

FILTERS 1 and 2

MEDIA REPLACEMENT

RLCD 23-05



2023

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BID FORM

CONTRACT

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PLANS OF EXISTING SAND FILTERS (for general background information)

NOTICE TO BIDDERS

Rend Lake Conservancy District is accepting bids to remove and install anthracite and sand in 2 dual-media sand filters at Rend Lake Conservancy District Water Plant in Benton, Illinois.,

Bids are due by 11:00 a.m. on Wednesday, October 25, 2023.

The Contract Documents may be obtained from:

Beth Ponce, P.E.

engr@rendlake.org

(618)439-4321

Rend Lake Conservancy District Administrative Office

11231 Marcum Branch Road

Benton, Illinois 62812

OR

Tony Furlow

tfurlow@rendlake.org

(618) 4394394

RLCD Water Plant

11228 Marcum Branch Road

Benton, Illinois 62812

BID PROCEDURES AND GENERAL REQUIREMENTS

GOVERNING SPECIFICATIONS

The General Requirements and Covenants contained in Division I of the Standard Specifications for Water and Sewer Main Construction in Illinois, most recent edition, shall govern the administration of this Contract except as modified herein.

BID PROCEDURE

Bids shall be submitted in a sealed envelope marked as follows:

Filter 1 and 2 Media Replacement, RLCD 23-05 – October 25, 2023 Bid Opening

Bids are to be submitted on the attached bid form to:

Rend Lake Conservancy District Administrative Office

Attention: Beth Ponce

11231 Marcum Branch Road

Benton, Illinois 62812

BID AWARD

The bid will be awarded to the lowest, responsive, responsible bidder. The Rend Lake Conservancy District reserves the right to reject any or all bids, to waive any informalities in the bid procedure, and to accept the bid considered to be in the best interest of the District.

The Bidder may have the option to continue to receive projects under this bid at the unit prices bid for as long as the Bidder is willing to do so.

BID BOND

A Bid Bond or Cashier's Check in an amount of not less than 5% of the bid price is required to be submitted with the bid. Bid Surety for the successful bidder will be returned after execution of the Contract. The Bid Sureties for the remaining bidders will be returned after the bid award is announced.

CONTRACT & PERFORMANCE BOND

A Contract and Performance/Payment Bond are required. Blank forms will be provided by the District. The Contract and Bonds are to be completed and returned to the Rend Lake Conservancy District by the successful bidder within 15 days of the bid award and prior to the start of any work activities.

INSURANCE CERTIFICATE

The Contractor shall furnish Certificates of Insurance prior to beginning any work on the project. All Certificates shall name the Rend Lake Conservancy District as an additional insured and shall be submitted with the Contract documents. Certificates shall be signed by the insurance companies and shall include a thirty (30) day notice of cancellation be provided to the Rend Lake Conservancy District. Insurance companies must be authorized to do business in the State of Illinois, and carry an "A.M. Best" Financial Strength Rating of B+ or better and a Financial Size Rating of X or larger.

Coverage as required herein shall remain in force for the term of the Contract. The Contractor shall require all provisions of this section be met by any Subcontractor before they are allowed to work under this Contract.

The minimum insurance requirements are:

Commercial General Liability

Each Occurrence	\$1,000,000
Damage to Rented Premises, each occurrence	\$ 100,000
Medical Expense, any one person	\$ 5,000
Personal & Advertising Injury	\$1,000,000
General Aggregate, per project	\$2,000,000
Products - Completed Operations Aggregate	\$2,000,000
Explosion, Collapse and Underground	\$1,000,000

Automotive Liability - Owned, Non-Owned, and Hired Autos

Combined Single Limit, each accident	\$1,000,000
Or	
Bodily Injury per Person	\$1,000,000
Bodily Injury per Accident	\$1,000,000
Property Damage per Accident	\$1,000,000
Uninsured/ Underinsured Motorist	\$1,000,000
<u>Umbrella Liability</u>	
Each occurrence	\$5,000,000
Aggregate	\$5,000,000
<u>Workers Compensation and Employers' Liability</u>	
Statutory Limits	
Employer Liability, each accident	\$1,000,000
Employer Disease, each employee	\$1,000,000
Employer Disease, policy limit	\$1,000,000
<u>Automobile Physical Damage</u>	
Comprehensive Deductible	\$ 1,000
Collision Deductible	\$ 1,000

Risk

The CONTRACTOR shall procure and maintain "All Risk" type insurance for WORK to be performed. As long as the insurance is "All Risk" type that covers the CONTRACTOR and OWNER for WORK to be performed, it may include but is not limited to types of insurance commonly referred to as 'Builder's Risk,' "Installation Risk," "Inland Marine" or other terms. Irrespective of the title, the coverage shall be as provided herein. Unless specifically authorized by OWNER, the amount of such insurance shall not be less than the CONTRACT PRICE totaled in the BID. The policy shall cover not less than losses due to fire, explosion, hail, lightening, vandalism, malicious mischief, theft, wind, collapse, riot, aircraft, and smoke during the CONTRACT TIME, and until WORK is accepted by the OWNER. The policy shall name as the insured the CONTRACTOR, and the OWNER.

