TOWNSHIP OF NEPTUNE
COUNTY OF MONMOUTH
STATE OF NEW JERSEY
REQUESTS FOR QUALIFICATIONS FOR
TOWN CENTER DISTRIBUTED ENERGY RESOURCE MICROGRID
FEASIBILITY STUDY PROGRAM BID/PROPOSAL #2017-0920

The Township of Neptune is soliciting proposals through the competitive contracting process in accordance with N.J.S.A. 40A:11-4.1, et seq.

Sealed proposals will be received by the Township Clerk of the Township of Neptune, New Jersey and opened and read in public in Room B-11, located on the lower level, in the Township of Neptune Municipal Complex, 25 Neptune Boulevard, Neptune New Jersey, on **SEPTEMBER 20, 2017** at **10:00 A.M.** for the following:

> Request for Qualifications from Individuals and/or Firms Interested in Serving as Town Center Distributed Energy Resource Microgrid Feasibility Study Consultant to the Township Committee of the Township of Neptune. **BID/PROPOSAL # 2017-0920.**

Successful applicants will be required to comply with requirements N.J.S.A. 10:5-31, et seq. (N.J.A.C. 17:27) (Equal Employment Opportunity) and N.J.S.A. 52:32-44, et seq. (New Jersey Business Registration).

The right is reserved to reject any or all proposals if it is deemed to be in the best interest of the Township of Neptune to do so. The Township Committee of the Township of Neptune also reserves the right to conduct interviews of any or all applicants, as it deems necessary.

By order of the Township Committee of the Township of Neptune

> Dr. Michael Brantley, Mayor, Township of Neptune
> Richard J. Cuttrell, Municipal Clerk, Township of Neptune
> Michael J. Bascom, Chief Financial Officer, Township of Neptune

I. Introduction

Township of Neptune is soliciting proposals for consultant services through the competitive contracting process in accordance with N.J.S.A. 40A:11-4.1 et seq. to develop a one (1) year feasibility study for a Town Center Distributed Energy Resource Microgrid in accordance with the recent BPU directive.

II. RFP Executive Summary

At the BPU's Jan. 25, 2017 agenda meeting, the Board authorized the opening of an application period for Town Center DER Microgrid feasibility studies. The program was developed to provide incentives for local and state government agencies to study the feasibility of TCDER microgrids. Applicants were limited to local government entities or state agencies, which own or manage critical facilities. The program was opened to Town Centers identified in the report prepared by NJIT titled, *New Jersey Town Centers Distributed Energy Resource Microgrids Potential* (2014) or Town Centers that have similar characteristics.

The Board had established a Town Center Distributed Energy Resource Microgrid Feasibility Study program with a budget of $1 million. However, after receiving and evaluating 13 applications for proposed microgrids and the potential benefits offered, the Board approved a budget modification to fund all 13 applications at a total cost of $2,052,480. The Board also authorized Board President Richard S. Mroz to sign a Memorandum of Understanding (MOU) with each applicant.

The New Jersey Board of Public Utilities (Board) approved approximately $2 million in funding for 13 applications for Town Center Distributed Energy Resource Microgrid feasibility studies at its most recent meeting, requiring each pre-approved applicant to move forward according to local procurement law. The following RFP reflects the Board's recent approval.

Background:

The U.S. Department of Energy Microgrid Exchange Group defines a microgrid as:
"An integrated energy system consisting of a group of interconnected loads and distributed energy resources (DER) with clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid and can connect and disconnect from the grid to enable it to operate in both grid connected or island mode."
1 https://building-microgrid.lbl.gov/microgrid-definitions

As general rule of guidance they typical distance that a Microgrid would cover would be at a maximum 1 mile or less since overall costs will increase with the distance between multiple facilities.

A Town Center (TC) DER Microgrid, for the purpose of this incentive program, distributes energy to a cluster of critical facilities within a municipal boundary that are capable of providing essential municipal services and shelter for the public during and after an emergency situation. TC DER microgrids could also function during non-emergency "blue sky" conditions. TC DER microgrids could include facilities such as, but not be limited to, multifamily buildings, hospitals, police and fire headquarters, and other local or state government critical operations in a relatively small radius. These critical facilities could be connected to a single or series of DER technologies that are capable of operating while isolated and islanded from the main grid due to a power outage. In some cases, TC DER microgrids are called advanced microgrids or community microgrids since they connect multiple customers across multiple rights of ways within a municipality.

