

1316 COUNTY-CITY BUILDING
227 W. JEFFERSON BOULEVARD
SOUTH BEND, INDIANA 46601-1830



PHONE 574/ 235-9251
FAX 574/ 235-9171
TDD 574/ 235-5567

CITY OF SOUTH BEND STEPHEN J. LUECKE, MAYOR
BOARD OF PUBLIC WORKS

January 26, 2009

Mr. Richard Erhardt
Malcolm Pirnie, Inc.
5975 Castle Creek Parkway
North Drive, Suite 355
Indianapolis, Indiana 46250

RE: Engineering Services Agreement --- CSONet Phase II

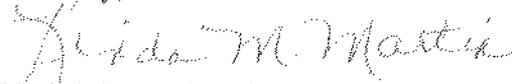
Dear Mr. Erhardt:

The Board of Public Works, at its meeting held on January 26, 2009, approved the above referenced Engineering Services Agreement in the amount of \$442,000.00.

Enclosed is a copy of the Agreement for your records.

If you have any questions, please contact me at (574) 235-9251.

Sincerely,


Linda M. Martin, Clerk

Enclosure

c: Patrick Henthorn, Engineering

STANDARD AGREEMENT FOR PROFESSIONAL SERVICES

Between City of South Bend and Malcolm Pirnie, Inc.

AMENDMENT No. 2

An Agreement was executed on February 26, 2006 between City of South Bend, Indiana [Client], having its principal place of business at having its principal place of business at 1316 County-City Building, South Bend, Indiana 46601, and Malcolm Pirnie, Inc. ["Malcolm Pirnie"], a New York corporation having its principal place of business at 104 Corporate Park Drive, White Plains, New York 10602, and having an office at 5975 Castle Creek Parkway, North Drive, Suite 355, Indianapolis, Indiana 46250. Amendment No. 1 to the Agreement was executed on February 26, 2007.

Under the Agreement, Malcolm Pirnie provides certain professional engineering services related to deployment of a system of embedded sensors for combined sewer overflow (CSO) control, a proprietary technology called "CSONet".

Client and Malcolm Pirnie now desire to amend the Agreement again to include the amended Services as described below.

In consideration of the mutual promises in the Agreement, Client and Malcolm Pirnie agree to amend the Agreement as the following:

1. **Scope and Schedule for Amended Services.** The scope and schedule for amended services are described in Schedule A-2.
2. **Compensation for Amended Services.** Estimated compensation and summary of charges for amended services under this Amendment No. 2 is \$442,000 as summarized in Schedule C-2.

Other Provisions. Except as amended herein, all other provisions, terms and conditions in the Agreement shall remain in full force and effect.

Execution Authority. This Amendment No. 2 to the Agreement is a valid and authorized undertaking of Client and Malcolm Pirnie. The representatives of Client and Malcolm Pirnie who have signed below have been authorized to do so.

IN WITNESS WHEREOF, the parties hereto have made and executed this Amendment to the Agreement as of the date indicated below.

MALCOLM PIRNIE, INC.

**CITY OF SOUTH BEND
BOARD OF PUBLIC WORKS**

Date Dec 31, 2008

By Richard S. Erhardt
Richard S. Erhardt

Title Vice President

Witness Melissa C. Moran

APPROVED
Board of Public Works

JAN 26 2009
Donald E. Suh
S.B.P.W.

Phase II – CSONet Optimization and Implementation of Real Time Control

Schedule A-2 Scope of Services and Related Matters

Background

EmNet, LLC developed “CSONet” an innovative wireless sensor system that can be used to monitor and control combined sewer systems and reduce combined sewer overflow (CSO) events.

Under the scope of services in the original **Agreement**, Malcolm Pirnie evaluated the CSONet equipment technology. The evaluation concluded that the CSONet system provided by EmNet will provide significant benefit to the City that is not available from other products in the marketplace.

Under previously approved **Amendment No. 1**, Malcolm Pirnie provided design services, bid assistance and construction administration for Phase I of the CSONet project. Phase I focused on system-wide *monitoring*. Two construction contracts – Phases I and IA – provided for the installation of a network of monitors, primarily level sensors and flow meters, in South Bend’s CSO structures and outfalls and in key trunk sewers. The two construction contracts also included installation of CSONet communications devices that enable South Bend to monitor, but not control, wastewater levels and flows at key locations in its combined sewer system. **Amendment No. 1** services were completed in 2008.

CSONet Goals

Under this **Amendment No. 2**, Malcolm Pirnie will provide design services, bid assistance and construction administration for two construction projects as part of CSONet Phase II. Under Phase II, South Bend will begin real time control of the combined sewer system using CSONet.

The primary intent of South Bend’s real time control strategy using CSONet is to achieve the required level of CSO control and environmental benefit more economically than would be achieved through conventional CSO control. CSONet, when real time controls are fully implemented, is planned to provide continuous improvement in the monitoring, management and optimization of South Bend’s combined system to reduce, to the greatest extent possible, the overall cost of the CSO long-term control plan. By making better, smarter, more effective use of existing infrastructure using real time control, it is expected that CSONet will significantly reduce construction costs over the long term.

Goals for real time control under CSONet include the following:

- *Dry weather overflow risk reduction.* The level sensors installed under Phase I will be used to provide an early warning system for dry weather blockages as they develop in CSO regulator throttle pipes. Small throttle lines at known problem regulator sites will be replaced with larger throttle lines and control valves. The intent is to demonstrate the logic of self-flushing control valves on the throttle pipes.
- *Automate the main interceptor and associated CSO regulators.* Install a system of automated control valves on most, but not necessarily all, of the throttle pipes from South Bend’s 36 CSO regulators. Some of the control valves will be installed on new larger throttle lines installed for dry weather overflow risk reduction as indicated above. Other control valves will be installed on existing throttle lines. The intent is to coordinate the operation of the CSO regulators during wet weather to preferentially control the flow into South Bend’s main interceptor sewer from particular combined sewer basins. For example, CSONet may let more or less flow into the interceptor from particular combined sewer basins (a) based on varying rainfall in the city and available interceptor capacity, (b) to minimize discharge to the most sensitive areas including the East Race and (c) to reduce higher strength CSO overflows, such as from basins with industrial flows. Real time control of the CSO regulators is analogous to synchronized traffic signal controls.

- *Standardize control valves.* It is advantageous to minimize the number of different types of automated control valves used in South Bend's system. It would be ideal if South Bend were to standardize on a single type of control valve. Standardized control valves will simplify operations and maintenance. Additionally, standardization will facilitate commercialization of CSO Net for use in other cities. Preliminarily, it is planned that South Bend standardize on motor-operated pinch valves, such as those manufactured by Red Valve.
- *Upland storage optimization.* Ultimately CSO Net will provide real time control for upland (off-line) wet weather storage optimization including automated control valves and/or gates. It is planned that real time control of upland storage be provided at three basin sites: Kensington Crest, Miami Basin and Beck's Lake.
- *Collection system storage optimization.* Malcolm Pirnie will work with Greeley and Hansen, EmNet and South Bend to identify and prioritize trunk lines where the potential for wet weather storage exists. The evaluation will be coordinated with areas experiencing historical basement flooding and with the existing SWMM model. It is anticipated that trunk sewers immediately upstream some of the CSO regulators with automated control valves can be used for in line storage. The idea is to use the control valves at selected sites to temporarily restrict wet weather flow into the interceptor. Consideration will also be given to upstream segments of trunk sewers that have potential for in-line storage.
- *Measure CSO discharges.* Using the level monitors installed under Phase I, a goal for CSO Net will be to provide wet weather overflow monitoring and reporting using *measured* rather than estimated durations and volumes.
- *Pretreatment monitoring.* A future goal is to utilize CSO Net for pretreatment monitoring. Monitors that measure wastewater strength or concentration could be installed immediately downstream of significant industrial dischargers. The monitors can be used to provide the WWTP with an early warning of a high strength discharge, and can be used to help trace the source of the high strength discharge.
- *Other CSO Net applications.* Malcolm Pirnie will work with Greeley and Hansen, EmNet and South Bend to evaluate other potential CSO Net applications. For example, consideration will be given to using CSO Net to temporarily restrict certain flows into the sewer system during high wet weather flows. One such flow that might be restricted in this manner is waste backwash water from South Bend's water filtration plants. Another such flow is interceptor well discharges from an industrial site with contaminated groundwater that is discharged to South Bend's sewer.
- *Coordinate construction with special grant funding.* South Bend and EmNet have received special funding (Congressional earmarks and State of Indiana 21st Century grants) for a portion of the CSO Net implementation. The CSO Net implementation should be coordinated with the requirements of the grants.
- *Commercialization of CSO Net.* It is South Bend's goal that the deployment of CSO Net in South Bend will demonstrate its commercial viability and lead to the expansion of CSO Net to other cities and to the growth of EmNet, a South Bend company.

Phase II Tasks

Phase II services will include five tasks as follows:

1. Real Time Control Technical Memorandum
2. Design, Bid Assistance and Construction Administration
3. CSO Net/SCADA Integration Planning
4. CSO Net O&M SOPs
5. Data Management and Reporting Basis of Design

Task 1 – Real Time Control Technical Memorandum

Malcolm Pirnie will develop a CSONet Real Time Control Technical Memorandum. The intent of this task is to identify and prioritize real time control projects. Under this effort, real time control projects for dry weather overflow mitigation, wet weather flow control to the interceptor, upland storage and trunk line storage will be identified and prioritized as to their cost/benefit in support of reducing the cost and complexity of the CSO long-term control plan. The technical memorandum will recommend projects to be carried forward to design and construction in a phased approach to match South Bend's budget and available grant allocations.

Malcolm Pirnie will develop a basis of design for implementation of CSONet real time control in coordination with South Bend, EmNet, and Greeley and Hansen. As South Bend's CSO LTCP consultant, Greeley and Hansen developed a SWMM model of South Bend's combined sewer system. Malcolm Pirnie will interact with Greeley and Hansen regarding the hydraulic aspects of CSONet, for example (1) in the sizing of throttle pipes, (2) determination of the available capacities of different reaches of the interceptor for receiving additional wet weather flows, (3) determination of which reaches of trunk sewer are conducive to in-line storage. Greeley and Hansen will provide hydraulic reviews and SWMM modeling for CSONet real time control under its direct contract with South Bend.

The specific elements of future projects after Projects II A and II B have not been determined. The future projects will be aligned and planned to incrementally demonstrate new and different capabilities of the CSONet real time control network, to maximize the opportunity for grant funding. The selection and sizing of the various elements of the Phase II projects will be coordinated with South Bend, Greeley and Hansen and EmNet to address existing problem areas and to take into account the hydraulic characteristics of the system, such as available interceptor capacity and available trunk sewer capacity for storage.

Malcolm Pirnie will prepare a Real Time Control Technical Memorandum. The report will provide descriptions of the planned construction projects, the elements and sizing of the components of each project, the budget cost estimate and proposed schedule.

Task 2 – Design, Bid Assistance and Construction Administration – Projects II A and II B

Malcolm Pirnie will provide engineering services for two construction projects: Projects II A and II B. Project II A – is intended to confirm the suitability of motor-operated pinch valves as the control valves of choice for South Bend. Project II B is intended to utilize currently available earmark funding. A brief basis of design will be prepared for early action Projects II A and II B for subsequent inclusion in the overall Real Time Control Technical Memorandum.

The components for Projects II A and II B are summarized as follows:

- Project II A – CSO 44. CSO 44 has a small (6-in diameter) throttle pipe that is prone to plugging and dry weather overflows. The design and construction will include a new, larger throttle pipe with a motor-operated pinch valve installed in a manhole over the new throttle line to control flow from the trunk sewer to the interceptor. The pinch valve will be controlled by CSONet. Consideration will be given to installing a manual gate or valve on the existing throttle pipe so that it could be used as a manual bypass when maintenance is needed on the new control valve.
- Project II B – CSOs 25, 27/28, and 37. Project II B will provide automated control valves at three sites (four CSO regulators) for which controls do not currently exist. The first site, CSO 25, is similar to CSO 44 in that its 6-inch throttle valve that will be replaced by a larger throttle pipe with a motor-operated pinch valve. At the second site, CSOs 27 and 28 each have 12-inch throttle pipes that join together before connecting to the interceptor. Both throttle pipes will be replaced with larger pipes with control valves. Consideration will be given to separately connecting each new throttle pipe to the interceptor. Construction at the CSO 27/28 site will be in a busy street and the interceptor and throttle

pipes are deep. At the third site, CSO 37 has two 18-inch throttle lines that connect to the interceptor. It is planned that the two CSO 37 throttle pipes be replaced with a single, larger pipe with a control valve. Construction will be in a busy street and the interceptor and throttle pipes are deep. Project II B will also include "minor" work at two other sites: CSO 22 and Kensington Ponds. Motor-operated control valves or gates exist at both sites. Under Project II B, the existing control valve or gates will be wired into CSONet.

Projects II A and II B will be performed as design-bid-build construction contracts. It is anticipated that local South Bend contractors will bid on the projects. A complete bill of materials and pricing to supply the CSONet equipment will be provided by EmNet for inclusion in the bid documents. EmNet will also supply technical data sheets and installation requirements for inclusion in the project specifications.

Malcolm Pirnie will prepare bid documents (drawings, installation details and specifications) for each project. Malcolm Pirnie will prepare opinions of probable construction cost, quantity take-offs and bid forms for each project. Malcolm Pirnie will participate in an estimated two client review meetings for each project. EmNet will provide field support during installation and to establish overall communication and data gathering (monitoring). EmNet will also provide programming for control at the CSO basins and the groundwater wells.

Malcolm Pirnie will provide bid phase assistance, including preparation of the advertisement for publication by South Bend, coordinating with the local printing firm for document distribution, attendance at pre-bid meeting, addenda preparation and preparation of a bid report.

Malcolm Pirnie will provide services during construction to administer the various construction contracts. Construction phase services for each construction package include the following:

- Review of Contractor's schedule of values, construction schedule, shop drawings and pay estimates.
- Responding to Contractor RFI's and preparing any required change orders.
- Monthly job meetings.
- Coordination of punch list and contract closeout.
- Coordination of field programming, testing and start-up of the smart valves under Task 3E below.

South Bend will provide construction inspectors for day-to-day construction observation.

Task 3 - CSONet/SCADA Integration Planning

Johnson Controls, Inc. (JCI), as a sub-consultant to Malcolm Pirnie, will provide a technical review and recommendations for integrating CSONet with the SCADA system at the wastewater treatment plant such that the smart valves can be monitored and the real time control can be overridden and the valves placed in "manual" control if required. It is anticipated that upgrades and/or other modifications will be required to the current SCADA system to enable this integration. These upgrades will be identified such that South Bend can coordinate this work with other ongoing modifications at the wastewater treatment plant. The final CSONet / SCADA integration work will be implemented concurrently with the phased construction of real time control valves on the trunk sewer throttle lines. Malcolm Pirnie will coordinate with JCI to include the technical subject matter on the integration approach for CSONet and SCADA data integration. JCI will also provide design review on an as-needed basis to align the detailed design with the overall CSONet/SCADA integration strategy.

Task 4 - CSONet O&M SOPs

Under Phase I, the construction contractors performed an initial calibration of the field instruments, setting the

span, setting the zero (sensor elevation with invert offset for accurate level information in relation to the sewer), and verifying that the instruments produce valid 4-20 mA signal. The Phase I contractors have provided the offset and installation elevation data for every site.

Commissioning determines a system's ability to reliably gather, transmit and store data considering the complete path from the field instrument, through the iNode, to the GNode, via communication (cell phone/radio/landline), and into the database. EmNet and South Bend undertook commissioning as part of the Phase I start up. EmNet has verified the operation of each site with respect to these criteria. South Bend is working with EmNet to measure actual water levels in the CSO's and compare them with real-time CSONet output to check the system operation further.

Under this task, Malcolm Pirnie will develop protocols and standard operating procedures for routine communication reliability testing, data collection validation and identification of CSONet equipment maintenance requirements for CSONet. The field work will be by South Bend and EmNet staff. It is intended that South Bend staff will use the procedures, protocols and SOPs developed for (a) periodic future reliability testing, data collection validation, and recalibration of the existing CSONet instruments and (b) for commissioning of future CSONet instruments.

Malcolm Pirnie will identify maintenance SOPs including routine data validation, inspection and maintenance activities and frequencies. Malcolm Pirnie will gather and review the manufacturer's recommendations for the Contractor supplied equipment (e.g. level and flow sensors) and work with EmNet to coordinate with services provided for the CSONet equipment under the current maintenance agreement.

Task 5 - Data Management and Reporting Basis of Design

Malcolm Pirnie will work with South Bend and EmNet to develop the functional requirements and approach (basis of design) for a CSONet data management and reporting system. The goal is to develop a central data warehouse with a web-based user interface that will be provided to manage, QA and report on the real time collection system performance data gathered by CSONet. The data warehouse will also provide the capability to collect, manage and report on performance data from South Bend's collection system SCADA at the wastewater treatment plant such that CSONet and SCADA data can be combined together for comprehensive reporting of collection system performance (e.g. CSOs and pump stations).

Malcolm Pirnie will participate in two workshops with South Bend to define the basis of design for the data management system, including the functional and technical requirements. One of the functional requirements of the data management system will be to use the data collected by CSONet to calculate the volume and duration of CSO overflows based on liquid levels at the CSO overflow weirs. Additional functional requirements for data collection, review and reporting will be identified during the workshops. Malcolm Pirnie will coordinate the development of the final functional requirements with the existing wastewater treatment plant SCADA such that the both real time and historical data needs are addressed in the overall data management system approach.

Two different approaches have been discussed relating to the technical requirements for the CSONet data management system:

- One approach is to develop the data warehouse using commercially available software such as Microsoft SQL Server 2005 and Adobe Systems ColdFusion.
- Another approach is to build the data warehouse from open source software, rather than using commercial software.

Malcolm Pirnie will review with South Bend the pros and cons of the two different approaches, and ascertain how each approach could be implemented. Either commercial software or open source software can be designed to be "cross platform". Additional technical requirements for system architecture, hardware, software, integration with the existing SCADA system and overall implementation will be determined during the

workshops. South Bend's ultimate goal is for the system to be designed to have the ability to be installed on any platform that the customer chooses: Linux/Unix, Windows, or OS X.

Based on the final functional and technical requirements, Malcolm Pirnie will evaluate options for development and implementation of a new information system. We will take into consideration the availability of commercial products that potentially meet the requirements, and provide technical analysis and cost estimate for the development of a custom application using an open-source, cross platform development environment.

Malcolm Pirnie will prepare a CSONet Data Management and Reporting Basis of Design Technical Memorandum. The memorandum will address the following:

- Data warehouse capabilities for CSONet and collection system SCADA data
- System specifications (hardware and software)
- Database design documentation
- Data management work flow definition (QA/QC, editing, etc.)
- Reporting requirements (dry weather and wet weather)
- Interface design requirements
- CSONet integration requirements
- SCADA integration requirements, installation plan and testing plan
- Software requirements specification
- Implementation plan

Schedule

The design of Project IIA will be substantially complete within 60 days of Client's notice to proceed.

The design of Project IIB will be substantially complete within 120 days of Client's notice to proceed.

Phase II – CSONet Optimization and Implementation of Real Time Control

Schedule C-2 Pricing Schedule

- C.1 **Fixed Rates.** For Basic Services under Section 1, Client shall pay Malcolm Pirnie on the basis of standard hourly rates for technical work actually performed (time and materials). The Summary of Charges for calendar year 2009 is on the following page. Services for subsequent years are subject to adjustment based on Consultant's updated hourly rate schedule.
- C.2 **Invoices.** Malcolm Pirnie will submit invoices to Client for each month during which services were performed. Invoices are due and payable within 30 days of submission.
- C.3 **Estimated Budget.** The estimated budget (upper limit) for Phase II services under this Agreement is summarized in Table C-2 below. The budget will not be exceeded without Client's prior written approval.

Table C-2 – Estimated Phase II Budget		
Task	Description	Estimate
1	Phase II Basis of Design Technical Memorandum	\$89,600
2	Design, Bid Assistance, Construction Administration	
	Early Action Projects II A and II B	
	Design	143,700
	Bid Assistance	21,700
	Construction Administration	74,500
3	CSO Net/SCADA Integration Planning	42,200
4	CSO Net O&M SOPs	24,300
5	Data Management and Reporting Basis of Design	28,000
	Project Management	18,400
	Total	\$442,000

SUMMARY OF CHARGES

1. **Hourly Rates:** Charges for services provided in calendar year 2009 will be in accordance with the following schedule:

<u>Classification</u>	<u>Hourly Rate</u>
Technician 1	\$ 61 hr
Technician 2	73
Technician 3	82
Technician 4	114
Technician 5	116
Technician 6	136
Technician 7	161
Technician 8	182
Engineer/Scientist/Architect 1	110
Engineer/Scientist/Architect 2	125
Engineer/Scientist/Architect 3	133
Project Engineer/Scientist/Architect 4	139
Project Engineer/Scientist/Architect 5	166
Sr Project Engineer/Scientist/Architect 6	197
Associate	230
Senior Associate	248
Officer	264

Overtime - No overtime premium is charged for project work outside of normal working hours.

2. **Other Direct Costs:** All expenses incurred for a project, except in-house services specified below, from outside vendors will be invoiced at cost plus 10% to cover administrative expenses. These items may include, but are not limited to: shipping charges; printing; supplies; equipment; traveling expenses; special insurance; licenses; permits; or subcontractors.

In-house services consist of:

- * Transportation \$0.48/mile for vehicles.

1316 COUNTY-CITY BUILDING
227 W. JEFFERSON BOULEVARD
SOUTH BEND, INDIANA 46601-1833



PHONE 574/ 235-9251
FAX 574/ 235-9171
TDD 574/ 235-5567

CITY OF SOUTH BEND STEPHEN J. LUECKE, MAYOR
BOARD OF PUBLIC WORKS

March 9, 2009

Mr. Richard Erhardt
Malcolm Pirnie, Inc.
5975 Castle Creek Parkway North Drive, Suite 355
Indianapolis, Indiana 46250

RE: Professional Services Agreement Amendment -- Development of the WWSRP
Preliminary Engineering Report for the CSOnet Phase II
Project No. 109-027

Dear Mr. Erhardt:

The Board of Public Works, at its meeting held on March 9, 2009, approved the above referenced Professional Services Agreement Amendment in an amount not to exceed \$17,000.00.

Enclosed is a copy of the Agreement for your records.

If you have any questions, please contact me at (574) 235-9251.

Sincerely,

Linda M. Martin, Clerk

Enclosure

c: Patrick Henthorn, Engineering

STANDARD AGREEMENT FOR PROFESSIONAL SERVICES

Between City of South Bend and Malcolm Pirnie, Inc.

AMENDMENT No. 3

An Agreement was executed on February 26, 2006 between City of South Bend, Indiana [Client], having its principal place of business at having its principal place of business at 1316 County-City Building, South Bend, Indiana 46601, and Malcolm Pirnie, Inc. ["Malcolm Pirnie"], a New York corporation having its principal place of business at 104 Corporate Park Drive, White Plains, New York 10602, and having an office at 5975 Castle Creek Parkway, North Drive, Suite 355, Indianapolis, Indiana 46250. Amendment No. 1 to the Agreement was executed on February 26, 2007. Amendment No. 2 was executed on January 26, 2009.

Under the Agreement, Malcolm Pirnie provides certain professional engineering services related to deployment of a system of embedded sensors for combined sewer overflow (CSO) control, a proprietary technology called "CSONet".

Client and Malcolm Pirnie now desire to amend the Agreement again to include the amended Services as described below.

In consideration of the mutual promises in the Agreement, Client and Malcolm Pirnie agree to amend the Agreement as the following:

- 1. **Scope and Schedule for Additional Services.** The scope and schedule for additional services are described in Schedule A-3.
- 2. **Compensation for Amended Services.** The estimated budget increase for additional services under this Amendment No. 3 is \$12,000. The overall budget for Phase II services is revised as follows:

Original Budget for CSONet Phase II, per Amendment No. 2	\$442,000
Budget increase per this Amendment No. 3	<u>17,000</u>
Revised CSONet Phase II Budget	\$459,000

Other Provisions. Except as amended herein, all other provisions, terms and conditions in the Agreement shall remain in full force and effect.

Execution Authority. This Amendment No. 3 to the Agreement is a valid and authorized undertaking of Client and Malcolm Pirnie. The representatives of Client and Malcolm Pirnie who have signed below have been authorized to do so.

IN WITNESS WHEREOF, the parties hereto have made and executed this Amendment to the Agreement as of the date indicated below.

MALCOLM PIRNIE, INC.

CITY OF SOUTH BEND
BOARD OF PUBLIC WORKS

Date March 3, 2009

By Richard S. Erhardt
Richard S. Erhardt

Title Vice President

Witness Melissa Moran

APPROVED
Board of Public Works

MAR 05 2009
Gary A. [Signature]
[Signature]

Phase II – CSONet Optimization and Implementation of Real Time Control

Schedule A-3

Scope of Additional Services and Related Matters

Background

Under previously approved **Amendment No. 2**, Malcolm Pirnie will provide design services, bid assistance and construction administration for two construction projects as part of CSONet Phase II. The two projects will include throttle pipe replacements and the addition of automated control valves at five CSO regulators: 044, 025, 014, 027/28, and 037.

