS COMPILED STATUTES, CH. 65, SEC. 11-42.1-1**

The undersigned, upon being first duly sworn, hereby certifies to the City of St. Charles, Kane and DuPage Counties, Illinois, that _____
_____ (bidder) is not currently delinquent in the payment of any tax administered by or owed to the Illinois Department of Revenue, or otherwise in default upon any such tax as defined under Ch. 65, Sec. 11-42.1-1, Illinois Compiled Statutes.

Name of Bidder

By: _____

State of _____),
ss.

County of _____)

Subscribed and sworn to
before me this _____ day
of _____, _____.

Notary Public

The City of ST. Charles Sales Tax Procedure

- 1) The Illinois Department of Revenue tax exempt form will be included in all R.F.Ps, R.F.Qs and formal bids. It will also be made available (at the office of Purchasing) for contractors working on behalf of the city.
- 2) Contractors will be required to sign the issued to, company name, date, project and dates valid. A copy of this form will be kept at the office of purchasing.
- 3) It is the purpose of this procedure to decrease a projects cost by allowing contractors (working for the city) to purchase goods and to not be charged tax. This savings would be expected to be passed on to the City thus, saving monies for the tax payers of this community.



Illinois Department of Revenue

Office of Local Government Services
Sales Tax Exemption Section, 3-520
101 W. Jefferson Street
Springfield, IL 62702
217 782-8881

January 2, 2010

CITY OF ST CHARLES
DIRECTOR OF FINANCE
TWO EAST MAIN ST
ST CHARLES IL 60174

Effective January 1, 2010, we have renewed your governmental exemption from payment of the Retailers' Occupation Tax, the Service Occupation Tax (both state and local), the Use Tax, and the Service Use Tax, as required by Illinois law.

We have issued the following new tax exemption identification number:

E9996-0680-06

CITY OF ST CHARLES
of
ST CHARLES, IL

The terms and conditions governing use of your exemption number remain unchanged.

Office of Local Government Services
Illinois Department of Revenue

SAMPLE

Issued To: _____
Company: _____
Date Issued: _____
Project: _____
Dates Valid: _____

Christopher A. Minick, Director of Finance



City of St. Charles Certificate of Insurance Requirements

All Contractors, Manufacturers/Distributors, and Suppliers shall be required to carry and evidence insurance coverage with a standard Acord Certificate of Insurance with minimum limits applicable. Sample attached.

1. Minimum Insurance Requirements and Limits

	<i>Coverage</i>		<i>Limits</i>
A.	Automobile Liability	\$1,000,000	Combined single limit
B.	Commercial General Liability	\$1,000,000	Per occurrence
		\$2,000,000	General aggregate

All Commercial General Liability policies must include Blanket Contractual coverage and Broad Form Vendors' Liability coverage.

C.	Workers' Compensation	\$500,000	Per accident
	(Employers' Liability)	\$500,000	Disease limit
		\$500,000	Each Disease
D.	Umbrella Liability	\$5,000,000	Limit

2. Cancellation or Alteration

The policies of insurance required by this exhibit shall provide that they cannot be cancelled or altered in any way changing coverage except after 30 days' prior written notice by certified mail to owner.

3. Workers' Compensation and General Liability Waiver of Subrogation in favor of the City.

4. Insurance Certificates

- Must be submitted ten (10) days prior to any work being performed to allow review of certificates.
- Certificates not meeting requirements must be revised and resubmitted within fifteen (15) days or the subcontractor will not be allowed on the jobsite.

5. Additional Insured and Broad Form Vendors' Liability in favor of the City.

The City must be named as an Additional Insured with the following wording appearing on the Certificate of Insurance: "The City of St. Charles and any official, trustee, director, officer, or employee of the City (plus any holder or mortgage as designated by the City) as to any and all projects, as an Additional Insured for the Commercial General Liability as respects any and all projects for any work being performed and this coverage will be primary and noncontributory."

6. Minimum Insurance Carrier

All contractors, manufacturers/distributors, and suppliers' insurance carriers must comply with the minimum A.M Best rating of A-VI for all insurance carriers.

**CITY OF ST. CHARLES
PUBLIC WORKS DEPARTMENT
ELECTRIC DIVISION**

**SECONDARY CONTAINMENT BARRIER SYSTEMS
TECHNICAL SPECIFICATION**

1.0 Summary

It is the purpose of this specification to obtain prefabricated and complete barrier systems to form secondary containment systems that are large enough to inhibit the horizontal migration of an oil spill around oil filled electrical equipment located at four different sites in the City of St. Charles, Illinois in order to comply with the "Spill Prevention, Control, and Countermeasure Plan – City of St. Charles Electric Utility, St. Charles, Illinois.". Site locations are listed in the Appendix.

2.0 General Requirements

2.1 Specification Includes

- A Designing, furnishing and installing a prefabricated and complete barrier and accessory materials including excavation of soil materials to form a secondary containment system around energized oil filled electrical equipment.
- B Excavation and backfilling shall be performed by hand to prevent damage to adjacent structures, utilities, underground piping, electric cable, cable trays, grounding systems, and other facilities.

2.2 References

- A. IEEE Std 980-1994 R2001 (The Institute of Electrical and Electronics Engineers) Guide for Containment and Control of Oil Spills in Substations.
- B. Code of Federal Regulations (CFR) 40 CFR Protection of the Environment; PART 112- Oil Pollution Prevention.
- C. AASHTO No.57 Specifications (American Association of State Highway and Transportation Officials)

2.3 Quality Control

- A. Design barrier systems under direct supervision of a professional engineer experienced in the design of such work and to accommodate site conditions.
- B. Excavations shall be hand dug inside the aggregate paved surface area of the energized substation and comply with the City of St. Charles Code Book.
- C. The manufacturers shall be companies specializing in producing barrier systems with a minimum of three years of documented experience.
- D. The installers shall be companies specializing in the installation of barriers or similar systems with a minimum of three years of documented experience.
- E. An independent testing laboratory shall be hired to perform testing required to determine gradation for cover material.

- F. The manufacturer's representative shall occupy the project site during geosynthetic barrier installation to activate manufacturer's guarantee.

2.4 Submittals

- A. Visit the job locations and be familiar with the site conditions under which work will be performed before submitting a proposal.
- B. Submit qualification and experience record for designers.
- C. Design Data: Provide physical characteristics and engineering calculations where required and identify dimensional limitations.
- D. Shop Drawings: Indicate barrier dimensions, affected related work and details including overlap at joints; include site restoration plans.
- E. Product Data: Provide component dimensions; describe components within assembly and anchorage or fasteners.
- G. Warranty: Submit manufacturer's warranties and ensure forms have been completed in the name of The City of St. Charles and registered with manufacturer.

2.5 Delivery, Storage and Protection

- A. Control the products of this specification according to the manufacturer's requirements.
- B. Protect barrier materials during transport and on project site prior to installation.

2.7 Warranty

- A. Provide manufacturer warranty against failure of barrier material when installed properly including provision for replacement of failed units.
- B. Warranty shall be in effect for the Service Life of the installed product.