Based on a review of the events and consequences from several recent extreme weather events on New Jersey's energy systems, the 2015 Energy Master Plan Update (EMP Update) established a new overarching goal: "Improve Energy Infrastructure Resiliency & Emergency Preparedness and Response." One of the EMP Update's new Plan for Action's policy recommendations included: "Increase the use of microgrid technologies and applications for Distributed Energy Resources (DER) to improve the grid's resiliency and reliability in the event of a major storm."

This new policy recommends that: *"The State should continue its work with the USDOE, the utilities, local and state governments and other strategic partners to identify, design and implement Town Center DER microgrids to power critical facilities and services across the State."*

Because of the impacts of these weather events, the State of New Jersey has entered into two Memoranda of Understanding (MOU) with the U.S. Department of Energy (USDOE) to evaluate the potential of developing DER microgrids on two key projects: (1) a microgrid within the northeast portion of the NJ Transit system (NJT Grid) and (2) a microgrid within the PSE&G service area in the City of Hoboken. To test the feasibility of these two projects, the USDOE provided funding for both the NJT Grid and the Hoboken microgrid to evaluate the improved resiliency in these proposed systems when the grid is down. In addition, the Board of Public Utilities (BPU) worked with the New Jersey Institute of Technology (NJIT) to map potential TC DER Microgrids. The resulting report (NJIT Report) mapped 24 potential TC DER Microgrids across the 17 municipalities in the 9 Sandy-designated counties attached as Appendix A.
New Jersey has at least 50 operating DER microgrids. These microgrids are single building or a campus setting microgrid with mostly a single DER technology. Several of the campus microgrids may have multiple and redundant DER technologies. The current prevailing New Jersey DER microgrid technology is natural gas combined heat and power systems (CHP).4

As documented in the Energy Power Research Institute (EPRI) report *The Integrated Grid*, 5 DER systems can:

1. benefit the distribution grid because of their increased efficiencies;
2. assist in managing the quality of power on the grid including enhanced voltage controls and balancing real and reactive power; and
3. provide energy, capacity and other ancillary services to the larger grid, which can potentially provide additional revenues to the DER system;
A key aspect noted by EPRI's report is that DER can help to optimize the operations of the distribution grid by being fully integrated with distribution grid operations. That optimization requires the input, cooperation, and coordination by the Electric Distribution Companies (EDC) and in some cases the Gas Distribution Companies (GDC). It should be clear to any applicant that while there are strong benefits including security, reliability, resiliency, energy saving and environmental, there are also costs and impacts of those costs. All of these costs and benefits need to be evaluated and assessed in an open and fair process. EPRI advanced the principles of the benefits of DER on the distribution system as an integrated grid through their Integrated Grid Benefits-Cost Framework.6 This Program will require the development of a detailed cost benefit analysis. At a minimum, this will include an initial assessment through the Rutgers' DER Cost Benefit analysis model.7 The Rutgers DER model provides analysis at the annual level and this analysis may need to be supplemented with a more detailed hourly cost benefit model.

Per USDOE's various energy laboratory microgrid reports, microgrids, if designed, constructed and operated properly, can increase distribution grid system reliability, resiliency and efficiency with the use and integration of DER technologies.8 However, these general statements depend on case specific design details. A significant barrier to developing TC DER Microgrids is the availability of detailed data on the costs and benefits of specific projects. This Program will assist in the development of this case specific data for the evaluation, assessment and demonstration of potentially successful implementation of advance microgrid pilots on a community scale throughout the State.

The Town Center DER Microgrid Feasibility Study Program is intended to serve as one part of guidance for the BPU in establishing a statewide microgrid policy for connecting multiple customers across multiple rights of ways (ROW) and can include both electric and thermal energy. The focus in this initial program is on critical facilities at the local level. Critical facilities will be classified as:

- A public facility, including any federal, state, or municipal facility,
- A non-profit and/or private facility, including, without limitation, any hospital, water/wastewater treatment facility, school, multifamily building, or similar facility that:
    - Is determined to be either Tier 1 or critical infrastructure by the New Jersey State Office of Emergency Management or the State Office of Homeland Security and Preparedness or
    - Could serve as a shelter during a power outage. The applicant must be able to fully document the ability of the critical facility to be a shelter during an emergency when there is a major grid outage.