Additional Services

Under this **Amendment No. 3**, Malcolm Pirnie will provide assistance to South Bend in applying for economic stimulus funding for CSONet Phase II through the IDEM SRF program. Malcolm Pirnie will coordinate its assistance with DLZ Indiana, who will be coordinating South Bend's overall economic stimulus application for several different wastewater projects.

The application for economic stimulus funding will include addition of automated control valves at *ten* CSO regulators: 044, 025, 014, 027/28, 030, 003, 004, 11B, and 026. The application will include throttle line replacement for nine of the CSO regulators (all but for 11B).

The assistance will include the preparation of a Preliminary Engineering Report (PER) following IDEM's SRF guidelines and preparation of Sections II and IV of the Application form for the Wastewater SRF.

Schedule

Malcolm Pirnie will submit (1) drafts of Sections III and IV of the SRF Application form by February 26, 2009, and (2) the draft PER to DLZ by March 10, 2009. DLZ will review the various drafts, review, consolidate and submit to IDEM by the February 27 and March 13, 2009 deadlines, respectively.

The SRF public hearing will be held after the March 13 report submission. It is anticipated that IDEM will have questions and comments on the draft PER that will need to be addressed by Malcolm Pirnie.

1316 COUNTY-CITY BUILDING
227 W. JEFFERSON BOULEVARD
SOUTH BEND, INDIANA 46601-1830



PHONE 574/ 235-9251
FAX 574/ 235-9171
TDD 574/ 235-5567

CITY OF SOUTH BEND STEPHEN J. LUECKE, MAYOR
BOARD OF PUBLIC WORKS

June 22, 2009

Mr. Richard S. Erhardt
Malcolm Pirnie
5975 Castle Creek Parkway, North Drive, Ste 355
Indianapolis, Indiana 46250

RE: Amendment No. 4 – CSO Net Phase II
Design Work for CSO Net Phase II – Additional Work Added Because of Stimulus Aid
Project No. 109-012

Dear Mr. Erhardt:

The Board of Public Works, at its regular meeting held on June 22, 2009, approved the above referenced Amendment increasing the amount of the original Agreement by \$152,000.00 subject to funding.

Enclosed is a copy of the Amendment for your files.

If you have any questions, please call me at (574) 235-9251.

Sincerely,

Linda M. Martin, Clerk

Enclosure

cc: Patrick Henthorn

STANDARD AGREEMENT FOR PROFESSIONAL SERVICES
Between City of South Bend and Malcolm Pirnie, Inc.

AMENDMENT No. 4

An Agreement was executed on February 26, 2006 between City of South Bend, Indiana [Client], having its principal place of business at having its principal place of business at 1316 County-City Building, South Bend, Indiana 46601, and Malcolm Pirnie, Inc. ["Malcolm Pirnie"], a New York corporation having its principal place of business at 104 Corporate Park Drive, White Plains, New York 10602, and having an office at 5975 Castle Creek Parkway, North Drive, Suite 355, Indianapolis, Indiana 46250. Amendment No. 1 to the Agreement was executed on February 26, 2007. Amendment No. 2 was executed on January 26, 2009 and Amendment No. 3 was executed on March 9, 2009.

Under the Agreement, Malcolm Pirnie provides certain professional engineering services related to deployment of a system of embedded sensors for combined sewer overflow (CSO) control, a proprietary technology called "CSONet".

Client and Malcolm Pirnie now desire to amend the Agreement again to include the amended Services as described below.

In consideration of the mutual promises in the Agreement, Client and Malcolm Pirnie agree to amend the Agreement as the following:

1. **Scope and Schedule for Amended Services.** The scope and schedule for amended services under this Amendment 4 are described in Schedule A-4.
2. **Compensation for Amended Services.** The budget increase for additional services under this Amendment No. 4 is \$152,000 as indicated in Table C-4. The overall budget for Phase II services is revised as follows:

Original Budget for CSONet Phase II, per Amendment No. 2	\$442,000
Budget increase per Amendment No. 3	17,000
Budget increase per this Amendment No. 4	<u>152,000</u>
Revised CSONet Phase II Budget	\$611,000

Other Provisions. Except as amended herein, all other provisions, terms and conditions in the Agreement shall remain in full force and effect.

Execution Authority. This Amendment No. 4 to the Agreement is a valid and authorized undertaking of Client and Malcolm Pirnie. The representatives of Client and Malcolm Pirnie who have signed below have been authorized to do so.

IN WITNESS WHEREOF, the parties hereto have made and executed this Amendment to the Agreement as of the date indicated below.

MALCOLM PIRNIE, INC.

CITY OF SOUTH BEND
BOARD OF PUBLIC WORKS

Date May 28, 2009

By Richard S. Erhardt
Richard S. Erhardt

Title Vice President

Witness Melissa Moran

APPROVED
Board of Public Works

JUN 22 2009
[Signature]
[Signature]
[Signature]

Phase II – CSONet Optimization and Implementation of Real Time Control

Schedule A-4 Scope of Services and Related Matters

Background

Under previously approved **Amendment No. 2**, Malcolm Pirnie is providing design services, bid assistance and construction administration at four “CSONet Phase II” regulator sites: 044, 025, 027/28, and 037. [At South Bend’s request, regulator site 037 was subsequently dropped and replaced by site 003.] The services at each site included site surveys and design of throttle pipe replacements and the addition of automated control valves tied to the CSONet system.

Under previously approved **Amendment No. 3**, Malcolm Pirnie provided assistance to South Bend in applying for economic stimulus funding for CSONet Phase II. The assistance included preparation of an economic stimulus funding application and a Preliminary Engineering Report (PER) following IDEM’s SRF guidelines. The stimulus application was for nine CSONet Phase II regulator sites: the first group of four sites - 044, 025, 027/28 and 003 – plus five more regulator sites – 014, 004, 026, 030 and 11B. The application was successful; South Bend is on the list to receive a combination of grant and loan funding for CSONet Phase II.

Amended Services – Amendment No. 4

Under this **Amendment No. 4**, Malcolm Pirnie’s services shall be amended as follows:

- Four regulator sites - 014, 004, 026 and 030 – shall be added to the CSONet Phase II design. The eight (four original and four new) Phase II sites will be bid as a single construction contract. Malcolm Pirnie will coordinate with Greeley and Hansen, South Bend’s LTCP consultant, regarding the sizing and hydraulic details for all sites. In that regard, following completion of the PER, G&H determined that site 11B, originally included with the funding application, should be deleted from the CSONet Phase II scope due to limited benefit from controlling this site.
- Malcolm Pirnie will coordinate with IDEM to include in the project manual the necessary provisions required of projects receiving federal stimulus funding.
- As part of the construction administration services, Malcolm Pirnie will prepare the applications for stimulus funding payments for construction and for engineering.
- A portion of the Phase II budget originally allocated for the preparation of a basis of design technical memorandum will be reallocated to the stimulus application and PER assistance.

The work anticipated for new regulator sites 014, 004, 026, and 030 is summarized as follows:

- CSO 014. CSO 014 has a small (6-in diameter) throttle pipe that is prone to plugging and dry weather overflows. A new, larger throttle pipe of at least 12-inches in diameter will be constructed to convey flows to an existing larger sewer on Monroe Street. A motor-operated valve installed on the existing sewer on Monroe will control flow to the Monroe & Edgewater Pump Station. The valve will be controlled by CSONet with manual over-ride control capability at the treatment plant. Consideration will be given to installing a bypass around the throttle valve for use when maintenance is needed on the new control valve.
- CSO’s 004, 026, and 030. A throttle valve and additional throttle pipe will be provided at each of these sites. CSO 004 has a 12-inch throttle pipe that will be supplemented with another throttle pipe with a control valve. CSO 026 and 030 have an existing 8-inch and 6-inch throttle pipe respectively that are prone to plugging because of their small size. They will be supplemented with additional throttle pipes sized at least 12-inches with a throttle valve. The throttle valve will be controlled by CSONet with manual over-ride control capability at the plant.

Other than as described above, Malcolm Pirnie’s services – design, bid assistance and construction administration – for CSONet Phase II will be similar to that described in **Amendment No. 2**. South Bend will provide construction inspectors for day-to-day construction observation.

1316 COUNTY-CITY BUILDING
227 W. JEFFERSON BOULEVARD
SOUTH BEND, INDIANA 46601-1830



PHONE 574/ 235-9251
FAX 574/ 235-9171
TDD 574/ 235-5567

CITY OF SOUTH BEND STEPHEN J. LUECKE, MAYOR

BOARD OF PUBLIC WORKS

August 9, 2010

Mr. Luis Montestruque
EmNet, LLC
520 East LaSalle Avenue
South Bend, Indiana 46617

RE: Professional Services Contract – Service for CSONet System

Dear Mr. Montestruque:

The Board of Public Works, at its meeting held on August 9, 2010, approved the above referenced Professional Services Contract in the amount of \$139,380.00.

Enclosed is a copy of the Professional Services Contract for your records.

If you have any questions, please contact me at (574) 235-9251.

Sincerely,

Linda M. Martin, Clerk

Enclosure

c: Patrick Henthorn, Engineering

**AGREEMENT
CITY OF SOUTH BEND, INDIANA
SERVICE PROVIDER SERVICES**

THIS AGREEMENT is made and entered into the 1st day of July, 2010, by and between the City of South Bend, a municipal corporation (hereinafter referred to as "CITY"), and EmNet, LLC, with office at 520 East LaSalle Avenue, South Bend, IN, 46617 (hereinafter referred to as "SERVICE PROVIDER").

RECITALS

WHEREAS, since 2008 SERVICE PROVIDER has directly or indirectly supplied 110 telemetry monitors to CITY and provided comprehensive maintenance service for the monitors ; and

WHEREAS, such services were last rendered pursuant to a service agreement between the parties, dated June, 14, 2007; and

WHEREAS, CITY desires to obtain professional and technical services for the ongoing maintenance of the monitors and related equipment, hereinafter referred to as the "Project", and desires the SERVICE PROVIDER to provide the services described herein; and

WHEREAS, SERVICE PROVIDER represents it has available, and offers to provide, personnel and facilities necessary to accomplish such services as required under this Agreement, and that there are no conflicts of interest prohibited by law entering into this Agreement with CITY.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing and of the covenants, conditions, and premises hereinafter contained, to be kept and performed by the respective parties, it is mutually agreed as follows:

1. Effective Date and Term of Agreement. It is the intent of the parties that this Agreement be effective as of July 1, 2010 ("Effective Date") as to all terms and conditions of the Agreement. The term of this Agreement shall begin on July 1, 2010 and end on June 30, 2011, unless terminated as provided in this Agreement. This Agreement may be extended, with the mutual consent of both parties, for one year increments with price increases/decreases in accordance with the provisions set forth herein , all other terms and conditions specified herein remaining the same.
2. Scope of Services.
 - a. SERVICE PROVIDER shall perform to the reasonable satisfaction of CITY, the maintenance and repair services as described in Exhibit "A," entitled "Scope of Work," on the equipment installed at the locations (hereinafter individually referred to herein as "unit site") listed in Attachment "A," entitled "Sensor Site Schedule. " Upon any relocation or upgrade of any such equipment, Attachment "A" is automatically modified to reflect any such change in location and identity of the equipment and the parties will attach the revised Attachment "A" to this Agreement.

- b. Those services set forth as excluded services in Section II of Exhibit "A" are excluded from the services SERVICE PROVIDER is to perform under this Agreement. Any such excluded services may be included by the parties subject to Section 4d of this Agreement.

3. Payment Terms.

- a. Except for excluded services as provided in Section 3b below, SERVICE PROVIDER'S sole compensation for satisfactory performance of all services required or rendered pursuant to this Agreement shall be a total fee of \$138,980.00, paid on the basis of a monthly fee of \$11,615.00, in accordance with the Price of Services contained in Attachment "D". Such fee includes all parts, labor and expenses incurred by SERVICE PROVIDER in performance of the services.
- b. SERVICE PROVIDER'S sole compensation for satisfactory performance of all excluded services, as listed in Section III of Exhibit "A," required or rendered pursuant to Section 3d below and authorized in writing by the CITY will be paid on a time and materials basis in accordance with the price list contained in Attachment "E."
- c. SERVICE PROVIDER shall render detailed monthly statements following the end of the respective month for services performed in the preceding month. Statements will be payable in the normal course of CITY business, but in no event later than 30 calendar days following receipt of the detailed statement.
- d. The parties may modify this Agreement to increase the scope of services or provide for the rendition of services not required by this Agreement. Any increase or change in the scope of services must be made by written amendment to the Agreement signed by an authorized representative for each party.

4. CITY Responsibilities.

- a. CITY will not make changes in the monitoring equipment or software at the unit sites that would preclude SERVICE PROVIDER from being able to service CITY'S equipment, except as authorized in writing by SERVICE PROVIDER.
- b. CITY will not make repairs or perform maintenance or attempt to do so on the flow monitoring equipment at the unit sites, except as authorized in writing by SERVICE PROVIDER.
- c. CITY will allow SERVICE PROVIDER to address the system electronically for purposes of running diagnostic tests and performing other pertinent functions during repair and maintenance of the monitoring equipment at the unit sites.
- d. Upon request by SERVICE PROVIDER, CITY will make available to SERVICE PROVIDER any existing data or monitor information which would assist in the diagnostic procedure.
- e. CITY will designate a representative who shall be the primary contact with SERVICE PROVIDER for the resolution of field problems. Written notification of any change in this primary contact will be immediately provided to SERVICE PROVIDER.
- f. CITY will use its best efforts to provide and maintain internet connectivity to each unit site listed in Attachment "B." (GNode Schedule).
- g. Upon reported observations thereof, CITY will be responsible for removal of any vegetation, debris or silt that may or does create backups or flow disruptions that may cause monitor damage at the unit sites or have a negative effect on data accumulation.

5. Termination of Agreement and Suspension of Services.
- a. The term of this Agreement shall continue in full force and effect until it is terminated. Either party may terminate this Agreement without cause by giving the other party ninety (90) days prior written notice of termination. In the event either party fails to perform as provided herein, the other party may terminate this Agreement if such failure to perform is not cured or remedied within ten (10) days following receipt of written notice of the failure to perform.
 - b. In the event of termination not due to the material default of SERVICE PROVIDER, SERVICE PROVIDER shall be paid compensation for services satisfactorily performed prior to the effective date of the notice of termination. In the event of termination due to the material default of SERVICE PROVIDER, CITY may withhold an amount that would otherwise be payable as an offset to, but not in excess of, CITY'S damages caused by such failure.
 - c. In addition to SERVICE PROVIDER'S right of termination pursuant to Section 6a and in the sole event of late payment of any amount due SERVICE PROVIDER under this Agreement, SERVICE PROVIDER may, upon 7 calendar days prior written notice, suspend services hereunder until SERVICE PROVIDER has been paid in full such amounts due.
6. Force Majeure. Neither party shall be obligated to perform, and neither party shall be deemed to be in default of its performance, if prevented by (i) fire not caused by the act or omission of the party, earthquake, hurricane, wind, flood, act of God, riot or civil commotion occurring at the unit site which the party could not reasonably have foreseen and provided for; (ii) any law, ordinance, rule, regulation, or order of any public or military authority stemming from the existence of economic or energy controls, hostilities, war, or governmental law and regulation; or (iii) labor dispute which results in a strike or work stoppage affecting the unit site or services described in this Agreement other than those occurring as a result of an act or omission of SERVICE PROVIDER; provided, however, the event of force majeure was not in the reasonable control of the party.
7. Warranties. All new products, including, but not limited to, parts, manufactured by SERVICE PROVIDER will be free from defects in material and workmanship for up to 1 year following the date of installation by SERVICE PROVIDER. During this warranty period, the product will be promptly repaired or replaced, at SERVICE PROVIDER'S sole option. Warranty repairs and replacements will be performed only by SERVICE PROVIDER or its authorized representative. Any unauthorized repair or replacement, including without limitation opening up a monitor, will void this product warranty. This warranty is available to CITY as the original purchaser of the product and only if it has been installed and maintained by SERVICE PROVIDER. This warranty does not apply to damage by catastrophes of nature, fire, explosion, acts of God (including, but not limited to, lightning damage and power surges), accidents, improper use or service other than by SERVICE PROVIDER, damage during transportation, or other similar causes; provided, however, such causes are beyond SERVICE PROVIDER'S control.
8. Limited Liability of SERVICE PROVIDER. SERVICE PROVIDER will use its best efforts to perform as agreed herein. However, in no event, even if SERVICE PROVIDER is determined to be responsible, shall SERVICE PROVIDER be liable for any loss or damage suffered by the CITY beyond what the CITY has paid SERVICE PROVIDER pursuant to this Agreement in the most recent twelve months from the date of the loss or damage. In no event shall SERVICE PROVIDER have any liability to any third parties as the result of any responsibilities for services herein or acts made pursuant hereto and

the CITY shall indemnify SERVICE PROVIDER from any actions or claims made or liability established by any third party, including costs and attorney fees incurred by SERVICE PROVIDER.

9. Liquidated Damages. Liquidated damages will be linked to SERVICE PROVIDER performance for system-wide uptime. SERVICE PROVIDER will achieve 80% system wide uptime for monitored sites. Uptime is defined as the availability of sensor data as collected by the monitoring equipment. System-wide uptime shall be calculated based on the total number of available readings. For example, with 110 monitored sites on a 5-minute sampling rate, there are 950,400 available readings in a 30-day month. To avoid liquidated damages, SERVICE PROVIDER needs to provide a total of 760,320 readings. A monthly report will be submitted by SERVICE PROVIDER that shows total system-wide uptime. According to Attachment "D", the total price for Monthly Services is \$8,415.00 per month. If SERVICE PROVIDER meets the 80% uptime guarantee then this amount will be billed in full each month. If the above uptime guarantee is not met, then SERVICE PROVIDER will only bill for the percentage of data that is available to the CITY. However, SERVICE PROVIDER will not be penalized if:

- a. Any sensor site or associated equipment is removed at the direction of CITY.
- b. Any sensor site associated with line powered equipment has the electric power disconnected by the CITY, electric company, or any other third party.
- c. Downtime is due to repairs or modifications executed by action of the CITY, its employees, agents, contractors or invitees.
- d. Downtime is due to events beyond the SERVICE PROVIDER's control such as, but not limited to, vandalism, construction by others that cut electric lines, unusually heavy debris that destroys or otherwise disables sensor monitors, or acts of God (e.g., lightening strikes, etc.).

10. Insurance.

- a. Before commencing its services and as a condition of payment, SERVICE PROVIDER shall procure and maintain insurance as set forth in Attachment "C", "Insurance", which will protect it from claims arising out of the performance of its services under this Agreement, whether such services are provided by SERVICE PROVIDER or by any of its subcontractors or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. SERVICE PROVIDER shall cause CITY to be listed as an additional insured on any applicable general liability insurance policy carried by SERVICE PROVIDER.
- b. SERVICE PROVIDER shall require its subcontractors to maintain Comprehensive General Liability, Automobile Liability, and Professional Liability coverage with a company satisfactory to CITY and with limits acceptable to CITY.

11. General Terms.

- a. Except as otherwise provided by law, all notices expressly required of CITY within the body of this Agreement, and not otherwise specifically provided for, shall be effective only if signed by CITY'S Director of Public Works or his/her designee.
- b. Records of SERVICE PROVIDER'S expenses pertaining to the Project shall be kept on a generally recognized accounting basis and shall be available to CITY or its authorized representatives upon request during regular business hours throughout the life of this Agreement and for a period of three years after final

payment or, if longer, for any period required by law. In addition, all books, documents, papers, and records of SERVICE PROVIDER pertaining to the Project shall be available for the purpose of making audits, examinations, excerpts, and transcriptions for the same period of time. This Section shall survive expiration or termination of this Agreement.

12. Notices. Except as otherwise expressly provided in this Agreement, any notice required or intended to be given to either party under the terms of this Agreement shall be in writing and shall be deemed to be duly given if delivered personally, transmitted by facsimile followed by telephone confirmation of receipt, or sent by United States registered or certified mail, with postage prepaid, return receipt requested, addressed to the party to which notice is to be given at the party's address set forth on the signature page of this Agreement or at such other address as the parties may from time to time designate by written notice. Notices served by United States mail in the manner above described shall be deemed sufficiently served or given at the time of the mailing thereof.
13. Binding. Once this Agreement is signed by all parties, it shall be binding upon, and shall inure to the benefit of, all parties, and each parties' respective heirs, successors, assigns, transferees, agents, servants, employees and representatives.
14. Compliance With Law. In providing the services required under this Agreement, SERVICE PROVIDER shall at all times comply with all applicable laws of the United States, the State of Indiana and CITY, and with all applicable regulations promulgated by federal, state, regional, or local administrative and regulatory agencies, now in force and as they may be enacted, issued, or amended during the term of this Agreement.
15. Governing Law and Venue. This Agreement shall be governed by, and construed and enforced in accordance with, the laws of the State of Indiana, excluding, however, any conflict of laws rule which would apply the law of another jurisdiction. Venue for purposes of the filing of any action regarding the enforcement or interpretation of this Agreement and any rights and duties hereunder shall be Saint Joseph County, Indiana.
16. Headings. The section headings in this Agreement are for convenience and reference only and shall not be construed or held in any way to explain, modify or add to the interpretation or meaning of the provisions of this Agreement.
17. Severability. The provisions of this Agreement are severable. The invalidity, or unenforceability of anyone provision in this Agreement shall not affect the other provisions.
18. Interpretation. The parties acknowledge that this Agreement in its final form is the result of the combined efforts of the parties and that, should any provision of this Agreement be found to be ambiguous in any way, such ambiguity shall not be resolved by construing this Agreement in favor of or against either party, but rather by construing the terms in accordance with their generally accepted meaning.
19. Exhibits. Each exhibit and attachment referenced in this Agreement is, by the reference, incorporated into and made a part of this Agreement.
20. Precedence of Documents. In the event of any conflict between the body of this Agreement and any Exhibit or Attachment hereto, the terms and conditions of the body

of this Agreement shall control and take precedence over the terms and conditions expressed within the Exhibit or Attachment. Furthermore, any terms or conditions contained within any Exhibit or Attachment hereto which purport to modify the allocation of risk between the parties, provided for within the body of this Agreement, shall be null and void.

21. Survivability. Whether or not expressly set forth in this Agreement for any specific provision, all terms and conditions of this Agreement that require performance beyond the expiration or termination of this Agreement shall survive such expiration or termination.
22. Extent of Agreement. Each party acknowledges that they have read and fully understand the contents of this Agreement. This Agreement represents the entire and integrated agreement between the parties with respect to the subject matter hereof and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be modified only by written instrument duly authorized and executed by both CITY and SERVICE PROVIDER.
23. Pricing Conditions. For the first twelve months of the Agreement, pricing will be fixed. Sixty days prior to the ending date of the Agreement, SERVICE PROVIDER may submit proposed pricing revisions for the following contract term, which will be subject to negotiation by CITY at CITY'S discretion. CITY'S Public Works Director ("Director"), or his/her designee, shall be the authorized CITY agent in any such negotiation. SERVICE PROVIDER must provide adequate documentation to substantiate any request for a price increase.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date first above written.

SERVICE PROVIDER

CITY

EMNET, LLC

By: _____

Its: _____



President
7/1/10

By: _____

Its: _____

APPROVED
Board of Public Works

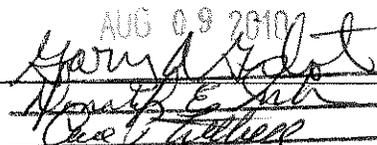
AUG 09 2010

Chris Walker

EXHIBIT "A"

SCOPE OF WORK

Section I. Monthly Service

The SERVICE PROVIDER shall perform the following maintenance and/or repair services on equipment installed at the locations listed in Attachment A, entitled "Sensor Site Schedule", attached hereto and by this reference incorporated as part of this Exhibit "A". The services shall include provision for all labor, parts, and field equipment.

The monitor maintenance and repair services to be provided by the SERVICE PROVIDER shall include :

- A. Equipment Repair and Maintenance Services: The SERVICE PROVIDER on a scheduled monthly basis will perform repair and maintenance services necessary to keep the equipment operating in accordance with manufacturer's design specifications. These services will be performed as required both in the field and from the SERVICE PROVIDER service facilities. The services to be performed under this agreement include but are not limited to the following :
 - a. General equipment maintenance including battery replacement;
 - b. Batteries shall be replaced when their voltages are 'critical' on the diagnostic evaluation.
 - c. The following items will be conducted under the normal service plan :
 - i. Repair of electronic failure internal to the equipment;
 - ii. Repair of communication link failure internal to the equipment ;
 - iii. Repair or replacement of circuit boards, internal electronics, connectors, wiring , chassis, manhole cover, and miscellaneous items as required.

The SERVICE PROVIDER shall maintain a log of "Statement of Repair Service Forms ," which documents all maintenance and diagnostics performed. No non-emergency work shall be done on State and Federal Holidays.

