MINUTES OF SPECIAL MEETING OF
THE BOARD OF TRUSTEES OF
DOUGLAS COUNTY LAKE TAHOE SEWER AUTHORITY
May 9, 2018

CALL TO ORDER:

A Special Meeting of the Board of Trustees of the Douglas County Lake Tahoe Sewer Authority (DCLTSA) duly convened at 9:30 a.m. on Wednesday, May 9, 2018 at the Wastewater Treatment Plant, Stateline, Douglas County, Nevada.

ROLL CALL:

Present were Trustees Mike Bradford, Nancy McDermid, Wes Rice, Darya Vogt and Grant Thompson.

RECOGNITION OF OTHERS IN ATTENDANCE:

In attendance were Authority Manager Rob Hopkins, Authority Controller Paula East-Janicki, Authority Engineer Rob Anderson, the Authority's attorney, James Cavilia, and Bob Cook. John Fassmann of Round Hill General Improvement District (RHGID) was also in attendance and the meeting was open to the public.

PUBLIC COMMENT:

None.

APPROVAL OF AGENDA:

It was moved by Trustee McDermid, seconded by Trustee Rice and carried unanimously that the agenda as noticed be approved and adopted.

MINUTES OF PRIOR MEETING:

It was moved by Trustee McDermid, seconded by Trustee Vogt and carried unanimously that the minutes of the Meeting of the Board of Trustees of DCLTSA, dated April 11, 2018 be approved as presented.

Discussion and possible action regarding increasing capital assessment portion of rates by $250,000 per year for five years beginning in Fiscal Year 2018-2019 for the purpose of funding capital improvements pursuant to the Authority's Development Plan

The Authority legal counsel, Jim Cavilia, explained that the purpose of this agenda item was to have the Board formally consider, as a stand-alone matter, the rate increase that is part of the proposed 2018-2019 budget. Authority Controller, Paula East-Janicki, explained that the proposed increase in rates was for the purpose of funding capital improvements and would not involve any change in the Authority's operation and maintenance budgets. In response to a question from Trustee Rice, Ms. East-Janicki indicated that the rate increase would translate to an in-Authority residential rate increase of $24.00 per year. Trustee Vogt acknowledged that this source of additional on-going revenue would allow the Authority to qualify for funding from the State Revolving Loan Fund. Following a brief discussion among the Trustees, **it was moved by Trustee McDermid and seconded by Trustee Bradford that the capital assessment portion of rates be increased by $250,000 per year for five years beginning in Fiscal Year 2018-2019 as proposed.** Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment. **The motion was unanimously approved.**

Discussion regarding whether to continue Samuel McMullen and Strategic Research Associates' contract to obtain grant funding for District Development Plan projects

Chairman Bradford provided a brief summary of Sam McMullen's work for the Authority over the years and recommended that based upon the current political climate, the Authority's agreement with Mr. McMullen and Strategic Research Associates be terminated until such time as Mr. McMullen provides the Board with a mutually agreeable plan of action. Following a brief discussion among the Trustees about the ability to revive the relationship in the future, **it was moved by Trustee McDermid and seconded by Trustee Rice that the Authority's agreement with Mr. McMullen and Strategic Research Associates be terminated.** Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment. **The motion was unanimously approved.**

MANAGER'S REPORT:

A. General Status Report

Authority Manager, Rob Hopkins presented the Board with a written summary of various general matters related to the Authority and briefly summarized each item in the written report.

Mr. Hopkins reported that Authority staff had recently completed a Standard Operating Procedure (SOP) and Equipment List for completing an emergency bypass of the Main Pump Station. In order to deal with future power surges, Mr. Hopkins indicated that sacrificial capacitors had recently been installed on all the Main Pump Station Variable Frequency Drives

to protect the motors. With regard to the previous damage from a power surge, Mr. Hopkins stated that the Authority losses had been recovered from insurance. A brief discussion took place among the Trustees about long-term claims against NV Energy for losses from such events.

Mr. Hopkins indicated that the aeration basins at the treatment plant have recently been cleaned and inspected. Some erosion in the bottom of the basins has been repaired. Discharge Monitoring Reports for the first quarter of 2018 have been completed and submitted to the Nevada Division of Environmental Protection (NDEP).

With regard to the abandoned sewer laterals at the Tahoe Beach Club, Mr. Hopkins reported that Authority staff was working with the property owner's contractor to cap and properly abandon the laterals. Mr. Hopkins stated that the bulk of the work of properly capping the laterals will be completed soon.

Trustee Bradford opened the floor to public comment regarding the matter. There was no public comment.

B. Discussion regarding proposal of Kingsbury Snow Removal, Ltd. for lease of property to house snow removal equipment and materials

Mr. Hopkins reported that he has been in discussions with representatives of Kingsbury Snow Removal, Ltd. about providing snow removal services to the Authority in exchange for the Authority allowing the company to store equipment on the Authority's property just east of the treatment plant. Mr. Hopkins indicated that he believed it was worth pursuing this possibility and he wanted some input from the Board before proceeding any further. Each of the Trustees expressed an opinion that it made sense to continue the discussions with the understanding that the company would have to be responsible for any permitting related to activities on the Authority's property. Chairman Bradford indicated that he had worked with the company in the past and had a positive experience. Following a general discussion among the trustees and staff a consensus was reached to continue discussions about a possible agreement that would have to be reviewed and approved by the Authority's legal counsel.

Trustee Bradford opened the floor to public comment regarding the matter. There was no public comment.

ENGINEER'S REPORT:

A. General Projects Status Report

In addition to his participation in the Manager's Report, the Authority Engineer, Rob Anderson presented correspondence dated May 8, 2018 summarizing two issues that R.O. Anderson

Engineering has been involved with on behalf of the Authority. The two issues are 1) General Engineering Services; and 2) Muller Lane Force Main Realignment. The May 8, 2018 correspondence is incorporated in these minutes by this reference.

Mr. Anderson reported that his staff was continuing to work with Authority staff to monitor the activities related to the capping of sewer laterals at the Tahoe Beach Club. Mr. Anderson indicated that work related to verifying the accuracy of flow metering was ongoing with a Task Order having been proposed for the work. With regard to the Muller Lane Force Main Realignment, Mr. Anderson reported that the work was complete and that the contractor did a very good job.

Trustee Bradford opened the floor to public comment regarding the matter. There was no public comment.