III. Scope

The Neptune Township Advanced Microgrid ("NTAM" or ' Project") was submitted by Neptune Township. The project partners include Neptune Township, Neptune Township School Board, Neptune Township Housing Authority, Monmouth County and several private sector entities. The NT AM critical facilities as part of the Project include Jersey Shore University Medical Center ("JSUMC"), Monmouth County Academy of Allied Health & Science, Meridian Dentistry for Children, Pediatric Associates, Neptune Municipal Building (including the Police Department and Library), Neptune Department of Public Works, Gables Elementary School, Neptune Middle School, Brookdale Community College, Monmouth County Vocational School, Neptune High School, Neptune Aquatic Center, County Sheriff Backup Communications Center and Emergency Medical Squad ("EMS") Training Center, Neptune Senior Citizens Center, Neptune Housing Authority, Employment Services, US Post Office, Senior Housing, DaVita Neptune Dialysis Center, Excelsior Medical Corporation, Walgreens, New Jersey American Water Company, Monmouth County Emergency Communications Tower, Shark River Hills Fire Company, Shark River Hills First Aid Squad. Based on the list of partners and proposed critical facilities there are two FEMA category IV designated facilities (the JSUMC and the Neptune Township Police Department) and seven FEMA category III facilities which can provide shelter in an emergency. The estimated total annual fuel usage of all 12 buildings in the proposed Area A Project is 131,225 MM Btus. The FEMA category III and IV facilities in the proposed Area A Project that have a combined energy usage per square foot of approximately 83,676 Btu's per square foot.

The Project will include an existing 3.8 MW combined heat and power ("CHP") facility at The JSUMC. The Project will evaluate approximately 15 MW of new power capacity which may include solar and dispatchable generation such as CHP and other new electric infrastructure to allow the proposed Project to operate during normal and emergency conditions. The Project proposes to use HOMER Pro microgrid software to model the proposed Project as well as the Rutgers' CEEEP Cost/Benefit model. The estimated timeframe to complete the feasibility study is 12 months. JCP&L is the electric utility and New Jersey Natural Gas (NJNG) is the natural gas utility for Neptune Township and both JCP&L and NJNG provided letters of support (LOS) to participate in the feasibility study.

IV. RFP Schedule

The RFP schedule is as follows:

RFP Milestone	RFP Date or Deadline for Filing
RFP Publication Date	August 17, 2017
Last Day to Submit Clarifying Questions	September 8, 2017
Publication of Responses to Questions	September 11, 2017
RFP Responses Submission Deadline	September 20, 2017
Publication of Proposals Evaluation Report	September 22, 2017
Notice of Awards	September 26, 2017
Resolution Confirming the Award	September 25, 2017
Contract Negotiations	September 26, 2017

V. General Notices and Procedures

A. Questions / Inquiries

Any questions or inquiries regarding this RFP must be made in writing by September 8, 2017.

B. Procedures for Submitting Proposals

A minimum of one (1) original and one (1) copy of Proposal shall be submitted in a sealed envelope addressed to Township Clerk, Township of Neptune, 25 Neptune Boulevard, Neptune, NJ 07753

The Town Center Distributed Energy Resource Microgrid Feasibility Study Program Contract #: 2017-0920.

VI. Proposal Format and Content Requirements

A. Description of Proposed Project/Scope of Work

Intent:

The purpose of the project is to retain consultants that would complete the Feasibility Study phase of the Program which encompasses the incentive award funding for the satisfactory completion and submission of the Recipient's TCDER Microgrid Feasibility Study only.

Deliverables:

The consultants shall include in the Feasibility Study a Conceptual Design that should be of sufficient detail to demonstrate how the TCDER Microgrid functional and technical requirements will be executed, the proposed approach to solve technical problems, and how project goals will be accomplished. The consultant's Conceptual Design shall include at a minimum: (1) Design Analysis including design narrative and design calculations for all disciplines, an intended specifications list, environmental permitting memorandum that identifies any and all required permits and the detailed outline of process required to obtain the identified permits; (2) Schematic or one-line drawings; (3) Conceptual cost estimate; (4) Preliminary construction schedule in bar chart format; and, (5) Project definitions and special conditions.
The lead consultants and/or governing body shall report to Board Staff regarding the status and progress of The Study upon request.

VII. Competitive Contract RFP Evaluation Criteria

A. Understanding the Requested Work Points: 35

Evaluation criteria: Completeness of response; all documents/information requested; compliance with municipal standards.

Examples: This will be based on the quality of the content of the RFP, the respondent's ability to communicate a thorough understanding of the required tasks, experience and the approach to meet the scope of work outlined in the RFP. The proposals will be evaluated for general compliance with instructions and requests issued in the RFP. Non-compliance with significant instructions will be grounds for disqualification of proposals. Non-compliance with mandatory forms submissions may be fatal defect.

