

2021-0084

**INTRODUCED BY: MATTHEW JEWELL, PARISH PRESIDENT
(DEPARTMENT OF PUBLIC WORKS)**

ORDINANCE NO. 21-4-4

An ordinance to approve and authorize the execution of an Agreement for Professional Services with Compliance EnviroSystems, LLC for providing all necessary sewer system evaluations for St. Charles Parish, Project No. S210301.

WHEREAS, St. Charles Parish desires to perform an evaluation of its sewer systems; and,

WHEREAS, the projected work includes but not limited to; manhole inspection, flow monitoring, smoke testing, sanitary sewer line cleaning, root/grease/tap cutting, CCTV inspection, etc.; and,

WHEREAS, St. Charles Parish wishes to contract with Compliance EnviroSystems, LLC to perform the work on an as needed basis, described in the attached proposal of services and compensation.

THE ST. CHARLES PARISH COUNCIL HEREBY ORDAINS:

SECTION I. That the Agreement for Professional Services between St. Charles Parish and Compliance EnviroSystems, LLC for services as required by the Department of Public Works is hereby approved and accepted.

SECTION II. That the Parish President is hereby authorized to execute said agreement on behalf of the Parish of St. Charles.

The foregoing ordinance having been submitted to a vote, the vote thereon was as follows:

YEAS: DONALDSON, FONSECA, DARENSBOURG GORDON, CLULEE, GIBBS,
DUFRENE, BELLOCK, FISHER, FISHER-PERRIER

NAYS: NONE

ABSENT: NONE

And the ordinance was declared adopted this 5th day of April, 2021, to become effective five (5) days after publication in the Official Journal.

CHAIRMAN: Marilyn Belloc

SECRETARY: Michelle Dupontato

DLVD/PARISH PRESIDENT: April 6, 2021

APPROVED: ✓ DISAPPROVED:

PARISH PRESIDENT: Matt Jewell

RETD/SECRETARY: April 7, 2021

AT: 3:54 pm RECD BY: [Signature]

**AGREEMENT
FOR
PROFESSIONAL SERVICES**

OWNER: ST. CHARLES PARISH, LOUISIANA
Address: 15045 River Rd.
Hahnville, LA 70057
Administrative Contact: Matthew Jewell
Phone: 985.783.5000
Email: mlj@stcharlesgov.net

CONSULTANT: COMPLIANCE ENVIROSYSTEMS, LLC
Address: 1401 Seaboard Drive
Baton Rouge, LA 70810
Administrative Contact: Brad Dutruch, President
Phone: 225.279.1483
Email: brad@ces-sses.com

PROJECT: ST. CHARLES PARISH SEWER EVALUATION PROGRAM

THIS AGREEMENT is made effective this 13th day of April, 2021, by and between ST. CHARLES PARISH, acting herein by and through its President, who is duly authorized to act on behalf of said Parish, hereinafter called the OWNER and COMPLIANCE ENVIROSYSTEMS, LLC, a limited liability company acting herein by and through its Contracting Officer, hereinafter called CONSULTANT, pursuant to the following terms and conditions:

WITNESSETH:

WHEREAS, the OWNER desires to employ the CONSULTANT to provide services related to the PROJECT; and

WHEREAS, the CONSULTANT is willing and able to provide services related to the PROJECT in accordance with the terms and conditions set forth in this Agreement;

WHEREAS, the parties agree that the method of approach set forth in Attachment "A" is the basis for the services to be performed by the CONSULTANT under this Agreement.

NOW, THEREFORE, IT IS CONTRACTED, COVENANTED AND AGREED THAT:

ARTICLE 1 – CONSULTANT’S SERVICES

1. The CONSULTANT agrees to furnish the services identified and described in Attachments A and B, attached hereto and incorporated herein.
2. This Agreement shall commence once it has been executed by both parties and the Notice to Proceed issued by the Owner.
3. The CONSULTANT shall report to and work through and under the direction of the OWNER. Any and all correspondence shall be directed to David deGeneres - ddegeneres@stcharlesgov.net with copies to:
 - a. Murray Dufrene, Operation Manager – mdufrene@stcharlesgov.net

ARTICLE 2 – COMPENSATION

1. The OWNER shall compensate the CONSULTANT for providing the services identified and described in Attachments A and B in accordance with the Fee Schedule set forth and attached to this agreement. All combined task orders NTE \$1,500,000.00
2. The CONSULTANT shall be paid in accordance with the Fee Schedule for any and all services performed in connection with the PROJECT. For those services that may arise from time to time

that are not included in the Fee Schedule, the Consultant shall work with the OWNER to develop a reasonable fee for presentation to the OWNER.

3. Quantities in the Fee Schedule may be revised from time to time to reflect the actual conditions of work. The total value of the contract shall remain the same and not be revised without proper authorization by the OWNER.

ARTICLE 3 – PAYMENT

Payment to the CONSULTANT, as described in Article 2, is to be made as follows:

1. Each month the CONSULTANT shall submit an invoice to the OWNER describing the services performed and expenses incurred by the CONSULTANT during the preceding month. OWNER shall review the CONSULTANT's invoice within ten (10) business days of receipt and either forward it to the OWNER with a recommendation for payment or return it to the CONSULTANT with comments.
2. The OWNER shall pay the CONSULTANT the amount set forth in the invoice within thirty (30) days from the date the OWNER receives the CONSULTANT'S invoice.
3. If the CONSULTANT does not receive payment of the entire amount set forth in the CONSULTANT'S invoice within ninety (90) days from the date the OWNER receives the invoice, the CONSULTANT may suspend services until payment of the entire amount of the outstanding invoice is received by the CONSULTANT.

ARTICLE 4 – GENERAL TERMS AND CONDITIONS

1. PROFESSIONAL STANDARDS. The CONSULTANT shall be responsible, to the level of care and skill ordinarily used by practicing professionals in the same type of work in the U.S.A, for the professional and technical soundness, accuracy and adequacy of all data, reports, recommendations and other services and materials furnished under this Agreement.
2. PROJECT PROGRESS. The CONSULTANT'S services and compensation under this Agreement have been agreed to in anticipation of the orderly and continuous progress of the PROJECT through completion.
3. CONTRACT TIME. The duration of this contract shall be for a period of 36 months, commencing on the date that this agreement is signed by OWNER. At the end of the contract time, the OWNER will retain the option of renewing the contract for an additional 36 months, if mutually agreeable by OWNER and CONSULTANT.

4. CONFIDENTIALITY. The CONSULTANT shall not disclose nor permit disclosure of any information designated by the OWNER as confidential, except to its employees and other consultants who need such information in order to properly execute the services of this Agreement.
5. ASSIGNMENTS. The CONSULTANT binds himself and his partners, administrators and assigns to the other party of this Agreement, and to the partners, successors, executors, administrators and assigns of such other party, in respect to all covenants of this Agreement. The CONSULTANT shall not assign his or their interest in this Agreement without the written consent of the OWNER.
6. INSURANCE. Before commencing the work and until completion, CONSULTANT shall obtain and maintain, at its expense, the following insurance coverages. All policies required below shall contain provisions to the effect that the insurer(s) waive all rights of subrogation against the OWNER and their officers, directors, partners, employees and other consultants and subcontractors of each and any of them.

6.1 WORKERS COMPENSATION

CONSULTANT shall carry Workers Compensation coverage as follows:

- (1) Worker's Compensation Statutory
- (2) Employer's Liability \$1,000,000
- (3) CONSULTANT'S policy shall contain a Blanket Waiver of Subrogation granting a waiver of subrogation in favor of those that require it in a written contract.

