

**BOARD OF THE METROPOLITAN SEWERAGE DISTRICT
NOVEMBER 19, 2014**

1. Call to Order and Roll Call:

The regular monthly meeting of the Metropolitan Sewerage District Board was held in the Boardroom of MSD's Administration Building at 2:00 p.m., Wednesday, November 19, 2014. Chairman VeHaun presided with the following members present: Ashley, Belcher, Bryson, Frost, Kelly, Manheimer, Pelly, Russell and Stanley. Mr. Root and Mr. Watts were absent.

Others present were: Thomas E. Hartye, General Manager, William Clarke, General Counsel, Richard Tsang with CDM-Smith, Karen Tsang, Joseph Martin with Woodfin Sanitary Water & Sewer District, and MSD Staff, Ed Bradford, Peter Weed, Hunter Carson, Scott Powell, Jim Hemphill, Mike Stamey, Sam Sirls, and Sondra Honeycutt.

2. Inquiry as to Conflict of Interest:

Mr. VeHaun asked if there were any conflicts of interest with the agenda items. No conflicts were reported.

3. Approval of Minutes of the October 15, 2014 Board Meeting:

Mr. VeHaun asked if there were any changes to the Minutes of the October 15, 2014 Board Meeting. With no changes, Mr. Stanley moved for approval of the minutes as presented. Mr. Russell seconded the motion. Voice vote in favor of the motion was unanimous.

4. Discussion and Adjustment of Agenda:

None

5. Informal Discussion and Public Comment:

Mr. VeHaun welcomed Richard Tsang and wife Karen, and Joseph Martin. There was no public comment.

6. Report of General Manager:

Mr. Hartye presented a list of MSD Accomplishments for FY2014 by Division and highlighted the following:

Engineering Division

- Administered a Capital Improvement Program (CIP) budget of \$16.7 million with 112 projects managed within the CIP.
- Rehabilitated 51,110 LF of collection system during FY14, which included 28,280 LF through contract; 20,031 LF by in-house crews, and 2,799 LF by developers.
- Completed a Plant Electrical Improvements Project; a \$2.5 million multi-year project.
- Initiated the Facilities Plan Update Project, which will be brought to the Board in the spring of 2015.
- Managed the design phase of the Incinerator System Emissions Upgrade Project, which is included in today's agenda. This is an \$11.2 million project.

Planning & Development

- Statistically, there were increases in Sewer Service Applications; Allocations and Tap Fees; Affordable Housing Rebates; Plans Reviewed, and Permits issues.

System Services Construction/Maintenance Division

- Completed 589 emergency and scheduled construction repairs, resulting in 10,957 LF of pipeline repairs.
- Rehabilitated 20,031 LF of pipeline with in-house crews through dig and replace and trenchless technology.
- Achieved an average response time of 30 minutes to customer service request during regular working hours, and 40 minutes after hours.
- Cleaned 698,115 LF of mainline with in-house crews.
- Completed CCTV inspection of 376,170 LF of pipeline.
- Cleared 58,811 LF of right-of-way.
- Coordinated (4) joint venture projects with various departments of the City of Asheville to facility pavement restoration cost savings and/or other benefits for both agencies.

Wastewater Treatment and Maintenance

- Received the National Association of Clean Water Agencies (NACWA) “Gold Peak Performance Award” for thirteenth consecutive year acknowledging Treatment Plant Compliance.
- Full compliance with NPDES Permit; Air Quality Permit, and Residual Management Program for handling of biosolids.
- Assisted in air emissions pilot testing.
- Worked with CIP subcontractors to finalize restoration of all RBC basin slide gates.
- Industrial Waste Section inspected over 875 food service establishments for compliance with the MSD Grease program and ordinance.
- The Maintenance Section completed installation of variable pitch hydroelectric turbine and assisted in the construction of an auxiliary Bioxide dosing station on Duke Energy property - Lake Julian.

Human Resources

- Continued on-site Mission Hospital staff treating chronic conditions services through the Asheville Project.
- Implemented an agreement with Asheville Open MRI to provide MRI/CAT scan/X-rays at zero cost to employees.

Environmental Health & Safety

- Worked with McGill on plans for arc flash study.
- Coordinated MSD’s ISO 14001 program.

Finance Division

- Received the GFOA “Excellence in Financial Reporting and the “Distinguished Budget” awards.
- Issued \$26.2 million of new money Revenue Bonds at a 3.59% all in total interest cost.

Information Technology Division

- Installed a new CCTV system with 18 cameras and a DVR at the Plant for improved monitoring and security, which was overlaid with some SCADA information as well.
- Installed new Dell blade servers to replace aging servers for Plant, GIS, and Web.
- Improved configuration and usage of City Works software including dozens of custom reports and software customizations for MSD.

- Developed and deployed the infrastructure for all MSD Mobile Application; Maps, iPads and Phones.

Mr. Hartye reported as a follow-up to last months' item to purchase used RBC's (Rotating Biological Contactors) treatment plant staff has been working to replace RBC's to help ensure the viability of the existing treatment process for the next 10-15 years. The first set of 10 RBC's came in last week and the second set of 13 are coming in this week. Ten of the 13 will be placed today and tomorrow, and 3 will be held for a future phase. Mr. Hartye presented slides showing the crane lifting the old RBC's out. Mr. Weed said the boom itself weighs 130,000 lbs. He further stated the old RBC's weigh up to 64,000 lbs. The RBC's purchased, weigh between 18,000 and 31,000 lbs. Mr. Hartye presented slides showing the condition of some of the RBC basins after removal. Mr. Hartye explained that the RBC's were recycled by pulling apart the metal shaft from the plastic discs. Metal was brought to salvage and the plastic will be shredded and recycled. He expressed his appreciation to Peter Weed for his efforts and his decision to have MSD personnel replace the RBC's since they are more mechanically skilled and capable of completing the job. Mr. Hartye presented slides showing removal of the RBC's in Parkersburg, West Virginia and their arrival in Asheville on the back of semi-trucks and placed around the plant for installation. Mr. Hartye presented a time-lapse video taken by Sam Sirls of an RBC being lifted and placed in one of the basins.

Mr. Hartye presented slides showing Ben Reeves, MSD's Lead Construction Manager, receiving the Wastewater Collection Operator of the Year Award from the NCAWWA/WEA, presented at the State Conference. Mr. Hartye congratulated Ben for receiving this award and stated that Ben is MSD's "go-to" guy, and if there is any major sewer breakdown, Ben will be leading the effort out in the field. Mr. Hartye presented a slide showing MSD's Operations Team competing at the State Conference, where they came in second place.

Mr. Hartye reported the next Right of Way Committee meeting will be held at 9 a.m. on November 26th. The next regular Board Meeting will be held on December 17th at 2 p.m.

7. Consolidated Motion Agenda:

a. Consideration of Bids for Sanitary Sewer Replacement Project – Old US70 @ Pine Circle.

Mr. Hartye reported this project is located in Black Mountain, across from the Ingles Distribution warehouse on US Hwy 70. The clay lines in this area (six through ten-inch in diameter) are in poor structural condition. The project ranks very high in the CIP Pipe Rating system due to multiple SSO's and poor structural condition. The project is comprised of 2,757 LF of 8-inch and 12-inch DIP. The contract was advertised and the following bids were received on October 30, 2014: Moorhead Construction Co. with a total bid of \$846,693.00; Dillard Excavating with a total bid of \$638,315.00; Terry Brothers Construction Co., Inc. with a total bid of \$633,828.00; Huntley Construction Co. with a total bid of \$610,554.87; Thomas Construction Co. with a total bid of \$545,153.31, and Moore & Son Site Contractors with a total bid of \$481,544.00. However, Moore & Son did not include the proposal with their bid documents; therefore, their bid is rejected. The lowest responsive bidder is Thomas Construction Co. with a bid of \$545,153.31. Although Thomas Construction Co. has not completed any projects for MSD, their references were all positive. The FY 14-15 Construction Budget for this project is \$751,000.00. Staff recommends award of this contract to Thomas Construction Co. in the amount of \$545,153.31, subject to review and approval by District Counsel.

b. Consideration of Bids – Clayton Road Pump Station Rehabilitation Project:

Mr. Hartye reported the Clayton Road Pump Station serves a portion of the Avery Creek area of Buncombe County. The original pump station was installed in 1981 and has performed well over the years, but due to continued growth in this area, the pumps must be upsized to accommodate future demands. The project will increase the capacity of the station by approximately 42%, in addition to re-routing an existing line to allow for better maintenance of the station by staff. The contract was advertised and the following bids were received on October 30, 2014: Gilbert Engineering with a total bid of \$378,100.00; Dillard Excavating with a total bid of \$238,515.00; Moore & Son Site Contractors with a total bid of \$226,190.00; James E. Harris Construction Co. with a total bid of \$193,000.00, and J.S. Haren Company with a total bid of \$192,500.00. Although J.S. Haren Company has not previously worked for MSD, all references were positive. The FY 14-15 Construction Budget for this project is \$180,000.00. Staff recommends award of this contract to J.S. Haren Company in the amount of \$192,500.00, subject to review and approval by District Counsel.

c. Influent Pump Station - Consideration of Equipment Procurement Adjustable Frequency Drives:

Mr. Hartye reported there are three large pumps that lift all wastewater received at the plant up to the Grit and Grease Facility. These pumps are powered by large 400 HP motors, which in turn are controlled by Adjustable Frequency Drives (AFD's). The AFD's allow the pumps to ramp their speed up or down to match the incoming flow to the plant. The sole source for new AFD's was approved at the August 20, 2014 Board meeting, and the project was bid shortly thereafter. The bids came in significantly over the budget. Therefore, staff proposes to purchase this equipment under the existing budget due to the long lead-time then competitively bid the installation contract during FY 15-16. The timing of the overall project remains substantially the same. The FY14-15 construction budget for this procurement is \$675,000.00. The total cost for the AFD's and the prefabricated building for them is \$511,359.00. Staff recommends the District procure the specified equipment in accordance with the sole-source approved at the August 20, 2014 MSD Board meeting, for standardization and compatibility with existing systems.

d. Incinerator System Emissions Upgrades Project – Consideration of Sole Source: Incinerator Venturi Wet-Scrubber, MSD Project No. 2013059:

Mr. Hartye reported new EPA-mandated regulations impose more stringent air emission limits by March, 2016. In an effort to meet those limits, MSD hired CDM-Smith to advise MSD on the best way of doing that. In addition to the emission requirements, rehabilitation on high wear components, namely the venturi and heat exchanger, are necessary. The multi-year CIP budget for this project is \$11.2 million.

Mr. Hartye further reported the new mercury-removal system is part of the new regulatory equipment that MSD would have to install. Traditional mercury removal systems use activated carbon, which require a significant up-front investment and on-going maintenance to keep it working properly. The new mercury removal system utilizes removable cartridges mounted directly within the venturi scrubber. During the summer of 2014, staff pilot tested this system and the results were excellent, with a mercury removal rate over 90%. Mr. Hartye expressed his appreciation to Peter Weed for keeping the mechanical equipment running during testing, and to Hunter Carson, Project Manager, for making sure that operation and lab testing logistics were met.

Mr. Hartye called on Richard Tsang for a brief presentation. Mr. Tsang reported that earlier this year CDM-Smith began a project on the incinerator. Part of this project was regular repair/replacement type of work. A major portion of the project involved the regulatory changes imposed by EPA. Mr. Tsang explained that in the past, Sludge Incinerators have been exempt by the Clean Air Act, Section 129, which regulates Solid Waste Incinerators. However, because of law suits brought against the EPA, it was forced to change the rule; putting all sludge incinerators back into the solid waste category. He further explained that Emission limits are based on Maximum Achievable Control Technology (MACT) and the deadline for MACT compliance is March 21, 2016. Mr. Tsang presented a slide showing the results of Emissions Testing and MACT Limits for existing Fluidized Bed Incinerators (FBI's), with Mercury being the big issue. Mr. Tsang stated that traditional mercury-removal systems use activated carbon, which requires a significant capital investment and ongoing maintenance.

Mr. Tsang reported that as they got into the project, staff learned of a relatively new system called a Sorbent Polymer Composite system, which is technology developed by Envirocare. During the summer of 2014, staff pilot tested this system at the MSD treatment plant and the results were excellent. He presented diagrams showing both the Carbon Adsorber System and the Sorbent Polymer Composite System. Mr. Tsang stated that if MSD goes with the Sorbent Polymer Composite System, everything is included in the Multi-Venturi Scrubber, which is more simplified in terms of set-up. Mr. Tsang presented construction cost estimates for both systems. The cost of the Carbon Adsorbor system is \$10,300,000 vs. the Sorbent Polymer Composite system at \$5,500,000. He presented a slide showing the pilot testing set-up at the plant. Mr. Tsang stated because of the pilot testing and considerable cost reduction, and to facilitate the compliance schedule of March, 2016, CDM-Smith recommends sole-source procurement of the Sorbent Polymer Composite system from Envirocare, and to facilitate the compliance schedule, pre-purchase the primary heat exchanger (bid package out) and pre-authorize submittal package for Envirocare. Mr. Clarke asked if this system is in operation anywhere else. Mr. Tsang stated not in the same application, but has been in operation in power plants out of the country. Mr. Clarke asked Mr. Tsang if he is confident it will work in this situation. Mr. Tsang stated CDM-Smith feels pilot testing results support it. However, there are certainly some risks involved with a very small company, but if you look at the setup it's fairly simple, so the risk is relatively low. Mr. Hartye stated MSD is saving \$4.8 million to install the \$185,000 mercury module, which removes mercury up to 90%. Mr. Pelly asked if 90% gets MSD to the EPA threshold. Mr. Tsang said yes and over. Mr. Hartye stated that what is recommended now is the District sole-source specify this equipment. Because of the long lead-time, we will initiate the engineering on it so they can do their shop drawings, but will not be purchasing the equipment under this item; just specifying it. In February we will come back to the Board with the construction contract. Next month we will come back with the heat exchanger, which has a long lead-time as well.

e. First Quarter Budget to Actual Review – FY2015:

Mr. Powell reported on page 63 is the District's first quarter Budget to Actual Review and Expenditure Report. Domestic and Industrial User Fees are at budgeted expectations. Facility and Tap Fees are above budgeted expectations due to receiving \$311,000 allocation from one developer. Interest and Miscellaneous Income are slightly below budgeted expectations. This is due to the continued impact of the Federal Reserve on the fixed income markets, which is having its impacts on short-term investments. O&M expenditures are at 27.30% of budget. They include encumbered amounts which has elevated the budget to actual ratio above 25% (Encumbrances \$578,000/23.6%). Encumbrances are obligations that will play out throughout the rest of the year. Bond principal and interest expenditures are reflected at 25%. This will aid the user to properly assess debt service commitments on a

budgetary perspective. Actual amount spent as of the end of the first quarter is 1.6%. This is due to the timing of the District's debt service payments. Amounts budgeted for capital equipment and capital projects are rarely expended proportionately throughout the year, but at the end of the year, we believe those monies will be spent.

f. Cash Commitment/Investment Report – Month Ended September 30, 2014:

Mr. Powell reported Page 65 presents the makeup of the District's Investment Portfolio. There has been no change in the makeup of the portfolio from the prior month. Page 66 is the MSD Investment Manager Report as of the month of September. The weighted average maturity of the investment portfolio is 243 days. The yield to maturity is 0.43% and is exceeding MSD bench marks of the 6-month T-Bill and NCCMT cash portfolio. Page 69 is the MSD Variable Debt Service Report. The 2008 Series Bonds are performing better than budgeted expectations. As of the end of October, both issues have saved District customers approximately \$3.6 million dollars in debt service since April, 2008.

Mr. VeHaun called for discussion. With no discussion, Ms. Frost moved the Board approve the Consolidated Motion Agenda as presented. Mr. Stanley seconded the motion. Roll call vote was as follows: 10 Ayes; 0 Nays.

8. Old Business:

None

9. New Business:

None

10. Adjournment:

With no further business, Mr. Stanley moved for adjournment at 2:40 p.m. Ms. Bryson seconded the motion. Voice vote was unanimous in favor of the motion.

Jackie W. Bryson, Secretary/Treasurer

<h1 style="margin: 0;">MSD</h1> <h2 style="margin: 0;">Regular Board Meeting</h2>

Metropolitan Sewerage District
of Buncombe County, NC

AGENDA FOR 11/19/14

✓	Agenda Item	Presenter	Time	
	Call to Order and Roll Call	VeHaun	2:00	
	01. Inquiry as to Conflict of Interest	VeHaun	2:05	
	02. Approval of Minutes of the October 15, 2014 Board Meeting.	VeHaun	2:10	
	03. Discussion and Adjustment of Agenda	VeHaun	2:15	
	04. Informal Discussion and Public Comment.	VeHaun	2:20	
	05. Report of General Manager	Hartye	2:30	
	06. Consolidated Motion Agenda		2:45	
	a. Consideration of Bids for Sanitary Sewer Replacement Project: Old US70 @ Pine Circle.	Hartye		
	b. Consideration of Bids: Clayton Road Pump Station Rehabilitation Project.	Hartye		
	c. Influent Pump Station - Consideration of Equipment Procurement Adjustable Frequency Drives.	Hartye		
	d. Incinerator System Emissions Upgrades Project – Consideration of Sole Source: Incinerator Venturi Wet-Scrubber, MSD Project No.. 2013059.	Hartye		
	e. First Quarter Budget to Actual Review – FY 2015.	Powell		
	f. Cash Commitment/Investment Report – Month Ended September 30, 2014.	Powell		
	07. Old Business:	VeHaun	3:00	
	08. New Business	VeHaun	3:05	
	09. Adjournment (Next Meeting (12/17/14))	VeHaun	3:10	
	STATUS REPORTS			

**BOARD OF THE METROPOLITAN SEWERAGE DISTRICT
OCTOBER 15, 2014**

1. Call to Order and Roll Call:

The regular monthly meeting of the Metropolitan Sewerage District Board was held in the Boardroom of MSD's Administration Building at 2:00 p.m., Wednesday, October 15, 2014. Chairman VeHaun presided with the following members present: Ashley, Belcher, Bryson, Frost, Kelly, Pelly, Root, Russell, Stanley and Watts. Ms. Manheimer was absent.

Others present were: Thomas E. Hartye, General Manager, William Clarke, General Counsel, Gary McGill with McGill Associates, P.A., Joseph Martin with Woodfin Sanitary Water & Sewer District, Marcus Jones with Henderson County, and MSD Staff, Ed Bradford, Peter Weed, Scott Powell, Jim Hemphill, Mike Stamey, Ken Stines, Sam Sirls, Julie Willingham and Sondra Honeycutt.

2. Inquiry as to Conflict of Interest:

Mr. VeHaun asked if there were any conflicts of interest with the agenda items. No conflicts were reported.

3. Approval of Minutes of the September 17, 2014 Board Meeting:

Mr. VeHaun asked if there were any changes to the Minutes of the September 17, 2014 Board Meeting. With no changes, Mr. Watts moved for approval of the minutes as presented. Mr. Stanley seconded the motion. Voice vote in favor of the motion was unanimous.

4. Discussion and Adjustment of Agenda:

None

5. Informal Discussion and Public Comment:

Mr. VeHaun welcomed Mr. Jones and Mr. Martin. There was no public comment.

6. Report of General Manager:

Mr. Hartye reported the agenda includes an item for RBC replacement purchase, which is significant in terms of maintaining MSD's consistent treatment capability. HDR Consulting is preparing a Facilities Plan, and is working with staff to develop both short and long term recommendations for the plant in order to meet future growth demands and future regulations. This will involve a major phased upgrade to the treatment plant over the next 10-15 years, with a future investment of between \$50 and \$100 million. Along with the \$10 million Aqua-disk filters and the electrical improvements of \$2.5 million, which was recently completed, there are also significant projects underway involving incinerator upgrades of \$11 million, as well as influent pump station upgrades. He further reported MSD is currently leading the way in the development of new air cleaning technology, which will both increase performance and significantly reduce costs on the order of approximately \$4 million. In the next few months staff will be returning to the Board concerning both the incineration project and the 20-year Facility Plan.

Mr. Hartye reported Ann Ray of 36 Woodgate Drive called regarding a sewer problem at her home and wanted to let MSD know the crew who responded, were the nicest bunch of men she ever came into contact with. She said she was very impressed and would like to adopt them as her grandsons. Mr. Hartye expressed his thanks to Eric Bryant, Wayne Rice, Gregg Patton, Alan Taylor, Alan Knighten and Pete Cole. He further reported Michelle Bennett of United Way emailed expressing appreciation for

MSD's help at the Beaverdam YMCA. Mr. Hartye reported the October Right of Way Committee Meeting has been cancelled. The next meeting will be held at 9 am on November 26th. The next regular Board Meeting will be held on November 19th at 2 pm.

7. Consolidated Motion Agenda:

a. Consideration of Bids for Sanitary Sewer Rehabilitation Project – Old Haywood Road @ Starnes Cove Road:

Mr. Hartye reported this project is located in West Asheville, near the Lowes on Smoky Park Highway and is comprised of 1,491 LF of 8-inch DIP. He stated the 8-inch clay lines in this area are in poor structural condition, and in one location a home is located directly over the line. The contract was advertised and the following bids were received on September 25, 2014: Davis Grading Inc. with a total bid of \$499,980.00; Huntley Const. Co. with a total bid of \$388,682.88; Dillard Excavating Co. with a total bid of \$378,815.00; Thunder Disaster Services with a total bid of \$355,055.50, and Terry Brothers Const. Co. with a total bid of \$341,342.00. The FY14-15 Construction Budget for this project is \$420,000.00. Staff recommends award of this contract to Terry Brothers Const. Co., Inc. in the amount of \$341,342.00, subject to review and approval by District Counsel. Mr. Kelly asked if MSD has done any business with Thunder Disaster Services. Mr. Hartye said no, but they are a licensed contractor in Western North Carolina.

b. Consideration of Replacement RBC Purchase:

Mr. Hartye reported that MSD operates one of the largest Rotating Biological Contactor (RBC) plants in the country, with 152 units, which is the centerpiece of the District's treatment process. The RBC's were designed for 40MGD and are currently running, on an average day, at 20MGD. The RBC's have been in continuous operation for the past 27 years and their performance has been excellent, but about 38 of the units (25%) are out of service. As a result, MSD is dealing with useful life issues with the RBC's. Over the last couple of years, Peter Weed, Plant Director, has been working with Lew Andowski, RBC Consultant, to both maximize the life of the existing RBC's and to find viable replacement for those that are out of commission. RBC replacement is currently scheduled on the ten-year CIP in the amount of \$925,000. Air-driven units like MSD's are no longer manufactured. The newly manufactured units are electrically driven, which would require special modifications. Mr. Hartye presented a slide showing one of the used RBC's which is not in good condition.