3.0 Products

3.1 Manufacturers

- A. Subject to project requirements, manufacturers offering products to be incorporated in the work include the following:
 - C.I.Agent Solutions®; 11760 Commonwealth Dr., Louisville, KY 40299
office 502.267.0101 toll free 866.242.4368 fax 502.267.0181 website:
<http://www.ciagent.com>

3.2 Barrier Materials

- A. Geosynthetic barrier shall be designed to prevent flow of hydrocarbons from oil filled electrical equipment by becoming an impervious barrier in the event of an oil release of 6,000 gallons and allow unrestricted water flow during normal rainfall or snow melt events.
- B. Barrier shall consist of three manufacturer assembled component parts:
 - 1. Barrier Front Section shall be a basic geotextile fabric made from synthetic materials that is both hydrophobic and oleophilic with high wicking capability.

2. Barrier Middle Section shall be a layer of C.I.Agent®. C.I.Agent® is a blend of cross-linking polymers which are non-toxic, nonhazardous and environmentally friendly; made to encapsulate oils into a cohesive rubber-like mass.
3. Barrier Back Section shall be Agent-X. Agent-X is two layers of a geotextile with C.I.Agent® polymers laminated between the layers.

3.2 Barrier Performance Specifications

- A. Hydrocarbon flow rate: 0 gpm
- B. Geosynthetic barrier must be able to flow a minimum of 3 GPM per square foot of material with one foot of head pressure
- C. Solidify approximately a half gallon of oil per square foot
- D. UV resistance: 70 percent
- E. Oxidation resistance: 80 percent
- F. Shall contain 12 to 16 oz. of loose C.I.Agent® polymers per square foot
- G. Shall meet Spill Prevention Control and Countermeasures (SPCC) requirements in accordance with 40 CFR 112.

3.3 Accessory Materials

- A. Furnish all required materials, tools and equipment including, but not limited to, a power source, reinforcement bars, wood stakes (or other supports), staple gun, galvanized staples, hammer, shovel, rake, steel (or heavy duty plastic) angle – length capable of spanning between supports, and Bentonite®.

3.4 Fabrication

- A. Fabricate components with minimum clearances around the perimeter of assembly, yet enabling installation and dynamic movement of the perimeter seal.
- B. Accurately fit and secure the joints and corners. Make all the joints flush.
- C. Prepare components to receive the anchor devices.
- D. Arrange fasteners and attachments so as to conceal them from view.

3.5 Washed Stone Cover Material

- A. Gradation requirements shall be determined in accordance with AASHTO size number 57 per Table 4, AASHTO Specifications, Part I, 19th Ed., 1998 (p. 47).
- B. For fills categorized as "crushed stone" or equivalent clean stone shall comply with the following:

Coarse Aggregate				
Sieve Size		AASHTO No. 57 (percent passing)		
50 mm	2 inches		-	
37.5 mm	1.5 inch		100 min	
25 mm	1 inch		95 - 100	
19.0 mm	0.75 inches		-	
12.5 mm	0.5 inch		25 - 60	
9.5 mm	0.375 inches		-	
4.75 mm	No. 4		10 max	
2.36 mm	No. 8		5 max	
1.18 mm	No. 16		-	

4.0 Implementation

4.1 Examination

- A. Confirm dimensions, tolerances, and the method of attachment.
- B. Confirm that the anchorage devices have been properly installed and located.

4.2 Installation

- A. Comply with all safety laws and regulations including, but not limited to, IDOL (Illinois Department of Labor) and OSHA (29 CFR Part 1910 and 29 CFR Part 1926) particularly in close proximity to energized electrical equipment.
- B. Avoid damage wherever excavation is being done. The excavation width shall not exceed the width actually necessary for the proper performance of the work.
- C. Install the barrier in accordance with manufacturer's instructions.
- D. Overlap and splice the barrier sections, as necessary, according to the shop drawings and the manufacturer's recommendations.
- E. The Barrier should not be cut or trimmed without the explicit approval of the manufacturer or their representative.
- F. Attach the barrier to grade to permit sufficient adjustment to accommodate construction tolerances and other irregularities permitting efficient progress of the work.

4.2 Field Quality Control

- A. Perform gradation testing to indicate compliance with AASHTO #57.
- B. Verify barrier is firmly attached to supports before placing cover material.

4.3 Cleaning and Protection

- A. Remove any protective material.
- B. Repair minor damage to surfaces to the satisfaction of the manufacturer prior to cover material being installed.
- C. Protect barrier during installation of cover material.

5.0 Special Conditions

- 5.1 The City of St Charles requires contractors to meet all State of Illinois requirements, such as prevailing wage rates, insurance, etc.
- 5.2 Contractor shall have approved General Contracting License to work within the City of St. Charles.
- 5.3 Contractor shall provide the list of Subcontractors to the Electric Division.
- 5.4 Contractor shall provide Insurance to the City of St. Charles.
- 5.5 The work will be performed in an energized City of St. Charles electric substation; therefore, the Contractor's access at the work site shall be restricted. The Contractor's equipment and personnel shall only occupy areas identified as safe by the City of St. Charles.
- 5.6 Workers are required to wear appropriate PPE as described and recommended through The National Fire Protection Association (NFPA) 70E Standard for Electrical Safety Requirements for Employee Workplaces. The Contractor shall provide all required safety equipment for work to include but not limited to hard hat, category-2 Arc-rated clothing, upper and lower body outer layers, steel toed shoes and safety glasses.
- 5.7 Contractor will not be allowed to use any heavy equipment without prior approval from City of St. Charles.
- 5.8 Contractor shall hand dig inside the aggregate paved surface area of the energized substation.
- 5.9 Contractor shall provide digital color images (jpg format) for all major activities in their proper sequence (particularly those which will be covered up).

6.0 Miscellaneous

- 6.1 A copy of "Spill Prevention, Control, and Countermeasure Plan – City of St. Charles Electric Utility, St. Charles, Illinois" prepared by Huff & Huff, Inc. is available for inspection at the City of St. Charles Public Works Facility, 200 Devereaux Way, St. Charles, Illinois.

List of Appendices (Site Locations Scope of Work)

- A. Substation-2 C.I. Agent Barrier Boom
- B. Substation-5 C.I. Agent Barrier Boom
- C. Substation-6 C.I. Agent Barrier Boom
- D. Substation-7 C.I. Agent Barrier Boom

APPENDIX A
SECONDARY CONTAINMENT SYSTEM C.I. AGENT BARRIER BOOM
SCOPE OF WORK

Purpose: It is the purpose of this project to obtain a prefabricated and complete C.I. Agent Barrier Boom to form a secondary containment system that is large enough to inhibit the horizontal migration of a 2,403 gallon spill from oil filled electrical equipment in order to comply with the “Spill Prevention, Control, and Countermeasure Plan – City of St. Charles Electric Utility, St. Charles, Illinois.”