- B. System Performance: Under this Scope of Work, the SERVICE PROVIDER will monitor the system-wide up-time daily. The SERVICE PROVIDER shall take action to address the problem in no more than 5 working days. The SERVICE PROVIDER shall exclude from the system-wide up-time calculation defined in Section 9, monitoring sites under maintenance and repair.
- C. Contingency Services: The SERVICE PROVIDER will perform the following 'contingency services' as requested by the CITY. The total cost in time and materials for 'contingency services' shall not exceed \$3,200 per each calendar month. Any service provided by SERVICE PROVIDER beyond the allocated 'contingency services' will fall under 'Excluded Services'. SERVICE PROVIDER will keep and maintain all documentation related to 'contingency services'. The following services and equipment may be considered part of 'contingency services':
 - a. Changes or alterations in specifications;
 - b. Painting , refinishing, or furnishing materials;
 - c. Installation, moving, or removing of equipment unless required as part of the repair process;
 - d. Repairs made necessary by action of the CITY, its employees, agents, contractors or invitees;

- e. Repairs made necessary due to attempts by the CITY to repair or maintain the SERVICE PROVIDER equipment unless authorized by the SERVICE PROVIDER;
- f. Maintenance and repairs to equipment not specifically identified in Attachment A, "Equipment Schedule";
- g. Service during holidays or weekends, or service not covered by this Agreement. Holidays are defined as New Years Day, Martin Luther King Day, Presidents Day, Good Friday, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and the day after, and Christmas Day;
- h. Maintenance and repairs made necessary due to events beyond the SERVICE PROVIDER's control such as, but not limited to, vandalism, construction by others that cut electric lines, unusually heavy debris that destroys or otherwise disables sensor monitors, or acts of God (e.g., lightning strikes, etc.).

Section II. Data Warehousing and Website Access"

The SERVICE PROVIDER will maintain a database containing all the data collected by the monitors for the past three (3) years. The SERVICE PROVIDER will give the USER access to the data through two methods a web site portal and a database account.

Section III. Excluded Services:

The following equipment and services shall be excluded from the monthly maintenance and repair service agreement if they exceed the allocated quota for 'contingency services':

- D. Communication and electrical lines external to the equipment;
- E. Changes or alterations in specifications;
- F. Painting , refinishing, or furnishing materials;
- G. Installation, moving, or removing of equipment unless required as part of the repair process;
- H. Repairs made necessary by action of the CITY, its employees, agents, contractors or invitees;
- I. Repairs made necessary due to attempts by the CITY to repair or maintain the SERVICE PROVIDER equipment unless authorized by the SERVICE PROVIDER;
- J. Maintenance and repairs to equipment not specifically identified in Attachment A, "Equipment Schedule";
- K. Service during holidays or weekends, or service not covered by this Agreement. Holidays are defined as New Years Day, Martin Luther King Day, Presidents Day, Good Friday, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and the day after, and Christmas Day;
- L. Maintenance and repairs made necessary due to events beyond the SERVICE PROVIDER's control such as, but not limited to, vandalism, construction by others that cut electric lines, unusually heavy debris that destroys or otherwise disables sensors, or acts of God (e.g., lightning strikes, etc.).

Such services requested of the SERVICE PROVIDER outside of this Scope of Work will fall under Time and Material.

ATTACHMENT A

SENSOR SITE SCHEDULE

This sensor site schedule identifies the unit covered by the agreement between the City of South Bend and EmNet, LLC.

Currently, the monitoring equipment consists of Gnodes (with and without cellular communication) and Inodes.

Name	Location	Sensor	ID
G.1.1	CSO 1 Oakwood and Riverside	Pressure sensor	19907
G.3a.1	Interceptor by CSO 3, Riverside and Angela -- Stee	New A/V meter	19892
G.29.1	CSO 6 Leland and Riverside	Existing A/V meter	19286
G.11.2	CSO 11, MH 82.31, LaSalle and Michigan	Pressure sensor	19882
G.13.1	Monroe and Edgewater	Existing level sensor	32299
G.15.1	CSO 22, East End Trunk Sewer	Existing level sensor	19107
G.8.1	River Crossing #4, Riverside and Lafayette	Pressure sensor	7092
G.10.1	CSO 28, Niles and Sorin	Pressure sensor	15914
G.24.1	CSO 33, Emerson and Northside	Pressure sensor	32318
G.17.1	Chippewa and Main	Pressure sensor	14836
G.30.1	CSO 49, Sample and Lincolnway E	Pressure sensor	10272
G.18.1	Ireland Miami Basin	New A/V meter	29770
I.18.2	Ireland Miami Basin	Pressure sensor	19812
G.3a.2	CSO 2, Sherman and Riverside	Pressure sensor	32309
G.3b.1	CSO 4 Angela and Riverside	Pressure sensor	30514
I.8.4	CSO 7 Lafayette and Park Ln	Pressure sensor	19082
I.8.5	CSO 8, Park Ln and Main	Pressure sensor	33946
G.10.2	CSO 10 Bartlett and Riverside	Pressure sensor	29660
G.30.2	CSO 18, Bowman Creek	Pressure sensor	26772
G.30.3	CSO 19, Miami and Lincolnway E	Pressure sensor	24281
G.15.3	CSO 21, Twyckenham and Lincolnway E	Pressure sensor	29630
I.9.2	CSO 26, Michigan and North Shore	Pressure sensor	29639
G.11.1	CSO 29, Colfax and Sycamore	Pressure sensor	19301
G.13.2	CSO 30 -- St. Louis and Northside	Pressure sensor	33801
G.30.4	CSO 31, Cooper Bridge	Pressure sensor	13119
G.24.2	CSO 35, Clover and Northside	Pressure sensor	33865
G.24.3	CSO 36, Twyckenham and Northside	Pressure sensor	33811
G.21.4	Interceptor by CSO 37, 21st and Pleasant	Pressure sensor	8924
G.21.3	Interceptor by CSO 38, Northside and 26th	Pressure sensor	19306
G.21.2	CSO 40, Northside, between 31st and 32nd	Pressure sensor	19097
G.20.3	CSO 41, Northside and 36th	Pressure sensor	4943
G.20.2	CSO 42, Northside and Logan	Pressure sensor	19371
G.1.2	CSO 44 Northview and Riverside	Pressure sensor	33812

G.15.2	Pri. River Crossing, CSO 48, Robinson and Lincoln.	Pressure sensor	29720
G.22.2	CSO 60, Emerson and Mishawaka	Pressure sensor	30437
G.5.2	Model City Basin	Pressure sensor	23867
G.31.1	Beck's Lake	Pressure sensor	26121
I.3a.1	Interceptor by CSO 2, Blyler and Riverside	Pressure sensor	3516
I.3b.1	Interceptor by CSO 4, Riverside and Angela	Pressure sensor	19067
I.8.1	Interceptor by River Crossing #4, Lafayette and N	Pressure sensor	19018
I.13.1	CSO 14 -- Monroe and Lincolnway E	Pressure sensor	20128
I.13.3	Interceptor by RC #3, St. Louis and Northside	Pressure sensor	29788
I.8.2	CSO 25, Lafayette and North Shore	Pressure sensor	7608
I.9.3	Interceptor by CSO 26, Michigan and North Shore	Pressure sensor	29629
I.11.1	Interceptor by CSO 29, Colfax and Niles	Pressure sensor	20118
I.30.1	Interceptor by CSO 31, Northside, N of Osbourne	Pressure sensor	33851
I.24.1	Interceptor by CSO 35, Northside and Clover	Pressure sensor	33896
I.21.1	Interceptor by CSO 37, Pleasant and 21st	Pressure sensor	18250
I.20.1	Interceptor by CSO 42, Northside and Logan	Pressure sensor	9271
I.1.1	Interceptor by CSO 44, Northview and Riverside	Pressure sensor	14517
I.15.1,2	Interceptor by CSO 48, Northside, E of Twycken.	Pressure sensor	30494
I.30.2	Interceptor by CSO 49, Northside, S. of Sample	Pressure sensor	33875
I.30.3	CSO 17, Sample and Lincolnway E	Pressure sensor	33842
I.1.2	TMP 1-1, Oakwood and Inglewood	Pressure sensor	17304
I.2.1	Hamilton and Portage	Pressure sensor	8391
I.3a.2	TMP 2-1, Sherman and Kinyon	Pressure sensor	42041
I.4.1	TMP 3-1, Goodland and Lincolnway W	Pressure sensor	32288
I.4.2	TMP 3-2, Bendix and Westmoor	Pressure sensor	14994
I.6.1	TMP 3-3, Sheridan and Sample	Pressure sensor	6158
I.3b.2	TMP 4-1, Portage and Blaine	Pressure sensor	33983
I.7.1	TMP 6-1, Lincoln Way W and Madison	Pressure sensor	4244
I.5.1	TMP 6-2, Kenwood and Olive	Pressure sensor	30524
I.5.2	TMP 6-3, Grace and Olive	Pressure sensor	28621
I.12.1	TMP 6-4, Taylor and Western	Pressure sensor	20038
I.11.3	TMP 8-1, Madison and Main	Pressure sensor	19321
I.10.1	TMP 10-1, Navarre and Riverside	Pressure sensor	5840
I.12.2	TMP 11-1, South and Main	Pressure sensor	33936
I.12.3	TMP 11-2, South and Michigan	Pressure sensor	29680
I.12.4	TMP 11-3, Broadway and Michigan	Pressure sensor	33866
I.13.2	TMP 14-1, Bronson and Lincoln Way E	Pressure sensor	29721
I.32.1	TMP 18-1, Fellows and Donald	Pressure sensor	18245
I.17.1	TMP 18-2, Chippewa, West of Main	Pressure sensor	7426
I.14.1	TMP 19-1, Dayton and Miami	Pressure sensor	21805
I.15.3	TMP 22-1, Twyckenham and Ewing	Pressure sensor	29649

I.16.1	TMP 22-2, Ridgedale and Twyckenham	Pressure sensor	16389
I.18.1	TMP 22-3, Ireland and High	Pressure sensor	19376
I.8.3	TMP 25-1, Tonti and Lafayette	Pressure sensor	11729
I.9.4	TMP 26-1, Stanfield and Howard	Pressure sensor	19281
I.9.1	TMP 26-2, Leeper and Napoleon	Pressure sensor	33852
I.27.2	TMP 27-1, Campeau and Eddy	Pressure sensor	29691
I.27.1	TMP 27-2, Howard and Rte. 23	Pressure sensor	19002
I.33.1	TMP 28-1, Eddy and Madison	Pressure sensor	29700
I.11.2	TMP 28-2, Niles and Colfax	Pressure sensor	29760
I.23.5	TMP 31-1, Southwood and Twyckenham	Pressure sensor	29659
I.23.4	TMP 31-2, Twyckenham and Mishawaka	Pressure sensor	17462
I.25.1	TMP 37-1, Jefferson and 26th	Pressure sensor	33925
I.26.1	TMP 37-2, McKinley and Ironwood	Pressure sensor	19271
I.20.3	TMP 40-1, Mishawaka and 34th	Pressure sensor	29749
I.20.2	TMP 41-1, Mishawaka and 36th	Pressure sensor	29711
I.22.1	TMP 60-1, Emerson and Ruskin	Pressure sensor	16072
I.22.2	TMP 60-2, Oakland and Ruskin	Pressure sensor	19291
I.22.3	TMP 60-3, Clover and Ruskin	Pressure sensor	4643
I.23.3	TMP 60-4, Twyckenham and Ruskin	Pressure sensor	33781
I.23.2	TMP 60-5, Bellevue and Ruskin	Pressure sensor	29740
I.23.1	TMP 60-6, Esther and Ruskin	Pressure sensor	19316
I.16.2	Chippewa Basin	Pressure sensor	10822
I.21.2	CSO 38, Northside and 26th	Pressure sensor	19872
I.28.1	Hickory/Logan Basin	Pressure sensor	33791
G.15.2	CSO 48, Robinson and Lincoln Way E	Pressure sensor	29720
I.15.1,2	Interceptor by CSO 48, Northside, E of Twycken.	Pressure sensor	30494
G.24.1	Interceptor by CSO 33, Emerson and Northside	New A/V meter	32318
G.10.1	Interceptor by CSO 27/28 Niles and Sorin	New A/V meter	15914
G.10.1	CSO 27, Niles and Sorin	Pressure sensor	15914
G.21.4	CSO 37, 21st and Pleasant	Existing A/V meter	8924
G.21.1	CSO 39, 27th St. Lift Station	Pressure sensor	33762
G.21.1	Interceptor by CSO 39, 27th St. Lift Station	New A/V meter	33762
G.20.3	Interceptor by CSO 41, Northside and 36th	Pressure sensor	4943
G.11.2	CSO 11B, LaSalle and Michigan	Pressure sensor	19882
G.11.2	CSO 11A east, LaSalle and Michigan	Pressure sensor	19882
G.11.2	CSO 11A west, LaSalle and Michigan	Pressure sensor	19882
G.3a.1	CSO 3, Riverside and Angela -- Steel Warehouse	Existing A/V meter	19892

**ATTACHMENT B
GNODE SCHEDULE**

This equipment schedule identifies the Gnode units covered by the agreement between the City of South Bend and EmNet, LLC.

The listed Gnodes have cellular communication and are needed for logging sensor information.

Name	Location	ID
G.1.1	CSO 1 Oakwood and Riverside	19907
G.2.1	Hamilton and Portage	29759
G.3a.1	CSO 3 Sherman and Riverside	19892
G.4.1	Bendix and Westmoor	33895
G.5.1	Orange and Olive	33876
G.6.1	Sheridan and Sample	33832
G.7.1	Walnut and Euclid gate	33802
G.8.1	River Crossing #4 Riverside and Lafayette	07092
G.9.1	North Shore and Michigan	19296
G.10.1	CSO 27/28 Niles and Sorin	15914
G.11.1	CSO 29 Lift Station, Cabinet 2	19301
G.12.1	Michigan and South	29650
G.13.1	Monroe and Edgewater	32299
G.14.1	Calvert and Miami	33792
G.15.1	CSO 22 East End Trunk Sewer	19107
G.16.1	Miami and Ridgedale	42042
G.17.1	Chippewa and Main	14836
G.18.1	Ireland Miami Basin	29770
G.19.1	York and Provincial	NA
G.20.1	Mishawaka and Logan	06658
G.21.1	CSO 39 27th St. Lift Station	33762
G.22.1	Twyckenham and Mishawaka	30426
G.23.1	Twyckenham and Mishawaka	33821
G.24.1	CSO 33 Emerson and Northside	32318
G.25.1	Jefferson and 26th	19877
G.26.1	McKinley and Ironwood	33916
G.27.1	Eddy and Corby	29750
G.28.1	Corby and Hickory	30483
G.29.1	CSO 6 Leland and Riverside	19286
G.30.1	CSO 49 Sample and Lincolnway E	10272
G.31.1	Beck's Lake	26121
G.32.1	Ewing and Fellows	20495
G.33.1	Madison and Eddy	22639

G.34.1	Taylor and Western	19092
G.35.1	Broadway and Michigan	30474
G.36.1	CSO 37 Pleasant and 21st	21805

**ATTACHMENT C
INSURANCE REQUIREMENTS**

The limits of liability for the insurance required by the Agreement.

- 1) Workers' Compensation: Statutory
- 2) Employer's Liability –
 - a. Each Accident \$1,000,000
 - b. Disease, Policy Limit: \$1,000,000
 - c. Disease, Each Employee: \$1,000,000
- 3) Commercial General Liability --
 - a. Each Occurrence: \$1,000,000
 - b. General Aggregate: \$2,000,000
 - c. Products/Completed Operations: \$1,000,000
 - d. Personal and Advertising \$1,000,000
 - e. Contractual Liability--
 - (i) Each Occurrence: \$1,000,000
 - (ii) General Aggregate \$2,000,000
- 4) Excess Umbrella Liability --
 - a. Each Occurrence: \$2,000,000
 - b. General Aggregate: \$2,000,000
- 5) Business Automobile Liability --
 - a. Bodily Injury –Each Accident: \$1,000,000
 - b. Property Damage –Each Accident: \$1,000,000
- 6) Professional Liability Insurance
 - a. Each Claim Made: \$1,000,000
 - b. Annual Aggregate: \$1,000,000

**ATTACHMENT D
PRICE OF SERVICES**

Description	Units	Monthly Price per Unit	Monthly Service Price	Yearly Total
Monthly Service	110	\$76.50	\$8,415.00	\$100,980.00
Contingency Services	NA	NA	\$3,200.00	\$38,400.00
Sales Tax			NA	NA
TOTAL			\$11,615.00	\$138,980.00

\$139,380.00 LM

**ATTACHMENT E
EMNET PRICE LIST**

Equipment Costs

	Price
Logicover	\$5,008
Gateway	\$2,674
Repeater	\$1,294

Service and Subscription Fee

	Basic	Intermediate	Premium
Fee per sensor site per month	\$45	\$125	\$225
Data access	✓	✓	✓
Raw data storage and backup	✓	✓	✓
Website		✓	✓
Engineer phone assistance		✓	✓
In house service training		✓	✓
In house maintenance		✓	✓
Initial onsite consult		✓	✓
Installation oversight / set up*			✓
Regular onsite maintenance			✓
Email / phone alerts			✓
50% Equipment discount			✓

* First 10 sensor sites, hourly rate applied thereafter

**BOARD OF PUBLIC WORKS
AGENDA ITEM REVIEW REQUEST FORM**

Date 8-2-10 Department PW
 BPW Date 8-9-10 Phone 235-5998
 Name Patrick Henthorn

Required Prior to Submittal to Board
 Legal Attorney Name Greene
 Controller Controller review is required for all Contracts \$5,000.00 or more and greater than one year in length per the City Purchasing Policy
 Other Appropriate Reviewers

Check the Appropriate Item Type – Required for All Submissions

<input type="checkbox"/> Agreement	<input checked="" type="checkbox"/> Contract	<input type="checkbox"/> Proposal	<input type="checkbox"/> Addendum
<input type="checkbox"/> Claim			
<input type="checkbox"/> Bid Opening	<input type="checkbox"/> Bid Award	<input type="checkbox"/> Req. to Advertise	<input type="checkbox"/> Title Sheet
<input type="checkbox"/> Quote Opening	<input type="checkbox"/> Quote Award		
<input type="checkbox"/> Chg Order No. _____	<input type="checkbox"/> C/O & PCA No. _____	<input type="checkbox"/> PCA	
<input type="checkbox"/> Ease./Encroach.	<input type="checkbox"/> Traffic Control	<input type="checkbox"/> Resolution	
<input type="checkbox"/> Other: _____			

Required Information

Company or Vendor Name	EmNet
New Vendor	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, Approved by Purchasing
Project Name	
Project Number	
Funding Source	Wastewater Contractual services
Account No.	641-793-0630-6335
Amount	\$ 139,380
Terms of Contract	
Purpose/Description	<u>Annual service agreement with EmNet for the CSOnet system.</u>

For Change Orders Only

Amount of	<input type="checkbox"/> Increase	\$
	<input type="checkbox"/> Decrease	\$
Previous Amount	\$	
Current Percent of Change:	%	
New Amount	\$	
Total Percent of Change:	%	
PO No.		

Dispersal After Approval

Copy Original

1316 COUNTY-CITY BUILDING
227 W. JEFFERSON BOULEVARD
SOUTH BEND, INDIANA 46601-1830



PHONE 574/ 235-9251
FAX 574/ 235-9171
TDD 574/ 235-5567

CITY OF SOUTH BEND STEPHEN J. LUECKE, MAYOR

BOARD OF PUBLIC WORKS

August 23, 2010

Mr. Paul Vogel
Greeley & Hansen, LLC
6640 Intech Boulevard, Suite 180
Indianapolis, Indiana 46278

RE: Agreement for Professional Services – General Assistance for CSO EmNet, SWMM
Model and DMR reports

Dear Mr. Vogel:

The Board of Public Works, at its meeting held on August 23, 2010, approved the above referenced Agreement for Professional Services in the amount of \$75,000.00.

Enclosed is a copy of the Agreement for your records.

If you have any questions, please contact me at (574) 235-9251.

Sincerely,

A handwritten signature in cursive script that reads 'Linda M. Martin'.

Linda M. Martin, Clerk

Enclosure

c: Al Greek, Environmental Services



GREELEY AND HANSEN

100 S. Wacker Drive, Suite 1400
Chicago, Illinois 60606
p 312 558 9000
f 312 558 1986
www.greeley-hansen.com

August 9, 2010

Mr. Al Greek
Director of Wastewater
Department of Environmental Services
3113 Riverside Drive
South Bend, IN 46628

Subject: Agreement for Professional Services
General Assistance

Dear Al:

We are pleased to submit this proposal to provide assistance with miscellaneous professional services on an as needed basis as requested by the City of South Bend Department of Environmental Services (City). Such services may include, but are not limited to, the following:

- Regulatory compliance and reporting (DMR) assistance;
- Coordination of radar rainfall data program;
- CSONet optimization support;
- General CSO Program assistance.

The specific Scope of Services for each task will be as requested by the City and confirmed in writing prior to providing the services.

We propose to provide the services described herein on the basis of cost of labor times a multiplier of 3.22. Travel and other direct costs will be invoiced at actual cost times a factor of 1.1. The cost for the services described will not to exceed \$75,000, except as authorized in writing by the City. Invoices will be presented as needed, but no more frequently than monthly, detailing the labor and expenses incurred by task for the billing period. Invoices will be payable upon receipt.

If this proposal is acceptable please sign and date, as indicated below, and return one original authorization for our files and to serve as our notice to proceed. Please contact me at 317.924.3380 if you have any questions or comments regarding this proposal.

Yours very truly,

Greeley and Hansen LLC

Paul J. Vogel, P.E.
Executive Vice President, Western Operations

AUTHORIZATION:

Department of Environmental Services
City of South Bend, Indiana

Approved:



Gary A. Gilot, P.E., President

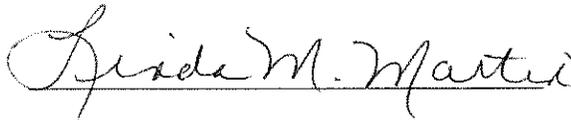


Donald E. Inks, Member



Carl P. Littrell, Member

Attest:



Date:

8/23/2010

**BOARD OF PUBLIC WORKS
AGENDA ITEM REVIEW REQUEST FORM**

Date 8-10-10 Department DES WWTP
 BPW Date 8-23-10 Phone 277-8515
 Name AL Greek

Required
Prior to
Submittal to
Board

Legal Attorney Name
 Controller Controller review is required for all Contracts \$5,000.00 or more
 and greater than one year in length per the City Purchasing
 Policy
 Other Appropriate Reviewers

Check the Appropriate Item Type – Required for All Submissions

<input checked="" type="checkbox"/> Agreement	<input type="checkbox"/> Contract	<input type="checkbox"/> Proposal	<input type="checkbox"/> Addendum
<input type="checkbox"/> Claim			
<input type="checkbox"/> Bid Opening	<input type="checkbox"/> Bid Award	<input type="checkbox"/> Req. to Advertise	<input type="checkbox"/> Title Sheet
<input type="checkbox"/> Quote Opening	<input type="checkbox"/> Quote Award		
<input type="checkbox"/> Chg Order No. _____	<input type="checkbox"/> C/O & PCA No. _____	<input type="checkbox"/> PCA	
<input type="checkbox"/> Ease./Encroach.	<input type="checkbox"/> Traffic Control	<input type="checkbox"/> Resolution	
<input type="checkbox"/> Other: _____			

Required Information

Company or Vendor Name	Greeley & Hansen Engineers
New Vendor	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, Approved by Purchasing
Project Name	Professional Services
Project Number	NA
Funding Source	641 Wastewater O&M funds
Account No.	641-0630-793-3102 engineering
Amount	\$ \$75,000
Terms of Contract	1 year
Purpose/Description	<u>General assistance for CSO Emnet, SWMM model and DMR reports</u>

For Change Orders Only

Amount of	<input type="checkbox"/> Increase	\$ _____
	<input type="checkbox"/> Decrease	\$ _____
Previous Amount	\$ _____	
Current Percent of Change:	_____ %	
New Amount	\$ _____	
Total Percent of Change:	_____ %	
PO No.	_____	

Dispersal After Approval

Copy Original

1316 COUNTY-CITY BUILDING
227 W. JEFFERSON BOULEVARD
SOUTH BEND, INDIANA 46601-1830



PHONE 574/ 235-9251
FAX 574/ 235-9171

CITY OF SOUTH BEND STEPHEN J. LUECKE, MAYOR
BOARD OF PUBLIC WORKS

June 27, 2011

Mr. Luis Montestruque
EmNet, LLC
520 West LaSalle Avenue
South Bend, Indiana 46617

RE: Agreement – Annual Service Agreement for CSONet System

Dear Mr. Montestruque:

The Board of Public Works, at its meeting held on June 27, 2011, approved the above referenced Agreement in the amount of \$143,970.00.

Enclosed is a copy of the Agreement for your records.

If you have any questions, please contact me at (574) 235-9251.

Sincerely,

A handwritten signature in cursive script that reads "Linda M. Martin".

Linda M. Martin, Clerk

Enclosure

c: Carol KurzhaI, Environmental Services
Patrick Henthorn, Engineering

**AGREEMENT
CITY OF SOUTH BEND, INDIANA
SERVICE PROVIDER SERVICES**

THIS AGREEMENT is made and entered into the 1st day of July, 2011, by and between the City of South Bend, a municipal corporation (hereinafter referred to as "CITY"), and EmNet, LLC, with office at 520 East LaSalle Avenue, South Bend, IN, 46617 (hereinafter referred to as "SERVICE PROVIDER").