Mr. Hartye further reported that Peter Weed located a company (American Resource Recovery Corporation – ARRC) which specializes in salvaging RBC's and re-selling them for use at other plants. During the summer, an opportunity arose at the Parkersburg, WV Treatment Plant, where they have discontinued their RBC process, and have units available which match those at MSD. Mr. Andowski and Peter Weed visited the facility and verified that these units are in good condition and compatible with MSD's existing basins. He presented slides showing the condition of these units, how they would be transported, and a picture showing the plant and the location of the 38 RBC's to be replaced. He stated the cost savings of purchasing/installing used vs. new RBC's are substantial. Used units cost less than \$30,000 versus \$150,000.00 for new ones. Staff recommends the District purchase 23 used RBC's from ARRC in the amount of \$486,684.00, subject to review and approval by District Counsel. He noted that purchases of used apparatus, supplies and equipment are not subject to the public bid laws (North Carolina General Statute 143-129 (e) (10)).

c. Consideration of Pace Analytical, Inc. Lease Renewal:

Mr. Hartye reported in FY 2002, the District entered into an operating lease agreement with Pace Analytical, Inc. The lease provides Pace with approximately 6,100 square feet of laboratory space in exchange for itemized laboratory services, specifically MSD testing needs (regulatory required-NPDES, IW-Pretreatment, Headworks, Biosolids, and other environmental programs). Currently the District and Pace Analytical, Inc. are in year 4 of a five-year lease agreement signed in 2011 in the amount of \$5,000/month. In September Pace Analytical expressed a need for additional space to build a walk-in cooler to store specimens. The space needed is about 500 square feet. Mr. Hartye presented a rendering of the space, showing the front of the building, and the 500 square foot expansion area at cost of approximately \$107,000, which will be paid by Pace. Pace Analytical, Inc. has agreed in principal to a new five-year lease in the amount of \$5,650/month, providing Pace with approximately 6,600 square feet of laboratory/cooler space. Following construction, Pace Analytical, Inc. will assign ownership of the addition to the District. Staff recommends authorizing the General Manager and Legal Counsel to negotiate the lease agreement with Pace Analytical, Inc., which incorporates the leasing of the identified space for \$5,650/month for direct exchange of “in-kind” laboratory services itemized by the District. This lease will be for five (5) years and incorporate two (2) three-year extension options to be mutually agreed upon by the District and Pace Analytical, Inc.

d. Cash Commitment/Investment Report – Month Ended August 31, 2014:

Mr. Powell reported Page 49 presents the makeup of the District’s Investment Portfolio. There has been no change in the makeup of the portfolio from the prior month. Page 50 is the MSD Investment Manager Report as of the month of August. The weighted average maturity of the investment portfolio is 255 days. The yield to maturity is .49% and is exceeding MSD bench marks of the 6-month T-Bill and NCCMT cash portfolio. Page 51 is an Analysis of the District’s Cash Receipts. Monthly and YTD domestic sewer & industrial revenue are considered reasonable based on timing of cash receipts and historical trends. Facility and Tap Fees are considered reasonable taking into account the unpredictability of cash receipts. Page 52 is an analysis of the District’s Expenditures. Monthly and YTD expenditures are considered reasonable based on historical trends. Page 53 is the MSD Variable Debt Service report. The 2008 A Series is performing better than budgeted expectations. As of the end of September, both issues have saved District customers approximately \$3.6 million dollars in debt service since April 2008. Mr. Kelly asked when the Bank of America Swap Agreement terminates on its own. Mr. Powell stated the agreement terminates at the end of the debt series in 2031.

Mr. VeHaun called for discussion. With no discussion, Ms. Frost moved the Board approve the Consolidated Motion Agenda as presented. Mr. Stanley seconded the motion. Roll call vote was as follows: 11 Ayes; 0 Nays.

8. Old Business:

None

9. New Business:

None

10. Adjournment:

With no further business, Mr. Stanley moved for adjournment at 2:21 p.m. Mr. Russell seconded the motion. Voice vote in favor of the motion was unanimous.

Jackie W. Bryson, Secretary/Treasurer



MEMORANDUM

TO: MSD Board
FROM: Thomas E. Hartye, P.E., General Manager
DATE: November 10, 2014
SUBJECT: Report from the General Manager

- MSD Accomplishments by Division for Fiscal Year 2014

Attached is a list of some of the MSD Accomplishments for FY2014 by Division. I will highlight a few at the meeting.

- Treatment Plant Update

As a follow up to last months item to purchase used RBC's (Rotating Biological Contactors) the treatment plant staff have been working to replace several RBC's to help ensure the viability of the existing treatment process for the next 10 – 15 years. As a result of this MSD will be able to deliberately phase the future upgrades to the treatment plant. I will share some pictures of this process at the meeting.

On the agenda as well are two items concerning replacement and upgrading of other areas of the treatment plant for the incineration/air emissions system and the influent pumping station.

- Kudos
 - Ben Reeves, MSD's Lead Construction Manager for receiving the Wastewater Collection Operator of the Year Award from the NCAWWA/WEA. Ben is being recognized in a ceremony at the State Conference this year.
- Board/Committee Meetings/Events

The next Right of Way Committee meeting will be held at 9 am on November 26th. The next Regular Board Meeting will be held on December 17th at 2 pm.



Metropolitan Sewerage District of Buncombe County

Accomplishments for Fiscal Year 2014

Engineering Division

- Administered a Capital Improvement Program budget of \$16.7 Million with in-house personnel.
- Actively managed 112 projects/line items within the capital program. These projects range from preliminary design, to active construction, to recently completed.
- 51,110 Linear Feet (LF) of collection system were rehabilitated during FY14. This included 28,280 LF rehabilitated through contract construction, 20,031 LF rehabilitated in-house by System Services, and 2,799 LF rehabilitated by developers.
- Completed the Plant Electrical Improvements Project. This \$2.5 million, multi-year project has significantly increased the reliability of the plant's electrical power sources and internal distribution system.
- Initiated the Facilities Plan Update Project. This significant, comprehensive study will recommend various options for the future of the treatment plant while considering future regulatory requirements, viability of existing processes, cost, and needed performance. Completion is expected in Spring 2015.
- Managed the design phase of the Incinerator System Emissions Upgrades Project. This \$11.2 Million project is primarily driven by future EPA regulations, with completion expected in early 2016.
- Acquired easements across 94 properties. Held trial in one condemnation action. Negotiated settlements on two condemnation actions, saving further expenses of trial for those actions.
- Discovered, researched and incorporated 50 easements to the ROW data base and MSD GIS from seven pre-consolidation projects.
- Initiated engineering and ROW review with COA on the Town Branch and Clingman Forest Greenway projects
- Designed, drafted, administered and inspected formal contract of 15 capital projects, and inspected 24 extension projects.
- Actively pursued project coordination with local municipalities. Ongoing coordination is accomplished by participation in the local Utilities Coordinating Committee, the CIP Budget being sent to local municipalities, sending internal (System Services) projects directly to COA Water staff, and serving on the City's Technical Review Committee (TRC).

Planning and Development Statistics

	<u>FY12</u>	<u>FY13</u>	<u>FY14</u>
Sewer Service Applications Approved	1,106	1,350	1,594
Allocation, Facility and Tap Fees	\$2,334,364	\$2,347,705	\$4,485,375
Affordable Housing Rebates	\$28,790	\$42,460	\$54,900
Plans Reviewed	50	44	69
Permits Issued	33	29	48
Systems Transferred	22	24	19
Systems Transferred - Value	\$2,047,550	\$3,168,119	\$1,030,507
Systems Transferred - Linear Feet	24,486	38,131	12,717
TRC Projects	42	52	43
Minor Subdivision Plats Approved	39	98	186

System Services Construction/Maintenance Division

- Completed 589 emergency and scheduled construction repairs. This resulted in 10,957 LF of pipeline repairs.
- Installed 218 service taps and completed 355 manhole repairs.
- Rehabilitated 20,031 LF of pipeline with in-house crews through dig and replace and trenchless construction methods. This included replacement of 5,176 LF of the sewer system in the Grovestone Quarry area of Black Mountain, which reduced inflow and infiltration into our system by an approximate average of 40,000 GPD.
- Utilized the trenchless methods of boring, pipe reaming and infrastructure repair (IRS) to save approximately 1,960 linear feet of asphalt pavement. These efforts greatly reduced and/or eliminated expensive pavement and surface restoration costs in the subject areas.
- Achieved an average response time of 30 minutes to customer service requests during regular working hours.
- Achieved an average response time of 40 minutes to customer service requests after hours.
- Responded to 1,336 customer service calls during regular working hours.
- Responded to 954 customer service calls after hours and holidays.
- Cleaned 698,115 LF of mainline with in-house crews.
- Mechanically removed 71,533 LF of pipeline for roots.
- Completed CCTV inspection of 376,170 LF of pipeline.
- Smoke Tested 88,221 LF of pipeline and identified several areas of inflow and infiltration.
- Inspected 142,346 LF of sewer lines with the Sewer Line Rapid Assessment Tool (SL-RAT).
- Cleared 58,811 LF of right-of-way

- Continuing paving restoration contract with the City of Asheville for FY 13-14.
- Coordinated (4) joint venture projects with various departments of the City of Asheville to facilitate pavement restoration cost savings and/or other benefits for both agencies.
- SSD Construction and Maintenance developed and coordinated a Grade 1 & 2 Waste Water Collection School attended by 20 students across the state with a 100% pass rate. Also provided a Continuing Education Class for 32 students to maintain their state certifications.
- Assisted in a District wide team effort to rehabilitate the Weaverville #2 pump station. Construction activities included force main replacement, installation of quick connect, and replacement of valves.
- Educational materials distributed to all First Responder customer service requests.

Wastewater Treatment and Maintenance

- Treatment Plant Operations received the National Association of Clean Water Agencies (NACWA) “Gold Peak Performance Award” for thirteenth consecutive year acknowledging Treatment Plant compliance.
- Full compliance with NPDES Permit for effluent discharges, WNC Permit for air quality monitoring and discharge, and Residual Management Program for handling of biosolids.
- Assisted HDR Consulting prepare the update to the Facilities Plan by helping evaluate existing plant condition and performance as well as evaluating alternatives for future improvements.
- Assisted in conducting air emissions pilot testing to evaluate new leading technology which was determined to be successful. This will translate to better treatment and significant savings.
- Working with CIP subcontractors to finalize the restoration of all RBC basin slide gates.
- Field Operations Section:
 - Inspecting all Significant Industrial Users (19 SIU’s) with monitoring of effluent discharges, and with announced and unannounced visits for permit compliance.
 - Inspection of over 875 food service establishments for compliance with the MSD Grease program and ordinance; 244 repeat follow-up visits were required.
 - Developed program to monitor all on-site power generators and completed optical-fiber loop around the north end of the treatment plant to capture chlorine pump operational data.
 - Updated all SCADA radio controllers at remote pump stations.
 - Completion of CCTV camera system for plant wide security and operational control.
 - Established SCADA controls on Craggy Dam for hydroelectric power monitoring.
- Maintenance Section completed 439 work orders as highlighted below:
 - Assisted with the installation of raw influent pump #3.
 - Completed installation of variable pitch hydroelectric turbine #2.
 - Assisted in the installation, configuration and startup of additional 2 1-megawatt generators and associated redundant feed loop.
 - Assisted in the construction of an auxiliary Bioxide dosing station on Duke Energy property – Lake Julian.
 - Assisted in the restoration of Weaverville II pump station.

- Performed numerous repairs to Incinerator ductwork and process controls to maintain reliability while long-range plans were being finalized.
- Replaced all failed Auma-control valves in Influent pump building and RBC basins.
- Facilities Maintenance Section completed over 360 work orders as highlighted below:
 - Fencing – Fence rehabs were completed at the Erwin Hills pump station and the plant highway front. A new fence was installed at the Duke Power dosing station.
 - Roofing – There was a new 50 Mil PVC membrane roof installed at the TC Building. Also, Hydro stop rubber roof systems were installed at the PMS control room and at the TC bldg. mezzanine.
 - HVAC Systems- All first floor VAVs were replaced at the Mull Bldg. 1st floor (2nd phase of 5 rehabbing the Mull Bldg. System). A new mini split cold air unit was installed at the Industrial Waste offices (SCADA office).
 - Masonry – Sidewalks were poured at the RBC Basin #1, Ramps were poured at the RBC Basins #1, 2 & 3, and expansion was replaced at the RBC Basins #1, 2 & 3.
 - Grating/Fabrication- Basin #1, 2, & 3 received grating replacements and upgrades throughout much of their sites.
 - Painting – The TC Bldg. Received an interior paint rehab including the control room, perimeter walls, incinerator, air, water, sludge and gas lines and their associated equipment. The Pearson Bridge, Weaverville 1&2, Little Flat Creek and Erwin Hills stations' received exterior paint rehabs.
- Fleet Maintenance Section completed 706 work orders, maintaining a fleet with an estimated replacement value in excess of \$5 million. Other highlights include:
 - The Biodiesel program began in July 2003. By end of June 2014, MSD purchased almost 800,000 gallons of B20 & B10 replacing almost 160,000 gallons of fossil fuel with oil made from soybeans. This renewable energy also serves to lower air pollution emissions by a corresponding twenty percent.
 - The use of E10 (10 percent ethanol) for all gasoline powered vehicles acts to fulfill MSD's commitment to alternative "green" energy choices. FY14 purchases exceeded 17,000 gallons.
 - Maintained an 85% work order completion rate for direct labor on vehicles versus shop time (85% target).

Human Resources

- Identified impending retirements and worked with Director's to coordinate additional training for "critical position" replacements
- Continued on-site Mission Hospital staff treating chronic conditions services through the Asheville Project
- Implemented an agreement with Asheville OpenMRI to provide MRI/ CAT scan/ X-rays at zero cost to employees
- Provided educational and financial trainings for employees (Elder Care, 401k/457, Medicare, etc.)
- Extended Flexible Savings account usage period by 75 days
- Continued Employee Relations activities: Assisted with ALS "Ice Bucket Challenge", Heart Disease Awareness day, Breast Cancer Awareness Day, Healthy Eating classes,

- Wellness Scavenger hunt, publishing monthly Wellness newsletter for health related issues, stress relief activities, provided on-site massage therapist, coordinated retirement events
- Work with Employee Advisory Committee to improve benefits programs
 - Transitioned WWTP Maintenance staff from skill based pay to traditional labor grades

Environmental Health & Safety

- Implemented trench end wall safety improvements – sloping, end panel usage, end shores.
- Implemented electronic audit process – plant areas and construction sites.
- Worked with McGill on power distribution equipment refurbishment including plans for coordination and arc flash study.
- Completed fork lift training – classroom plus practical – three year interval.
- Coordinated MSD's ISO 14001 program.
- All construction workers have been trained in the Flagger 4 hour trainer this year.
- MSDS Sheets have been put online and updated for this year.
- Construction SOP's added to the intranet for field access for SSD.
- Trenching/ Shoring "Tabulated data" available through wired hubs for SSD
- Chemical Handlers now have a wireless intranet folder for their computer for MSDS Sheets.

Finance Division

- Received the GFOA "Excellence in Financial Reporting" award for the Comprehensive Annual Financial Report (CAFR) for FY ending June 30, 2013.
- Received the GFOA "Distinguished Budget" award for the Budget Document prepared for FY ending June 30, 2014.
- Moody's Investors Service affirmed the District Aa2 credit rating and put us on positive outlook.
- Issued \$26.2 million of new money Revenue Bonds May 2014. The District achieved 3.59% all in total interest cost.
- Assisted Human Resources in ongoing changes in the District's self-insurance plan to achieve ongoing financial sustainability.
- Completed Phase 2 of procurement card/ e-payables increased utilization plan. The District receives 1.85% rebate on utilization. Phase 2 increased our rebate by an additional 150%.

Information Technology Division

- Installed a new CCTV system with 18 cameras and a DVR at the Plant for improved monitoring and security.
- Moved from an onsite email system to Office 365, a hosted email system with Microsoft for increased uptime and availability.
- Installed new Dell blade servers to replace aging servers for Plant, GIS, and Web.
- Moved CityWorks from a shared location with GIS to its own blade server for increased performance.
- Improved configuration and usage of CityWorks software including dozens of custom reports and software customizations for MSD.

- Installed a new Cues computer in video Truck 2901 using Granite XP software that categorizes and maintains video files collected by the truck.
- New high end AutoCAD PC's for the Engineering department, including upgrading AutoCAD from 2012 -> 2015.
- New SonicWall network firewall installed and redundant/load balanced internet through dual internet connection sources.
- Rolled out over 20+ laptop replacements/installations, 20+ desktop replacements/installations for MSD users.
- Upgraded and improved Arc Reader application on System Service laptops, allowing users access the District Map (AR-for-Trucks) in the field without a network connection.
- Developed custom user tools to speed up common tasks, such as the Pipe Video Finder, and Web Services which augment the functionality of our FLEX application.
- Created products derived from Granite XP Software to improve knowledge sharing between System Services and Engineering Divisions
- Coordinated with System Service to update Granite Trucks monthly with current District Assets.
- Upgraded all servers, desktops, and vehicle computers to ArcGIS 10.2.2
- Pipe Scoring of Granite XP Legacy Video is now being performed by GIS staff
- Basedata updates (Parcels, Addresses, Streets) are now automated and performed nightly.
- Introduced In-house projects to CIP Table, which is displayed on the Budgeted CIP layer.
- Developed and deployed the infrastructure for an MSD Mobile Application

Metropolitan Sewerage District of Buncombe County

BOARD ACTION ITEM

BOARD MEETING DATE: November 19, 2014

SUBMITTED BY: Tom Hartye, P.E. - General Manager

PREPARED BY: Ed Bradford, P.E. - Director of Engineering
Hunter Carson, P.E. - Project Manager

SUBJECT: Consideration of Bids for Sanitary Sewer Replacement Project: Old US 70 @ Pine Circle, MSD Project No. 2009117

BACKGROUND: This project is located in Black Mountain, across from the Ingles Distribution warehouse on US Hwy 70. The clay lines in this area (six through ten-inch diameter) are in poor structural condition.

This project ranks very high in the CIP Pipe Rating system (at 85). This is due to multiple SSOs and poor structural condition combined with a high probability of impact to surface waters when problems do occur.

The project is comprised of 2,757 LF of 8-inch and 12-inch DIP.

The contract was advertised and six bids were received on Thursday, October 30, 2014 as follows:

<u>Contractor</u>	<u>Bid Amount</u>
1) Moorhead Construction Co.	\$846,693.00
2) Dillard Excavating	\$638,315.00
3) Terry Brothers Const. Co., Inc.	\$633,828.00
4) Huntley Construction Co.	\$610,554.87
5) Thomas Construction Co.	\$545,153.31
6) Moore & Son Site Contractors	\$481,544.00 (*)

(*) Moore & Son did not include the proposal with their bid documents; therefore, their bid is rejected.

The lowest responsive bidder is Thomas Const. Co. with a bid amount of \$545,153.31. Thomas Const. has not completed any projects for MSD; therefore, staff checked references. The references were all positive, stating that the work performed by Thomas Const. Co. has been excellent.

Please refer to the attached documentation for further details, including the reference check.

FISCAL IMPACT: The FY14-15 Construction Budget for this project is \$751,000.00.

STAFF RECOMMENDATION: Staff recommends award of this contract to Thomas Construction Co. in the amount of \$545,153.31, subject to review and approval by District Counsel.

**METROPOLITAN SEWERAGE DISTRICT OF
BUNCOMBE COUNTY, NORTH CAROLINA**

**Old US 70 @ Pine Circle Sewer Replacement
Project No. 2010007**

**BID TABULATION
October 30, 2014**

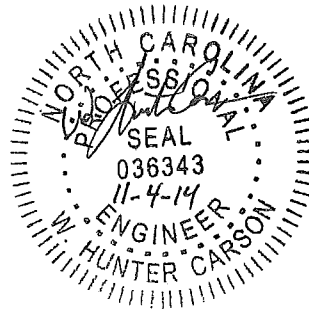
BIDDER	Bid Bond	MBE Form	Bid Forms (Proposal)	TOTAL BID AMOUNT
Don Moorhead Construction Company Belton, SC	5%	1	Yes	\$846,693.00
Dillard Excavating Company Sylva, NC	5%	1	Yes	\$638,315.00
Terry Brothers Construction Company Leicester, NC	5%	1	Yes	\$633,828.00
Huntley Construction Company Asheville, NC	5%	1	Yes	\$610,554.87
Thomas Construction Company Johnson City, TN	5%	1	Yes	\$545,153.31
Moore & Son Site Contractors (*) Mills River, NC	5%	1	No (*)	\$481,544.00

APPARENT LOW BIDDER

(*) Contractor did not include the Proposal with their bid; therefore, their bid is rejected.



William Hunter Carson, P.E.
Project Engineer
Metropolitan Sewerage District of
Buncombe County, North Carolina



This is to certify that the bids tabulated herein were publicly opened and read aloud at 2:30 p.m. on the 30th day of October, 2014, in the W.H. Mull Building at the Metropolitan Sewerage District of Buncombe County, Asheville, North Carolina, and that said bids were accompanied by acceptable bidders bonds in the amount of 5% of the bid.

Interoffice Memorandum

TO: Tom Hartye, General Manager

FROM: Ed Bradford, CIP Manager
Hunter Carson, Project Engineer

DATE: November 5, 2014

RE: Old US 70 @ Pine Circle Sewer Replacement MSD Project No. 2010007

The Old US 70 @ Pine Circle Sewer Replacement project is located in Black Mountain, NC near the Ingles distribution warehouse on US Hwy 70. The project starts in the Riverside Business Park, home of Pisgah Brewing Company and runs north across Old US Hwy 70 through the WNC Veterans Cemetery.

Approximately 2,430 linear feet of 12-inch DIP sewer line and 327 linear feet of 8-inch sewer line will be installed to replace existing 6-inch, 8-inch, and 10-inch VCP lines. The existing piping is in poor condition and has been the source of seven SSOs to date. This project ranks very highly in the CIP pipe rating system, at 85, due to numerous SSOs, poor structural condition of pipe, and high probability of impact to surface waters.

