

Task Order No. 28

Dated this ____ day of _____, 2014

CITY PROJECT No. P11930

FORT LAUDERDALE PUBLIC WORKS DEPARTMENT

G.T. LOHMEYER WWTP DEEP INJECTION WELLS MECHANICAL INTEGRITY TEST

On May 3, 2011, the City of Fort Lauderdale (City) Commission authorized a Continuing Services Agreement with CDM Smith Inc. formerly known as Camp Dresser & McKee Inc. (Consultant), for the General Wastewater Consulting Professional Architectural – Engineering Service (RFQ No. 606-10482) associated with the City’s wastewater and storm systems (“Master Agreement”) as amended and approved by City Commission on May 1, 2012. This task order is being performed under the terms and conditions of the Amended Master Agreement.

PROJECT BACKGROUND

The City is requesting Consultant services for permit compliance assistance to plan, witness, and evaluate the implementation of the repetitive five-year mechanical integrity testing (MIT) of each of the five existing injection wells, IW-1 through IW-5. Chapter 62-528/425(1)(d) of the Florida Administrative Code (FAC), requires that the mechanical integrity of an injection well system be demonstrated every five years. Testing must be completed in accordance with Chapter 62-528.300, FAC. According to the George T. Lohmeyer Wastewater Treatment Plant’s injection well permit (UIC operation permit No. 0054569-444-UO) the mechanical integrity testing for IW-3 must be completed by the date certain of October 14, 2014. The remaining injection wells have completion dates approximately every six days thereafter ending on November 9, 2014. Part of the testing process requires that a mechanical integrity testing plan be submitted to the Underground Injection Control (UIC), Technical Advisory Committee (TAC) by April 17, 2014, and 180 days prior to the date certain of October 14, 2014. The plan must be reviewed and approved by the TAC prior to the initiation of the testing by the City’s well contractor.

The project is located at 1300 South East 21st Street, Fort Lauderdale, FL 33316, one-quarter mile south of the City’s George T. Lohmeyer wastewater treatment plant in the vicinity of the South East 17th Street Causeway and Eisenhower Boulevard. See attached location map on **Figure No. 1-1**.

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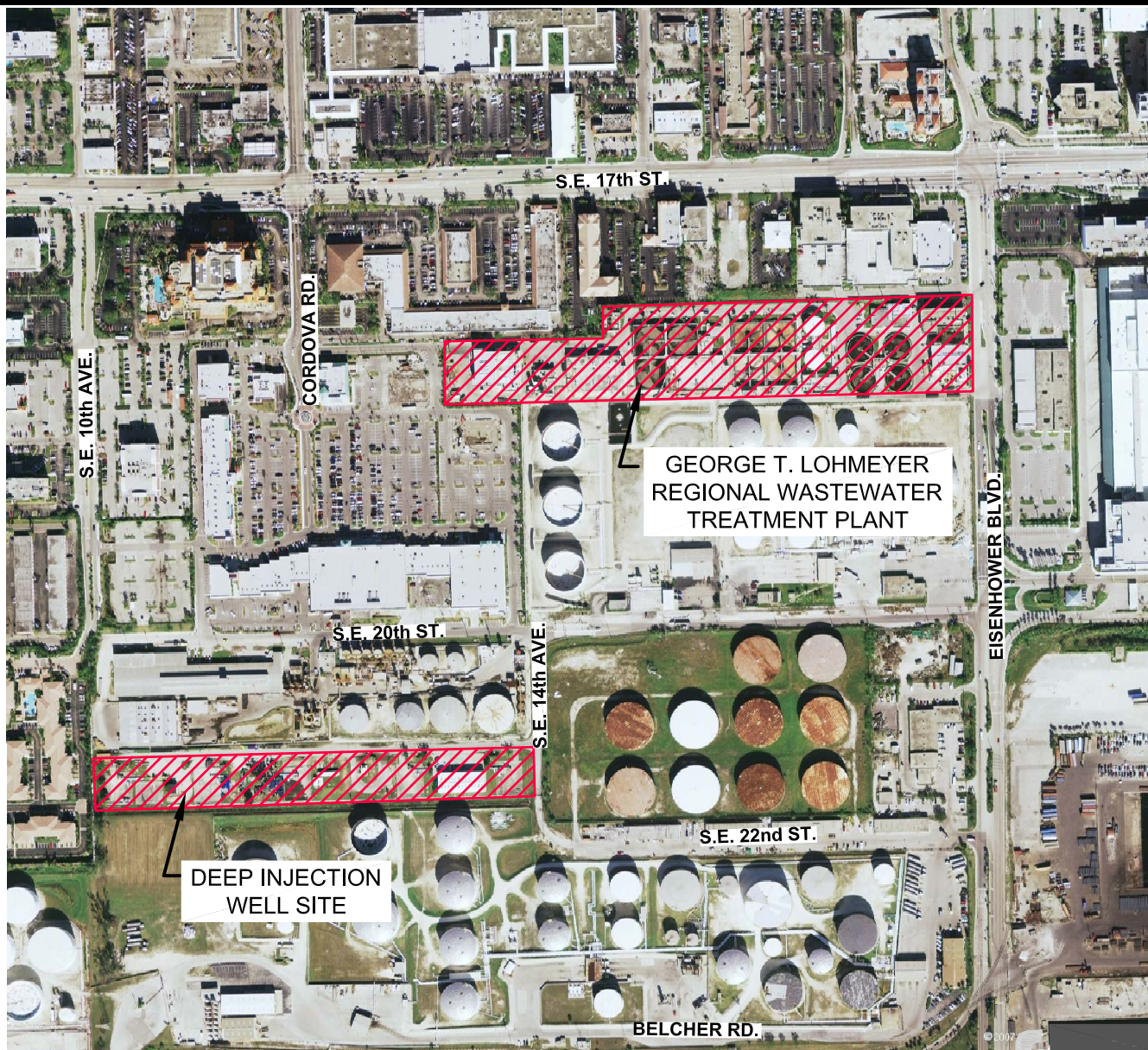