RECITALS

WHEREAS, since 2008 SERVICE PROVIDER has directly or indirectly supplied 115 telemetry monitors to CITY and provided comprehensive maintenance service for the monitors ; and

WHEREAS, such services were last rendered pursuant to a service agreement between the parties, dated June, 14, 2007; and

WHEREAS, CITY desires to obtain professional and technical services for the ongoing maintenance of the monitors and related equipment, hereinafter referred to as the "Project", and desires the SERVICE PROVIDER to provide the services described herein; and

WHEREAS, SERVICE PROVIDER represents it has available, and offers to provide, personnel and facilities necessary to accomplish such services as required under this Agreement, and that there are no conflicts of interest prohibited by law entering into this Agreement with CITY.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing and of the covenants, conditions, and premises hereinafter contained, to be kept and performed by the respective parties, it is mutually agreed as follows:

1. Effective Date and Term of Agreement. It is the intent of the parties that this Agreement be effective as of July 1, 2011 ("Effective Date") as to all terms and conditions of the Agreement. The term of this Agreement shall begin on July 1, 2011 and end on June 30, 2012, unless terminated as provided in this Agreement. This Agreement may be extended, with the mutual consent of both parties, for one year increments with price increases/decreases in accordance with the provisions set forth herein , all other terms and conditions specified herein remaining the same.
2. Scope of Services.
 - a. SERVICE PROVIDER shall perform to the reasonable satisfaction of CITY, the maintenance and repair services as described in Exhibit "A," entitled "Scope of Work," on the equipment installed at the locations (hereinafter individually referred to herein as "unit site") listed in Attachment "A," entitled "Sensor Site Schedule. " Upon any relocation or upgrade of any such equipment, Attachment "A" is automatically modified to reflect any such change in location and identity of the equipment and the parties will attach the revised Attachment "A" to this Agreement.

- b. Those services set forth as excluded services in Section II of Exhibit "A" are excluded from the services SERVICE PROVIDER is to perform under this Agreement. Any such excluded services may be included by the parties subject to Section 4d of this Agreement.

3. Payment Terms.

- a. Except for excluded services as provided in Section 3b below, SERVICE PROVIDER'S sole compensation for satisfactory performance of all services required or rendered pursuant to this Agreement shall be a total fee of \$143,970.00, paid on the basis of a monthly fee of \$11,997.50, in accordance with the Price of Services contained in Attachment "D". Such fee includes all parts, labor and expenses incurred by SERVICE PROVIDER in performance of the services.
- b. SERVICE PROVIDER'S sole compensation for satisfactory performance of all excluded services, as listed in Section III of Exhibit "A," required or rendered pursuant to Section 3d below and authorized in writing by the CITY will be paid on a time and materials basis in accordance with the price list contained in Attachment "E."
- c. SERVICE PROVIDER shall render detailed monthly statements following the end of the respective month for services performed in the preceding month. Statements will be payable in the normal course of CITY business, but in no event later than 30 calendar days following receipt of the detailed statement.
- d. The parties may modify this Agreement to increase the scope of services or provide for the rendition of services not required by this Agreement. Any increase or change in the scope of services must be made by written amendment to the Agreement signed by an authorized representative for each party.

4. CITY Responsibilities.

- a. CITY will not make changes in the monitoring equipment or software at the unit sites that would preclude SERVICE PROVIDER from being able to service CITY'S equipment, except as authorized in writing by SERVICE PROVIDER.
- b. CITY will not make repairs or perform maintenance or attempt to do so on the flow monitoring equipment at the unit sites, except as authorized in writing by SERVICE PROVIDER.
- c. CITY will allow SERVICE PROVIDER to address the system electronically for purposes of running diagnostic tests and performing other pertinent functions during repair and maintenance of the monitoring equipment at the unit sites.
- d. Upon request by SERVICE PROVIDER, CITY will make available to SERVICE PROVIDER any existing data or monitor information which would assist in the diagnostic procedure.
- e. CITY will designate a representative who shall be the primary contact with SERVICE PROVIDER for the resolution of field problems. Written notification of any change in this primary contact will be immediately provided to SERVICE PROVIDER.
- f. CITY will use its best efforts to provide and maintain internet connectivity to each unit site listed in Attachment "B." (GNode Schedule).
- g. Upon reported observations thereof, CITY will be responsible for removal of any vegetation, debris or silt that may or does create backups or flow disruptions that may cause monitor damage at the unit sites or have a negative effect on data accumulation.

5. Termination of Agreement and Suspension of Services.
 - a. The term of this Agreement shall continue in full force and effect until it is terminated. Either party may terminate this Agreement without cause by giving the other party ninety (90) days prior written notice of termination. In the event either party fails to perform as provided herein, the other party may terminate this Agreement if such failure to perform is not cured or remedied within ten (10) days following receipt of written notice of the failure to perform.
 - b. In the event of termination not due to the material default of SERVICE PROVIDER, SERVICE PROVIDER shall be paid compensation for services satisfactorily performed prior to the effective date of the notice of termination. In the event of termination due to the material default of SERVICE PROVIDER, CITY may withhold an amount that would otherwise be payable as an offset to, but not in excess of, CITY'S damages caused by such failure.
 - c. In addition to SERVICE PROVIDER 'S right of termination pursuant to Section 6a and in the sole event of late payment of any amount due SERVICE PROVIDER under this Agreement, SERVICE PROVIDER may, upon 7 calendar days prior written notice, suspend services hereunder until SERVICE PROVIDER has been paid in full such amounts due.

6. Force Majeure. Neither party shall be obligated to perform, and neither party shall be deemed to be in default of its performance, if prevented by (i) fire not caused by the act or omission of the party, earthquake , hurricane, wind, flood , act of God, riot or civil commotion occurring at the unit site which the party could not reasonably have foreseen and provided for; (ii) any law, ordinance , rule, regulation, or order of any public or military authority stemming from the existence of economic or energy controls, hostilities, war, or governmental law and regulation; or (iii) labor dispute which results in a strike or work stoppage affecting the unit site or services described in this Agreement other than those occurring as a result of an act or omission of SERVICE PROVIDER; provided, however, the event of force majeure was not in the reasonable control of the party.

7. Warranties. All new products, including, but not limited to, parts, manufactured by SERVICE PROVIDER will be free from defects in material and workmanship for up to 1 year following the date of installation by SERVICE PROVIDER. During this warranty period, the product will be promptly repaired or replaced, at SERVICE PROVIDER'S sole option. Warranty repairs and replacements will be performed only by SERVICE PROVIDER or its authorized representative. Any unauthorized repair or replacement, including without limitation opening up a monitor, will void this product warranty. This warranty is available to CITY as the original purchaser of the product and only if it has been installed and maintained by SERVICE PROVIDER. This warranty does not apply to damage by catastrophes of nature , fire, explosion, acts of God (including , but not limited to , lightning damage and power surges), accidents, improper use or service other than by SERVICE PROVIDER, damage during transportation, or other similar causes; provided, however, such causes are beyond SERVICE PROVIDER'S control.

8. Limited Liability of SERVICE PROVIDER. SERVICE PROVIDER will use its best efforts to perform as agreed herein. However, in no event, even if SERVICE PROVIDER is determined to be responsible, shall SERVICE PROVIDER be liable for any loss or damage suffered by the CITY beyond what the CITY has paid SERVICE PROVIDER pursuant to this Agreement in the most recent twelve months from the date of the loss or damage. In no event shall SERVICE PROVIDER have any liability to any third parties as the result of any responsibilities for services herein or acts made pursuant hereto and

the CITY shall indemnify SERVICE PROVIDER from any actions or claims made or liability established by any third party, including costs and attorney fees incurred by SERVICE PROVIDER.

9. Liquidated Damages. Liquidated damages will be linked to SERVICE PROVIDER performance for system-wide uptime. SERVICE PROVIDER will achieve 80% system wide uptime for monitored sites. Uptime is defined as the availability of sensor data as collected by the monitoring equipment. System-wide uptime shall be calculated based on the total number of available readings. For example, with 110 monitored sites on a 5-minute sampling rate, there are 950,400 available readings in a 30-day month. To avoid liquidated damages, SERVICE PROVIDER needs to provide a total of 760,320 readings. A monthly report will be submitted by SERVICE PROVIDER that shows total system-wide uptime. According to Attachment "D", the total price for Monthly Services is \$8,797.50 per month. If SERVICE PROVIDER meets the 85% uptime guarantee then this amount will be billed in full each month. If the above uptime guarantee is not met, then SERVICE PROVIDER will only bill for the percentage of data that is available to the CITY. However, SERVICE PROVIDER will not be penalized if:

- a. Any sensor site or associated equipment is removed at the direction of CITY.
- b. Any sensor site associated with line powered equipment has the electric power disconnected by the CITY, electric company, or any other third party.
- c. Downtime is due to repairs or modifications executed by action of the CITY, its employees, agents, contractors or invitees.
- d. Downtime is due to events beyond the SERVICE PROVIDER's control such as, but not limited to, vandalism, construction by others that cut electric lines, unusually heavy debris that destroys or otherwise disables sensor monitors, or acts of God (e.g., lightning strikes, etc.).

10. Insurance.

- a. Before commencing its services and as a condition of payment, SERVICE PROVIDER shall procure and maintain insurance as set forth in Attachment "C", "Insurance", which will protect it from claims arising out of the performance of its services under this Agreement, whether such services are provided by SERVICE PROVIDER or by any of its subcontractors or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. SERVICE PROVIDER shall cause CITY to be listed as an additional insured on any applicable general liability insurance policy carried by SERVICE PROVIDER.
- b. SERVICE PROVIDER shall require its subcontractors to maintain Comprehensive General Liability, Automobile Liability, and Professional Liability coverage with a company satisfactory to CITY and with limits acceptable to CITY.

11. General Terms.

- a. Except as otherwise provided by law, all notices expressly required of CITY within the body of this Agreement, and not otherwise specifically provided for, shall be effective only if signed by CITY'S Director of Public Works or his/her designee.
- b. Records of SERVICE PROVIDER'S expenses pertaining to the Project shall be kept on a generally recognized accounting basis and shall be available to CITY or its authorized representatives upon request during regular business hours throughout the life of this Agreement and for a period of three years after final

payment or, if longer, for any period required by law. In addition, all books, documents, papers, and records of SERVICE PROVIDER pertaining to the Project shall be available for the purpose of making audits, examinations, excerpts, and transcriptions for the same period of time. This Section shall survive expiration or termination of this Agreement.

12. Notices. Except as otherwise expressly provided in this Agreement, any notice required or intended to be given to either party under the terms of this Agreement shall be in writing and shall be deemed to be duly given if delivered personally, transmitted by facsimile followed by telephone confirmation of receipt, or sent by United States registered or certified mail, with postage prepaid, return receipt requested, addressed to the party to which notice is to be given at the party's address set forth on the signature page of this Agreement or at such other address as the parties may from time to time designate by written notice. Notices served by United States mail in the manner above described shall be deemed sufficiently served or given at the time of the mailing thereof.
13. Binding. Once this Agreement is signed by all parties, it shall be binding upon, and shall inure to the benefit of, all parties, and each parties' respective heirs, successors, assigns, transferees, agents, servants, employees and representatives.
14. Compliance With Law. In providing the services required under this Agreement, SERVICE PROVIDER shall at all times comply with all applicable laws of the United States, the State of Indiana and CITY, and with all applicable regulations promulgated by federal, state, regional, or local administrative and regulatory agencies, now in force and as they may be enacted, issued, or amended during the term of this Agreement.
15. Governing Law and Venue. This Agreement shall be governed by, and construed and enforced in accordance with, the laws of the State of Indiana, excluding, however, any conflict of laws rule which would apply the law of another jurisdiction. Venue for purposes of the filing of any action regarding the enforcement or interpretation of this Agreement and any rights and duties hereunder shall be Saint Joseph County, Indiana.
16. Headings. The section headings in this Agreement are for convenience and reference only and shall not be construed or held in any way to explain, modify or add to the interpretation or meaning of the provisions of this Agreement.
17. Severability. The provisions of this Agreement are severable. The invalidity, or unenforceability of anyone provision in this Agreement shall not affect the other provisions.
18. Interpretation. The parties acknowledge that this Agreement in its final form is the result of the combined efforts of the parties and that, should any provision of this Agreement be found to be ambiguous in any way, such ambiguity shall not be resolved by construing this Agreement in favor of or against either party, but rather by construing the terms in accordance with their generally accepted meaning.
19. Exhibits. Each exhibit and attachment referenced in this Agreement is, by the reference, incorporated into and made a part of this Agreement.
20. Precedence of Documents. In the event of any conflict between the body of this Agreement and any Exhibit or Attachment hereto, the terms and conditions of the body

of this Agreement shall control and take precedence over the terms and conditions expressed within the Exhibit or Attachment. Furthermore, any terms or conditions contained within any Exhibit or Attachment hereto which purport to modify the allocation of risk between the parties, provided for within the body of this Agreement, shall be null and void.

21. Survivability. Whether or not expressly set forth in this Agreement for any specific provision, all terms and conditions of this Agreement that require performance beyond the expiration or termination of this Agreement shall survive such expiration or termination.
22. Extent of Agreement. Each party acknowledges that they have read and fully understand the contents of this Agreement. This Agreement represents the entire and integrated agreement between the parties with respect to the subject matter hereof and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be modified only by written instrument duly authorized and executed by both CITY and SERVICE PROVIDER.
23. Pricing Conditions. For the first twelve months of the Agreement, pricing will be fixed. Sixty days prior to the ending date of the Agreement, SERVICE PROVIDER may submit proposed pricing revisions for the following contract term, which will be subject to negotiation by CITY at CITY'S discretion. CITY'S Public Works Director ("Director"), or his/her designee, shall be the authorized CITY agent in any such negotiation. SERVICE PROVIDER must provide adequate documentation to substantiate any request for a price increase.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date first above written.

SERVICE PROVIDER

CITY

EMNET, LLC

By: _____



Its: _____

President

By: _____

APPROVED
Board of Public Works

Its: _____

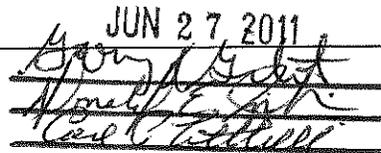
JUN 27 2011


EXHIBIT "A"

SCOPE OF WORK

Section I. Monthly Service

The SERVICE PROVIDER shall perform the following maintenance and/or repair services on equipment installed at the locations listed in Attachment A, entitled "Sensor Site Schedule", attached hereto and by this reference incorporated as part of this Exhibit "A". The services shall include provision for all labor, parts, and field equipment.

The monitor maintenance and repair services to be provided by the SERVICE PROVIDER shall include :

- A. Equipment Repair and Maintenance Services: The SERVICE PROVIDER on a scheduled monthly basis will perform repair and maintenance services necessary to keep the equipment operating in accordance with manufacturer's design specifications. These services will be performed as required both in the field and from the SERVICE PROVIDER service facilities. The services to be performed under this agreement include but are not limited to the following :
 - a. General equipment maintenance including battery replacement;
 - b. Batteries shall be replaced when their voltages are 'critical' on the diagnostic evaluation.
 - c. The following items will be conducted under the normal service plan :
 - i. Repair of electronic failure internal to the equipment;
 - ii. Repair of communication link failure internal to the equipment ;
 - iii. Repair or replacement of circuit boards, internal electronics, connectors, wiring , chassis, manhole cover, and miscellaneous items as required.

The SERVICE PROVIDER shall maintain a log of "Statement of Repair Service Forms ," which documents all maintenance and diagnostics performed. No non-emergency work shall be done on State and Federal Holidays.

- B. System Performance: Under this Scope of Work, the SERVICE PROVIDER will monitor the system-wide up-time daily. Concerning control valve sites, the SERVICE PROVIDER shall take action to address problems in no more than 3 working days. Concerning all other sites, the SERVICE PROVIDER shall take action to address problems in no more than 5 working days. The SERVICE PROVIDER shall exclude from the system-wide up-time calculation defined in Section 9, monitoring sites under maintenance and repair due to no fault of the SERVICE PROVIDER (e.g. loss of power, node removed for city activities / construction, and third party maintenance).
- C. Contingency Services: The SERVICE PROVIDER will perform the following 'contingency services' as requested by the CITY. The total cost in time and materials for 'contingency services' shall not exceed \$3,200 per each calendar month. Any service provided by SERVICE PROVIDER beyond the allocated 'contingency services' will fall under 'Excluded Services'. SERVICE PROVIDER will keep and maintain all documentation related to 'contingency services'. The following services and equipment may be considered part of 'contingency services':
 - a. Changes or alterations in specifications;
 - b. Painting , refinishing, or furnishing materials;
 - c. Installation, moving, or removing of equipment unless required as part of the repair process;

- d. Repairs made necessary by action of the CITY, its employees, agents, contractors or invitees;
- e. Repairs made necessary due to attempts by the CITY to repair or maintain the SERVICE PROVIDER equipment unless authorized by the SERVICE PROVIDER;
- f. Maintenance and repairs to equipment not specifically identified in Attachment A, "Equipment Schedule";
- g. Service during holidays or weekends, or service not covered by this Agreement. Holidays are defined as New Years Day, Martin Luther King Day, Presidents Day, Good Friday, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and the day after, and Christmas Day;
- h. Maintenance and repairs made necessary due to events beyond the SERVICE PROVIDER's control such as, but not limited to, vandalism, construction by others that cut electric lines, unusually heavy debris that destroys or otherwise disables sensor monitors, or acts of God (e.g., lightening strikes, etc.).

Section II. Data Warehousing and Website Access"

The SERVICE PROVIDER will maintain a database containing all the data collected by the monitors for the past three (3) years. The SERVICE PROVIDER will give the USER access to the data through two methods a web site portal and a database account.

Section III. Excluded Services:

The following equipment and services shall be excluded from the monthly maintenance and repair service agreement if they exceed the allocated quota for 'contingency services':

- D. Communication and electrical lines external to the equipment;
- E. Changes or alterations in specifications;
- F. Painting , refinishing, or furnishing materials;
- G. Installation, moving, or removing of equipment unless required as part of the repair process;
- H. Repairs made necessary by action of the CITY, its employees, agents, contractors or invitees;
- I. Repairs made necessary due to attempts by the CITY to repair or maintain the SERVICE PROVIDER equipment unless authorized by the SERVICE PROVIDER;
- J. Maintenance and repairs to equipment not specifically identified in Attachment A, "Equipment Schedule";
- K. Service during holidays or weekends, or service not covered by this Agreement. Holidays are defined as New Years Day, Martin Luther King Day, Presidents Day, Good Friday, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and the day after, and Christmas Day;
- L. Maintenance and repairs made necessary due to events beyond the SERVICE PROVIDER's control such as, but not limited to, vandalism, construction by others that cut electric lines, unusually heavy debris that destroys or otherwise disables sensors, or acts of God (e.g., lightening strikes, etc.).

Such services requested of the SERVICE PROVIDER outside of this Scope of Work will fall under Time and Material.

ATTACHMENT A

SENSOR SITE SCHEDULE

This sensor site schedule identifies the unit covered by the agreement between the City of South Bend and EmNet, LLC.

Currently, the monitoring equipment consists of Gnodes (with and without cellular communication) and Inodes.

Location	CSOnet Name	Sensor Type	Purpose
CSO 001 Oakwood and Riverside	G.1.1	Pressure Transducer	CSO Monitoring
CSO 002 Sherman and Riverside	G.3a.2	Pressure Transducer	CSO Monitoring
CSO 003 Sherman and McCartney	G.3a.1 (S1)	Isco 2150	CSO Monitoring
CSO 004 West End of Angela Bridge	G.3b.1	Pressure Transducer	CSO Monitoring
CSO 006 Leland and Riverside	G.29.1 (S1, S2, S3)	Isco 2150	CSO Monitoring
CSO 007 Lafayette and Park	I.8.4	Pressure Transducer	CSO Monitoring
CSO 008 Park Ln and Main	I.8.5	Pressure Transducer	CSO Monitoring
CSO 010 Bartlett and Riverside	G.10.2	Pressure Transducer	CSO Monitoring
CSO 011AE LaSalle and Michigan	G.11.2 (S4)	Pressure Transducer	CSO Monitoring
CSO 011AW LaSalle and Michigan	G.11.2 (S3)	Pressure Transducer	CSO Monitoring
CSO 011B LaSalle and Michigan	G.11.2 (S1)	Pressure Transducer	CSO Monitoring
CSO 014, Monroe and Lincolnway	I.13.1	Pressure Transducer	CSO Monitoring
CSO 017 Monroe and LWE	I.30.3	Pressure Transducer	CSO Monitoring
CSO 018 Bowman Creek	G.30.2	Pressure Transducer	CSO Monitoring
CSO 019 Miami and Lincoln Way East	G.30.3	Pressure Transducer	CSO Monitoring
CSO 021 Twyckenham and LWE	G.15.3	Pressure Transducer	CSO Monitoring
CSO 022 East End Trunk Sewer	G.15.1	Existing Ultrasonic Level Sensor	CSO Monitoring
CSO 025 Lafayette and North Shore	I.8.2	Pressure Transducer	CSO Monitoring
CSO 026 Leeper and North Shore	I.9.2	Pressure Transducer	CSO Monitoring
CSO 027 Niles and Sorin	G.10.1 (S2)	Pressure Transducer	CSO Monitoring
CSO 028 Niles and Sorin	G.10.1 (S1)	Pressure Transducer	CSO Monitoring
CSO 029 Colfax & Sycamore (Lift Station)	G.11.1	Pressure Transducer	CSO Monitoring
CSO 030 Northside and St. Louis	G.13.2	Pressure Transducer	CSO Monitoring
CSO 031 Cooper Bridge	G.30.4	Pressure Transducer	CSO Monitoring
CSO 033 Emerson and North Side	G.24.1	Pressure Transducer	CSO Monitoring
CSO 035 Clover and Northside	G.24.2	Pressure Transducer	CSO Monitoring
CSO 036 Twyckenham and Northside	G.24.3	Pressure Transducer	CSO Monitoring
CSO 037 21st and Pleasant	G.36.1 (S2, S3, S4)	Isco 2150	CSO Monitoring
CSO 038 26th and North Side	I.21.2	Pressure Transducer	CSO Monitoring
CSO 039 27th and North Side	G.21.1 (S1)	Pressure Transducer	CSO Monitoring

CSO 040 Alley in between 31st and 32nd on North Side	G.21.2	Pressure Transducer	CSO Monitoring
CSO 041 North Side and 36th	G.20.3 (S1)	Pressure Transducer	CSO Monitoring
CSO 042 North Side and Logan	G.20.2	Pressure Transducer	CSO Monitoring
CSO 044 Northview and Riverside	G.1.2	Pressure Transducer	CSO Monitoring
CSO 048 LWE and Robinson	G.15.2 (S1)	Pressure Transducer	CSO Monitoring
CSO 049 LWE and Bowman Creek	G.30.1	Pressure Transducer	CSO Monitoring
CSO 060 Emerson and Mishawaka	G.22.2	Pressure Transducer	CSO Monitoring
by CSO 44, Northview and Riverside	I.1.1	Pressure Transducer	Interceptor Monitoring
by CSO 2, Blyer and Riverside	I.3a.1	Pressure Transducer	Interceptor Monitoring
by CSO 3, Riverside, North of Angela	G.3a.1 (S2, S3)	Isco 2150	Interceptor Monitoring
by CSO 4, Riverside, Just North of Angela	I.3b.1	Pressure Transducer	Interceptor Monitoring
RC #4, by Leeper Park	G.8.1	Pressure Transducer	Interceptor Monitoring
by RC #4, North Shore and LaFayette	I.8.1	Pressure Transducer	Interceptor Monitoring
by CSO 11, LaSalle and Michigan	G.11.2 (S2)	Pressure Transducer	Interceptor Monitoring
RC #3, Monroe and Edgewater	G.13.1	Pressure Transducer	Interceptor Monitoring
by RC #3, St. Louis and Northside	I.13.3	Pressure Transducer	Interceptor Monitoring
by CSO 26, Michigan and North Shore	I.9.3	Pressure Transducer	Interceptor Monitoring
by CSO 27/CSO 28, Crescent and Niles	G.10.1 (S3, S4)	Isco 2150	Interceptor Monitoring
by CSO 29, Colfax and Niles	I.11.1	Pressure Transducer	Interceptor Monitoring
by CSO 31, Eddy and Northside	I.30.1	Pressure Transducer	Interceptor Monitoring
by CSO 33, Emerson and Northside	G.24.1 (S2, S3, S4)	Isco 2150	Interceptor Monitoring
by CSO 35, Northside and Clover	I.24.1	Pressure Transducer	Interceptor Monitoring
by CSO 37, 21st and Pleasant	G.36.1 (S1)	Pressure Transducer	Interceptor Monitoring
by CSO 37, 20th and Pleasant	I.36.1	Pressure Transducer	Interceptor Monitoring
by CSO 38, 26th and Northside	G.21.3	Pressure Transducer	Interceptor Monitoring
by CSO 39, 27th and Northside	G.21.1 (S2, S3, S4)	Isco 2150	Interceptor Monitoring
by CSO 41, 36th and Northside	G.20.3 (S2)	Pressure Transducer	Interceptor Monitoring
by CSO 42, Logan and Northside	I.20.1	Pressure Transducer	Interceptor Monitoring
by CSO 48 (RC#1), Northside boat launch, W	I.15.1-2 (S1)	Pressure Transducer	Interceptor Monitoring
by CSO 48 (RC#1), Northside boat launch, E	I.15.1-2 (S2)	Pressure Transducer	Interceptor Monitoring
by CSO 49 (RC#2), Sample and Northside	I.30.2	Pressure Transducer	Interceptor Monitoring
RC #1, Primary Crossing, by CSO 48	G.15.2 (S2)	Pressure Transducer	Interceptor Monitoring
Ireland/Miami Basin	G.18.1 (S1, S2, S3)	Isco 2150	Basin Outflow Monitoring
Ireland/Miami Basin	I.18.2	Pressure Transducer	Basin Monitoring
Model City Basin	G.5.2	Pressure Transducer	Basin Monitoring
Beck's Lake	G.31.1	Pressure Transducer	Basin Monitoring
Logan Hickory Pond	I.28.1	Pressure Transducer	Basin Monitoring
Chippewa Basin	I.16.2	Pressure Transducer	Basin Monitoring
TMP 01-1, Oakwood and Inglewood	I.1.2	Pressure Transducer	Trunkline Monitoring
TMP 01-2, Hamilton and Portage	I.2.1	Pressure Transducer	Trunkline Monitoring