TIME LIMIT

Due to the nature of this project all paperwork shall be expedited as much as possible. An executed Contract, Contract bond, and insurance certificate are expected so that a Notice to Proceed may be issued by November 10th, 2023; with work beginning no later than November 20th, 2023..

The project shall be substantially complete by December 8th, 2023. Substantial completion shall be defined as the filter material replaced and the filters operational and all IEPA operating permit standards met. Liquidated damages in the amount of \$1,000 per calendar day will be assessed for failure to achieve substantial completion by the specified date.

The project shall be 100% complete including cleanup by December 15th, 2023. Liquidated damages in the amount of \$1,000 per calendar day will be assessed for failure to complete the project by the specified date.

PAYMENT AND RETAINAGE

Payment will be made upon substantial completion of the work. A 10% retainage will be withheld until final acceptance of the work by the District. Interim payments may be considered upon submittal and approval of work milestones and amounts. There will be no payments for stored materials. Change orders must be signed by Rend Lake Conservancy District's General Manager prior to performing work. Final payment will be upon final completion.

PREVAILING WAGE RATES

If this Contract calls for the construction of a "public work," within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01 et seq. ("the Act"), the Act requires Contractors and Subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the "prevailing rate of wages" (hourly cash wages plus fringe benefits) in the county where the work is performed. For information regarding current prevailing wage rates, please refer to the Illinois Department of Labor's website at:

<http://www.illinois.gov/idol/Laws-Rules/CONMED/Pages/Rates.aspx>

All Contractors and Subcontractors must comply with all requirements of the Act, including but not limited to, all wage, notice and record keeping duties.

QUALIFICATIONS AND REFERENCES

Upon request, all bidders shall submit 3 references with their bid for projects of similar, or greater, size and scope.

TAXES

The materials included in this bid are exempt from Illinois State Sales Tax. The District will supply a copy of the Tax Exemption Letter if requested.

STAGING

The water plant manager and contractor will coordinate the staging of the work considering the other business of the District and holidays.

CUSTOMER COURTESY

The highest-level customer courtesy shall be maintained throughout the work. Workers shall behave in a polite, courteous manner to all employees and customers. The contractor shall promptly remove any worker who fails to comply with the intent of this item

QUESTIONS

Bidders may contact Beth Ponce, at (618)439-4321, Tony Furlow or Jeremy Richardson at (618) 439-4394 with questions about the bid or to schedule a site visit.. Only those questions addressed in a written addendum to all bidders shall be considered to modify these bid specifications.

SPECIAL PROVISIONS

The latest edition of the *Standard Specifications for Water and Sewer Main Construction in Illinois*, herein referred to as the Standard Specifications, shall govern the construction of the proposed WORK. Copies of these standard specifications can be purchased from any of the following associations.

Illinois Society of Professional Engineers
100 East Washington St.
Springfield, IL 62701
www.IllinoisEngineer.com

Illinois Municipal League
500 East Capitol Avenue
PO Box 3387 (mailing address)
Springfield, IL 62708-5 180

Underground Contractors Association
3158 River Road, Suite 135
Des Plaines, IL 60018

The following Special Provisions supplement these specifications and in case of conflict the Special Provisions shall take precedence and govern:

DESCRIPTION OF WORK

This project includes the removal and replacement installation of silica sand and anthracite in two or more Water Treatment Plant sand filters at Benton, Illinois.

PROTECTION OF SURROUNDING AREA

The Contractor shall be responsible for preserving surrounding items in and around the RLCD Water Treatment Plant. Any damage to such shall be replaced at the Contractor's expense.

When excavating within one foot of existing Rend Lake Conservancy District facilities hand digging is required and a representative of Rend Lake Conservancy District shall be present onsite.

UTILITIES

Although no excavating is anticipated. It is the responsibility of the Contractor to obtain the location and depth of any utilities impacted. All utility locations shall be requested for utility location no less than 3 days in advance by calling JULIE at (800) 892-0123.