B. Discussion and possible approval of R. O. Anderson Engineering's Task Order 18-001 in an amount not to exceed $9,800 for Flow Meter Comparison and Analysis Services

Mr. Anderson presented the Board with a Task Order for R.O. Anderson Engineering to complete work related to flow metering comparison and analysis. Following a brief discussion among the Trustees, **it was moved by Trustee McDermid and seconded by Trustee Vogt that the Task Order be approved as presented.** Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment. **The motion was unanimously approved.**

ATTORNEY'S REPORT:

A. General Status Report

Jim Cavilia had nothing additional to report. Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

B. Discussion and possible action regarding leak/warranty issue with the Underground Emergency Storage Tanks

Mr. Cavilia indicated that there was nothing new to report on this matter. Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

AUTHORITY CONTROLLER'S REPORT:

A. General Status Report

Ms. East-Janicki presented the board with an income and expense statement showing budget to actual and stated that operating expenses are approximately 1.28% over budget through the end of March. She also presented the board with a Statement of Earnings and summarized that report verbally. Finally, Ms. East-Janicki provided the board with a copy of the letter that would be sent to in-Authority customers with regard to the new direct billing for services.

Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

B. Report of funds transferred from the General Fund to the Construction Fund for payments toward ongoing District Development Plan projects

Ms. East Janicki presented the report of funds transferred from the General Fund to the Construction Fund for payments toward ongoing District Development Plan projects and reported that she was currently processing payment with regard to the Muller Lane project. Based upon the Board's previous authorization to transfer funds, Ms. East-Janicki indicated that it was not necessary to authorize any additional transfer at this time.

Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

F. Investment Report

Ms. East-Janicki presented the Board with a summary of the District's investments, totaling approximately $8.9 million and reported that one Certificate of Deposit had recently matured and been reinvested.

Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

APPROVAL OF CLAIMS:

The claims along with the Authority's check register were provided to the Board and approved by the Treasurer. Trustee Bradford opened the floor to public comment regarding the matter. There was no public comment.

PUBLIC COMMENT:

There was no public comment.

ADJOURNMENT:

There being no further business, the meeting was adjourned at 10:45a.m.

APPROVED

4813-8201-1240, v. 1

Meeting Date: May 9th, 2018

DOUGLAS COUNTY LAKE TAHOE SEWER AUTHORITY
Staff Report

Subject / Title:

District Manager's Monthly Report – MAY 9th, 2018
A. General Status Report

Staff Recommendation:

None. This is an informational item only.

Discussion/Report:

This item is regularly agendized to afford the Authority General Manager the opportunity to update the DCLTSA Board of Trustees on select activities over the previous month.

1. DCLTSA staff has developed a Standard Operating Procedure (SOP) and Equipment List for conducting full emergency bypass pumping at the Main Pump Station. The need to dial in this procedure was highlighted during the power surge event that occurred on April 1, 2018. This event knocked out two of the three pumps that serve the Main Pump Station.

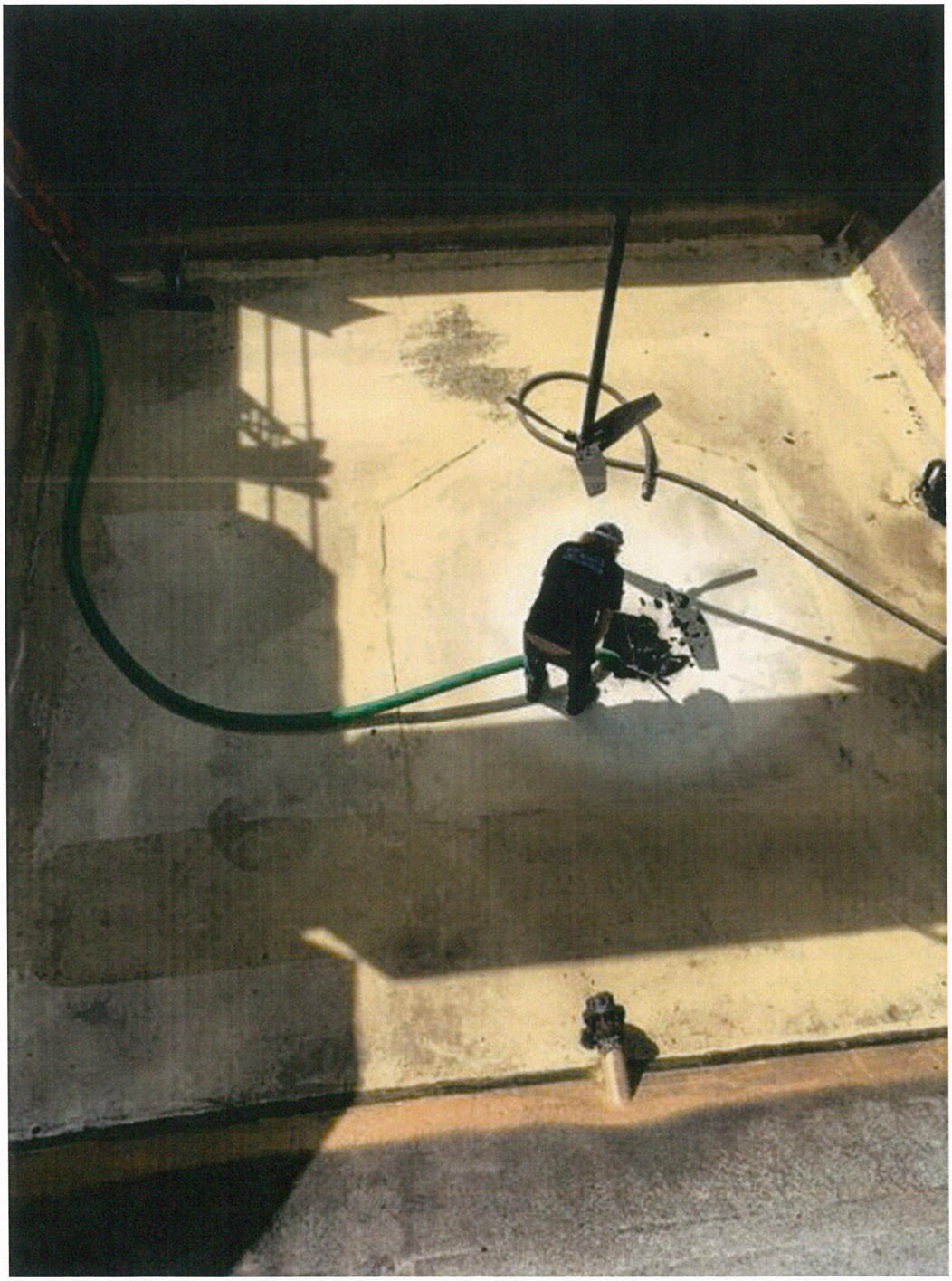
2. Authority staff has ordered RAYCAP Sacrificial Capacitors, which will be installed on all critical Authority Variable Frequency Drives (VFDs) over the next several weeks. The RAYCAP system was recommended by Yaskawa, the manufacturer of the VFD that failed at the Main Pump Station during the April 1st power surge. (Cut Sheet on RAYCAP system attached)

3. DCLTSA has been reimbursed by its insurer for the Yaskawa VFD that failed at the Main Pump Station on April 1, 2018. The total claim submitted by the Authority was for $13,260.00. Less our $5,000.00 deductible, the Authority recovered $8,260.00 for the failed VFD.

