

SCOPE OF WORK

Chiller Upgrade

Green Brook Regional Center
Green Brook, Somerset County, N.J.

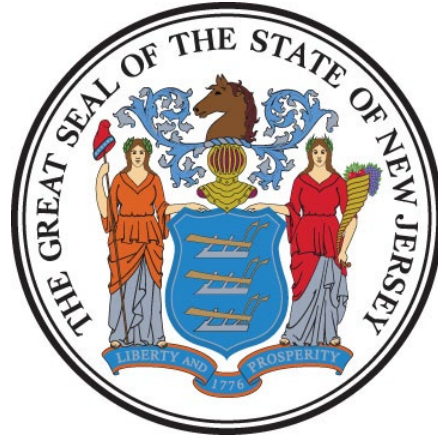
Project No. M1578-00

STATE OF NEW JERSEY

Honorable Philip D. Murphy, Governor
Honorable Tahesha L. Way, Lt. Governor

DEPARTMENT OF THE TREASURY

Elizabeth Maher Muoio, Treasurer



DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Christopher Chianese, Director

Date: October 16, 2023

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I. OBJECTIVE

The objective of this project is to replace chiller #2 and associated pumps and cooling tower at the Green Brook Regional Center. A few options, such as replacement in kind, replacement with a larger chiller and replacement with an absorption chiller will be investigated. If budget permits, the facility would also like to replace chiller #1 and its associated pumps and cooling tower.

II. CONSULTANT QUALIFICATIONS

A. CONSULTANT & SUB-CONSULTANT PRE-QUALIFICATIONS

The Consultant shall be a firm pre-qualified with the Division of Property Management & Construction (DPMC) in the following discipline(s):

- **P003 HVAC Engineering**

The Consultant shall also have in-house capabilities or Sub-Consultants pre-qualified with DPMC in:

- **P002 Electrical Engineering**
- **P025 Estimating/Cost Analysis**
- **P037 Asbestos Management & Design**
- **P038 Asbestos Safety Control Monitoring**
- **P065 Lead Paint Evaluation**

As well as, **any and all** other Architectural, Engineering and Specialty Disciplines necessary to complete the project as described in this Scope of Work (SOW).

III. PROJECT BUDGET

A. CONSTRUCTION COST ESTIMATE (CCE)

The initial Construction Cost Estimate (CCE) for this project is \$1,235,432.

The Consultant shall review this Scope of Work and provide a narrative evaluation and analysis of the accuracy of the proposed project CCE in its technical proposal based on its professional experience and opinion.

B. CURRENT WORKING ESTIMATE (CWE)

The Current Working Estimate (CWE) for this project is \$1,845,000.

The CWE includes the construction cost estimate and all consulting, permitting and administrative fees.

The CWE is the Client Agency’s financial budget based on this project Scope of Work and shall not be exceeded during the design and construction phases of the project unless DPMC approves the change in Scope of Work through a Contract amendment.

C. CONSULTANT’S FEES

The construction cost estimate for this project *shall not* be used as a basis for the Consultant’s design and construction administration fees. The Consultant’s fees shall be based on the information contained in this Scope of Work document and the observations made and/or the additional information received during the pre-proposal meeting.

IV. PROJECT SCHEDULE

A. SCOPE OF WORK DESIGN & CONSTRUCTION SCHEDULE

The following schedule identifies the estimated design and construction phases for this project and the estimated durations.

PROJECT PHASE	ESTIMATED DURATION (Calendar Days)
1. Site Access Approvals & Schedule Design Kick-off Meeting	14
2. Investigation Phase	42
• <i>Project Team & DPMC Plan/Code Unit Review & Comment</i>	14
3. Design Development Phase	42
• <i>Project Team & DPMC Plan/Code Unit Review & Comment</i>	14
4. Final Design Phase	42
• <i>Project Team & DPMC Plan/Code Unit Review & Approval</i>	14
5. Final Design Re-Submission to Address Comments	7
• <i>Project Team & DPMC Plan/Code Unit Review & Approval</i>	14

6. DCA Submission Plan Review	30
7. Permit Application Phase	7
• <i>Issue Plan Release</i>	
8. Bid Phase	42
9. Award Phase	28
10. Construction Phase	180
11. Project Close Out Phase	30

B. CONSULTANT’S PROPOSED DESIGN & CONSTRUCTION SCHEDULE

The Consultant shall submit a project design and construction schedule with its technical proposal that is similar in format and detail to the schedule depicted in **Exhibit ‘A’**. The schedule developed by the Consultant shall reflect its recommended project phases, phase activities, activity durations.