Scope of Work: Designing, furnishing and installing a prefabricated and complete C.I. Agent Barrier Boom and accessory materials including excavation of soil materials to form a secondary containment system installed along the southern portion of the property to prevent an oil release to the nearby storm water inlet. The secondary containment system shall be designed to inhibit the horizontal migration of a maximum release of 2,403 gallons (volume of largest container minus the gravel holding capacity, see Calculations on last page of Appendix A).

Work Site: The work will be performed at Electric Substation-2, 630 North 12th Street, St. Charles, Illinois. Access to the property is available from 12th street, along the west side of the property. The property consists of a control building, two transformers (2T1, and 2T2) and other common components of a substation. Transformer 2T2 has an oil retention pit with a capacity of 5,694 gallons. Transformer 2T1 contains 2,573 gallons of oil. The property is topographically down-gradient to the west. Gravel has been laid down over a majority of the property’s surface. A railroad runs along the north border of the property. An industrial building is adjacent to the south, and a vacant lot is to the east. The nearest water body is the Fox River, approximately 3,000 feet to the east. However, there is a storm water inlet approximately 140 feet west of the property.

Work: Place Barrier Boom with 2,403 gallon capacity along western edge of the inner fence and the cable trough as shown in the attached pdf document entitled Sub 2 – Barrier Boom. The boom is to be installed down to the clay with special care taken to preserve the substation ground grid or to notify the electric utility if the ground grid is disturbed. The barrier is to be completely covered by gravel and left level with the surrounding ground so that trucks can drive over it.

Deliverables Schedule:

- A. Visit the job location (Electric Substation-2, 630 North 12th Street, St. Charles, IL.) and be familiar with the site conditions under which work will be performed before submitting a proposal.
- B. Submit qualification and experience record for designers.
- C. Design Data: Provide physical characteristics and engineering calculations where required and identify dimensional limitations.
- D. Shop Drawings: Indicate C.I. Agent Barrier Boom dimensions, affected related work and details including overlap at joints; include site restoration plans.
- E. Product Data: Provide component dimensions; describe components within assembly and anchorage or fasteners.

- F. Warranty: Submit manufacturer warranty and ensure forms have been completed in The City of St. Charles name and registered with manufacturer.

Applicable Standards:

- A. IEEE Std. 980-1994 R2001 (The Institute of Electrical and Electronics Engineers) Guide for Containment and Control of Oil Spills in Substations.
- B. Code of Federal Regulations (CFR) 40 CFR Protection of the Environment; PART 112- Oil Pollution Prevention.
- C. AASHTO No.57 Specifications (American Association of State Highway and Transportation Officials)

Acceptance Criteria:

Barrier Performance Specifications

- A. Hydrocarbon flow rate: 0 gpm
- B. Barrier must be able to flow a minimum of 3 GPM per square foot of material with one foot of head pressure
- C. Solidify approximately a half gallon of oil per square foot
- D. UV resistance: 70 percent
- E. Oxidation resistance: 80 percent
- F. Shall contain 12 to 16 oz. of loose C.I.Agent® polymers per square foot
- G. Shall meet Spill Prevention Control and Countermeasures (SPCC) requirements in accordance with 40 CFR 112.

Special Requirements:

- A. The City of St Charles requires contractors to meet all State of Illinois requirements, such as prevailing wage rates, insurance, etc.
- B. Contractor shall have approved General Contracting License to work within the City of St. Charles.
- C. Contractor shall provide the list of Subcontractors to the Electric Division.
- D. Contractor shall provide Insurance to the City of St. Charles.
- E. The work will be performed in an energized City of St. Charles electric substation; therefore, the Contractor's access at the work site shall be restricted. The Contractor's equipment and personnel shall only occupy areas identified as safe by the City of St. Charles.
- F. Workers are required to wear appropriate PPE as described and recommended through The National Fire Protection Association (NFPA) 70E Standard for Electrical Safety Requirements for Employee Workplaces. The Contractor shall provide all required safety equipment for work to include but not limited to hard hat, category-2 Arc-rated clothing, upper and lower body outer layers, steel toed shoes and safety glasses.
- G. Contractor will not be allowed to use any heavy equipment without prior approval from City of St. Charles.
- H. Contractor shall hand dig inside the aggregate paved surface area of the energized substation.

- I. Contractor shall provide digital color images (jpg format) for all major activities in their proper sequence (particularly those which will be covered up).

Miscellaneous:

A copy of “Spill Prevention, Control, and Countermeasure Plan – City of St. Charles Electric Utility, St. Charles, Illinois” prepared by Huff & Huff, Inc. is available for inspection at the City of St. Charles Public Works Facility, 200 Devereaux Way, St. Charles, Illinois.

Calculations:

Gravel: Assume 6-inches of gravel, $d = 0.5$, 10% of void space retains oil.

$$V \text{ oil retained} = 0.5 \times X \text{ ft.}^2 \times 0.5 \times 0.1 = X \text{ ft.}^2 \times 0.025 \text{ ft.}$$

$$\rightarrow X \text{ ft.}^2 \times 0.25 \text{ ft.} \times 1.0 \text{ US gallon} / 0.134 \text{ ft}^3 = X \text{ ft}^2 0.189 \text{ gallon} / \text{ft.}^2$$

Sub-2: 2,573 gallons of oil (2T1)

$$\text{Area} = 30 \text{ ft.} \times 30 \text{ ft.} = 900 \text{ ft.}^2$$

$$V \text{ oil retained} = 900 \text{ ft.}^2 \times 0.189 \text{ gallon} / \text{ft}^2 = 170 \text{ gallons}$$

$$V \text{ containment} = 2,573 \text{ gal (volume of 2T1)} - 170 \text{ gal.} = 2,403 \text{ gal.}$$

Therefore: Place Barrier Boom with 2,403 gallon capacity along western edge of the inner fence.

APPENDIX B
SECONDARY CONTAINMENT SYSTEM C.I. AGENT BARRIER BOOM
SCOPE OF WORK

Purpose: It is the purpose of this specification to obtain a prefabricated and complete C.I. Agent Barrier Boom to form a secondary containment system that is large enough to inhibit the horizontal migration of an spill from oil filled electrical equipment in order to comply with the “Spill Prevention, Control, and Countermeasure Plan – City of St. Charles Electric Utility, St. Charles, Illinois.”

Scope of Work: Designing, furnishing and installing a prefabricated and complete C.I. Agent Barrier Boom and accessory materials including excavation of soil materials to form a secondary containment system installed along the southern portion of the property to prevent an oil release to the nearby creek. The secondary containment system shall be designed to inhibit the horizontal migration of a maximum release of 2,746 gallons (volume of largest container minus the gravel holding capacity, see Calculations on last page of Appendix B).

