



DIRECTOR OF ENGINEERING REPORT

Mar 20, 2024

District Engineering manages projects, consultants, contractors, and equipment suppliers. Consultant reports and Project Managers reports are included in this section along with details regarding the status of the associated study, design, or construction projects.

**ACTIVE PROJECTS**

**21CMP04 Fermentation Reactor Pilot:**

SCOPE: A pilot fermenter system has been installed to determine the best operating parameters for BNR and familiarize staff with operation of a fermenter.						
Contractor: Burdick			Original Contract Price: \$956,796.00			
Engineer: Black and Veatch						
R.E. Inspector: SDD						
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
03/24/23	04/04/23	05/09/23	06/21/23	07/31/23	07/24/23	12/21/23 Subst 01/20/24 Final

**Key Activities:** Work is complete. Final paperwork remains to complete the project.

Issues related to cold weather operation of the compressed air system were encountered and resolved this last period. The first two planned loading scenarios are complete, with the third loading scenario to be initiated March 18 and we are on schedule to continue alternating loading scenarios on a bi-weekly basis until the end of the project.

Black & Veatch presented the SSEBPR system at the IWPC conference on March 18. **Kevin Johnson and Keith Richard from SDD co-presented with BV focusing on startup/operational issues and lab results to date.**

**23MNTxx Damon Ave. Pump Station Upgrades**

SCOPE: Project involves 1) removal of existing electrical utilities and installation of a dual service switchboard and ATS, a new 1200 AMP CT enclosure and removal and re-installation of two underground conduit duct banks and 2) replacement of the existing #2 pump and installation of a pre-procured Flygt 385 HP, 455A submersible pump. Bypass pumping during the installation process is required until the new pump is commissioned.						
Contractor:			Original Contract Price:			
Engineer: AEX			Sum of Change Orders: \$0			
R.E. Inspector: SDD			Total Value:			
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
02/22/24	03/07/24	03/28/24				

**Key Activities:** Plans and specifications were completed this last period and the work has been advertised. There are two plan holders currently.

**Construction Issues:** None.



**23ENG45 Primary Clarifiers 4 and 6 Procurement**

SCOPE: Pre-procure equipment to replace mechanisms in clarifiers #4 and #6.						
Contractor:			Original Contract Price:			
Engineer: SDD			Sum of Change Orders: \$0			
R.E. Inspector: SDD			Total Value:			
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
03/12/24		05/01/24				

**Key Activities:** Procurement Bid was advertised on March 12, 2024.

**NON-CONSTRUCTION ACTIVITY**

**DESIGN - 22ENG31 ADMINISTRATIVE OFFICE COMPLEX:**

This last period staff has conducted 6 meetings with AEX including site visits to obtain electrical/fiber optic information and laboratory data. Floor plan has been adjusted (SEE ATTACHED) AEX continues coordination with BV on design details for the lab.

Staff received the soil boring locations from Hansen this last period and had engaged with SKS Engineers to perform the soil borings during the upcoming month.

TCI will be performing the geotechnical work for establishing the size of the geothermal system for the new facility. We expect the well field will be just North of the water tower.

Design Development (10 weeks) has started. This phase advances civil, architectural, mechanical and electrical documents; prepares major equipment lists; and delivers various structural and conceptual renderings for consideration.

Schedule:

Develop Contract Documents (ongoing)	
30% Documents	Feb 24
80% Documents	Apr 24
Advertise	May 24
Open Bids, Award and Execute	July 24
Construction Phase	52 weeks

**DESIGN - 22ENG02 Lost Bridge Force Main Renewal**

The designer is Clark Deitz Engineers (CDI). Construction Permit request was submitted to the IEPA this last period. Boring contractors have requested a hydro-fracturing analysis be included in the Geotech report. SKS, the original Geotech engineer, is modifying the Geotech report to include this analysis. Plans and specifications continue to be finalized. Easements are being drafted.

Schedule:

90% Design	Mar 24
Advertise	Apr 24
Targeted Award Date	May 24



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Mar 20, 2024

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### **STUDY - Collection System Master Plan - Resiliency Evaluation**

Final comments need to be provided to Clark Dietz. The evaluation highlights a number of force main and interceptor locations for the District to evaluate action. The NE Quadrant is a subset of the entire conveyance system and therefore recommendations will be balanced with the known needs of the rest of the collection system.

### **UPCOMING PROJECTS:**

#### **STUDY – WRRF Groundwater Dewatering Plan Study**

Scope: Martha Silks is the Lead Hydrologist for LRE Water, SDD has a long history with her as she has served on teams working with dewatering issues in the plant dating back to the early 2000's. LRE Water, an engineer out of Lawrence Kansas and staff have agreed on a scope of work anticipating they would bring 3 alternative solutions to address groundwater dewatering issues in this area of the plant.