Figure No. 1-1
George T. Lohmeyer Regional Wastewater Treatment Plant
Location Map

SCOPE OF SERVICES AND DELIVERABLE

The scope of services and deliverables in the following tasks are for permit compliance assistance with the plan, field witness, and data evaluation and interpretation on behalf of the City for the mechanical integrity testing of injection wells IW-1 through IW-5. The City has directed the Consultant to include the acidizing of the well borehole below the casing and brushing the interior of the well casing to the mechanical integrity testing.

Activities associated with obtaining a well contractor will not be provided for under this task order. *The City plans to competitively bid the field work required for the mechanical integrity testing, acidizing of the well borehole below the casing, and brushing the interior of the well casing. The field work will also include painting of above ground piping, and construction of the back-flush pipe and ancillary equipment for injection well No. 4 (IW-4).*

Task 1.0 – Preparation of Mechanical Integrity Testing, Acidizing Borehole, and Brush Casing Interior Plan (Memorandum)

The Consultant shall prepare a mechanical integrity test plan according to the requirements of the UIC Rules (Chapter 62-528.300) as specified in the FAC, and include acidizing of the well borehole below the casing and brushing the interior of the well casing. The plan will be submitted to the Florida Department of Environmental Protection (FDEP) UIC TAC to obtain regulatory review and approval in two steps. Initially the plan would include the mechanical integrity testing only to expedite the permit requirement to submit the plan by April 17, 2014. Sequentially, the second step would include a plan modification to include acidizing of the well borehole below the casing and brushing the interior of the well casing. Activities associated with responding to technical request for information (RFIs) or modifications to the plan required for UIC TAC approval shall be included in this task. Some RFI's may be specifically directed to the City to provide responses. Both technical and City RFI's will be combined and forwarded to the UIC TAC. The plan shall consist of minimum equipment needs, reporting requirements, allowable products, well testing requirements and experience requirements for the well contractor performing the field work. Consultant will submit signed, sealed, and dated originals of the plan to Florida Department of Environmental Protection UIC TAC.

Deliverable (via FTP site):

- Draft memorandum of the mechanical integrity test plan for City staff review and comments within three-work days of written notice to proceed and purchase order issuance.
- Final memorandum of the mechanical integrity test plan for UIC TAC review within three-work days after receipt of draft review comments from the City.
- PDF file of the final mechanical integrity test plan memorandum to the City.

- Draft memorandum of the acidizing of the well borehole below the casing and brush casing interior plan for City staff review and comments within five weeks of written notice to proceed.
- Final memorandum of the acidizing of the well borehole below the casing and brush casing interior plan for UIC TAC review within two weeks after receipt of draft review comments from the City.
- PDF file of the final acidizing of the well borehole below the casing and brush casing interior plan memorandum to the City.

Task 1.0 is estimated at 418 hours and a Not to Exceed amount of \$60,570.

Task 2.0 – Witness Mechanical Integrity Testing and Acidizing Borehole Field Activities Performed by the City’s Well Contractor.

