



DIRECTOR OF ENGINEERING REPORT

Jun 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			Sum of Change Orders: \$(108,900.00)			
R.E. Inspector: SDD			Total Value: \$847,896.00			
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: Further testing on what we are calling “deep cycle mixing” is ongoing. The intent of the testing is to separate the hydraulic retention time from the biosolids retention time and see the impact that has on the amount of sCOD and VFA creation. The results from “scenario C” are in the table to the right.

The 5/21 column is fully mixed operation and 6/4 is the deep cycle mixing. Notably, Primary and WAS influent were similar between the two weeks but effluent measures from each by zone increased significantly. The sCOD and VFA is what the fermenter is designed to produce to improve phosphorus removal.

No update on the final change order paperwork from the contractor.

	sCOD (mg/L)		
	5/21/2024	6/4/2024	% change
Primary	2073	2074	0.0
WAS	72.7	73.9	1.7
Zone 1	351	636	81.2
Zone 2	402	623	55.0
Zone 3	454	616	35.7

	VFA (mg/L)		
	5/21/2024	6/4/2024	% change
Primary	1407	1226	-12.9
WAS	29.4	29.3	-0.3
Zone 1	189	340	79.9
Zone 2	209	334	59.8
Zone 3	224	320	42.9

Change Item: Install an additional valve in underground piping to allow decant water from the South Sludge Lagoons to be pumped to a different location in the P2 channel. This modification eliminated the need to isolate the frac tank from a shared discharge point when decanting is required from the lagoon. This was done on a T&M basis.



22ENG02 Lost Bridge Force Main Renewal

SCOPE: Project involves the installation of approximately 2700 LF of horizontally directionally drilled fusible PVC plus tie into the Lost Bridge road pumping station (East side of Lake Decatur) and connect to an existing force main on the West side of Lake Decatur.

Contractor: Burdick	Original Contract Price: \$2,986,151
Engineer: Clark Dietz	Sum of Change Orders: \$0
R.E.I.: SDD/CDI	Total Value: \$2,986,151

Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
04/05/24	04/15/24	05/01/24	05/22/24	06/24/24	06/24/24	Sub – 150 days Final – 270 days

Key Activities: The last easement needed was approved by the City Council and we are waiting for the signed easement to be returned. Notice of Award was issued this last period. ECI will be the HDD subcontractor. The pre-construction meeting has been scheduled for June 24th. Staff expects bonds and insurance to be received and approved prior to that date. If they are in order, the Notice to Proceed will be issued at that time.

23MNTxx Damon Ave. Pump Station Upgrades

SCOPE: Project involves removal of existing electrical utilities and installation of a dual service switchboard and ATS, a new 1600 AMP CT enclosure and removal and re-installation of two underground conduit duct banks.

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
06/18/24	07/02/24	07/24/24				Sub – xxx days Final – xxx days

Key Activities: Plans and specifications are being modified from the original and project rebid.

23ENG45 Primary Clarifiers 4 and 6 Procurement

SCOPE: Pre-procure equipment to replace mechanisms in clarifiers #4 and #6.

Contractor: Kusters Water	Original Contract Price: \$1,296,742
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	N/A	05/01/24	05/31/24	06/10/24		365 days

Key Activities: Notice of Award and Notice to Proceed were issued to Kusters Water for 316 stainless steel clarifier equipment this last period. Specifications for installation have been created and are in QA/QC review.



NON-CONSTRUCTION ACTIVITY

DESIGN - 22ENG31 ADMINISTRATIVE WORKFORCE CENTER:

AEX has completed plans and is wrapping up the specifications. District staff is currently reviewing drawings. The project schedule has been adjusted to reflect an additional week of staff review before advertising.

SDD has engaged with Liaison LLC out of Decatur for technology design services for the board room, conference room, huddle rooms, and library. The board room will have microphones and recording equipment so we can comply with the current open meetings act and future enhancements to the act. The district has received a cost estimate of \$143,000 for the technological materials and labor to outfit the rooms. We have requested minor adjustments to the material supply list and should have a PO request for procurement next month for trustee review.