A written narrative shall also be included with the technical proposal explaining the schedule submitted and the reasons why and how it can be completed in the time frame proposed by the Consultant.

This schedule and narrative will be reviewed by the Consultant Selection Committee as part of the evaluation process and will be assigned a score commensurate with clarity and comprehensiveness of the submission.

V. PROJECT SITE LOCATION & TEAM MEMBERS

A. PROJECT SITE ADDRESS

The location of the project site is:

Green Brook Regional Center
275 Greenbrook Rd
Green Brook, NJ 08812

See **Exhibit ‘B’** for the project site location map.

B. PROJECT TEAM MEMBER DIRECTORY

The following are the names, addresses, and phone numbers of the Project Team members.

1. DPMC Representative:

Name: Babatunde Ogunnubi, Project Manager
Address: Division of Property Management & Construction
20 West State Street, 3rd Floor
Trenton, NJ 08608-1206
Phone No: (609) 633-7061
E-Mail: Babatunde.Ogunnubi@treas.nj.gov

2. Department of Human Services:

Name: Ripenrai Nagar, Project Manager
Address: Department of Human Services
222 South Warren Street, PO Box 700
Trenton, New Jersey 08625
Phone No: Cell: (609) 940-2023
E-Mail No: ripenrai.nagar@dhs.nj.gov

Name: Christian Casteel, Director, OPMC
Address: Human Services - Central Office
P.O. Box 700
222 South Warren Street
Trenton, NJ 08625
Phone No: (609) 984-5501
E-Mail: Christian.Casteel@dhs.nj.gov

3. New Jersey Board of Public Utilities:

Name: Sara Bluhm Gibson, Director, Division of State Energy Services
Address: New Jersey Board of Public Utilities
44 South Clinton Avenue
Trenton, NJ 08625
Phone No: (609) 633-9275
E-Mail No: Sara.Bluhm@bpu.nj.gov

VI. PROJECT DEFINITION

A. BACKGROUND

The Green Brook Regional Center (GBRC) was originally constructed in 1964 and operated as a hospital. In 1981, the Department of Human Service, Division of Developmental Disabilities, took over the building and currently operates the institution as a 24 hour care facility for the developmentally disabled.

B. FUNCTIONAL DESCRIPTION OF THE BUILDING

1. General:

The Green Brook Regional Center is a multi-story building with various sections, the highest of which has three stories. The structure is constructed of non-combustible materials. Although there are some original drawings available, there are no as-built drawings of the building.

2. Chillers:

The chiller plant consists of two chillers. Chiller #1 is a 272-ton water cooled screw chiller manufactured by York. The chilled water distribution loop has a variable speed 40HP pump and a constant speed 20HP pump. The associated cooling tower supplies the chillers with two 15HP constant flow pumps. The associated cooling tower is manufactured by Baltimore Aircoil Company (BAC). The compressor has been changed a couple of times during its lifespan. It is the only operating chiller for the facility. The chiller has a difficult time maintaining building temperature on its own.

Chiller #2 is a 35 years old Carrier model and has been out of service for many years. It is in immediate need of replacement. The associated cooling tower is manufactured by Old Marley.

3. Options:

This project will resolve the chiller #2 out of service problem. The consultant will investigate a few options and provide recommendations. The simplest option is to replace chiller #2 and its associated cooling tower, pumps and controls. The design to replace chiller #1 and its associated cooling tower, pumps and controls would then be done under an allowance, budget permitting.

Another option to be investigated is to replace chiller #2 with a larger chiller sized for the entire building, negating the need for Chiller #1.

A further option to be investigated is the idea of using an absorption chiller and making use of the high temperature water generated from existing boilers. One motive for this option is a

concern over the capacity of the emergency generator that was replaced under project M1475-00. It may not have been sized to back up two chillers running at the same time. An absorption chiller would reduce the demand on the emergency generator. This shall be investigated by the consultant.

Due to the chiller location in the basement, it is anticipated that a louver wall and railings will need to be removed to get the chiller(s) in and out. See **Exhibit 'C'** for photos.

VII. CONSULTANT DESIGN RESPONSIBILITIES

A. INVESTIGATION PHASE

1. Chiller Options:

The Consultant shall examine the existing chillers #1 and #2 and associated cooling tower, variable frequency drives (VFD's), pump and control systems and the building automation system at the Green Brook Regional Center and evaluate the best energy efficient technology to replace chiller #2. Options to consider include, but are not limited to, replacement of chiller #2 in kind (#1 chiller to be replaced under a design allowance), replacement of #2 chiller with a larger chiller negating the need for chiller #1, and replacement under either of these scenarios with an absorption chiller. Include a comparison between electric powered equipment vs. absorption equipment making use of existing building HTHW generated from the boilers. Selected piping and valves may also require replacement. The investigation shall include the pads on which the equipment sits and the requirements to remove and replace any barriers to installation of new equipment, such as louver walls and railings. The Consultant shall prepare and submit a report of the options considered, evaluation criteria and recommendations.