Staff had a kickoff meeting with LRE this period to initiate the effort. LRE was onsite March 5<sup>th</sup> and 6<sup>th</sup> to perform field inspections. They installed a water level sensor and pressure and barometer transducers for monitoring water level in the Sangamon River. These will be in place through April 2<sup>nd</sup>.

#### **Replacement Dewatering Wells (West Cluster )**

Specifications and Plans for replacement dewatering wells around west cluster are being developed. Staff expects these will be advertised before the next trustee meeting.

#### **DESIGN – Final Clarifier Upgrades Project**

<<No Update>> The project includes replacement of 3 isolation gates on the influent channels, painting 2 carbon steel clarifiers, performing maintenance work on the clarifier floors, and repairing 8 isolation gates in the nitrification aeration tanks.

Final plan drawings have been received.

Plans and Specifications development will commence again once the Damon Project is advertised.

### **INTERGOVERNMENTAL ACTIVITIES**

1. Staff has continued participating in meetings as needed with the CITY and ADM for the "NE quadrant work group" looking at water and wastewater needs in this corridor. The forcemain routing for the City's new Brush College pump station has been established and design is underway. Clark Dietz Engineers are working with the City on that design.

If there are questions, please contact me at 422-6931 ext 216, or by email at [DonM@sddcleanwater.org](mailto:DonM@sddcleanwater.org).



**PROJECT MANAGER REPORT**

**March 20<sup>th</sup>, 2024**

District Engineering manages projects, consultants, contractors, and equipment suppliers. Consultant reports and Project Managers reports are included in this section along with details regarding the status of the associated study, design, or construction projects.

**ACTIVE PROJECTS**

**22ENG45 Primary Clarifier #5 Replacement Project:**

SCOPE: Removal and replacement of the existing primary clarifier mechanism.						
Contractor: Plocher			Original Contract Price: \$1,155,600.00			
Engineer: SDD			Sum of Change Orders: \$0			
R.E. Inspector: SDD			Total Value: \$1,155,600.00			
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
09/16/22	09/27/22	11/01/22	11/17/22	11/30/22	Feb 2024 (tentative)	330 days-Substantial 360 days - Final

**Key Activities:** Plocher Construction has completed installation of the new clarifier hardware and making final adjustments prior to start up commissioning by Walker Process Equipment which is expected at the end of March. Engineering staff has located suitable replacements for groundwater pressure relief valve lids. SDD Maintenance staff will be inspecting floor the relief valves and making necessary gasket repairs.

**23MNT22 Sidewalk and Stairs Replacement Project**

SCOPE: Removal and replacement of the stairs east of the Admin building, handrails and the sidewalks directly attached to them.						
Contractor: Chirsty-Foltz			Original Contract Price: \$54,178.00			
Engineer: SDD			Sum of Change Orders: \$0			
R.E. Inspector: SDD			Total Value: \$54,178.00			
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
09/08/2023	09/14/23	10/05/23	10/18/23	10/31/23	11/23/23	90 days-Substantial 120 days - Final

**Key Activities:** Fabrication of the new handrails is ongoing and we anticipate completion and installation by March 22, 2024. The stairs will remain closed until the handrails are in place.

**23ENG22 McKinley Interceptor Repair**

SCOPE: Removal of approximately 115 ft of failing 48-inch centrifugally cast fiberglass pipe and replacement with PVC pipe. After the repair is made, the entire manhole to manhole gravity sewer segment is to be CIPP lined. Restoration will require slope stabilization with geofabric and rip rap.						
Contractor: SAK			Original Contract Price: \$841,365.00			
Engineer: SDD			Sum of Change Orders: \$0			
R.E. Inspector: SDD			Total Value: \$841,365.00			
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
10/26/23	11/02/23	11/22/23	12/21/23	12/28/23	1/23/24	180 days-Substantial 210 days - Final

**Key Activities:** Pipe and coupling materials were ordered February 2, 2024 and SAK submitted an acceptable bypass pumping plan this last period. Excavation is delayed until mid-April due to extended lead times of pipe couplings. We expect installation of the bypass piping to begin prior to the end of this month.