It shall be the Contractor's responsibility to coordinate this work with RLCD WTP personnel.

SAFETY

It is the Contractor's responsibility to work in a safe manner, complying with all OSHA requirements.

PERMITS

It is the Contractor's responsibility to adhere to any permit requirements. Copies of permits, provided by RLCD, are considered a part of these Contract documents.

TRAFFIC CONTROL

The project is not located within any road right-of-way.

NO LEAD

Any component in contact with potable water shall meet the lead free requirements of the Safe Drinking Water Act.

PRESSURE TESTING AND DISINFECTION OF WATER MAIN

Upon completion of media installation, RLCD shall disinfect and sample each filter per AWWA C653. It is anticipated that the disinfection and sampling process will take a minimum of three days

WATERMAIN AND SEWER SEPARATION

The water main shall be separated from any sewer pipe in strict accordance with 41-2.01 of the Standard Specification for Water and Sewer Construction in Illinois and the Ten States Standards – Recommended Standards for Water Works, Section 8.8.

INCIDENTAL ITEMS

All appurtenances or items which fall within the construction limits that need to be removed/replaced or adjusted shall be done by the Contractor at his own expense unless otherwise noted in the plans.

DISPOSAL OF MATERIALS

The District shall provide a location for the used filter media onsite at the Water Treatment Plant. It will be the contractor's responsibility to place the removed media at the location indicated.

All other surplus material shall be disposed of by the Contractor at an approved off-site location. The Contractor will be responsible for obtaining all necessary permits as required by law. The cost of disposing of materials in the manner specified above shall be considered included in the bid price for the items of work involved and no additional compensation will be allowed.

SPECIFICATIONS

1. General Scope of Work

- a. Contractor shall install 1,485 cubic feet of anthracite and 1,185 cubic feet of silica sand meeting specifications listed below.
- b. Contractor shall remove existing anthracite and silica sand from Water Treatment Plant sand filters 1 & 2.
- c. Contractor shall install replacement media in above-referenced filters.

2. Rend Lake Conservancy District Responsibilities

- a. The District will provide the 1,485 cubic feet of anthracite and 1,185 cubic feet of silica sand necessary for this project.
- b. The District will remove no more than 1 filter from service during the project.
- c. The District will operate all valves and controls for the entire duration of the project.
- d. The District will install and remove all locks in accordance with RLCD lockout/tagout procedures and only at the sole request of the contractor.
- e. The District will perform all required filter backwashing.
- f. The District will perform all filter disinfection and bacteriological sampling as required by AWWA standard C653.
- g. The District will provide hydrant and make available 4" hose required for eductor equipment operation.

3. Filter Media Specifications

- a. Contractor shall furnish replacement filter media meeting the following general specifications:
 - i. Media shall conform to AWWA B100-16 standard for filtering material.
 - ii. Media shall meet NSF-61 certification.
 - iii. Media shall be packaged in bottom-discharge super sacks with lifting straps, non-palletized.
- b. Anthracite shall meet the following specifications:
 - i. Quantity – 1,485 cubic feet
 - ii. Effective size – 1.0-1.1 mm
 - iii. Uniformity coefficient – 1.4 maximum
 - iv. Specific gravity – 1.5 minimum
- c. Silica sand shall meet the following specifications:
 - i. Quantity – 1,185 cubic feet
 - ii. Effective size – 0.45-0.55 mm
 - iii. Uniformity coefficient – 1.4 maximum
 - iv. Specific gravity – 2.65 minimum
- d. Delivery, unloading and staging of material:
 - i. Media shall be stored on site at the WTP facility.
 - ii. The District shall provide a staging area for all material on the grounds of the treatment plant.
 - iii. The contractor shall be responsible for moving the stored material to the staging area.

- iv. The staging area provided by the District will not be indoors or otherwise be protected from the elements.