Work Site: The work will be performed at Electric Substation-5, 2561 Dukane Drive, St. Charles, Illinois. Access to the property is available from Dukane Drive, along the north side of the property. The property consists of a control building, three transformers (5T1, 5T2 and 5T3) and other common components of a substation. Transformers 5T1, 5T2, and 5T3 contain 4,560 gallons of oil, 4,195 gallons of oil, and 4,560 gallons of oil respectively. The property is topographically down-gradient to the south; though the slope is relatively small. Gravel has been laid down over a majority of the property’s surface. The nearest water body is a retention pond, approximately 1,250 feet to the west. There is a drainage swale which appears to flow into this retention pond.

Work: Place Barrier Boom with 2,746 gallon capacity along southern border of property as shown in the pdf document entitled Sub 5 – Barrier Boom. The boom is to be installed down to the clay with special care taken to preserve the substation ground grid or to notify the electric utility if the ground grid is disturbed. The barrier is to be covered with gravel and is to have a small berm to indicate its location.

Deliverables Schedule:

- A. Visit the job location (Electric Substation-5, 2561 Dukane Drive, St. Charles, IL.) and be familiar with the site conditions under which work will be performed before submitting a proposal.
- B. Submit qualification and experience record for designers.
- C. Design Data: Provide physical characteristics and engineering calculations where required and identify dimensional limitations.
- D. Shop Drawings: Indicate C.I. Agent Barrier Boom dimensions, affected related work and details including overlap at joints; include site restoration plans.
- E. Product Data: Provide component dimensions; describe components within assembly and anchorage or fasteners.
- F. Warranty: Submit manufacturer warranty and ensure forms have been completed in The City of St. Charles name and registered with manufacturer.

Applicable Standards:

- A. IEEE Std. 980-1994 R2001 (The Institute of Electrical and Electronics Engineers) Guide for Containment and Control of Oil Spills in Substations.
- B. Code of Federal Regulations (CFR) 40 CFR Protection of the Environment; PART 112- Oil Pollution Prevention.
- C. AASHTO No.57 Specifications (American Association of State Highway and Transportation Officials)

Acceptance Criteria:

Barrier Performance Specifications

- A. Hydrocarbon flow rate: 0 gpm
- B. Barrier must be able to flow a minimum of 3 GPM per square foot of material with one foot of head pressure
- C. Solidify approximately a half gallon of oil per square foot
- D. UV resistance: 70 percent
- E. Oxidation resistance: 80 percent
- F. Shall contain 12 to 16 oz. of loose C.I.Agent® polymers per square foot
- G. Shall meet Spill Prevention Control and Countermeasures (SPCC) requirements in accordance with 40 CFR 112.

Special Requirements:

- A. The City of St Charles requires contractors to meet all State of Illinois requirements, such as prevailing wage rates, insurance, etc.
- B. Contractor shall have approved General Contracting License to work within the City of St. Charles.
- C. Contractor shall provide the list of Subcontractors to the Electric Division.
- D. Contractor shall provide Insurance to the City of St. Charles.
- E. The work will be performed in an energized City of St. Charles electric substation; therefore, the Contractor's access at the work site shall be restricted. The Contractor's equipment and personnel shall only occupy areas identified as safe by the City of St. Charles.
- F. Workers are required to wear appropriate PPE as described and recommended through The National Fire Protection Association (NFPA) 70E Standard for Electrical Safety Requirements for Employee Workplaces. The Contractor shall provide all required safety equipment for work to include but not limited to hard hat, category-2 Arc-rated clothing, upper and lower body outer layers, steel toed shoes and safety glasses.
- G. Contractor will not be allowed to use any heavy equipment without prior approval from City of St. Charles.
- H. Contractor shall hand dig inside the aggregate paved surface area of the energized substation.
- I. Contractor shall provide digital color images (jpg format) for all major activities in their proper sequence (particularly those which will be covered up).

Miscellaneous:

A copy of “Spill Prevention, Control, and Countermeasure Plan – City of St. Charles Electric Utility, St. Charles, Illinois” prepared by Huff & Huff, Inc. is available for inspection at the City of St. Charles Public Works Facility, 200 Devereaux Way, St. Charles, Illinois.

Calculations:

Gravel: Assume 6-inches of gravel, $d = 0.5$, 10% of void space retains oil.

$$V \text{ oil retained} = 0.5 \times X \text{ ft.}^2 \times 0.5 \times 0.1 = X \text{ ft.}^2 \times 0.025 \text{ ft.}$$

$$\rightarrow X \text{ ft.}^2 \times 0.25 \text{ ft.} \times 1.0 \text{ US gallon} / 0.134 \text{ ft}^3 = X \text{ ft}^2 0.189 \text{ gallon} / \text{ft.}^2$$

Sub-5: 13,315 gallons (5T1, 5T2, 5T3)

$$\text{Area} = 120 \text{ ft.} \times 80 \text{ ft.} = 9,600 \text{ ft.}^2$$

$$V \text{ oil retained} = 9,600 \text{ ft.}^2 \times 0.189 \text{ gallon} / \text{ft}^2 = 1,814 \text{ gallons}$$

$$V \text{ containment} = 4,560 \text{ gal (volume of largest container, 5T1)} - 1,814 \text{ gal.} = 2,746 \text{ gal.}$$

Therefore: Place Barrier Boom with 2,746 gallon capacity along southern border of property.

APPENDIX C
SECONDARY CONTAINMENT SYSTEM C.I. AGENT BARRIER BOOM
SCOPE OF WORK

Purpose: It is the purpose of this specification to obtain a prefabricated and complete C.I. Agent Barrier Boom to form a secondary containment system that is large enough to inhibit the horizontal migration of an spill from oil filled electrical equipment in order to comply with the “Spill Prevention, Control, and Countermeasure Plan – City of St. Charles Electric Utility, St. Charles, Illinois.”

Scope of Work: Designing, furnishing and installing a prefabricated and complete C.I. Agent Barrier Boom and accessory materials including excavation of soil materials to form a secondary containment system installed along the southern portion of the property to prevent an oil release to the nearby creek. The secondary containment system shall be designed to inhibit the horizontal migration of a maximum release of a volume of 2,746 gallons. This number is 110 percent of the largest single oil-filled equipment (volume of largest container (6T2) minus the gravel holding capacity, see Calculations on last page of Appendix C).

Work Site: The work will be performed at Electric Substation-6, 1405 Prairie Street in St. Charles, Illinois. Access to the property is available from Prairie Street, along the north side of the property. The property consists of a control building, two transformers (6T1 and 6T2), and other common components of a substation. Transformers 6T1 and 6T2 contain 2,810 gallons of oil, and 3,670 gallons of oil, respectively. The property is topographically down-gradient to the south; though the slope is relatively small. Gravel has been laid down over a majority of the property’s surface. The nearest water body is a retention pond that is part of the residential community to the west. The pond is approximately 240 feet south of the substation. However, there are storm water inlets in the adjacent parking lot to the south, approximately 50 feet away.

Work: Place Barrier Boom with 2,420 gallon capacity along southern border of property as shown in the pdf document entitled Sub 6 – Barrier Boom. The boom is to be installed down to the clay with special care taken to preserve the substation ground grid or to notify the electric utility if the ground grid is disturbed. The barrier is to be covered with gravel and is to have a small berm to indicate its location.