On October 30, 2014, six (6) sealed bids were received at 2:30 pm. Results were as follows:

<u>Contractor</u>	<u>Bid Amount</u>
1) Moorhead Construction Company	\$846,693.00
2) Dillard Excavating	\$638,315.00
3) Terry Brothers Construction Co., Inc.	\$633,828.00
4) Huntley Construction Company	\$610,554.87
5) Thomas Construction Company	\$545,153.31
6) Moore and Son Site Contractors	\$481,544.00

Following the bid opening, MSD Staff discovered that Moore and Son Site Contractors failed to include a Proposal with their bid. Staff consulted with District Counsel and determined that Moore and Son's bid was non-responsive and must be rejected. As such, Thomas Construction Company is the apparent low bidder with a bid amount of \$545,153.31.

The FY14/15 construction budget for this project is \$751,000.00. Thomas Construction Company has not completed any projects for the District, and a list of references was requested. Four references were contacted, each of which were complimentary of Thomas Construction Company's quality of work, and each recommended their services. In all cases, references stated that projects were completed on time and within budget. A memo of these reference contacts is attached to this recommendation.

Staff recommends award of this contract to Thomas Construction Company contingent upon review and approval by District Counsel.

Reference Check for Thomas Construction Company, Inc.

Old US 70 @ Pine Circle Sewer Rehabilitation

Completed by W. Hunter Carson, PE November 2014

Owner: Town of Erwin, TN

Engineer: McGill Associates, PA

Reference Information: Spoke with Ben Simerl, PE (Project Manager) on November 3, 2014

Ben Simerl managed three sewer line construction projects for the Town of Erwin, TN totaling \$2.30M. Two of the projects were new construction (i.e. not rehab or replacement) and located within the town limits. Thomas Construction Co. contended with many existing utilities congesting the roadside, and did a very good job avoiding utilities while installing the new sewer lines. Mr. Simerl stated that Thomas Construction Co. completed all of the projects on schedule and within budget. He said that his experiences with Thomas Construction Co. have been very good, and that he finds them easy to work with. Mr. Simerl occasionally calls on Thomas Construction Co. to assist with cost estimating for budget purposes. In general, he said that Thomas Construction Co. does quality work, and that he would recommend their services.

Owner: City of Johnson City, TN

Engineer: Lamar Dunn & Associates

Reference Information: Spoke with Don Mauldin, PE (Project Manager) on November 5, 2014

Don Mauldin has worked with Thomas Construction Co. on many sewer and stormwater projects, mostly in and around Johnson City, TN. His most recent experience with Thomas Construction Co. was on a large stormwater project, which Mr. Mauldin stated was extremely difficult work. Construction occurred adjacent to a creek, and flooding due to frequent rainfall events made the installation problematic. Despite the issues, Thomas Construction Co. remained diligent throughout the job and produced a quality product. Mr. Mauldin said that Thomas Construction Co. is an "outstanding Contractor", and that they are very qualified to do utility work. In his experiences, Mr. Mauldin said that Thomas Construction Co. has been very cooperative, accessible, and responsive during all parts of the project. He went on to say that Thomas performs the work that they say they will, and will not nickel and dime the owner when minor changes to the project are necessary.

Owner: City of Kingsport, TN

Engineer: City of Kingsport/Mattern & Craig

Reference Information: Spoke with Sam Chase (Kingsport Water/Wastewater Services Coordinator) on November 3, 2014

Sam Chase has worked with Thomas Construction Co. on many water, sewer, and road projects during his career with the City of Kingsport. He said that Thomas Construction Co. ranks "at the top" of their most utilized Contractors. Thomas is currently working on a large waterline and water storage tank project for the City of Kingsport. Mr. Chase stated that Thomas Construction Co. is "a great Contractor", and that they are very easy to work with. Thomas' owner, Gerald Thomas is very responsive to problems that arise on the job, and always ensures that issues are corrected to the Owner's satisfaction.

Owner: City of Asheville, NC

Engineer: WK Dickson

Reference Information: Spoke with Chad Pierce, PE (COA Project Manager) on November 3, 2014

Chad Pierce is currently managing the Horizon Hill waterline project for the City of Asheville, a project totaling \$1.87M. The project is currently in shop drawing phase, and construction has not yet begun. Mr. Pierce stated that administratively, Thomas Construction Co. has been very easy to work with and has responded to all of the City's requests in a timely manner.

**Metropolitan Sewerage District of Buncombe County, North Carolina
CAPITAL IMPROVEMENT PROGRAM**

BUDGET DATA SHEET - FY 2014 - 2015

PROJECT:	Old US 70 at Pine Circle	LOCATION:	Swannanoa
TYPE:	General Sewer Rehab.	PIPE RATING:	85
PROJECT NO.	2010007	TOTAL LF:	2,779
PROJECT BUDGET:	\$792,300.00	PROJECT ORIGIN:	SSO's, Access, Line Condition

DESCRIPTION	ESTIMATED PROJECT COST	TOTAL EXPENDS THRU 12/31/13	EST. COST JAN - JUNE 2014	EST. BUDGET FY 14-15
55310 - PRELIM. ENGINEERING				
55320 - SURVEY - DESIGN	\$14,600.00	\$14,550.00		
55330 - DESIGN				
55340 - PERMITS	\$500.00		\$500.00	
55350 - SPECIAL STUDIES				
55360 - EASEMENT PLATS	\$4,300.00	\$4,225.00		
55370 - LEGAL FEES	\$2,600.00	\$2,587.00		
55380 - ACQUISITION SERVICES				
55390 - COMPENSATION	\$10,400.00	\$10,366.00		
55400 - APPRAISAL				
55410 - CONDEMNATION				
55420 - CONSTRUCTION	\$751,000.00			\$751,000.00
55430 - CONST. CONTRACT ADM.				
55440 - TESTING	\$2,000.00			\$2,000.00
55450 - SURVEY - ASBUILT	\$6,900.00			\$6,900.00
TOTAL AMOUNT	\$792,300.00	\$31,728.00	\$500.00	\$759,900.00

ENGINEER:	MSD	HC	ESTIMATED BUDGETS - FY '15 -'24	
R.O.W. ACQUISITION:	MSD	# PLATS: [5]	FY 15-16	\$0.00
CONTRACTOR:			FY 16-17	\$0.00
CONSTRUCTION ADM:	MSD		FY 17-18	\$0.00
INSPECTION:	MSD		FY 18-19	\$0.00
			FY 19-20	\$0.00
PROJECT DESCRIPTION: This project is located in Swannanoa and runs between US 70 and Old US 70. The project extends onto the NC Veterans Cemetery. Approximately 314 LF of 8-inch ductile iron pipe and 2,465 LF of 12-inch ductile iron pipe will be installed. The existing line is undersized and has experienced multiple SSO's.			FY 20-21	\$0.00
			FY 21-22	\$0.00
			FY 22-23	\$0.00
			FY 23-24	\$0.00

SPECIAL PROJECT NOTES: Construction shall occur between Nov. 1, 2014 and April 15, 2015 per SPDS to accommodate Pisgah Brewing Co. concert series.



**Old US 70 at Pine Circle
Project No. 2010007**

NOT TO SCALE



METROPOLITAN SEWERAGE DISTRICT
of
BUNCOMBE COUNTY, NORTH CAROLINA

Budget Map

**Metropolitan Sewerage District of Buncombe County
BOARD ACTION ITEM**

BOARD MEETING DATE: November 19, 2014

SUBMITTED BY: Tom Hartye, P.E. - General Manager

PREPARED BY: Ed Bradford, P.E. - Director of Engineering
Shaun Armistead, P.E. - Project Manager

SUBJECT: Consideration of Bids for Clayton Road Pump Station Rehabilitation, MSD Project No. 2014026

BACKGROUND: The Clayton Road Pump Station serves a portion of the Avery Creek area of Buncombe County. The original pump station was installed in 1981 and has performed well over the years. Due to the continued growth in this area, however, the pumps must be upsized to accommodate future demands.

This project will increase the capacity of the station by approximately 42% in addition to re-routing an existing line to allow for better maintenance of the station by staff. The existing backup generator is adequately sized for the new pumps, and does not need to be upsized.

The contract was advertised and five bids were received on Thursday, October 30, 2014 as follows:

<u>Contractor</u>	<u>Bid Amount</u>
1) Gilbert Engineering	\$378,100.00
2) Dillard Excavating	\$238,515.00
3) Moore & Son Site Contractors	\$226,190.00
4) James E. Harris Construction Co.	\$193,000.00
5) J.S. Haren Company	\$192,500.00

The apparent low bidder is J.S. Haren Company with a bid amount of \$192,500.00. J.S Haren has not previously worked for MSD; therefore, staff checked references. The references were all positive, stating that the work performed by J.S. Haren has been excellent.

Please refer to the attached documentation for further details, including the reference check.

FISCAL IMPACT: The FY14-15 Construction Budget for this project is \$180,000.00. Sufficient funds are available within the CIP budget for the overage.

STAFF RECOMMENDATION: Staff recommends award of this contract to J.S. Haren Company in the amount of \$192,500.00, subject to review and approval by District Counsel.

**METROPOLITAN SEWERAGE DISTRICT OF
BUNCOMBE COUNTY, NORTH CAROLINA**

**Clayton Road Pump Station Rehabilitation
Project No. 2014026**

**BID TABULATION
October 30, 2014**

BIDDER	MBE Form	Bid Forms (Proposal)	TOTAL BID AMOUNT
Gilbert Engineering Company Statesville, NC	1	Yes	\$378,100.00
Dillard Excavating Company Sylva, NC	1	Yes	\$238,515.00
Moore & Son Site Contractors Mills River, NC	1	No (*)	\$226,190.00
James E. Harris Construction Huntersville, NC	2	Yes	\$193,000.00
J.S. Haren Company Athens, TN	2	Yes	\$192,500.00

APPARENT LOW BIDDER

(*) Contractor did not include the Proposal with their bid; therefore their bid is rejected.

Shaun Armistead, P.E.
Project Engineer
Metropolitan Sewerage District of
Buncombe County, North Carolina



This is to certify that the bids tabulated herein were publicly opened and read aloud at 2:00 p.m. on the 30th day of October, 2014, in the W.H. Mull Building at the Metropolitan Sewerage District of Buncombe County, Asheville, North Carolina. This was an informal bid and no bid bond was required.

Interoffice Memorandum

TO: Ed Bradford, CIP Manager
FROM: Shaun Armistead, Project Manager
DATE: October 31, 2014
RE: Clayton Road Pump Station Rehabilitation, MSD Project No. 2014026

The Clayton Road Pump Station Rehabilitation is located in Buncombe County on Clayton Road. This project consists of replacement of two (2) submersible pumps, guide rails, lifting chains, power cables, approximately 45 linear feet of 6" DIP force main with associated valves and fittings, and 115 linear feet of 8-inch DIP gravity main. This pump station's existing pumps need to be upgraded to handle projected future flows and current allocations.

Five bids were received on Thursday, October 30, 2014, as follows:

<u>Contractor</u>	<u>Bid</u>
1) Gilbert Engineering	\$378,100.00
2) Dillard Excavating	\$238,515.00
3) Moore and Son Site Contractors	\$226,190.00
4) James E. Harris Construction Co.	\$193,000.00
5) J.S. Haren Company	\$192,500.00

J.S. Haren Company is the apparent low bidder for this contract with a bid amount of \$192,500.00. J.S. Haren Company has not performed previous work for MSD, and as such, staff conducted a reference review (see attached). References came back positive.

The FY13-14 construction budget for this project is \$180,000.00. Bid amounts were higher than budgeted due to a change in scope from the original project. Sufficient funds are available in the CIP for the overage.

Staff recommends award of this contract to J.S. Haren Company, contingent upon review and approval by District Counsel.

Reference Review for J.S. Haren Company

October 31, 2014

Completed by Shaun Armistead

- 1. Eric Frye**
Greeneville Water (TN)
423-783-1699

The contract was for replacement of bar screens at Greeneville WWTP. The contractor was responsive to Greeneville Water's needs, and performed the duties of the project well.

- 2. Lewis Coleman**
City of Whiteville (TN)
731-609-3441

The contractor constructed a completely new 30 foot deep lift station for the City of Whiteville. The contractor did good work, and responded promptly to the City staff's requests.

- 3. Allen Tabor**
City of Crossville (TN)
931-484-5113

The contractor installed a pre-fabricated pump station at the Miller Avenue pump station. The pump station has had some problems since it came online, due to poor design of the pump station. Contractor did a good job installing the pump station, and the City of Crossville would definitely work with this contractor again.

**Metropolitan Sewerage District of Buncombe County, North Carolina
CAPITAL IMPROVEMENT PROGRAM**

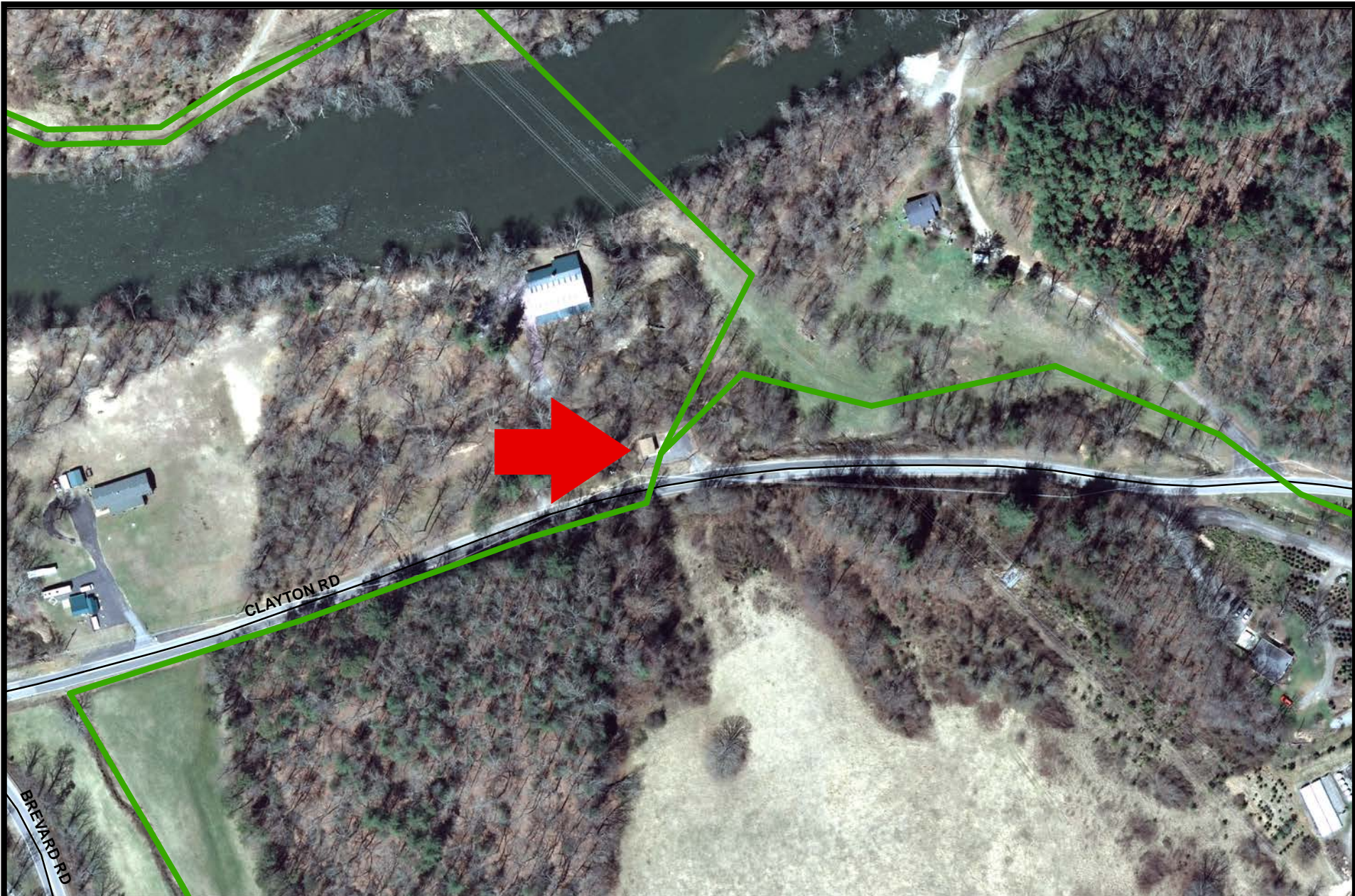
BUDGET DATA SHEET - FY 2014 - 2015

PROJECT: Clayton Road Pump Station Rehab.	LOCATION: Skyland
TYPE: Pump Station	PIPE RATING: N/A
PROJECT NO.: 2014026	TOTAL LF: 0
PROJECT BUDGET: \$180,000.00	PROJECT ORIGIN: Aging Equipment

DESCRIPTION	ESTIMATED PROJECT COST	TOTAL EXPENDS THRU 12/31/13	EST. COST JAN - JUNE 2014	EST. BUDGET FY 14-15
55310 - PRELIM. ENGINEERING				
55320 - SURVEY - DESIGN				
55330 - DESIGN				
55340 - PERMITS				
55350 - SPECIAL STUDIES				
55360 - EASEMENT PLATS				
55370 - LEGAL FEES				
55380 - ACQUISITION SERVICES				
55390 - COMPENSATION				
55400 - APPRAISAL				
55410 - CONDEMNATION				
55420 - CONSTRUCTION	\$180,000.00			\$180,000.00
55430 - CONST. CONTRACT ADM.				
55440 - TESTING				
55450 - SURVEY - ASBUILT				
TOTAL AMOUNT	\$180,000.00	\$0.00	\$0.00	\$180,000.00

ENGINEER: MSD	SA	ESTIMATED BUDGETS - FY '14 -'23	
R.O.W. ACQUISITION: MSD	# PLATS: []	FY 15-16	\$0.00
CONTRACTOR:		FY 16-17	\$0.00
CONSTRUCTION ADM.: MSD		FY 17-18	\$0.00
INSPECTION: MSD		FY 18-19	\$0.00
		FY 19-20	\$0.00
PROJECT DESCRIPTION: This project will upgrade the pumps at the Clayton Road pump station to handle future projected flows in this basin.		FY 20-21	\$0.00
		FY 21-22	\$0.00
		FY 22-23	\$0.00
		FY 23-24	\$0.00

SPECIAL PROJECT NOTES:



Clayton Road Pump Station Rehabilitation Project No. 2014026

NOT TO SCALE



METROPOLITAN SEWERAGE DISTRICT
of
BUNCOMBE COUNTY, NORTH CAROLINA

Budget Map

Metropolitan Sewerage District of Buncombe County

BOARD ACTION ITEM

BOARD MEETING DATE: November 19, 2014

SUBMITTED BY: Tom Hartye, P.E. - General Manager

REVIEWED BY: Billy Clarke, Esq. - District Counsel
Peter Weed - Director of Treatment Plant

PREPARED BY: Ed Bradford, P.E. - Director of Engineering
Hunter Carson, P.E. - Project Manager

SUBJECT: Influent Pump Station - Consideration of Equipment Procurement:
Adjustable Frequency Drives, MSD Project No. 2012030

BACKGROUND: The plant has three large pumps that lift all wastewater received at the plant up to the Grit and Grease Facility. These pumps are powered by large 400 Hp motors, which in turn are controlled by Adjustable Frequency Drives (AFD's).

The AFD's allow the pumps to ramp their speed up or down to match the incoming flow to the plant. This is more efficient than having pumps which cycle on and off at full power. In smaller pump stations, pumps are typically run in either full-on or full-off mode, and cycled accordingly.

The sole source for new AFD's was approved at the August 20, 2014 board meeting, and the project was bid shortly thereafter. The bids came in significantly over the budget, however. Staff proposes to purchase this equipment under the existing budget due to the long lead-time, then competitively bid the installation contract during FY15-16. The timing of the overall project remains substantially the same, due to the long lead-time for the equipment.

Please refer to the attached documentation for further information.

FISCAL IMPACT: The FY14-15 construction budget for this procurement is \$675,000.00. The total cost for the AFD's and the prefabricated building for them is \$517,359.00.

STAFF RECOMMENDATION: Staff recommends that the District procure the specified equipment in accordance with the sole-source approved at the August 20, 2014 MSD Board meeting, for standardization and compatibility with existing systems.

Interoffice Memorandum

TO: Tom Hartye, General Manager

FROM: Ed Bradford, CIP Manager
Hunter Carson, Project Manager

DATE: November 12, 2014

RE: **Influent Pump Station Rehabilitation: AFD Replacement**
MSD Project No. 2012030

All wastewater received at the plant is conveyed from the Influent Pump Station to the Grit & Grease Facility via three (3) large pumps. These pumps are driven by 400hp motors, each of which is controlled by an Adjustable Frequency Drive (AFD).

The AFDs are responsible for fluctuating pump motor speed based on incoming wastewater flow rate, thereby controlling the amount of water pumped to the Grit & Grease Facility and on through the plant. This type of automated control reduces energy consumption by the motors and is easier on the equipment.

The existing AFDs are located in the Influent Pump Station. This space is unconditioned and is routinely subjected to corrosive gases created by incoming wastewater, primarily hydrogen sulfide. These gases, along with humidity and heat have slowly deteriorated the sensitive circuitry contained in the AFDs, resulting in multiple failures of the equipment over the past couple years. The units have been repaired, but replacement parts are becoming difficult to find as the units have become obsolete. The AFDs were originally installed in 1986 and have been replaced once since then, approximately 10-12 years ago.

In May 2014, MSD secured the services of Black & Veatch to design a new Electrical Enclosure for three new AFDs. The design includes an air conditioned 11 ft. x 30 ft. pre-engineered metal building furnished with AFDs, HVAC system, lighting, wiring, etc. The building will be delivered to the plant site completely furnished and fabricated, and will be located adjacent to the east wall of the Influent Pump Station. Since the Electrical Enclosure comes completely fabricated, Contractor involvement is somewhat limited. Requirements include furnishing and installing new electrical cabling from the new AFDs to the existing pump motors, terminating all new electrical cables, and prepping the site for delivery of the building.

On August 20, 2014, the MSD Board approved a sole-source specification of Allen-Bradley Powerflex 755 AFDs. This AFD make and model was desired due to its compatibility with existing plant equipment, and standardization of plant control systems.

On September 25, 2014, three bids were received to furnish and install the Electrical Enclosure. All bids received were over the FY 14/15 construction budget, and also over the Engineer's estimate. As such, all bids were rejected.

Following a bid rejection notification, MSD staff elected to proceed with procurement only of the Electrical Enclosure, and delay installation. A quote for the Electrical Enclosure was received from Rexel USA (local Allen-Bradley AFD distributor) in the amount of \$517,359.00. Allen-Bradley regularly supplies pre-engineered metal buildings such as the one specified in the Black & Veatch contract documents. The quote received is within the FY 14/15 construction budget of \$675,000.00. Staff intends to rebudget the Electrical Enclosure installation for FY 15/16. Lead time for complete fabrication and delivery of the Electrical Enclosure is approximately 6 months (i.e. end of FY 14/15); therefore, this process will result in minimal lost time. MSD staff will bid an installation contract at the beginning of FY 15/16 to complete the project and place the new AFDs online.