4. Filter Media Removal and Installation

a. General Provisions

- i. The District's normal maintenance work hours are 7 AM – 3:30 PM with a 30-minute lunch break and (2) additional 15-minute breaks.
- ii. The WTP filter room is on the second floor approximately 20 feet higher than ground level. There are 2 access windows to the room. One is located in the northeast corner of the room on the east wall while the other is located in the southwest corner of the room on the south wall.
- iii. The District will remove a single filter from service when contractor is ready to commence work. It is anticipated that the removal and reinstallation process will take 1 full 5-day work week.
- iv. Upon completion of media installation in the first filter, the District will then complete the disinfection and sampling procedure.
- v. When two consecutive satisfactory samples are acquired, the District will return that filter to service and make the next filter available for media removal.

b. Media Removal

- i. Contractor shall utilize vac truck and hose. The District shall provide a dump location for the used filter media onsite at the Water Treatment Plant.
- ii. Contractor shall provide labor and tools to perform all work inside the filter bed.
- iii. Contractor shall remove only the anthracite and sand layers of each filter bed. Care must be taken to ensure that minimal support gravel is removed.

c. Media Installation

- i. Contractor shall install media as a slurry using a venturi-style eductor and hopper system.
- ii. Contractor shall provide the eductor equipment.
- iii. Contractor shall provide all labor and tools to operate the eductor and perform all work inside the filter bed.
- iv. The District shall make available required lengths of 4" lay-flat hose for the eductor water supply and 4" rigid hose for the eductor discharge. If a different size hose is required, the contractor shall supply it. The required hose lengths are as follows:
 - 1. Lay-flat: 500 feet
 - 2. Rigid: 200 feet
- v. The District will make a hydrant available approximately 500 feet away from the filter room access window. There will be approximately 120 psi at the hydrant.

- vi. Each filter will require the following quantities of material after skimming:
 - 1. Silica sand – 12" thickness or 538 cubic feet
 - 2. Anthracite – 15" thickness or 673 cubic feet
- vii. Media shall be installed per manufacturers recommendations. A general synopsis is as follows:
 - 1. Media shall be installed by the contractor until there is approximately 1" more depth in the filter than required by job drawings.
 - 2. The surface shall be raked as level as possible by the contractor.
 - 3. RLCD will backwash the filter at applicable rate until media is clean.
 - 4. The filter bed will be drained by RLCD using the filter-to-waste piping.
 - 5. Contractor shall skim ¼" of material and discard. Plywood sheets shall be used inside the filter to prevent damage to the media during the skimming process.
 - 6. Skimming process shall be repeated a minimum of two more times with a minimum of three backwash / skim cycles for each media layer.
- viii. The District will provide a single employee to operate the filter valves and controls for the installation process during normal maintenance work hours. Upon coordination with the plant superintendent after hours assistance may be possible.
- ix. Upon completion of media installation, RLCD shall disinfect and sample each filter per AWWA C653. It is anticipated that the disinfection and sampling process will take a minimum of three days.

BID FORM



TO THE OWNER, REND LAKE CONSERVANCY DISTRICT

1. Bid of _____
(Name and Address of Bidder)
for the WORK, designated in Paragraph 2 below, by the removal and replacement of silica sand and anthracite sand filter media in filters 1 and 2 at the Rend Lake Conservancy District Water Treatment Plant.
2. The Plans for the proposed WORK are those prepared by Rend Lake Conservancy District which Plans are designated as *RLCD 23-05 Sand Filter Media Replacement Filters 1 and 2* and which cover the WORK described in Paragraph 1 above.
3. In submitting this Bid, the undersigned declares that the only persons or parties interested in the Bid as principals are those named herein, and that the Bid is made without collusion with any other person, firm or corporation.
4. The undersigned further declares that he/she has carefully examined the Bid Documents, form of CONTRACT and the Contract Bond; and that he/she has inspected in detail the site of the proposed WORK; and that he/she has familiarized himself/herself with all of the local conditions affecting the CONTRACT and the detailed requirements of construction, and the understands that in making this Bid he/she waives all right to plead any misunderstanding regarding the same.
5. The undersigned further understands and agrees that if this Bid is accepted he/she is to furnish and provide all necessary machinery, tools, apparatus, and other means of construction, and to do all of the WORK, and to furnish all of the materials specified in the CONTRACT, except such materials as are to be furnished by the OWNER, in the manner and at the time therein prescribed, and in accordance with the requirements therein set forth.
6. The undersigned declares that he/she understands that the quantities mentioned are approximate only and that they are subject to increase or decrease; that he/she will take in full payment therefore the amount and the summation of the actual quantities, as finally determined, multiplied by the unit prices shown in the schedule of prices contained herein.
7. The undersigned further agrees that the unit prices submitted herewith are for the purpose of obtaining a gross sum, and for use in computing the value of extras and deductions; that if there is a discrepancy between the gross sum bid and that resulting from the summation of the quantities multiplied by their respective unit prices the latter shall apply.
8. The undersigned further agrees that if the OWNER declares to extend or shorten the WORK, or otherwise alter it by extras or deductions, including the elimination of any one or more of the items, as provided in the Specification, he/she will perform the WORK as altered, increased or decreased.
9. The undersigned further agrees that the OWNER may, at any time during the progress of the WORK covered by this CONTRACT, order other WORK or materials. All such WORK and materials that do not appear in the proposal or CONTRACT as a specific item accompanied by a unit price, and which are not included under the bid price for other items in the CONTRACT, shall be performed as Extra Work, per Article 9-4 in the Standard Specifications for Water and Sewer Construction in Illinois. Compensation will be paid in accordance with Article 9-4.
10. The undersigned further agrees to execute a CONTRACT for this WORK and present same to the OWNER within fifteen days after the receipt of Notice of Award of the CONTRACT.