Deliverables Schedule:

- A. Visit the job location (Electric Substation-6, 1405 Prairie Street, St. Charles, IL.) and be familiar with the site conditions under which work will be performed before submitting a proposal.
- B. Submit qualification and experience record for designers.
- C. Design Data: Provide physical characteristics and engineering calculations where required and identify dimensional limitations.
- D. Shop Drawings: Indicate concrete curbing dimensions, affected related work and details.
- E. Product Data: Provide component dimensions and describe components.
- F. Warranty: Submit manufacturer warranty and ensure forms have been completed in The City of St. Charles name and registered with manufacturer.

Applicable Standards:

- A. IEEE Std. 980-1994 R2001 (The Institute of Electrical and Electronics Engineers) Guide for Containment and Control of Oil Spills in Substations.
- B. Code of Federal Regulations (CFR) 40 CFR Protection of the Environment; PART 112- Oil Pollution Prevention.
- C. AASHTO No.57 Specifications (American Association of State Highway and Transportation Officials)

Acceptance Criteria:

Barrier Performance Specifications

- A. Hydrocarbon flow rate: 0 gpm
- B. Barrier must be able to flow a minimum of 3 GPM per square foot of material with one foot of head pressure
- C. Solidify approximately a half gallon of oil per square foot
- D. UV resistance: 70 percent
- E. Oxidation resistance: 80 percent
- F. Shall contain 12 to 16 oz. of loose C.I.Agent® polymers per square foot
- G. Shall meet Spill Prevention Control and Countermeasures (SPCC) requirements in accordance with 40 CFR 112.

Special Requirements:

- A. The City of St Charles requires contractors to meet all State of Illinois requirements, such as prevailing wage rates, insurance, etc.
- B. Contractor shall have approved General Contracting License to work within the City of St. Charles.
- C. Contractor shall provide the list of Subcontractors to the Electric Division.
- D. Contractor shall provide Insurance to the City of St. Charles.
- E. The work will be performed in an energized City of St. Charles electric substation; therefore, the Contractor's access at the work site shall be restricted. The Contractor's equipment and personnel shall only occupy areas identified as safe by the City of St. Charles.
- F. Workers are required to wear appropriate PPE as described and recommended through The National Fire Protection Association (NFPA) 70E Standard for Electrical Safety Requirements for Employee Workplaces. The Contractor shall provide all required safety equipment for work to include but not limited to hard hat, category-2 Arc-rated clothing, upper and lower body outer layers, steel toed shoes and safety glasses.
- G. Contractor will not be allowed to use any heavy equipment without prior approval from City of St. Charles.
- H. Contractor shall hand dig inside the aggregate paved surface area of the energized substation.

- I. Contractor shall provide digital color images (jpg format) for all major activities in their proper sequence (particularly those which will be covered up).

Miscellaneous:

A copy of "Spill Prevention, Control, and Countermeasure Plan – City of St. Charles Electric Utility, St. Charles, Illinois" prepared by Huff & Huff, Inc. is available for inspection at the City of St. Charles Public Works Facility, 200 Devereaux Way, St. Charles, Illinois.

Calculations:

Gravel: Assume 6-inches of gravel, $d = 0.5$, 10% of void space retains oil.

$$V \text{ oil retained} = 0.5 \times X \text{ ft.}^2 \times 0.5 \times 0.1 = X \text{ ft.}^2 \times 0.025 \text{ ft.}$$

$$\rightarrow X \text{ ft.}^2 \times 0.25 \text{ ft.} \times 1.0 \text{ US gallon} / 0.134 \text{ ft}^3 = X \text{ ft}^2 0.189 \text{ gallon} / \text{ft.}^2$$

Sub-6: 6,480 gallons (6T1, 6T2)

$$\text{Area} = 95 \text{ ft.} \times 70 \text{ ft.} = 6,650 \text{ ft.}^2$$

$$V \text{ oil retained} = 6,650 \text{ ft.}^2 \times 0.189 \text{ gallon} / \text{ft}^2 = 1,250 \text{ gallons}$$

$$V \text{ containment} = 3,670 \text{ gal (volume of largest container, 6T2)} - 1,250 \text{ gal.} = 2,420 \text{ gal.}$$

Therefore: Place Barrier Boom with 2,420 gallon capacity along southern border of property.

APPENDIX D
SECONDARY CONTAINMENT SYSTEM C.I. AGENT BARRIER BOOM
SCOPE OF WORK

Purpose: It is the purpose of this specification to obtain a prefabricated and complete C.I. Agent Barrier Boom to form a secondary containment system that is large enough to inhibit the horizontal migration of an spill from oil filled electrical equipment in order to comply with the “Spill Prevention, Control, and Countermeasure Plan – City of St. Charles Electric Utility, St. Charles, Illinois.”

Scope of Work: Designing, furnishing and installing a prefabricated and complete C.I. Agent Barrier Boom and accessory materials including excavation of soil materials to form a secondary containment system installed along the southern portion of the property to prevent an oil release to the nearby creek. The secondary containment system shall be designed to inhibit the horizontal migration of a maximum release of 3,820 gallons (volume of largest container minus the gravel holding capacity, see Calculations on last page of Appendix D).

Work Site: The work will be performed at Electric Substation-7, 1000 Dunham Road in St. Charles, Illinois. Access to the property is available from Dunham Road, along the west side of the property. The property consists of a control building, three transformers (7T1, 7T2, and 7T3), and other common components of a substation. Transformers 7T1, 7T2, and 7T3 contain 4,500 gallons of oil, 4,765 gallons of oil, and 3,900 gallons of oil, respectively. Transformer 7T3 has an oil retention pit with a capacity of 4,300 gallons. The property is topographically down-gradient to the northeast; though the slope is relatively small. Gravel has been laid down over a majority of the property’s surface. The nearest water body is a retention pond, along the eastern border of the property.

Work: The actual location of the barrier at Substation 7 has not yet been decided. Final decision will depend on the cost and complexity of each of the following two options. Contractor is to provide pricing for each option but only one will be constructed.

Option A-

Place Barrier Boom with 3,820 gallon capacity along north eastern border of property as shown in the pdf document entitled Sub 7 – Barrier Boom A. The boom is to be installed down to the clay with special care taken to preserve the substation ground grid or to notify the electric utility if the ground grid is disturbed. The barrier is to be covered with gravel and is to have a small berm to indicate its location. In addition Barrier Boom is to be constructed in such a manner that allows truck traffic to the gate on the north east corner of the substation.

Option B-

Place Barrier Boom with 3,820 gallon capacity in a rectangular shaped area around 7T1 and 7T2 as shown in the pdf document entitled Sub 7 – Barrier Boom B. The boom is to be installed down to the clay with special care taken to preserve the substation ground grid or to notify the electric utility if the ground grid is disturbed. The barrier is to be covered with gravel and is to have a small berm to indicate its location. Although

containment field is drawn as a rectangle the actual area may be more irregular, depending on ease of construction around the existing substation structures.