The Consultant shall also investigate the existing generator to determine if it can back up whatever chiller scenario is selected (one or two) with two chillers potentially running at the same time.

All available chiller and equipment information will be made available to the Consultant. However, the Consultant shall verify the information provided regarding the building, equipment and systems identified.

2. Schedule:

The intent of this project is to schedule any required demolition and installation of the new chiller systems and equipment during an off-season period, to allow sufficient time for acceptance testing prior to the start of the subsequent cooling season.

3. Report:

Provide an Investigation Report in hardcopy and digital format to the Project Manager. The document shall contain an Executive Summary with a list of “prioritized” recommendations for chiller upgrades and justifications where appropriate.

All supporting documentation such as calculations, photographs, drawings, catalog cuts, correspondence, meeting minutes, and any other data obtained shall be included in the report appendix for reference.

B. CHILLER SYSTEM DESIGN

1. Chiller System Criteria:

The Consultant shall provide design, specifications, bid/award and construction administration services to replace the inoperative Carrier chiller #2 at the Green Brook Regional Center in accordance with options selected from the Investigation Phase. This includes all related components including, but not limited to, cooling tower, pumps, piping, valves, and controls.

The specifications shall describe the preferred chiller system and shall list the names of three equal manufacturers.

Include all equipment schedules on the drawings by symbol designations, name and estimated size or capacity in BTU, GPM, gallons, etc. All piping shall be labeled to identify its use.

Provide details on the drawings of any special assembly, electrical and water tie in requirements, or any other governing or limiting factor of the equipment manufacturer’s system component. The drawings shall be prepared with sufficient flexibility to accommodate variations among the potential equipment manufacturers.

2. Cooling Load Calculations:

Calculations must be done to determine the appropriate size and capacity of the new chiller and cooling tower and their related components based on the cooling load requirements for the building that the chiller supports. Confirm the new chiller capacities by cooling load calculations and submit the signed and sealed calculations to the DPMC Design and Code Review Unit for review and record.

3. Demolition:

Provide demolition drawings that identify the equipment and systems to be demolished and removed from the facility.

Describe the special coordination requirements during the demolition phase with the project team, facility and plant personnel such as shut down and isolation of utilities, need for temporary isolation valves, bypass piping, temporary power and utility backup systems if required, etc.

4. Hot Work Permit:

Address the fire protection requirements during the demolition and installation of the equipment. Language shall be included in the design documents that states any acetylene, welding, brazing, and soldering equipment, or other potential source of fire ignition cannot be used on the construction site until the Contractor complies with the facility’s “hot work” permit procedures. The facility safety officer and fire protection personnel are notified of the work to be done through this process. The facility will not perform a fire watch.

5. Site Preparation, Repairs, Restoration:

Approved locations for dumpsters shall be shown on the site drawing and the frequency for removal from the facility shall be described. Demolished equipment and materials may not be stored on site. Describe the requirements for disposal of special materials such as refrigerants, lubricants, etc.

Identify any special requirements for construction fencing, parking areas for contractor vehicles and equipment, traffic patterns, security, temporary site lighting, road barriers, material storage trailers, noise restrictions, special work hours, etc. if required.

The design documents shall identify the requirements necessary to restore the grading, lawns, roadways, etc. to their original condition if they are impacted by the work of this project.

6. Chiller #1 Replacement Allowance:

The Consultant shall estimate the cost to provide design, specifications, bid/award and construction administration services to replace Chiller #1 manufactured by York and its associated cooling tower, pumps, piping, valves, and controls and include that amount in their fee proposal line item entitled “**Chiller #1 Replacement Allowance**”, refer to paragraph X.B.

Any funds remaining in the allowance will be returned to the State at the close of the project.

C. MANUFACTURER’S FIELD SERVICES

1. Start-up & Tests:

The Consultant shall coordinate and arrange scheduling for the Factory Trained and Authorized Technician from the chiller manufacturer to start up the new chiller and associated equipment. The Factory Trained and Authorized Technician shall provide services to leak test, refrigerant

pressure test, evacuate, dehydrate, charge, start-up and calibrate the equipment and controls. After the chiller systems have been placed in operation, the Factory Trained and Authorized Technician shall ensure the equipment meets the manufacturer's performance standards and shall be adjusted for maximum efficiency. Provide test data and reports to the Project Manager upon commissioning of the chiller systems.

