

FOR BOARD ACTION

Agenda Item # 4.b.

Meeting Date:

2/26/08

SUBJECT: Emissions Reduction Project
Electrical Construction

PREPARED BY: Wally Schlink, Director of Power Resources

ITEM DESCRIPTION:

The Emission Reduction Project (ERP) continues to proceed according to the project schedule. The Utility Board has previously approved a series of engineering and equipment purchase agreements and now we submit the third of the contractor construction activities for the project for the Board's consideration.

The Electrical Construction package covers the work required for complete installation and testing of all electrical equipment.

Through our engineers, Utility Engineering (UE), a specification was distributed to 10 contractors, pre-bid meetings were conducted and we received bid packages from 4 bidders. Subsequently one of the bidders withdrew their bid due to mathematical and computer errors in their bid package. An initial evaluation of the remaining packages based on compliance with submission requirements and terms of the Request for Bid was conducted and a second bidder was disqualified for not meeting the Request for Bid requirements. The remaining 2 bidders were qualified and met the initial terms of the bid specification.

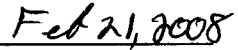
UE then developed a set of clarifying questions for the lowest bidder, Kish & Sons Electric, and met with their representatives to confirm that their offerings were compliant with the requirements of the bid document. It was determined that Kish & Sons Electric complied with the requirements of the bid documents.

Kish & Sons Electric is experienced in this type of project having been selected by Xcel to perform the electrical construction work on an emission reduction project at the French Island Plant. The Xcel project manager was well satisfied with their performance. Kish & Sons Electric has also performed electrical construction work on other air quality control system installations.

Kish & Sons Electric was the low qualified bidder with a bid of \$2,391,150.

UE performed the evaluation and has issued a Recommendation of Contractor for Electrical Bid Package and a Detailed Bid Tabulation matrix, both of which are attached. Also attached is a copy of the Electrical Construction Scope of Work.


General Manager


Date

ROCHESTER PUBLIC UTILITIES

FOR BOARD ACTION

Agenda Item # 4.b.

Meeting Date:

2/26/08

This is an approved project in the 2008 capital budget. Staff will be at the Board meeting to answer any questions on this request.

UTILITY BOARD ACTION REQUESTED:

Staff recommends that the Board reject the bid of Hunt Electric Corporation for failure to meet bid requirements, approve the bid from Kish & Sons Electric as lowest responsible bidder for a firm lump sum price of \$2,391,150, and request that the Mayor and City Clerk execute the agreement.

General Manager

Date

ROCHESTER PUBLIC UTILITIES



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February 20, 2007

Mr. Walter Schlink
Director of Power Production
Rochester Public Utilities
4000 East River Road NE
Rochester, MN 55906-2813

Subject: Silver Lake Plant Unit 4 Emissions Reduction Project
Recommendation of Contractor for Electrical Construction Package

Dear Mr. Schlink:

Utility Engineering Corporation recommends Kish & Sons Electric for award of the Electrical Construction Package per their January 22, 2008 base bid.

Bidding Process

On November 20, 2007, a Request for Bid (RFB) for the Electrical Construction Package was issued to nine (9) contractors. The RFB was also issued for one (1) additional contractor that requested a copy during the bid period.

The work involved in this contract includes the complete installation and testing of all electrical equipment including raceway, cable, cable bus, transformer cable pull box, non-segregated phase bus, lighting, grounding, lightning protection system, panelboards, transformers, current limiting reactors, motors, motor disconnects, freeze protection system, and receptacles.

The bid specifications were prepared for a consistent bid approach and allowed for alternatives or options that would result in the best overall value to the City.

Bids were received from Premier Electric, Hunt Electric Corp., Wagner Electric, and Kish & Sons. Electric Premier later withdrew their bid, and Hunt Electric was disqualified based on failure to meet the requirements of the RFB.

Bid Evaluation & Recommendation

Proposal pricing for Electrical Construction ranged from \$2,391,150 to \$2,461,354 for the base scope of work. The Kish & Sons Electric bid was \$70,204 lower than the Wagner Electric bid. Please see the attached bid tabulation sheet for more detailed information.

Mr. Walter Schlink
Director of Power Production
Rochester Public Utilities
February 20, 2008
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Questions were prepared for Kish & Sons Electric and a meeting was held at the RPU Silver Lake Plant on February 7, 2008, to discuss their bid. Based on responses to the questions regarding their proposal, it was determined Kish and Sons Electric's offerings complied with the requirements of the bid documents.