TMP 02-1, Sherman and Kinyon	I.3a.2	Pressure Transducer	Trunkline Monitoring
TMP 03-1, Goodland and Lincolnway W	I.4.1	Pressure Transducer	Trunkline Monitoring
TMP 03-2, Bendix and Westmoor	I.4.2	Pressure Transducer	Trunkline Monitoring
TMP 03-3, Sheridan and Sample	I.6.1	Pressure Transducer	Trunkline Monitoring
TMP 04-1, Diamond Ave	I.3b.3	Pressure Transducer	Trunkline Monitoring
TMP 06-1, Lincoln Way W and Madison	I.7.1	Pressure Transducer	Trunkline Monitoring
TMP 06-2, Kenwood and Olive	I.5.1	Pressure Transducer	Trunkline Monitoring
TMP 06-3, Grace and Olive	I.5.2	Pressure Transducer	Trunkline Monitoring
TMP 06-4, Taylor and Western	I.34.1	Pressure Transducer	Trunkline Monitoring
TMP 18-3, Dubail and High	I.SA.SB.1	Pressure Transducer	Trunkline Monitoring
TMP 10-1, Navarre and Riverside	I.10.1	Pressure Transducer	Trunkline Monitoring
TMP 11-1, South and Main	I.12.2	Pressure Transducer	Trunkline Monitoring
TMP 11-2, South and Michigan	I.12.3	Pressure Transducer	Trunkline Monitoring
TMP 11-3, Broadway and Michigan	I.35.1	Pressure Transducer	Trunkline Monitoring
TMP 14-1, Bronson and Lincoln Way E	I.13.2	Pressure Transducer	Trunkline Monitoring
TMP 18-1, Fellows and Donald	I.32.1	Pressure Transducer	Trunkline Monitoring
TMP 18-2, Chippewa, 1580' W of Main	I.17.1	Pressure Transducer	Trunkline Monitoring
TMP 19-1, Dayton and Miami	I.14.1	Pressure Transducer	Trunkline Monitoring
TMP 22-1, Twyck. and Ewing	I.15.3	Pressure Transducer	Trunkline Monitoring
TMP 22-2, Ridgedale and Twyck.	I.16.1	Pressure Transducer	Trunkline Monitoring
TMP 22-3, Ireland and High	I.18.1	Pressure Transducer	Trunkline Monitoring
TMP 25-1, Tonti and Lafayette	I.8.3	Pressure Transducer	Trunkline Monitoring
TMP 26-1, Stanfield and Howard	I.9.4	Pressure Transducer	Trunkline Monitoring
TMP 26-2, Leeper and Napoleon	I.9.1	Pressure Transducer	Trunkline Monitoring
TMP 27-1, Campeau and Eddy	I.27.2	Pressure Transducer	Trunkline Monitoring
TMP 27-2, Howard and Rte. 23	I.27.1	Pressure Transducer	Trunkline Monitoring
TMP 28-1, Eddy and Madison	I.33.1	Pressure Transducer	Trunkline Monitoring
TMP 28-2, Niles and Colfax	I.11.2	Pressure Transducer	Trunkline Monitoring
TMP 31-1, Southwood and Twyck.	I.23.5	Pressure Transducer	Trunkline Monitoring
TMP 31-2, Twyck. and Mishawaka	I.23.4	Pressure Transducer	Trunkline Monitoring
TMP 37-1, Jefferson and 26th	I.25.1	Pressure Transducer	Trunkline Monitoring
TMP 37-2, McKinley and Ironwood	I.26.1	Pressure Transducer	Trunkline Monitoring
TMP 40-1, Mishawaka and 34th	I.20.3	Pressure Transducer	Trunkline Monitoring
TMP 41-1, Mishawaka and 36th	I.20.2	Pressure Transducer	Trunkline Monitoring
TMP 60-1, Emerson and Ruskin	I.22.1	Pressure Transducer	Trunkline Monitoring
TMP 60-2, Oakland and Ruskin	I.22.2	Pressure Transducer	Trunkline Monitoring
TMP 60-3, Clover and Ruskin	I.22.3	Pressure Transducer	Trunkline Monitoring
TMP 60-4, Twyck. and Ruskin	I.23.3	Pressure Transducer	Trunkline Monitoring
TMP 60-5, Bellevue and Ruskin	I.23.2	Pressure Transducer	Trunkline Monitoring
TMP 60-6, Esther and Ruskin	I.23.1	Pressure Transducer	Trunkline Monitoring
TMP 18-4, Donald and High	I.SA.SB.2	Pressure Transducer	Trunkline Monitoring

Bowman Creek, Riley High School	I.32.2 (S1, S2)	Pressure Transducer with Temperature Sensor	Bowman Creek
Bowman Creek, Studebaker Golf Course	I.32.3 (S1, S2)	Pressure Transducer with Temperature Sensor	Bowman Creek
Bowman Creek, Studebaker Golf Course	I.32.3 (S3)	ORP Sensor	Bowman Creek
Bowman Creek, Studebaker Golf Course	I.32.3 (S4)	Turbidity Sensor	Bowman Creek

**ATTACHMENT B
GNODE SCHEDULE**

This equipment schedule identifies the Gnode units covered by the agreement between the City of South Bend and EmNet, LLC.

The listed Gnodes have cellular communication and are needed for logging sensor information.

Name	Location	ID
G.1.1	CSO 1 Oakwood and Riverside	19907
G.2.1	Hamilton and Portage	29759
G.3a.1	CSO 3 Sherman and Riverside	19892
G.4.1	Bendix and Westmoor	33895
G.5.1	Orange and Olive	33876
G.6.1	Sheridan and Sample	33832
G.7.1	Walnut and Euclid gate	33802
G.8.1	River Crossing #4 Riverside and Lafayette	07092
G.9.1	North Shore and Michigan	19296
G.10.1	CSO 27/28 Niles and Sorin	15914
G.11.1	CSO 29 Lift Station, Cabinet 2	19301
G.12.1	Michigan and South	29650
G.13.1	Monroe and Edgewater	32299
G.14.1	Calvert and Miami	33792
G.15.1	CSO 22 East End Trunk Sewer	19107
G.16.1	Miami and Ridgedale	42042
G.17.1	Chippewa and Main	14836
G.18.1	Ireland Miami Basin	29770
G.19.1	York and Provincial	NA
G.20.1	Mishawaka and Logan	06658
G.21.1	CSO 39 27th St. Lift Station	33762
G.22.1	Twyckenham and Mishawaka	30426
G.23.1	Twyckenham and Mishawaka	33821
G.24.1	CSO 33 Emerson and Northside	32318
G.25.1	Jefferson and 26th	19877
G.26.1	McKinley and Ironwood	33916
G.27.1	Eddy and Corby	29750
G.28.1	Corby and Hickory	30483
G.29.1	CSO 6 Leland and Riverside	19286
G.30.1	CSO 49 Sample and Lincolnway E	10272
G.31.1	Beck's Lake	26121
G.32.1	Ewing and Fellows	20495
G.33.1	Marrison and Eddy	22639

G.34.1	Taylor and Western	19092
G.35.1	Broadway and Michigan	30474
G.36.1	CSO 37 Pleasand and 21st	21805
G.30.4	CSO 31	
I.13.1	Control site at CSO 14	
G.13.2	Control site at CSO 30	
G.1.2	Control site at CSO 44	
I.8.2	Control site at CSO 25	
G.36.2	Control site at CSO 4	

**ATTACHMENT C
INSURANCE REQUIREMENTS**

The limits of liability for the insurance required by the Agreement.

- 1) Workers' Compensation: Statutory
- 2) Employer's Liability –
 - a. Each Accident \$1,000,000
 - b. Disease, Policy Limit: \$1,000,000
 - c. Disease, Each Employee: \$1,000,000
- 3) Commercial General Liability --
 - a. Each Occurrence: \$1,000,000
 - b. General Aggregate: \$2,000,000
 - c. Products/Completed Operations: \$1,000,000
 - d. Personal and Advertising \$1,000,000
 - e. Contractual Liability--
 - (i) Each Occurrence: \$1,000,000
 - (ii) General Aggregate \$2,000,000
- 4) Excess Umbrella Liability --
 - a. Each Occurrence: \$2,000,000
 - b. General Aggregate: \$2,000,000
- 5) Business Automobile Liability --
 - a. Bodily Injury –Each Accident: \$1,000,000
 - b. Property Damage –Each Accident: \$1,000,000
- 6) Professional Liability Insurance
 - a. Each Claim Made: \$1,000,000
 - b. Annual Aggregate: \$1,000,000

**ATTACHMENT D
PRICE OF SERVICES**

Description	Units	Monthly Price per Unit	Monthly Service Price	Yearly Total
Monthly Service	115	\$76.50	\$8,797.50	\$105,570.00
Contingency Services	NA	NA	\$3,200.00	\$38,400.00
Sales Tax			NA	NA
TOTAL			\$11,997.50	\$143,970.00

**ATTACHMENT E
EMNET PRICE LIST**

Equipment Costs

	Price
Logicover	\$5,008
Gateway	\$2,674
Repeater	\$1,294

Service and Subscription Fee

	Basic	Intermediate	Premium
Fee per sensor site per month	\$45	\$125	\$225
Data access	✓	✓	✓
Raw data storage and backup	✓	✓	✓
Website		✓	✓
Engineer phone assistance		✓	✓
In house service training		✓	✓
In house maintenance		✓	✓
Initial onsite consult		✓	✓
Installation oversight / set up*			✓
Regular onsite maintenance			✓
Email / phone alerts			✓
50% Equipment discount			✓

* First 10 sensor sites, hourly rate applied thereafter

**BOARD OF PUBLIC WORKS
AGENDA ITEM REVIEW REQUEST FORM**

Date 6-21-11 Department PW/DES
 BPW Date 6-27-11 Phone 5998
 Name Patrick Henthorn

Required Prior to Submittal to Board

Legal Attorney Name CG
 Controller Controller review is required for all Contracts \$5,000.00 or more and greater than one year in length per the City Purchasing Policy
 Other Appropriate Reviewers

Check the Appropriate Item Type – Required for All Submissions

<input checked="" type="checkbox"/> Agreement	<input type="checkbox"/> Contract	<input type="checkbox"/> Proposal	<input type="checkbox"/> Addendum
<input type="checkbox"/> Claim			
<input type="checkbox"/> Bid Opening	<input type="checkbox"/> Bid Award	<input type="checkbox"/> Req. to Advertise	<input type="checkbox"/> Title Sheet
<input type="checkbox"/> Quote Opening	<input type="checkbox"/> Quote Award		
<input type="checkbox"/> Chg Order No. _____	<input type="checkbox"/> C/O & PCA No. _____	<input type="checkbox"/> PCA	
<input type="checkbox"/> Ease./Encroach.	<input type="checkbox"/> Traffic Control	<input type="checkbox"/> Resolution	
<input type="checkbox"/> Other: _____			

Required Information

Company or Vendor Name	EmNet
New Vendor	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, Approved by Purchasing
Project Name	
Project Number	
Funding Source	Wastewater O&M
Account No.	641-0630-793-63-35
Amount	\$ 143,970
Terms of Contract	
Purpose/Description	<u>Annual service agreement with EmNet for the CSONet system.</u>

For Change Orders Only

Amount of	<input type="checkbox"/> Increase	\$
	<input type="checkbox"/> Decrease	\$
Previous Amount	\$	
Current Percent of Change:	%	
New Amount	\$	
Total Percent of Change:	%	
PO No.		

Dispersal After Approval

Copy Original Carol Kurzhal

1316 COUNTY-CITY BUILDING
227 W. JEFFERSON BOULEVARD
SOUTH BEND, INDIANA 46601-1830



PHONE 574/ 235-9251
FAX 574/ 235-9171

CITY OF SOUTH BEND STEPHEN J. LUECKE, MAYOR
BOARD OF PUBLIC WORKS

December 28, 2011

Mr. Luis Montestruque
EmNet, LLC
520 East LaSalle Avenue
South Bend, Indiana 46617

RE: Amendments to Professional Services Agreements
Add One (1) Additional CSO Monitoring Site Located at Erskine Boulevard and Eckman
Street and
Funding to Cover Congressional Earmark that was Rescinded and Change in Project
Schedule of Sewer Overflow Sensory Control, Project No. 110-091

Dear Mr. Montestruque:

The Board of Public Works, at its meeting held on November 21, 2011, approved the
above referenced Amendments to Professional Services Agreements in the amount of \$76.50 per
month for a total of \$535.50 for seven months for the additional CSO monitoring site location
and \$44,850.00 for the congressional earmark funding coverage.

The Legal Department combined the two Amendments into one document, which is
enclosed for your signature. Please return the fully executed original to me as soon as possible.

If you have any questions, please contact me at (574) 235-9251.

Sincerely,

A handwritten signature in cursive script that reads "Linda M. Martin".

Linda M. Martin, Clerk

Enclosure

c: Patrick Henthorn, Engineering
Carol Kurzhal, Environmental Services

**FIRST AMENDMENT TO
AGREEMENT FOR PROFESSIONAL SERVICES
BY AND BETWEEN THE CITY OF SOUTH BEND, INDIANA
AND EmNET, LLC**

(Project No. 110-091)

THIS FIRST AMENDMENT TO AGREEMENT CITY OF SOUTH BEND, INDIANA PROFESSIONAL SERVICES is entered into this 21st day of November, 2011, City of South Bend, Indiana a municipal corporation organized and operating under the laws of the State of Indiana, acting by and through its Board of Public Works, and having its offices at 1200 County-City Building, 227 West Jefferson Boulevard, South Bend, IN 46601 ("City") and EmNET, LLC, and having its offices at 520 East LaSalle Avenue, South Bend, Indiana 46617.

WHEREAS, City and EmNET, LLC are parties to an agreement entitled "AGREEMENT CITY OF SOUTH BEND, INDIANA PROFESSIONAL SERVICES" made effective December 6, 2010 ("Agreement"); and

WHEREAS, this agreement is entered into as the First Amendment to Agreement to modify certain terms and conditions expressed in the Agreement; and

NOW, THEREFORE, in consideration of the mutual promises and obligations set forth herein, the parties make this First Amendment to Agreement as follows:

(1) Exhibit A of the Agreement, entitled "Scope of Services" shall be and is hereby amended and supplemented with Attachment 1, attached hereto and incorporated herein:

(2) ADD the following NEW PARAGRAPHS:

PARAGRAPH 22. E-Verify Program. [NEW] Contractor affirms under the penalties of perjury that he/she/it does not knowingly employ an unauthorized alien. The Contractor shall enroll in and verify the work eligibility status of all his/her/its newly hired employees through the E-Verify program as defined in IC 22-5-1.7-3. The Contractor shall not knowingly employ or contract with an unauthorized alien. The Contractor shall not retain an employee or contract with a person that the Contractor subsequently learns is an unauthorized alien.

The Contractor shall require his/her/its subcontractors, who perform work under this contract, to certify to the Contractor that the subcontractor does not knowingly employ or contract with an unauthorized alien and that the subcontractor has enrolled and is participating in the E-Verify program. The Contractor agrees to maintain this certification throughout the duration of the term of a contract with a subcontractor.

The City may terminate for default if the Contractor fails to cure a breach of this provision no later than thirty (30) days after being notified by the City.

PARAGRAPH 23. [NEW] Minority and Women's Enterprise Diversity Development. Persons, partnerships, corporations, associations, or joint venturers awarded a contract by the City of South Bend through its agencies, boards, or commissions shall not discriminate against any employee or applicant for employment in the performance of a City contract with respect to hire, tenure, terms, conditions, or privileges of employment, or any matter directly or indirectly related to employment because of race, sex, religion, color, national origin, ancestry, age, or disability that does not affect that person's ability to perform the work.

In awarding contracts for the purchase of work, labor, services, supplies, equipment, materials, or any combination of the foregoing including, but not limited to, public works contracts awarded under public bidding laws or other contracts in which public bids are not required by law, the City, its agencies, boards, or commissions may consider the Contractor's good faith efforts to obtain participation by those Contractors certified by the State of Indiana as a Minority Business ("MBE") or as a Women's Business Enterprise ("WBE") as a factor in determining the lowest, responsible, responsive bidder.

In no event shall persons or entities seeking the award of a City contract be required to award a subcontract to an MBE/WBE; however, it may not unlawfully discriminate against said WBE/MBE. A finding of a discriminatory practice by the City's MBE/WBE Utilization Board shall prohibit that person or entity from being awarded a City contract for a period of one (1) year from the date of such determination, and such determination may also be grounds for terminating the contract for which the discriminatory practice or noncompliance pertains.

Notwithstanding the foregoing, the award and performance of all City contracts shall comply with applicable federal, state, and local laws.

The Contractor is not required to participate in the E-Verify program should the E-Verify program cease to exist. Additionally, the Contractor is

not required to participate if the Contractor is self-employed and does not employ any employees.

(3) In accordance with Ind. Code §36-1-12.5-5(d)(4), payments by the City are subject to annual appropriation by its fiscal body and do not constitute an indebtedness of the City of South Bend within the meaning of a constitutional or statutory debt limitation.

(4) Each and every other provision of the original Agreement is hereby ratified, approved and reaffirmed by the parties and all other matters previously agreed to and set forth in the original Agreement and not affected by this Amendment shall remain in full force and effect.

(5) This Amendment may be executed in multiple counterparts, each of which shall be deemed an original.

(6) The undersigned person(s) executing and delivering this Amendment on behalf of the Contractor represent and certify that:

a. He/she is the duly authorized agent, representative, member or officer of the Contractor and has been fully empowered to execute and deliver this Amendment and that all necessary corporate action has been taken and done; and

b. To the best of his/her knowledge, he/she has not, nor has any other member, employee, representative, agent of office of the Contractor, entered into or offered to enter into any combination, collusion or agreement to receive or pay, and that he/she has not received or paid, any sum of money or other consideration for the execution of this Amendment other than that which appears on the face hereof.

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to be executed as of the day and year first above written.

EmNET, LLC

ATTEST:


Linda Martin, Clerk

**CITY OF SOUTH BEND, INDIANA
BOARD OF PUBLIC WORKS**



Gary Gilot, President



Carl Litrell, Member



Don Inks, Member

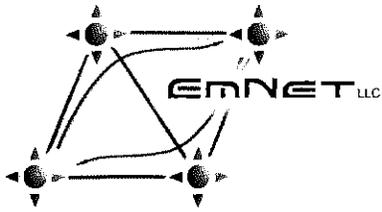


Exhibit A

EmNet, LLC
520 E. LaSalle Ave.
South Bend, IN 46617
www.emnet-cso.com
574.855.1012

11-15-11

Attn: Patrick Henthorn, Assistant City Engineer

City of South Bend
227 W. Jefferson Ave.
13th floor, room 1316
South Bend, IN 46601

Subject: Service agreement amendment for new monitoring location

The City of South Bend has commissioned EmNet to add to its existing CSOnet monitoring network one (1) additional monitoring site located near the intersection of Erskine Blvd. & Eckman St. Due to this request, it will be necessary to amend the existing service agreement (SERVICE AGREEMENT 7-1-11) to reflect this additional monitoring site.

Monitoring site at Erskine & Eckman: 7 months of service to start 12/1/11 and to expire 6/31/12

Description	Months	Monthly Price per Unit	Total for 7 months
Monthly Service	7	\$76.50	\$535.50

Please do not hesitate to contact our offices with any questions concerning this issue.

Jeff Bruce
Director, Business Development
EmNet, LLC
520 E. LaSalle Ave.
South Bend, IN 46617
(574) 855-1012

APPROVED
Board of Public Works

NOV 21 2011
Gary J. Gilot
Donald E. ...
Rae ...

EMPLOYMENT ELIGIBILITY VERIFICATION

STATE OF INDIANA)
) SS:
St. Joseph COUNTY)

The Contractor affirms under the penalties of perjury that he/she/it does not knowingly employ an unauthorized alien.

The Contractor shall enroll in and verify the work eligibility status of all his/her/its newly hired employees through the E-Verify program as defined in IC 22-5-1.7-3. The Contractor is not required to participate should the E-Verify program cease to exist. Additionally, the Contractor is not required to participate if the Contractor is self-employed and does not employ any employees.

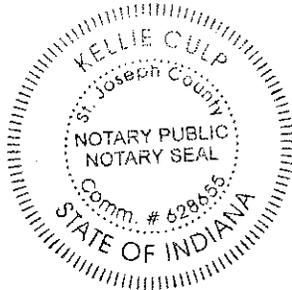
The Contractor shall not knowingly employ or contract with an unauthorized alien. The Contractor shall not retain an employee or contract with a person that the Contractor subsequently learns is an unauthorized alien.

The Contractor shall require his/her/its subcontractors, who perform work under this contract, to certify to the Contractor that the subcontractor does not knowingly employ or contract with an unauthorized alien and that the subcontractor has enrolled and is participating in the E-Verify program. The Contractor agrees to maintain this certification throughout the duration of the term of a contract with a subcontractor.

The City may terminate for default if the Contractor fails to cure a breach of this provision no later than thirty (30) days after being notified by the City.

Dated this 17th day of Nov, 2011

Agent



EmNet, LLC.
Contractor/Bidder (Firm)

[Signature]
Signature of Contractor/Bidder or Its

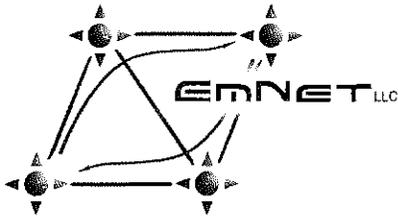
Luis Montestruque, President
Printed Name and Title

Subscribed and sworn to before me this 17th day of November, 2011

My Commission Expires 8/14/19

Kellie Culp
Notary Public

County of Residence St. Joseph



EmNet, LLC
www.emnet-cso.com
574.855.1012
520 E. LaSalle St.
South Bend, IN 46617

Monday, November 14, 2011

Gary Gilot, P.E.
Director of Public Works
City of South Bend, IN

RE: South Bend Combined Sewer Overflow Mitigation using Embedded Sensory Network Project

Gary,

Due to unforeseen legislation that effectively rescinded the congressional earmark that was allocated to fund the project "South Bend Combined Sewer Overflow Mitigation using Embedded Sensory Network", the project schedule has been changed. While funding for the project is obtained, an alternative schedule has been determined to allow the project to continue without drastically affecting the objectives.

At the present moment, the project has achieved the following milestones:

- Translated and validated hydraulic modeling tool to EmNet SWMM.
- Simulated the EmNet control algorithm in EmNet SWMM to validate control algorithm.
- Design the Profiler dashboard outline.
- Program a first version of the base Profiler dashboard.
- Select RTC strategies identified in EmNet SWMM.
- Test the integration of CSOnet GNodes with existing PLCs.
- Implemented the control algorithm in nine South Bend Smart Valves allowing them to actively control the CSO structures to minimize CSOs.

At this point while the valves are operational, there is no straightforward method to evaluate the effectiveness of the system. The ability of evaluating the reduction in CSO volumes, large quantities of information must be gathered and analyzed. The Profiler tool allows large quantities of information to be visualized and analyzed in an intuitive and effective manner. The proposed schedule will allow us to finish the Profiler construction and provide the needed tools to evaluate the effectiveness of the Real Time Control algorithm.

The proposed items to be addressed while additional funding is obtained will include the following:

- Finalize the programming of the Profiler to allow the user to download and analyze data
- Integrate dashboard with EmNet database and model
- Provide training for City personnel
- Execute, document, and report on the system performance

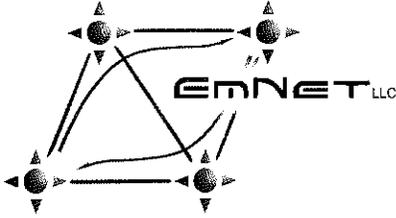
The cost in excess of the already allocated original cost share for the earmark is \$44,850. EmNet is looking forward to continue working in this important project for the City and environment. Thank you.