MSD has a long procurement history with Rexel for its electrical equipment, and an excellent business relationship.

Staff recommends that the District move forward with procurement of the new AFD's and Electrical Enclosure from Rexel in the amount of \$517,359.00 upon review and approval by District Counsel.

Proposal

AFD Systems for Influent Pumps:

**Qty 3, 500HP, 617-Amp AFD Systems
for 400HP, 553-Amp Pump Motors**

Project Name: Influent Pump AFD Replacement

Municipality: MSD of Buncombe County

Revision: 052914B

Date: 09/15/14

Prepared For: Black & Veatch

Offered By: Rexel
(Rockwell Automation / Allen-Bradley Distributor)
Asheville, NC
Alan Hawkins....(828) 691-9113

Prepared By: Rockwell Automation / Allen-Bradley

Proposal History:

<u>Rev</u>	<u>Date</u>	<u>Status / Changes from Previous</u>
Rev 052914A	05/29/14	Original Proposal
Rev 052914B	09/15/14	Final Proposal – Eliminated Previous Options, Added Dual-Port Ethernet, Added Corrosion Inhibitors, Move Spare Parts to Option One

.Rexel (Rockwell Automation / Allen-Bradley Distributor) is pleased to provide the following proposal relative to the Rockwell Automation / Allen-Bradley AFD Systems and Services described in the emails of May 15, May 16 and May 23 from Black & Veatch to Rockwell Automation regarding the “Influent Pumping Station Improvements” project for MSD of Buncombe County.

APPLICABLE SPEC SECTIONS:

AFDs, with specific requirements stated in emails of May 15, 16, 23
Original Plans and Specs (no AFD Spec)
Control Descriptions provided by B&V

EQUIPMENT DESIGNATIONS AND KEY COMMERCIAL REQUIREMENTS ADDRESSED IN THIS PROPOSAL....

AFD-INFL-1, AFD-INFL-2, AFD-INFL-3

Qty (3) “500HP” 617-Amp AFD Systems for 400HP 553-Amp Influent Pumps
Submittals (including Seismic Study, Harmonic Study and DV/DT Study)
O&M Manuals
Factory Testing, including 4-Hour Load Testing
Start-Up Services (three separate trips minimum, one for each AFD System)
Onsite O&M Training
Three-Year Parts and Labor Warranty
Freight to first destination included

Option One Adder: Spare Parts

APPLICABLE PLANS, SPECS AND ADDENDA

Descriptions within emails from B&V to RA on May 15, May 16 and May 23.

Knowledge of “typical” Black & Veatch Spec 16150 – AFDs.

Knowledge of previous Intermediate Pumps.

Original Plans and Specs (no AFD Spec)

Control Descriptions provided by B&V

The plans, specifications and addenda listed above are the only ones which shall apply to this proposal either directly or by reference. Any specifications not specifically included as part of this proposal are excluded from this offering.

AFD Systems

IMPORTANT: AFDs are properly sized by matching their rated amperage to the Motor Full Load Amps. Black & Veatch has confirmed that the Full Load Amp rating for each Motor shall be 553 Amps on inverter power and 527 Amps on sine-wave power. Thus, Rockwell Automation is quoting its most appropriately sized AFD, namely 617A-rated AFD. Rockwell Automation / Allen-Bradley shall NOT be responsible for any added costs for possible “upsizing” of the AFDs at a later time.

BASE SCOPE OF SUPPLY:

Qty	Part Number	Description
3	PF755-ND-C-617	Enclosed Configured PowerFlex755 Series AFD System 460v / 3-ph / 60hz “500HP” normal-duty, Rated Up to 617A continuous output amps With Passive Harmonic Filter by MTE (with cap cutout contactor) With RVSS Manual Bypass With DV/DT Filter With Three-Year P&L Warranty from Date of StartUp

Each AFD System shall include:

- Type 1 enclosure with fans and filters
- Normal-Duty operation for Centrifugal Pump Application
- Main CB Disconnect
- Input Current-Limiting Fusing
- Drive Branch Input Isolation Contactor
- Passive Harmonic Filter (with capacitor cutout contactor)
- PowerFlex 755 AFD Unit, 617-Amps (conformal coating is standard)
- DV/DT Filter
- Drive Branch Output Contactor (interlocked with Bypass Contactor)
- Bypass Branch Current-Limiting Fusing
- Bypass RVSS
- Bypass Branch Output Contactor (interlocked with Drive Branch Output Contactor)
- All Contactors to be Nema-Rated
- Control Power Transformer with extra capacity
- Door-Mounted Operators and Controls to include VFD Keypad/Display, two Selector Switches (Drive/Bypass, On/Off/Reset/Remote), three Pushbuttons (Reset, Local Start, Local Stop), eight LED Push-to-Test Pilot Lights (Drive Mode, Bypass Mode, Running, Off, Drive Fault, Motor High Temp, Wetwell High Level Run, PLC Run Disable), Speed Pot, Elapsed Time Meter
- Internal Controls per Control Descriptions
- Ethernet Communication Module, dual-port (Device Level Ring support).
- Point I/O Modules to accommodate field device status
- Corrosion inhibitors placed inside enclosures

EXCEPTIONS:

None.

CLARIFICATIONS:

Rockwell Automation's Seismic Study (which will be provided in the Submittal) shall provide calculations for anchorage to meet a specified IBC seismic design category for the anchored assembled AFD Systems. Rockwell Automation AFD Units are not certified to IBC standards, but are rated for Seismic Zone 4 of the UBC standards. (Seismic Zone 4 includes Los Angeles and San Francisco.) Asheville, NC is considered to be in Zone 2A, which is less seismically active than Seismic Zone 4.

Motor thermostats are assumed. RTD Monitoring is not included herein. No vibration monitoring is included herein.

SUBMITTALS:

Submittals are included herein, and will be provided 6-8 weeks after receipt of an acceptable order with complete project engineering data. The Submittal shall include a Seismic Study, Harmonic Study and a DV/DT Study.

O&M MANUALS:

O&M Manuals are included herein, and will be provided within (4) weeks following shipment of the hardware. If necessary, a Preliminary O&M Manual based on the Mftg Dwgs can be provided in advance of the shipment of the hardware.

FACTORY TESTING:

Factory testing, including a specified 4-Hour Load Test on a dynamometer, shall be supplied.

SHIPMENT:

With specified load testing, shipment is currently estimated at 17-19 weeks after "release to manufacturing"

(Waiving of the Load Test requirement would reduce the lead-time by 2-3 weeks.)

FREIGHT:

Freight is FOB Ex-works. The cost of freight to first destination is included.

SPARE PARTS:

Spare parts shall be supplied. Spares parts are to include....

- Power fuses (one set of each unique fuse)
- Control fuses (one set of each unique fuse)
- Indicating lamps (one set of each unique lamp)
- Rectifier power semiconductors
- Inverter power semiconductors
- One of each type of printed circuit board and gate firing board
- One human interface module (keypad/display)

Spare Parts are NOT included in the Base Scope, but are offered in Option One.

START-UP ASSISTANCE:

Start-Up services (normal business hours) by an Allen-Bradley Field Service Engineer for each AFD are provided for and included herein. Three separate trips (one for each AFD System) are presumed. Travel and expenses are included herein – provided a 2-week advanced scheduling notice is provided. It is also assumed that, prior to Allen-Bradley's arrival, the AFD Systems will be:

- completely wired and ready for start-up
- automatic and hand control is ready
- mechanical equipment will be ready for start-up
- process fluid will be available to operate the AFD and mechanical equipment

Any significant delays and/or "out-of-scope time" that are out of Allen-Bradley's control will be viewed as potentially billable services/expenses.

WARRANTY:

Provided a Rockwell Automation Engineer performs the startup, the warranty shall be a 3-year parts and labor warranty from date of startup (not to exceed 42 months from date of shipment).

ONSITE O&M TRAINING:

Onsite O&M AFD training per the spec is provided for herein. The onsite training shall include Safety, O&M Manual Review (including Dwgs review), Hands-On Instruction, Operation, Maintenance, Troubleshooting, Support Contacts Review.

ESTIMATED DIMENSIONS (each AFD System):

134"W x 24"D x 95"H

Note: One of the four bays would also have a top vent that adds 6" H to that bay.

Note: Cable access shall be Top Entry / Top Exit

PRICING SECTION:

Base Scope:

Hardware and Services described above in detail, but summarized below....

Qty	Part Number	Description
3	PF755-ND-C-617	Enclosed Configured PowerFlex755 Series AFD System 460v / 3-ph / 60hz "500HP" normal-duty, Rated Up to 617A continuous output amps With Passive Harmonic Filter by MTE (with cap cutout contactor) With RVSS Manual Bypass With DV/DT Filter With Three-Year P&L Warranty from Date of StartUp

Including the following services and related items:

- Submittals (including Seismic Study, Harmonic Study and DV/DT Study)
- O&M Manuals
- Factory Testing, including 4-Hour Load Testing
- Start-Up Services, Three Trips Presumed
- Onsite O&M Training
- Three-Year Parts and Labor Warranty
- Freight to first destination included

Lump Sum Total: \$ 324,152 ext

Seller's standard terms and conditions apply. (See attachment herein.)
The invoicing schedule shall be agreed upon prior to order entry.
Pricing is valid for 60 days.

Please see following page for Option One – Spare Parts.

Option One: Spare Parts

Per typical Black & Veatch AFD Specifications, the following is a recommended list of spare parts.

<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	20-750-POD1-F8	Control Pod, Frame 8, includes Main Control Board, Fiber Interface Board, Transceiver
1	20-750-I1-C650D617	Inverter Assembly for 617-Amp VFD
1	20-HIM-A6	Human Interface Module (Keypad/Display)
1	tbd after engineering	Set of each unique Power Fuse
1	tbd after engineering	Set of each unique Control Fuse
1	700-HA24A1-	Control Relay
1	700-FSM4UU23	Timing Relay
5	tbd after engineering	Lamps of each unique color
1	tbd after engineering	Enclosure cooling fan
1	20-750-CART1-F8	Roll-Out Cart

Lump Sum Total: \$ 20,885 ext

Seller's Terms & Conditions of Sale ("Terms & Conditions") - Rev. Nov 2010

1. **ACCEPTANCE:** Acceptance of any order is subject to credit approval by Seller, acceptance of the order by Seller and, when applicable, Seller's Vendor (i.e. manufacturers, vendors, or other third parties that provide goods to Seller for resale to Buyer). If Seller, in its sole discretion, determines that Buyer's credit becomes unsatisfactory or it has reasonable grounds for insecurity, Seller reserves the right, upon notice to Buyer, to demand adequate assurance of due performance from Buyer and/or terminate this agreement with no liability to Seller. BY REQUESTING A QUOTE FROM SELLER OR PRESENTING AN ORDER TO SELLER, BUYER CONFIRMS THAT THESE TERMS & CONDITIONS SHALL GOVERN ALL PURCHASES OF GOODS (i.e. GOODS, MATERIALS AND/OR SERVICES PROVIDED TO BUYER BY SELLER) BY BUYER FROM SELLER, AND NO CHANGES OR ADDITIONAL OR DIFFERENT TERMS (CONTAINED IN A PURCHASE ORDER ACCEPTED BY SELLER, OR OTHERWISE) WILL CHANGE THESE TERMS & CONDITIONS UNLESS ACKNOWLEDGED IN WRITING AND SIGNED BY AN AUTHORIZED REPRESENTATIVE OF SELLER. NO SELLER EMPLOYEE OR AGENT HAS THE AUTHORITY TO MODIFY THESE TERMS & CONDITIONS VERBALLY. SELLER OBJECTS TO AND REJECTS ANY TERMS BETWEEN BUYER AND ANY OTHER PARTY, AND NO SUCH TERMS, INCLUDING BUT NOT LIMITED TO ANY GOVERNMENT REGULATIONS OR "FLOWDOWN" TERMS, SHALL BE A PART OF OR INCORPORATED INTO ANY ORDER FROM BUYER TO SELLER, UNLESS AGREED TO IN WRITING BY AN AUTHORIZED REPRESENTATIVE OF SELLER.
 2. **PRICES AND TAXES:** Buyer agrees to pay the prices quoted by Seller, and is responsible for additional applicable shipping and handling charges, taxes and duties. Seller shall collect applicable taxes unless Buyer submits a valid tax exemption certificate, and indicates which Goods are covered by it. Prices on special-order Goods may be subject to change before shipment; Seller shall notify Buyer of any change, and Buyer may at its discretion cancel the special-order Goods if the revised prices are unacceptable, without charge other than applicable Vendor related charges.
 3. **PAYMENT:** Payment terms are 30 days net from the invoice date or upon such other terms approved by Seller in writing. Retainage shall not apply, and Buyer shall not hold back any retainage from Seller, even if retainage is part of any contract between Buyer and any other party. Payment is not contingent on Buyer's ability to collect or obtain funds from any other party. Credit card sales are billed at the time of purchase. Buyer expressly represents it is solvent at the time it places any purchase order with Seller. Seller, in its sole discretion, may determine that Buyer's financial condition requires full or partial payment prior to manufacture or shipment. If Buyer fails to make any payment when due, Seller reserves the right to suspend performance. Buyer agrees to pay a charge on all amounts past due at the rate of 1 1/2% per month (18% per year) or the maximum lawful rate, whichever is less. In the event of non-payment, Buyer agrees to pay Seller's reasonable attorney fees and court costs, if any, incurred by Seller to collect payment, and all applicable interest charges. Seller may apply payments to any outstanding invoices unless Buyer provides specific payment direction.
 4. **TITLE AND RISK OF LOSS OR DAMAGE:** As to Goods delivered by Seller's truck, title passes upon delivery at the place Buyer receives possession; and, thereafter, all risk of loss or damage shall be on Buyer. All other sales are F.O.B., point of shipment, and Buyer takes title and assumes responsibility for risk of loss or damage at the point of shipment for such sales. Claims for Goods damaged in transit are Buyer's sole responsibility when not delivered by Seller's truck.
 5. **QUOTATIONS:** All quotations expire thirty (30) days from the date of the quotation unless otherwise noted on the quotation. This time limit applies even if Buyer uses the quotation to submit a job or project bid to any other party.
 6. **ASSIGNMENT:** An order shall not be assigned by either party without the express written consent of the other. Consent will not be required, however, for internal transfers and assignments as between either party and its affiliates, and nothing herein shall limit either party's right to factor or sell receivables.
 7. **RETURN OF PRODUCTS AND ORDER CANCELLATION:** Buyer shall accept returns of normal stock Goods for a period of thirty (30) days following shipment for exchange or refund of the purchase price; provided, that Goods must be in their original cartons, unopened and unused and are subject to appropriate restocking/cancellation fees equal to the greater of (1) the cost incurred by Seller from its Vendor as a result of the cancellation, or (2) 25% of the purchase price. Any Goods, stock or direct, ordered by Seller as Buyer-specific and/or non-returnable to its Vendor are subject to a restocking/cancellation fee of 100% of the cost of the Goods.
 8. **TERMINATION:** Either party may terminate the whole or any part of the other party's performance under a purchase order if there is a material breach of these Terms & Conditions. In the event of any such breach, the non-breaching party will provide the breaching party with written notice of the nature of the breach and the non-breaching party's intention to terminate for default. In the event the breaching party does not cure such failure within ten (10) days of such notice, the non-breaching party may, by written notice, terminate the order; provided, that the breaching party shall continue its performance to the extent not terminated.
 9. **INTERPRETATION RESPONSIBILITY; PRODUCT USE AND SAFETY:** Seller does not guarantee that the Goods it sells conform to any plans and specifications or intended use. When plans and specifications are involved, Buyer is solely responsible for verifying Seller's interpretations of such plans and specifications, and it is Buyer's sole responsibility to assure that Seller's Goods will be accepted on any specific job. When Seller offers substitute Goods on any proposal, Buyer is solely responsible for confirming their acceptability. BEFORE BUYER USES OR INSTALLS ELECTRICAL PRODUCTS, IT IS BUYER'S RESPONSIBILITY TO CONSULT THE NATIONAL ELECTRIC CODE AND ANY PERTINENT LOCAL, STATE OR NATIONAL CODES, RULES OR REGULATIONS FOR APPROVED INSTALLATION PROCEDURES AND PRECAUTIONS. NOTHING SELLER SELLS IS FOR USE IN CONNECTION WITH "SAFETY-RELATED" APPLICATIONS OF A NUCLEAR FACILITY OR ANY HAZARDOUS ACTIVITY WHERE FAILURE OF A SINGLE COMPONENT COULD CAUSE SUBSTANTIAL HARM TO PERSONS OR PROPERTY.
 10. **DELIVERY:** Factory shipping dates given in advance of actual shipment are approximate and not guaranteed.
 11. **EXCUSABLE DELAYS:** Seller shall have no liability if its performance is delayed or prevented by causes beyond its reasonable control, including, without limitation, acts of nature, labor disputes, government priorities, transportation delays, insolvency or other inability to perform by Seller's Vendor, or any other commercial impracticability. In the event of any such delay, the date of delivery or performance shall be extended for a period equal to the time lost by reason of delay. Should shipments be held or stored beyond the delivery date for convenience of Buyer, Seller may, at its option, assess reasonable charges for any expense incident to such delay.
 12. **CLAIMS:** Claims for any nonconforming Goods must be made by Buyer, in writing, within ten (10) days of Buyer's receipt of such Goods and must state with particularity all material facts concerning the claim then known to Buyer. Failure by Buyer to give notice within such ten (10) day period shall constitute an unqualified acceptance of such Goods by Buyer, and a waiver of any right to reject or revoke acceptance of such Goods.
 13. **WARRANTIES:**
 - (a) **SELLER'S WARRANTIES:** Seller warrants that all Goods sold are new and, upon payment in full by Buyer of the Goods, free and clear of any security interests or liens. Buyer's exclusive remedy for breach of such warranties shall be replacement with a new product or termination of any security interests or liens. Seller is a distributor and not a manufacturer and makes no independent warranties other than those set forth herein.
 - (b) **VENDOR'S WARRANTIES:** Seller shall also assign to Buyer any Vendor warranties and/or remedies provided to Seller by its Vendor.
 - (c) **INTELLECTUAL PROPERTY INFRINGEMENT:** SELLER DISCLAIMS ANY AND ALL WARRANTIES AND/OR INDEMNIFICATIONS AGAINST INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHTS OF ANY NATURE. SELLER SHALL, IF GIVEN PROMPT NOTICE BY BUYER OF ANY CLAIM OF INTELLECTUAL PROPERTY INFRINGEMENT WITH RESPECT TO ANY GOODS SOLD HEREUNDER, REQUEST THE MANUFACTURER TO GRANT FOR THE BUYER SUCH WARRANTY OR INDEMNITY RIGHTS AS THE MANUFACTURER MAY CUSTOMARILY GIVE WITH RESPECT TO SUCH GOODS.
 - (d) **LIMITATIONS:** THERE ARE NO OTHER WARRANTIES WRITTEN OR ORAL, EXPRESS, IMPLIED OR BY STATUTE. NO IMPLIED STATUTORY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLIES. NO REPAIR OF GOODS OR OTHER COSTS ARE ASSUMED BY SELLER UNLESS AGREED TO, IN ADVANCE, IN WRITING.
 14. **LIMITATIONS OF LIABILITY:** UNLESS APPLICABLE LAW OTHERWISE REQUIRES, SELLER'S AND ANY VENDOR'S TOTAL LIABILITY TO BUYER, BUYER'S CUSTOMERS OR TO ANY OTHER PERSON, RELATING TO ANY PURCHASES GOVERNED BY THESE TERMS & CONDITIONS, FROM THE USE OF THE GOODS FURNISHED OR FROM ANY ADVICE, INFORMATION OR ASSISTANCE PROVIDED BY SELLER (BY ANY METHOD, INCLUDING A WEB SITE), IS LIMITED TO THE PRICE OF THE GOODS GIVING RISE TO THE CLAIM. NEITHER SELLER NOR ITS VENDORS SHALL BE LIABLE FOR ANY SPECIAL, INCIDENTAL, DIRECT, CONSEQUENTIAL OR PENAL DAMAGES (INCLUDING, BUT NOT LIMITED TO BACKCHARGES, LABOR COSTS, COSTS OF REMOVAL, REPLACEMENT, TESTING OR INSTALLATION, LOSS OF EFFICIENCY, LOSS OF PROFITS OR REVENUES, LOSS OF USE OF THE GOODS OR ANY ASSOCIATED GOODS, DAMAGE TO ASSOCIATED GOODS, LATENESS OR DELAYS IN DELIVERY, UNAVAILABILITY OF GOODS, COST OF CAPITAL, COST OF SUBSTITUTE GOODS, FACILITIES OR SERVICES, DOWNTIME, OR CLAIMS FROM BUYER'S CUSTOMERS OR OTHER PARTIES). IF SELLER FURNISHES BUYER WITH ADVICE OR OTHER ASSISTANCE WHICH CONCERNS ANY GOODS SUPPLIED HEREUNDER, OR ANY SYSTEM OR EQUIPMENT IN WHICH ANY SUCH GOODS MAY BE INSTALLED, AND WHICH IS NOT REQUIRED PURSUANT TO THESE TERMS & CONDITIONS, THE FURNISHING OF SUCH ADVICE OR ASSISTANCE WILL NOT SUBJECT SELLER TO ANY LIABILITY, WHETHER BASED ON CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE) OR OTHER GROUNDS.
 15. **EXPORTS:** If Goods are sold for export, Seller's standard terms & condition for export sales apply. Acceptance of export orders is not valid unless confirmed in writing by Seller. Buyer, NOT Seller, is responsible for compliance with all United States export control rules and regulations. Buyer shall not name Seller as shipper or exporter of record in connection with the export of any Goods purchased from Seller.
 16. **ANTI-MONEY LAUNDERING RESTRICTIONS:** Seller rejects questionable orders and payments: Except for pre-approved credit arrangements, Seller rejects third-party payments, cashiers' checks, money orders and bank drafts. Seller accepts only checks imprinted with Buyer's name; wire transfers originated in Buyer's account; letters of credit with Buyer as account party; and credit or debit cards in Buyer's name. All payments must be by single instrument in the amount of the invoice, less credits, from banks acceptable to Seller.
 17. **GOVERNING LAW:** These Terms & Conditions and all disputes related to it shall be governed by the laws of the State of New York, United States of America, without giving effect to its conflict of law rules.
- TO THE EXTENT NOT CONTRARY TO APPLICABLE LAW, THE FOLLOWING SHALL APPLY:**
18. Buyer waives any available homestead exemption as well as any and all requirements or rights with regard to notice, demand, presentment, or protest and appoint any employee of Seller or attorney to appear in any court of competent jurisdiction for the purpose of confessing judgment for all amounts due Seller pursuant to these terms and conditions.
 19. Buyers and/or Guarantors transacting business in Connecticut acknowledge that they have the right under S52-278(a)-(g) subject to certain limitations to notice of and hearing on Seller's right to obtain a prejudgment remedy, such as attachment or garnishment, upon commencing litigation against Buyers and/or Guarantors. Buyers and/or Guarantors hereby waive all rights to notice, judicial hearing or prior court order in connection with Seller's obtaining any prejudgment remedy in connection with said transactions or extensions of same. Buyers and/or Guarantors also waive any and all objection which they might otherwise be able to assert now or in the future to the exercise or use by Seller of any right of setoff, repossession or self-help as may presently exist under statute, including the Uniform Commercial Code and common law.
- IMPORTANT NOTICE:** THIS INSTRUMENT PERMITS SELLER TO OBTAIN AND USE YOUR INDIVIDUAL CREDIT HISTORY FOR CREDIT EVALUATION PURPOSES. THIS INSTRUMENT FURTHER CONTAINS A CONFESSION OF JUDGMENT PROVISION AND OTHER WAIVERS, WHICH CONSTITUTES A WAIVER OF IMPORTANT RIGHTS YOU MAY HAVE, AND IF YOU DO NOT PAY ON TIME, ALLOWS SELLER TO OBTAIN A JUDGMENT AGAINST YOU WITHOUT FURTHER NOTICE OR YOUR PRIOR KNOWLEDGE. BY ACCEPTING THESE TERMS YOU GIVE UP YOUR RIGHT TO NOTICE AND TRIAL. THE POWERS OF THE COURT CAN BE USED TO COLLECT THE AMOUNT DUE REGARDLESS OF ANY CLAIMS YOU MAY HAVE WHETHER FOR RETURNED OR FAULTY GOODS, FAILURE BY SELLER TO COMPLY WITH THIS AGREEMENT, OR ANY OTHER CAUSE.