Schedule:

Develop Contract Documents (ongoing)	
Advertise	Jun 24, 2024
Prebid	Jul 09, 2024
Open Bids	Aug 06, 2024
Construction Phase	52 weeks

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 has delivered a draft of the report outlining 3 site dewatering plans and costs associated with each. Staff is reviewing the report.

Schedule:

Task 1 - Data Gathering	Complete
Task 2 - Development of Dewatering System options	Apr-24 Complete
Task 3 - Prepare 20-year life cycle costs for the options	May-24 Complete
Deliverable: Final Report – Draft report has been received for review.	

The three site alternatives include 36” dewatering wells at various locations. Staff has executed an agreement with SKS engineers to inform well design depths just north of clarifier #6. SKS will be performing the boring early the week of 6/17/24.

STUDY – Detailed Assessment of Primary Clarifier Control Structure

Staff is working with Black and Veatch to determine a rehabilitation path forward on the existing Primary Clarifier Control Structure. Concerns regarding structural, mechanical and electrical integrity were identified in the preliminary condition assessment completed in the summer of 2023. Structural components to be included will be confirmed during design. Based on the findings of the preliminary condition assessment anticipated are concrete repairs, drain and crack repairs, and repair of exposed reinforcing steel. Building mechanical issues to be resolved include makeup air units/heaters as well as replacement of the A/C units, and electrical issues to be resolved include replacing the transformer and vacuum switch. This is a scope of work outside of the existing Nutrient Agreement.



Jun 20, 2024

DESIGN – Digester #1 Cover Replacement

Project kickoff meeting was held with Donohue and Associates for the design work associated with digester #1 cover replacement project.

Schedule:

50% Design for Review	Aug 16, 2024
95% Design for Review	Sep 20, 2024
Advertise	Oct 08, 2024
Bid Open	Nov 05, 2024
Award	Nov 20, 2024

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 Dewatering Well drilling work 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 force main routing for the City’s new Brush College pump station has been selected and design is underway the CITY is still working to attain the easements of the force main. Clark Dietz Engineers are working with the City on that design.
2. Work on the Faries Parkway interceptor replacement work has been completed.

If there are questions, please contact me at 422-6931 ext 216, or by email at DonM@sddcleanwater.org.



PROJECT MANAGER REPORT

June 20th, 2024

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ACTIVE PROJECTS

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

Key Activities: Storm drain repair, soil remediation, and seeding are complete. Asphalt repairs are pending availability of paving contractors. First and second pay applications are submitted for approval.

23MNT21 Sodium Bisulfite Tuck Pointing

SCOPE: 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.	
Contractor: Berglund Construction	Original Contract Price: \$59,000
Engineer: SDD	Sum of Change Orders: \$0
R.E. Inspector: SDD	Total Value:

Key Activities: Berglund Construction initiated work on 6/4/24. Mortar grinding, lintel replacement, and caulking was completed on 6/13/24. Final completion of tuckpointing, brick replacement, and washing is expected by 6/20/24.

24ENGXX Sewer Televising and Rating

SCOPE: 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.						
Contractor: Telescan Inc.				Original Contract Price: \$143,396.25		
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
02/29/2024	03/14/2024	03/28/2024	5/16/24	6/4/24	6/4/24	10/31/24

Key Activities: A pre-construction meeting was held with TeleScan Inc. on 6/4/24. Initial work will begin with the Eastside Interceptor and biweekly reports will be delivered with any areas of concern.



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

Re: Monthly Progress Update
CD Project No. D05400050
Lost Bridge Force Main
Invoice No. 11 (440640)

Dear Mr. Miller:

This letter summarizes Clark Dietz's work for the Sanitary District of Decatur that was performed from April 27 through May 31, 2024.

Work Completed this Month

- Issued Addenda.
- Review Bids, prepare bid tabulation and recommendation.

Work Anticipated for Next Month

- Coordinate contractor's contract.
- Begin shop drawing review.

Schedule

The contract documents were written to give the Contractor 150 days to substantial completion and 270 days to final completion after Notice to proceed. If the Notice to Proceed is issued July 1, then the project will be substantially complete November 28, 2024. The longer than standard number of days between substantial and final completion was made to allow paving and other temperature-dependent site restoration tasks during warmer months.

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