4. HDR Engineering and Authority staff drained, cleaned and inspected the Treatment Plant Aeration Basins in order to complete an assessment of the condition of the concrete in advance of the Aeration Upgrade Project, scheduled for Fiscal Year 2020. There is evidence of severe erosion of the concrete in the bottoms of a few of the basins. This appears to be due to grit scouring the bottom in a circular pattern from the vortex-like action of the mechanical aerators. Field repairs have been made as an interim solution. (Photos attached)

5. The First Quarter 2018 Discharge Monitoring Reports have been submitted to the Nevada Division of Environmental Protection.

6. DCLTSA staff is working with personnel from Cruz Construction and Tahoe Beach Club to coordinate capping and proper abandonment of old sewer laterals along Kahle and Arthur Drive.



A wide-angle view of the scouring damage to Aeration Basin #5. Note the pentagonal-shaped repair patch from years past.



A close-up view of the erosion damage in the bottom of Aeration Basin #5.

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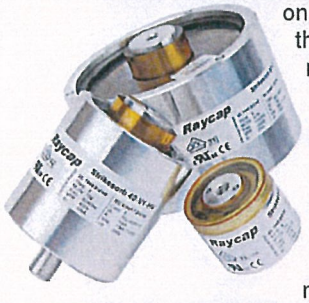
Water Management
Application Note

Surge Protection for Variable Frequency Drives in Water Management Systems

Variable frequency drives (VFDs) are integrated into critical systems such as intelligent motor or pump controllers that manage the water flow of large operations. These systems are used extensively in irrigation, to regulate municipal water supplies, for power plant cooling, or for storm water control. These newer, intelligent controllers are replacing older mechanical pump solutions to achieve more efficient flow control and to save energy. This trend will continue as water management systems become more automated and energy-efficient.

As with any electrical equipment that is exposed to environmental conditions, protection must be in place to ensure that the systems remain in operational order. This becomes even more critical when the equipment is located in remote or hard to access areas such as inside irrigation systems on large farms spanning many thousands of acres, or at remote installations on lakes or river banks where water levels are being monitored for flood prevention. The variable frequency drives control the speed of the motor which maintains the amount of water pressure needed for the application. The critical role that these water systems play, and the expense involved in replacing them, has owners and operators becoming more and more concerned with protecting the equipment and the entire operation from severe damage and downtime.



Key benefits of Raycap's Strikesorb surge protective devices for variable speed drives

- Compliance to UL 1449 3rd edition
- Compliance to IEC 61643-1 / Class I and Class II certified
- High Surge Current Handling Performance
- Ultra High Short Circuit Current rating
- Low Let Through Voltage - High Protection Level – Enhanced System Reliability
- Maintenance-free
- Elimination of Fuses
- Long lifecycle
- Safety. No fires or smoke damage.
- Easy installation

Raycap is dedicated to developing electrical protection solutions that eliminate downtime caused by lightning strikes or systematic overvoltage events which can occur any time and bring an entire operation to a halt. Raycap's Strikesorb® next generation surge protective devices are integrated into the electrical control systems that protect the sensitive equipment from direct lightning strikes and other overvoltage events. Severe overvoltage events can destroy equipment and bring an operation offline for extended periods of time, resulting in destroyed crops, contaminated water systems, flooding, and millions in lost revenues.
The critical connection to the water supply, potential damage to equipment and the risks associated with operational failures highlight the need for overvoltage protection in the field.



125 Yaskawa Drive using 40mm Strikesorb Modules

Raycap

Installation of surge protection in variable frequency drive pumps in irrigation applications.

Raycap provides solutions for Class I/II electrical protection based on its next generation Strikesorb® technology. The unique properties of the Strikesorb technology ensures that no internal fuses are needed, thus eliminating a potential cause of failure to the protection device. ***Figure 1*** illustrates a typical configuration of Strikesorb protection installed in an irrigation application where the Strikesorb technology is protecting the variable speed drive. Protecting these irrigation pump drives can mean the difference between having an operation up and producing, or exposing the crop to potential ruin. The electrical requirements for power line surge protection in variable frequency drives under 600 volts requires that the protection be in compliance with IEEE C62.41.1, IEEE C62.41.2, & IEEE Strd. 519. Typical requirements state that surge protection be installed inside the control panel to protect the unit from damaging transient voltage surges.

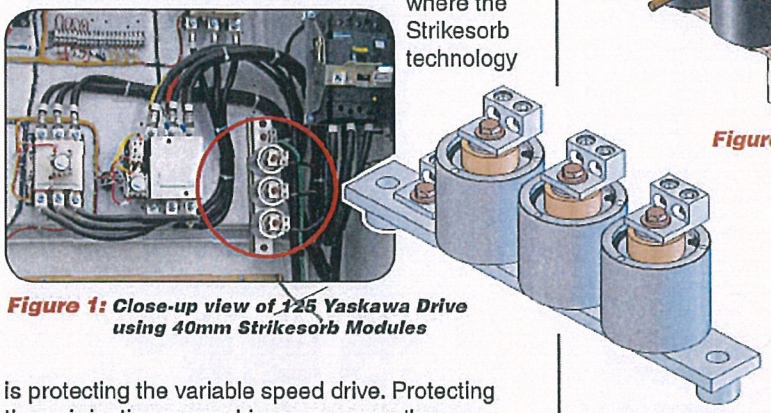


Figure 1: ***Close-up view of 125 Yaskawa Drive using 40mm Strikesorb Modules***

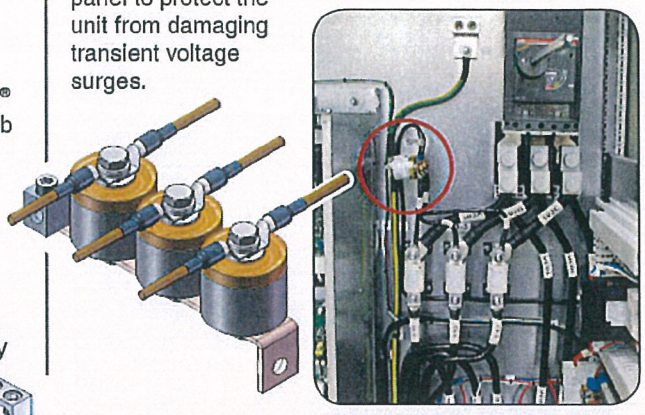


Figure 2: ***Danfoss Variable Frequency Drive using 30mm Strikesorb Modules***

The surge protection must always be mounted near the incoming power source and properly wired to all three phases and ground. ***Figure 2*** illustrates a typical wiring application.

Conclusion

Raycap's expertise in surge protection for solid state motor control products and vertical turbine pumps is supported by its relationships to the key system integrators and electrical contractors in these markets.