Luis A. Montestruque
President
EmNet, LLC

APPROVED
Board of Public Works

NOV 21 2011
Harold J. Tolot
Donald E. Jahn
Cliff K. Threlk



EmNet, LLC
www.emnet-cso.com
574.855.1012
520 E. LaSalle St.
South Bend, IN 46617

Monday, November 14, 2011

Gary Gilot, P.E.
Director of Public Works
City of South Bend, IN

RE: South Bend Combined Sewer Overflow Mitigation using Embedded Sensory Network Project

Gary,

Due to unforeseen legislation that effectively rescinded the congressional earmark that was allocated to fund the project "South Bend Combined Sewer Overflow Mitigation using Embedded Sensory Network", the project schedule has been changed. While funding for the project is obtained, an alternative schedule has been determined to allow the project to continue without drastically affecting the objectives.

At the present moment, the project has achieved the following milestones:

- Translated and validated hydraulic modeling tool to EmNet SWMM.
- Simulated the EmNet control algorithm in EmNet SWMM to validate control algorithm.
- Design the Profile dashboard outline.
- Program a first version of the base Profiler dashboard.
- Select RTC strategies identified in EmNet SWMM.
- Test the integration of CSOnet GNodes with existing PLCs.
- Implemented the control algorithm in nine South Bend Smart Valves allowing them to actively control the CSO structures to minimize CSOs.

At this point while the valves are operational, there is no straightforward method to evaluate the effectiveness of the system. The ability of evaluating the reduction in CSO volumes, large quantities of information must be gathered and analyzed. The Profiler tool allows large quantities of information to be visualized and analyzed in an intuitive and effective manner. The proposed schedule will allow us to finish the Profiler construction and provide the needed tools to evaluate the effectiveness of the Real Time Control algorithm.

The proposed items to be addressed while additional funding is obtained will include the following:

- Finalize the programming of the Profiler to allow the user to download and analyze data
- Integrate dashboard with EmNet database and model
- Provide training for City personnel
- Execute, document, and report on the system performance

The cost in excess of the already allocated original cost share for the earmark is \$44,850. EmNet is looking forward to continue working in this important project for the City and environment. Thank you.



Luis A. Montestruque
President
EmNet, LLC

APPROVED
Board of Public Works

NOV 21 2011
Joseph Belmont
Donald C. Smith
Carol L. Hill

**BOARD OF PUBLIC WORKS
AGENDA ITEM REVIEW REQUEST FORM**

Date 11/15/11 Department PW
 BPW Date 11/21/11 Phone 5998
 Name Patrick Henthorn

Required Prior to Submittal to Board

Legal Attorney Name CG
 Controller Controller review is required for all Contracts \$5,000.00 or more and greater than one year in length per the City Purchasing Policy
 Purchasing

Check the Appropriate Item Type – Required for All Submissions

<input type="checkbox"/> Agreement	<input type="checkbox"/> Contract	<input type="checkbox"/> Proposal	<input checked="" type="checkbox"/> Addendum
<input type="checkbox"/> Claim			
<input type="checkbox"/> Bid Opening	<input type="checkbox"/> Bid Award	<input type="checkbox"/> Req. to Advertise	<input type="checkbox"/> Title Sheet
<input type="checkbox"/> Quote Opening	<input type="checkbox"/> Quote Award		
<input type="checkbox"/> Chg Order No. _____	<input type="checkbox"/> C/O & PCA No. _____	<input type="checkbox"/> PCA	
<input type="checkbox"/> Ease./Encroach.	<input type="checkbox"/> Traffic Control	<input type="checkbox"/> Resolution	
<input type="checkbox"/> Other: _____			

Required Information

Company or Vendor Name	<u>EmNet</u>
New Vendor	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, Approved by Purchasing
MBE/WBE Contractor	<input type="checkbox"/> MBE <input type="checkbox"/> WBE
Project Name	<u>2011 2012 Service Agreement</u>
Project Number	
Funding Source	<u>Other Contractuals</u>
Account No.	<u>641-0630-793-63-35</u>
Amount	<u>\$ 535.50</u>
Terms of Contract	
Purpose/Description	<u>Richard Radcliff directed Emnet to install a new monitoring sensor at Erskine and Eckman.</u>

For Change Orders Only

Amount of	<input type="checkbox"/> Increase	\$
	<input type="checkbox"/> Decrease	\$
Previous Amount	\$	
Current Percent of Change:	%	
New Amount	\$	
Total Percent of Change:	%	
PO No.		

Dispersal After Approval

Copy Original Carol Kurzhal

**BOARD OF PUBLIC WORKS
AGENDA ITEM REVIEW REQUEST FORM**

Date 11/15/11 Department PW
 BPW Date 11/21/11 Phone 5998
 Name Patrick Henthorn

Required Prior to Submittal to Board

Legal Attorney Name CG
 Controller Controller review is required for all Contracts \$5,000.00 or more and greater than one year in length per the City Purchasing Policy
 Purchasing

Check the Appropriate Item Type – Required for All Submissions

<input type="checkbox"/> Agreement	<input type="checkbox"/> Contract	<input type="checkbox"/> Proposal	<input checked="" type="checkbox"/> Addendum
<input type="checkbox"/> Claim			
<input type="checkbox"/> Bid Opening	<input type="checkbox"/> Bid Award	<input type="checkbox"/> Req. to Advertise	<input type="checkbox"/> Title Sheet
<input type="checkbox"/> Quote Opening	<input type="checkbox"/> Quote Award		
<input type="checkbox"/> Chg Order No. _____	<input type="checkbox"/> C/O & PCA No. _____	<input type="checkbox"/> PCA	
<input type="checkbox"/> Ease./Encroach.	<input type="checkbox"/> Traffic Control	<input type="checkbox"/> Resolution	
<input type="checkbox"/> Other: _____			

Required Information

Company or Vendor Name	EmNet
New Vendor	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, Approved by Purchasing
MBE/WBE Contractor	<input type="checkbox"/> MBE <input type="checkbox"/> WBE
Project Name	Sewr Overflow Sensory Control
Project Number	110-091
Funding Source	Other Contractuals
Account No.	641-0630-793-63-35
Amount	\$ 44,850
Terms of Contract	
Purpose/Description	<u>On 12/6/10 the BPW approved a contract with Emnet for \$425,000. 55% of the project was to be funded by a federal earmark. This earmark has since been resinded by EPA. These funds will help complete work in 2011 that was to be funded by the federal earmark.</u>

For Change Orders Only

Amount of	<input type="checkbox"/> Increase	\$ _____
	<input type="checkbox"/> Decrease	\$ _____
Previous Amount	\$ _____	
Current Percent of Change:	%	
New Amount	\$ _____	
Total Percent of Change:	%	
PO No.	_____	

Dispersal After Approval

Copy Original Carol Kurzhal

1316 COUNTY-CITY BUILDING
227 W. JEFFERSON BOULEVARD
SOUTH BEND, INDIANA 46601-1830



PHONE 574/ 235-9251
FAX 574/ 235-9171

CITY OF SOUTH BEND PETE BUTTIGIEG, MAYOR
BOARD OF PUBLIC WORKS

December 19, 2013

Mr. Luis Montestruque
Emnet
520 E. LaSalle Avenue
South Bend, Indiana 46617

RE: Agreement – CSONet Real Time Decision Support System

Dear Mr. Montestruque:

The Board of Public Works, at its meeting held on December 19, 2013, approved the above referenced Agreement in the amount of \$228,252.00.

Enclosed is a copy of the Agreement for your records

Also enclosed please find the City's Contractor's Certification Regarding Investment with Iran, Non-Debarment Affidavit, Employment Eligibility Verification, Non-Discrimination Commitment for Contractors for your signature. Please return the form within two weeks.

If you have any further questions regarding this matter, please call this office at (574) 235-9251.

Sincerely,

A handwritten signature in cursive script that reads "Linda M. Martin".

Linda M. Martin, Clerk

Enclosure

c: Patrick Henthorn, Engineering
Jack Dillon, Engineering
Carol Kurzhal, Environmental Services

Proposal: Real Time Decision Support System for the City of South Bend, IN

Proposal prepared by EmNet, LLC for the City of South Bend, IN
November 06, 2013

Real Time Decision
Support System
for CSO
Monitoring and
Control.



Introduction

The City of South Bend, IN operates the most densely monitored and intelligent sewer system in the United States. This Real Time Decision Support System (RT-DSS) is the first of its kind in the collection system industry. In 2008, the City installed a collection of over 100 sewer level and monitors that report hydraulic conditions every 5 minutes to the City staff. Soon after the system was implemented, the City staff started to utilize the data to reduce Dry Weather Overflows (DWO). Within less than 24 months of the installation, the City was able to virtually eliminate all DWOs. Within the same period of time, the City was able to increase proactive maintenance activities, increase hydraulic capacity, which had been taken up by debris, and minimize river intrusion. In 2010, the City installed and implemented 9 valve-controlled parallel throttle lines on key CSO structures. The valves are controlled by the RT-DSS to balance flows throughout the interceptor line and, consequently, reduce overflows.

After approximately 3 years of operation, the City staff has been able to realize further opportunities to create additional value from the system. In summary, the RT-DSS is able to further utilize real time intelligence to determine hydraulic issues, better calibrate the model, and more aggressively reduce overflows. The tasks that will be performed under this scope are:

1. Operations and Maintenance Support to train South Bend's staff on the utilization of all the tools that are available for improving maintenance and operation of the collection system.
2. Additional Flow Metering to collect accurate overflows from CSO structures that significantly contribute to the collection system's total overflow volume.
3. RT-DSS CSO Volumetric Reduction Dashboarding to better track the reduction of collection system total overflow volume as well as the percentage contribution from each CSO outfall.
4. RT-DSS Control Logic Revision and Performance Evaluation to more aggressively reduce overflows in view of the opportunities identified by South Bend's staff.
5. Infiltration and Inflow Preliminary Analysis to utilize the current monitoring system to evaluate the levels of infiltration and inflow (I/I) of each of the basins.

1. Operations and Maintenance Support

Background:

South Bend's RT-DSS is nearing its 5th year of continuous operation. Since the commissioning of the real time monitoring component in 2008, a series of enhancements have been implemented. These enhancements have provided significant value in understanding the hydraulics of the system, implementing Real Time Control to reduce CSO discharges, providing support to operations and maintenance, and aiding with compliance requirements. However, some of these enhancements have not been utilized to their full capacity. Some of these enhancements include a condition-based maintenance system that alerts personnel of issues in critical locations, a real time modeling tool that can help identify issues with the hydraulic model, and a real time data calculation engine that could be used to generate CSO reports.



Figure 1. EmNet Condition Based Maintenance Configuration Tool

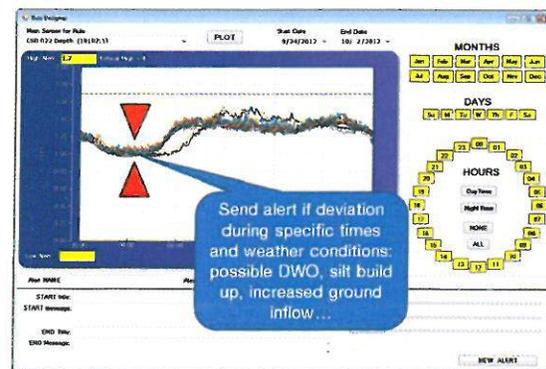


Figure 2. EmNet Condition Based Maintenance Configuration Tool

Objective:

The objective of this task is to provide training to the utility staff on the utilization of all aspects of the South Bend RT-DSS in order to take full advantage of the latest enhancements.

Real Time Decision Support System

Tasks:

- A. Training session on the Real Time Control design and architecture including original design and objectives and future opportunities. This session will review the rationale of each control site and explain the Real Time Control strategy. During the session, we will include forensic analysis of some past storm events and point out new opportunities.
- B. Training session on the RT-DSS condition-based maintenance tool. This would be a working session where the tool is configured with the South Bend team using a standardized format for alarms.
- C. Training session on the RT-DSS website dashboard including data QA/QC tool, real time calculation engine, and real time data modeling tool.

Deliverables:

- a. Three 4 hour training sessions and handouts
- b. Operation and maintenance manual with full documentation on the RT-DSS. All documentation will be web-based and will allow both EmNet and city staff to continuously edit its content (Wiki Media technology). The manual would include drawings of all control sites.

Real Time Decision Support System

2. Additional Flow Metering.

Background:

The South Bend RT-DSS monitors sewer levels immediately upstream of the weir at all 36 overflow points. Discrepancies between the hydraulic model, the table-based DMRs, and the overflows calculated based on level and weir equations has prompted a deeper investigation of the CSO volumes contributed by each CSO structure. The South Bend staff provided a comparison of the different methods for overflow calculation for storm events between June 24th and June 26th of 2013. The results are shown in the following table. The CSOs have been ordered based on the absolute difference between the model and the calculated values. CSOs in green currently have flow meters. This section of the scope seeks further monitoring of additional CSOs based on the difference between the model and the calculated values. After this scope of work, 98% of CSO overflow volumes will be recorded by flow meters while the remaining 2% will be monitored through level sensors (see figure 3).

CSO	Calculated (MG)	Model (MG)	DMR (MG)	Absolute difference between model and calculated
037	16.361	2.415	2.240	13.946
011A	0.654	5.319	3.720	4.665
006	0.183	3.462	2.210	3.279
028	0.115	3.332	1.240	3.217
011B	0.005	2.577	0.923	2.572
045	9.221	8.606	4.350	0.615
044	0.000	0.450	0.010	0.45
018	1.662	1.259	0.051	0.403
004	0.386	0.031	0.000	0.355
031	1.588	1.927	1.350	0.339
014	0.664	0.329	0.310	0.335
026	0.316	0.046	0.000	0.27
035	0.025	0.276	0.330	0.251
003	0.001	0.234	0.420	0.233
039	0.34	0.151	0.13	0.189
029	0.000	0.145	0.040	0.145
010	0.295	0.426	0.25	0.131
008	0.186	0.311	0.250	0.125
019	0.000	0.116	0.020	0.116
002	0.003	0.097	0.200	0.094
027	0.355	0.412	0.050	0.057
007	0.014	0.070	0.000	0.056
040	0.046	0.089	0.040	0.043
033	0.000	0.036	0.040	0.036
036	0.027	0.058	0.010	0.031
021	0.000	0.028	0.000	0.028
041	0.000	0.021	0.000	0.021
060	0.021	0.006	0.03	0.015
030	0.001	0.001	0.000	0
038	0.000	0.000	0.000	0
042	0.000	0.000	0.000	0
048	0.000	0.000	0.640	0
001				0
022			1.230	0
025			0.020	0
049			0.000	0

Real Time Decision Support System

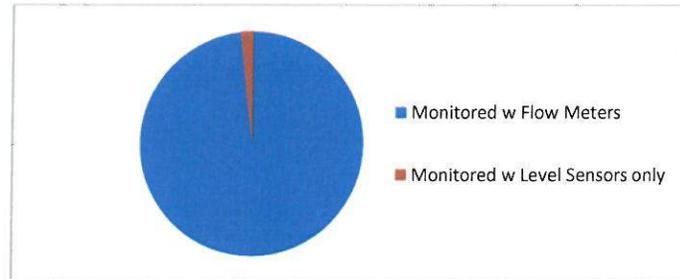


Figure 3. CSO overflow volumes monitored with flow meters versus CSO overflow volumes monitored with level sensors only after the proposed scope of work.

Objective:

Provide more accurate system-wide CSO volume evaluation and assist with modeling efforts.

Tasks:

- A. Design, procure and install real time monitoring systems at CSOs 001, 004, 026, 035, 039, and 044
- B. Incorporate the new measurements into the existing RT-DSS' database and website.

Deliverables:

- a. Flow meters and telemetry installed at CSOs 001, 004, 026, 035, 039, and 044. Flow meters will be installed on the trunk lines.
- b. Data available in RT-DSS.

Real Time Decision Support System

3. RT-DSS CSO reduction dashboard

Background:

The main objective of the RT-DSS was to reduce CSO discharge volumes by dynamically controlling flows throughout the collection system. Independent studies performed by Greely and Hansen and EmNet confirmed a system wide CSO volume reduction of 24% based on the collection system model and typical year. Since the commissioning of the Real Time Control system at 9 throttle lines in 2008, independent studies have been performed to determine the volume of CSO reduction due to the RT-DSS. These studies have been done at specific points in time and for short periods of wet weather. An ongoing system that is able to quantify in real time the CSO volume reductions due to the RT-DSS and other capital infrastructure projects is not currently available.

Objective:

Provide the City with a real time system that is able to provide up-to-date information on the CSO volume reductions achieved by the RT-DSS and the various capital infrastructure projects that are being executed as part of the City's Long Term Control Plan.

Tasks:

- A. Perform a thorough QA/QC check of all CSO structure related data over the past 12 months. The QA/QC process will move all non-valid data from the active database to an archive database, document the reason why the data is not valid (i.e. defective sensor, maintenance activities, debris accumulation), and the name of the person making the change.
- B. Implement a system to calculate the amount of CSO overflows (done as part of a separate project) and underflows (flows diverted to interceptor line) for each drainage basin. The system will also back calculate all measurements for past valid data.
- C. Implement a dashboard that is able to show
 - i. Total overflow volumes and events as calculated by the system instrumentation.
 - ii. Total flow captured as calculated by the system instrumentation.
 - iii. Total overflow volumes and events as calculated by LTCP baseline hydraulic model.
 - iv. Total flow captured as calculated by LTCP baseline hydraulic model.
 - v. Rainfall statistics and classification.
 - vi. Total overflow volumes prevented by the RT-DSS as well as a breakdown of overflow reductions per valve.

Real Time Decision Support System

- D. Provide a separate publicly available data portal.
- E. Upgrade the servers under which the South Bend's RT-DSS operate to provide dedicated hardware.

Deliverables:

- a. A web-based executive dashboard showing all the Key Performance Indicators provided by the system.
- b. A technical memorandum on the findings of running the system over last year's data.

4. RT-DSS control logic revision and performance evaluation

Background:

Since its commissioning in 2008, the Real Time Control component of the South Bend RT-DSS has had minimal revisions and upgrades. The logic driving the positioning and modulation of the parallel throttle line valves at the 9 CSO regulators has performed as designed. However, anecdotal observations of the system indicate that there is room for improving the system's capability in order to capture additional flow volume.

Objective:

Review and enhance the control logic at the 9 throttle line valves that are controlled by the RT-DSS with the objective of increasing captured flow and reducing CSO overflow volumes.

Tasks:

- A. Perform a comprehensive analysis of the hydraulic performance of the 9 throttle line valves on at least 3 storm events during the last wet weather season.
- B. Review and propose new enhanced control logic for each of the 9 throttle line valves.
- C. Implement the control logic changes in the RT-DSS.
- D. Observe and evaluate the performance of the new control logic during a period of at least 3 months during the next wet weather season.
- E. Explore feasibility of additional RTC structures.

Deliverables:

- a. Technical memorandum detailing the results of the hydraulic performance analysis of the existing control logic.
- b. Technical memorandum showing the proposed enhancements on the control logic and its rationale.
- c. Conduct a workshop to show the control enhancements and discuss the expected results.
- d. Technical memorandum detailing the results of the hydraulic performance analysis of the new control logic.
- e. Conduct a workshop to show the results of the new control logic.

5. Infiltration and Inflow preliminary analysis

Background:

The existing RT-DSS includes 44 trunk and 39 CSO regulator monitoring locations. The data from these locations has been used primarily for CSO operation and maintenance activities. However, the data has never been used for infiltration and inflow (I/I) evaluation, which is widely accepted as a contributing factor to CSO overflows.

Objective:

Initiate the utilization of trunk line and CSO regulator data to provide information on I/I and to specifically prioritize the drainage basins that require closer inspection due to large I/I.

Tasks:

- A. Study diurnal flow pattern variations to provide qualitative information on the basins with the largest I/I contribution.

Deliverables:

- a. Technical memorandum that:
 1. Describes the data procedures utilized to provide the prioritization of basins with largest I/I contributions;
 2. Provides final results with Key Performance Indicators that rank each drainage basin based on I/I flows per basin area or length of sewers, and;
 3. Proposes recommendations to further investigate the nature and origin of the I/I.

Real Time Decision Support System

Project Costs and Schedule

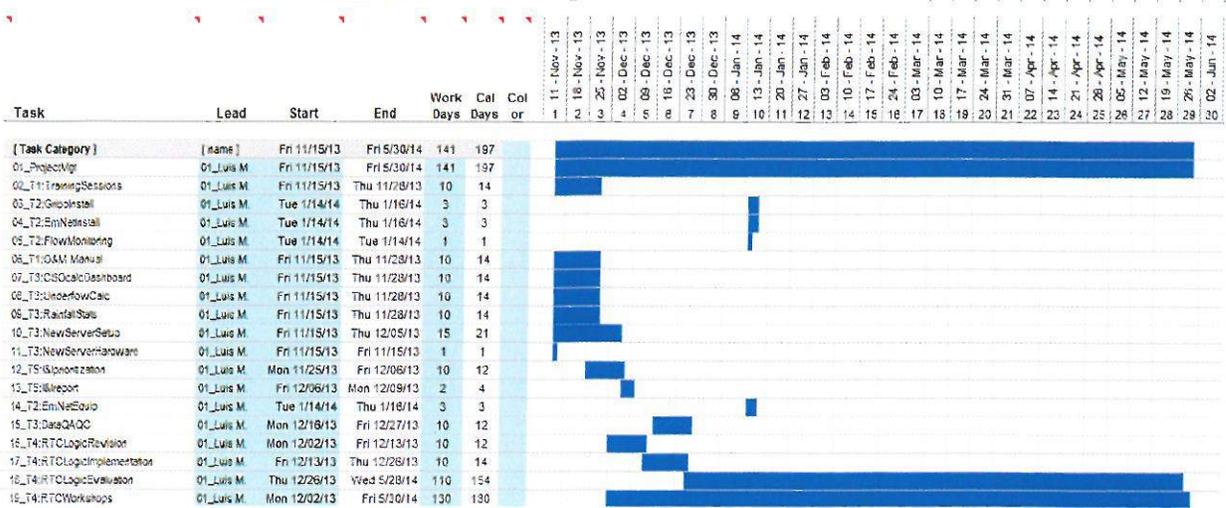
Task	Sub Task	Cost
	Project Management	\$ 14,800
1	O&M Manual	\$ 18,800
1	Training Sessions	\$ 9,440
2	Telemetry Equipment	\$ 22,440
2	Gripp, Inc. Installation	\$ 9,798
2	EmNet Install Support	\$ 1,200
2	Flow Monitoring Equipment	\$ 34,679
3	Data QA/QC	\$ 13,320
3	CSO Calculation Dashboard	\$ 6,720
3	CSO Structure Flow Calculation	\$ 18,760
3	Rainfall Statistics	\$ 8,960
3	New Server Setup	\$ 5,440
3	New Server Hardware	\$ 18,975
4	RTC Logic Revision	\$ 14,120
4	RTC Logic Implementation	\$ 5,040
4	RTC Logic Evaluation	\$ 4,440
4	RTC Workshops	\$ 9,480
5	I/I prioritization	\$ 7,400
5	I/I report	\$ 4,440
	TOTAL	\$ 228,252

Note: This proposal assumes subscription costs associated with the additional flow monitors are included as part of the South Bend Annual Subscription and Maintenance Contract.

Gantt Chart

Project Lead: 01 Luis M.
 Project Start Date: 11/15/2013 (Friday)
 Today's Date: 10/24/2013 (Thursday)

Weekly Show Weekends



Real Time Decision Support System

EmNet, LLC

City of South Bend, IN

[Handwritten signature]

Signed

Signed

Luis Montestruque

Printed

Printed

President

Title

Title

12/17/13

Date

Date

APPROVED
Board of Public Works

DEC 19 2013

[Handwritten signature]

1316 COUNTY-CITY BUILDING
227 W. JEFFERSON BOULEVARD
SOUTH BEND, INDIANA 46601-1830



PHONE 574/ 235-9251
FAX 574/235-9171

CITY OF SOUTH BEND PETE BUTTIGIEG, MAYOR
BOARD OF PUBLIC WORKS

May 13, 2014

Luis Montestruque
Emnet
520 E. LaSalle Avenue
South Bend, IN 46617

RE: Addendum to Agreement – Real Time Decision Support System
Project No. 113-049

Dear Mr. Montestruque:

The Board of Public Works, at its meeting held on May 13, 2014, approved the above referenced addendum in the amount of \$19,780.00.

Enclosed please find a copy of the agreement for your records.

If you have any further questions regarding this matter, please call this office at (574) 235-9251.

Sincerely,

A handwritten signature in cursive script that reads "Linda M. Martin".