157 Asheland Ave.
Asheville NC 28801

Created: Oct 23, 2014
Expires: Nov 22, 2014

Rev 1

To: MSD
2028 Riverside Drive

Asheville, NC 28804
USA
Attn: Hunter Carson
Tel: 828-225-8241
Fax:
Email: hcarson@msdbc.org

Account#:

Thank you for the opportunity!

Ref: Project Location - Buncombe County, NC
Lectrus Quote # 010320-11049RexelRev1-Email.xlsx

We are pleased to submit the following quotation in response to your request as delineated below:

Quantity	Part#	Description	Each	Extended
1	EQUIPCNT	Equipment Center per attached Lectrus Corporation Bill of Material #010320-11049RexelRev1-Email.xlsx 30.000 ft Long x 11.000 ft Wide x 11 ft Ceiling	\$156,836	\$156,836
1	S&H-EQUIPCNT FOB SHIP POINT (PP&A)	APPROXIMATE shipping and handling to Buncombe County, NC. This is an estimated freight cost and will be updated prior to shipment and will be billed at cost plus 15% for shipping & handling.	\$15,486	\$15,486
1	EXTWCUSTOM	Option: To extend our general warranty from 1 year to 2 years: (Available only to EquipmentCenters located in the lower 48 states. Consult factory for other locations.)	\$1,756	\$1,756

Terms: Net 30 Calendar Days / All prices are in US Dollars (USD)

Required Progress Payments (On all orders with a product price of over \$100,000):

The percent listed below will be calculated on the total purchase price including known change orders and invoiced upon milestone achievement. Progress payments due Net 30 upon receipt of invoice. Final payment due on agreed payment terms.

- 20% first submission of approval drawings
- 30% upon release for fabrication
- 30% upon completion of structural fabrication and paint
- 20% due upon agreed upon FOB terms or INCOTERMS or notification of a shipping delay for customer convenience.

No money can be retained from any of the above payments for any reason without prior written agreement.

- Progress payment terms must be listed on the Purchase Order in order for acceptance by Lectrus unless an executed Master Purchase Agreement is in existence.

- Submission of a Purchase Order acknowledges acceptance of the Lectrus Terms & Conditions attached to this quote.

Shipping: FOB Ship Point, Collect, Chattanooga, TN

OPTION ADDERS				
1	EA	ASSY - Linear Feet of Exterior 1-Hour fire wall UL Detail #529 - Non-bearing assembly used as a fire barrier on the outside of the structure	22,250.00	22,250.00
1	EA	ASSY - Wire Points of Panel to Panel Control Wiring (Terminations) per furnished information (THHN 14AWG). Prices are subject to final confirmation upon review of wiring list and wiring specifications. - Does not include wire management. - Based on customer supplying a complete wiring list showing the following data as a minimum: - Source Equipment & Terminal #s - Destination Equipment & Terminal #s - Terminal numbers - Wire labels - Cable Type - Spreadsheet Format - Shields and spares count as terminations - Review of wiring diagrams and/or point to point drawings, trouble shooting and list generation from customer supplied materials will be billed in addition on an hourly basis	27.89 a termination	27.89 a termination



157 Asheland Ave.
Asheville NC 28801

1	EA	18" Alum. Cable tray 12 ft long 9" spacing	629.50	629.50
1	EA	18" Alum. Cable tray 90 degree elbow	629.50	629.50
2	EA	Phenolic coated HVAC coils	5,395.00	10,790.00
1	EA	Additional days for site supervision	1875.00 a day	1875.00 a day

Proposed Equipment Center Schedule:

Est. Delivery (wks)***:	Activity	Milestone
1.00	Order Date:	
6.00	*** Approval Drawings: Transmitted after receipt of order and complete design information.	
3.00	Customer Approval Period Allowed: Lectrus Corp. Receives Approved Drawings (in hand):	
10.00	*** Equipment Center Fabrication:	
Milestone	Customer Equipment must be at our facilities by this date:	
4.71	*** Equipment Center Electrical Work & Gear Installation: Available for inspection (subject to change based on plant loading at time of release.)	
0.29	*** APPROXIMATE SHIP DATE	

***** Delivery Notes:**

- Please note these periods may vary based on loading at time of order entry! If dates fall on weekends or holidays dates should be rounded to the next business day.
- Estimated deliveries are based on Lectrus Corporation receiving all pertinent data required to design the structure with the order and all design issues are resolved at that time.
- Milestone dates above are theoretical based on an order date calculated 1 week from today. Date cells are dynamic and possible "what if" schedules can be viewed by modifying the "Order Date:"

Quote Validity: The quoted pricing and delivery will remain firm for your acceptance for SIXTY (60) calendar days from the quote date. Should the milestone dates on the "Proposed Equipment Center Schedule" on the "Quotation" sheet not be realized by the dates indicated, project pricing may change, which will be calculated at the time the later milestones are determined. If a price increase is necessary, the customer will be requested to submit a Change Request, and updated/new purchase order, before engineering or manufacturing is started.

- If the customer delays or suspends production of a project after their purchase order has been released and accepted, and the delay is longer than three (3) months, Lectrus reserves right to adjust the pricing based on increases in material price indexes for the new project schedule relative to the original build schedule, and other associated costs.

Special Notes Clarifications and Exceptions:

- See Attached Terms and Conditions
- We have quoted based on the following:
 - Only power and control wiring specifically delineated in this Lectrus Bill of Material is included in our proposal. Any additional wiring shall represent additional cost and require additional time to complete.
 - No field work is included in our proposal.
 - Equipment weights have been estimated And need verification. Please note that variances in these may affect final price.
 - Heat losses have been estimated and need verification. Please note that variances in these may affect HVAC and final price.
- We take exception to any coating systems specified. Our proposal is based on the coating system as delineated in the Lectrus Bill of Materials.
- We have quoted based on using our standard self-framing interlocking panel construction and fastening methods. Openings in the roof, walls and floors will be reinforced as necessary to meet design load requirements as outlined in our Bill of Material.
 - Fasteners - Self Drilling Tek Screws
 - Interlocking wall design eliminates the need for framing in walls except where openings exist.
 - Interlocking self supporting roof panels eliminate the need for roof trusses and framing unless openings are required.
 - Items weighing greater than 200#/linear foot should be floor mounted or strut mounted spanning several interlocking ribs.
 - Roof Slope 1/2:12
- We have quoted our standard drawings package as listed in the Lectrus Bill of Material:
 - Additional drawing copies are available at \$50 per set.
 - Additional as-built sets are available at \$100 per set.



157 Asheland Ave.
Asheville NC 28801

- We take exception to the following Documents, Drawings and Specifications (or portions thereof) as we understand they do not apply to Lectrus' scope of work:
 - **Section 16125, 2.04.01 Grounding loop under floor, Lectrus will provide our standard copper bar ground loop to meet the grounding of equipment.**
 - **Section 16125, 2.04.10. Painting- Lectrus will provide our standard paint system at this time.**
 - **Section 16125, 2.06.02 Lighting- Lectrus will provide our standard 30 watt LED exterior light with HOA and photoelectric device.**
 - **Section 16125, 2.06.06 Wiring- Lectrus is not providing any control/fiber wiring at this time because of pre-liminary in drawing stage at this time.**
 - **Drawing DS-R1USX00818-001 system estimated watt loss: 13,000 watts, Lectrus is providing 25,000 watts heat loss at this time because the drawing are vague on if this is total or per unit.**
- Rev 1
- **Reduced enclosure from 33' to 30' in length.**
 - **Removed floor cut-outs from the quote.**
 - **Changed cable entry box to Nema 12.**
 - **Removed one outlet for door strike provisions.**
 - **Added door strike and accessories for card reader provisions.**
 - **Option pricing for extend warranty.**
 - **Added (2) flush cut-outs for anchoring on concrete slab after placement.**
 - **Added 480V AC panel per customers request.**
 - **Added panel standoff for consolidation of spacing of panels.**
 - **Added note about heat loss estimated for the AFD drives**
 - **Removed exception Section 08700.2.1 Lectrus is taking exception to hardware and providing with our standard hardware for doors.**

Should you have any questions regarding our quotation or require additional information, please contact us at your convenience.

LECTRUS CORPORATION
ACCEPTED AND AGREED TO:

CUSTOMER: _____

BY: _____

TITLE: _____

DATE: _____

PLEASE SIGN AND RETURN THE ACCEPTED QUOTATION TO:

Thank you for the opportunity,
Sincerely,
Paul Reynolds

Tel: 423-894-9268

Fax: 423-894-9337

Email: preynolds@lectrus.com

Alt. Contact: Janet Edwards, Application Engineering Assistant
jedwards@lectrus.com

**Metropolitan Sewerage District of Buncombe County, North Carolina
CAPITAL IMPROVEMENT PROGRAM**

BUDGET DATA SHEET - FY 2014 - 2015

PROJECT:	Influent Pump Station Rehabilitation	LOCATION:	MSD-Treatment Plant
TYPE:	Treatment Plant	PIPE RATING:	N/A
PROJECT NO.	2012030	TOTAL LF:	0
PROJECT BUDGET:	\$1,262,500.00	PROJECT ORIGIN:	Aging Equipment

DESCRIPTION	ESTIMATED PROJECT COST	TOTAL EXPENDS THRU 12/31/13	EST. COST JAN - JUNE 2014	EST. BUDGET FY 14-15
55310 - PRELIM. ENGINEERING				
55320 - SURVEY - DESIGN	\$5,000.00			\$5,000.00
55330 - DESIGN	\$50,000.00			\$50,000.00
55340 - PERMITS				
55350 - SPECIAL STUDIES				
55360 - EASEMENT PLATS				
55370 - LEGAL FEES				
55380 - ACQUISITION SERVICES				
55390 - COMPENSATION				
55400 - APPRAISAL				
55410 - CONDEMNATION				
55420 - CONSTRUCTION	\$1,177,000.00	\$161,965.00	\$20,000.00	\$835,000.00
55430 - CONST. CONTRACT ADM.	\$25,000.00			\$25,000.00
55440 - TESTING	\$5,500.00	\$500.00		\$5,000.00
55450 - SURVEY - ASBUILT				
TOTAL AMOUNT	\$1,262,500.00	\$162,465.00	\$20,000.00	\$920,000.00

ENGINEER:	MSD	HC	ESTIMATED BUDGETS - FY '14 -'23	
R.O.W. ACQUISITION:	N/A	# PLATS: [0]	FY 15-16	\$0.00
CONTRACTOR:			FY 16-17	\$160,000.00
CONSTRUCTION ADM.:	MSD		FY 17-18	\$0.00
INSPECTION:	MSD		FY 18-19	\$0.00
			FY 19-20	\$0.00
PROJECT DESCRIPTION: This project is to rehabilitate the influent pump station at the plant. The existing motor controls have deteriorated over the years and must be replaced. New controls will be installed and the air space will be conditioned. One pump was replaced in FY13-14. The other two pumps have been re-built multiple times and are approximately 25 years old. These remaining two pumps will be replaced in FY14-15 and FY16-17.			FY 20-21	\$0.00
			FY 21-22	\$0.00
			FY 22-23	\$0.00
			FY 23-24	\$0.00

SPECIAL PROJECT NOTES: Pump replacement cost is \$160,000 and includes the pump and installation.
All work to be subcontracted due to safety and liability concerns.



**Influent Pump Station Rehabilitation
Project No. 2012030**

NOT TO SCALE



METROPOLITAN SEWERAGE DISTRICT
of
BUNCOMBE COUNTY, NORTH CAROLINA

Budget Map

Metropolitan Sewerage District of Buncombe County

BOARD ACTION ITEM

BOARD MEETING DATE: November 19, 2014

SUBMITTED BY: Tom Hartye, P.E. - General Manager

REVIEWED BY: Billy Clarke, Esq. - District Counsel
Gary McGill, P.E.- Engineer of Record
Peter Weed - Director of Treatment Plant

PREPARED BY: Ed Bradford, P.E.- Director of Engineering
Hunter Carson, P.E. - Project Manager

SUBJECT: Incinerator System Emissions Upgrades Project - Consideration of Sole Source: Incinerator Venturi Wet-Scrubber, MSD Project No. 2013059

BACKGROUND: Summary of Project

The Sewage Sludge Incinerator (SSI) is located at the Water Reclamation Facility (WRF). It plays a crucial role in the District's management of biosolids, which are a residual of all wastewater treatment plants. The original SSI was constructed in 1992, and a major rehabilitation project was completed in 2005.

New EPA-mandated regulations impose more stringent air emission limits for all SSI's in the United States (primarily affecting mercury and sulfur dioxide). In addition, there is a short timeline to meet the new rules - equipment must be in operation and in compliance by March 2016.

In addition to the new emissions requirements, rehabilitation of high-wear components is necessary. Major components within the system (the venturi and the heat exchanger) have now reached the end of their useful lives and must be replaced.

New Mercury Removal System

Traditional mercury-removal systems use activated carbon. This is an established technology; however, it requires a significant capital investment and ongoing maintenance in order to keep the process working properly. Also, the disposal of large amounts of spent carbon can be burdensome.

Staff recently learned of a new mercury-removal system, which utilizes removable cartridges mounted directly within the emission equipment.

This technology not only looked promising, but also has the potential to save MSD substantial amounts of money. During the summer of 2014, staff pilot-tested this system at the MSD plant. The results were excellent, with a mercury removal rate over 90%.

This new equipment is estimated to save MSD in excess of \$4.5 Million over an activated carbon system. The yearly operating costs are similar for both systems. This process received approval from the WNC Air Quality Agency on September 8, 2014.

Sole-sourcing the Emissions Equipment

Due to the short timeframe imposed by EPA, combined with the equipment lead-time of approx. 7 months, staff and CDM recommend that MSD sole-source specify the Envirocare emissions equipment, and begin the engineering submittal process at this time.

This will allow the preparatory engineering work to begin now (which takes approximately 8 weeks) then the equipment will be ready for the fabrication process. The actual equipment purchase will be completed through the competitively-bid construction contract, scheduled for advertisement in January 2015.

Please refer to the attached documentation for further details.

FISCAL IMPACT: The multi-year CIP budget for this project is \$11.2 million. The FY14-15 construction budget is \$2.5 million. The cost of the engineering submittal process is \$77,935.00.

STAFF RECOMMENDATION: Staff recommends that the District sole-source specify the Envirocare Wet Scrubbing System and the SPC Vessel Mercury Removal System, for the replacement of its existing scrubber process based upon the fact that:

- I) Performance and price competition are not available among other equipment suppliers; and
- II) The bulk of this equipment is available from only one source of supply.

Staff also recommends that the District begin the Engineering Submittal process at this time, in order to help meet the EPA deadline.



5400 Glenwood Avenue, Suite 300
Raleigh, North Carolina 27612
tel: 919 787-5620
fax: 919 781-5730

November 11, 2014

Mr. W. Hunter Carson, P.E.
Project Manager
Metropolitan Sewerage District of Buncombe County
2028 Riverside Drive
Asheville, North Carolina 28804

Subject: Metropolitan Sewerage District (MSD) of Buncombe County
Incinerator Rehabilitation and Upgrades Project
EnviroCare Multi-Venturi Scrubber and Sorbent Polymer Composite System
Recommendation for Sole Source and Authorization for Engineering Submittals

Dear Hunter:

CDM Smith has received and reviewed the attached proposal from EnviroCare International dated November 4, 2014 for the supply of equipment for the MSD Incinerator Rehabilitation and Upgrades project. This proposal includes the following scope of supply:

- A new quench vessel.
- A new VenturiPak™ (multi-venturi) scrubber vessel with integral sorbent polymer composite mercury removal stage.
- Booster pump skid with integral electrical/control panel.
- Development of engineering submittals for the equipment.
- Ancillary field services and startup services for the new equipment.

The proposed cost of this scope of supply from EnviroCare includes \$77,935.00 for engineering submittals and \$707,265.00 for the equipment for a total proposal price of \$785,200.00. Contracting with EnviroCare for the proposed scope of supply will provide the following benefits to MSD:

- The proposed scrubber system will improve particulate material capture to achieve compliance with the requirements of 40 CFR Part 60, Subpart M. The VenturiPak scrubber is a proprietary design of EnviroCare and therefore requires sole source procurement.



Mr. W. Hunter Carson. P.E.
November 11, 2014
Page 2

- The proposed scrubber system includes an integral mercury removal stage consisting of a sorbent polymer composite material. This technology was successfully piloted by MSD between June and August 2014 to demonstrate the ability of this technology to achieve mercury removal to levels compliant with 40 CFR Part 60, Subpart Mmmm at the French Broad Water Reclamation Facility. While this is a relatively new technology with few existing installations in the U.S., use of this mercury removal technology will result in considerable capital cost savings to MSD. This technology is also a proprietary design of EnviroCare and therefore requires sole source procurement.
- Authorization for ECI to prepare the engineering submittal package for review by MSD and CDM Smith in advance of the award of a construction contract will expedite fabrication and delivery of the equipment to the site which will accelerate the overall project schedule for compliance with the March 21, 2016 regulatory deadline. The actual equipment purchase will be by the contractor at the pre-negotiated price as stated in the proposal.

Based on our review of the EnviroCare proposal, the distinct technical benefits of this equipment and supporting data from the pilot study, the anticipated capital cost savings, and benefits to the project schedule, CDM Smith recommends that MSD issue a purchase order to authorize ECI to prepare engineering submittals for this equipment for the Incinerator Rehabilitation and Upgrades Project for a price of \$77,935.00 as well as to approve the sole source procurement of the equipment for a price of \$707,265.00 to be paid by the general contractor upon award.

Thank you for the opportunity to serve MSD and your customers. We look forward to working with you during the construction phase of this important project.

Sincerely,

A handwritten signature in blue ink that reads "K. Richard Tsang".

K. Richard Tsang, PhD, P.E., BCEE
Senior Project Manager
CDM Smith Inc.

Attachments – EnviroCare International Proposal P3733P75 Rev. 4 dated November 4, 2014



**Wet Scrubbing Emission Control
System Proposal**

**To:
CDM Smith**

**For:
Metropolitan Sewerage District
Of Buncombe County
Asheville, North Carolina**

**EnviroCare VenturiPak™ Scrubber
Proposal Number 3733P75 Rev. 4
Submitted November 4th, 2014**

Customer:
Plant:
Proposal:
Date:

CDM Smith
Asheville, NC
3733P75 Rev.4
November 4th, 2014

PROPOSAL SCOPE

This proposal offers (1) VenturiPak™ Scrubber System by EnviroCare International, Inc. for purchase by the **System Supplier** who will be referred to as the **Customer**. The proposed scrubber is complete with equipment and controls necessary to replace the existing pre-cooler and scrubber for the Fluidized Bed Incinerator. The scrubber system will be designed to meet and exceed the emission compliance performance requirements of **40 CFR Part 60, Existing FBI Sources (Table 2 Subpart M)** for **Particulate, Cadmium, Lead, Mercury, HCl, and SO₂**. Additionally, the system is designed to guarantee existing opacity limits of 20% and Beryllium limits of 10 grams per 24 hour period.

The equipment required for a new VenturiPak Scrubber System on (1) FBI includes:

- New external quench vessel will be fabricated by ECI. It will include the quench spray lances, mounting boxes, and accessories. The external quench vessel is designed for easy interface with the VenturiPak Scrubber vessel.
- VenturiPak Scrubber vessel. A new VenturiPak Scrubber vessel will be fabricated by ECI and will include a sub-cooling stage, patented MicroMist™ Venturi stage, mercury removal media, followed by a separator stage. All spray lances, spray lance headers, instrument fittings, manways, and accessories required for the VenturiPak Scrubber system will be included. The scrubber vessel is designed for easy interface with the external quench unit.
- One complete factory assembled booster pump skid with 480V/3ph/60hz NEMA 4x enclosure. The booster pump skid will feature an inlet duplex basket strainer, isolation ball valves, water booster pumps, flow meters, and water pressure indicators. Starters, VFD, and 120V/3ph/60hz control power will be featured in the skid mounted enclosure. The control enclosure will feature an Allen Bradley Compact Logix PLC and Panelview plus 1250 HMI to completely monitor and control the scrubber system. All programming and wiring for the skid mounted components will be completed at the factory.
- Field Mounted equipment required for monitoring and controlling the VenturiPak™ Scrubber system.
- Field Services for installation supervision, startup, and training per attached rates.