The Contractor shall supply the initial charge of refrigerant.

2. Training:

Require that the Contractor make provisions for a training session for the facility engineers, operators, and other interested personnel to demonstrate the proper operation of the chillers, ancillary equipment, and controls. The Contractor shall use the chiller manufacturer's representative or approved representative to conduct the training session. The training time required shall be estimated by the Consultant and approved by facility personnel.

Five (5) sets of drawings, equipment specifications, operating manuals, start up and operating sequence, recommended spare parts material lists, warranties, and all other relevant information shall be bound in a binder and forwarded to the DPMC Project Manager.

3. Spare Parts:

Identify any manufacturer's recommended spare parts and special tools or instruments needed for the operation or maintenance of the equipment and provide them as part of this project.

D. HAZARDOUS BUILDING MATERIALS

Consultant shall collect samples of materials that will be impacted by the construction or demolition activities and analyze them for the presence of hazardous materials including:

1. Asbestos in accordance with N.J.A.C. 5:23-8, Asbestos Hazard Abatement Sub code.
2. Lead in accordance with N.J.A.C. 5:17, Lead Hazard Evaluation and Abatement Code.
3. PCB's in accordance with 40 CFR 761, Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions. Consultant shall engage a firm certified in the testing and analysis of materials containing PCB's.

Consultant shall document their procedure, process and findings and prepare a "Hazardous Materials Survey Report" identifying building components impacted by construction activities requiring hazardous materials abatement. Consultant shall provide three copies of the "Hazardous Materials Survey Report" to the Project Manager.

Consultant shall estimate the cost of hazardous materials sample collection, testing, analysis and preparation of the Hazardous Materials Survey Report and include that amount in their fee proposal line item entitled “**Hazardous Materials Testing and Report Allowance**”, refer to paragraph X.C.

Based on the Hazardous Materials Survey Report, Consultant shall provide construction documents for abatement of the hazardous materials impacted by the work in accordance with the applicable code, sub code and Federal regulations.

Consultant shall estimate the cost to prepare construction documents for hazardous materials abatement and include that amount in their fee proposal line item entitled “**Hazardous Materials Abatement Design Allowance**”, refer to paragraph X.D.

Consultant shall estimate the cost to provide “Construction Monitoring and Administration Services” for hazardous materials abatement activities and include that amount in their fee proposal line item entitled “**Hazardous Materials Construction Administration Allowance**”, refer to paragraph X.E.

There shall be no “mark-up” of sub consultant or subcontractor fees if sub consultants or subcontractors are engaged to perform any of the work defined in paragraph VII.D “Hazardous Building Materials”. All costs associated with managing, coordinating, observing and administering sub consultants and subcontractors performing hazardous materials sampling, testing, analysis, report preparation, hazardous materials construction administration services shall be included in the consultant’s lump sum fee proposal.

E. BOARD OF PUBLIC UTILITIES

Energy savings will be tracked and reported to BPU per the Clean Energy Act requirements.

Protocols have been developed for the purpose of determining energy and resource savings for technologies and measures supported by *New Jersey's Clean Energy Program*. The protocols are updated from time to time to reflect the addition of new programs, modifications to existing programs, and the results of future program evaluations.

The Consultant shall estimate energy savings using the Technical Resource Manual (historically called the Protocols to Measure Resource Savings) to the extent that the TRM addresses the prescriptive energy conservation measures included in this project. A workbook will be provided to the consultant to enter the estimated energy savings, products that were installed, verify project milestones such as construction complete, and utility service provider. A link to the protocols is found below.

<https://www.njcleanenergy.com/main/public-reports-and-library/market-analysis-protocols/market-analysis-baseline-studies/market-an>

F. EXISTING DOCUMENTATION

Copies of the following documents will be provided to each Consulting firm at the pre-proposal meeting to assist in the bidding process.

- DPMC Project M1334-00: **HVAC Component Replacement**, 12/09/2004, Pressman and Associates, Inc.
- DPMC Project M1474-00: **AHU Replacement**, 6/13/2014, Princeton Engineering Group, LLC
- DPMC Project M1475-00: **Emergency Generator**, 02/28/17, M&E Engineers, Inc.