6.2 COMPREHENSIVE AUTOMOBILE LIABILITY

CONSULTANT'S policy shall include all owned (private and others), hired and non-owned vehicles. CONSULTANT'S policy shall contain a Blanket Additional Insured endorsement and Blanket Waiver of Subrogation endorsement that is applicable if required in a written contract.

- (1) Bodily Injury and Property Damage \$1,000,000 Combined Single Limit

6.3 COMMERCIAL GENERAL LIABILITY INCLUDING PREMISE/OPERATIONS; EXPLOSION, COLLAPSE AND UNDERGROUND PROPERTY DAMAGE, PRODUCTS/COMPLETED OPERATIONS, BROAD FORM CONTRACTUAL, INDEPENDENT CONTRACTORS, BROAD FORM PROPERTY DAMAGE AND PERSONAL INJURY LIABILITIES

- | | | |
|----------------------|-------------|------------------|
| (1) Bodily Injury: | \$1,000,000 | Each Occurrence |
| | \$2,000,000 | Annual Aggregate |
| (2) Property Damage: | \$1,000,000 | Each Occurrence |
| | \$2,000,000 | Annual Aggregate |
| (3) Personal Injury: | \$1,000,000 | Annual Aggregate |

CONSULTANT'S policy shall contain a Blanket Additional Insured and Blanket Waiver of Subrogation Endorsement as well as Primary Wording that is applicable if required in a written contract.

6.4 PROFESSIONAL LIABILITY

CONSULTANT carry's a professional liability policy with a \$1,000,000 limit for each Act, Error or Omission and has a \$1,000,000 Aggregate.

6.5 POLLUTION LIABILITY

CONSULTANT carry's a pollution liability policy with a \$2,000,000 limit for each Pollution condition and a \$4,000,000 aggregate.

6.6 UMBRELLA LIABILITY

CONSULTANT carry's an umbrella policy with a \$5,000,000 limit Each Occurrence Limit and \$5,000,000 Aggregate. Umbrella policy sits over CONSULTANT'S Auto Liability, General Liability and Employers Liability.

7. TERMINATION FOR CONVENIENCE. Either party shall have the right to terminate this Agreement for any cause or for its own convenience, by providing a thirty (30) day written notice to the other party. In such event, OWNER shall pay CONSULTANT for that portion of the work actually performed plus any profits earned up to the date of termination. Notice of termination shall be given by the terminating party through certified mail, return receipt requested, to the office address of the other party listed on page 1 of this Agreement. The effective date of termination shall be thirty (30) days after date on which the notice of termination is received by the non-terminating party.
8. INDEMNIFICATION. To the fullest extent permitted by law, the CONSULTANT agrees to defend, indemnify and hold harmless the OWNER from and against any liabilities, claims, damages and costs (including reasonable attorney's fees) caused solely by the negligence of the CONSULTANT in the performance of services under this Agreement.
9. DISPUTE RESOLUTION. The parties shall endeavor to resolve any disputes through informal negotiations between parties. If a dispute is not resolved within thirty (30) days from the date a party receives initial written notice of the dispute, the dispute shall be resolved by litigation in the 29th Judicial District Court for the Parish of St. Charles, State of Louisiana. The terms and conditions of this Agreement shall be governed by and interpreted in accordance with the laws of the State of Louisiana without regard to the application of any conflicts of law principles.

ARTICLE 5 – EXTENT OF AGREEMENT

This Agreement constitutes the entire understanding of and between the parties and supersedes any prior proposals, negotiations, representations, understandings, correspondence and agreements, either oral or written.

ARTICLE 6 – GOVERNING LAW

The terms of the Agreement shall be construed and interpreted under, and all respective rights and duties of the parties shall be governed by the laws of the State of Louisiana.

ARTICLE 7 – MISCELLANEOUS PROVISIONS

1. NOTICES. Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and sent, by electronic mail, by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.
2. SURVIVAL. All express representations, waivers, indemnifications and limitations of liability included in this Agreement will survive its completion or termination for any reason.
3. SEVERABILITY. Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon CONSULTANT and OWNER, which agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
4. WAIVER. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.
5. AMENDMENT. This Agreement may be amended only by a written instrument signed by both CONSULTANT and OWNER.

Executed the 13th day of April, 2021.

St. Charles Parish Government

Signature: _____

Matthew Jewell

BY: Matthew Jewell

TITLE: Parish President

WITNESSES:

BY: Billy Raymond

Print Name: Billy Raymond

BY: Rechell C. Champagne

Print Name: Rechell C. Champagne

Compliance EnviroSystems, LLC

Signature: _____

Joshua T. Hardy
Joshua T. Hardy
Vice President.

BY: Brad Dutruch

TITLE: President

WITNESSES:

BY: Josh Graham

Print Name: Josh Graham

BY: Michael Neisler

Print Name: Michael Neisler

Attachment A Professional Services Agreement (MSA) Fee Schedule Sewer System Evaluation Services (SSES)					
ITEM NO.	SERVICE DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENDED PRICE
SECTION 1000 MOBILIZATION DEMOBILIZATION					
1000.01	MOBILIZATION / DEMOBILIZATION OF EQUIPMENT & CREWS	0	EA	\$2,500.00	\$0.00
SECTION 2000 FLOW MONITORING SERVICES					
2000.01	TEMPORARY FLOW MONITORING (1-5 METERS)	0	MD	\$115.00	\$0.00
2000.02	TEMPORARY FLOW MONITORING (1-5 METERS) - AFTER 60 DAYS	0	MD	\$95.00	\$0.00
2000.03	TEMPORARY FLOW MONITORING (6-10 METERS)	0	MD	\$100.00	\$0.00
2000.04	TEMPORARY FLOW MONITORING (6-10 METERS) - AFTER 60 DAYS	0	MD	\$90.00	\$0.00
2000.05	TEMPORARY FLOW MONITORING (11-15 METERS)	0	MD	\$95.00	\$0.00
2000.06	TEMPORARY FLOW MONITORING (11-15 METERS) - AFTER 60 DAYS	0	MD	\$85.00	\$0.00
2000.07	TEMPORARY FLOW MONITORING (16 OR MORE METERS)	0	MD	\$90.00	\$0.00
2000.08	TEMPORARY FLOW MONITORING (16 OR MORE METERS) - AFTER 60 DAYS	0	MD	\$85.00	\$0.00
2000.09	RAIN GAUGES	0	GD	\$29.00	\$0.00
2000.10	NIGHT FLOW ISOLATION	0	EA	\$500.00	\$0.00
2000.11	PUMP STATION DRAW/FILL TEST (1-2 PUMPS)	0	EA	\$2,500.00	\$0.00
2000.12	PUMP STATION DRAW/FILL TEST (3-4 PUMPS)	0	EA	\$3,500.00	\$0.00
2000.13	FORCE MAIN MONITORING (CLAMP-ON METERS)	0	EA	\$175.00	\$0.00
SECTION 3000 MANHOLE SERVICES					
3000.01	3D MANHOLE CONDITION ASSESSMENT WITH INTERNAL IMAGES AND GPS DATA COLLECTION	0	EA	\$125.00	\$0.00
3000.02	STRUCTURAL MANHOLE CONDITION ASSESSMENT WITH INTERNAL IMAGES	0	EA	\$110.00	\$0.00
3000.03	3D WET WELL CONDITION ASSESSMENT (LESS THAN OR EQUAL TO 8-FT DIAMETER)	0	EA	\$150.00	\$0.00
3000.04	3D WET WELL CONDITION ASSESSMENT (GREATER THAN 8-FT DIAMETER)	0	EA	\$175.00	\$0.00
3000.05	UN-COVER BURIED MANHOLES LESS THAN 12" DEEP	0	EA	\$300.00	\$0.00
3000.06	REMOVAL OF STABILIZED DEBRIS IN MANHOLE INVERTS	0	EA	\$425.00	\$0.00
3000.07	INSTALLATION OF STAINLESS STEEL RAINSTOPPER DURING MANHOLE CONDITION ASSESSMENT	0	EA	\$250.00	\$0.00
3000.08	MANHOLE/WET WELL INSPECTION DATA MANAGEMENT	0	EA	\$5.00	\$0.00
3000.09	MANHOLE/WET WELL REHABILITATION RECOMMENDATIONS	0	EA	\$10.00	\$0.00
SECTION 4000 SMOKE TESTING					
4000.01	SMOKE TESTING	0	LF	\$0.45	\$0.00
4000.02	SMOKE TESTING DATA MANAGEMENT	0	LF	\$0.05	\$0.00
SECTION 5000 SANITARY SEWER LINE CLEANING					
5000.01	STANDARD CLEANING 6" - 10" SANITARY SEWER IN RIGHT OF WAY	0	LF	\$1.58	\$0.00
5000.02	HEAVY CLEANING 6" - 10" SANITARY SEWER IN RIGHT OF WAY	0	LF	\$2.12	\$0.00
5000.03	STANDARD CLEANING 6"-10" SANITARY SEWER NOT IN RIGHT OF WAY	0	LF	\$3.25	\$0.00
5000.04	HEAVY CLEANING 6" - 10" SANITARY SEWER NOT IN RIGHT OF WAY	0	LF	\$4.20	\$0.00
5000.05	STANDARD CLEANING 12" - 15" SANITARY SEWER IN RIGHT OF WAY	0	LF	\$1.94	\$0.00
5000.06	HEAVY CLEANING 12" - 15" SANITARY SEWER IN RIGHT OF WAY	0	LF	\$2.47	\$0.00
5000.07	STANDARD CLEANING 12"-15" SANITARY SEWER NOT IN RIGHT OF WAY	0	LF	\$3.89	\$0.00
5000.08	HEAVY CLEANING 12" - 15" SANITARY SEWER NOT IN RIGHT OF WAY	0	LF	\$4.96	\$0.00
5000.09	STANDARD CLEANING 16" - 18" SANITARY SEWER IN RIGHT OF WAY	0	LF	\$5.00	\$0.00
5000.10	HEAVY CLEANING 16" - 18" SANITARY SEWER IN RIGHT OF WAY	0	LF	\$7.50	\$0.00
5000.11	STANDARD CLEANING 16"-18" SANITARY SEWER NOT IN RIGHT OF WAY	0	LF	\$7.75	\$0.00
5000.12	HEAVY CLEANING 16" - 18" SANITARY SEWER NOT IN RIGHT OF WAY	0	LF	\$9.00	\$0.00
5000.13	STANDARD CLEANING 19" - 24" SANITARY SEWER IN RIGHT OF WAY	0	LF	\$7.50	\$0.00
5000.14	HEAVY CLEANING 19" - 24" SANITARY SEWER IN RIGHT OF WAY	0	LF	\$11.00	\$0.00
5000.15	STANDARD CLEANING 19"-24" SANITARY SEWER NOT IN RIGHT OF WAY	0	LF	\$9.00	\$0.00
5000.16	HEAVY CLEANING 19" - 24" SANITARY SEWER NOT IN RIGHT OF WAY	0	LF	\$13.50	\$0.00
5000.17	STANDARD CLEANING 25" - 30" SANITARY SEWER IN RIGHT OF WAY	0	LF	\$9.00	\$0.00
5000.18	HEAVY CLEANING 25" - 30" SANITARY SEWER IN RIGHT OF WAY	0	LF	\$17.00	\$0.00
5000.19	STANDARD CLEANING 25" - 30" SANITARY SEWER NOT IN RIGHT OF WAY	0	LF	\$12.00	\$0.00
5000.20	HEAVY CLEANING 25" - 30" SANITARY SEWER NOT IN RIGHT OF WAY	0	LF	\$16.00	\$0.00
SECTION 6000 ROOT / GREASE / TAP CUTTING					
6000.01	ROOT / GREASE CUTTING IN 6" - 15" PIPE	0	LF	\$1.75	\$0.00
6000.02	ROOT / GREASE CUTTING IN 16" - 21" PIPE	0	LF	\$3.00	\$0.00
6000.03	ROOT / GREASE CUTTING IN 22" - 30" PIPE	0	LF	\$6.00	\$0.00
6000.04	CHEMICAL ROOT CONTROL IN 6" - 8" SEWER PIPE	0	LF	\$1.70	\$0.00
6000.05	CHEMICAL ROOT CONTROL IN 10" - 12" SEWER PIPE	0	LF	\$2.25	\$0.00
6000.06	CHEMICAL ROOT CONTROL IN 15" - 18" SEWER PIPE	0	LF	\$4.50	\$0.00
6000.07	CHEMICAL ROOT CONTROL IN 21" - 30" SEWER PIPE	0	LF	\$6.75	\$0.00
6000.08	REMOVAL OF PROTRUDING TAPS BY INTERNAL CUTTING	0	EA	\$350.00	\$0.00
SECTION 7000 CLOSED CIRCUIT TELEVISION INSPECTION					
7000.01	CCTV INSPECTION < 21" PIPE	0	LF	\$1.50	\$0.00
7000.02	CCTV INSPECTION > 21" PIPE	0	LF	\$2.00	\$0.00
7000.03	ADDITIONAL SETUP OF CCTV INSPECTION EQUIPMENT	0	EA	\$300.00	\$0.00
7000.04	CCTV INSPECTION OF SERVICE LATERALS (LATERAL LAUNCHING FROM MAINLINE)	0	EA	\$175.00	\$0.00
7000.05	CCTV INSPECTION OF SERVICE LATERALS (PUSH CAMERA FROM CLEANOUT)	0	EA	\$175.00	\$0.00
7000.06	CCTV INSPECTION DATA MANAGEMENT	0	LF	\$0.25	\$0.00
7000.07	SEWER PIPE REHABILITATION RECOMMENDATIONS	0	LF	\$0.25	\$0.00
SECTION 8000 BY-PASS PUMPING					
8000.01	SETUP OF 3"-4" BY-PASS PUMP	0	EA	\$1,200.00	\$0.00
8000.02	SETUP OF 6" BY-PASS PUMP	0	EA	\$2,000.00	\$0.00
8000.03	SETUP OF 8" BY-PASS PUMP	0	EA	\$2,800.00	\$0.00
8000.04	OPERATION OF 3"-4" BY-PASS PUMP	0	HR	\$45.00	\$0.00
8000.05	OPERATION OF 6" BY-PASS PUMP	0	HR	\$52.00	\$0.00
8000.06	OPERATION OF 8" BY-PASS PUMP	0	HR	\$64.00	\$0.00
SECTION 9000 MISCELLANEOUS FIELD SERVICES					
9000.01	TRAFFIC CONTROL	0	HR	\$42.00	\$0.00
9000.02	CLEANING WET WELLS	0	HR	\$425.00	\$0.00
9000.03	DYE TESTING - IN CONJUNCTION WITH CCTV INSPECTION OF 6"-12" PIPE	0	EA	\$308.00	\$0.00
9000.04	DYE TESTING - IN CONJUNCTION WITH CCTV INSPECTION OF 15"-30" PIPE	0	EA	\$368.00	\$0.00
9000.05	DYE TESTING - NOT IN CONJUNCTION WITH CCTV INSPECTION	0	EA	\$310.00	\$0.00
9000.06	SONAR INSPECTION OF > 12" DIAMETER SEWER PIPE	0	LF	\$7.00	\$0.00
9000.07	ELECTRO SCAN INSPECTION OF 8"-21" PIPE	0	LF	\$5.50	\$0.00
9000.08	ACOUSTIC PIPE ASSESSMENT	0	LF	\$0.50	\$0.00
9000.09	COMBINATION CLEANING TRUCK WITH OPERATOR AND HELPER < 10,000 LF (MIN. 8 HRS)	0	HR	\$325.00	\$0.00
9000.10	CCTV INSPECTION UNIT WITH OPERATOR AND HELPER < 10,000 LF (MIN. 8 HRS)	0	HR	\$250.00	\$0.00
TOTAL:					\$0.00