Recommended Contract Price

UE recommends the issuance of a contract to Kish & Sons Electric for a firm lump-sum price of \$2,391,150 for Electrical Construction. Kish and Sons Electric's base bid price includes a \$200,000 contingency amount and the cost of the Performance Bond of \$25,540.

Sincerely,

Roger Anderson for RBA

Roger Anderson, P.E.
Senior Project Manager

Lisa G. Meyer

Lisa G. Meyer, P.E.
Electrical Engineer

**RPU SILVER LAKE PLANT UNIT NO. 4 EMISSIONS REDUCTION PROJECT
ELECTRICAL CONSTRUCTION DETAILED BID TABULATION**

		Premier Electrical Corporation	Hunt Electric Corporation	Kish and Sons Electric	Wagner Industrial Electric
	Base Bid:				
001	Mobilize and Demobilize		\$ 30,000	\$ 201,860	\$ 50,000
002	PDC Installation		\$ 25,390	\$ 14,660	\$ 185,555
003	Transformer Installation		\$ 3,650	\$ 3,410	\$ 130,362
004	Current Limiting Reactors Installation		\$ 47,210	\$ 52,680	\$ 113,614
005	Cable Tray Installation		\$ 193,550	\$ 102,040	\$ 304,759
006	Control System Installation		\$ 133,430	\$ 551,250	\$ 196,378
007	2400 V Cable Installation		\$ 91,100	\$ 222,110	\$ 100,661
008	480 V Cable Installation		\$ 439,050	\$ 504,120	\$ 382,865
009	Control System Terminations		\$ 36,500	\$ 52,330	\$ 85,263
010	Freeze Protection		\$ 22,730	\$ 43,740	\$ 92,602
011	Lightning Protection		\$ 63,825	\$ 71,110	\$ 195,528
012	Power System Terminations		\$ 58,170	\$ 30,460	\$ 109,903
013	Start-up and Testing Support		\$ 72,360	\$ 111,470	\$ 90,000
014	Independent Testing Company		\$ 71,665	\$ 19,070	\$ 30,361
015	Other (Define)				
	Lighting and scaffolding				\$ 181,969
	Miscellaneous Equipment/Panel Installation		\$ 72,530		
	Power System Installation		\$ 441,355		
	Control System Cable		\$ 32,500		
	Lighting		\$ 189,620	\$ 185,300	
	Grounding		\$ 24,920		
	Demolition		\$ 20,255		
016	Performance Bond		\$ 16,105	\$ 25,540	\$ 11,534
Subtotal	Electrical Construction-Base Bid (Must equal total of lump sum prices above)		\$ 2,085,915	\$ 2,191,150	\$ 2,261,354
017	Contingency Amount		\$ 200,000	\$ 200,000	\$ 200,000
018	TOTAL FIRM LUMP SUM PRICE – BASE BID	\$ 1,654,200	\$ 2,285,915	\$ 2,391,150	\$ 2,461,354
	DIFFERENTIAL		\$ -	\$ -	\$ 70,204

Premier Electric Corporation:

1. An evaluation of Premier Electric Corporation was not completed. Per Premier Electric's January 25, 2008 letter to Bob Ledebuhr (RPU Materials Manager), Premier Electric withdrew their bid due to a mathematical and computer error in their bid.

Hunt Electric Corporation exceptions and assumptions:

Per e-mail from Bob Ledebuhr (RPU Materials Manager), Hunt Electric Corporation's bid was disqualified due to not meeting the RFB requirements.

1. Per bid form submitted by Hunt Electric Corporation, bid is submitted with exceptions.
2. Per bid form submitted by Hunt Electric Corporation, bid is submitted with exception to pricing remaining valid for acceptance for 180 days. Hunt's bid price is subject to escalation/de-escalation based on the current copper Comex price.
3. Cost of installation, including labor and hangers has not been included for 20% of the cable tray. (Does not meet RFB requirements.)
4. Hunt Electric's proposal does not include furnishing and installation of any disconnect switches. (Does not meet RFB requirements.)
5. Hunt Electric's proposal for start up does not include any testing equipment. (Does not meet RFB requirements)
6. Hunt Electric's proposal assumes all 480V breakers are existing. (Does not meet RFB requirements)

Kish & Sons Electric exceptions and assumptions:

1. Per bid form submitted by Kish & Sons Electric, bid is submitted without exceptions and pricing will remain valid for 180 days and is not subject to escalation.