Deliverables Schedule:

- A. Visit the job location (Electric Substation-7, 1000 Dunham Road, St. Charles, IL.) and be familiar with the site conditions under which work will be performed before submitting a proposal.
- B. Submit qualification and experience record for designers.
- C. Design Data: Provide physical characteristics and engineering calculations where required and identify dimensional limitations.
- D. Shop Drawings: Indicate C.I. Agent Barrier Boom dimensions, affected related work and details including overlap at joints; include site restoration plans.
- E. Product Data: Provide component dimensions; describe components within assembly and anchorage or fasteners.
- F. Warranty: Submit manufacturer warranty and ensure forms have been completed in The City of St. Charles name and registered with manufacturer.

Applicable Standards:

- A. IEEE Std. 980-1994 R2001 (The Institute of Electrical and Electronics Engineers) Guide for Containment and Control of Oil Spills in Substations.
- B. Code of Federal Regulations (CFR) 40 CFR Protection of the Environment; PART 112- Oil Pollution Prevention.
- C. AASHTO No.57 Specifications (American Association of State Highway and Transportation Officials)

Acceptance Criteria:

Barrier Performance Specifications

- A. Hydrocarbon flow rate: 0 gpm
- B. Barrier must be able to flow a minimum of 3 GPM per square foot of material with one foot of head pressure
- C. Solidify approximately a half gallon of oil per square foot
- D. UV resistance: 70 percent
- E. Oxidation resistance: 80 percent
- F. Shall contain 12 to 16 oz. of loose C.I.Agent® polymers per square foot
- G. Shall meet Spill Prevention Control and Countermeasures (SPCC) requirements in accordance with 40 CFR 112.

Special Requirements:

- A. The City of St Charles requires contractors to meet all State of Illinois requirements, such as prevailing wage rates, insurance, etc.
- B. Contractor shall have approved General Contracting License to work within the City of St. Charles.
- C. Contractor shall provide the list of Subcontractors to the Electric Division.
- D. Contractor shall provide Insurance to the City of St. Charles.

- E. The work will be performed in an energized City of St. Charles electric substation; therefore, the Contractor's access at the work site shall be restricted. The Contractor's equipment and personnel shall only occupy areas identified as safe by the City of St. Charles.
- F. Workers are required to wear appropriate PPE as described and recommended through The National Fire Protection Association (NFPA) 70E Standard for Electrical Safety Requirements for Employee Workplaces. The Contractor shall provide all required safety equipment for work to include but not limited to hard hat, category-2 Arc-rated clothing, upper and lower body outer layers, steel toed shoes and safety glasses.
- G. Contractor will not be allowed to use any heavy equipment without prior approval from City of St. Charles.
- H. Contractor shall hand dig inside the aggregate paved surface area of the energized substation.
- I. Contractor shall provide digital color images (jpg format) for all major activities in their proper sequence (particularly those which will be covered up).

Miscellaneous:

A copy of "Spill Prevention, Control, and Countermeasure Plan – City of St. Charles Electric Utility, St. Charles, Illinois" prepared by Huff & Huff, Inc. is available for inspection at the City of St. Charles Public Works Facility, 200 Devereaux Way, St. Charles, Illinois.

Calculations:

Gravel: Assume 6-inches of gravel, $d = 0.5$, 10% of void space retains oil.

$V_{\text{oil retained}} = 0.5 \times X \text{ ft.}^2 \times 0.5 \times 0.1 = X \text{ ft.}^2 \times 0.025 \text{ ft.}$

$\rightarrow X \text{ ft.}^2 \times 0.25 \text{ ft.} \times 1.0 \text{ US gallon} / 0.134 \text{ ft}^3 = X \text{ ft}^2 0.189 \text{ gallon} / \text{ft.}^2$

Sub-7: 9,325 gallons (7T1, 7T2)

Area = 100 ft. x 50 ft. = 5,000 ft.²

$V_{\text{oil retained}} = 5,000 \text{ ft.}^2 \times 0.189 \text{ gallon} / \text{ft}^2 = 945 \text{ gallons}$

$V_{\text{containment}} = 4,765 \text{ gal (volume of largest container, 7T2)} - 945 \text{ gal.} = 3,820 \text{ gal.}$

Therefore: Place Barrier Boom with 3,820 gallon capacity on property.

Pricing, Exceptions, and Options

Please state if any exceptions are taken. Each exception description shall be provided by Bidder on separate document for evaluation.

Exceptions attached Yes _____ No _____

It is the intention of the City to award all substations to a single contractor. However, if there is a significant difference in the prices for individual substations, we reserve the right to divide the job between contractors.

Contractor shall identify if a discount is available for award of the entire job.

Itemized price for installing barrier at each substation

\$ _____ **Sub 2**

\$ _____ **Sub 5**

\$ _____ **Sub 6**

\$ _____ **Sub 7 – option A**

\$ _____ **Sub 7 – option B**

\$ _____ **Total with Sub 7 option A**

\$ _____ **Total with Sub 7 option B**

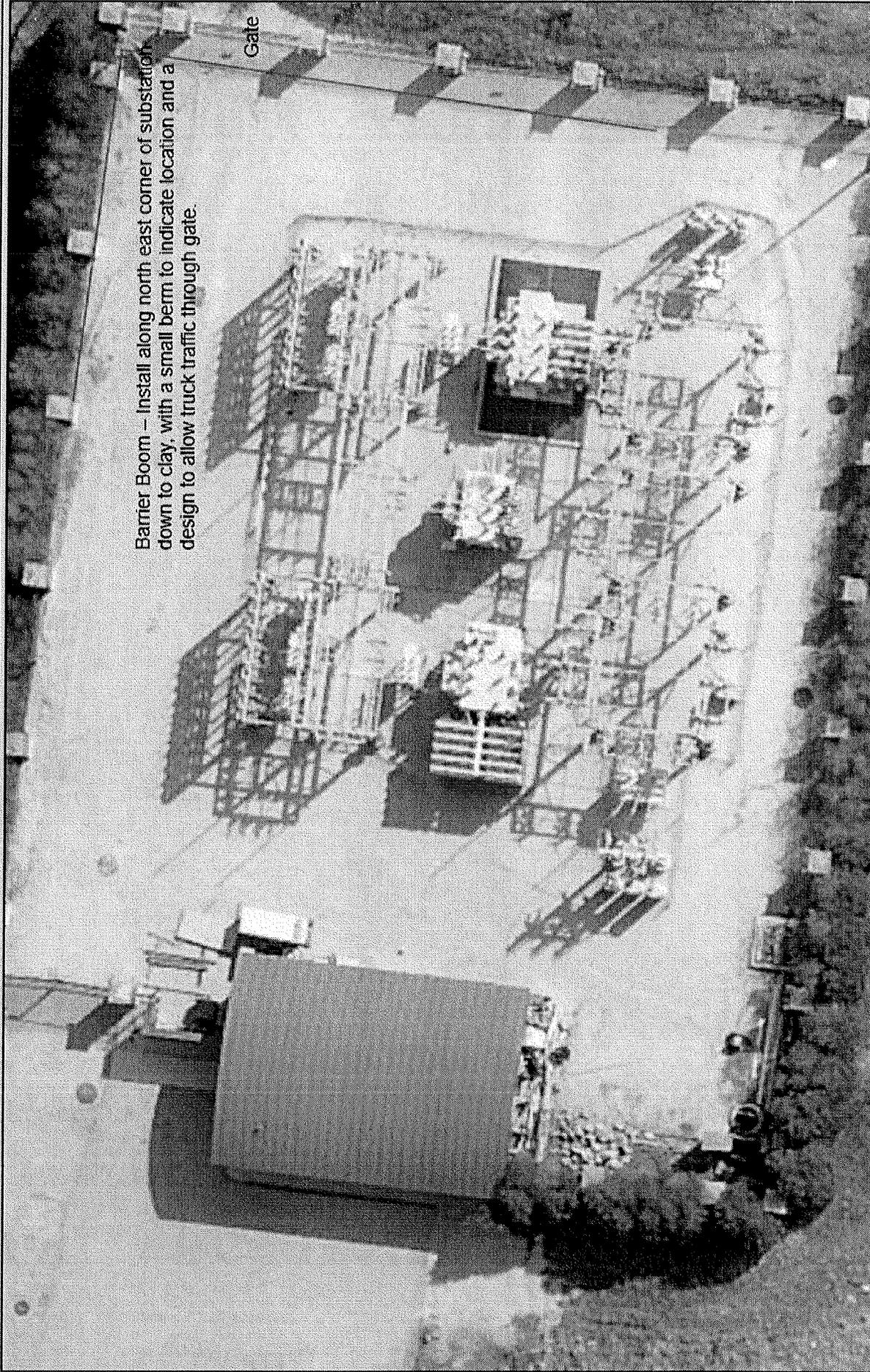
\$ (_____) **Discount (if any) for multiple stations**