Attachment B
Professional Services Agreement
Sewer System Evaluation Services
SPECIFICATIONS

St. Charles Parish Government (OWNER)

Compliance EnviroSystems, LLC (CONSULTANT)

SECTION 1000
MOBILIZATION / DEMOBILIZATION

- A. Mobilization and demobilization consists of the preparatory work and operations including, but not limited to the movement of supplies, equipment, personnel and incidentals to and from the project location.
- B. Equipment includes, but is not limited to CCTV inspection units, combination vacuum trucks, fully-equipped smoke testing units, sonar inspection units, ElectroScan inspection units, acoustic pipe assessment units, fully-equipped manhole condition assessment units or any other equipment necessary to complete the project.

MEASUREMENT AND PAYMENT

- 1000.01 Mobilization / Demobilization of Equipment & Crews: All costs associated with the initial and subsequent mobilizations / demobilizations of equipment, as defined above.

SECTION 2000
MANHOLE SERVICES

- A. The CONSULTANT shall provide all labor, material, supplies, equipment and transportation necessary to complete the 3D manhole / wet well condition assessment, structural manhole condition assessment, uncovering of buried manholes, removal of stabilized debris and cleaning of manholes.
- B. The CONSULTANT shall perform each manhole / wet well assessment by determining the dimensional configuration and physical condition of the base, channel(s), barrel, corbel, connections, cone, ring and cover of the structure and locate possible sources of inflow/infiltration (I/I) and defects. The arrangement in the manhole / wet well shall be characterized with a drawing that shall indicate the invert and direction of flow.

MANHOLE CONDITION ASSESSMENT WITH INTERNAL IMAGES

- A. Manhole condition assessment with internal images shall be performed using a pole-mounted viewing camera(s) with lighting. CONSULTANT will utilize this method on manholes that cannot be accessed with 3D equipment.
- B. Digital high-resolution photographs shall be taken, at a minimum, showing general surrounding view(s) to locate the manholes above ground location and other GIS map features, plan view looking down at the manhole invert. Major defects in the manhole and pipes shall be included in the photographs. Digital pictures shall have minimum resolution of 72 dpi x 72 dpi and minimum dimensions of 640 x 480 pixels.

Documentation

The following is an example of the data required during a manhole condition assessment, but is not necessarily limited to:

A. General Information:

- a. Manhole number
- b. Basin
- c. Address/ Location description
- d. Surface conditions, etc.

B. Manhole Characteristics:

- a. For each section of a manhole — Type, Shape, Materials of Construction, Depth and size
- b. Cover vents and size
- c. At/Above/Below grade
- d. Inflow dish
- e. General configuration of manhole

C. Pipe Data

- a. Size, shape, material, liner and depth of pipes, clock position
- b. Flow depth
- c. Indication if drop pipe and/or parallel line

D. Manhole Sketch showing incoming and outgoing pipes with connecting points

E. General Inspection Data

- C. Corrections to the printed map shall be illustrated with red markings and delivered at the completion of each work task or at progress meetings. Supplemental sketches will be provided, as necessary, to clearly depict actual site conditions.
- A. Once the manhole inspection data has been obtained and analyzed and professional reports compiled, a recommended protocol for repairs will be recommended by the CONSULTANT.
- B. All rehabilitation recommendations must be approved by a registered licensed engineer in the state of Louisiana with a minimum of 10 years of experience analyzing manhole inspection data. Engineer must be MACP certified.

UNCOVER BURIED MANHOLES LESS THAN 12" DEEP

- A. CONSULTANT shall provide all labor, materials and equipment necessary to uncover sewer manholes less than 12" deep requiring access for sewer line inspection on this project. CONSULTANT will uncover only those manholes approved by the OWNER.
- B. CONSULTANT will not be required to uncover manholes covered in asphalt, concrete or any other permanent or semi-permanent material.
- C. After inspection is complete, the CONSULTANT shall close the lid and re-cover the manhole only with the material removed to access the manhole. The CONSULTANT will not be required to seal manhole lid or replace any gasket material that may have been removed or damaged during the opening of the manhole.

REMOVAL OF STABILIZED DEBRIS IN MANHOLE INVERTS

- A. CONSULTANT shall provide all labor, materials and equipment necessary to remove stabilized debris from manholes inverts on this project. CONSULTANT will only remove stabilized debris from manhole inverts approved by the OWNER.

INSTALLATION OF RAINSTOPPER DURING MANHOLE CONDITION ASSESSMENT

- A. The CONSULTANT shall provide all labor, material, supplies, equipment and transportation necessary to complete the installation of Rainstopper manhole inserts during manhole condition assessment, in areas designated by the OWNER.
- B. The Rainstopper insert and components shall be manufactured of materials resistant to corrosion from atmospheres containing hydrogen sulfide and dilute sulfuric acid.
- C. The insert body shall be manufactured of high density ethylene hexane-1 copolymer equal to Phillips Chemical Co. Marlex HHM-5502, meeting the requirements or ASTM D1248 Class A, Category 5. The insert shall exceed 5 ½" in depth to allow

format and of the quality specified in the manhole condition assessment section. CONSULTANT will be paid per each manhole inspected.

- 2000.03 3D Wet Well Condition Assessment (Less Than or Equal to 8-Ft Diameter): All costs associated with inspecting all designated wet wells that are less than or equal to 8-ft. diameter and documentation including but not limited to labor, equipment, transportation, tools, GPS data collection and all other related procedures and materials necessary to produce the results in the form, format and of the quality specified in the manhole / wet well condition assessment section. CONSULTANT will be paid per each wet well inspected.
- 2000.04 3D Wet Well Condition Assessment (Greater Than 8-Ft Diameter): All costs associated with inspecting all designated wet wells that are greater than 8-ft. diameter and documentation including but not limited to labor, equipment, transportation, tools, GPS data collection and all other related procedures and materials necessary to produce the results in the form, format and of the quality specified in the manhole / wet well condition assessment section. CONSULTANT will be paid per each wet well inspected.
- 2000.05 Uncover Buried Manholes Less than 12" Deep: Payment will be made for the uncovering of buried manholes in less than 12" of soil. Uncovering of manholes in concrete, asphalt, or any other material besides soil will not be performed.
- 2000.06 Removal of Stabilized Debris in Manhole Inverts: All costs associated with confined space entry into manhole and removal of stabilized debris from manhole inverts. CONSULTANT will be paid for each manhole that stabilized debris is removed from.
- 2000.07 Installation of Rainstopper During Manhole Condition Assessment:
- 2000.08 Manhole Inspection Data Management: All costs associated with the preparation and delivery of manhole inspection data, reports in the form, format and quality specified in the manhole inspection section. Payment will be made per each manhole inspected.
- 2000.09 Manhole / Wet Well Rehabilitation Recommendations: All costs associated with the preparation and delivery of manhole / wet well rehabilitation recommendations. Payment will be made per each manhole / wet well inspected.

meters (those manholes with the best hydraulic characteristics) and rain gauges (clear, open and secure areas that are protected from vandalism).