Wagner Industrial Electric exceptions and assumptions:

1. Per bid form submitted by Wagner Industrial Electric, bid is submitted without exceptions and pricing will remain valid for 180 days and is not subject to escalation.

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.1 PROJECT DESCRIPTION

- A. An Emissions Reduction Project (ERP) will be installed for Silver Lake Plant (SLP) Unit 4. The purpose of the ERP is to control emissions of sulfur dioxide, the oxides of nitrogen and particulate matter within limits required by the facility's air permit.

1.2 SUMMARY OF WORK

- A. The work involved in this contract includes the complete installation and testing of all electrical equipment including raceway, cable, cable bus, transformer cable pull box, non-segregated phase bus, lighting, grounding, lightning protection system, panel boards, transformers, current limiting reactors, motors, motor disconnects, freeze protection system, and receptacles.

1.3 RELATED SECTIONS

- A. Section 00001 – Project Specific Information
- B. Section 01010 – Summary of Work
- C. Section 01320 – Submittals for Construction
- D. Section 01400 – Quality Assurance and Quality Control
- E. Section 01410 – Testing Laboratory Services
- F. Section 01600 – General Material and Equipment Requirements
- G. Section 01650 – Starting of Systems
- H. Section 01700 – Contract Closeout
- I. Section 16030 – Electrical Codes and Ordinances
- J. Section 16075 – Electrical Identification
- K. Section 16080 – Testing and Calibration
- L. Section 16111 – Conduit
- M. Section 16112 – Cable Bus

- N. Section 16114 – Cable Tray
- O. Section 16120 – Wire and Cable
- P. Section 16121 – Cable Installation and Termination
- Q. Section 16130 – Raceway and Boxes for Electrical Systems
- R. Section 16140 – Wiring Devices
- S. Section 16142 – Power Receptacles
- T. Section 16145 – Control Stations
- U. Section 16146 – Control and Instrumentation
- V. Section 16155 – Motor Installation
- W. Section 16160 – Cabinets and Enclosures
- X. Section 16190 – Hangers and Supports for Electrical Systems
- Y. Section 16347 – Non-Segregated Phase Bus
- Z. Section 16441 – Disconnect Switches
- AA. Section 16442 – Panel Boards
- BB. Section 16450 – Grounding and Bonding
- CC. Section 16461 – Dry Type Transformers
- DD. Section 16471 – Panel Board Installation
- EE. Section 16477 – Fuses
- FF. Section 16510 – Interior Lighting
- GG. Section 16530 – Site Lighting
- HH. Section 16670 – Lightning Protection Systems
- II. Section 16855 – Freeze Protection

1.4 ATTACHMENTS

- A. Attachment A – Utility Engineering Drawing List
- B. Attachment B – Reference Drawing List

- C. Attachment C – Cable List
- D. Attachment D – Raceway List
- E. Attachment E – Bulk Cable Quantities List
- F. Attachment F – Instrument List (Later)

PART 2 DETAILS OF WORK

2.1 SCOPE

- A. The Contractor will provide supervision, labor, equipment, and the scaffolding necessary to install and test all electrical equipment furnished by Others; tools and material as specified; and services required for a complete ready-to-operate installation of electrical equipment for this Project. The electrical Contractor will be responsible for receiving, handling, storage, care, and maintenance of all material or equipment purchased by Contractor. The receiving, handling, storage, care, and maintenance of equipment or material purchased by the City will be handled by the Contractor unless otherwise noted.
- B. Electrical drawings and specifications are intended to be descriptive only; any errors or omissions of detail in either shall not relieve the Contractor from an obligation to install in correct detail all materials necessary for complete and operable electrical systems to the extent shown on the drawings and described in this specification.

2.2 DETAILS OF WORK

- A. All electrical work shall be completed as described in specifications and as shown on drawings. Electrical work shall include, but shall not be limited to, the following:
 - 1. Furnish and install one (1) dry type transformer and one (1) panel board in North Annex building as shown on drawings.
 - 2. Furnish and install freeze protection system including heat tape, controls, panel, and transformer. Freeze protection system transformer and panel to be located in the North Annex building as shown on drawings.
 - 3. Furnish and install lightning protection system per specifications and drawings.
 - 4. Install final connection of all grounding to transformers, buildings, structures, lightning protection leads, and equipment to the buried portion of the grid as shown on drawings.