Is the proposal clear and precise?

Rating: Does not meet: Meets: Exceeds:

Justification:

B. Knowledge and Technical Competence Points: 35

Evaluation criteria: This includes the ability of the respondent to perform all of the tasks and fulfill adequately the stated requirements. The respondent will be evaluated on technical suitability for the tasks require. The respondent should also demonstrate previous experience in working with the local jurisdiction. Proposals must contain complete explanations regarding technical process, qualifications, and the design approach and past experience with Microgrids.

Examples: Receipt of high quality deliverables to the Town Center. To better evaluate the proposals, the governing body expects each respondent to demonstrate thorough familiarity with Microgrids and Engineering Feasibility work.

Rating: Does not meet: Meets: Exceeds:
Justification:

C. Ability to Complete the Feasibility Study in a Timely Manner Points: 10

Evaluation criteria: This is based on the ability to comply with the one (1) year deadline placed forward by the New Jersey Board of Public Utilities.

Examples: The ability of respondent to complete the Study in a competent and expeditious manner based on the workload of the firm, availability of qualified staff, and the governing body's expressed time frame. Familiarity with the various regulators including but not limited to the NJ BPU and the local Utility. The respondent and governing body shall report to Board Staff regarding the status and progress of the Study upon request.

Rating: Does not meet: Meets: Exceeds:

Justification:

D. Project Experience and Personnel Qualifications Points: 15

Evaluation criteria: An individual of the respondent shall be identified as the Project Manager. Technical expertise of the firm shall be demonstrated by past project successes providing government agencies and private companies with similar services.

Rating: Does not meet: Meets: Exceeds:

Justification:

E. Cost $150,000 (Grant Award) Points: 5

Evaluation criteria: This is based on the estimated duration of the tasks and overall schedule and the respondent's ability to accomplish these tasks as stated.

Rating: Does not meet: Meets: Exceeds

Justification:

The Township has adopted the following hourly rate schedule for Professional Engineering Services rendered pursuant to this RFQ:

Principal Engineer:	$150.00	Senior Draftsman:	$70.00
Associate Engineer:	$130.00	Draftsman:	$60.00
Senior Engineer:	$115.00	Senior Inspector:	$80.00
Project Engineer:	$105.00	Inspector:	$70.00
Environmental Scientist:	$100.00	3 Man Field Party:	$155.00
Project Manager:	$90.00	2 Man Field Party:	$145.00
CADD Technician:	$80.00	Land Surveyor:	$85.00
Technician:	$65.00	Senior Admin. Asst.:	$55.00
Chief Draftsman:	$80.00	Admin. Asst.:	$45.00

VIII. Professional Information and Qualifications

Each interested firm shall submit the following information:

1. Name of Firm;

2. Address of principal place of business and all engineers or firm's offices and corresponding telephone and fax numbers. Please note specifically which architects or other professionals who will be assigned to work with the Township Committee and in what capacity;

3. Description of education, experience, qualifications, number of years with the firm, for the firm's Architects and other professional who will work with the Township Committee. Include a descriptive narrative of their experience with projects similar to those described above;

4. Experience related to representation of Municipalities, Marinas and other public entities;

5. At least four (4) references, three (3) of which must have knowledge of your representation of a public entity;

6. Examples of your record of success representing public entities;

7. The firm's ability to provide the services in a timely fashion (including staffing, familiarity and location of key staff);

8. Any other information which the interested firm deems relevant;

9. A copy of your New Jersey Business Registration Certificate;

10. A completed Statement of Ownership form (Attached below).

11. A completed Conflict form (Attached below).

If the firm is successful the following procedures will be implemented for each contract/job that the consultant is awarded within the Township:

1. Each job for which services are requested will be based upon an estimate from the professional consultant;

2. Based upon the estimate and/or proposal a Purchase Order will be issued for which services are required prior to commencement of work;

3. The Purchase Order number shall be referenced on all jobs and on all billing;

4. If for any reason, the professional consultant believe that there are additional services that will be required to complete the job, the obligation is on the part of the professional to notify the Township of the potential additional services and costs for same;

5. No additional work shall commence or prior to authorization and issuance of an additional Purchase Order or amendment to original Purchase Order;

6. Jobs that are billed on an hourly basis may have monies left in the Purchase Order upon completion;

7. Professional Consultants are required to invoice the Township of Neptune on a monthly basis for the previous month's work. If no work has been completed no bill shall be presented;