RLCD 23-05 BID FORM (Continued)

11. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen days after receipt of Notice of Award, a Contract Bond satisfactory to and in the form prescribed by the OWNER, in the penal sum of the full amount of the CONTRACT, guaranteeing the faithful performance of the WORK in accordance with the terms of the CONTRACT.
12. The undersigned further agrees to begin WORK not later than the date specified in the Notice to Proceed, and to prosecute the WORK in such manner and with sufficient materials, equipment and labor as will insure its completion within the Contract Time specified herein, it being understood and agreed that the completion within the Contract Time is an essential part of the CONTRACT. Undersigned agrees to complete the WORK within the time period stated in the Bidding Requirements, unless additional time shall be granted by the ENGINEER in accordance with the provisions of the Specification. In case of failure to complete the WORK within the time named herein or within such extra time as may have been allowed by the extensions, the undersigned agrees that the OWNER, shall withhold, from such sums as may be due him/her under the terms of the CONTRACT, the costs set forth in the Specification, which costs shall be considered and treated not as a penalty but as liquidated damages due the OWNER from the undersigned by reason of inconvenience to the public, added cost of engineering and supervision, maintenance of detours, and other items which have caused an expenditure of funds resulting from the failure of the undersigned to complete the WORK within the CONTRACT Time.
13. Accompanying this Bid is a bank draft, bank cashier's check, certified check or bid bond, complying with the requirements of the Specifications made payable to Rend Lake Conservancy District. The amount of the check or draft is _____ (\$ _____). If this Bid is accepted and the undersigned shall fail to execute a CONTRACT and Contract Bond as required herein, it is hereby agreed that the amount of the check or draft or bidder's bond substituted in lieu thereof, shall become the property of the OWNER, and shall be considered as payment of damages due to delay and other causes suffered by the OWNER because of the failure to execute said CONTRACT and Contract Bond; otherwise said check or draft, or bidder's bond substituted in lieu thereof shall be returned to the undersigned. ATTACH BID BOND, BANK DRAFT, BANK CASHIER'S CHECK OR CERTIFIED CHECK HERE. In the event that one check or draft is intended to cover two or more Bids, the amount must be equal to the sum of the Bid guarantees of the individual section covered.
14. The undersigned submits herewith his/her schedule of prices covering the WORK to be performed under this CONTRACT. He/she understands that he/she must show in the schedule the unit prices for which he/she proposed to perform each item of WORK and that the extensions must be made by him/her. If not so done, his/her proposal may be rejected as irregular.

RLCD 23-05 BID FORM (Continued)

SCHEDULE OF PRICES

(For complete information covering these items, see Plans and Specifications)

Bid Item	Description	Quantity	Unit	Unit Price	Cost
1	Remove Existing and Install New Filter Media in each Sand Filter	2	EACH		
TOTAL COST					

This proposal based on Addenda No. _____

RLCD 23-05 BID FORM (Continued)

(If an Individual)

Signature of Bidder _____

Business Address _____

(If a Partnership)

Firm Name _____

Signed By _____

Business Address _____

(Insert Names and
Addresses of all
Partners of the Firm)

(If a Corporation)

Corporate Name _____

Signed By _____

(President)

Business Address _____

(Insert Names of
Officers)

President _____

Secretary _____

Treasurer _____

Attest: _____

(Secretary)

RLCD 23-05 BID FORM (Continued)

(If a Joint Venture)

Corporate Name _____
Signed By _____
(President)

Business Address _____

Corporate Name _____
Signed By _____
(President)

Business Address _____

Corporate Name _____
Signed By _____
(President)

Business Address _____

Corporate Name _____
Signed By _____
(President)