5. Contractor shall provide all disconnects for motors as required.
6. Furnish and install cable bus from the 2400 V switchgear to the 480 V/2400 V transformer. Furnish and install a cable pull box at the 480 V/2400 V transformer.
7. Furnish and install non-segregated phase bus from the current limiting reactors to the existing non-segregated phase bus as shown on drawings.
8. Install all cable tray in the ceiling space of the power distribution center (PDC) and in the vault under the PDC as shown on the drawings.
9. Install all above-grade conduit and cable tray as shown on the plans. Conduit shown in the existing plant building shall be field routed by Contractor for the most optimal route. This includes the conduit routed from the existing Unit 4 2400 V switchgear, the existing Unit 4 480 V switchgear, the plant intercom and phone system conduits, conduit routed from the existing plant control cabinet to the control cabinet in the PDC, conduit routed for the NOx reduction system, and conduit routed for the COMS system.
10. Install all cable as shown in Attachment C – Cable List. This list is a preliminary cable list and shall be construed as such. Additional cable shall include 175 I/O points, intercom system, and COM system cable and raceway not accounted for in the cable and raceway schedules. All cables and field routed raceway for the NOx reduction system are part of this contract and shall be added at a later date. Contractor shall add a reasonable amount of additional cable and raceway to the estimate.
11. Instrumentation wiring and terminations are included in this contract. Installation of the instruments, including stands, is by Others and includes in-line instruments (flow meters, thermowells, etc.) and any tubing. Calibration of any instruments is by Others.
12. The lighting system shall include the yard lighting and area lighting mounted on the exterior of structures and on the catwalks, platforms, interior of enclosed walkways, SDA, baghouse, ash silo, booster fan enclosure, and the North Annex building. The lighting system shall also include emergency lighting with battery packs and exit signs. The drawings indicate the type and location of fixtures to be installed.
13. Plant intercom system shall be extended from the existing intercoms located in the existing plant building to the SDA, baghouse, booster fan enclosure, ash silo, and lime silo. The

Contractor shall furnish and install the cable, conduit, junction boxes, and fittings necessary for this purpose. Intercom equipment shall be furnished and installed by the City.

14. The plant telephone system shall be extended from the existing plant building 'hot room' to the PDC. The Contractor shall furnish and install the conduit, junction boxes, and fittings necessary for this purpose. Telephone equipment and cable shall be furnished and installed by the City.
15. The Contractor shall program, set, calibrate, and test all protective devices for the low-voltage systems (480 V and below) for this Project. This includes all new equipment and the 480 V tie breaker located in the existing Unit 4 480V switchgear. The values for the settings shall be provided by Others.

B. Equipment furnished by City and installed by Contractor is as follows:

1. Accept delivery at Site and set one (1) PDC supplied by Eaton Electrical includes medium-voltage switchgear, low-voltage switchgear, low-voltage motor control centers (MCCs), power panel, lighting/control panels and transformers, DC power panel, battery, battery charger, uninterruptible power supply, and plant control cabinets. The equipment will come installed in a prefabricated building, wired to the greatest extent possible. The PDC shall be installed per Manufacturer's instructions (reference vendor drawing 9049-LIFT). Sizing of spreader bar, cables, and other lifting materials to be Contractor responsibility.
2. Accept delivery at Site and install one (1) battery system assembly in PDC including batteries and wiring connection from batteries to battery disconnect (see Section 16120 – Wire and Cable).
3. Furnish and install wiring from MCC to three (3) PDC HVAC units.
4. Finalize setting and installation of one (1) auxiliary transformer, 2400 V/480 V, manufactured by Howard Industries that comes fully assembled. Acceptance of delivery and initial setting of transformer on transformer foundation is by Others. This transformer has a high resistance grounded neutral that shall be installed with the cable bus assembly. The grounding resistor is supplied with the 2400 V switchgear assembly.
5. Install two (2) current limiting reactors (CLRs) and associated non-segregated phase bus. Acceptance of delivery is by Others. CLRs shall be stored at the Site until Contractor is ready to install.