Linda M Martin, Clerk

Enclosure

c: Jack Dillon, Engineering
Carol Kurzhal, Environmental Services
Patrick Henthorn, Public Works

Proposal: Real Time Decision Support System for the City of South Bend, IN

Addendum #1

Proposal prepared by EmNet, LLC for the City of South Bend, IN
May 1, 2014

Real Time Decision
Support System
for CSO
Monitoring and
Control.



emnet

Addendum #1 Scope of Services

In order to complete the scope of services under the original proposal, EmNet is proposing the following additional tasks:

Task 1 – Base SWMM Modeling Support Services

SWMM is a dynamic unsteady flow model rather than a steady state or standard step model. The program is capable of delivering results more aligned with field conditions than a steady state model by including the effects of storage and backwater in conduits and floodplains and the timing of the hydrographs to better yield a representation of the hydraulic grade line (HGL) at any point in the system at a given time. Substantial hydrologic processes including infiltration, evaporation, temporary storage and ground surface water exchanges can be included in the model.

The City currently has an XP-SWMM Model for the City's Combined Sewer System. The existing XP-SWMM model represents both the sanitary and combined sewer systems. The model also includes separate storm sewer systems that connect into the combined sewer system at a downstream location. The model of the existing system has been calibrated, approved, and accepted by EPA as a part of the City's Long Term Control Plan (LTCP).

In addition to the 2004 XP-SWMM model associated with the LTCP (2004 base model), the City is also in possession of an updated XP-SWMM model that reflects certain changes to the system or modeling calibration improvements that have occurred since the acceptance of the 2004 base model by EPA (2014 model).

In order to implement programming developed as part of the original proposal, the 2004 base model and the 2014 model are to be translated from the current proprietary XP-SWMM source code into the current EPA SWMM (Release 5) version of the model, which is open source. The XP SWMM model executed in the current release of the model (Release 2013 SP1) would serve as the technical basis for comparison of the base EPA SWMM translation model. Effects of the translation process on the City's Combined Sewer Overflow Program will have to be evaluated and documented prior to formal use of the EPA SWM version of the model.

EmNet will perform a translation of the XP-SWMM models, as well as provide assistance in the comparison of the proprietary and open source code results. This verification of base modeling results is anticipated to be performed under both a lower intensity, longer duration rainfall event (Huff distribution or constant rainfall intensity) as well as briefer,

Real Time Decision Support System – Addendum #1

more intense design rainfall event. Verification analysis of the EPA SWMM model will focus on volume of flow, stage and maximum discharge results across the system.

Task 2 – Miscellaneous As-Needed Services

This task will include support services requested by the City on an as-needed basis during the course of the project. Examples of such services might include:

- Work to resolve potential differences experienced in the translation of the XP-SWMM model to open source EPA SWMM format.
- Coordination to suggest potential improvements to identify potential model instabilities which would otherwise lead to erroneous reporting in comparison to field conditions. In effect this could identify potential data errors for review, or possibly clean up data errors in a documented fashion.
- Additional hydraulic modeling support services requested by City.

Data Needs

Data needed for the project includes the electronic versions of the XP SWMM models completed by an outside consultant (Greeley & Hansen) for the City of South Bend as a part of the Combined Sewer Overflow Control Program.

Assumptions

It is assumed that the 2004 base model and 2014 model supplied as the base model for the project will run as provided, and that any external files used in the development of these models, such as external rainfall files or the associated hot start files would be provided if requested. If the existing model requires extensive modification due to inherent errors in order to run, this shall require additional discussion between EmNet and the City to resolve this unforeseen circumstance.

Project Costs and Schedule

Task	Sub Task	Rate	Hours	Cost
A1	Base SWMM Modeling Support Services	155.25	120	\$ 18,630
A2	Miscellaneous As-Needed Services	115	10	\$ 1,150
TOTAL				\$ 19,780

It is anticipated that the above tasks will be completed within one month following the signing of this proposal and receipt of the electronic modeling files.

Real Time Decision Support System – Addendum #1

EmNet, LLC

City of South Bend, IN


Signed

Signed

Luis Montestruque
Printed

Printed

President
Title

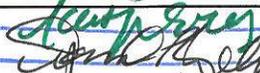
Title

5/1/2014
Date

Date

APPROVED
Board of Public Works

MAY 13 2014





**BOARD OF PUBLIC WORKS
AGENDA ITEM REVIEW REQUEST FORM**

Date 5/5/14
 Name Patrick Henthorn Department PW
 BPW Date 5/13/14 Phone Extension 5998

Required Prior to Submittal to Board

Legal Attorney Name CG
 Controller Controller review is required for all Contracts \$5,000.00 or more
 and greater than one year in length per the City Purchasing
 Policy
 Purchasing

Check the Appropriate Item Type – Required for All Submissions

Agreement Contract Proposal Addendum
 Professional Services
 Bid Opening Bid Award Req. to Advertise Title Sheet
 Quote Opening Quote Award
 Chg Order No. _____ C/O & PCA No. _____ PCA
 Ease./Encroach. Traffic Control _____ Resolution
 Other: _____ Claim

Required Information

Company or Vendor Name EmNet
 Yes If Yes, Approved by Purchasing
 New Vendor No
 MBE/WBE Contractor MBE Completed E-Verify Form Attached Yes
 WBE No
 Project Name Real Time Decision Support System
 Project Number 113-049
 Funding Source _____
 Account No. _____
 Amount \$ 19,780
 Terms of Contract _____
 Purpose/Description _____

As part of the EmNet contract they are to develop a real time CSO reduction dashboard. The system would compare real time data and the SWMM model to calculate the overflow reduction.

Since we recently updated the LTCP SWMM model (2014 model) we will need to have it converted and verified from XP-SWMM to EPA SWMM so it can be incorporated into the CSONet system. The conversation work was not part of the original contract.

EmNet will also convert the baseline LTCP SWMM model (2004) from XP-SWMM to EPA SWMM and incorporate it into the CSONet system also. This will allow us to calculate the CSO reductions from the beginning of the phase 1 LTCP projects

For Change Orders Only

Amount of Increase \$ _____
 Decrease \$ _____
 Previous Amount \$ _____
 Current Percent of Change: _____ %

1316 COUNTY-CITY BUILDING
227 W. JEFFERSON BOULEVARD
SOUTH BEND, INDIANA 46601-1830



PHONE 574/ 235-9251
FAX 574/ 235-9171

CITY OF SOUTH BEND PETE BUTTIGIEG, MAYOR
BOARD OF PUBLIC WORKS

July 8, 2014

Mr. Luis Montestruque
EmNet, LLC
520 E. LaSalle Avenue
South Bend, Indiana 46617

RE: Professional Services Agreement – 2014-2015 Annual CSO Service Contract

Dear Mr. Montestruque:

The Board of Public Works, at its meeting held on July 8, 2014, approved the above referenced Professional Services Agreement in the amount of \$227,562.00.

Enclosed please find a copy of the Professional Services Agreement for your records.

If you have any further questions regarding this matter, please call this office at (574) 235-9251.

Sincerely,

A handwritten signature in cursive script that reads "Linda M. Martin".

Linda M. Martin, Clerk

Enclosure

c: Carol Kurzhal
Patrick Henthorn

**BOARD OF PUBLIC WORKS
AGENDA ITEM REVIEW REQUEST FORM**

Date 7/1/14
 Name Patrick Henthorn Department PW
 BPW Date 7/8/14 Phone Extension 5998

Required Prior to Submittal to Board

Legal Attorney Name CG
 Controller Controller review is required for all Contracts \$5,000.00 or more
 and greater than one year in length per the City Purchasing
 Policy
 Purchasing

Check the Appropriate Item Type – Required for All Submissions

Agreement Contract Proposal Addendum
 Professional Services
 Bid Opening Bid Award Req. to Advertise Title Sheet
 Quote Opening Quote Award
 Chg Order No. _____ C/O & PCA No. _____ PCA
 Ease./Encroach. Traffic Control Resolution
 Other: _____ Claim

Required Information

Company or Vendor Name EmNet
 Yes If Yes, Approved by Purchasing
 New Vendor No
 MBE/WBE Contractor MBE Yes
 WBE Completed E-Verify Form Attached No
 Project Name 2014 - 2015 Annual Service Contract EmNet
 Project Number _____
 Funding Source Wastewater O&M
 Account No. 641-0630-793-63-35
 Amount \$ 227,562
 Terms of Contract _____
 Purpose/Description _____

For Change Orders Only

Amount of Increase \$ _____
 Decrease \$ _____
 Previous Amount \$ _____
 Current Percent of Change: _____ %
 New Amount \$ _____
 Total Percent of Change: _____ %
 PO No. _____

Dispersal After Approval

Copy Original
 Carol Kurzhal



EmNet, LLC
520 East LaSalle Ave.,
South Bend, IN 46617
574.855.1013
www.emnet.net

July 2, 2014

Attn: Mr. Patrick Henthorn
City of South Bend
227 W. Jefferson Blvd
13th Floor, Room 1316
South Bend, IN. 46601

Dear Mr. Henthorn,

Enclosed you will find two signed copies of the Service Agreement between the City of South Bend, IN. and EmNet, LLC. Please sign both copies and send one executed copy back for our records. If you have any questions please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Kellie Culp". The signature is fluid and cursive.

Kellie Culp
Office Manager
EmNet, LLC.

Enclosure

**AGREEMENT
CITY OF SOUTH BEND, INDIANA
SERVICE PROVIDER SERVICES 2014-2015
Date: June 13, 2014 Rev. B**

THIS AGREEMENT is made and entered into the 1st day of July, 2014, by and between the City of South Bend, a municipal corporation (hereinafter referred to as "CITY"), and EmNet, LLC, with office at 520 East LaSalle Avenue, South Bend, IN, 46617 (hereinafter referred to as "SERVICE PROVIDER").

RECITALS

WHEREAS, since 2008 SERVICE PROVIDER has directly or indirectly supplied telemetry monitors to CITY and provided comprehensive maintenance service for the monitors (see attachment "A" for current location and number of monitoring units, and attachment "B" for current location and number of cellular locations) ; and

WHEREAS, CITY desires to obtain professional and technical services for the ongoing maintenance of the monitors and related equipment, hereinafter referred to as the "Project", and desires the SERVICE PROVIDER to provide the services described herein; and

WHEREAS, SERVICE PROVIDER represents it has available, and offers to provide, personnel and facilities necessary to accomplish such services as required under this Agreement, and that there are no conflicts of interest prohibited by law entering into this Agreement with CITY.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing and of the covenants, conditions, and premises hereinafter contained, to be kept and performed by the respective parties, it is mutually agreed as follows:

1. Effective Date and Term of Agreement. It is the intent of the parties that this Agreement be effective as of July 1, 2014 ("Effective Date") as to all terms and conditions of the Agreement. The term of this Agreement shall begin on July 1, 2014 and end on June 30, 2015, unless terminated as provided in this Agreement. This Agreement may be extended, with the mutual consent of both parties, for one year increments with price increases/decreases in accordance with the provisions set forth herein , all other terms and conditions specified herein remaining the same.
2. Scope of Services.
 - a. SERVICE PROVIDER shall perform to the reasonable satisfaction of CITY, the maintenance and repair services as described in Exhibit "A," entitled "Scope of Work," on the equipment installed at the locations (hereinafter individually referred to herein as "unit site") listed in Attachment "A," entitled "Sensor Site Schedule. " Upon any relocation or upgrade of any such equipment, Attachment "A" & "B" is automatically modified to reflect any such change in location and identity of the equipment and the parties will attach the revised Attachment "A" to this Agreement.

- b. Those services set forth as excluded services in Section III of Exhibit "A" are excluded from the services SERVICE PROVIDER is to perform under this Agreement. Any such excluded services may be included by the parties subject to Section 4d of this Agreement.

3. Payment Terms.

- a. Except for excluded services as provided in Section 3b below, SERVICE PROVIDER'S sole compensation for satisfactory performance of all services required or rendered pursuant to this Agreement shall be a total fee of \$227,562.00, paid on the basis of a monthly fee of \$18,963.50 in accordance with the Price of Services contained in Attachment "D". Such fee includes all parts, labor and expenses incurred by SERVICE PROVIDER in performance of the services.
- b. SERVICE PROVIDER'S sole compensation for satisfactory performance of all excluded services, as listed in Section III of Exhibit "A," required or rendered pursuant to Section 3d below and authorized in writing by the CITY will be paid on a time and materials basis in accordance with the price list contained in Attachment "D" and "E."
- c. SERVICE PROVIDER shall render detailed monthly statements following the end of the respective month for services performed in the preceding month. Statements will be payable in the normal course of CITY business, but in no event later than 30 calendar days following receipt of the detailed statement.
- d. The parties may modify this Agreement to increase the scope of services or provide for the rendition of services not required by this Agreement. Any increase or change in the scope of services must be made by written amendment to the Agreement signed by an authorized representative for each party.

4. CITY Responsibilities.

- a. CITY will not make changes in the monitoring equipment or software at the unit sites that would preclude SERVICE PROVIDER from being able to service CITY'S equipment, except as authorized in writing by SERVICE PROVIDER.
- b. CITY will not make repairs or perform maintenance or attempt to do so on the flow monitoring equipment at the unit sites, except as authorized in writing by SERVICE PROVIDER.
- c. CITY will allow SERVICE PROVIDER to address the system electronically for purposes of running diagnostic tests and performing other pertinent functions during repair and maintenance of the monitoring equipment at the unit sites.
- d. Upon request by SERVICE PROVIDER, CITY will make available to SERVICE PROVIDER any existing data or monitor information which would assist in the diagnostic procedure.
- e. CITY will designate a representative who shall be the primary contact with SERVICE PROVIDER for the resolution of field problems. Written notification of any change in this primary contact will be immediately provided to SERVICE PROVIDER.
- f. CITY will use its best efforts to provide and maintain internet connectivity to each unit site listed in Attachment "B." (GNode Schedule).
- g. Upon reported observations thereof, CITY will be responsible for removal of any vegetation, debris or silt that may, or does, create backups or flow disruptions that may cause monitor damage at the unit sites or have a negative effect on data accumulation.

5. Termination of Agreement and Suspension of Services.
 - a. The term of this Agreement shall continue in full force and effect until it is terminated. Either party may terminate this Agreement without cause by giving the other party ninety (90) days prior written notice of termination. In the event either party fails to perform as provided herein, the other party may terminate this Agreement if such failure to perform is not cured or remedied within ten (10) days following receipt of written notice of the failure to perform.
 - b. In the event of termination not due to the material default of SERVICE PROVIDER, SERVICE PROVIDER shall be paid compensation for services satisfactorily performed prior to the effective date of the notice of termination. In the event of termination due to the material default of SERVICE PROVIDER, CITY may withhold an amount that would otherwise be payable as an offset to, but not in excess of, CITY'S damages caused by such failure.
 - c. In addition to SERVICE PROVIDER 'S right of termination pursuant to Section 6a and in the sole event of late payment of any amount due SERVICE PROVIDER under this Agreement, SERVICE PROVIDER may, upon 7 calendar days prior written notice, suspend services hereunder until SERVICE PROVIDER has been paid in full such amounts due.

6. Force Majeure. Neither party shall be obligated to perform, and neither party shall be deemed to be in default of its performance, if prevented by (i) fire not caused by the act or omission of the party, earthquake , hurricane, wind, flood , act of God, riot or civil commotion occurring at the unit site which the party could not reasonably have foreseen and provided for; (ii) any law, ordinance, rule, regulation, or order of any public or military authority stemming from the existence of economic or energy controls, hostilities, war, or governmental law and regulation; or (iii) labor dispute which results in a strike or work stoppage affecting the unit site or services described in this Agreement other than those occurring as a result of an act or omission of SERVICE PROVIDER; provided, however, the event of force majeure was not in the reasonable control of the party.

7. Warranties. All new products, including, but not limited to, parts, manufactured by SERVICE PROVIDER will be free from defects in material and workmanship for up to 1 year following the date of installation by SERVICE PROVIDER. During this warranty period, the product will be promptly repaired or replaced, at SERVICE PROVIDER'S sole option. Warranty repairs and replacements will be performed only by SERVICE PROVIDER or its authorized representative. Any unauthorized repair or replacement, including without limitation opening up a monitor, will void this product warranty. This warranty is available to CITY as the original purchaser of the product and only if it has been installed and maintained by SERVICE PROVIDER. This warranty does not apply to damage by catastrophes of nature , fire, explosion, acts of God (including , but not limited to , lightning damage and power surges), accidents, improper use or service other than by SERVICE PROVIDER, damage during transportation, or other similar causes; provided, however, such causes are beyond SERVICE PROVIDER'S control.

8. Limited Liability of SERVICE PROVIDER. SERVICE PROVIDER will use its best efforts to perform as agreed herein. However, in no event, even if SERVICE PROVIDER is determined to be responsible, shall SERVICE PROVIDER be liable for any loss or damage suffered by the CITY beyond what the CITY has paid SERVICE PROVIDER pursuant to this Agreement in the most recent twelve months from the date of the loss or damage. In no event shall SERVICE PROVIDER have any liability to any third parties as the result of any responsibilities for services herein or acts made pursuant hereto and

the CITY shall indemnify SERVICE PROVIDER from any actions or claims made or liability established by any third party, including costs and attorney fees incurred by SERVICE PROVIDER.

9. Liquidated Damages. Liquidated damages will be linked to SERVICE PROVIDER performance for system-wide uptime. SERVICE PROVIDER will achieve 85% system wide uptime for monitored sites. Uptime is defined as the availability of sensor data as collected by the monitoring equipment. System-wide uptime shall be calculated based on the total number of available readings. For example, with 110 monitored sites on a 5-minute sampling rate, there are 950,400 available readings in a 30-day month. To avoid liquidated damages, SERVICE PROVIDER needs to provide a total of 760,320 readings. A monthly report will be submitted by SERVICE PROVIDER that shows total system-wide uptime. According to Attachment "D", the total price for Monthly Services is \$18,963.50 per month. If SERVICE PROVIDER meets the 85% uptime guarantee then this amount will be billed in full each month. If the above uptime guarantee is not met, then SERVICE PROVIDER will only bill for the percentage of data that is available to the CITY. However, SERVICE PROVIDER will not be penalized if:

- a. Any sensor site or associated equipment is removed at the direction of CITY.
- b. Any sensor site associated with line powered equipment has the electric power disconnected by the CITY, electric company, or any other third party.
- c. Downtime is due to repairs or modifications executed by action of the CITY, its employees, agents, contractors or invitees.
- d. Downtime is due to events beyond the SERVICE PROVIDER's control such as, but not limited to, vandalism, construction by others that cut electric lines, unusually heavy debris that destroys or otherwise disables sensor monitors, or acts of God (e.g., lightning strikes, etc.).

10. Insurance.

- a. Before commencing its services and as a condition of payment, SERVICE PROVIDER shall procure and maintain insurance as set forth in Attachment "C", "Insurance", which will protect it from claims arising out of the performance of its services under this Agreement, whether such services are provided by SERVICE PROVIDER or by any of its subcontractors or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. SERVICE PROVIDER shall cause CITY to be listed as an additional insured on any applicable general liability insurance policy carried by SERVICE PROVIDER.
- b. SERVICE PROVIDER shall require its subcontractors to maintain Comprehensive General Liability, Automobile Liability, and Professional Liability coverage with a company satisfactory to CITY and with limits acceptable to CITY.

11. General Terms.

- a. Except as otherwise provided by law, all notices expressly required of CITY within the body of this Agreement, and not otherwise specifically provided for, shall be effective only if signed by CITY'S Director of Public Works or his/her designee.
- b. Records of SERVICE PROVIDER'S expenses pertaining to the Project shall be kept on a generally recognized accounting basis and shall be available to CITY or its authorized representatives upon request during regular business hours throughout the life of this Agreement and for a period of three years after final

payment or, if longer, for any period required by law. In addition, all books, documents, papers, and records of SERVICE PROVIDER pertaining to the Project shall be available for the purpose of making audits, examinations, excerpts, and transcriptions for the same period of time. This Section shall survive expiration or termination of this Agreement.

12. Notices. Except as otherwise expressly provided in this Agreement, any notice required or intended to be given to either party under the terms of this Agreement shall be in writing and shall be deemed to be duly given if delivered personally, transmitted by facsimile followed by telephone confirmation of receipt, or sent by United States registered or certified mail, with postage prepaid, return receipt requested, addressed to the party to which notice is to be given at the party's address set forth on the signature page of this Agreement or at such other address as the parties may from time to time designate by written notice. Notices served by United States mail in the manner above described shall be deemed sufficiently served or given at the time of the mailing thereof.
13. Binding. Once this Agreement is signed by all parties, it shall be binding upon, and shall inure to the benefit of, all parties, and each parties' respective heirs, successors, assigns, transferees, agents, servants, employees and representatives.
14. Compliance with Law. In providing the services required under this Agreement, SERVICE PROVIDER shall at all times comply with all applicable laws of the United States, the State of Indiana and CITY, and with all applicable regulations promulgated by federal, state, regional, or local administrative and regulatory agencies, now in force and as they may be enacted, issued, or amended during the term of this Agreement.
15. Governing Law and Venue. This Agreement shall be governed by, and construed and enforced in accordance with, the laws of the State of Indiana, excluding, however, any conflict of laws rule which would apply the law of another jurisdiction. Venue for purposes of the filing of any action regarding the enforcement or interpretation of this Agreement and any rights and duties hereunder shall be Saint Joseph County, Indiana.
16. Headings. The section headings in this Agreement are for convenience and reference only and shall not be construed or held in any way to explain, modify or add to the interpretation or meaning of the provisions of this Agreement.
17. Severability. The provisions of this Agreement are severable. The invalidity, or unenforceability of anyone provision in this Agreement shall not affect the other provisions.
18. Interpretation. The parties acknowledge that this Agreement in its final form is the result of the combined efforts of the parties and that, should any provision of this Agreement be found to be ambiguous in any way, such ambiguity shall not be resolved by construing this Agreement in favor of or against either party, but rather by construing the terms in accordance with their generally accepted meaning.
19. Exhibits. Each exhibit and attachment referenced in this Agreement is, by the reference, incorporated into and made a part of this Agreement.
20. Precedence of Documents. In the event of any conflict between the body of this Agreement and any Exhibit or Attachment hereto, the terms and conditions of the body

of this Agreement shall control and take precedence over the terms and conditions expressed within the Exhibit or Attachment. Furthermore, any terms or conditions contained within any Exhibit or Attachment hereto which purport to modify the allocation of risk between the parties, provided for within the body of this Agreement, and shall be null and void.

21. Survivability. Whether or not expressly set forth in this Agreement for any specific provision, all terms and conditions of this Agreement that require performance beyond the expiration or termination of this Agreement shall survive such expiration or termination.
22. Extent of Agreement. Each party acknowledges that they have read and fully understand the contents of this Agreement. This Agreement represents the entire and integrated agreement between the parties with respect to the subject matter hereof and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be modified only by written instrument duly authorized and executed by both CITY and SERVICE PROVIDER.
23. Pricing Conditions. For the first twelve months of the Agreement, pricing will be fixed. Sixty days prior to the ending date of the Agreement, SERVICE PROVIDER may submit proposed pricing revisions for the following contract term, which will be subject to negotiation by CITY at CITY'S discretion. CITY'S Public Works Director ("Director"), or his/her designee, shall be the authorized CITY agent in any such negotiation. SERVICE PROVIDER must provide adequate documentation to substantiate any request for a price increase.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date first above written.

SERVICE PROVIDER

CITY

EMNET, LLC

By: 
Its: L. Montestruque
President

By: APPROVED
Board of Public Works

Its: JUL 08 2014




EXHIBIT "A"

SCOPE OF WORK

Section I. Monthly Service

The SERVICE PROVIDER shall perform the following maintenance and/or repair services on equipment installed at the locations listed in Attachment A, entitled "Sensor Site Schedule", attached hereto and by this reference incorporated as part of this Exhibit "A". The services shall include provision for all labor, parts, and field equipment.

The monitor maintenance and repair services to be provided by the SERVICE PROVIDER shall include:

- A. Equipment Repair and Maintenance Services: The SERVICE PROVIDER on a scheduled monthly basis will perform repair and maintenance services necessary to keep the equipment operating in accordance with manufacturer's design specifications. These services will be performed as required both in the field and from the SERVICE PROVIDER service facilities. The services to be performed under this agreement include but are not limited to the following :
- a. General equipment maintenance including battery replacement;
 - b. Batteries shall be replaced when their voltages are 'critical' on the diagnostic evaluation.
 - c. The following items will be conducted under the normal service plan :
 - i. Repair of electronic failure internal to the equipment;
 - ii. Repair of communication link failure internal to the equipment ;
 - iii. Repair or replacement of circuit boards, internal electronics, connectors, wiring, chassis, manhole cover, and miscellaneous items as required.

The SERVICE PROVIDER shall maintain a log of "Statement of Repair Service Forms," which documents all maintenance and diagnostics performed. No non-emergency work shall be done on State and Federal Holidays.