Review these documents and any additional information that may be provided at a later date such as reports, studies, surveys, equipment manuals, as-built drawings, etc. The State does not attest to the accuracy of the information provided and accepts no responsibility for the consequences of errors by the use of any information and material contained in the documentation provided. It shall be the responsibility of the Consultant to verify the contents and assume full responsibility for any determination or conclusion drawn from the material used. If the information provided is insufficient, the Consultant shall take the appropriate actions necessary to obtain the additional information required.

All original documentation shall be returned to the provider at the completion of the project.

VIII. PERMITS & APPROVALS

A. NJ UNIFORM CONSTRUCTION CODE PLAN REVIEW AND PERMIT

The project construction documents must comply with the latest adopted edition of the NJ Uniform Construction Code (NJUCC).

The latest NJUCC Adopted Codes and Standards can be found at:

<http://www.state.nj.us/dca/divisions/codes/codreg/>

1. NJ Uniform Construction Code (NJUCC) Plan Review

Consultant shall estimate the cost of the NJUCC Plan Review by DCA and include that amount in their fee proposal line item entitled “**Plan Review and Permit Fee Allowance**”, refer to paragraph XI.A.

PROJECT NAME: Chiller Upgrade
PROJECT LOCATION: Green Brook Regional Center
PROJECT NO: M1578-00
DATE: October 16, 2023

Upon approval of the Final Design Phase Submission by DPMC, the Consultant shall submit the construction documents to the Department of Community Affairs (DCA), Bureau of Construction Project Review to secure a complete plan release.

As of July 25, 2022, the Department of Community Affairs (DCA) is only accepting digital signatures and seals issued from a third party certificate authority. The DCA ePlans site can be found at:

<https://www.nj.gov/dca/divisions/codes/offices/ePlans.html>

Procedures for submission to the DCA Plan Review Unit can be found at:

https://www.state.nj.us/dca/divisions/codes/forms/pdf_bcpr/pr_app_guide.pdf

Consultant shall complete the “Project Review Application” and include the following on Block 5 as the “Owner’s Designated Agent Name”:

Joyce Spitale, DPMC
PO Box 235
Trenton, NJ 08625-0235
Joyce.Spitale@treas.nj.gov 609-943-5193

The Consultant shall complete the NJUCC “Plan Review Fee Schedule”, determine the fee due and pay the NJUCC Plan Review fees, refer to Paragraph X.A.
The NJUCC “Plan Review Fee Schedule” can be found at:

http://www.state.nj.us/dca/divisions/codes/forms/pdf_bcpr/pr_fees.pdf

2. NJ Uniform Construction Code Permit

Upon receipt of a complete plan release from the DCA Bureau of Construction Project Review, the Consultant shall complete the NJUCC permit application and all applicable technical sub-code sections. The “Agent Section” of the application and certification section of the building sub-code section shall be signed. These documents, with **six (6) sets of DCA approved, signed and sealed construction documents** shall be forwarded to the DPMC Project Manager.

The Consultant may obtain copies of all NJUCC permit applications at the following website:

<http://www.state.nj.us/dca/divisions/codes/forms/>

All other required project permits shall be obtained and paid for by the Consultant in accordance with the procedures described in Paragraph VIII.B.

3. Prior Approval Certification Letters:

The issuance of a construction permit for this project may be contingent upon acquiring various “prior approvals” as defined by N.J.A.C. 5:23-1.4. It is the Consultant’s responsibility to determine which prior approvals, if any, are required. The Consultant shall submit a general certification letter to the DPMC Plan & Code Review Unit Manager during the Permit Phase of this project that certifies all required prior approvals have been obtained.

In addition to the general certification letter discussed above, the following specific prior approval certification letters, where applicable, shall be submitted by the Consultant to the DPMC Plan & Code Review Unit Manager: Soil Erosion & Sediment Control, Water & Sewer Treatment Works Approval, Coastal Areas Facilities Review, Compliance of Underground Storage Tank Systems with N.J.A.C. 7:14B, Pinelands Commission, Highlands Council, Well Construction and Maintenance; Sealing of Abandoned Wells with N.J.A.C. 7:9D, Certification that all utilities have been disconnected from structures to be demolished, Board of Health Approval for Potable Water Wells, Health Department Approval for Septic Systems. It shall be noted that in accordance with N.J.A.C. 5:23-2.15(a)5, a permit cannot be issued until the letter(s) of certification is received.

4. Multi-building or Multi-site Permits:

A project that involves many buildings and/or sites requires that a separate permit shall be issued for each building or site. The Consultant must determine the construction cost estimate for *each* building and/or site location and submit that amount where indicated on the permit application.