6. Install wiring from PDC to Unit 4 main auxiliary transformer and Unit 4 reserve auxiliary transformer fans. Install wiring from fan control boxes to fans. Perform testing of fans.
7. A DeltaV control system and Vendor control system is provided for control of the plant equipment. This system consists of one (1) cabinet to be installed by Contractor in the PDC. In addition to field wiring into the DCS, some wiring will be required in the PDC.
8. All control cabinets and junction boxes provided by Others shall be installed by the Contractor including, but not limited to, the SDA penthouse remote I/O cabinet, the baghouse roof remote I/O cabinet, the DCS control cabinet (in PDC), the baghouse/SDA control cabinet (in PDC), the lime prep system PLC, ash system control panel, and the NO_x reduction system control panel.

2.3 DEMOLITION

- A. Contractor shall demo all light fixtures on north exterior wall of plant building that interfere with the new raceway system to be installed.
- B. Contractor shall relocate security camera installed on north exterior wall of plant building and provide all cable, conduit, and fittings as required.
- C. Contractor shall demo the existing raceway and cable connected to the existing 2400 V switchgear circuit breaker as shown on drawings. This circuit breaker will be used to feed new 2400 V switchgear.

2.4 TESTING AND START-UP

- A. All installation, testing, and start-up of systems shall be performed on a system by system basis. Schedule and order of system installation, testing, and start-up shall be determined at a later date.

2.5 WORK NOT INCLUDED IN THIS CONTRACT

- A. All duct banks, manholes, and vaults are installed by Others.
- B. All below-grade conduit, including stub-ups or embeds, are installed by Others.
- C. All below-grade grounding, including connection pigtailed, ground rods, grid wiring, and connection to piles are installed by Others. Connections to the existing plant grid are by Others.

- D. The programming, calibration, and testing of the 2400 V switchgear and 2400 V MCC protective relays shall be performed by the City. Settings for these protective relays are by Others.
- E. Installation of instruments, control valves, racks, and calibration is by Others.
- F. Foundation systems are by Others.
- G. Mechanical installation is by Others.

PART 3 CONTRACTOR REQUIREMENTS AND RESPONSIBILITY

3.1 SUPERVISION AND SUPERINTENDENCE

- A. The Contractor shall supervise and direct the work competently and efficiently, devoting such attention and applying such skill and expertise as may be necessary to perform the work in accordance with the contract documents. The Contractor shall be solely responsible for and have control over its surveying and construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the work. The Contractor shall be responsible to see that the finished work complies accurately with the contract documents.
- B. The Contractor shall keep a competent Project Superintendent onsite at all times during its progress. The Project Superintendent shall not be replaced without written notice to and agreement from the City and City's Engineer except under extraordinary circumstances. The Project Superintendent shall be the Contractor's representative at the Site and have authority to act on behalf of the Contractor. All communications given to the Project Superintendent shall be as binding as if given to the Contractor.

3.2 LABOR, EQUIPMENT, AND MATERIALS

- A. The Contractor shall provide competent, suitably qualified personnel to survey, lay out the work, and perform construction as required by the contract documents. The Contractor shall maintain good discipline and order at the Site at all times. Unless otherwise specified, the Contractor shall furnish and assume full responsibility for all equipment and materials, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up, and completion of the work.

- B. All equipment and materials incorporated in the work shall be designed to meet the applicable safety standards of federal, state, and local laws and regulations.
- C. The Contractor shall also be responsible for the following:
 - 1. Designate delivery dates for equipment and materials in the Project progress schedule.
 - 2. Receive, handle, unload, and store all equipment and materials supplied by the City at the Site, including uncrating.
 - 3. Promptly inspect products at the time of receiving, record shortages and damaged or defective items, and notify the City or Engineer.
 - 4. Protect products from damage and exposure to elements as required.
 - 5. Assemble, install, connect, adjust, and finish equipment and materials as per the Manufacturer's or Supplier's recommendations.
 - 6. Provide inspections required by public authorities.
 - 7. Repair or replace (at the City's discretion) items damaged by the Contractor's operations.