- B. System Performance: Under this Scope of Work, the SERVICE PROVIDER will monitor the system-wide up-time daily. Concerning control valve sites, the SERVICE PROVIDER shall take action to address problems in no more than 3 working days. Concerning all other sites, the SERVICE PROVIDER shall take action to address problems in no more than 5 working days. The SERVICE PROVIDER shall exclude from the system-wide up-time calculation defined in Section 9, monitoring sites under maintenance and repair due to no fault of the SERVICE PROVIDER (e.g. loss of power, node removed for city activities / construction, and third party maintenance).
- C. Contingency Services: The SERVICE PROVIDER will perform the following 'contingency services' as requested by the CITY. The total cost in time and materials for 'contingency services' shall not exceed \$4,294.00 per each calendar month. All materials purchased by the CITY with 'contingency services' shall remain the property of the CITY. Any service provided by SERVICE PROVIDER beyond the allocated 'contingency services' will fall under 'Excluded Services'. SERVICE PROVIDER will keep and maintain all documentation related to 'contingency services'. The following services and equipment may be considered part of 'contingency services':
- a. Changes or alterations in specifications;
 - b. Painting , refinishing, or furnishing materials;
 - c. Installation, moving, or removing of equipment unless required as part of the repair process;

- d. Repairs made necessary by action of the CITY, its employees, agents, contractors or invitees;
- e. Repairs made necessary due to attempts by the CITY to repair or maintain the SERVICE PROVIDER equipment unless authorized by the SERVICE PROVIDER;
- f. Maintenance and repairs to equipment not specifically identified in Attachment A, "Equipment Schedule";
- g. Service during holidays or weekends, or service not covered by this Agreement. Holidays are defined as New Years Day, Martin Luther King Day, Presidents Day, Good Friday, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and the day after, Christmas Eve and Christmas Day;
- h. Maintenance and repairs made necessary due to events beyond the SERVICE PROVIDER's control such as, but not limited to, vandalism, construction by others that cut electric lines, unusually heavy debris that destroys or otherwise disables sensors, sensor or monitor (level transducer, flow meter, or water quality sensor) functional or installation failure, or acts of God (e.g., lightning strikes, etc.).

Section II. Data Warehousing and Website Access"

The SERVICE PROVIDER will maintain a database containing all the data collected by the monitors for the past three (3) years. The SERVICE PROVIDER will give the USER access to the data through two methods a web site portal and a database account.

Section III. Excluded Services:

The following equipment and services shall be excluded from the monthly maintenance and repair service agreement if they exceed the allocated quota for 'contingency services':

- D. Communication and electrical lines external to the equipment;
- E. Changes or alterations in specifications;
- F. Painting , refinishing, or furnishing materials;
- G. Installation, moving, or removing of equipment unless required as part of the repair process;
- H. Repairs made necessary by action of the CITY, its employees, agents, contractors or invitees;
- I. Repairs made necessary due to attempts by the CITY to repair or maintain the SERVICE PROVIDER equipment unless authorized by the SERVICE PROVIDER;
- J. Maintenance and repairs to equipment not specifically identified in Attachment A, "Equipment Schedule";
- K. Service during holidays or weekends, or service not covered by this Agreement. Holidays are defined as New Years Day, Martin Luther King Day, Presidents Day, Good Friday, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and the day after, Christmas Eve, and Christmas Day;
- L. Maintenance and repairs made necessary due to events beyond the SERVICE PROVIDER's control such as, but not limited to, vandalism, construction by others that cut electric lines, unusually heavy debris that destroys or otherwise disables sensors, sensor or monitor (level transducer, flow meter, or water quality sensor) functional or installation failure, or acts of God (e.g., lightning strikes, etc.).

Such services requested of the SERVICE PROVIDER outside of this Scope of Work will fall under Time and Material.

ATTACHMENT A
SENSOR SITE SCHEDULE
REV date: 6/3/2014
142 sites

This sensor site schedule identifies the units covered by the agreement between the City of South Bend and EmNet, LLC. Currently the monitoring equipment consists of Gnodes (with and without cellular communication) and Inodes.

Location	CSONet Name	Sensor Type	Purpose
Beck's Lake	G.31.1	Pressure Transducer	Basin Monitoring
Chippewa Basin	I.16.2	Pressure Transducer	Basin Monitoring
Ireland/Miami Basin	I.18.2	Pressure Transducer	Basin Monitoring
Logan Hickory Pond	I.28.1	Pressure Transducer	Basin Monitoring
Model City Basin	G.5.2	Pressure Transducer	Basin Monitoring
Ireland/Miami Basin	G.18.1a (S1, S2, S3)	Isco 2150	Basin Outflow Monitoring
Kensington Basin	G.19.1	Existing Sensors	Basin Monitoring
Oliver Plow Basin	I.SA.SB.4	Pressure Transducer	Basin Monitoring
Bowman Creek, Riley High School	I.32.2 (S1, S2)	Pressure Transducer with Temperature Sensor	Bowman Creek
Bowman Creek, Studebaker Golf Course	I.32.3 (S1, S2)	Pressure Transducer with Temperature Sensor	Bowman Creek
Bowman Creek, Studebaker Golf Course	I.32.3 (S3)	ORP Sensor	Bowman Creek
Bowman Creek, Studebaker Golf Course	I.32.3 (S4)	Turbidity Sensor	Bowman Creek
CSO 001 Oakwood and Riverside	G.1.1	Pressure Transducer	CSO Monitoring
CSO 002 Sherman and Riverside	G.3a.2	Pressure Transducer	CSO Monitoring
CSO 003 Sherman and McCartney	G.3a.1a	Isco 2150	CSO Regulator Monitoring
CSO 003 Sherman and McCartney	G.3a.1b	Isco 2150	CSO Outfall Monitoring
CSO 003 Sherman and McCartney	G.3a.1c	Isco 2150	Interceptor Monitoring
CSO 004 West End of Angela Bridge	G.3b.1	Pressure Transducer	CSO Monitoring
CSO 006 Leland and Riverside	G.29.1a	Isco 2150	CSO Regulator Monitoring
CSO 006 Leland and Riverside	G.29.1b	Isco 2150	CSO Outfall Monitoring
CSO 007 Lafayette and Park	I.8.4	Pressure Transducer	CSO Monitoring

CSO 008 Park Ln and Main	I.8.5	Pressure Transducer	CSO Monitoring
CSO 010 Bartlett and Riverside	G.10.2	Pressure Transducer	CSO Monitoring
CSO 011AE LaSalle and Michigan	G.11.2 (S4)	Pressure Transducer	CSO Monitoring
CSO 011AW LaSalle and Michigan	G.11.2 (S3)	Pressure Transducer	CSO Monitoring
CSO 011B LaSalle and Michigan	G.11.2 (S1)	Pressure Transducer	CSO Monitoring
CSO 014, Monroe and Lincolnway	I.13.1	Pressure Transducer	CSO Monitoring
CSO 017 Monroe and LWE	I.30.3	Pressure Transducer	CSO Monitoring
CSO 018 Bowman Creek	G.30.2 (S1, S2, S3)	Isco 2150	CSO Monitoring
CSO 019 Miami and Lincoln Way East	G.30.3	Pressure Transducer	CSO Monitoring
CSO 021 Twyckenham and LWE	G.15.3	Pressure Transducer	CSO Monitoring
CSO 022 East End Trunk Sewer	G.15.1	Existing Ultrasonic Level Sensor	CSO Monitoring
CSO 022 East End Trunk Sewer	G.15.1a (S1, S2, S3)	Isco 2150	CSO Monitoring
CSO 022 East End Trunk Sewer	G.15.1b (S1, S2, S3)	Isco 2150	CSO Monitoring
CSO 025 Lafayette and North Shore	I.8.2	Pressure Transducer	CSO Monitoring
CSO 026 Leeper and North Shore	I.9.2	Pressure Transducer	CSO Monitoring
CSO 027 Niles and Sorin	G.10.1 (S2)	Pressure Transducer	CSO Monitoring
CSO 028 Niles and Sorin	G.10.1 (S1)	Pressure Transducer	CSO Monitoring
CSO 029 Colfax & Sycamore (Lift Station)	G.11.1	Pressure Transducer	CSO Monitoring
CSO 030 Northside and St. Louis	G.13.2	Pressure Transducer	CSO Monitoring
CSO 031 Cooper Bridge	G.30.4	Pressure Transducer	CSO Monitoring
CSO 033 Emerson and North Side	G.24.1	Pressure Transducer	CSO Monitoring
CSO 035 Clover and Northside	G.24.2	Pressure Transducer	CSO Monitoring
CSO 036 Twyckenham and Northside	G.24.3	Pressure Transducer	CSO Monitoring
CSO 037 21st and Pleasant	G.36.1a (S1, S2, S3)	Isco 2150	CSO Monitoring
CSO 037 21st and Pleasant	G.36.1b (S1, S2, S3)	Isco 2150	CSO Monitoring
CSO 038 26th and North Side	I.21.2	Pressure Transducer	CSO Monitoring
CSO 039 27th and North Side	G.21.1 (S1)	Pressure Transducer	CSO Monitoring
CSO 040 Alley in between 31st and 32nd on North Side	G.21.2	Pressure Transducer	CSO Monitoring
CSO 041 North Side and 36th	G.20.3 (S1)	Pressure Transducer	CSO Monitoring
CSO 042 North Side and Logan	G.20.2	Pressure Transducer	CSO Monitoring
CSO 044 Northview and Riverside	G.1.2	Pressure Transducer	CSO Monitoring
CSO 048 LWE and Robinson	G.15.2 (S1)	Pressure Transducer	CSO Monitoring
CSO 049 LWE and Bowman Creek	G.30.1	Pressure Transducer	CSO Monitoring
CSO 060 Emerson and Mishawaka	G.22.2	Pressure Transducer	CSO Monitoring
by CSO 11, LaSalle and Michigan	G.11.2 (S2)	Pressure Transducer	Interceptor Monitoring
by CSO 2, Blyer and Riverside	I.3a.1	Pressure Transducer	Interceptor Monitoring
by CSO 26, Michigan and North Shore	I.9.3	Pressure Transducer	Interceptor Monitoring
by CSO 27/CSO 28, Crescent and Niles	G.10.1 (S3, S4)	Isco 2150	Interceptor Monitoring
by CSO 29, Colfax and Niles	I.11.1	Pressure Transducer	Interceptor Monitoring
by CSO 31, Eddy and Northside	I.30.1	Pressure Transducer	Interceptor Monitoring

by CSO 33, Emerson and Northside	G.24.1a (S1, S2, S3)	Isc0 2150	Interceptor Monitoring
by CSO 35, Northside and Clover	I.24.1	Pressure Transducer	Interceptor Monitoring
by CSO 37, 20th and Pleasant	I.36.1	Pressure Transducer	Interceptor Monitoring
by CSO 37, 21st and Pleasant	G.36.1 (S1)	Pressure Transducer	Interceptor Monitoring
by CSO 38, 26th and Northside	G.21.3	Pressure Transducer	Interceptor Monitoring
by CSO 39, 27th and Northside	G.21.1a (S1, S2, S3)	Isc0 2150	Interceptor Monitoring
by CSO 4, Riverside, Just North of Angela	I.3b.1	Pressure Transducer	Interceptor Monitoring
by CSO 41, 36th and Northside	G.20.3 (S2)	Pressure Transducer	Interceptor Monitoring
by CSO 42, Logan and Northside	I.20.1	Pressure Transducer	Interceptor Monitoring
by CSO 44, Northview and Riverside	I.1.1	Pressure Transducer	Interceptor Monitoring
by CSO 48 (RC#1), Northside boat launch, E	I.15.1-2 (S2)	Pressure Transducer	Interceptor Monitoring
by CSO 48 (RC#1), Northside boat launch, W	I.15.1-2 (S1)	Pressure Transducer	Interceptor Monitoring
by CSO 49 (RC#2), Sample and Northside	I.30.2	Pressure Transducer	Interceptor Monitoring
by RC #3, St. Louis and Northside	I.13.3	Pressure Transducer	Interceptor Monitoring
by RC #4, North Shore and LaFayette	I.8.1	Pressure Transducer	Interceptor Monitoring
RC #1, Primary Crossing, by CSO 48	G.15.2 (S2)	Pressure Transducer	Interceptor Monitoring
RC #3, Monroe and Edgewater	G.13.1	Pressure Transducer	Interceptor Monitoring
RC #4, by Leeper Park	G.8.1	Pressure Transducer	Interceptor Monitoring
TMP 01-1, Oakwood and Inglewood	I.1.2	Pressure Transducer	Trunkline Monitoring
TMP 01-2, Hamilton and Portage	I.2.1	Pressure Transducer	Trunkline Monitoring
TMP 02-1, Sherman and Kinyon	I.3a.2	Pressure Transducer	Trunkline Monitoring
TMP 03-1, Goodland and Lincolnway W	I.4.1	Pressure Transducer	Trunkline Monitoring
TMP 03-2, Bendix and Westmoor	I.4.2	Pressure Transducer	Trunkline Monitoring
TMP 03-3, Sheridan and Sample	I.6.1	Pressure Transducer	Trunkline Monitoring
TMP 04-1, Diamond Ave	I.3b.3	Pressure Transducer	Trunkline Monitoring
TMP 06-1, Lincoln Way W and Madison	I.7.1	Pressure Transducer	Trunkline Monitoring
TMP 06-2, Kenwood and Olive	I.5.1	Pressure Transducer	Trunkline Monitoring
TMP 06-3, Grace and Olive	I.5.2	Pressure Transducer	Trunkline Monitoring
TMP 06-4, Taylor and Western	I.34.1	Pressure Transducer	Trunkline Monitoring
TMP 10-1, Navarre and Riverside	I.10.1	Pressure Transducer	Trunkline Monitoring

TMP 11-1, South and Main	I.12.2	Pressure Transducer	Trunkline Monitoring
TMP 11-2, South and Michigan	I.12.3 (S1, S2, S3)	Isco 2150	Trunkline Monitoring
TMP 11-3, Broadway and Michigan	I.35.1	Pressure Transducer	Trunkline Monitoring
TMP 14-1, Bronson and Lincoln Way E	I.13.2	Pressure Transducer	Trunkline Monitoring
TMP 18-1, Fellows and Donald	I.32.1	Pressure Transducer	Trunkline Monitoring
TMP 18-2, Chippewa, 1580' W of Main	I.17.1	Pressure Transducer	Trunkline Monitoring
TMP 18-3, Dubail and High	I.SA.SB.1	Pressure Transducer	Trunkline Monitoring
TMP 18-4, Donald and High	I.SA.SB.2	Pressure Transducer	Trunkline Monitoring
TMP 18-5, Erskine and Eckman	I.SA.SB.3	Pressure Transducer	Trunkline Monitoring
TMP 19-1, Dayton and Miami	I.14.1	Pressure Transducer	Trunkline Monitoring
TMP 22-1, Twyck. and Ewing	I.15.3	Pressure Transducer	Trunkline Monitoring
TMP 22-2, Ridgedale and Twyck.	I.16.1	Pressure Transducer	Trunkline Monitoring
TMP 22-3, Ireland and High	I.18.1	Pressure Transducer	Trunkline Monitoring
TMP 25-1, Tonti and Lafayette	I.8.3	Pressure Transducer	Trunkline Monitoring
TMP 26-1, Stanfield and Howard	I.9.4	Pressure Transducer	Trunkline Monitoring
TMP 26-2, Leeper and Napoleon	I.9.1	Pressure Transducer	Trunkline Monitoring
TMP 27-1, Campeau and Eddy	I.27.2	Pressure Transducer	Trunkline Monitoring
TMP 27-3, South Bend Ave and St. Peter	I.27.3	Pressure Transducer	Trunkline Monitoring
TMP 28-3, Eddy and Arthur	I.33.2 (S1, S2, S3)	Isco 2150	Trunkline Monitoring
TMP 28-2, Niles and Colfax	I.11.2	Pressure Transducer	Trunkline Monitoring
TMP 31-1, Southwood and Twyck.	I.23.5	Pressure Transducer	Trunkline Monitoring
TMP 31-2, Clover and Mishawaka	I.23.6	Pressure Transducer	Trunkline Monitoring
TMP 37-1, Jefferson and 26th	I.25.1	Pressure Transducer	Trunkline Monitoring
TMP 37-2, McKinley and Ironwood	I.26.1	Pressure Transducer	Trunkline Monitoring
TMP 40-1, Mishawaka and 34th	I.20.3	Pressure Transducer	Trunkline Monitoring
TMP 41-1, Mishawaka and 36th	I.20.2	Pressure Transducer	Trunkline Monitoring
TMP 60-1, Emerson and Ruskin	I.22.1	Pressure Transducer	Trunkline Monitoring
TMP 60-2, Oakland and Ruskin	I.22.2	Pressure Transducer	Trunkline Monitoring
TMP 60-3, Clover and Ruskin	I.22.3	Pressure Transducer	Trunkline Monitoring
TMP 60-4, Twyck. and Ruskin	I.23.3	Pressure Transducer	Trunkline Monitoring

TMP 60-5, Bellevue and Ruskin	I.23.2	Pressure Transducer	Trunkline Monitoring
TMP 60-6, Esther and Ruskin	I.23.1	Pressure Transducer	Trunkline Monitoring
Park and Michigan	I.8.6	Pressure Transducer	Trunkline Monitoring
TMP 04-2, Diamond and Woodward	I.3b.4 (S1, S2, S3)	Isc0 2150	Trunkline Monitoring
Rain Gauge, Madison and Eddy	G.33.1 (S1, S3)	Tipping Bucket	Rain Monitoring
Colfax and Michigan	TM11AW	I.37.1	Isc0 2150
LaSalle, west of Michigan, in left turn lane for Michigan	PM11B	I.37.2	Isc0 2150
Main, between Washington and Jefferson	TM11B1	I.37.3	Isc0 2150
Colfax and Michigan	TM11AE	I.37.4	Isc0 2150
Blaine and Lincolnway West	TM6A	I.7.2	Depth
CSO 027, Niles and Crescent	TM27	I.10.2	Isc0 2150
CSO 028, Niles and Crescent	PM27	I.10.3	Isc0 2150
CSO 014, Monroe and Lincolnway East	TM14	I.13.4	Isc0 2150
Mishawaka, East of Emerson	TM31A	I.22.4	Isc0 2150
CSO 031, Eddy and Mishawaka Ramp	PM31	I.30.4	Isc0 2150

RTDSS Sites

CSO 44, Northview/Riverside	I.1.3	Isc0 2150	CSO Monitoring
CSO 01, Oakwood/Riverside	I.1.4	Isc0 2150	CSO Monitoring
CSO 39, Northside east of 27th	I.21.3	Isc0 2150	CSO Monitoring
CSO 35, Clover north of Northside	I.24.2	Isc0 2150	CSO Monitoring
CSO 04, Angela/Riverside	I.3b.5	Isc0 2150	CSO Monitoring
CSO 26, Leeper/Northshore	I.9.5	Isc0 2150	CSO Monitoring

ATTACHMENT B GNODE SCHEDULE

South Bend Cellular locations
46 locations total
Rev date: 6/4/2014

This equipment schedule identifies the Gnode units covered by the agreement between the City of South Bend and EmNet, LLC.

The listed Gnodes have cellular communication and are needed for logging sensor information.

No.	Node Name	Purpose	Location	New?
1	G.1.2	CSO control site	CSO 44 Northview and Riverside	No
2	G.1.1	CSO outfall monitoring	CSO 1 Oakwood and Riverside	No
3	G.2.1	Trunkline Monitoring	Hamilton and Portage	No
4	G.3a.1	CSO outfall monitoring and control	CSO 3 Sherman and Riverside	No
5	G.3b.1	CSO control site	CSO 4, Riverside and Angela	No
6	G.4.1	Trunkline Monitoring	Bendix and Westmoor	No
7	G.5.1	Trunkline Monitoring	Orange and Olive	No
8	G.6.1	Trunkline Monitoring	Sheridan and Sample	No
9	G.7.1	Trunkline Monitoring	Walnut and Euclid gate	No
10	G.8.1	CSO Outfall monitoring	River Crossing #4 Riverside and Lafayette	No
11	I.8.2	CSO control site	CSO 25 Lafayette and North Shore	No
12	G.9.1	CSO outfall monitoring	North Shore and Michigan	No
13	G.10.1	CSO outfall monitoring and control	CSO 27/28 Niles and Sorin	No
14	G.11.1	CSO monitoring	CSO 29 Lift Station, Cabinet 2	No
15	G.12.1	Trunkline Monitoring	Michigan and South	No
16	G.13.1	CSO outfall monitoring	Monroe and Edgewater	No
17	G.13.2	CSO control site	CSO 30 St. Louis and Northside	No
18	I.13.1	CSO control site	CSO 14, Monroe and LWE	No
19	G.14.1	Trunkline Monitoring	Calvert and Miami	No
20	G.15.1	CSO outfall monitoring	CSO 22 East End Trunk Sewer	No
21	G.16.1	Trunkline Monitoring	Miami and Ridgedale	No
22	G.17.1	Trunkline Monitoring	Chippewa and Main	No
23	G.18.1	Basin Monitoring/Control	Ireland Miami Basin	No
24	G.19.1	Basin Monitoring/Control	York and Provincial	No
25	G.20.1	Trunkline Monitoring	Mishawaka and Logan	No
26	G.21.1	CSO outfall monitoring	CSO 39 27th St. Lift Station	No

27	G.22.1	Trunkline Monitoring	Twyckenham and Mishawaka	No
28	G.23.1	Trunkline Monitoring	Twyckenham and Mishawaka	No
29	G.24.1	CSO outfall monitoring	CSO 33 Emerson and Northside	No
30	G.25.1	Trunkline Monitoring	Jefferson and 26th	No
31	G.26.1	Trunkline Monitoring	McKinley and Ironwood	No
32	G.28.1	Basin Monitoring/Control	Corby and Hickory	No
33	G.29.1	CSO outfall monitoring	CSO 6 Leland and Riverside	No
34	G.30.1	CSO outfall monitoring	CSO 49 Sample and Lincolnway E	No
35	G.30.4	CSO monitoring	CSO 31, Eddy and Northside	No
36	G.31.1	Basin Monitoring/Control	Beck's Lake	No
37	G.32.1	Trunkline Monitoring	Ewing and Fellows	No
38	G.33.1	Trunkline Monitoring	Madison and Eddy	No
39	G.34.1	Trunkline Monitoring	Taylor and Western	No
40	G.35.1	Trunkline Monitoring	Broadway and Michigan	No
41	G.36.1	CSO monitoring	CSO 37 Pleasant and 21st	No
42	I.SA.SB.1	Trunkline Monitoring	TMP 18-3, Dubail and High	No
43	I.SA.SB.2	Trunkline Monitoring	TMP 18-4, Donald and High	No
44	I.SA.SB.3	Trunkline Monitoring	TMP 18-5, Erskine and Eckman	No
45	I.SA.SB.4	Basin Monitoring/Control	Oliver Plow Basin	Yes
46	G.37.1	Trunkline Monitoring	LaSalle and Main	Yes

**ATTACHMENT C
INSURANCE REQUIREMENTS**

The limits of liability for the insurance required by the Agreement.

- 1) Workers' Compensation: Statutory
- 2) Employer's Liability –
 - a. Each Accident \$1,000,000
 - b. Disease, Policy Limit: \$1,000,000
 - c. Disease, Each Employee: \$1,000,000
- 3) Commercial General Liability --
 - a. Each Occurrence: \$1,000,000
 - b. General Aggregate: \$2,000,000
 - c. Products/Completed Operations: \$1,000,000
 - d. Personal and Advertising \$1,000,000
 - e. Contractual Liability--
 - (i) Each Occurrence: \$1,000,000
 - (ii) General Aggregate \$2,000,000
- 4) Excess Umbrella Liability --
 - a. Each Occurrence: \$2,000,000
 - b. General Aggregate: \$2,000,000
- 5) Business Automobile Liability --
 - a. Bodily Injury –Each Accident: \$1,000,000
 - b. Property Damage –Each Accident: \$1,000,000
- 6) Professional Liability Insurance
 - a. Each Claim Made: \$1,000,000
 - b. Annual Aggregate: \$1,000,000

**ATTACHMENT D
EmNet
PRICE OF SERVICES**

Service and Subscription Fee

	Preferential
Fee per sensor site per month	\$76.50
Web Site and Data Storage	✓
Battery Replacements	✓
Unlimited warranty on telemetry*	✓

* Warranty does not cover items excluded in Monthly Maintenance (Exhibit A, Section I, Item A)

Description	Units	Monthly Price per Unit	Monthly Service Price	Yearly Total
Physical Site for Monthly Service	142	\$76.50	\$10,863.00	\$130,356.00
Contingency Services	12	\$4,294.00	\$4,294.00	\$51,528.00
Virtual Site Monthly Service	115	\$6.10	\$701.50	\$8,418.00
Connection Fees	46	\$67.50	\$3,105.00	\$37,260.00
TOTAL			\$18,963.50	\$ 227,562.00

NOTES:

Physical sites: There are 116 current physical sites, the new contract has 142 sites, a 22% increase. The contingency service rate also reflects the 22% increase from \$3,520 to \$4,294.

Virtual sites: There are 115 virtual sites that EmNet maintains that perform calculations for Overflow, Underflow and depths at CSOs. 78 nodes for CSO Under and Over Flows. 37 nodes for CSO depths.

Contingency Labor type	units	July 2014 Price per Unit	Preferred Client Discount	Preferred Client \$/hr.
Principal	Per hour	\$192	15%	\$163
Engineer	Per hour	\$168	15%	\$143
Field Technical Service	Per hour	\$150	15%	\$128

**ATTACHMENT E
EMNET
PRICE LIST**

Equipment Costs

Logicover	\$3,400
Gateway	\$2,674
Repeater	\$1,294