Customer:
Plant:
Proposal:
Date:

CDM Smith
Asheville, NC
3733P75 Rev.4
November 4th, 2014

DESIGN CONDITIONS

Application: FBI Biosolids Incineration System
Plant Elevation: 2,146 ft MSL
Power Required: 480 V / 3 phase / 60 hertz and 120 V / 1 phase / 60 hertz
Effluent Water: 70° F @ 40 PSIG min
Potable Water: 70° F @ 40 PSIG min

SYSTEM REQUIREMENTS

Scrubber Inlet Conditions:

Flue gas Volume (Wet): 28,000 acfm, 10,275 scfm (w)
**Temperature at Outlet
of Furnace:** 1,040° F
Dust Loading: ≈ 13 lb/min

System Flow Requirements:

Weir Water: 75 GPM @ 5 psig
Quench Water: 75 GPM @ 40 psig
Tray Irrigator Spray Water: 20 GPM @ 40 psig
**Impingement/Condenser Tray
Water:** 350 GPM @ 10 psig
Venturi Stage Water, max vol.: ~45 GPM @ 260 psig
Venturi Throat Spray: 10 - 45 @ 40 -180 psig
Mist Eliminator Irrigator water: 10 GPM @ 40 psig (potable)
Mist Eliminator BW water: 25 GPM @ 3 psig (potable & Intermittent 30
seconds every 72 minutes)

Scrubber Outlet Conditions:

Volume: ~6,700 ACFM
Temperature: ~95° F
Venturi Pressure Drop: ~28.0 In WC
**Total Pressure Drop Across
Scrubber:** ~40.0 In WC

* Pressure required at lance elevation ** 40 PSI required at booster pump skid elevation

Customer:
Plant:
Proposal:
Date:

CDM Smith
Asheville, NC
3733P75 Rev.4
November 4th, 2014

PROPOSED EQUIPMENT DESCRIPTION

EnviroCare will furnish the following equipment for one VenturiPak Wet Scrubber system, including all engineering drawings necessary to install and implement the EnviroCare equipment by the selected **Installing Contractor**.

ITEM 1. QUENCH VESSEL & QUENCH SPRAYS

EnviroCare will furnish a new quench vessel to replace the existing pre-cooler unit. The quench vessel will nominally be about 28" Ø ID. The vessel will mate to the existing pre-cooler inlet duct and connect to the inlet of the VenturiPak™ Scrubber. The design will feature a flooded weir and a flooded elbow design. It will also feature spray lances with spray nozzles and spray lance mounting boxes. Spray lance assemblies will be complete with pressure gauges, flex hoses, ball valves, cam-lock fittings and Y-strainers. EnviroCare will provide a spray lance header for ease of field installation.

Materials:

Plate: ¼" minimum, 316L SS

Pipe & Fittings (flue gas contact): 316L SS

Pipe & Fittings (non - flue gas contact): 304 SS

ITEM 2. VenturiPak Scrubber Vessel

The new VenturiPak™ Scrubber vessel will be supplied by EnviroCare and installed by the **Installing Contractor**. EnviroCare supplied scrubber vessel will be a **1/4" 316L SS**, 6' - 0" inside diameter by ~35 high vessel with conical top and bottom containing inlet and outlet flanged connections. The new VenturiPak™ Scrubber vessel will include all necessary spray lance mounting ports, ½" pressure taps, ½" temperature taps, and manways to provide access to each scrubber stage as necessary for maintenance purposes. It will also contain all necessary flanged water supply connections and flanged drain connections. The new scrubber section will be sandblasted to commercial sandblasting specification **SSPC-SP6** for a uniform finish. The vessel will contain the following:

1. **Sub-cooling Stage:** Three (3) levels of proprietary dual orifice impingement trays installed on internal diaphragms. Additional equipment supplied by EnviroCare for this stage includes:
 - a. Two (2) tray irrigator spray lance assemblies. Spray lance assemblies include pressure gauge, flex hose, isolating ball valve, cam lock fittings, and Y-strainer.
2. **MicroMist™ Venturi (MMV) Stage:** Patented MMV Stage will feature multiple venturi tubes that will be diaphragm mounted and located above the sub-cooler stage. Included for this stage is:

Customer:
Plant:
Proposal:
Date:

CDM Smith
Asheville, NC
3733P75 Rev.4
November 4th, 2014

- a. Six (6) 4.5" nominal size, 316L SS MMV tubes (5 operating, 1 spare)
 - b. Three (3) parallel spray lance assemblies with one HydroMist atomizer positioned below the inlet of each MMV tube. Spray lance assemblies come complete with pressure gauge, flex hose, isolating ball valve, Y-strainer and a spray lance header to provide one flanged connection point for supply water by the **Installing Contractor** on site.
 - c. Each MMV tube will contain an internal SpiralMist throat nozzle and water delivery pipe for turndown during low incinerator throughput conditions.
 - d. Two (2) internal throat spray manifold for supplying water to the MMV tube throat nozzles and comes complete with a pressure gauge and hex head plugs where required. Isolation ball valve and Y-strainer are also included.
3. **Separator Stage:** The separator stage will be comprised of two levels and will consist of the following:
- a. One (1) separator tray level of proprietary dual orifice impingement trays installed on an internal diaphragm.
 - b. One level of mesh style mist eliminator pads installed on an internal diaphragm.
 - c. Two (2) mist eliminator irrigator spray lance assemblies. Spray lance assemblies include pressure gauge, flex hose, ball valve, cam lock fittings, and Y-strainer.
 - d. Two (2) mist eliminator backwash spray lance assemblies. Spray lance assemblies include pressure gauge, flex hose, ball valve, cam lock fittings, and Y-strainer.
4. **Mercury Media:** The mercury removal stage is detailed below.

Materials:

Plate: 1/4" minimum, 316L SS

Pipe & Fittings (flue gas contact): 316L SS

Pipe & Fittings (non - flue gas contact): 304 SS

Mercury Removal Stage

EnviroCare will design and provide customized mercury modules that contain Sorbent Polymer Composite (SPC) developed by W.L. Gore & Associates. The customized modules are seamlessly integrated into the EnviroCare VenturiPak Scrubber. 16 total modules will be required on 4 layers. Each layer will consist of 4 modules. A separate 5th layer of availability will be designed into the system for future use.

Customer:
Plant:
Proposal:
Date:

CDM Smith
Asheville, NC
3733P75 Rev.4
November 4th, 2014

Replacement SPC material will be offered in plastic trays to refill the original hastelloy tray frame once the material is spent (expected to be 2 + years).

For this specific application, it is estimated that the sorbent material will be effective in meeting the 0.037 mg/dscm @ 7% O₂ for 2 – 3 years using an inlet concentration of 0.12 mg/dscm.

The performance lifespan of the integrated mercury modules will be as follows:

Guaranteed Life Span: 18 months (Avg. 0.12 mg/dscm @ 7% O₂ Hg Inlet Loading)

In the event of some unforeseen problems with the lifespan of the modules, EnviroCare will provide replacement modules according to a pro-rated discount schedule. For example, if the modules fail the efficiency target at 6 months from installation, the replacement modules are offered at a 67% (6/18) discount. If modules fail the target at 16 months, then replacement modules are offered at a 11% (2/18) discount. The maximum number of replacement modules provided within the guarantee period would be 1 complete set (16 modules).

Expected Life Span 24 - 36 months

Based on testing from other applications, the mercury capacity is in excess of 1 lb Hg/module. Lab data suggests each module is capable of holding up to 2 lbs of mercury, so we easily expect 2 – 3 years of service for the original supply of 16 modules.

Disposal

It is anticipated that the SPC material will be classified as hazardous waste “debris” to be discarded in a lined landfill. Replacement modules will be offered as needed and at direction by the district. EnviroCare does not accept “spent” modules here at our office however, we can help provide information and contact for removal service companies if needed or required. The spent sorbent disposal will not be the responsibility of EnviroCare. EnviroCare is not an expert on local regulations and codes for determining the proper site classification, but can assist with answering questions on the application and implementation of the technology.

Customer:
Plant:
Proposal:
Date:

CDM Smith
Asheville, NC
3733P75 Rev.4
November 4th, 2014

ITEM 3. BOOSTER PUMP SKID W/ SKID MOUNTED CONTROL ENCLOSURE

The EnviroCare supplied booster pump skid will be factory assembled, pre-wired, pre-piped with a skid mounted NEMA 4x control enclosure including a PLC and HMI dedicated for use in monitoring and controlling the scrubber system. Booster pumps will be vertical mounted, centrifugal, multistage with motors. Starters and disconnects for the booster pumps will be provided as well as a VFD for modulating the venturi throat spray flow. The booster pump skid will include all the necessary equipment and instrumentation to monitor the scrubber system and to control flow to the MicroMist™ Venturi tube stage. Piping and fittings shall be **304L SS** and sandblasted to commercial specification **SSPC-SP6** for a uniform finish. Structural steel will be **A36 CS** and painted with grey **PPG Pithane** paint. The booster pump skid will include the following:

- a. Skid mounted NEMA 4x Main Control Enclosure including:
 - I. PLC - **Allen Bradley** Compact logix with Ethernet communications
 - II. HMI – **Allen Bradley** Panelview Plus 1250
- b. (2) Starters and Disconnects
- c. **Allen Bradley** PowerFlex Series VFD
- d. (2) CRN **Grundfos** Pumps (one operating, one standby)
- e. (1) CRN **Grundfos** Pump (for use with VFD)
- f. (2) **E+H** Flowtubes w/ Integral Transmitter
- g. (3) pressure gauges
- h. **AVCO** isolation ball valves as required
- i. **Airpel** (or similar) Duplex Basket strainer

ITEM 4. FIELD EQUIPMENT (SUPPLIED LOOSE)

The following field equipment will be supplied by EnviroCare (loose, for installation by **Contractor**) and is recommended to correctly monitor and operate the VenturiPak Scrubber system:

- a. (3) **E+H** flowtubes with integral mount transmitter
 - I. Quench supply water
 - II. Sub-Cooling supply water
 - III. Potable Water Supply (ME Stage)
- b. (3) **E+H** temperature transmitters w/ Type K Thermocouple
 - I. Scrubber Inlet (Quench Outlet)
 - II. Scrubber Vessel Outlet
 - III. Condenser Outlet or Venturi Stage Outlet (TBD)

Customer:
Plant:
Proposal:
Date:

CDM Smith
Asheville, NC
3733P75 Rev.4
November 4th, 2014

- c. (3) **E+H** differential pressure transmitters w/ 3 valve manifolds
 - I. Scrubber System
 - II. MMV Stage
 - III. Velocity Pressure
- d. (2) **Dwyer** Capsu-helic differential pressure indicator
 - I. Mist Eliminator
 - II. Mercury Module Stage
- e. (1) **Flowserve** Control Valve w/ Electric Actuator
 - I. Sub-Cooling water supply
- f. (1) **Cashco** pressure reducing valve
 - I. ME backwash Line
- g. (2) **AVCO** Globe valves
 - I. Quench Weir
 - II. ME Backwash
- h. (1) **UFM** Direct Flowmeter
 - I. Quench Weir
- i. (1) **Avco** ball valve w/ **AVCO** Actuator
 - I. ME Backwash line
- j. (2) Point Level Sensors
- k. (1) Level Indicating Transmitter

ITEM 5. Field Service

EnviroCare has included field services as requested in Section 13193-7 and 13193-8. Additional field service rates can be found at the end of this proposal.

Service Provided	Days*/Trips
Installation / Startup / Service Calls	12 / 3

* Includes Travel & Expenses

Customer:
Plant:
Proposal:
Date:

CDM Smith
Asheville, NC
3733P75 Rev.4
November 4th, 2014

PROJECT CLARIFICATIONS AND SPECIFICATION EXCEPTIONS

General Clarifications

1. EnviroCare has assumed certain values for sizing the pumps including ~35' elevation change and 40 PSI to the inlet of the booster pump skid. While the inlet pressure is potentially higher, EnviroCare cannot confirm where the pressure is actually measured or where the pump skid is going to be placed in relationship to the actual spray lance location. EnviroCare reserves the right to change pump/motor sizes based on information received during the engineering phase of the project.

2. EnviroCare is an OEM and in general is responsible for supplying the scrubber equipment required to meet and exceed the performance requirements. EnviroCare assumes that the Owner or Contractor will include the costs/contract of stack testing with the independent stack testing company. EnviroCare will coordinate with the Owner or Contractor as necessary.

Specifically, EnviroCare will guarantee the following performance requirements at the design conditions found on page 3 of this proposal:

Pollutant	Limit
Cd (mg/dscm @ 7% O2)	0.0016
Pb (mg/dscm @ 7% O2)	0.0074
HCl (ppmvd @ 7% O2)	0.51
SO2 (ppmvd @ 7% O2)	15
PM (mg/dscm @ 7% O2)	18
Hg (mg/dscm @ 7% O2)	0.037

Customer:
Plant:
Proposal:
Date:

CDM Smith
Asheville, NC
3733P75 Rev.4
November 4th, 2014

EQUIPMENT AND SERVICES TO BE SUPPLIED BY OTHERS

- Installation of new VenturiPak Scrubber system
- Plant water supply to all spray lance locations and sub-cooling trays
- Plant water supply to inlet of scrubber booster pump skid. Supply pressure to be constant over range of operation
- Design, supply and installation of interconnecting piping and supports including drains
- Field piping insulation and heat tracing as required
- Supply and installation of field instruments except as described herein
- Access ladders and platforms
- All items required, but not specifically mentioned in this proposal

FIELD SERVICE DAILY RATES

Travel time and work performed: ...:\$1,200.00 plus expenses

Saturday and Sunday work::\$1,600.00 plus expenses

Holiday work:.....:\$2,000.00 plus expenses

NOTES:

- Terms of payment on all field service invoices are net cash.
- One day (8 hours) minimum charge.
- Partial work days will be invoiced at full day rates.
- All rates are portal to portal.
- All travel expenses such as airfare, car rental, hotels, meals, etc. will be invoiced at full cost plus 10%.
- The above rates do not include any taxes, licenses, or other fees. Rates are on a Net basis.

Customer:
Plant:
Proposal:
Date:

CDM Smith
Asheville, NC
3733P75 Rev.4
November 4th, 2014



DELIVERY SCHEDULE

Submittal of drawings for approval: 8-10 weeks after receipt of order for drawings
Shipment: 18-22 weeks for equipment after receipt of approved drawings.

FIRM EQUIPMENT PRICE, FCA Jobsite:

VenturiPak Scrubber Equipment:

Items 1, 2, 3, 4, & 5.....:..... **US \$785,200.00**

EnviroCare can accept separate engineering and procurement orders per the following schedule:

Engineering Submittal Package.....US \$77,935.00

100% Due net thirty (30) days from receipt of invoice for submittal of complete engineering package for approval

VenturiPak Scrubber Equipment:

Items 1, 2, 3, 4, & 5.....:..... **US \$707,265.00**

5-Year Guarantee Fixed Replacement Media Cost

16 Mercury Modules.....:..... **US \$185,700.00**

*Full set of modules (16) will be held at this price for a period of 5 years from original purchase.

REMAINING PAYMENT SCHEDULE

25% - Due net thirty (30) days from receipt of invoice for vendor's written confirmation that the long lead equipment items have been purchased.

65% - Due net thirty (30) days from receipt of invoice upon shipment to the jobsite location, or notification of readiness to ship

10% - Retainage due net thirty (30) days from receipt of invoice after acceptance of the equipment's field performance test for each wet scrubber system, but not later than eighteen (18) months after shipment, whichever occurs first.

Customer:
Plant:
Proposal:
Date:

CDM Smith
Asheville, NC
3733P75 Rev.4
November 4th, 2014

Standard Terms and Conditions of Sale

The following Terms and Conditions form part of each proposal submitted by EnviroCare International, Inc. (hereinafter called "Supplier") for the sale of equipment, construction, start-up, maintenance services and materials to a Client/Customer, (hereinafter called "Purchaser") and any contract by and between the parties, includes as a part thereof,

1. Duration of Proposal – The proposal is valid for 150 days from the issue date (or as stated in the proposal.)
2. Terms of Payment - Payment terms shall be net 30 days from date of shipment or declaration of readiness (or as stated in the proposal).
3. Liability – Supplier's liability shall be limited to the amount of the contract price. Supplier shall indemnify and hold harmless Purchaser against all losses, liabilities, claims or demands arising out of bodily injury or damage to property arising out of the performance of this contract, but only to the extent that the aforementioned is attributable to the negligence of the Supplier. Supplier shall only be liable for those activities under our direct control.
4. Consequential Damages -In no event shall the Supplier be liable for Incidental or Consequential Damages, however caused.
5. Differing Conditions– In the event activities or operations at the site by parties other than the Supplier interfere with the execution of the work; an equitable adjustment shall be made to the Contract Price and schedule.
6. Force Majeure - In the event of delays or damages due to conditions beyond the Supplier's reasonable control, including, but not limited to, Acts of God, Acts of the Purchaser or Purchaser's customer, etc., including fire, strikes, floods, war and civil uprising and delays in transportation and Supplier's inability to obtain necessary labor, materials or manufacturing facilities. In the event of such delays, the Contract dates shall be extended by an equitable period of time and the Supplier shall be entitled to an equitable adjustment in the Contract price.
7. Warranty – Supplier warrants to Purchaser that the work provided under this Contract is free from defects in material, workmanship and design, under normal use and service for a period of eighteen (18) months after shipment or twelve (12) months after initial operation or use, whichever occurs first. Supplier's warranty obligations are, at Supplier's sole option, to repair or replace any work which is shown to Supplier's satisfaction to have been defective as to material, workmanship or design, provided that: written notice of such defect is given to Supplier within thirty calendar days of discovery, and the equipment/work has been used and operated in accordance with the Supplier's operating and maintenance instructions. In any event, Supplier's warranty obligation is limited to 25 (twenty-five) percent of the total contract value.
8. Cancellation – Purchaser's cancellation of the contract is subject to a cancellation charge of 10% of the total price of the contract, plus Supplier's actual expenses and expenses to which the Supplier has committed for fulfillment of the contract before notice of cancellation is received.
9. Contract Interpretation – If any of the provisions of these Standard Conditions of Sale (including statements made in the proposal) conflict with any provisions in the Purchaser's documents, the former shall govern unless Supplier expressly agrees to the contrary in writing. Any contract resulting from this proposal shall be construed, and the legal regulations of Supplier and Purchaser shall be determined, in accordance with the laws of the State of California, USA.
10. Acceptance – This Proposal is subject to acceptance by Purchaser within One Hundred & Fifty Days (150) days and shall constitute a binding agreement with the Supplier only when thereafter approved by Supplier and signed by an authorized officer.
11. Delivery – Title to all materials shall pass to the Purchaser at point of Manufacture per EXW or FCA (per ICC Incoterms) and risk of loss will thereafter be borne by Purchaser.
12. Escalation – Pricing may be adjusted to reflect changes in material cost per the United States Bureau of Labor Statistics, Producer Price Indexes.
13. Service and Maintenance Manuals – Price includes one (1) paper and one (1) electronic Service and Maintenance Manuals.

End of Proposal

**Metropolitan Sewerage District of Buncombe County, North Carolina
CAPITAL IMPROVEMENT PROGRAM**

BUDGET DATA SHEET - FY 2014 - 2015

PROJECT:	Incinerator System Emissions Upgrades	LOCATION:	MSD-Treatment Plant
TYPE:	Treatment Plant	PIPE RATING:	N/A
PROJECT NO.	2013059	TOTAL LF:	0
PROJECT BUDGET:	\$11,230,000.00	PROJECT ORIGIN:	New Regulatory Requirements

DESCRIPTION	ESTIMATED PROJECT COST	TOTAL EXPENDS THRU 12/31/13	EST. COST JAN - JUNE 2014	EST. BUDGET FY 14-15
55310 - PRELIM. ENGINEERING	\$27,000.00	26,900.00		
55320 - SURVEY - DESIGN	\$1,000.00	850.00		
55330 - DESIGN	\$490,000.00	\$94,900.00	\$80,000.00	\$280,000.00
55340 - PERMITS	\$42,000.00	\$8,990.00	\$22,000.00	\$11,000.00
55350 - SPECIAL STUDIES	\$130,000.00		\$53,000.00	\$77,000.00
55360 - EASEMENT PLATS				
55370 - LEGAL FEES				
55380 - ACQUISITION SERVICES				
55390 - COMPENSATION				
55400 - APPRAISAL				
55410 - CONDEMNATION				
55420 - CONSTRUCTION	\$10,302,000.00	\$1,600.75		\$2,500,000.00
55430 - CONST. CONTRACT ADM.	\$238,000.00			\$133,000.00
55440 - TESTING				
55450 - SURVEY - ASBUILT				
TOTAL AMOUNT	\$11,230,000.00	\$133,240.75	\$155,000.00	\$3,001,000.00

ENGINEER:	MSD	HC	ESTIMATED BUDGETS - FY '14 -'23	
R.O.W. ACQUISITION:	N/A	# PLATS: [0]	FY 15-16	\$7,415,000.00
CONTRACTOR:			FY 16-17	\$525,000.00
CONSTRUCTION ADM.:	MSD		FY 17-18	\$0.00
INSPECTION:	MSD		FY 18-19	\$0.00
			FY 19-20	\$0.00
			FY 20-21	\$0.00
			FY 21-22	\$0.00
			FY 22-23	\$0.00
			FY 23-24	\$0.00

PROJECT DESCRIPTION: This project is required as a result of new emissions regulations which will go into effect March 2016.

SPECIAL PROJECT NOTES: Cost estimate based on CDM's PER opinion of probable construction cost - January, 2014.



**Incinerator System Emissions Upgrades
Project No. 2013059**

NOT TO SCALE



METROPOLITAN SEWERAGE DISTRICT
of
BUNCOMBE COUNTY, NORTH CAROLINA

Budget Map

Metropolitan Sewerage District of Buncombe County

BOARD INFORMATIONAL ITEM

Meeting Date: November 19, 2014
Submitted By: Thomas E. Hartye, PE., General Manager
Prepared By: W. Scott Powell, CLGFO, Director of Finance
Subject: First Quarter Budget to Actual Review – FY 2015

Background

At the end of each quarter, actual revenue, expenditure, and encumbrance amounts are compared with the budget to evaluate the District's financial performance. The attached schedule includes year-to-date actual and encumbered amounts as of September 30, 2014 as well as the adopted budget for FY14-15.