3.3 LAWS AND REGULATIONS

- A. Contractor shall give all notices and comply with all laws and regulations applicable to furnishing and performance of the work. Except where otherwise expressly required by applicable laws and regulations, neither the City nor the City's Engineer shall be responsible for monitoring the Contractor's compliance with any laws or regulations.
- B. If the Contractor observes that the specifications or drawings are at variance with any laws or regulations, the Contractor shall make necessary changes authorized by the City or the City's Engineer. If Contractor performs any work knowing or having reason to know that it is contrary to such laws or regulations, the Contractor shall bear all governmental fines, penalties, and legal costs associated therewith; however, it shall be the Contractor's primary responsibility to make certain the specifications and drawings are in accordance with such laws and regulations.
- C. Minnesota state law requires anyone digging, grading, or excavating to obtain a field location of all utilities. For field locations, call Gopher State One Call at 1-800-252-1166.

3.4 USE OF PREMISES

- A. The Contractor shall confine construction equipment, storage of equipment and materials, and operations of workers to the Site, land, and areas identified in and permitted by the contract documents and other land and areas permitted by laws and regulations, rights-of-way, permits, easements. Contractor shall not unreasonably encumber the premises with construction equipment or other equipment and materials. The Contractor shall assume full responsibility for any damage to any such land or area.
- B. During the progress of the work, the Contractor shall keep the Site free from accumulations of waste materials, rubbish, and other debris resulting from the work. The Contractor shall restore affected construction area to its original condition. The Contractor shall be responsible for all costs for compliance with this requirement.
- C. The Contractor shall not load, nor permit, any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of adjacent property to stresses or pressures that will endanger it.

3.5 SAFETY AND PROTECTION

- A. The Contractor shall comply with OSHA 1926 – Safety and Health regulations for construction and the City's safety system.
- B. The Contractor shall coordinate their work with the City to accommodate the heavy traffic of the coal yard, ash removal, and coal delivery.
- C. Employees and equipment must stay at least 16 feet away from overhead power transmission lines. If this clearance cannot be maintained, construction activities should stop and the City shall be notified immediately so appropriate action can be taken to maintain a safe work environment for all personnel. Overhead transmission power lines are generally 30 – 35 feet above grade, but the Contractor is responsible to verify in the field.
- D. If required, the Contractor shall be responsible to notify the City on a daily basis to let them know when, where, and how long the daily work will be done near an energized power line. The Contractor shall take all reasonable steps to keep the City apprised of work near the overhead power transmission lines and to maximize safety.
- E. When mechanical equipment is being operated near overhead power lines, employees standing on the ground may not contact the equipment unless it is located so the required clearance cannot be violated, even at the maximum reach of the equipment. Safety takes precedence. The Contractor shall be very conscious of where auxiliary equipment and

vehicles are located with respect to the 16 foot clearance of each power line conductor.

- F. The safety program of the Contractor shall be submitted with the bid proposal for review by the City or Engineer. The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work. The Contractor shall take all necessary precautions for the safety of and provide the necessary protection to prevent damage, injury, or loss to:
1. All employees, Subcontractors or agents of the Contractor at the Site and other persons and organizations who may be affected.
 2. All the work, materials, and equipment to be incorporated therein, whether in storage on or off the Site.
 3. Other property at the Site or adjacent to the Site including trees shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.
- G. The Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for the safety of persons or property to protect them from damage, injury, or loss and shall erect and maintain all necessary safeguards for such safety and protection.
- H. The Contractor shall notify the City's Engineer of adjacent property underground facilities and the City's facilities, when execution of the work may affect them, and shall cooperate in the protection, removal, relocation, and replacement of their property. The Contractor's duties and responsibilities for the safety and protection of the work shall continue until such time as all work is completed and the City's Engineer has issued a notice to the City and Contractor that the work is acceptable except as otherwise expressly provided in connection with completion.
- I. The Contractor shall designate a responsible representative at the Site whose duty shall be the prevention of accidents. This person shall be the Contractor's Project Superintendent unless otherwise designated in writing by the Contractor to the City.
- J. Any work completed on premises other than the City's shall be done in accordance with the Owner of the premises.

3.6 EMERGENCIES

- A. In emergencies affecting the safety or protection of persons, work, or property at the Site or adjacent to the Site, Contractor, without special instruction or authorization from the City or the City's Engineer is

obligated to act to prevent threatened damage, injury, or loss. The Contractor shall give the City's Engineer prompt written notice if the Contractor believes that any significant changes in the work or variations from the contract documents have been caused. If the City's Engineer determines that a change in the contract documents is required because of the action taken in response to an emergency, a change order will be issued to document the consequences of the changes or variations.