- G. Laminar flow is desired with little evidence of backwater and/or surcharging conditions. Meter locations upstream of pumping stations shall get particular attention to ensure a minimum of impact from the wet well operating levels. Should a proposed meter or rain gauge site not be suitable, the contractor shall propose and document alternate sites that still meet the general criteria of the collection system area identified for metering.
- H. The Contractor will develop and submit detailed site reports, including upstream pipe photos, for the proposed meter or rain gauge locations. The manhole meter and rain gauge site reports will be submitted to the OWNER for review and confirmation of the site before the meters are installed.
- I. Following OWNER's approval of the site, the Contractor will install the flow meters and rain gauges in the selected locations. Contractor will initially calibrate the meters at each installation. The meters will be set up to record flow data (depth, velocity and flow) at 15-minute intervals unless otherwise requested and the sensor calibrations confirmed in the pipe. The tipping bucket rain gauges, recording rainfall in depths of 0.01 inch increments, will also be set up to record every 15 minutes synchronously with the flow monitors.
- J. The Contractor will maintain the flow meters throughout minimum 60-day metering period. Contractor will visit each meter a minimum of one time per week to download the data, to perform any necessary meter maintenance (e.g. scrubbing sensors, removing debris) and to field calibrate and confirm the meter sensor firings. Manual depth and velocity confirming measurements will be made weekly during each visit. Data collection routes, time of data collection and calibrations should be staggered, as practical, to ensure a reasonable calibration across the full range of diurnal flows for each meter site. One calibration point each, generally at the dry-weather peak diurnal flow and the minimum diurnal flow, is required over the minimum 60 day metering and data collection period.
- K. Data will be reviewed on-site for overall data quality and any problems will be immediately addressed by the Contractor. A documentation log will be maintained by the Contractor of each meter visit and calibration and a copy of the entries provided to the OWNER on a bi-weekly basis. The manhole number (meter location), date, time on meter, and the time of manual depth verification will be indicated on the log. A written record will be maintained by field personnel for each monitoring point for each site inspection. The data will also be reviewed in the Contractor's office by engineering staff. Field crews will return to the site as necessary if the engineering staff identifies any additional issues.
- L. The Contractor shall maintain spare meters, parts and testing equipment to permit replacement of defective meters to ensure a reasonably continuous metering period.

the aforementioned flow monitoring program. CONSULTANT shall supply all hardware for each monitoring location as specified.

a. Data Analysis

- i. The OWNER understands that flow data collected from a wastewater environment requires review for accuracy, issuing of work orders to maintain equipment, and identification and editing of data irregularities.

b. Software

- i. CONSULTANT shall deliver a means to interrogate the flow monitoring data, including generating graphs and accessing reports prepared by CONSULTANT.

Site Selection, Investigation and Installation

A. CONSULTANT shall work with the OWNER to select sites for the installation of all equipment.

B. Each site shall be inspected to determine hydraulic suitability. This shall require a full manhole descent to ensure an adequate inspection. A topside inspection alone shall not be satisfactory.

C. CONSULTANT shall install equipment in optimum locations for best accuracy and reliability. A Site Report for each installed location shall be provided for approval by the OWNER.

D. The Site Report should include, but not be limited to the following:

- a. The initials of the person who performed the inspection
- b. The city and project name
- c. The model of flow monitor recommended
- d. A placeholder for the serial number of flow monitor
- e. The OWNER's numerical designation for the manhole
- f. The type of collection system - Sanitary/Storm/Combined
- g. House address or a short description of the site location indicating the map page number and grid number, if available
- h. The measured height and width of the pipe to be monitored
- i. A copy of an electronic, small-scale, detailed map with street names and house numbers (if possible) of the immediate area where you will locate the monitor
- j. A road or landmark from the access map and upstream and downstream manholes with the sewer line and flow direction
- k. The date and time the site inspection was performed

- C. CONSULTANT shall maintain three (3) valid confirmations at all times at each site during the term of the contract.
- D. As a minimum requirement, confirmation of sensor accuracy shall be measured in the OWNER's sewers at every site on a yearly basis.
- E. The OWNER will not accept any options or proposals from the CONSULTANT to waive confirmations.
- F. Method of confirmation:
 - a. Initial confirmation of the flow monitors shall involve a minimum of three (3) manhole measurements taken on different days. These initial confirmations shall be obtained within three (3) months of monitor installation and will compare manual readings to sensor readings for all depth and velocity sensors. Attempts shall be made to have these measurements done at flow levels that span typical dry daily flows.
 - b. The instantaneous depth of flow measurement shall be taken from the bottom of the pipe to the top of the flow as well as from the crown of the pipe to the top of the flow and both results shall be recorded.
 - c. There will be a manual depth reading for silt which will be recorded on the confirmation report.

Operation and Maintenance Services

- A. CONSULTANT will notify the OWNER upon completion of the initial installations. The OWNER will then have 5 days to notify the CONSULTANT in writing of acceptance of installations which will provide a start date of the annual maintenance section of the contract.
- B. CONSULTANT shall provide all spare parts at the CONSULTANT's expense to maintain the equipment. Those spare parts shall be maintained at the CONSULTANT's closest office to the project site. A minimum of 10% of major hardware component spare parts must be available for ready use.

Monitoring System Uptime

- A. CONSULTANT shall provide a system-wide uptime of 90% or greater. Uptime is defined as number of valid 15-minute flow data points divided by total number of 15-minute intervals in the month.

Data Analysis

Telecommunications

- A. The software system shall allow an authorized user to collect data directly from wireless monitors via the Internet. The software system shall automatically collect data from all telemetered sites at a minimum each day and whenever an alarm occurs.

Multiple Data Type Support

- A. Final and Original Data: The software system shall allow for the upload of final edited data and shall maintain a copy of both the final and the original data after upload.

Data Exports

- A. The software system shall allow the user to export data to an Excel/CSV format.

Report Types

- A. The system shall support the following types of configurable reports:
 - a. Alarm report providing information about all alarms generated by the monitoring system including alarm type, alarm status and users who have acknowledged the alarms
 - b. Data Collect Summary report providing the number of successful and failed attempts and the percentage of successful attempts to collect the data from selected monitoring locations

Alarming and Alarm Types

- A. At a minimum, the system shall provide alarming for the following types of common flow conditions:
 - a. High depth
 - b. High-High depth
 - c. Loss of Flow
 - d. Rain Exceeding Threshold

Alarm Configuration

- A. CONSULTANT shall submit with their proposal their approach to minimize false alarms, including both software approaches and procedures for resolution of alarm related issues.
- B. CONSULTANT shall ensure that each site is configured and verified individually to minimize false alarms.

both the peak rate and volume of RDII. If there are upstream monitors, the peak and volume of Net RDII is also to be determined.

- b. RDII shall be determined after the dry day hydrograph is adjusted either higher or lower to match the actual flow rate immediately prior to the storm. It is intended to compensate for periods of high ground water causing the dry weather flow to be temporarily higher than the average dry weather flow.
- c. RDII values are to be normalized by dividing the net RDII by both the area (acres) of the basin and/or the LF of sewers in the basin. A ranking of the basins will be based on normalized values of RDII. As rehabilitation projects are completed, each report shall RDII to show it has been reduced.