5. Special Inspections:

In accordance with the requirements of the New Jersey Uniform Construction Code N.J.A.C. 5:23-2.20(b), Bulletin 03-5 and Chapter 17 of the International Building Code, the Consultant shall be responsible for the coordination of all special inspections during the construction phase of the project.

Bulletin 03-5 can be found at:

http://www.state.nj.us/dca/divisions/codes/publications/pdf_bulletins/b_03_5.pdf

a. Definition:

Special inspections are defined as an independent verification by a certified Special Inspector for **Class I buildings and smoke control systems in any class building**. The special inspector is to be independent from the Contractor and responsible to the Consultant so that there is no possible conflict of interest.

Special inspectors shall be certified in accordance with the requirements in the New Jersey Uniform Construction Code.

b. Responsibilities:

The Consultant shall submit with the permit application, a list of special inspections and the agencies or special inspectors that will be responsible to carry out the inspections required for the project. The list shall be a separate document, on letter head, signed and sealed.

B. OTHER REGULATORY AGENCY PERMITS, CERTIFICATES AND APPROVALS

The Consultant shall identify and obtain all other State Regulatory Agency permits, certificates, and approvals that will govern and affect the work described in this Scope of Work. An itemized list of these permits, certificates, and approvals shall be included with the Consultant’s Technical Proposal and the total amount of the application fees should be entered in the Fee Proposal line item entitled, **“Permit Fee Allowance.”**

The Consultant may refer to the Division of Property Management and Construction “Procedures for Architects and Engineers Manual”, Paragraph **“9. REGULATORY AGENCY APPROVALS”** which presents a compendium of State permits, certificates, and approvals that may be required for this project.

The Consultant shall determine the appropriate phase of the project to submit the permit application(s) in order to meet the approved project milestone dates.

Where reference to an established industry standard is made, it shall be understood to mean the most recent edition of the standard unless otherwise noted. If an industry standard is found to be revoked, or should the standard have undergone substantial change or revision from the time that the Scope of Work was developed, the Consultant shall comply with the most recent edition of the standard.

IX. ENERGY INCENTIVE PROGRAM

This project is being funded through the New Jersey Clean Energy Program State Facilities Initiative. The Consultant shall be responsible to complete the appropriate registration forms and applications, provide any applicable worksheets, manufacturer’s specification sheets and calculations, attend meetings, and participate in all activities with designated representatives of the programs to obtain the entitled financial incentives for this project.

All costs associated with this work shall be estimated by the Consultant and the amount included in the base bid of its fee proposal.

X. ALLOWANCES

A. PLAN REVIEW AND PERMIT FEE ALLOWANCE

The Consultant shall obtain and pay for all of the project permits in accordance with the guidelines identified below.

1. Permits:

The Consultant shall determine the various permits, certificates, and approvals required to complete this project.

2. Permit Costs:

The Consultant shall estimate the application fee costs for all of the required project permits, certificates, and approvals (excluding the NJ Uniform Construction Code permit) and include that amount in its fee proposal line item entitled “**Plan Review and Permit Fee Allowance**”, refer to Paragraph IX.A. A breakdown of each permit and application fee shall be attached to the fee proposal for reference.

NOTE: The NJ Uniform Construction Code permit is excluded since it will be paid for by the State.

3. Applications:

The Consultant shall complete and submit all permit applications to the appropriate permitting authorities and the costs shall be paid from the Consultant’s permit fee allowance. A copy of the application(s) and the original permit(s) obtained by the Consultant shall be given to the DPMC Project Manager for distribution during construction.

4. Consultant Fee:

The Consultant shall determine what is required to complete and submit the permit applications, obtain supporting documentation, attend meetings, etc., and include the total cost in the base bid of its fee proposal under the “Permit Phase” column.

Any funds remaining in the permit allowance will be returned to the State at the close of the project.

B. CHILLER #1 REPLACEMENT ALLOWANCE

The Consultant shall estimate the cost to provide design, specifications, bid/award and construction administration services to replace Chiller #1 manufactured by York and its

associated cooling tower, pumps, piping, valves, and controls and include that amount in their fee proposal line item entitled “**Chiller #1 Replacement Allowance**”, refer to paragraph X.B.

Any funds remaining in the allowance will be returned to the State at the close of the project.

C. HAZARDOUS MATERIALS TESTING AND REPORT ALLOWANCE

Consultant shall estimate the costs to complete the hazardous materials survey, sample collection, testing and analysis and preparation of a “Hazardous Materials Survey Report” noted in paragraph VII.D and enter that amount on their fee proposal line item entitled “**Hazardous Materials Testing and Report Allowance**”. Consultant shall attach a detailed cost breakdown sheet for use by DPMC during the proposal review and potential fee negotiations. The cost breakdown sheet shall include, but not be limited to, the following information:

- Description of tasks and estimated cost for the following:
 - Sample collection
 - Sample testing
 - Preparation of an Hazardous Materials Survey Report

Any funds remaining in the Hazardous Materials Testing and Report Allowance will be returned to the State at the close of the project.