3.7 PROJECT SCHEDULE AND PROGRESS REPORTS

- A. The Contractor shall keep and furnish to the City and the City's Engineer updated monthly schedules of the work to be performed, including a critical path schedule and Monthly Progress Report of actual progress of the work performed. The Contractor shall be responsible for ensuring that performance of the work proceeds in accordance with the Project Schedule to meet Schedule Milestones.
- B. The Project Schedule shall be updated on a monthly basis in Microsoft Project or Primavera as the work progresses and shall include delay and acceleration analyses where appropriate. The Project Schedule shall be resource loaded. The Contractor shall submit a monthly report to the City by the 7th of the following month (e.g., March report due by April 7th). The monthly report shall include, as a minimum, the following: updated cash flow forecast, safety report for last month and job to-date, earned value percent complete, discussion of progress including milestones achieved and milestones planned for next month, updated schedule, and four (4) to six (6) construction photos (prefer that the photos are emailed).

3.8 TEMPORARY BARRIERS AND CONTROLS

- A. For protection of existing finish work, the Contractor shall:
 - 1. Provide design, materials, and installation of interior and exterior shoring, bracing, or other supports as determined by the Contractor's Engineer to prevent movement, settlement, or collapse of structures or elements to be demolished, including adjacent facilities or equipment, which will remain in place. Design shall be prepared by technically competent and qualified professionals and shall be submitted to the City for approval prior to the commencement of installation.
 - 2. Protect from damage existing finish work that is to remain in place, which becomes exposed during construction and demolition. Protect floors with suitable coverings as necessary. All damage shall be repaired at the Contractor's expense.

B. For environmental protection control, the Contractor shall:

1. Provide methods, means, and facilities required to prevent contamination of soil, water, or atmosphere by the discharge of hazardous or toxic substances from the Contractor's construction operations.
2. Provide equipment and personnel, perform emergency measures required to contain any spillages by the Contractor. Remove the soils or liquids contaminated by the Contractor. Excavate and dispose of any contaminated earth offsite in approved locations and replace with suitable compacted fill and topsoil.
3. Take special measures to prevent harmful substances generated by the Contractor from entering public waters, sanitary, or storm sewers.
4. Concrete, rubble, and other materials shall not be disposed of in the river, except where approved for use as riprap.

3.9 ACCESS ROADS, PARKING, AND TRAFFIC

- A. Conduct construction and demolition operations and debris removal in a manner to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities.
- B. Do not close, block, or otherwise obstruct streets, walks, or other occupied or used facilities without written permission from the City or authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways where required by governing regulations, authorities, and as requested by the City's construction representative. The City's required access roads that may not be blocked for more than a few minutes are indicated on the attached drawings. Blockage of any roads shall be coordinated with the City 24 hours in advance of the requested blockage.

3.10 DRAWINGS

- A. The drawings listed in Attachment A – Utility Engineering Drawing List of this section, are enclosed as part of this specification. The Contractor shall furnish and install all work in accordance with this specification and as shown on the drawings and other drawings that may subsequently be furnished or approved by the City to provide greater detail. Additionally, a cable list and a raceway list are included in Attachments C and D. The Contractor shall furnish and/or install all work in accordance with this specification and as shown on the drawings and other drawings that may subsequently be furnished or approved by the City to provide greater detail.

- B. Drawings and specifications are intended to be descriptive only and any errors or omissions of details in either shall not relieve the Contractor from an obligation to install, in correct detail, all materials necessary for complete and operable systems to the extent shown on the drawings and described in this specification.
- C. In the event the Contractor finds any discrepancies, errors, omissions or conflicts between the Contract, other documents and the drawings, the Contractor shall refer the matter to the City immediately for clarification.
- D. Changes, additions, or deletions shall be made only with written approval or instruction from the City. A separate, complete and accurate as-built file of Contractor's and Manufacturers' drawings shall be maintained by the Contractor at all times, using the latest issues of drawings marked to show all subsequent data, approved deviations, and critical locations determined during the course of construction. Contractor's as-built file shall be kept up-to-date throughout the project on a daily basis, and all changes shall reference the appropriate change requested and approval. The as-built file shall be turned over to the City within 30 days of the completion of construction.
- E. The arrangement of the new equipment and structure is shown on the City's drawings. Equipment and structures to be removed are shown on the demolition drawings. Pertinent equipment information is shown on Vendor drawings. Additional drawings of the existing plant equipment and facilities will be made available to the successful bidder, after Contract award.
- F. Contactor shall be aware that the specifications and drawings describe the minimum requirements. Components and modifications which are not specifically referenced herein, but are obviously required to complete the work and provide the City with a finished, complete, and operable project shall be the responsibility of the Contractor. It shall also be the responsibility of the Contractor to obtain from the City or City's Engineer, in a timely manner, any additional drawings or other information deemed necessary to prepare the bid package and complete the work after contract award.
- G. After contract award, the Contractor shall be responsible for gathering and verifying all necessary as-built field information for completing the work as described herein and as shown on the drawings.