Strikesorb modules kA withstand and AIC Ratings

Strikesorb Model	kA 8/20µs	Direct Connect AIC "3 Cycle Testing"	AIC with Fuse
30mm	60kA	42kAIC	100kAIC with 600A Fuse
40mm	140kA	85kAIC*	200kAIC with 4000A Fuse
80mm	200kA	65kAIC	200kAIC with 4000A Fuse



For more information on how to implement these solutions or others like them, please see your local dealer, distributor, integrator or visit www.raycapsurgeprotection.com.

Rayvoss®, Strikesorb® and ACData® are registered trademarks of Raycap Corporation

Raycap

Meeting Date: May 9th, 2018

DOUGLAS COUNTY LAKE TAHOE SEWER AUTHORITY
Staff Report

Subject / Title:

Authority Manager's Monthly Report – MAY 9th, 2018

B. Discussion regarding proposal of Kingsbury Snow Removal, Ltd. For lease of property to house snow removal equipment and materials – for possible action.

Staff Recommendation:

Authorize Authority Manager to enter in to a discussion of terms and conditions for a land lease agreement between the Authority and Kingsbury Snow Removal, Ltd.

Discussion/Report:

DCLTSA management held a preliminary meeting with Stephen Hasse, managing member of Kingsbury Snow Removal to investigate the possibility of utilizing vacant Authority property just east of the Treatment Plant for storage of snow removal equipment and materials. Discussions related to trading snow removal services for use of the land were considered.

A preliminary proposal from Kingsbury Snow Removal, Ltd. is attached for Board discussion and review. (Attached)

The Authority manager seeks Board authorization to enter in to a discussion of possible terms and conditions for a land lease agreement between the Authority and Kingsbury Snow Removal, Ltd.

This discussion would involve review of any proposed lease terms and conditions by Authority legal counsel. Additionally, the Authority Engineer shall be needed to review any proposed storage facility design, and may be tasked with assisting in obtaining permits from relevant regulatory agencies, such as the TRPA. All costs incurred by the Authority pursuant to the aforementioned project to be reimbursed by Kingsbury Snow Removal, Ltd.

Kingsbury
Snow Removal, Ltd.

PO Box 3826
Stateline, Nevada 89449
775.781.3541 mobile
530.725.8550 office / fax

Proposal

Prepared for: Rob Hopkins
DCLTSA

Prepared by: Stephan Haase

April 27, 2018

Proposal Reference: DCLTSA Proposal

Proposal

Statement of Experience

Kingsbury Snow Removal, Ltd. offers commercial snow removal service has more than a decade years of experience managing complex and demanding projects. Selected work experience includes;

* Several years of Public Streets / Roadways with limited snow storage, high density population, limited parking and sensitive environmental considerations.
* Private HOA roadways at lake and summit elevations. Both high density and exclusive gated communities. All with limited snow storage and increased public safety considerations.
* Large and Complex business's such as Heavenly Ski Area, Walmart locations, Casinos, and Banks here at lake level. Many projects require 100% parking available. We maintain a private snow storage site here in basin for all clients should it be needed.

Our infrastructure is specifically designed to meet our commitments and be readily expandable with surge control. This is accomplished through a variety of functions including logistics, finance, planning, and operations to ensure sustainability year after year.

All equipment and supervisors utilize two-way radio communication with mountain top repeater access for responsive internal communication.

Business license and Insurances

Kingsbury Snow Removal, Ltd. is registered with the Nevada Secretary of State as a limited liability company. We are in compliance with all requirements set forth by the State of Nevada and Douglas County.

$1,000,000 (aggregate $2,000,000) of general liability insurance is maintained through a major U.S. carrier. In addition, we maintain property insurance for all equipment. All employees are covered under workers' compensation. We do not use sub-contractors.

We are in compliance with all Federal, State, and local employment regulations including State unemployment insurance. Standard accounting practices are followed.

Project Proposal

Kingsbury Snow Removal, Ltd. seeks partnering with DCSID leasing ground with tenant provided improvements. The improvements consist of concrete pad with temporary steel and fabric structure

(commonly branded as Sprung Structures) for the storage of snow removal equipment and associated supplies and materials.

The purpose of structure is to ensure deicing / plow trucks are properly staged out of weather for the adequate distribution of roadway deicing materials. This serves a unique interest and benefit to the community of Stateline where public roadways are plowed and deicer applied. In addition routine maintenance or emergency repairs could be performed to ensure public safety objectives are met.

The temporary structure may size from 2400 - 3600 square feet depending on available sites (see attached image with site proposals). In addition consideration should be given for an apron and parking of private vehicles. A separate secured covered deicer materials bin of ecology blocks approximately 12'x15' houses NDOT specification roadway deicer and 1000-2500 gallon poly tank for liquid deicer placed adjacent to the temporary structure. No grid power is needed.

Total space occupied may range between to 3400 - 5000 square feet of improvements with structure and perhaps up to 1000 square feet of space without improvements.

An example structure can be seen at Logging Road Lane occupied by NDOT or in Incline Village at the Ponderosa Ranch parking lot.

Costs

Kingsbury Snow Removal shall incur all costs associated with tenant improvements. Any costs incurred by DCSID would be reimbursed.

Kingsbury Snow Removal Services

Kingsbury Snow Removal, Ltd. staffs 24/7 for roadway clearing. Staff are able to contribute snow removal services. In addition we operate both six and ten wheel dump trucks for hauling materials.

Security and Indemnification

Site security is confined to structure security and lockable doors. Digital locks with time and person stamp are currently utilized and may be possible in this application. Employees utilize digital time cards with GPS tracking. Minimum of key and essential personnel need access to this site as much equipment is staged on projects during winter months. At other times transient employees are supervised by supervisory personnel. Kingsbury Snow Removal does not routinely engage sub-contractors. Deicing materials will be secured with either lockable door or site fencing.

Our legal team is in the Office of Ron Alling. We would engage Mr. Alling to prepare a document that provides for indemnification and holds harmless of DCSID. In addition Mr. Alling could prepare a lease agreement.

Timeline& Third Party Partners

Time is of the essence to be completely in place and permits closed before October 15. Therefore we have partnered with Midkiff and Associates to have a streamlined permit application process. Midkiff and Associates are uniquely experienced with temporary structures permit process in basin. We are prepared to move forward rapidly with all aspects.