8. Professional Consultants are to provide monthly billing that provides the name of the person, title of person, hours spent, hourly rate and a description of work;

9. The Township of Neptune will not pay invoices that have a cumulative amount of work for numerous months; Billing shall be on a monthly basis;

10. The Township of Neptune based on the availability of funds shall pay consultants for work that has been completed in the prior month at the next available meeting, provided that the Purchase Order is in place and the funds have not been exceeded;

11. Unless a specific Purchase Order is issued, consultations with staff members, members of the Board or the Governing body under one hour shall not be billable to the Township;

12. The Township of Neptune shall not be charged and will not pay interest on any invoices;

IX. Submission Requirements

Responses to this RFQ must be delivered in a sealed envelope bearing the title and Bid/Qualification Number no later than **10:00am** on **September 20, 2017** to:

Proposals shall be sent to:
Township of Neptune
25 Neptune Boulevard
Neptune, NJ 07754
Attn: Rick Cuttrell

In addition to the above, the Township encourages the submission of relevant experience and qualifications summary for design of marinas and marina buildings.

Should you have any questions, please Vito D. Gadaleta, RMC, QPA, NJCEM, Business Administrator at 732.988.5200, ext. 232.

NEW JERSEY BUSINESS REGISTRATION

REQUIREMENTS – NON-CONSTRUCTION

All New Jersey and out of State Business Organizations must obtain a Business Registration Certificate (BRC) from the Department of Treasury, Division of Revenue, prior to conducting business in the State of New Jersey. Proof of valid business registration with the Division of Revenue, Department of Treasury, State of New Jersey, must be submitted with this proposal. No contract will be awarded without proof of business registration with the Division of Revenue. The contract will contain provisions in compliance with N.J.S.A. 52:32-44, as amended, outlined below.

The Contractor shall provide written notice to its subcontractors and suppliers of the responsibility to submit proof of business registration to the Contractor.
Before final payment of the contract is made by the Contracting Agency, the Contractor shall submit an accurate list and proof of business registration of each subcontractor or supplier used in the fulfillment of the contract, or shall attest that no subcontractors were used.

For the term of the contract, the Contractor and each of its affiliates and each Subcontractor and each of its affiliates (N.J.S.A. 52:32-44 (g) (3) shall collect and remit to the Director, New Jersey Division of Taxation, the use tax due pursuant to the "Sales and Use Tax Act" (N.J.S.A. 54:32 B-1, et seq.) on all sales of tangible personal property delivered into the State.

A Business Organization that fails to provide a copy of a registration as required pursuant to section 1 of P.L. 2001, c.134 (N.J.S.A. 52:32-44 et seq.) or subsection e. or f. of section 92 of P.L. 1977, c. 110 (N.J.S.A. 5:12-92), or that provides false business registration information under the requirements of either of those sections, shall be liable for a penalty of $25.00 for each day of violation, not to exceed $50,000.00 for each business registration copy not properly provided under a contract with a contracting agency.

A sample Business Registration Certificate is attached. Other forms such as Certificate of Authority to collect Sales and Use Taxes or a Certificate of Employee Information Report Approval, are **not** acceptable.

Any questions in this regard can be directed to the Division of Revenue at (609) 292-1730. Form NJ-REG can be filed online at:

http://www.state.nj.us/treasury/revenue/gettingregistered.htm#busentity

TOWNSHIP OF NEPTUNE

COUNTY OF MONMOUTH
STATE OF NEW JERSEY

STATEMENT OF OWNERSHIP

The Contractor is (check one): Individual: [ ] Partnership: [ ] P.A. [ ] L.L.C. [ ]

Corporation: [ ] Joint Venture: [ ] Other: [ ] Specify: _____

NAMES: ADDRESSES:

1._____ _____

2._____ _____

3._____ _____

4._____ _____

5._____ _____

NAME OF CONTRACTOR:_____

SIGNED BY:_____

PRINT NAME & TITLE: _____

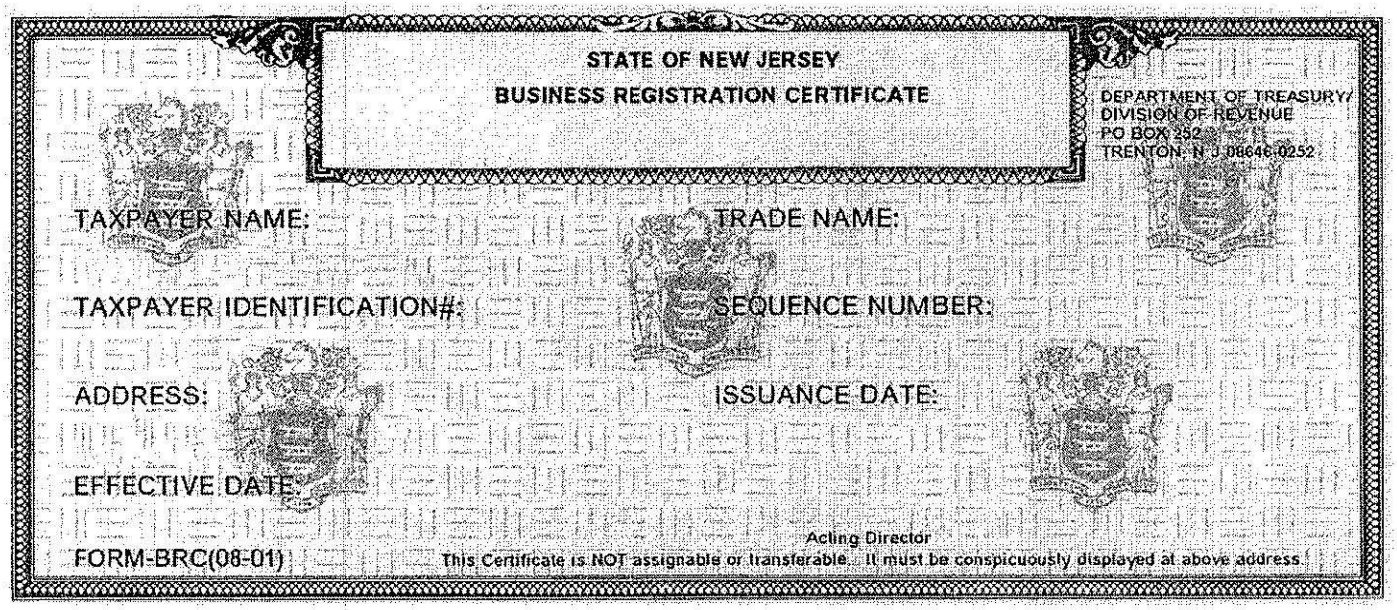
DATE:_____

NOTES:

A. Attach additional sheets as needed and check here [ ].

B. If an entity owns a 10% or greater interest in the Contractor, attach a list of the owners of 10% or greater interest for each such entity. Repeat the process of disclosure as necessary for each tier or level of ownership until the name and address of each person who owns a 10% or greater interest has been disclosed. **If no person or entity owns a 10% or greater interest in a listed entity, so state.**

Sample Business Registration Certificate (for example purposes only)



STATE OF NEW JERSEY

BUSINESS REGISTRATION CERTIFICATE

DEPARTMENT OF TREASURY/
DIVISION OF REVENUE
PO BOX 252
TRENTON, N J 08646-0252

TAXPAYER NAME:

TRADE NAME:

TAXPAYER IDENTIFICATION#:

SEQUENCE NUMBER:

ADDRESS:

ISSUANCE DATE:

EFFECTIVE DATE:

Acting Director

FORM-BRC(08-01)

This Certificate is NOT assignable or transferable. It must be conspicuously displayed at above address.

CERTIFICATION CONCERING CONFLICT OF INTEREST
TOWNSHIP OF NEPTUNE

The undersigned hereby acknowledges that it is an engineering firm on the Township of Neptune's Municipal Engineering Firm Pool List, and that it is subject to the New Jersey State Ethic's Law, N.J.S.A. 40A:9-22.1 *et seq.*, and the Neptune Township Ethics Ordinance, Section 2-65.4.

The undersigned hereby certifies that upon being requested to serve as the engineer on behalf of Neptune Township on a particular job, namely known as, _____ _____, and that it accepts the engineering work on behalf of Neptune Township, and hereby certifies that the firm is not engaged or will it be engaged with a private client where services are provided in Neptune Township that require the private client or the undersigned/firm to interact with any municipal board, agency or municipal agent on behalf of the private client, while the undersigned/firm is engaged in the subject project on behalf of Neptune Township.

The undersigned hereby certifies that the foregoing statements made by the undersigned are true. The undersigned is aware that if any of the foregoing statements made by the undersigned are willfully false, and a conflict of interest does, in fact exist, then the undersigned may be subject to sanctions, including but not limited to a ban from placement on the Engineer Pool List of Neptune Township for up to five (5) years.

DATED: ENGINEERING FIRM:_____