D. HAZARDOUS MATERIALS ABATEMENT DESIGN ALLOWANCE

Consultant shall estimate the costs to prepare construction documents for hazardous materials abatement noted in paragraph VII.D and enter that amount on their fee proposal line item entitled “**Hazardous Materials Abatement Design Allowance**”. Consultant shall attach a detailed cost breakdown sheet for use by DPMC during the proposal review and potential fee negotiations. The cost breakdown sheet shall include a description of the tasks to be performed and the estimated cost of each task.

Any funds remaining in the Hazardous Materials Abatement Design Allowance will be returned to the State at the close of the project.

E. HAZARDOUS MATERIALS CONSTRUCTION ADMINISTRATION ALLOWANCE

Consultant shall estimate the cost to provide Construction Monitoring and Administration Services for hazardous materials abatement as noted in paragraph VII.D and enter that amount on their fee proposal line item entitled “**Hazardous Materials Construction Administration Allowance**”. Consultant shall attach a detailed cost breakdown sheet for use by DPMC during the proposal review and potential fee negotiations. The cost breakdown sheet shall include a description of the tasks to be performed and the estimated cost of each task.

PROJECT NAME: Chiller Upgrade
PROJECT LOCATION: Green Brook Regional Center
PROJECT NO: M1578-00
DATE: October 16, 2023

Any funds remaining in the Hazardous Materials Construction Administration Allowance will be returned to the State at the close of the project.

PROJECT NAME: Chiller Upgrade
PROJECT LOCATION: Green Brook Regional Center
PROJECT NO: M1578-00
DATE: October 16, 2023

XI. SOW SIGNATURE APPROVAL SHEET

This Scope of Work shall not be considered a valid document unless all signatures appear in each designated area below.

The Client Agency approval signature on this page indicates that they have reviewed the design criteria and construction schedule described in this project Scope of Work (including the subsequent contract deliverables and exhibits) and verifies that the work will not conflict with the existing or future construction activities of other projects at the site.

SOW APPROVED BY: *James Wright* 10/16/2023
JAMES WRIGHT, MANAGER DATE
DPMC PROJECT PLANNING & INITIATION

SOW APPROVED BY: *Christian Casteel* 10/16/2023
CHRISTIAN CASTEEL, DIRECTOR DATE
DEPARTMENT OF HUMAN SERVICES

SOW APPROVED BY: *Sara Gibson* 10/18/2023
SARA BLUHM GIBSON, DIRECTOR DATE
NEW JERSEY BOARD OF PUBLIC UTILITIES

SOW APPROVED BY: *Babatunde Ogunnubi* 10/18/2023
BABATUNDE OGUNNUBI, PROJECT MANAGER DATE
DPMC PROJECT MANAGEMENT GROUP

SOW APPROVED BY: *Christopher Geary* 10/18/23
CHRISTOPHER GEARY, ASST. DEPUTY DIRECTOR DATE
DIV PROPERTY MGT & CONSTRUCTION

XII. CONTRACT DELIVERABLES

The following are checklists listing the Contract Deliverables that are required at the completion of each phase of this project. The Consultant shall refer to the DPMC publication entitled “Procedures for Architects and Engineers,” 3.0 Edition, dated September 2022 available at <https://www.nj.gov/treasury/dPMC/Assets/Files/ProceduresforArchitectsandEngineers.pdf> for a detailed description of the deliverables required for each submission item listed. References to the applicable paragraphs of the “Procedures for Architects and Engineers” are provided.

Note that the Deliverables Checklist may include submission items that are “S.O.W. Specific Requirements”. These requirements will be defined in the project specific scope of work and included on the deliverables checklist.