During the field work of the City’s well contractor for the mechanical integrity testing and acidizing of the well borehole below the casing, the Consultant will provide professional services to witness the field activities. The mechanical integrity testing consists of the casing pressure test, the temperature log and radioactive tracer study, and the video survey.

Subtask 2.0.1 – Witness Casing Pressure Test

Consultant will provide an on-site project representative to observe and report the casing pressure test preparations and witness the pressure tests for Injection Wells Nos. IW-1 through IW-5. Also included under this subtask will be the coordination with FDEP staff to witness these field activities.

Deliverables (via FTP site):

- Certification of the test results by a Florida registered Professional Engineer of the witnessed pressure test results for each injection well.

Subtask 2.0.2 – Witness Temperature Log and Radioactive Tracer Survey, and Video Survey

Consultant will provide an on-site project representative to witness the temperature log and radioactive tracer surveying, and video survey activities performed at Injection Well Nos. IW-1 through IW-5. Also included under this subtask will be the coordination with FDEP staff to witness these field activities.

Deliverables (via FTP site):

- Trip reports during the temperature log and radioactive tracer surveying, and video survey activities.

Subtask 2.0.3 - Witness Acidizing of the Borehole

Consultant will provide an on-site project representative to witness the acidizing of the borehole below the casing activities performed at Injection Well Nos. IW-1 through IW-5. Also included under this subtask will be the coordination with FDEP staff to witness these field activities, if necessary.

Deliverables (via FTP site):

- Trip reports during the well acidizing field activities.

Subtask 2.0.4- Well Contractor Coordination

Consultant will attend progress meetings with the well contractor and City and will review the work being performed as well as the schedule of activities proposed by the well contractor to properly staff and witness the casing pressure test, the temperature log and radioactive tracer study, the video survey, and the acidizing of the borehole below the casing.

Deliverables (via FTP site):

- PDF files of relevant communication and relevant progress meeting action items status to the City's construction manager.

Task 2.0 is estimated at 354 hours and a Not to Exceed amount of \$50,230.

Task 3.0 – Evaluation of Mechanical Integrity Testing Field Data and Preparation of Final Report

As part of this task, available and City provided data collected from mechanical integrity testing activities will be evaluated to determine the mechanical integrity of the injection well system. Historical data (total dissolved solids, chlorides, sulfate, total nitrogen, ammonia) collected from the monitor well subsequent to the previous mechanical integrity test will also be analyzed to determine system integrity. Historical specific injectivity of the wells subsequent to the previous mechanical integrity test will also be analyzed to determine system integrity. These field data will be integrated into a final report for FDEP's UIC TAC submittal within three months after October 14, 2014 for review and approval. An interpretation of the various field test results and monitor well data along with the specific injectivity subsequent to acidizing of the borehole below the casing and brushing of the well casing interior will be included as part of the final report. Consultant will submit signed originals of the report to Florida Department of Environmental Protection UIC TAC. Activities associated with responding to technical request for information (RFIs) of field data evaluation and interpretation for UIC TAC approval shall be included in this task, as remaining budget allows. Some RFI's may be specifically directed to the City to provide responses. Both technical and City RFI's will be combined and forwarded to the UIC TAC by the Consultant, as remaining budget allows. This task ends five weeks after the final report is submitted to the UIC TAC.

Deliverables (via FTP site):

- Draft report of the mechanical integrity field data evaluation and interpretation for City staff review and comments within eight weeks of written notice to proceed.
- Final report of the mechanical integrity field data evaluation and interpretation for UIC TAC review within two weeks after receipt of draft review comments from the City.
- PDF file of the final report to the City.

Task 3.0 is estimated at 433 hours and a Not to Exceed amount of \$62,005.