City of St. Charles, Illinois
 Two East Main Street, St. Charles, IL 60117-1708
 Phone: (630) 377-4400, Fax: (630) 377-4400 - www.stcharles.il.gov

Sub 7 - Barrier Boom - option B

RAYMOND ROGINA Mayor
 BRIAN TOWNSEND City Administrator



Barrier Boom – Install along north east corner of substation down to clay, with a small berm to indicate location and a design to allow truck traffic through gate.

Gate

Drawn by: [Name]
 Checked by: [Name]
 Date: [Date]



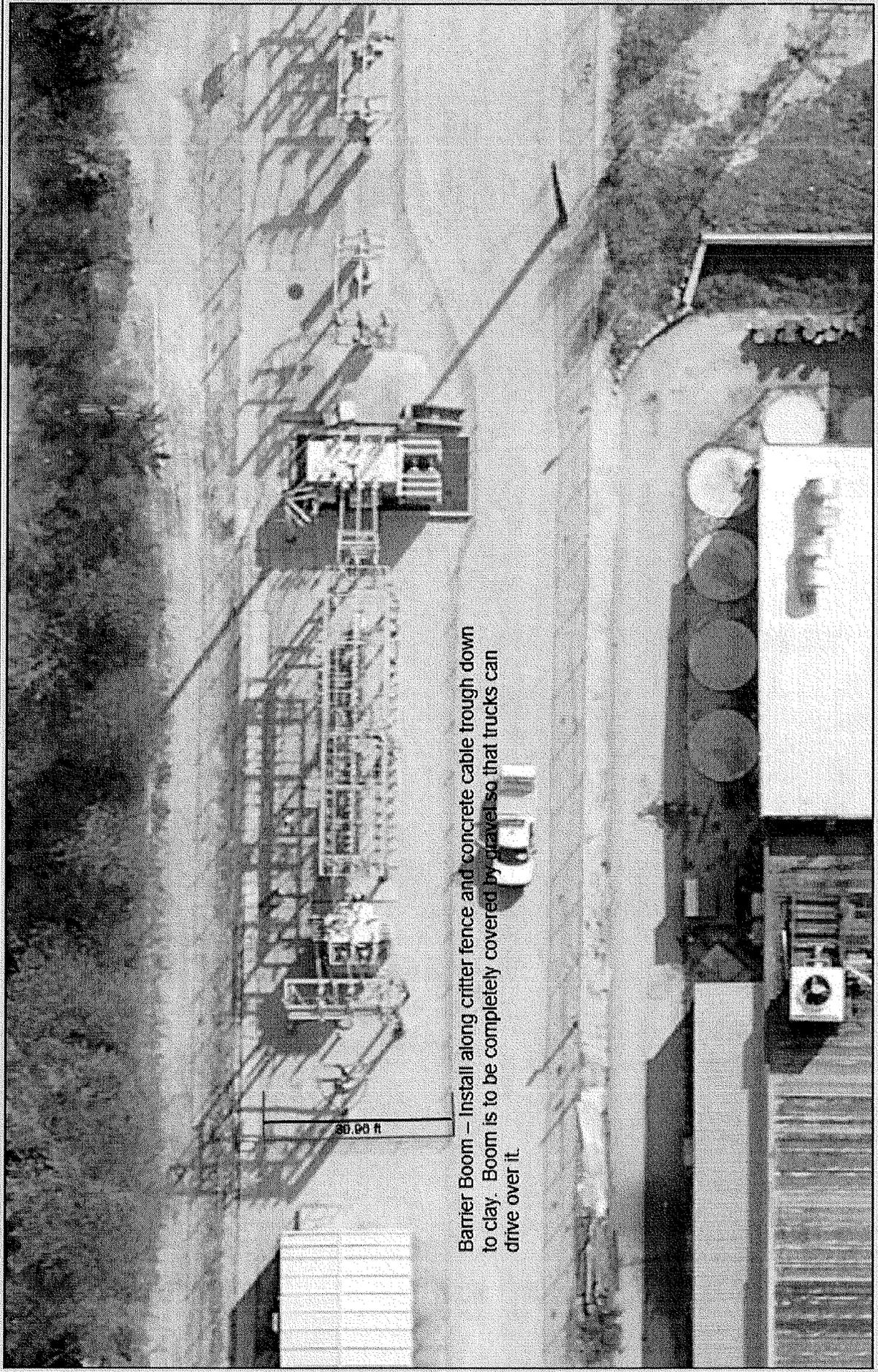
This work was created for planning purposes only and is not intended to be used for construction. The information presented may be subject to change without notice. The City of St. Charles is not responsible for any errors or omissions. The City of St. Charles is not responsible for any damages or liabilities. To obtain further information contact the City of St. Charles at Two East Main Street, St. Charles, Illinois 60117-1708.



City of St. Charles, Illinois
 Two East Main Street, St. Charles, IL 60115-1081
 Phone: (630) 377-4400 Fax: (630) 377-4490 - www.stcharles.il.us

Sub 2 - Barrier Boom

RAYMOND ROGINA Major
BRIAN TOWNSEND City Administrator



Barrier Boom - Install along critter fence and concrete cable trough down to clay. Boom is to be completely covered by gravel so that trucks can drive over it.

