

**City of Los Angeles
Department of Public Works
Bureau of Sanitation**

Pre-Qualified On-call Wastewater Engineering Services Consultant Contract

Task Order Solicitation (TOS) 1

Air Treatment Facility (ATF) Review Study

July 2007

Response Due: 2:00 PM
September 21, 2007

1. Introduction

The Bureau of Sanitation (BOS) plans to use consultant services to help conduct a study of the City's wastewater collection system in order to evaluate the ability of proposed ATFs to provide satisfactory odor relief to the collection system and determine alternatives.

The study will include an analysis of the sewer system as a whole including both current conditions and planned modifications to the sewer system. It will evaluate the effects that collection system structures such as drop structures and siphons have on the ventilation of sewer odors and will also evaluate proposed facilities intended to mitigate sewer odor complaints, taking into account the pattern of sewer odor complaints.

This study will also analyze non-methane hydrocarbons associated with sewage and determine how to effectively remove them from gas venting from the sewer system.

This project requires close coordination between the City and consultant staff. The City will not require that the consultant provide on-site staffing and will allow home office staffing of the project team but will require frequent and close communication and coordination with the consultant team in order to provide necessary direction.

When preparing the proposal, the Consultant shall assume that they will be performing all support activities and project management. The Consultant will provide all labor, equipment, and material to perform these activities which include but are not limited to accessing maintenance holes, measuring pressure and H₂S levels, and CCTV video services. All support activities and their respective costs shall be itemized so that they can be removed from consideration if the City determines that it can perform these services. In order to insure a basic uniformity amongst the proposals, the City is providing the following work breakdown structure within which the proposed work shall be organized.

1. Project Management
2. Air Flow Modeling Study
3. Determine the need of the individual ATFs
4. Perform study of sewer drop structures
5. Perform study of sewer siphons
6. Study non-methane hydrocarbons
7. Prepare report

The work can be further broken down as each company prefers within this general framework.

Additionally, for each line item, the costs for any pressure testing shall be segregated and listed separately from the rest of the cost.

Evaluating and determining the need for the 23rd and San Pedro ATF shall be the first order of business for this Task Order. Evaluating and determining the need for the Humboldt ATF shall be the second order of business.

2. Scope of Services

The proposed scope of work required for engineering consultant services will include, but not be limited to:

- A. Conducting an air flow modeling study of outfall, interceptor, and relief sewers in that part of the wastewater collection system between the Glassell Park area (upstream) and Culver City (downstream). The study will involve the NEIS, NOS, ECIS, NORS, and the NCOS and will include to a smaller degree those downstream portions of the LCSFVRS, WLAIIS, and WRS near the Culver City and Baldwin Hills areas (see attached map). The modeling study should explain the current movement of gases through and pressures within the major sewer lines and calculate future gas pressure and movement based on planned changes to the system.

The future changes include:

1. Routing flow back into the NOS that is currently being diverted into the NORS
 2. Divert approx. 30 cfs from the NOS into the COS
- B. Study the need for the following ATFs:
 1. NEIS - Humboldt & SF
 2. NEIS - Richmond St.
 3. ECIS - Mission & Jesse
 4. ECIS - 23rd & San Pedro
 5. NORS

Review the original assumptions used to determine the underlying need for ATFs at these locations. Identify advantages and disadvantages of each ATF with respect to effectiveness and cost. Determine the effectiveness of each facility in reducing odor complaints, taking into account proposed changes in the collection system and the results of recent pressure testing. Identify more effective ATF locations, if appropriate, as well as alternative solutions that could also reduce odor complaints. Compare these alternatives with the ATFs in respect to effectiveness and cost.

C. Perform a comprehensive study of sewer drop structures in the City's wastewater collection system (see attachment of typical drop structure) and analyze the four existing drop structures located at the following proposed ATFs:

1. NEIS - Humboldt & SF
2. NEIS - Richmond St.
3. ECIS - Mission & Jesse
4. ECIS - 23rd & San Pedro

Identify the dynamics of air movement within these structures and identify the specific features of the structures that facilitate the production of H₂S gas. Propose effective methods to control odor ventilation in the proximity of these structures and propose design changes to the structures that will reduce the production of H₂S and reduce the ventilation occurring within the drop structures.

D. Study existing siphons in the City's collection system and determine their impact on odor ventilation. Determine the magnitude and range of any effect they have on sewer air pressure and odor ventilation. Determine solutions for each siphon's impact on odor ventilation. The following siphons are to be studied:

1. NORS Siphon under the 405 Freeway in Culver City
2. NOS Siphon under the 405 Freeway in Culver City (not active)
3. NCOS under Ballona Creek in Culver City
4. NOS Siphon under the Tujunga Wash in Studio City

E. Study non-methane hydrocarbons associated with sewage (to include gathering and analyzing gas samples). Determine how to effectively remove them from gas venting from the sewer system and assess the removal efficiency of the current ATF design. Determine the improvement in efficiency associated with increasing the frequency of the carbon change-out rate.

F. Prepare a final report (approx. 20 bound copies) detailing each of the studies along with any findings and recommendations.

2.1 Contractor Services

In the event that a construction contractor is needed to help perform any work included in this TOS, the consultant shall hire the contractor and manage the construction

contract. Possible uses of a contractor may include procuring, setting-up, and operating a temporary scurber or accessing and temporarily manipulating the sewer system.

3. Term of Engagement

The term of engagement is anticipated to be two years.

4. Project Budget

The budget for this contract is \$1,500,000.

5. Solicitation Schedule

- A. Issue Task Order Solicitation (TOS)..... Date of Cover Letter
- B. Receive Solicitation Responses September 21, 2007
- C. Conduct Interviews..... 11 weeks after issuance of TOS
- D. Select and Negotiate12 weeks after issuance of TOS
- E. Issue Task Order.....16 weeks after issuance of TOS

6. Solicitation Response Requirements

Solicitation Responses shall be bound and not exceed 25 pages, exclusive of cover, dividers and resumes. 10 Copies shall be submitted no later than 2 PM, on September 21, 2007. Solicitation Responses shall be submitted to the Bureau of Sanitation, Wastewater Engineering Services Division, located at 2714 Media Center Drive, Los Angeles, CA 90065, Attention: Mr. Scott Hare. Bound Solicitation Responses shall include:

- A. Related Experience: Describe similar work your firm/staff have recently completed.
- B. Resumes demonstrating that the candidates are capable of meeting the requirements of the Scope of Work. Resumes shall include education, work experience history with dates, and references from past employers, owners, and/or organizations.
- C. Cost calculations for each individual candidate per year over a 2-year period considering all direct and indirect costs allowed by the firm's agreement with the City.
- D. Statement pertaining to the candidate's availability.
- E. MBE, WBE and OBE status of subconsultants utilized and the percent utilization resulting from the team membership, presented in an overall, annual team cost basis.

7. Selection Criteria

The selection criteria take the following into account:

- A. Capability to provide the Scope of Services as demonstrated by the solicitation response and interviews.
- B. The value offered to the City considering cost in comparison to capabilities and experience of the candidates.
- C. Candidates' knowledge of the City facilities, procedures and practices.

8. Suggested MBE/WBE Participation Levels

An MBE participation level of 18% and a WBE participation level of 4% are suggested for this TOS.

9. Managers

The City's Contract Manager and Task Order Manager is Mr. Scott Hare, Sanitary Engineer, Wastewater Engineering Services Division (323) 342-1583.

10. Disclaimer

The City may decide not to award this Task Order, or any of part of it, based on its sole convenience and shall not be responsible for any solicitation response costs.