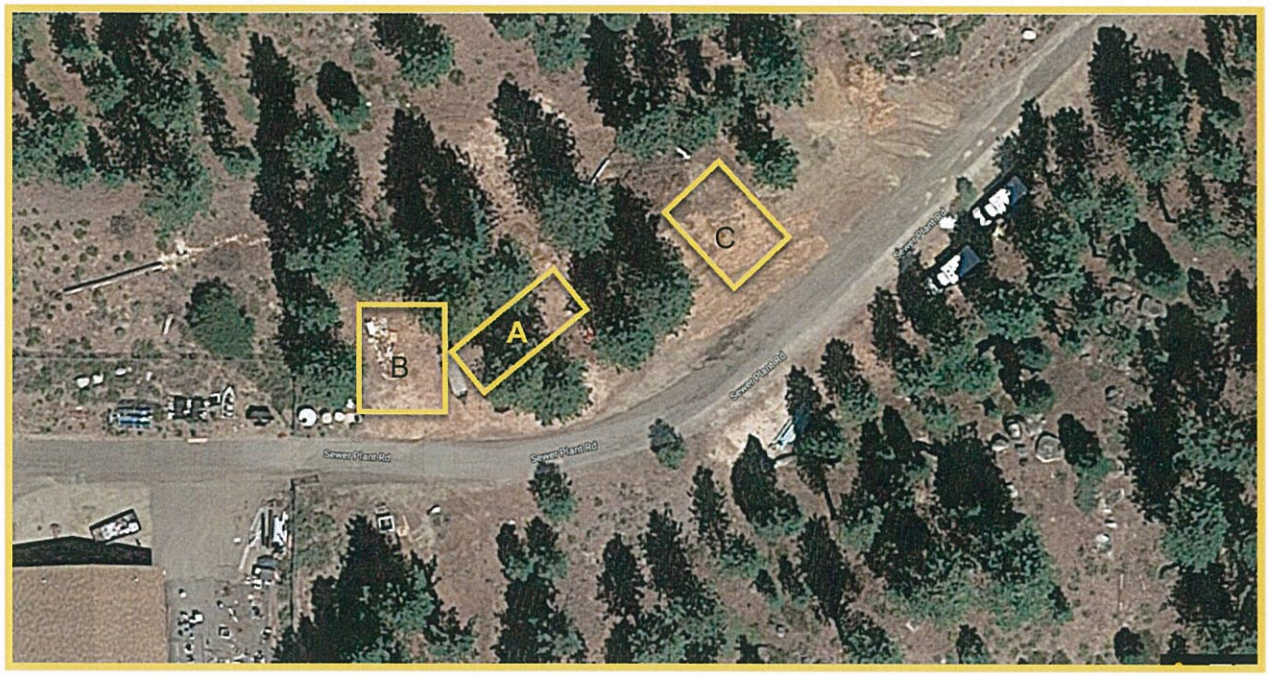
Exit Strategies

Kingsbury Snow Removal, Ltd. has demonstrated proper fiscal management and longevity. We possess a proper balance sheet and capitalized well for difficult revenue snow years. We are actively pursuing additional public roadway snow removal. Our business plan continues well beyond the longevity of any single member. Therefore we anticipate a long-term presence.

Should exiting this partnership become necessary undoing the improvements are possible with some limitations. The most obvious exit would be to remove the temporary structure and deicer containment bin. The concrete pad or other ground improvements would not be removed. Another alternative would be to assess whether or not the structure provides any value and need to DCSID. If so, we could engage in a discussion to transfer the property.

Possible Sites

Three sites have been identified to accept the concrete pad with temporary structure without the need for tree removal and minimal ground preparation. Consideration has been given to pre-existing underground



infrastructure.

R O Anderson

May 8, 2018

Via E-mail

Board of Directors
DOUGLAS COUNTY LAKE TAHOE SEWER AUTHORITY
P.O. Box 578
Zephyr Cove, NV 89448

Authority Engineer's Monthly Report – May 2018

Dear Members of the Board:

The following report presents a summary of activities undertaken on behalf of the Authority since our last meeting together on April 11, 2018. During this period we participated with Authority personnel in the following areas:

1) General Engineering Services
2) Muller Lane Force Main Realignment

The following paragraphs provide a brief description of these efforts and progress related to each of these specific assignments.

General Engineering Services: R.O. Anderson Engineering, Inc. (ROA) assisted and participated with Authority personnel on various engineering-related assignments including: participation in project coordination meetings and phone calls with Authority staff, legal counsel, and Board members on an as-requested basis. In addition to these activities, we have participated in the following specific tasks:

- Tahoe Beach Club: On April 16th, we attended and participated in the Pre-construction Conference with representatives of the Owner and its Contractor present. During that meeting, we learned that there have been significant modifications to the approved plans that involve the proposed improvements to the sewer collection system and tie-ins to the Authority's facilities. Based on the information provided during that meeting, along with input and direction from the Board relative to existing, disconnected but uncompleted service laterals within the project site, we recommended that the Authority require the Owner to complete the termination of the laterals prior to making any modifications or further connections to the Authority's collection system. Additionally, we recommended that the updated improvement plans be submitted to the Authority for review and comment prior to any further work being done on the project's sewer system. Mr. Hopkins' letter, dated April 25, 2018, is attached for your consideration. To the best of my knowledge the identified issues remain

Physical
1603 Esmeralda Avenue
Minden, Nevada 89423
775.782.2322

Mailing
P.O. Box 2229
Minden, Nevada 89423
775.782.2322

OFFICES
Minden, Nevada
Reno, Nevada

unaddressed and neither the Owner or its engineering representative have submitted the project's current design drawings.

- Annual Flow Report: The work to evaluate and estimate flow data for 2017 has been completed. We are currently reviewing the final distribution estimates for each of the respective contributing districts and expect that review to be completed this week. Once the flow distribution is confirmed, we will issue the final report.
- Third-party Meter Verification: As noted in last month's report, we have received and reviewed the data provided by the two companies that were hired to perform the meter verification and testing. Unfortunately, the data as presented was, at least in some respects, inconsistent with our knowledge and understanding of some parts of the system. After considering the various constraints and restrictions present within the different collection systems we met with Mr. Hopkins and Ms. East-Janicki to review and discuss an alternate approach to collecting and verifying the flow meters within the system. The result of that meeting is the scope of services set forward in Task Order 18-001, which is attached for your review and approval. Essentially, the identified approach to verifying flow data from each contributing district is to deploy portable open channel flow meters in critical locations throughout the existing gravity sanitary collection systems of the contributing districts. The selected device accurately measures and records both velocity and depth of flow in gravity lines using a combination of ultrasonic level transducer and an ultrasonic Doppler signal to measure velocity. By deploying the meters sequentially through the collection system over a minimum of five-day periods, the collected flow data can be compared to and contrasted with data collected from the existing meter for the same period. From the data, we expect we will be able to provide a qualitative evaluation of each meter and potential quantify the difference, if any, between the two data sources. We recommend that the scope of services within the subject Task Order be authorized so these efforts can commence with the hope that we will be able to complete the efforts such that the results can be evaluated at the Board's July 2018 meeting.

Muller Lane Effluent Force Main Relocation:
The Muller Lane project is complete. Since the last Board meeting, testing of the automatic pressure relief valve was satisfactorily completed, and the very minor punch list items have also been corrected. The new line has been in service since Monday, April 9, 2018.