E. Hydraulic Capacity Analysis

- a. Depth and velocity data will be plotted in a scattergraph format.
- b. The report shall include an evaluation of silt or blockages present at each site.
- c. The report shall include a statistical evaluation of hydraulic performance indicators for each monitoring point; to include evaluations of depth capacity, flow capacity, backwater, surcharge, velocity and silt.

NIGHT FLOW ISOLATION

- A. The purpose of flow isolation is to identify localized areas of likely sources of infiltration to specific reaches of sewer where flow monitors have indicated specifically high levels of flow relative to base flow. Measurements are typically taken between 12:00 a.m. and 5:00 a.m. when base flows are minimal.
- B. Graduated V-notch weirs or depth/velocity measurements shall be used to determine flow rate during flow isolation. Floating objects are not acceptable to estimate mean flow velocity. Computation of mean velocity using sewer slope and measured depth of flow is not acceptable.
- C. All flow isolation field measurements shall be conducted between 12:00 A.M. and 5:00 A.M. local time on a micro-system of sewers with a total length of approximately 1,000 linear feet. CONSULTANT will plug all pipes upstream of the test segment or differentially isolate the segments.
- D. The CONSULTANT shall document all observations regarding each flow isolation test in a report. The report shall include the following information at a minimum:
 - a. Date and time
 - b. Location, including reference to the OWNER manhole numbering system and

Payment will be made based on the number of meters installed and the number of months each meter is installed for (meter months).

- 3000.11 Temporary Rain Gauges: All costs for rain gauges, documentation and preparation and delivery of data including but not limited to labor, equipment, transportation, tools and all other related procedures and materials necessary to produce the results in the form, format and of the quality specified in the flow monitoring section. Payment will be made based on the number of rain gauges installed and the number of days each gauge is installed for (gauge days).
- 3000.12 Long Term Rain Gauges: All costs for rain gauges, documentation and preparation and delivery of data including but not limited to labor, equipment, transportation, tools and all other related procedures and materials necessary to produce the results in the form, format and of the quality specified in the flow monitoring section. Payment will be made based on the number of rain gauges installed and the number of months each gauge is installed for (gauge months).
- 3000.13 Night Flow Isolation: All costs for night flow isolation, documentation and preparation and delivery of data including but not limited to labor, equipment, transportation, tools and all other related procedures and materials necessary to produce the results in the form, format and of the quality specified in the flow monitoring section. Payment will be made per each night flow isolation setup utilized.

SECTION 4000 **SMOKE TESTING**

- A. The CONSULTANT shall provide all labor, material, supplies, equipment and transportation necessary to complete the smoke testing work.
- B. The objective of smoke testing sewer pipes is to locate specific sources of direct inflow to the sewers, such as storm sewer cross-connections, roof drains, yard and basement drains, fountain drains and abandoned building sewers. Additionally, smoke testing assists in locating system defects that contribute I/I to the sewers, including broken sewer pipes and service laterals and areas subject to ponding.
- C. Smoke testing work shall be conducted on pipes in areas of the system as selected and approved by the OWNER.
- D. Smoke testing may affect residences and/or businesses in the area being tested. Therefore, public and emergency response notification is an important aspect of this testing procedure. Such notification shall be conducted by the CONSULTANT as specified herein and is a prerequisite for initiating smoke testing.

- B. The location of smoke defects shall be marked with a flag using blue for light smoke, yellow for medium smoke and red for heavy smoke and each leak's location will be collected with a GPS collection device.
- C. Sketch must be provided of the manholes and sewer lines under testing including address, location, photo number, dimensional ties and offsets to the documented smoke returns (leaks). Note geographical orientation relative to north.

Photographic Documentation Procedures

- A. The CONSULTANT shall document each smoke leak or series of leaks by high-resolution digital photograph. Digital photographs shall be provided in .jpg format. The resolution of the photographs shall be a minimum of 72 dpi x 72 dpi and minimum dimensions of 640 X 480 pixels. The photographs shall be referenced in the database by filename using UPSMH#_DNSMH#_LEAK#.
- B. Photographs will be taken in such a way that the smoke leak is clearly visible in the foreground and a distinct fixed reference is visible in the background. This method of referencing something fixed will support QA/QC to ensure that smoke leaks and their associated data can be confirmed by someone other than the original smoke test crew.
- C. Groups of digital photographs will be orientated so that the long side of the photograph is horizontal and printed copies can be incorporated in the hard copy of the smoke testing report. The report shall be supplied on a USB 2.0 flash drive(s) to the OWNER.
- D. The digital photographs shall incorporate annotation references below the image to upstream manhole number and date when the photograph was taken. The annotation shall be clearly visible and shall have a 12 pt (uppercase) font size.

Public Notification

- A. Public notification is critical. Compliance with the public notification criteria is a prerequisite for conducting smoke testing, especially when conducting smoke tests on sewer lines that pass through private property. At a minimum, the following steps shall be taken:
 - a. Residential/Commercial: The CONSULTANT shall distribute pre-approved advance notice flyers 48 before smoke testing commences for each section of pipe.
 - b. Emergency Response Agency Fire & Sheriff's Office: The CONSULTANT shall notify the appropriate local authorities daily to report the start time and end time for smoke testing and the exact locations

format and quality specified in the smoke testing section. CONSULTANT will be paid for the actual footage of pipe smoke tested.

SECTION 5000
SANITARY SEWER LINE CLEANING

- A. Standard line cleaning shall be performed to remove foreign material and restore pipe capacity to 95%. Standard cleaning shall be defined as two (2) complete passes of the sewer line with the cleaning equipment. The term "complete passes" shall mean cleaning from the upstream manhole all the way to the downstream manhole.
- B. Heavy line cleaning shall be performed to remove foreign material and restore pipe capacity to 95%. Heavy line cleaning shall be defined as three (3) or more complete passes of the cleaning equipment. The term "complete passes" shall mean cleaning from the upstream manhole all the way to the downstream manhole.
- C. The location of manholes and line segments which require additional equipment and manpower to access and perform cleaning operations are considered to be in the easement. Additional equipment includes, but is not limited to an easement machine, additional vacuum hose, additional manpower, etc.
- D. Conditions such as broken pipe and major blockages may prevent cleaning from being accomplished, especially where additional damage would result if cleaning were attempted or continued. Should such conditions be encountered, the CONSULTANT shall not be required to clean those specific pipe sections unless the OWNER removes the apparent obstruction.
- E. During sewer cleaning operations, satisfactory precautions shall be taken by the CONSULTANT in the use of cleaning equipment. Precautions shall be taken to ensure that damage to, or flooding of public or private property does not occur during the cleaning procedure.
- F. Selection of the equipment shall be the sole discretion of the CONSULTANT and based on the conditions of lines at the time the work commences. The equipment shall be capable of removing dirt, grease, rocks, sand, and other materials and obstructions from the sewer lines and manholes.
- G. If cleaning of an entire section cannot be successfully performed from one manhole, the equipment shall be set up at the other manhole and cleaning again attempted. If successful cleaning still cannot be performed or the equipment fails to traverse the entire manhole-to-manhole pipe segment it will be assumed that a major blockage exists and the cleaning operation will be abandoned. The cleaning operator will note these occurrences in his daily cleaning log. The CONSULTANT will be compensated for cleaning the entire length of sewer should this occur.

- D. Roots, grease and/or taps will only be removed if they do not allow the passage of the CCTV inspection camera, are obscuring the view of potential defects or could cause a potential blockage and overflow.
- E. When root, grease and/or tap cutting occurs, roots, grease and/or taps shall be cut to clear the pipe for flow and to allow for the proper viewing of defects.