Business Address _____

CONTRACT



1. THIS AGREEMENT, made and concluded on _____, between the Rend Lake Conservancy District, known as the District and _____, its/their executors, administrators, successors, or assigns, known as Contractor.
2. For and in consideration of the payments and agreements provided for in the Bid Form, hereto attached, to be paid by the District, the Contractor agrees with the District to do all work, furnish all materials and all labor necessary to complete the work in accordance with the plans and specifications hereinafter described.
3. It is understood and agreed that the Bid Specifications titled RLCD 23-05 Filter 1 and 2 Media Replacement and the Bid Form are essential documents of this contract and are a part hereof.
4. If this contract calls for the construction of a "public work," within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01 *et seq.* ("the Act"), the Act requires contractors and subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the "prevailing rate of wages" (hourly cash wages plus fringe benefits) in the county where the work is performed. For information regarding current prevailing wage rates, please refer to the Illinois Department of Labor's website at: <http://www.state.il.us/agency/idol/rates/rates.HTM>. All contractors and subcontractors must comply with all requirements of the Act, *including but not limited to*, all wage, notice, and record keeping duties.
5. Contractor shall abide by all conditions of the latest version of the Standard General Conditions of the Construction Contract prepared by Engineers Joint Contract Documents Committee.
6. IN WITNESS WHEREOF, the said parties have executed these presents on the date above mentioned.

ATTEST:

The Rend Lake Conservancy District

Hart Cantrell, Legal Counsel

By: _____
Keith Thomason, General Manager

ATTEST:

Contractor Name: _____

Contractor Secretary

By: _____
Contractor President

CONTRACT BOND



Project: RLCD 23-05 Filter 1 and 2 Media Replacement

We, _____ as PRINCIPAL and _____

as SURETY, are held and firmly bound unto the Rend Lake Conservancy District in the penal sum of

Dollars _____

(_____), lawful money of the United States, well and truly

to be paid unto the Rend Lake Conservancy District, for the payment of which we bind ourselves, our heirs, executors, administrators, and successors, jointly to pay to the Rend Lake Conservancy District this sum under the conditions of this instrument.

WHEREAS THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that, the Principal has entered into a written contract with the Rend Lake Conservancy District for the construction of work on the above project, which contract is hereby referred to and made part hereof, as if written herein at length, and whereby the said Principal has promised and agreed to perform said work in accordance with the terms of said contract, and has promised to pay all sums of money due for any labor, materials, apparatus, fixtures or machinery furnished to such Principal for the purpose of performing such work and has further agreed to pay all direct and indirect damages to any person, firm company, or corporation suffered or sustained on account of the performance of such work during the time thereof and until such work is completed and. accepted; and has-further agreed that this bond shall inure to the benefit of any person, firm, company, or corporation, to whom any money may be due from the Principal, subcontractor or otherwise, for any' such labor, materials, apparatus, fixtures or machinery so furnished and that suit may be maintained on such bond by any such person, firm, company, or corporation, for the recovery of any such money,

NOW THEREFORE, if the said Principal shall well and truly perform said work in accordance with the terms of said contract, and shall pay all sums of money due onto become due for any labor, materials, apparatus, fixtures or machinery furnished to him for the purpose of constructing such work, and shall commence and complete the work within the time prescribed in said contract, and shall pay and discharge all damages, direct and indirect, that may be suffered or sustained on account of such work during the time of the performance thereof and until the said work shall have been accepted, and shall hold the Rend Lake Conservancy District harmless on account of any such damages and shall in all respects fully and faithfully comply with all the provisions, conditions, and requirements of said contract, then this obligation to be void; otherwise to remain in full force and effect,

IN TESTIMONY WHEREOF, the said Principal and the said Surety have caused this instrument to be signed by their respective officers this _____ day of _____ 2017.

PRINCIPAL

(Signature & Title)

(Signature & Title)

(If PRINCIPAL is a joint venture of two or more contractors, the company names, and signatures of each contractor must be affixed.)

STATE OF ILLINOIS)
) SS.
COUNTY OF FRANKLIN)

I, the undersigned, a Notary Public, in and for said County, in the State aforesaid, do hereby certify that _____, personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed and delivered the said instrument as their free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal this _____ day of _____, 2017.

Notary Public

SURETY

(Name of Surety)

(Signature of Attorney-in-Fact)

STATE OF ILLINOIS)
) SS.
COUNTY OF FRANKLIN)

I, the undersigned, a Notary Public, in and for said County, in the State aforesaid, do hereby certify that _____, personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed and delivered the said instrument as their free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal this _____ day of _____, 2017.