Last week the Contractor's initial Application for Payment for both Contract A (Directional Bore) and Contract B (Line Connections) were processed. The combined amount of the two contracts was $543,760. Of this amount, the Contractor has invoiced

95%, or a total of $516,572.00. The remaining 5% of the contract amounts will be invoiced within the coming 30 days. To date no change order requests have been received.

I will be present at the Board meeting and available then to review this information in greater detail, as well as address any specific questions or concerns Board members might have relative to these subjects. Thank you for your continued confidence.

Yours faithfully,

R.O. ANDERSON ENGINEERING, INC.

Robert O. Anderson, P.E., W.R.S., CFM
Principal Engineer

Attachments

cc: Jim Cavilia, Esq.
Paula East-Janicki
Rob Hopkins

Douglas County Lake Tahoe Sewer Authority
Wastewater Reclamation Plant
P.O. Box 578, Zephyr Cove, NV 89448
775-588-3558 • 775-588-1845 fax

April 25, 2018

David Hagen, P.E., Principal Engineer
WELSH HAGEN ASSOCIATES
250 S. Rock Blvd., Suite 118
Reno, NV 89502

Re: Tahoe Beach Club Project Status ***via email and U.S. mail***

Dear Mr. Hagen,

Based on the discussions during the Pre-construction conference last week, we now understand that the Project improvement plans have changed substantially from the plans that were received 11/27/2017, from which the Authority issued its conditional letter of approval for the project. Further, we now understand that the Owner still has no definitive plan or schedule to correct the deficient and improperly abandoned sewer laterals along Arthur Drive, which were first brought to the attention of the Owner in November of 2016. As described then, and most recently in the Authority's conditional letter of approval, the improperly abandoned laterals create an untenable situation for DCLTSA because they are a direct source of inflow of debris and sediment along with infiltration of ground water.

Regrettably, and solely because of the Owner's failure to timely address and correct the improperly abandoned services, no new work related in any way to DCLTSA's existing infrastructure will be allowed, including exposing or raising of manholes, or making connections to the existing main in Arthur Drive, until the laterals have been properly located, capped, and abandoned to the satisfaction DCLTSA. This will require verification of the successful repair of each lateral by a CCTV inspection.

Additionally, it is improper to proceed with any work that may impact the Authority's facilities without approved plans. Therefore, no new work related in any way to or impacting the DCTLSA system will be allowed to proceed until we receive and can review and provide our comments on the revised improvement plans.

All other conditions listed in our prior conditional letter of approval remain in effect.

I encourage you to work directly with the Owner to timely address the issue of these laterals and immediately re-submit the updated improvement plans for the project. Should you require any additional information or documentation, please do not hesitate to contact the undersigned.

Sincerely,

DOUGLAS COUNTY LAKE TAHOE SEWER AUTHORITY

Robert Hopkins, DCLTSA Manager

EC: Rob Anderson, P.E., DCLTSA Engineer
Mike Bradford, DCLTSA Board Chair
Jim Cavilia, Esq.
Tom Castaneda, Tahoe Beach Club

TASK ORDER NO. 2018-001

This Task Order pertains to an Agreement by and between Douglas County Lake Tahoe Sewer Authority ("Owner") and R.O. Anderson Engineering, Inc. ("Engineer"), effective December 1, 2009, together with its written Amendments. Engineer shall perform services on the project described below as provided herein and in the Agreement. This Task Order shall not be binding until it has been properly signed by both parties. Upon execution, this Task Order supplements the Agreement and Engineer is authorized to initiate its efforts on this project.

Project Name: District Metering

Part 1.0 **Project Description:** To assist the Authority evaluate the veracity of flow data obtained from a series of flow meters within the Authority's systems, as well as within contributing districts, and attempt to resolve discrepancies, this Task Order contemplates the installation of portable open channel flow meters in critical locations throughout the existing gravity sanitary collection systems in order to collect flow values for each of the contributing districts: Tahoe Douglas District (TDD), Round Hill General Improvement District (RHGID), Kingsbury General Improvement District (KGID), and the Elks Point Sanitation Districts, as well as the Beach Pump Station flow meter, and the Plant Influent flow meter. The flow data collected from the portable open channel flow meter will be compared to concurrent meter readings observed at the existing meters and utilized to evaluate any apparent discrepancies or deviations in the data. The data, analysis, findings and recommendations will be provided in a final report at the conclusion of this assignment.

The flow monitoring equipment selected for this study is the Greyline Stingray Model 2.0 Level-Velocity logger. The Stingray 2.0 measures depth (level) and average stream velocity. The liquid level and velocity measurements are read from an attached AV Sensor that is placed in the flow stream. A separate battery module attaches to the Flow Module to supply power.

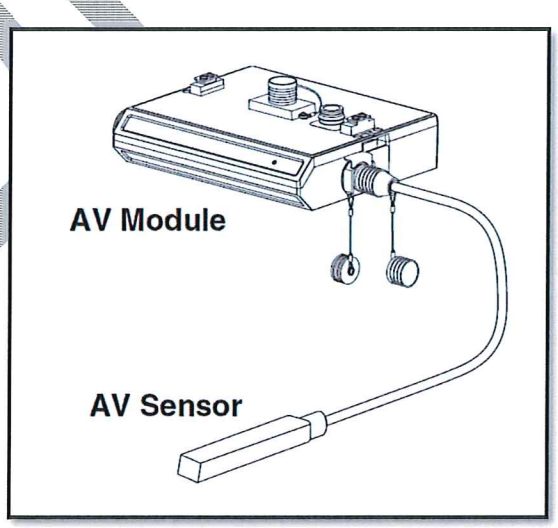


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Figure 1: Flow Module and Sensor

The AV Sensor's internal ultrasonic level transducer measures the liquid level. The ultrasonic sensor is installed at the bottom of a pipe or channel. To measure water level the sensor transmits ultrasonic pulses that travel through the water and reflect off the liquid surface. The instrument precisely measures the time it takes for echoes to return to the sensor. Based on the speed of sound in water, the level is measured with an accuracy of ±0.25%.

The AV Sensor measures velocity with an ultrasonic Doppler signal continuously injected into the water. This high frequency sound (640 KHz) is reflected back to the sensor from particles or bubbles suspended in the liquid. If the fluid is in motion, the echoes return at an altered frequency proportionate to flow velocity. With this technique the instrument measures flow velocity with accuracy of ±2%.

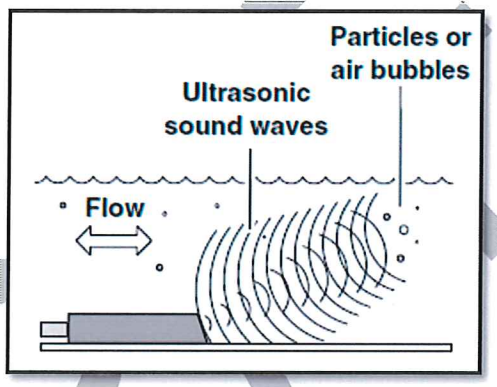

Figure 2: Velocity Sensor

The AV Sensor is positioned in the pipes using stainless steel self-expanding mounting rings (Spring Rings) for pipes up to 8-inches in diameter and pipes larger than 8-inches in diameter require Scissors Rings. The modules are then installed in a manhole and secured to a ladder rung.