DATA OR ASSISTANCE TO BE PROVIDED BY THE CITY

1. Provide Consultant access to the injection wells site.
2. Reviews of Consultant deliverables generated for tasks 1.0, 2.0 and 3.0 within 3-work days.
3. Provide payment for FDEP regulatory fees.
4. Provide historical water quality, flow, and pressure data from the injection well system in electronic spreadsheet format for task 3.0.
5. Perform the mechanical integrity testing (MIT) field work for the five wells on or before the date certain of October 14, 2014 in order to meet the City's UIC operating permit requirement.
6. Prepare specifications, plans, design documents, secure permits by permitting agencies having jurisdiction for the mechanical integrity testing, acidizing of the well borehole below the casing, and brushing the interior of the well casing, the painting of above ground piping, and construction of the back-flush pipe, fittings, valves, electrical controls, monitoring communication components, and ancillary equipment for injection well No. 4. The equipment, experience, and data reporting requirements, products and well testing will be included. These documents will be used as bid documents to procure a qualified licensed Contractor, licensed in the State of Florida to perform this type of work. City to include stipulation of all permits required to be obtained by the well contractor prior to performance of any work.
7. Provide written responses to communications from bid document holders on technical aspects of such documents for an addendum. Prepare and issue the addendum.
8. Attend pre-bid conference and bid opening. Reproduce and distribute the contract documents, maintain plan holders list, tabulate bids, check references, review and analyze the lowest bid and provide the recommendation for the lowest responsive bidder.
9. Provide field inspection during the construction of the back-flush mains, valves and other ancillary equipment for IW-4.
10. Provide all construction management services for the well contractor.
11. Pre-brush cleaning injectivity test to be performed by City staff and data to be provided to Consultant.
12. Witness brushing of the casing interior of each injection well.
13. Post-brush cleaning injectivity test to be performed by City staff and data to be provided to Consultant.

ADDITIONAL SERVICES

If authorized in writing by the City contract administrator as an amendment to this task order, Consultant shall furnish, or obtain from others, Additional Services of the types listed in Article 3 of the Master Agreement. The City, as indicated in the Master Agreement, will pay for these additional services. The time of completion of this task order may be extended through the City’s Contract Administrator.

PERFORMANCE SCHEDULE

The Consultant shall perform the services identified in Tasks 1.0 in 12-weeks (including UIC TAC review time) from receiving a written notice to proceed and purchase order; and perform Task 2.0 in 12-weeks from receiving a written notice to proceed; and perform Task 3.0 in 16-weeks (including UIC TAC review time) from receiving a written notice to proceed. The performance schedule below summarizes the duration in weeks for each of the proposed tasks. **Exhibit A** presents a simple bar chart schedule (preliminary) indicating the anticipated performance schedule. The City’s procurement of the well contractor is not within the Consultant’s control and as such the City’s regulatory timelines are not within the Consultant’s control.

Performance Schedule Task Number - Description	Duration Weeks After Each NTP
Task 1.0 – Preparation of Mechanical Integrity Testing, Acidizing Borehole, and Brush Casing Interior Plan (Memorandum)	12
Task 2.0 – Witness Mechanical Integrity Testing and Acidizing Borehole Field Activities Performed by the City’s Well Contractor.	12
Task 3.0 – Evaluation of Mechanical Integrity Testing Field Data and Preparation of Final Report	16

METHOD OF COMPENSATION AND PAYMENT

The services performed shall be accomplished using the Not to Exceed method of compensation. The Total Not to Exceed (NTE) amount for this Task Order No. 28 will be **\$172,805**. A detailed hourly and labor costs breakdown using the Master Agreement negotiated labor rates and labor categories are included in **Exhibit B**.

TERMS OF COMPENSATION

Task No.	Terms of Compensation Description	Fees
1.0	Preparation of Mechanical Integrity Testing, Acidizing Borehole, and Brush Casing Interior Plan (Memorandum)	\$60,570
2.0	Witness Mechanical Integrity Testing and Acidizing Borehole Field Activities Performed by the City's Well Contractor.	\$50,230
3.0	Evaluation of Mechanical Integrity Testing Field Data and Preparation of Final Report	\$62,005
	Task Nos. 1.0, 2.0, and 3.0 Total NTE	\$172,805

The total number of hours and fees for this Task Order are 1205 hours and \$172,805. Consultant will submit invoices on a monthly basis based on the contractual hourly labor rate for time incurred in performing the services. The Consultant will provide supporting time sheet data for each invoice. Consultant will submit monthly written status report in support of each invoice.

CITY CONTACTS

Request for payments should be directed to City of Fort Lauderdale Accounts Payable via email to AcctsPayable@fortlauderdale.gov. All other correspondence and submittals should be directed to the attention of Jorge Holguin at the address below. Please be sure that all correspondence refers to the City project number and title as stated herein.

City of Fort Lauderdale
City Hall, 4th Floor
100 North Andrews Avenue
Fort Lauderdale, FL 33301

CONSULTANT CONTACTS

Timothy J. O'Neil, P.E., BCEE
6365 N.W. 6th Way, Suite 200
Fort Lauderdale, FL 33309
Oneiltj@cdmsmith.com
(954) 775-1731
(954) 928-1649

CONSULTANT

WITNESSES

CDM Smith Inc.