CHEMICAL ROOT CONTROL

- A. CONSULTANT will apply EPA registered root-control agents to various main line sanitary sewers, as selected by OWNER in order to kill the root growth present in the lines and to control root re-growth.
- B. CONSULTANT will apply the chemical, as a foam, directly to the roots via a hose that extends throughout the entire length of each sewer section. The material will be applied evenly and uniformly, so as to completely fill the sewer pipe. CONSULTANT will not use "pour down" products or utilize high pressure application equipment. CONSULTANT will pump the chemical foam under low pressure to assure that the sewer section is completely filled with foam, and to ensure that foam penetrates "wye" connections. The chemical agent will contain a herbicide to destroy root tissue and a foaming surfactant to deliver the herbicide to the targeted roots.
- C. The root control materials will be EPA registered, labeled for the intended use in sewer lines, and registered with the Louisiana Department of Agriculture & Forestry.
- D. CONSULTANT will comply with all applicable federal, state and local requirements and ordinances relative to this type of material and usage thereof (OSHA, EPA, DOT and the Louisiana Department of Agriculture & Forestry). Chemical handling and treatments will be applied by trained, professional applicators that are certified by the Louisiana Department of Agriculture & Forestry, as required by law.
- E. CONSULTANT will keep complete and accurate records of each day's operation. Records shall show the date of treatment, the sections of line treated, pipe size and distance, and other pertinent information.
- F. The OWNER will provide water for root control operations from any fire hydrant at no cost to CONSULTANT.
- G. CONSULTANT guarantees to kill all the roots in every sewer it treats in order to eliminate main line sewer stoppages caused by live tree roots. CONSULTANT will apply this guarantee for a period of two (2) years, beginning on the date of treatment and ending 2 (two) years after the date of treatment. If a treated sewer plugs up due to live tree roots during the guarantee period, CONSULTANT will re-treat the sewer line at his sole expense. CONSULTANT will provide a three (3) year guarantee on any paid repeat applications that are performed within six (6) months of the

produce non-uniform or jerky movements shall not be acceptable. The camera shall be stopped for a minimum of 5 seconds at each identifiable defect to ensure proper documentation of the lines condition. In addition, the camera shall be stopped at each service connection, and the camera shall pan the service connection to video inside the service line. CCTV inspection is performed from the upstream manhole to the downstream manhole when the conditions allow. If conditions do not allow an upstream to downstream inspection, the inspection will be performed in reverse (from the downstream to the upstream manhole).

- E. A log shall be made by the CONSULTANT when each manhole-to-manhole pipe segment is televised. The log shall include at a minimum:
 - a. Location of each point of leakage
 - b. Location of each service connection or other pipe entering the televised line
 - c. Location and degree of offsets
 - d. Location of any damaged sections, and nature of damage
 - e. Location of buried structures or blind junctions
 - f. Location and amount of any deflection in alignment or grade of pipe; also the total length of pipe sag
 - g. Pipe materials, diameter, and distance between pipe joints
 - h. Date, city, manhole-to-manhole segment, reference manhole number, name of operator, and inspector
 - i. Video Filename
- F. The pipe segment length, with respect to the referenced manhole, shall be determined with a meter device, accurate to within $\pm 2\%$. Markings on the cable, instruments requiring observation inside a manhole, or correction of each reading for the depth of the reference manhole shall not be allowed. Accuracy of the measurement meters shall be checked daily by use of a walking meter, roll-a-tape, or other suitable device.
- G. A header screen showing tape number, segment number, and manhole number shall be taped for 10 seconds at the beginning of each televised line segment. All header information shall be recorded on the log forms.
- H. At the CONSULTANT's discretion the camera shall be stopped or backed up to view and analyze conditions that appear to be unusual or uncommon for a sound sewer line. At all times, the operating technician shall be able to move the camera through the line in either direction without loss of quality in the video presentation on the monitor. The picture shall be free of electrical interference and provide a clear, stable image of the specified resolutions at all times. The camera lens shall be cleaned, as required, to provide a clear image within the sewer lines.
- I. In the event that equipment becomes lodged in the sewer line, the CONSULTANT shall notify the OWNER immediately. If equipment becomes lodged through no fault of CONSULTANT, the OWNER will remove the camera at no cost to the

Data Submittals

- C. All line pictures will be digital .mpeg video, clear, legible and free of "snow" or haze.
- D. Electronic copies (data files) shall be submitted in a PACP Exchange Database.
- E. The CONSULTANT shall prepare and submit a list of defects, which appear to require immediate corrective action, based on their size and/or type, on a daily and weekly basis. This submittal is not a final deliverable.
- F. To establish the working criteria for video picture quality which must be maintained throughout the project, the CONSULTANT shall furnish a DVD with .mpeg video footage of an actual sewer line inspection that is satisfactory to the OWNER, and meets the job specifications for CCTV inspection. This DVD shall become the property of the OWNER and shall be used throughout the project as a standard that the CONSULTANT's video picture quality must meet.
- G. The CONSULTANT shall furnish the OWNER a hard drive or DVD that contains both data files and video files. The data files shall be able to upload into a PACP Exchange Database. Once downloaded by the OWNER, the hard drive will be returned to the CONSULTANT. OWNER shall provide labeling and file naming standards at the pre-construction meeting.
- H. All inspections shall be made by PACP certified operators and data shall be documented using NASSCO's Pipeline Assessment and Condition Program.
- I. Once the CCTV inspection data has been obtained and analyzed and professional reports compiled, a recommended protocol for repairs will be recommended by the CONSULTANT.
- J. All rehabilitation recommendations must be approved by a registered licensed engineer in the state of Louisiana with a minimum of 10 years of experience analyzing sanitary sewer line inspection data. Engineer must be PACP certified.

MEASUREMENT AND PAYMENT

- 7000.01-.02 CCTV Inspection: All costs associated with the CCTV inspection of sanitary sewer lines. CONSULTANT will be paid for the actual linear footage of pipe inspected at the unit rates specified based on pipe size.
- 7000.03 Additional Setup of CCTV Inspection Equipment: All costs associated with the additional setup performed during CCTV. This will occur when the CCTV camera is unable to traverse the line segment from one manhole and must be setup again at the opposite or connecting manhole to attempt the inspection. CONSULTANT will be paid for each additional setup performed.

- D. When flow in a sewer line is plugged, blocked or by-passed, the CONSULTANT shall protect the sewer lines from damage that might result from sewer surcharging.

MEASUREMENT AND PAYMENT

- 8000.01 - .03 Setup of Bypass Pump: All costs associated with the setup and subsequent teardown of bypass pumps, up to 600' of discharge hose and 50' of suction hose. Payment will be made based on the size of the pump needed to accommodate the amount of flow.
- 8000.04-.06 Operation of Bypass Pump: All costs associated with the operation of bypass pumps. Payment will be made based on the size of the pump needed to accommodate the amount of flow.

SECTION 9000 **MISCELLANEOUS SERVICES**

TRAFFIC CONTROL

- A. CONSULTANT will provide standard traffic control including cones, signs, etc. at no cost to the OWNER
- B. CONSULTANT will provide additional traffic control such as a flagman or policeman, as needed and as approved by the OWNER.
- C. The CONSULTANT shall notify the local fire department, police department, engineering department, and all other necessary authorities to carry out the requirements of the scope of work. All investigation work shall be coordinated with these authorities on a daily basis to avoid any conflict.