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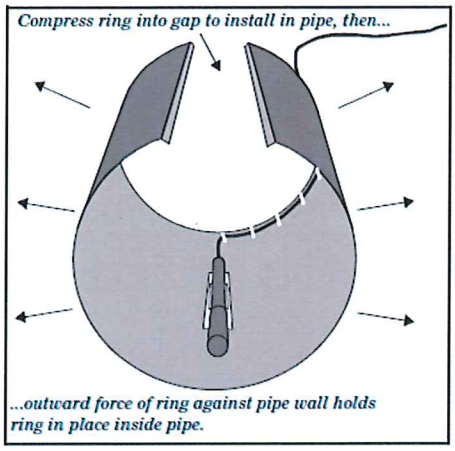

Figure 3: Spring Ring

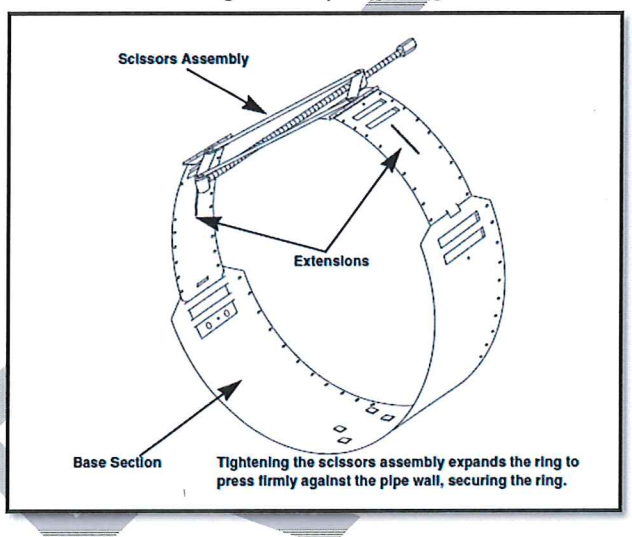

Figure 4: Scissor Ring

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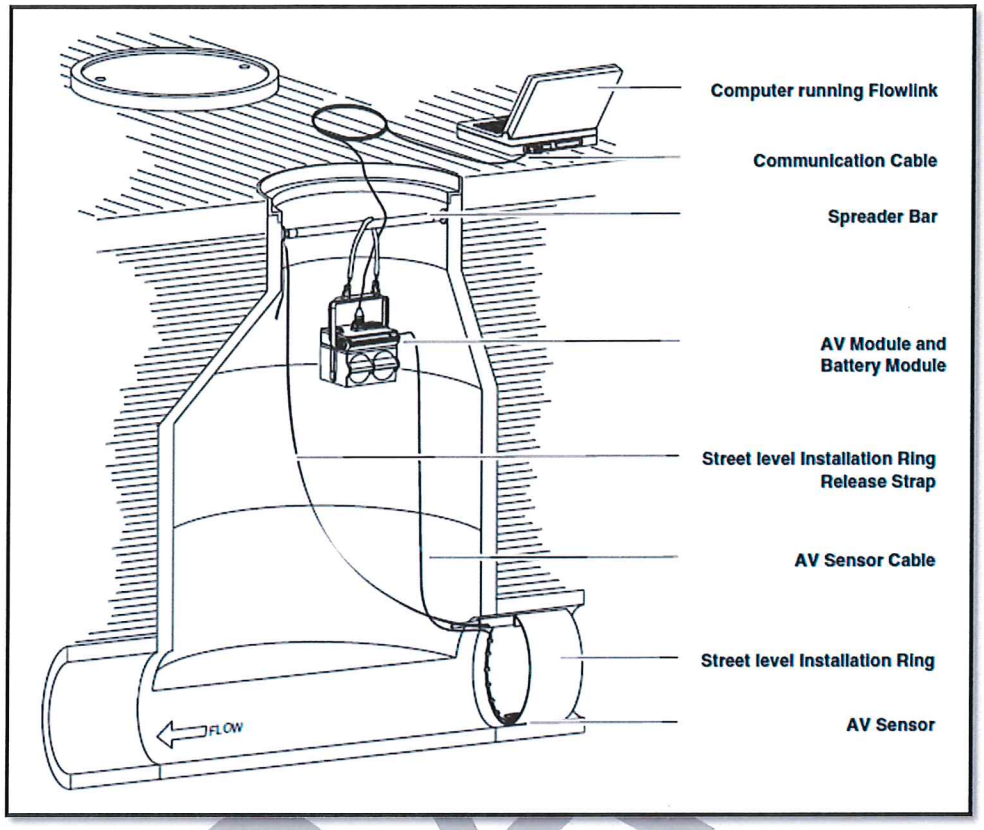

Figure 5: Typical Manhole Installation

Part 2.0 Project Scope of Services:

Task 1 – TDD Metering

This task will involve deploying a temporary flow meter immediately downstream of the terminus of TDD's 18-inch force main near where it discharges to the gravity system and is combined with RHGID's collection system ("SSMH U7-1"). The meter will be deployed and data collected for a minimum of five days. Flow data collected from this temporary meter will be compared to the flow values reported by TDD's existing mag-meter over the same period.

Deliverables: Flow data for the metering duration and a comparison of that data to flow data reported from TDD's existing meter.

Task 2 – Beach Pump Station Metering

This task will involve deploying a flow meters to the gravity main in Elks Point Road just downstream from the point of discharge of the force main from the Beach Pump Station. We expect that flow values at the planned metering location are combined

with flows discharged to the Authority's collection system from Elks Point Sanitation District (ESPD). As a result, a second meter will be deployed upstream in the collection system of EPSD such that ESPD flows can be deducted from the flow data collected in the Authority's metering location. The meters will be deployed for a minimum of five days. Flow data collected from this metering location will be compared to the flow collected and reported from the existing mag meter within the Beach Pump Station.

Deliverables: Flow data for the metering duration and a comparison of that data to flow data reported from existing meter at the Beach Pump Station.

Task 3 – RHGID & TDD Metering

This task will involve deploying both flow meters to the gravity mains in TDD's and RHGID's upstream of the Authority's Main Pump Station (DCLTSA MPS). Because both flows from these two districts are combined upstream of the DCLTSA MPS, it will be necessary to remove the measured TDD flow to determine the net flow from RHGID. These flow data will also be compared to flow values collected and reported from existing RHGID *LaserFlow* meter. The meters will be deployed for a minimum of five days.