Notary Public

OWNER
The Rend Lake Conservancy District

ATTEST:

Hart Cantrell
Legal Counsel

BY:

Keith Thomason
General Manager

NOTES:

1. ROBERTS IS FURNISHING FOR INSTALLATION BY OTHERS THE ROBERTS TRI-LATERAL UNDERDRAIN SYSTEM FOR AIR/WATER BACKWASHING AND FILTER MEDIA FOR SIX (6) EXISTING GRAVITY FILTERS EACH, MEASURING 28'-1" X 19'-2" (538.26FT²).
2. ROBERTS SUPPLIED AIR HEADER IS MADE OF 316LSS SCH 10 PIPE. ALL SUPPORTS AND HARDWARE ARE 316L/316 STAINLESS STEEL.
3. SEE ROBERTS TECHNICAL STANDARD 3003.55 FOR INSTALLATION AND OPERATION DETAILS AND INSTRUCTIONS FOR THE TRI-LATERAL UNDERDRAIN SYSTEM. OTHER TECHNICAL STANDARDS ARE REFERENCED ON DIFFERENT DRAWINGS.
4. DESIGN FLOW RATES (SPECIFICATION 13221.1.06.B.2):
 - 4.1. FILTRATION: 3.5-4.5 GPM/SOFT = 1,884-2,422 GPM/FILTER
 - 4.2. WATER ONLY BACKWASH: 5-19 GPM/SOFT = 2,691-10,227 GPM/FILTER
 - 4.3. COMBINED AIR / WATER BACKWASH: 3-4 SCFM/SOFT OF AIR WITH 6 GPM/SOFT OF WATER = 1,615-2153 SCFM PER FILTER WITH 3,230 GPM/FILTER.
5. AN "A" INDICATES A DIMENSION THAT HAS BEEN FIELD VERIFIED.
6. MATERIAL PROCUREMENT.
7. THE OWNER AND/OR REGULATION PRESENTED ON THIS DRAWING REQUESTS ROBERTS' INTERPRETATION OF THE PROJECT REQUIREMENTS BASED UPON THE PLANS AND SPECIFICATIONS PREPARED BY THE OWNER. ROBERTS WILL NOT AND WILL NOT MAKE ANY SITE SURVEY AND WE EXPECT THE PURCHASER TO VERIFY ALL MEASUREMENTS SHOWN. PROVIDE NEW INFORMATION WHERE REQUESTED, AND ADVISE US OF ANY CONDITIONS NOT HERETOFORE DISCLOSED THAT WILL IMPACT THE DESIGN OR OPERATION OF OUR EQUIPMENT. ROBERTS WILL ASSUME NO RESPONSIBILITY FOR ANY COSTS ASSOCIATED WITH EXTRA WORK NECESSITATED BY UNDISCLOSED CONDITIONS.
8. SEE DRAWING 8213-M3 FOR CONNECTIONS AND DETAILS.
9. UNDERDRAIN PERFORMED PRESSURE TESTING FOR 15 MINUTES AT 100 PSI (ONLY) TO PROVE DESIGN PER SPECIFICATION 13221.3.03.C.2 AND AS SHOWN ON DRAWINGS 10550-M2 & -M3. VISUAL TESTING AT FLOW RATES SPECIFIED IN SECTION 3.03.C & D TO FOLLOW. VISUAL TESTING PERFORMED ON ALL FILTERS.