CLEANING WET WELLS

- A. The CONSULTANT shall scour debris or grease-laden wet well walls with a high-velocity water gun. If the impact of the high-velocity water appears to be weakening the structural integrity of the wet well wall or any internal components of the wet well, the CONSULTANT shall discontinue the scouring on the wet well and notify the OWNER.
- B. Wet well cleaning shall be conducted on wet wells in areas of the system as selected and approved by the OWNER.
- C. Upon request from CONSULTANT, OWNER shall provide CONSULTANT with adequate access to the wet wells requiring cleaning.

tests by high-resolution digital photograph. The photographs shall be included in the database along with the location of the dye test defect.

- E. Groups of digital photographs orientated so that the long side of the photograph is horizontal and that 3"x 5" printed copies shall be incorporated in the hard copy of the dye testing report and supplied on a CD-ROM(s) incorporated for each work order issued by the OWNER, unless otherwise directed.
- F. The digital photographs shall incorporate annotated references superimposed on the image to upstream manhole number and date when the photograph was taken. The annotation shall be clearly visible and shall have a 12pt (uppercase) font size. Each photograph shall have a clearly labeled filename incorporating the upstream manhole ID followed by the letter "D" and the three-character sequence number assigned by the digital camera. Reference to location of each photograph shall be indicated on the sketches at the end of the report.

Deliverables

- A. Electronic database of dye test data and digital photographs of results shall be submitted to the OWNER. The electronic database using the required file format in Microsoft Access® version 2002, shall be tied to the OWNER's GIS sewer maps through the manhole numbers. If no GIS sewer maps are available, the CONSULTANT will be responsible for providing an applicable numbering system for manholes.
- B. A binder with hard copies of the dye test reports, location sketches, and digital photographs shall be submitted to the OWNER.
- C. The photographs shall be digital pictures in both hard copy and electronic format.

SONAR INSPECTION

- A. The CONSULTANT shall determine the inspection technology method or combination of methods to be utilized in each pipeline segment. Generally, sonar alone will be used where the depth of fluid in the pipeline is greater than 75% of the full diameter of the pipe. CCTV and sonar will be used together when the fluid levels are between 25% and 75% of the full pipe diameter. Sonar will not be used where the fluid depth is generally less than 25% of the pipe diameter or more specifically where there is insufficient depth to pass the sonar gear on the float or crawler.
- B. The speed of the crawler or float shall not be greater than 20 feet per minute when the scanning sonar is in use either alone or in combination with the CCTV camera.
- C. The sonar equipment shall be purpose built for use in the inspection of sewer system pipelines and shall be operative in totally submerged conditions. It shall be capable of being traversed by crawler tractor, float or other suitable means through the pipeline

- E. If through no fault of CONSULTANT's operators, inspection equipment, cleaning nozzles or root cutters become lodged in the collection system, the OWNER will provide excavation services to retrieve the equipment at no cost to CONSULTANT. Excavation of lodged items will be completed by the OWNER within a 48 hour period.
- F. All data will be fed back to the combo Electro Scan/CCTV unit via the standard CCTV coaxial cable. Once the data is collected on the unit's laptop computer, it will all be uploaded to *CONSULTANT's Critical Sewers Cloud-Based Portal* where it will be instantly processed and easily accessible for review by the OWNER.

Data

- A. A temporary software user license will be provided to allow one person to access the Electro Scan Critical SewersTM cloud application, where data from the field will either be uploaded directly from the combo CCTV / Electro Scan unit using a remote Wi-Fi connection or uploaded when a stable connection to the Internet can be established at the end of each day.
- B. The Scan Detail page shows each defect identified by Electro Scan including location, severity, and leakage rate. A visual graph of the Electro Scan readings is also displayed, along with any header information entered by the OWNER.
- C. Electro Scan's custom and proprietary algorithms are used to grade the size and type of each leak, and structural defects, and graphically display the defect grade size, corrosion, type and frequency for each manhole-to-manhole pipe section. In addition, Electro Scan's software will provide an estimated gallons per minute (GPM) infiltration rate per defect and for the entire pipe segment. The Electro Scan traces have a resolution of less than 0.1ft. This information can be readily used to qualitatively identify corrosion problems, highest potential infiltration sections and assist with the selection of the most cost effective repair method.

Data Evaluation and Analysis

- A. Data will be presented in both tabular and graphics formats to facilitate a comparative condition assessment of line segments.
- B. Data collected in the field will include:
 - a. Length of sewer line
 - b. Pipe defect locations
 - c. Classification of all defects as large, medium or small
 - d. Classification of all defects as minor, moderate or severe peak estimated flow.
 - e. A total estimated peak gallons per minute (GPM) will be provided for each defect and pipe segment, as a whole

- 9000.02 Cleaning Wet Wells: All costs associated with the cleaning of wet wells to include operators, combination truck, hoses, pipe, and confined space entry equipment shall be billed at the proposed unit rate. A 4 hour minimum will be charged anytime this item is utilized.
- 9000.03-.04 Dye Testing In Conjunction with CCTV Inspection: All costs associated with the dye testing of sewer lines in conjunction with CCTV inspection and preparation and delivery of data. CONSULTANT will be paid per each dye testing setup performed.
- 9000.05 Dye Testing NOT In Conjunction with CCTV Inspection: All costs associated with the dye testing of sewer lines NOT in conjunction with CCTV inspection and preparation and delivery of data. CONSULTANT will be paid per each dye testing setup performed.
- 9000.06 Sonar Inspection of > 12" Diameter Sewer Pipe: All costs associated with the sonar inspection of sewer lines and preparation and delivery of data. CONSULTANT will be paid for the actual linear footage of pipe sonar inspected at the unit rates specified.
- 9000.07 ElectroScan Inspection 8"-21" Diameter: All costs associated with the ElectroScan inspection of sewer lines and preparation and delivery of data. CONSULTANT will be paid for the actual linear footage of pipe inspected at the unit rates specified.
- 9000.08 Acoustic Pipe Assessment: All costs associated with the acoustic pipe assessment of sewer lines and preparation and delivery of data. Contractor will be paid for the actual linear footage of pipe assessed with measurement being made between centerlines of consecutive manholes for the line segments being assessed at the unit rates specified.
- 9000.09 Emergency Combination Cleaning Truck with Operator and Helper (Min. 8 Hours) < 10,000 LF: All costs associated with the emergency port-to-port mobilization/demobilization of one (1) combination cleaning truck with operator and helper. This item is to be used for projects of less than 10,000 LF.
- 9000.10 Emergency CCTV Inspection Unit with Operator and Helper (Min. 8 Hours) < 10,000 LF: All costs associated with the emergency port-to-port mobilization/demobilization of one (1) CCTV inspection unit with operator and helper. This item is to be used for projects of less than 10,000 LF.



October 5, 2020

COMPLIANCE ENVIROSYSTEMS, LLC (CES)

CORPORATE RESOLUTION:

Pursuant to the authority vested in me as the President of Compliance EnviroSystems, LLC (CES) and the authority granted to me by the operating agreement of the Corporation, I hereby appoint myself, Brad L. Dutruch, as Managing Member and President of the Corporation and Joshua T. Hardy as Vice-President of the Corporation. As such, the aforementioned individuals are authorized and empowered to execute contract documents on behalf of the Corporation to perform sewer pipeline survey activities and any such related activities and to take such actions as is or may be necessary and appropriate to carry out the projects, activities and work of the Corporation.

Furthermore, I appoint Matt Brumfield as Secretary and Attesting Officer of the Corporation.

Respectfully,

Brad L. Dutruch
President

COMPLIANCE ENVIROSYSTEMS, LLC (CES)

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