Prior to deploying these meters, RHGID's existing flow meter will be re-calibrated, and the no flow test implemented to re-set the zero depth of value in that meter's internal settings.

Deliverables: Flow data for the duration of metering and a comparison of that data to flow data reported at both the controller of RHGID's existing meter as well as flow data collected through DCLTSA's existing SCADA system.

Task 4 – KGID Metering

This task will involve deploying a temporary flow meter immediately upstream of KGID's lift station. The meter will be deployed for and data collected for a minimum of five days. Flow data collected from this temporary meter will be compared to the flow values reported by KGID's existing mag-meter over the same period.

Deliverables: Flow data for the metering duration and a comparison of that data to flow data reported from KGID's existing meter.

Task 5 – Plant Influent Metering

Under this task we will deploy a meter within the plant comminutor while flows from KGID are in bypass mode so that all influent to the Plant will be passing through the influent meter. Concurrently, DCLTSA's strap-on meter will be deployed on the discharge piping at MPS. The meters will be deployed for a minimum of five days.

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Deliverables: Flow data for the metering duration and a comparison to flow data reported at both the influent mag-meter and collected by the Authority's SCADA system.

Task 6 – District Metering Report

Following the retrieval and analysis of all the collected flow data, we will provide a written report that evaluates the data collected in each of the above-described tasks as well as a summary of our observations and findings for each of the respective meters within the Authority's system. The report will provide recommendations to DCLTSA for modifications, if any, to the flow metering devices now in place and an assessment of relative flow contributions for each contributing district of the metering period.

The draft report will be presented to the Board of Directors during a regularly scheduled meeting. Comments and suggestions will be addressed and incorporated in the final report prior to presentation. The final report will also be presented to the Board of Directors.

Deliverables: Electronic and hard copies of the draft and final reports.

Part 3.0 Owner's Responsibilities:

Owner will provide Engineer with available data, including previous studies and reports, plans, drawings, and recorded documents and grant access to the project site as necessary to complete this project. Additionally, assistance from the Owner's maintenance personnel will be required when installing and retrieving the flow meters. It is assumed that maintenance personnel from each of the contributing districts will also cooperate during data collection and metering.

Part 4.0 Periods of Service:

Upon receipt of execution of this Task Order, the Engineer will commence performance of the services. Task 1 will be initiated within 10 days of authorization. The final report will be completed within three weeks following completion of Task 5, and field work is expected to last five weeks, or approximately one week at each meter set.

Part 5.0 Payments to Engineer

5.1.1 Method A – Standard Hourly Rates.

5.1.2 For the specified category of services, the Owner shall pay Engineer an amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times Standard Hourly Rates for each applicable billing class for all services performed on the Project, plus Reimbursable Expenses and Consultant's charges, if any.

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5.1.3 Standard Hourly Rates include salaries and wages paid to personnel in each billing class plus the cost of customary and statutory benefits, general and administrative overhead, non-project operating costs, and operating margin or profit.

5.1.4 Engineer's Standard Hourly Rate Schedule is set forward in the Agreement as Exhibit 'B'.

5.1.5 The total estimated compensation for the specified category of services shall be stated in the Task Order. This total estimated compensation will incorporate all labor at Standard Hourly Rates, Reimbursable Expenses, and Engineer's Consultants' charges, if any.

5.1.6 The amounts billed will be based on the cumulative hours charged to the specified category of services on the Specific Project during the billing period by each class of Engineer's employees times Standard Hourly Rates for each applicable billing class, plus Reimbursable Expenses and Engineer's Consultant's charges, if any.

5.1.7 The Standard Hourly Rates and Reimbursable Expenses Schedule shall be fixed for the term of the Agreement.

5.2 Amendments/Change Orders - The payment terms entitle the Owner to unlimited consultation with the Engineer; however, if an unanticipated need for additional services arises that requires additional engineering, land surveying, permitting or other professional services beyond the described services, those services will be subject to an additional price negotiation and undertaken utilizing a written Amendment or Change Order. Amendments or Change Orders, if any, will be prepared and a separate budgetary price agreed to before services are undertaken.

5.3 Service and Price Guarantee – Engineer's customer service is guaranteed to the complete satisfaction of the Owner. If Owner is not completely satisfied with the customer service provided by Engineer, Engineer will, at the option of Owner, either refund the price or accept a portion of said price that reflects the Owner's level of satisfaction. Upon receipt of final payment under the terms of this Task Order, Engineer assumes that the Owner has been satisfied. Furthermore, if the Owner ever receives an invoice without first authorizing the service and/or the price, the Owner is not obligated to pay for that service.

5.4 Total Estimated Compensation – Engineer's Total Estimated Compensation for this Task Order, subject to amendment as set forth above, shall not exceed $9,800.

Part 6.0 Other:

6.1 Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

This Task Order is executed this _____ day of May 2018.

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Douglas County Lake Tahoe Sewer Authority

By: _____

Name: Rob Hopkins
Title: District Manager
Address: P.O. Box 578
Zephyr Cove, NV 89448
775-588-3558
rhopkins@DCSID.com

R.O. Anderson Engineering, Inc.

By: _____

Name: Robert O. Anderson, P.E., CFM, WRS
Title: President/Principal Engineer
Address: P.O. Box 2229
Minden, NV 89423
775-782-2322
RAnderson@ROAnderson.com

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GENERAL STATUS REPORT – May 9, 2018

General Status Report

I provided in your packet a Budget to Actual spreadsheet which shows at the end of March, operating expenses were 1.2% over budget. We'll keep trimming and I hope to get to even budget by fiscal year end.

I also gave you the Third Quarter Statement of Earnings demonstrating that this year's operating expenses are approximately $55,000 over the same period last year. $65,000 has been expended for emergency repairs. Salaries and benefits are down more than $30,000, and of course Legal and Accounting are down almost $100,000. That makes up for the increases in electricity, repairs and maintenance and engineering occasioned by the HDR aeration basin study. We have also received $170,000 more in Miscellaneous revenue than last year from the Beach Club dewatering.

Transfer of Funds from the General Fund to the Construction Fund

I have given you a Construction Fund Inflows and Expenses spreadsheet. Since the last Board meeting, we have only paid $19,265 in construction fund expenses. As Rob Anderson told you, the Muller Lane project is essentially finished and I am processing their requests for payment today. The Board has previously authorized me to transfer $475,000 from the general fund to cover those expenses, however I expect to need only $225,000. I will be transferring that amount today so that we can pay White Rock's bill tomorrow.

Investment Report:

Just like last month, we have a little more than $8,900,000 in investments, spread between liquid cash accounts with Wells Fargo and LGIP and laddered CD's brokered by Wells Fargo. There will be one CD maturing on May 22.

Claims:

I sent you copies of the check register and wires sheet for the period of April 11 to May 9. If there are no questions about those, I would ask that the Treasurer sign them and return them to me for my records.