3.11 CODES AND STANDARDS

- A. All work shall be performed in accordance with all applicable local, state, and federal codes, regulations, laws, and standards.

- B. Codes and standards applicable to the work described in each division are listed separately within each section. The latest edition of the document in effect as of the date of the Request for Bid shall be used.
- C. Specification sections refer to codes, standards, and other documents which establish product, installation, and quality standards of industry-recognized associations and institutes. If there is, or seems to be, a conflict between this specification and a referenced document, the matter shall be referred to the Engineer.

3.12 QUALITY PROGRAM REQUIREMENTS

- A. The Contractor shall have an effective Quality Assurance (QA) and Quality Control (QC) program to ensure compliance with the contract documents and specifications. The Contractor shall submit the QA/QC program to the City and the City's Engineer for review prior to commencing work.
- B. The program shall ensure that required procedures are prepared and implemented; required test/measurements are made using calibrated tools and equipment; referenced codes and standards are available for use; personnel are trained and qualified to perform the specified task as required by codes, standards, and the specifications; deviations and defects are identified and corrected in compliance with specification requirements; and materials are procured, handled, and shipped in compliance with the contract documents.
- C. Contractor shall designate at least one (1) representative who shall have overall responsibility for the direction and supervision of the work performed. Contractor's representative shall be present at the job Site at all times during working hours, shall be thoroughly familiar with the work to be performed and familiar with the requirements of the specification. The representative shall have authority to direct all work and shall be responsible to the City for the quality of all work.
- D. The Contractor shall identify, in purchase documents to all Subcontractors, the applicable quality requirement imposed by the Engineers' specification on the Contractor, and ensure compliance thereto. Subcontracting of any work shall not relieve the Contractor of responsibility for that portion of the work performed by the Subcontractor.

3.13 HOLD POINTS

- A. The City and the City's Engineer shall have the right to establish hold points for which the Contractor shall give prior notification. Hold points require the Contractor to give prior notification at least 48 hours in advance of the schedule time of performance. The City and City's Engineer may require that activities performed without prior notification

and work covered prior to inspection is repeated for the City or the City's Engineer's observation at the Contractor's expense.

- B. The City or the City's Engineer shall inform the Contractor of its desire to witness the event or authorize the Contractor to proceed without witnessing the event. The above may be performed by telephone communication.
- C. Written waiver will be issued if requested by the Contractor and agreed to by the City or the City's Engineer.

3.14 QUALITY PROGRAM INTERFACE

- A. The Contractor is subject to audits, inspections, and witnessing by the City or the City's Engineer to ensure compliance with the requirements of the specification, codes and standards, and drawings with the right to inspect, witness, or audit. Any subsequent approval by the City or City's Engineer shall not relieve the Contractor of the obligation to comply with the terms and conditions of the contract. Any request for approval of deviations or non-conformances to the contract documents shall be submitted in written form and processed in accordance with the specification. Deviations and non-conformances shall only be binding with approval by the City.

END OF SECTION



RESOLUTION

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to reject the bid of Hunt Electric Corporation for failure to meet bid requirements.

BE IT FURTHER RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, to approve a contract agreement with Kish & Sons Electric, and request that the Mayor and the City Clerk execute the agreement for

Electrical Construction
Emission Reduction Project

The amount of the contract agreement to be TWO MILLION THREE HUNDRED NINETY-ONE THOUSAND, ONE HUNDRED FIFTY AND 00/100 DOLLARS (\$2,391,150.00) and Kish & Sons Electric being lowest responsible bidder.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 26th day of February, 2008.

President

Secretary