Discussion

There are several explanatory notes at the bottom of the page to assist in using this schedule as a management tool. Other considerations are as follows:

- Domestic and Industrial User Fees are at budget expectations. Staff monitors consumption trends as they have a direct effect on the District's current and future revenue projections.
- Facility and Tap Fees, also conservatively budgeted, can be significantly higher or lower than budget. Facility and Tap fees are above budgeted expectations due to receiving unanticipated revenue of \$311,350 from one commercial/residential developer.
- Interest and miscellaneous income are slightly below budgeted expectations. Rental income reflects expected earnings.
- O&M expenditures are at 27.30% of budget. The expenditures include encumbered amounts, which has elevated the budget to actual ratio above 25%. The aforementioned encumbrances will be spent in the future.
- Bond principal and interest expenditures are reflected at 25%. This will aid the user to properly assess the District's overall debt service commitments. Actual amount spent is 1.6%, due to the timing of the District's debt service payments. The District is required to make semi-annual interest payments on December 1, 2014 and principal and semi-annual interest payments on July 1, 2015.
- Amounts budgeted for capital equipment and capital projects are rarely expended proportionately throughout the year and are expected to be fully spent prior to the end of the year.

Staff Recommendation

None. Information Only.

Action Taken

Motion by: _____ to Approve Disapprove
Second by: _____ Table Send to Committee
Other: _____
Follow-up required: _____
Person responsible: _____ Deadline: _____

**Budget to Actual Revenue and Expenditure Report
 For the three months ended September 30, 2014
 UNAUDITED--NON-GAAP**

	Budget	Actual to Date	% Budget to Actual
REVENUES			
Domestic User Fees ¹	\$ 28,445,115	\$ 7,412,251	26.06%
Industrial User Fees	1,835,438	487,153	26.54%
Facility Fees ²	1,250,000	868,794	69.50%
Tap Fees ³	105,000	124,800	118.86%
Billing and Collection	725,702	179,766	24.77%
Interest and Misc. Income	486,618	104,355	21.45%
Employee Contribution to Health Ins.	417,800	97,887	23.43%
City of Asheville (Enka Bonds)	37,000	-	0.00%
Proceeds from Revenue Bonds	-	-	0.00%
Rental Income	68,742	17,807	25.90%
Use of Available Funds ⁴	<u>15,802,036</u>	<u>3,990,842</u>	25.26%
Total Revenues⁵	<u>\$ 49,173,451</u>	<u>\$ 13,283,655</u>	27.01%
EXPENDITURES			
Operations and Maintenance ⁶	\$ 15,526,358	\$ 4,238,490	27.30%
Bond Principal and Interest ⁷	10,389,488	2,597,372	25.00%
Capital Equipment (Other than O&M) ⁶	497,050	103,827	20.89%
Capital Projects ⁶	21,760,555	6,343,966	29.15%
Contingency	<u>1,000,000</u>	-	0.00%
Total Expenditures	<u>\$ 49,173,451</u>	<u>\$ 13,283,655</u>	27.01%

Notes

- ¹Revenues are accounted for on the cash basis method
- ²Increase due to unanticipated revenue from one development at \$311,350
- ³Increase in number of Taps
- ⁴Pay-as-go funds to be used for CIP
- ⁵Budget-to-Actual Ratio does not include use of available funds
- ⁶Includes encumbered amounts as well as actual insurance expenditures
- ⁷Bond principal and interest expenditures are reflected at 25%. Actual amount spent is 1.6%

Metropolitan Sewerage District of Buncombe County

BOARD INFORMATIONAL ITEM

Meeting Date: November 19, 2014

Submitted By: Thomas E. Hartye, PE., General Manager

Prepared By: W. Scott Powell, CLGFO, Director of Finance
Cheryl Rice, Accounting Manager

Subject: Cash Commitment/Investment Report-Month Ended September 30, 2014

Background

Each month, staff presents to the Board an investment report for all monies in bank accounts and specific investment instruments. The total investments as of September 30, 2014 were \$51,824,213. The detailed listing of accounts is available upon request. The average rate of return for all investments is 0.489%. These investments comply with North Carolina General Statutes, Board written investment policies, and the District's Bond Order.

The attached investment report represents cash and cash equivalents as of September 30, 2014 do not reflect contractual commitments or encumbrances against said funds. Shown below are the total investments as of September 30, 2014 reduced by contractual commitments, bond funds, and District reserve funds. The balance available for future capital outlay is \$4,772,650.

Total Cash & Investments as of 09/30/2014	51,824,213
Less:	
Budgeted Commitments (Required to pay remaining FY14 budgeted expenditures from unrestricted cash)	
Construction Funds	(19,868,621)
Operations & Maintenance Fund	<u>(12,169,583)</u>
	(32,038,204)
Bond Restricted Funds	
Bond Service (Funds held by trustee):	
Funds in Principal & Interest Accounts	(4,392)
Remaining Principal & Interest Due	<u>(10,005,823)</u>
	(10,010,215)
District Reserve Funds	
Fleet Replacement	(434,764)
WWTP Replacement	(468,184)
Maintenance Reserve	<u>(913,204)</u>
	(1,816,152)
District Insurance Funds	
General Liability	(219,046)
Worker's Compensation	(213,709)
Post-Retirement Benefit	(1,282,498)
Self-Funded Employee Medical	<u>(1,471,739)</u>
	<u>(3,186,992)</u>
Designated for Capital Outlay	<u><u>4,772,650</u></u>

Staff Recommendation

None. Information Only.

Action Taken

Motion by:	to	Approve	Disapprove
Second by:		Table	Send to Committee
Other:			
Follow-up required:			
Person responsible:			Deadline:

**Metropolitan Sewerage District of Buncombe County
Investment Portfolio**

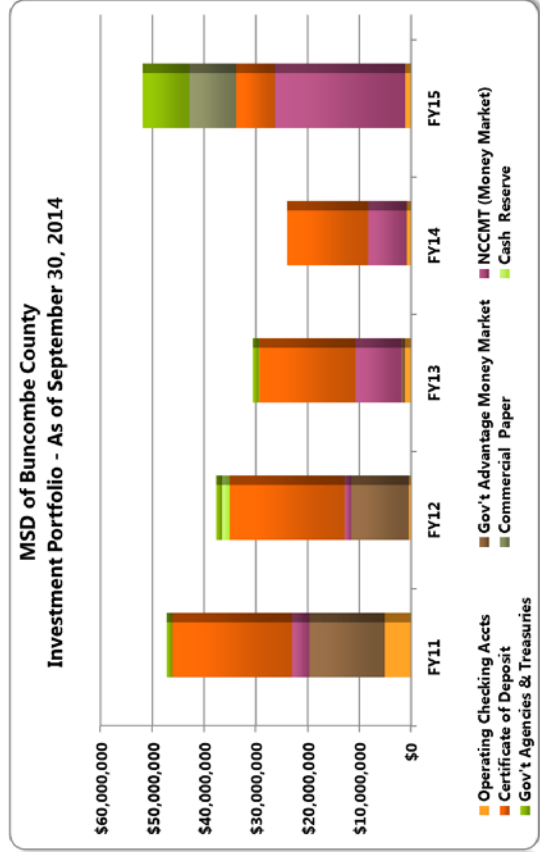
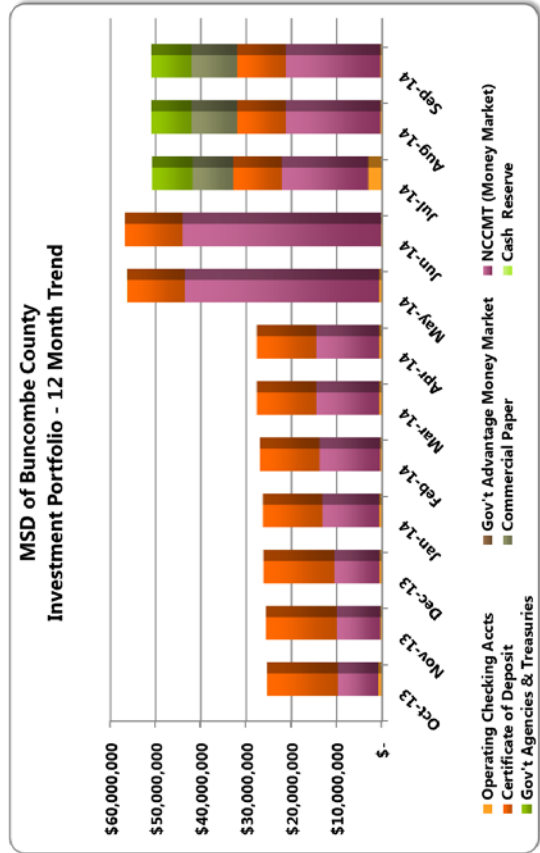
	Operating Checking Accounts	Gov't Advantage Money Market	NCCMT (Money Market)	Certificate of Deposit	Commercial Paper	Cash Reserve	Gov't Agencies & Treasuries	Total
Held with Bond Trustee	\$ 1,131,809	\$ -	\$ 4,392	\$ -	\$ -	\$ -	\$ -	\$ 4,392
Held by MSD	\$ -	\$ 46,660	\$ 25,056,620	\$ 7,591,468	\$ 8,993,714	\$ -	\$ 8,999,550	\$ 51,819,821
	\$ 1,131,809	\$ 46,660	\$ 25,061,012	\$ 7,591,468	\$ 8,993,714	\$ -	\$ 8,999,550	\$ 51,824,213

Investment Policy Asset Allocation	Maximum Percent	Actual Percent
U.S. Government Treasuries,		
Agencies and Instrumentalities	100%	17.37%
Bankers' Acceptances	20%	0.00%
Certificates of Deposit	100%	14.65%
Commercial Paper	20%	17.35%
North Carolina Capital Management Trust	100%	48.36%
Checking Accounts:		
Operating Checking Accounts	100%	2.18%
Gov't Advantage Money Market		0.09%

No significant changes in the investment portfolio as to makeup or total amount.

The District's YTM of .43% is exceeding the YTM benchmarks of the 6 month T-Bill and NCCMT Cash Portfolio.

All funds invested in CD's, operating checking accounts, Gov't Advantage money market are fully collateralized with the State Treasurer.

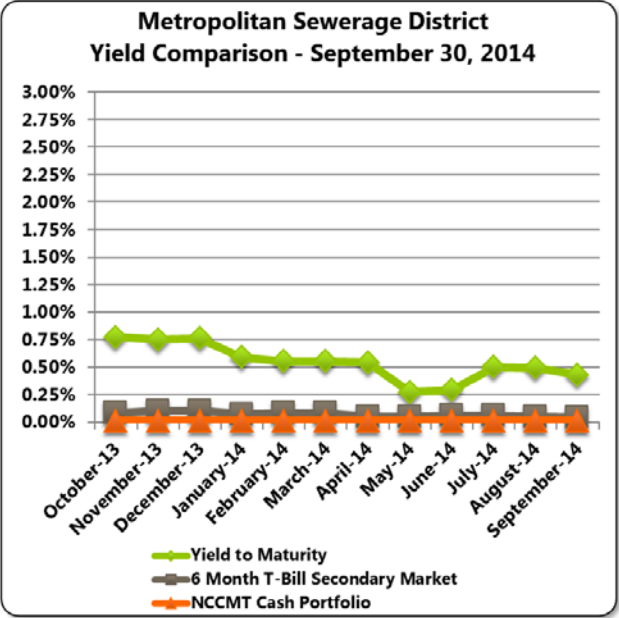
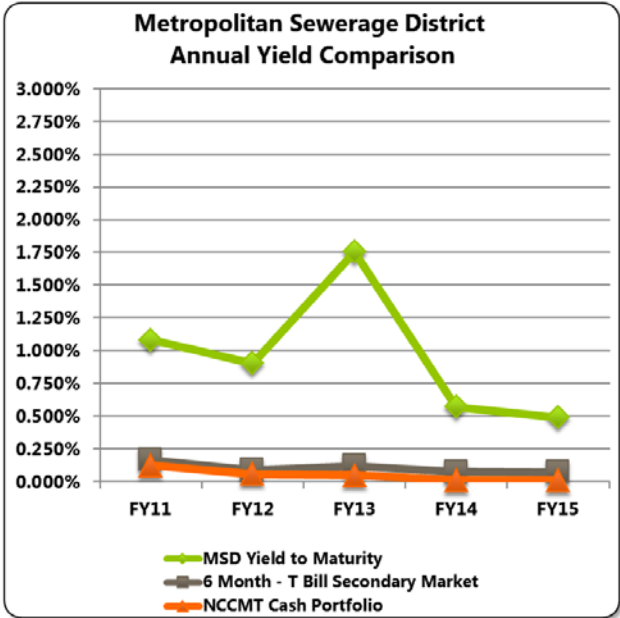


**METROPOLITAN SEWERAGE DISTRICT
INVESTMENT MANAGERS' REPORT
At September 30, 2014**

	Original		Interest Receivable
	Cost	Market	
Beginning Balance	\$ 48,426,844	\$ 48,426,844	\$ 429,933
Capital Contributed (Withdrawn)	(35,732)	(35,732)	
Realized Income	105,597	105,597	(105,815)
Unrealized/Accrued Income			14,759
Ending Balance	\$ 48,496,709	\$ 48,496,709	\$ 338,877

	Original Cost	Income
Cash Equivalents <91 Days	\$ 29,408,159	\$ 8,817
Securities/CD's 91 to 365 Days	12,088,949	\$ 3,625
Securities/CD's > 1 Year	6,999,600	\$ 2,099
	\$ 48,496,709	\$ 14,541

Month End Portfolio Information	
Weighted Average Maturity	243
Yield to Maturity	0.43%
6 Month T-Bill Secondary Market	0.04%
NCCMT Cash Portfolio	0.01%



Board Meeting:

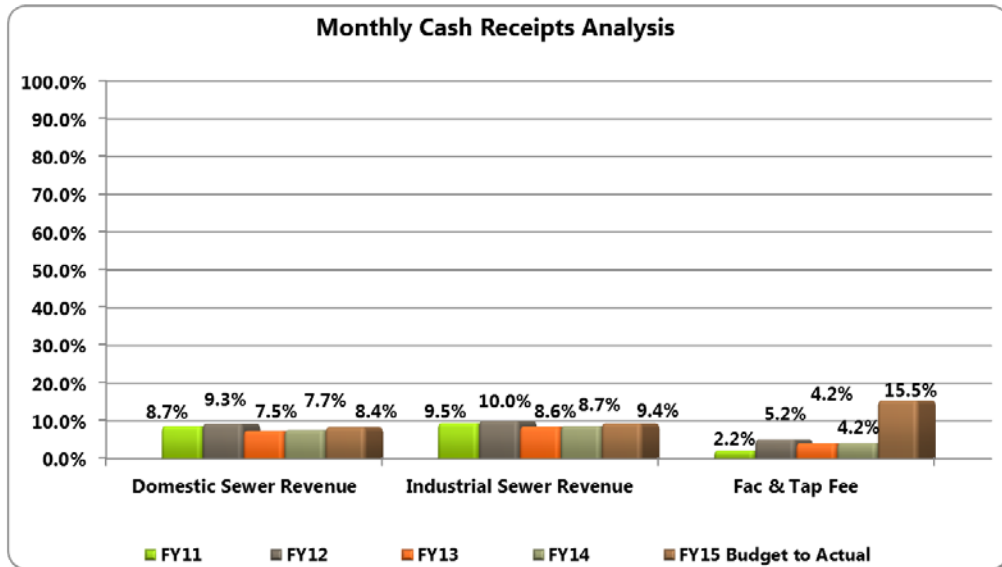
November 19, 2014

Subject:

Cash Commitment/Investment Report-Month Ended September 30, 2014

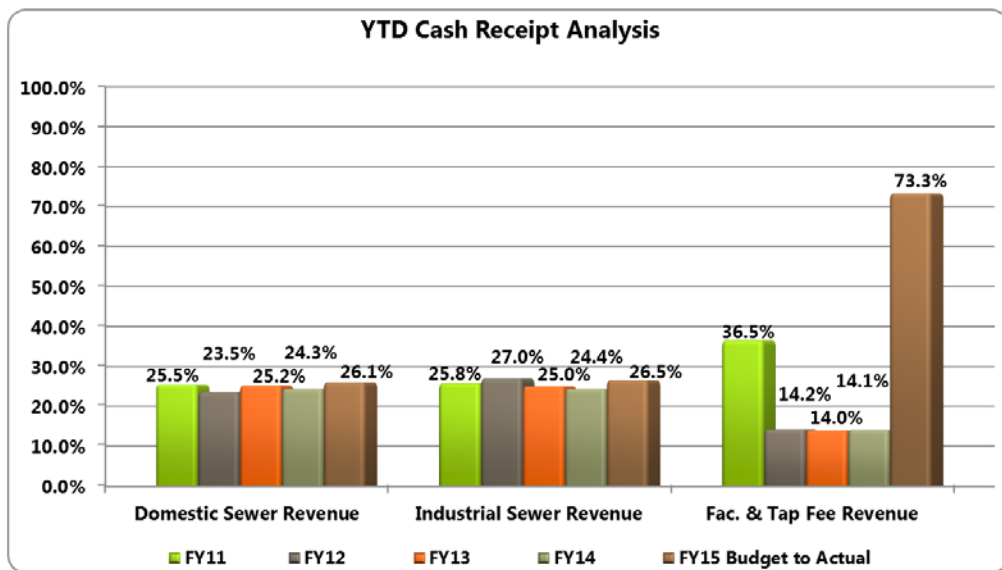
Page -4-

**METROPOLITAN SEWERAGE DISTRICT
ANALYSIS OF CASH RECEIPTS
As of September 30, 2014**



Monthly Cash Receipts Analysis:

- Monthly domestic sewer revenue is considered reasonable based on timing of cash receipts in their respective fiscal periods.
- Monthly industrial sewer revenue is reasonable based on historical trends.
- Due to the unpredictable nature of facility and tap fee revenue, staff considers facility and tap fee revenue reasonable.



YTD Actual Revenue Analysis:

- YTD domestic sewer revenue is considered reasonable based on historical trends.
- YTD industrial sewer revenue is reasonable based on historical trends.
- Due to the unpredictable nature of facility and tap fee revenue, staff considers facility and tap fee revenue reasonable.

Board Meeting:

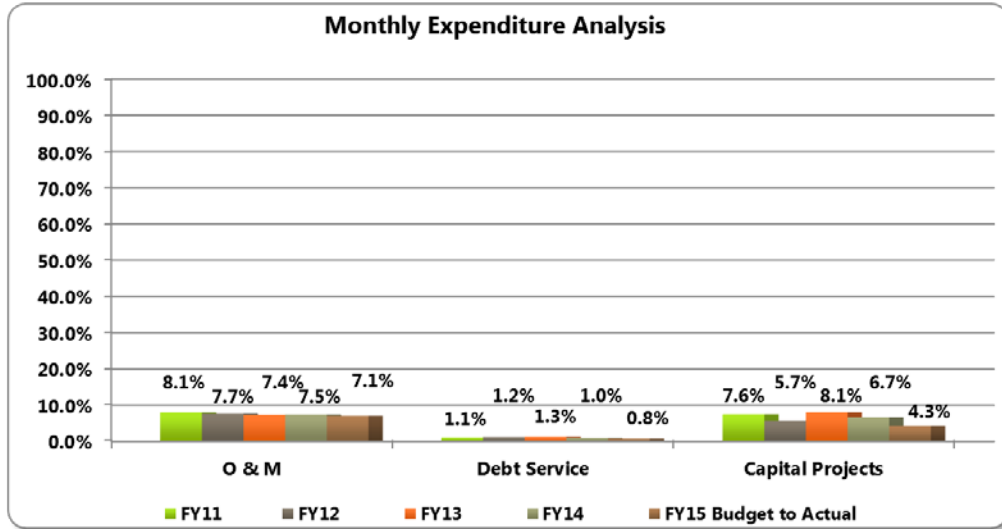
November 19, 2014

Subject:

Cash Commitment/Investment Report-Month Ended September 30, 2014

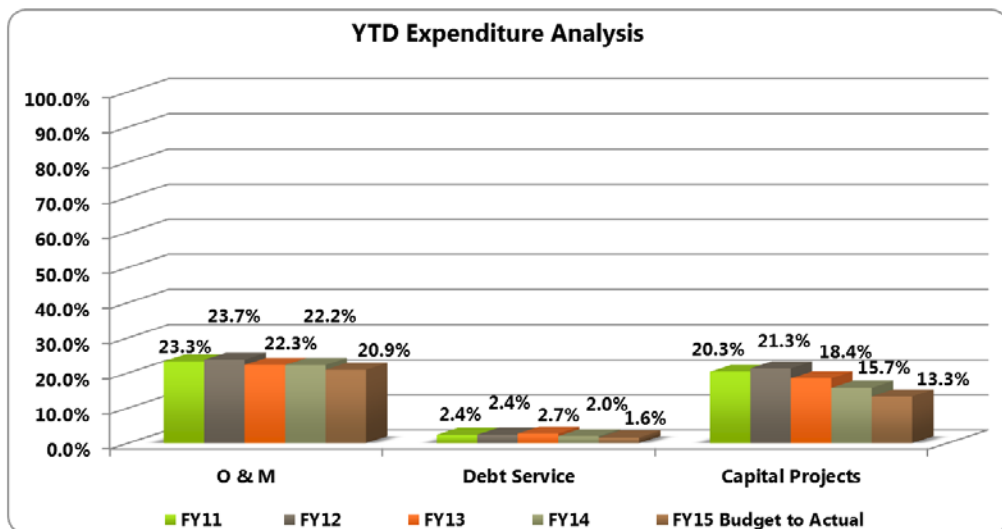
Page -5-

**METROPOLITAN SEWERAGE DISTRICT
ANALYSIS OF EXPENDITURES
As of September 30, 2014**



Monthly Expenditure Analysis:

- Monthly O&M expenditures are considered reasonable based on historical trends and timing of expenditures in the current year.
- Due to the nature of the variable rate bond market, monthly expenditures can vary year to year. Based on current variable interest rates, monthly debt service expenditures are considered reasonable.
- Due to nature and timing of capital projects, monthly expenditures can vary from year to year. Based on the current outstanding capital projects, monthly capital project expenditures are considered reasonable.



YTD Expenditure Analysis:

- YTD O&M expenditures are considered reasonable based on historical trends.
- Due to the nature of the variable rate bond market, YTD expenditures can vary year to year. Based on current variable interest rates, YTD debt service expenditures are considered reasonable.
- Due to nature and timing of capital projects, YTD expenditures can vary from year to year. Based on the current outstanding capital projects, YTD capital project expenditures are considered reasonable.