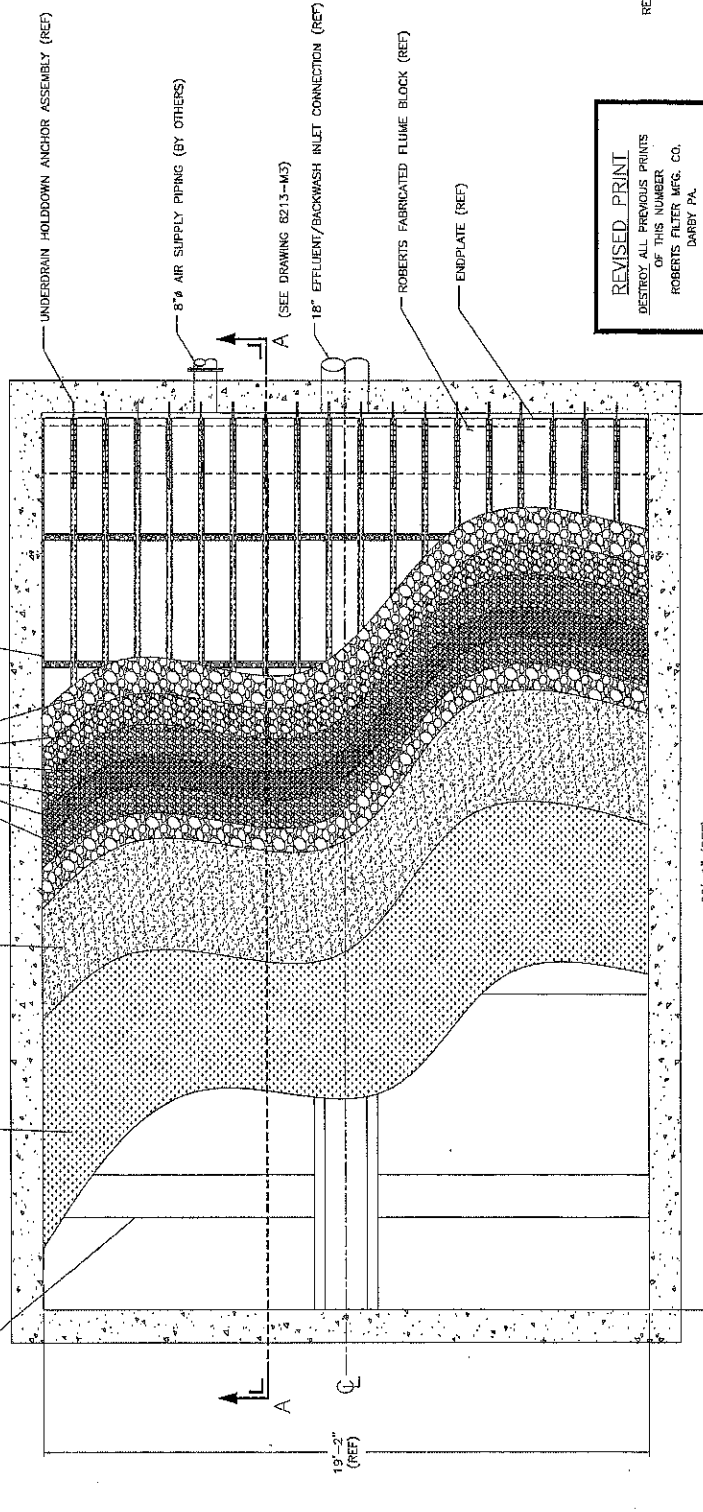
EXISTING TROUGH (REF)

NEW ANTHRACITE (REF)

NEW SILICA SAND (REF)

HOUR GLASS GRAVEL PROFILE (SEE DRAWING 10550-M1 FOR DETAILS)

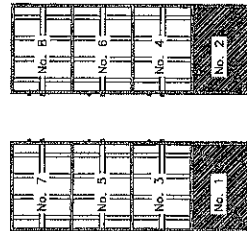
4" TRI-LATERAL UNDERDRAIN BLOCK (REF)



REVISED PRINT
DESTROY ALL PREVIOUS PRINTS
OF THIS NUMBER
ROBERTS FILTER MFG. CO.
DARBY, PA.

DATE: 8/11/09

REHABILITATE SIX (6) FILTERS: No. 3 THROUGH No. 8
SCALE: NTS



ROBERTS LEOTECH, INC.
6TH STREET AND COLUMBIA AVE.
DARBY PENNSYLVANIA 19003



GENERAL LAYOUT FILTER PLAN VIEW
FOR BENTON, IL
REND LAKE CONSERVANCY DISTRICT

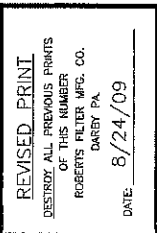
SCALE: AS NOTED
CONTRACT: 3570-1
SHEET: 6
TOLERANCES: +/- 1/16"

GENERAL ARRANGEMENT FILTER PLAN VIEW
FILTER #5 SHOWN: TYPICAL OF ODD FILTERS; EVEN FILTERS MIRRORRED
TOTAL OF SIX (6) FILTERS; No. 3 THROUGH No. 8
SCALE: 3" = 1'



BAFFLE INSTALLATION DETAIL
RIGHT HAND BAFFLE MIRRORED ACROSS FILTER &
(REFERENCE THIS DWG.)

TOLERANCES: $\pm .1/16"$



TRILATERAL UNDERDRAIN LAYOUT PLAN VIEW
 FILTER #3 SHOWN; TYPICAL OF ODD FILTERS; EVEN FILTERS MIRRORRED
 TOTAL OF SIX (6) FILTERS; #3 THROUGH #8