**PROJECT MANAGER REPORT**

**March 20<sup>th</sup>, 2024**

**22ENG44 East Headworks Grit Classifier Replacement**

<p><b>SCOPE:</b> Removal and replacement of the East headworks grit classifiers, grit removal conveyer and all appurtenances necessary to deliver a fully functioning integrated grit washing and removal system. Owner has pre-purchased the grit washers, the removal conveyer, and grit dumpster distribution sweep plate. Contractor will assume responsibility for coordinating receiving, unloading, and staging equipment from the manufacturers.</p>						
<p>Contractor: Christy-Foltz          Engineer: SDD          R.E. Inspector: SDD</p>			<p>Original Contract Price: \$165,950.00          Sum of Change Orders: \$0          Total Value: \$165,950.00</p>			
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
05/10/23	05/30/23	06/15/23	07/12/23	09/21/23	09/21/23	150 days-Substantial 150 days - Final

**Key Activities:** The South classifier (002) and main conveyer in the 217 building are fully operational. All components for the North classifier (001) are installed and ready for commissioning. Christy-Foltz is scheduled to complete touch up painting by March 22. Huber Technologies is scheduled the week of March 25 for startup commissioning of the north unit (001) and final checkout of the complete system.

**23MNT21 Sodium Bisulfite Tuck Pointing**

<p><b>SCOPE:</b> Sodium Bi-sulfite Building tuck pointing project includes tuck pointing and replacing bricks as necessary, replace lintel over the north wall louver, and replacement of caulking and performing concrete repair as necessary.</p>						
<p>Contractor:          Engineer: SDD          R.E. Inspector: SDD</p>			<p>Original Contract Price:          Sum of Change Orders: \$0          Total Value:</p>			
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
02/20/24	03/12/24	04/04/24	04/18/2024			90 days-Substantial 120 days - Final

**Key Activities:** A pre-bid conference was held on March 12 and all submitted bids will be opened on April 4. There are two prime bidders that are current plan holders.

**24ENGXX Sewer Televising and Rating**

<p><b>SCOPE:</b> Request for Proposals submitted to televise and rate conditions for the Northeast Interceptor, Pershing Rd. Bypass, Route 51 Bypass, Old Main Interceptor, New Main Interceptor, and Eastside Interceptor.</p>						
<p>Contractor:          Engineer: SDD          R.E. Inspector: SDD</p>			<p>Original Contract Price:          Sum of Change Orders: \$0          Total Value:</p>			
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
02/29/2024	03/14/2024	03/28/2024				

**Key Activities:** Proposal requests and project specifications were sent to TeleScan Inc, Ground Penetrating Radar Systems, Hoerr Construction, National Power Rodding, and Petersburg Plumbing & Excavating.

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**Future projects that are being investigated and bid packages being produced.**

1. 2024 Roads Contract
  - a. Specifications and Plans
2. Engineering Support for Outside Maintenance Group Projects
  - a. Old Main
    - i. Subsidence identified north of Lincoln Park. Repair plans are being developed.
  - b. New Main
    - i. A crack in the box structure lid was identified near Lake Tokorozawa. Specifications and Plans will be developed to complete repairs.
  - c. McKinley Crossover Trestle
    - i. Erosion at the trestle base and subsidence identified on the north side of Spring Creek, west of Monroe St. Specifications and Plans will be developed to complete repairs.



March 7, 2024

Mr. Don Miller, P.E.  
Sanitary District of Decatur  
501 S. Dipper Lane  
Decatur, IL 62522

Re: Monthly Progress Update  
CD Project No. D0540050  
**Lost Bridge Force Main  
Invoice No. 8 (439039)**

Dear Mr. Miller:

This letter summarizes Clark Dietz's work for the Sanitary District of Decatur that was performed from January 27 through February 23, 2024.

**Work Completed this Month**

- Held regular internal progress meetings.
- Prepared for IEPA Construction Permit submittal.
- Continued preparing project specifications.
- Modeled hydraulic transients (surge analysis) for the new forcemain assist with forcemain design criteria.
- Review meeting with fusible PVC manufacturer to discuss drawings and specifications for boring under Lake Decatur.
- This invoice includes an invoice from Vanderwerf Engineering, who performed QAQC assistance with our hydraulic transient analysis.

**Work Anticipated for Next Month**

- Submit IEPA Construction Permit.
- Survey subconsultant invoice.
- Finalize surge analysis for new forcemain and submit Preliminary Engineering Report.

**Schedule**

We have revised the project schedule based on the current progress. The following shows the anticipated design and bidding schedule.

- March 20 – 90% Design to District
- March 26 – District comments on 90% Design to CD
- April 3 – Advertise Project
- May 1 – Open Bids
- May 8 – Bid Recommendation
- May 15 – Board Approval
- June 1 – Notice to Proceed

This schedule is contingent upon quick agreement with the District on the preferred alignment alternative, no significant issues with utility, city, or county coordination, and timely review with minimal changes of progress sets.



Please call me at 217-373-8933 if you have any questions.

Very Truly Yours,  
Clark Dietz, Inc.

Andrea W. Bretl, P.E.  
Project Manager