Board Meeting:

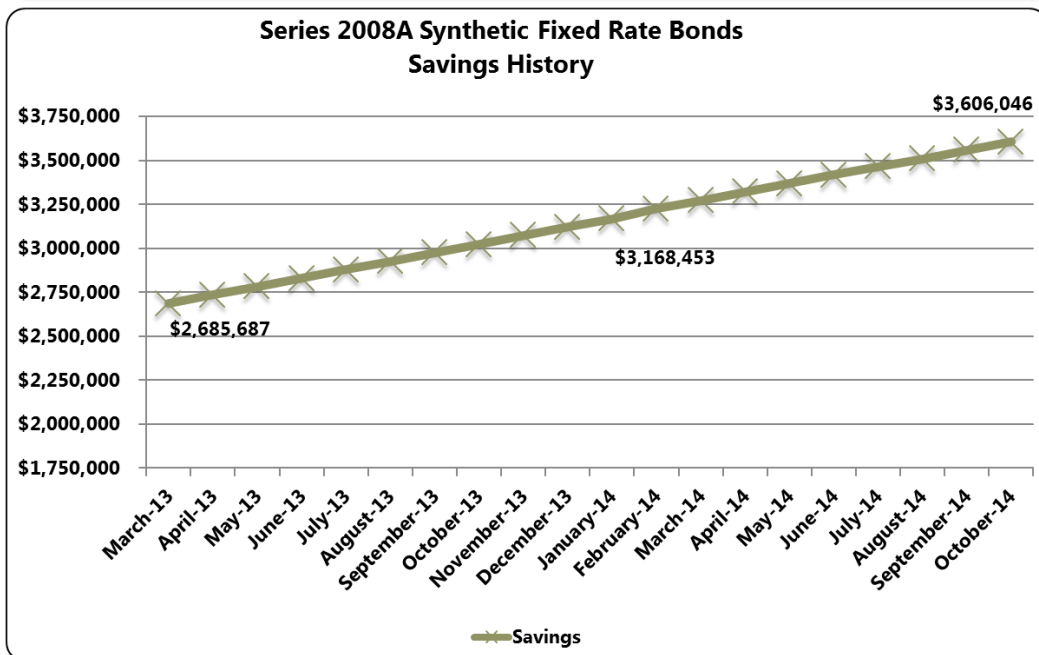
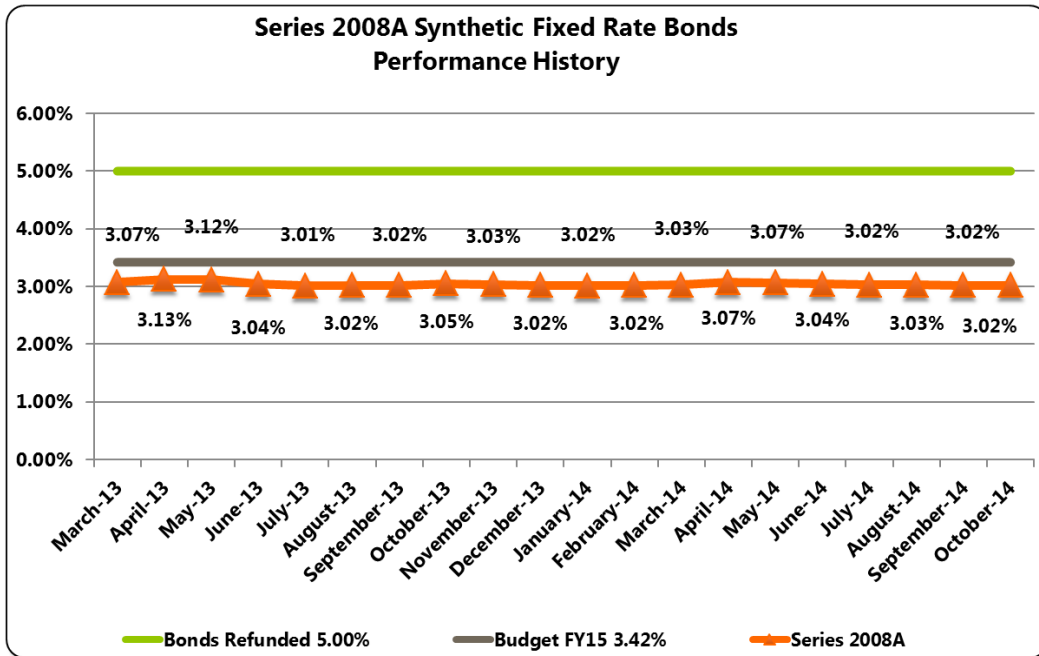
November 19, 2014

Subject:

Cash Commitment/Investment Report-Month Ended September 30, 2014

Page -6-

METROPOLITAN SEWERAGE DISTRICT
VARIABLE DEBT SERVICE REPORT
As of October 31, 2014



Series 2008A:

- ◀ Savings to date on the Series 2008A Synthetic Fixed Rate Bonds is \$3,606,046 as compared to 4/1 fixed rate of 4.85%.
- ◀ Assuming that the rate on the Series 2008A Bonds continues at the current all-in rate of 3.9475%, MSD will achieve cash savings of \$4,730,000 over the life of the bonds.
- ◀ MSD would pay \$4,785,000 to terminate the existing Bank of America Swap Agreement.

STATUS REPORTS

**MSD SYSTEM SERVICES IN-HOUSE CONSTRUCTION
FY 14-15 PIPELINE REHABILITATION PROJECTS**

PROJECT NAME	ESTIMATED FOOTAGE	ESTIMATED PROJECT DATES	WO#	CREW	COMPLETION DATE	ACTUAL FOOTAGE	Notes
Westwood Road Phase 2	400	6/25/14 - 7/4/14	215883	667	7/3/2014	400	complete
Penelope Street	400	7/14/14 - 8/15/14	470602	667	7/24/2014	415	complete
Shiloh Road (P/N 2012137)	350	7/15/14 - 7/31/14	456294	631	8/1/2014	354	complete
995 West Chapel Rd (P/N 2014131)	100	8/1/14 - 8/15/14	211782	631	8/7/2014	60	complete
Emory Road* (P/N 2009137)	300	7/25/14 - 8/15/14	456301	667	8/11/2014	290	complete
Haywood Street Pump Station and Force Main	225	8/18/14 - 9/5/14	216297	631	8/22/2014	305	complete
Springside Drive	522	8/16/14 - 9/10/14	205995	667	9/15/2014	631	complete
Woodbury Rd (91 Carter Cove)	239	9/11/14 - 9/29/14	470613	667	9/29/2014	220	complete
Terre Drive / Dunwood Road	308	9/30/14 - 10/31/14	410100	667	10/20/2014	405	complete
Hickory Court*	1633	9/8/14 - 10/17/14	448319	631	10/24/2014	1631	complete
190 Tunnel Rd Sewer Replacement	255	11/3/14 - 11/5/14	218034	667	10/27/2014	264	complete
N. Anne St.	550	10/23/14 - 11/23/14	44181	631			Construction is 90% complete
Biltmore Forest County Club Sewer Replacements	2000	11/3/14 - 12/15/14	218277	647			Construction to begin 11/10/14
Sunset Drive @ Bee Tree Road	1050	11/24/14 - 1/1/15	470618	631			ready for construction
165 Old County Home Road	1,100	12/16/14 - 1/16/15	433522	647			ready for construction
Campus Drive	335	1/2/15 - 2/1/15	470606	631			ready for construction, Project 2010097
Sareva Place	957	TBA	410095	TBA			ready for construction
Rumbough Place	710	TBA	433539	TBA			ready for construction
Robindale Ave	520	TBA	433537	TBA			ready for construction
18 Crestland Road	270	TBA	448974	TBA			ready for construction
Deanwood Circle	1292	TBA	400925	TBA			ready for construction - Project Number 2012030, CIP Transmittal 204
Starnes Avenue at Broadway Street	400	TBA	400927	TBA			ready for construction
350 Old Haw Creek Road	1333	TBA	400923	TBA			ready for construction
155 New Haw Creek Road	TBA	TBA	456318	TBA			ready for construction
Carjen Avenue	825	TBA	410096	TBA			ready for construction
East Grovestone Quarry	780	TBA	457386	TBA			ready for construction
Hunt Hill Place	786	TBA	400922	TBA			ready for construction
E Skyview Circle PSR	400	TBA	217301	TBA			In ROW
Upper Chestnut Ridge at lookout Road	800	TBA	470607	TBA			In Design
McCoy Cove Road Phase 2	TBA	TBA	433535	TBA			Preliminary Design - P/N 2012012
Montford Park	410	TBA	TEMP 137	TBA			Preliminary Design - CIP Transmittal 137
Old Farm School Road	TBA	TBA	456319	TBA			Preliminary Design - CIP Transmittal 231
11 Old West Chapel	TBA	TBA	TBA	TBA			Preliminary Design - CIP Transmittal 215
184 West Chesnut	320	TBA	433541	TBA			Preliminary Design - Transmittal 196



CONSTRUCTION TOTALS BY DATE COMPLETED - Monthly

From 7/1/2014 to 9/30/2014

	Dig Ups	Emergency Dig Ups	Dig Up ML Ftg	Dig Up SL Ftg	Manhole Repairs	Taps Installed	ROW Ftg	IRS Rehab Ftg *	Const Rehab Ftg *	D-R Rehab Ftg *	Manhole Installs	Bursting Rehab Ftg *	Total Rehab Ftg *
July 2014	46	15	193	908	26	18	3,800	0	235	415	6	400	1050
August 2014	44	7	219	536	29	11	200	0	143	674	7	330	1147
September 2014	37	9	134	650	44	23	1,345	0	16	856	6	0	872
Grand Totals	127	31	545	2,095	99	52	5,345	0	394	1945	19	730	3069

* Used to calculate Total Rehab Footage



PIPELINE MAINTENANCE TOTALS BY DATE COMPLETED - Monthly

July 01, 2014 to September 30, 2014

	Main Line Wash Footage	Service Line Wash Footage	Rod Line Footage	Cleaned Footage	CCTV Footage	Smoke Footage	SL-RAT Footage
2014							
July	66,005	2,224	3,370	69,315	24,012	650	27,593
August	62,930	1,101	6,357	69,087	32,258	3,150	16,074
September	42,031	2,136	3,299	45,277	24,480	3,650	24,813
Grand Total:	170,966	5,461	13,026	183,679	80,750	7,450	68,480
Avg Per Month:	56,989	1,820	4,342	61,226	26,917	2,483	22,827



CUSTOMER SERVICE REQUESTS

Monthly - All Crews

CREW	MONTH	JOBS	AVERAGE RESPONSE TIME	AVERAGE TIME SPENT
DAY 1ST RESPONDER				
	July, 2014	108	33	42
	August, 2014	90	28	34
	September, 2014	97	36	40
		295	32	39
NIGHT 1ST RESPONDER				
	July, 2014	29	20	18
	August, 2014	28	24	24
	September, 2014	37	22	20
		94	22	21
ON-CALL CREW *				
	July, 2014	37	39	48
	August, 2014	33	55	40
	September, 2014	33	47	70
		103	47	53
Grand Totals:		492	33	38

* On-Call Crew Hours: 10:30pm-7:30am Monday-Friday, Weekends, and Holidays

Right of Way Section 1st Quarter Summary Open Projects

<i>Project</i>	<i>Total ROW Budget</i>	<i>Total Expenditures to Date</i>	<i>Comment</i>
41 Walnut Lane Rehabilitation			Project 100% complete with no compensation paid. This was an SSD project where all owners signed agreements before construction to convey easements after construction was complete and at no cost to MSD.
Broadview Avenue GSR	\$33,814	\$12,907	Access 100% complete with 38% of Total Budget expended to date. One condemnation filed with judgment pending.
Dingle Creek Interceptor (formerly Ph II)	\$64,657	\$48,004	Access 100% complete with 74% of Total Budget expended to date. One condemnation filed with judgment pending. Construction moved out from 7/09, to 7/14, to 7/18 to 7/20.
Hilliard Avenue @ Aston Park GSR	\$35,754		Negotiations in process.
Louisiana Avenue @ Brucemont GSR	\$13,906	\$4,204	Project 100% complete with 30% of Total Budget expended and no condemnations.
Melody Circle GSR	\$59,459		Negotiations in process. Losing agent at consulting firm as of 10/3/14; new agent is assigned but a learning curve will be experienced.
Merrimon Avenue @ Stratford Road GSR	\$55,854	\$44,030	Access 100% complete with 79% of Total Budget expended to date. One condemnation filed with judgment pending.
Short Coxe @ Southside	\$165,652	\$163,632	Access 100% complete with 99% of Total Budget expended to date. Five condemnations/declaratory judgments filed. Four cases settled prior to trial; one judgement is pending.
Wendover Road GSR	\$17,656	\$6,721	Access 83% complete with 27% of Total Budget expended to date. Parris signed (Vrabel heir) but there are title issues with his deceased wife's estate. Must go through probate before he can convey her interest. Probate is in process.

<i>Project</i>	<i>Total ROW Budget</i>	<i>Total Expends to Date</i>	<i>Comment</i>
West French Broad Interceptor Extension	\$179,993	\$179,993	Access 100% complete with 100% of Total Amended Budget expended to date. One condemnation filed with judgement pending. This is a developer driven, interceptor extension project; i.e. new encumbrances to the land where no sewer existed previously. An independent appraiser determined market values in the \$40,000 to \$65,000 per acre range could be reasonably expected, depending on any number of factors unique to a given parcel. We began negotiations using a mid-range of \$55,000 per acre. We acquired easements from the developer for \$0; and from three other parcels for \$33,000, \$67,500 and \$67,500 per acre. The fifth parcel, owned by the Asheville Firefighters Association, was appraised at \$54,000 per acre; however, the AFA would not agree to grant an easement and MSD therefore condemned.

CAPITAL IMPROVEMENT PROGRAM

STATUS REPORT SUMMARY

November 10, 2014

PROJECT	CONTRACTOR	AWARD DATE	NOTICE TO PROCEED	ESTIMATED COMPLETION DATE	*CONTRACT AMOUNT	*COMPLETION STATUS (WORK)	COMMENTS
BROADVIEW AVENUE	Buckeye Bridge	7/16/2014	9/8/2014	3/7/2015	\$1,111,015.90	10%	Mainline construction on Raleigh Road progressing slowly due to tight work zone.
CLAYTON ROAD PUMP STATION	TBD	TBD	TBD	TBD	TBD	0%	Bids were opened on October 30th. J.S. Haren Company is the apparent low bidder. Project will be presented at the November Board meeting.
CROCKETT AVENUE PRP	Terry Brothers	8/20/2014	11/17/2014	3/17/2015	\$676,842.00	0%	No work has begun yet.
EAST STATE STREET @ WEST STREET	Davis Grading, Inc.	6/11/2014	7/14/2014	11/26/2014	\$403,640.00	98%	Concrete repair work and final walk through yet to be done.
FAIRFAX AVENUE PRP	Terry Brothers	8/20/2014	10/22/2014	2/19/2015	\$558,802.00	25%	Installing mainline pipe near Manhole 4.
MACON AVENUE @ SUNSET PARKWAY	Terry Brothers	1/15/2014	3/1/2014	11/26/2014	\$757,688.00	99%	Contractor is finishing up punch list items.
MERRIMON AVENUE @ STRATFORD ROAD	Terry Brothers	9/18/2013	12/16/2013	11/31/2014	\$885,849.00	80%	Hand mining operations @ Elkwood Bore continues. Bore is approximately 50 feet in.
MOUNT VERNON PLACE, PHASE 2	Terry Brothers	6/11/2014	7/14/2014	2/1/2015	\$542,675.00	75%	Project is going well. Laying last two sections of pipe. Concrete work and paving yet to be done.
OLD HAYWOOD ROAD @ STARNES COVE RD	Terry Brothers	10/15/2014	TBD	TBD	TBD	0%	No work has begun yet.
OLD U.S. 70 @ PINE CIRCLE	TBD	TBD	TBD	TBD	TBD	0%	Bids were opened on October 30th. J.S. Haren Company is the apparent low bidder. Project will be presented at the November Board meeting.
ROBINWOOD AVENUE	Davis Grading, Inc.	9/17/2014	11/3/2014	2/1/2015	TBD	0%	Contractor has mobilized and begun saw cutting pavement.
WRF - SLIDE GATE REPLACEMENT	NHM Constructors	9/18/2013	10/7/2013	12/15/2014	\$392,554.38	75%	Contractor returned to site 11/7/14 to begin Phase 2 which entails R&R of five (5) gates on the effluent end of Basin One.

*Updated to reflect approved Change Orders and Time Extensions

Planning & Development Project Status Report

November 19, 2014

Project Name	Project Number	Work Location	Units	LF	Pre-Construction Conference Date	Comments
Black Mtn. Annex- Blue Ridge Rd.	1992171	Black Mtn.	24	2,560	8/19/2010	Complete- waiting on conveyance
Black Mtn. Annex- McCoy Cove	1992174	Black Mtn.	24	2,067	8/19/2010	Complete- waiting on conveyance
Black Mtn. Annex- Avena Rd.	1999026	Black Mtn.	24	4,300	8/19/2010	Complete- waiting on conveyance
Momentum Health Adventure	2008097	Asheville	Comm.	184	8/19/2009	New ownership - project currently inactive
North Point Baptist Church	2008105	Weaverville	Comm.	723	5/20/2009	Complete - Waiting on final documents
AVL Technologies	2010018	Woodfin	Comm.	133	5/21/2010	Complete-Waiting on final documents
UNC-A New Residence Hall	2011047	Asheville	304	404	8/29/2011	Complete-Waiting on final documents
Cottonwood Townhomes	2009110	Black Mtn.	8	580	10/20/2009	Complete-Waiting on final documents
Goldmont St	2012087	Black Mtn.	6	91	1/11/2013	Complete-Waiting on final documents
Ramble at Parkway	2013100	Biltmore Forest	TBD	335	7/26/2013	Complete-Waiting on final documents
Carolina Truck and Body (Cooper)	2012075	Asheville	Comm.	298	10/30/2012	Complete-Waiting on final documents
Sardis Road (COA) Annexation	2009037	Asheville	N/A	6,981	4/2/2012	Complete-Waiting on revised ROW items
Ardmion Park	2011107	Asheville	5	208	4/16/2013	Complete-Waiting on final documents
Central Ave	2012065	Asheville	6	305	9/26/2013	Complete - Waiting on final documents
Westover Relocation	2013132	Asheville	1	87	11/20/2013	Complete - Waiting on final documents
Brookgreen Phase 1D-Kenai Dr.	2013076	Woodfin	3	370	3/14/2014	Complete - Waiting on final documents
Echo Hills Cottages	2013121	Asheville	11	532	4/30/2014	Complete - Waiting on final documents
Village at Bradley Branch - Ph. III	2008076	Asheville	44	783	8/8/2008	Complete - Waiting on final documents
Waynesville Ave (Pittman)	2013046	Asheville	15	332	5/23/2013	Complete-Waiting on final documents
Reems Creek Cottages	2013066	Weaverville	17	483	11/15/2013	Complete-Waiting on final documents
Hyde Park	2013058	Arden	65	3,062	12/3/2013	Complete-Waiting on final documents
Thoms Estate 3B & 4	2013052	Asheville	35	4,690	7/26/2013	Complete-Waiting on final documents
Laurel Lane	2012121	Black Mountain	3	107	8/12/2014	Complete-Waiting on final documents
STF Precision	2013084	Buncombe Co.	Comm.	199	5/29/2014	Construction complete awaiting final docs
Eagle's Landing	2010015	Asheville	25	472	10/22/2013	Complete-Waiting on final documents

Planning & Development Project Status Report

November 19, 2014

Project Name	Project Number	Work Location	Units	LF	Pre-Construction Conference Date	Comments
Ingles - Sand Hill Rd.	2007214	Enka	Comm.	1,255	10/15/2014	Pre-con held, ready for construction
Ingles	2007214	Black Mtn.	Comm.	594	3/4/2008	Ready for final inspection
Bartram's Walk	2007065	Asheville	100	10,077	7/28/2008	Waiting on pavement to do final inspection
Morgan Property	2008007	Candler	10	1,721	8/11/2008	Pre-con held, ready for construction
Canoe Landing	2007137	Woodfin	4	303	5/12/2008	Ready for construction
Central Valley	2006166	Black Mtn	12	472	8/8/2007	Punch list pending
Publix	2013134	Asheville	Comm.	612	10/5/2014	Installing
Avalon	2013114	Asheville	192	1,343	6/2/2014	Ready for final inspection
Mallard Run	2014109	Buncombe Co.	72	2,811	10/31/2014	Pre-con held, ready for construction
Carmel Ridge Apartments	2013018	Leicester	80	1,162	10/11/2013	Ready for final inspection
Palisades Apartments	2013024	Asheville	224	1,423	9/4/2013	Punchlist Pending
Crest Mountain Phase 3B	2013041	Woodfin	69	1,329	10/15/2013	Testing
Ingles - Smokey Park Highway	2013135	Asheville	Comm.	1,289	4/11/2014	Ready for final inspection
The Aventure	2011015	Biltmore Forest	300	3,238	10/14/2013	Ready for final inspection
New Belgium Relocation	2013143	Asheville	Comm.	380	8/12/2014	Pre-con held, ready for construction
Ansley at Roberts Lake	2013126	Buncombe Co.	296	2,534	6/2/2014	Testing
Hunt Hill Apartments	2013111	Asheville	180	1,729	3/5/2014	Ready for final inspection
Rosebriar	2007005	Black Mountain	180	1,729	3/5/2014	Ready for final inspection
Ventana	2014085	Woodfin	100	5,430	8/12/2014	Installing
Upper Kentucky Improvements	2013085	Montreat	N/A	284	12/3/2013	Ready for final inspection
Upper Kentucky Ph. 1 "Res"	2014101	Montreat	5	265	10/31/2014	Pre-con held, ready for construction
Isaac Dickson School Relocation	2013033	Asheville	School	504	1/13/2014	Under Construction - on hold
A.B. Tech Fernihurst Relocation	2014061	Asheville	School	697	4/8/2014	Under Construction - on hold
Locust Springs	2012107	Black Mountain	18	621	3/14/2014	Testing
Telco - Weaverville	2014046	Weaverville	Comm.	110	5/12/2014	Ready for testing
Haywood Village	2014064	Asheville	Mixed	276	6/19/2014	Testing
Quail Hollow Ph. 2	2013062	Arden	15	1,302	6/11/2014	Under Construction
Cottages at Glen Oak	2013142	Avery Creek	45	1,569	4/9/2014	Ready for final inspection
Boulder Subdivision	2013022	Asheville	3	295	9/16/2014	Pre-con held, ready for construction
Busbee Mountain	2007181	Asheville	9	580	9/29/2014	Ready for final inspection
Asheville Middle School	2013125	Asheville	School	214	9/30/2014	Pre-con held, ready for construction
Evolve Mountain View	2013105	Asheville	148	347	10/21/2014	Pre-con held, ready for construction
TOTAL			2,610	67,854		