Sandra Milena Ospina
Signature

Sandra Milena Ospina
Print Name

By: Kevin C. Leo

Name: Kevin C. Leo

Title: Associate

Lewis Glenn

Lewis Glenn
Print Name

ATTEST:

By: Mario J. Marcaccio

Title: ASSISTANT SECRETARY

(CORPORATE SEAL)



STATE OF FLORIDA:
COUNTY OF BROWARD:

Kevin C. Leo, as Associate and Mario Marcaccio, as Assistant Secretary, respectively, of CDM Smith Inc. acknowledged the foregoing instrument before me this 14th day of February, 2014, on behalf of the corporation. They are personally known to me and did not take an oath. ✓

(SEAL)

Angela A. Tripido
Notary Public, State of Florida
(Signature of Notary taking Acknowledgement)

Angela A. Tripido
Name of Notary Typed, Printed or Stamped

6/21/14
My Commission Expires

EE002684
Commission No.

ANGELA A. TRIPIDO
NOTARY PUBLIC - STATE OF FLORIDA
COMMISSION # EE002684
EXPIRES 6/21/2014
BONDED THRU 1-888-NOTARY1

IN WITNESS OF THE FOREGOING, the parties have set their hands and seals the day and year first above written.

CITY OF FORT LAUDERDALE, a municipal corporation of the State of Florida:

By _____
LEE R. FELDMAN, City Manager

(CORPORATE SEAL)

ATTEST:

JONDA K. JOSEPH, City Clerk

Approved as to form:

COLE J. COPERTINO
Assistant City Attorney

CDM Smith Inc.																
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Exhibit A																
Simple Bar Chart Schedule - Preliminary																
Permit Compliance Assistance - Consulting Services																
G.T. Lohmeyer WWTP Deep Injection Wells Mechanical Integrity Test																
Task Order No. 28																
City Project Number P11930																
11-Feb-14																
2014																
2015																
ID	CONSULTING SERVICE					April	May	June	July	August	September	October	November	December	January	February
1	Consulting Services - Task 1.0 Preparation of Mechanical Integrity Testing, Acidizing Borehole, and Brush Casing Interior Plan (Memorandum)															
2	Consulting Services - Task 2.0 Witness Mechanical Integrity Testing and Acidizing Borehole Field Activities Performed by the City's Well Contractor															
3	Consulting Services - Task 3.0 Evaluation of Mechanical Integrity Testing Field Data and Preparation of Final Report															
Note: The City's procurement of the well contractor is not within the Consultant's control and as such the City's regulatory timelines are not within the Consultant's control.																

Exhibit B

LEVEL OF EFFORT ESTIMATING TOOL

Permit Compliance Assistance - Consulting Services

G.T. Lohmeyer WWTP Deep Injection Wells Mechanical Integrity Test

Task Order No. 28

City Project Number P11930

11-Feb-14

Magenheimer
Chandler

Burney

Nunes

Regon

Monroe
Thomas

Goldman
Leo
Pujals

O'Neil

TASK AND DESCRIPTION	Principal/ Associate	Professional II	Senior Support Services	Sr Professional Field Services	Project Administration	Senior QC Officer	Senior QC Manager	TOTAL HOURS	LABOR COSTS
Other labor categories and hours may be applicable to the services as allowable in the Master Agreement. Anticipated staff names are listed above the column hours and are subject to change based upon work loads, other assignments, and availability. Each task is estimated as a standalone item and effort.									
Consulting Services	280	248	38	172	192	103	172	1205	\$172,805
Consulting Services - Task 1.0 Preparation of Mechanical Integrity Testing, Acidizing Borehole, and Brush Casing Interior Plan (Memorandum)	96	144	28	0	60	34	56	418	\$60,570
Consulting Services - Task 2.0 Witness Mechanical Integrity Testing and Acidizing Borehole Field Activities Performed by the City's Well Contractor	88	0	0	172	25	29	40	354	\$50,230
Consulting Services - Task 3.0 Evaluation of Mechanical Integrity Testing Field Data and Preparation of Final Report	96	104	10	0	107	40	76	433	\$62,005
Consulting Services	280	248	38	172	192	103	172	1,205	172,805
<i>Labor Rates</i>	<i>\$170.00</i>	<i>\$125.00</i>	<i>\$115.00</i>	<i>\$110.00</i>	<i>\$65.00</i>	<i>\$225.00</i>	<i>\$205.00</i>		

CDM Smith Estimated Hours 1,205
 CDM Smith Estimated Hourly Costs \$ 172,805

Estimated Consulting Services \$ 172,805 Not To Exceed