This work was created by planning purposes only and is not intended to be used for any other purpose. The information contained herein is for informational purposes only and does not constitute a contract. The City of St. Charles is not responsible for any errors or omissions in this document. The information contained herein is for informational purposes only and does not constitute a contract. The City of St. Charles is not responsible for any errors or omissions in this document. To obtain further information please contact the City of St. Charles at Two East Main Street, St. Charles, Illinois 60115.



11
 12 Feet

DRAWN BY: [Name]
CHECKED BY: [Name]
DATE: [Date]
 City of St. Charles, Illinois
 Department of Public Works
 North American Division 3003
 Printed on: Jan 17, 2013 01:51:36

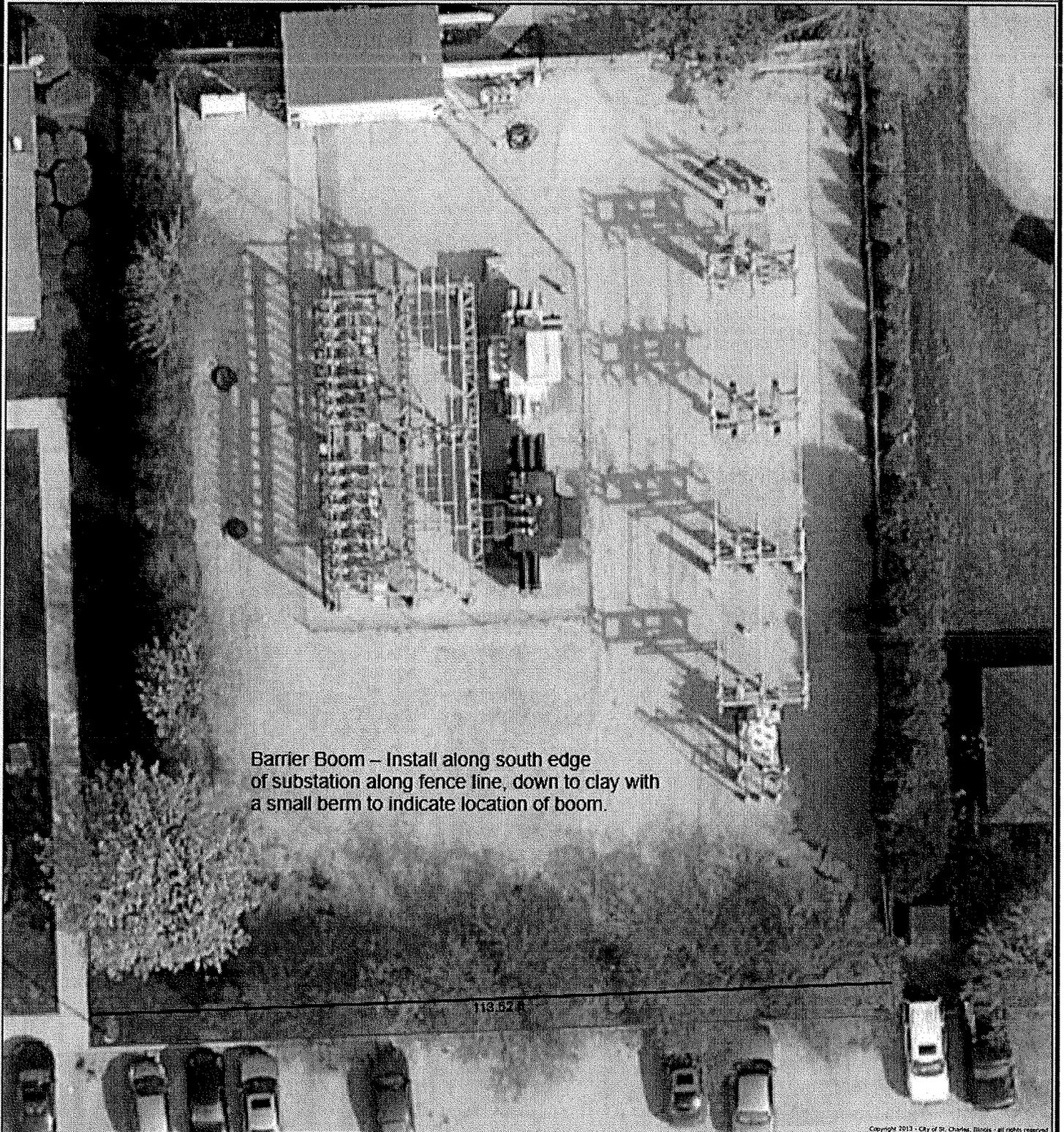


City of St. Charles, Illinois

Two East Main Street, St. Charles, IL 60174-1984
Phone: 630-377-4400 Fax: 630-377-4440 - www.stcharlesil.gov

Sub 6 - Barrier Boom

RAYMOND ROGINA Mayor
BRIAN TOWNSEND City Administrator



Barrier Boom – Install along south edge of substation along fence line, down to clay with a small berm to indicate location of boom.

113.624

Copyright 2013 - City of St. Charles, Illinois - all rights reserved.



Data Source:
City of St. Charles, Illinois
Wade County, Illinois
DuPage County, Illinois
Coordinate System: Illinois State Plane East
Projection: Transverse Mercator
North American Datum 1983
Printed on: July 13, 2013 01:40 PM



0 5 10 Feet

This work was created for planning purposes only and is provided as is, without warranty of any kind, either expressed or implied. The information represented may contain proprietary and confidential property of the City of St. Charles, Illinois, under United States Copyright laws. You may not use, reproduce, or distribute any part of this document without prior written permission. To obtain written permission please contact the City of St. Charles at Two East Main Street, St. Charles, IL 60174.

Prepared by: NADCO, Inc.

SECTION IV

PROPOSAL FORM

I propose to furnish the City of St. Charles Secondary Containment Barrier Systems described in the preceding section, in accordance with the attached conditions and specifications for the unit cost of \$ N/A /EA.

TOTAL COST \$ _____ (without options)

UNIT COST IF CITY PAYS WITHIN 5 DAYS UPON RECEIPT/ACCEPTANCE
\$ NOT APPLICABLE /EA

TOTAL COST (IF PAID WITHIN 5 DAYS): \$ NOT APPLICABLE /EA

ALL PRICES ARE FIRM WITH NO ESCALATOR.

By submission of this bid I certify that the bid has been arrived at independently and has been submitted without collusion with any vendor of materials, supplies, or equipment of the type described in the preceding section.

Shipment can be made F.O.B. City of St. Charles _____ weeks after receipt of Purchase Order.

MANUFACTURER/MODEL #: _____

COMPANY

ADDRESS

CITY, STATE, ZIP

TELEPHONE

SIGNATURE OF AUTHORIZED AGENT

PRINTED NAME OF AUTHORIZED AGENT

MWS:cjb