This project includes the following phases with the deliverables noted as “Required by S.O.W” on the Deliverables Checklist:

- **INVESTIGATION PHASE**
- **DESIGN DEVELOPMENT PHASE**
- **FINAL DESIGN PHASE**
- **PERMIT APPLICATION PHASE**
- **BIDDING AND CONTRACT AWARD**
- **CONSTRUCTION PHASE**
- **PROJECT CLOSE-OUT PHASE**

XIII. EXHIBITS

- A. **SAMPLE PROJECT SCHEDULE FORMAT**
- B. **PROJECT SITE LOCATION MAP**
- C. **PHOTOS**

END OF SCOPE OF WORK

Deliverables Checklist Investigation Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
12.3.1.	A/E Statement of Site Visit						
12.3.2.	Narrative Description of Project						
12.3.3.	Building Code Information Questionnaire						
12.3.4.	Space Analysis						
12.3.5.	Special Features						
12.3.6.	Catalog Cuts						
12.3.7.	Site Evaluation						
12.3.8.	Subsurface Investigation						
12.3.9.	Surveys						
12.3.10.	Fine Arts Inclusion						
12.3.11.	Design Rendering						
12.3.12.	Regulatory Approvals						
12.3.13.	Utility Availability						
12.3.14.	Diagrammatic Sketches/Drawings (6 Sets)						
12.3.15.	Outline Specifications (6 Sets)						
12.3.16.	Current Working Estimate/Cost Analysis						
12.3.17.	Project Schedule						
12.3.18.	Formal Presentation						
12.3.19.	Scope of Work Compliance Statement						
12.3.20.	Investigation Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements						
VII.A.3	Investigation Report						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

Consultant Signature

Date

**Deliverables Checklist
Design Development Phase**

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
14.4.1.	A/E Statement of Site Visit						
14.4.2.	Narrative Description of Project						
14.4.3.	Building Code Information Questionnaire						
14.4.4.	Space Analysis						
14.4.5.	Special Features						
14.4.6.	Catalog Cuts						
14.4.7.	Site Evaluation						
14.4.8.	Subsurface Investigation						
14.4.9.	Surveys						
14.4.10.	Arts Inclusion						
14.4.11.	Design Rendering						
14.4.12.	Regulatory Approvals						
14.4.13.	Utility Availability						
14.4.14.	Drawings (6 Sets)						
14.4.15.	Outline Specifications (6 Sets)						
14.4.16.	Current Working Estimate/Cost Analysis						
14.4.17.	Project Schedule						
14.4.18.	Formal Presentation						
14.4.19.	Plan Review/Scope of Work Compliance Statement						
14.4.20.	Design development Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements						
	BPU Energy Efficiency Reporting Workbook						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

Consultant Signature

Date

February 7, 1997
Rev.: January 29, 2002

Responsible Group Code Table

The codes below are used in the schedule field "GRP" that identifies the group responsible for the activity. The table consists of groups in the Division of Property Management & Construction (DPMC), as well as groups outside of the DPMC that have responsibility for specific activities on a project that could delay the project if not completed in the time specified. For reporting purposes, the groups within the DPMC have been defined to the supervisory level of management (i.e., third level of management, the level below the Associate Director) to identify the "functional group" responsible for the activity.

<u>CODE</u>	<u>DESCRIPTION</u>	<u>REPORTS TO ASSOCIATE DIRECTOR OF:</u>
CM	Contract Management Group	Contract Management
CA	Client Agency	N/A
CSP	Consultant Selection and Prequalification Group	Technical Services
A/E	Architect/Engineer	N/A
PR	Plan Review Group	Technical Services
CP	Construction Procurement	Planning & Administration
CON	Construction Contractor	N/A
FM	Financial Management Group	Planning & Administration
OEU	Office of Energy and Utility Management	N/A
PD	Project Development Group	Planning & Administration

EXHIBIT 'A'

Activity ID	Description	Respon	Weeks
<PROJ>			
Design			
CV3001	Schedule/Conduct Pre-design/Project Kick-Off Mtg.	CM	
CV3020	Prepare Program Phase Submittal	AE	
CV3021	Distribute Program Submittal for Review	CM	
CV3027	Prepare & Submit Project Cost Analysis (DPMC-38)	CM	
CV3022	Review & Approve Program Submittal	CA	
CV3023	Review & Approve Program Submittal	PR	
CV3024	Review & Approve Program Submittal	CM	
CV3025	Consolidate & Return Program Submittal Comments	CM	
CV3030	Prepare Schematic Phase Submittal	AE	
CV3031	Distribute Schematic Submittal for Review	CM	
CV3037	Prepare & Submit Project Cost Analysis (DPMC-38)	CM	
CV3032	Review & Approve Schematic Submittal	CA	
CV3033	Review & Approve Schematic Submittal	PR	
CV3034	Review & Approve Schematic Submittal	CM	
CV3035	Consolidate & Return Schematic Submittal Comment	CM	
CV3040	Prepare Design Development Phase Submittal	AE	
CV3041	Distribute D. D. Submittal for Review	CM	
CV3047	Prepare & Submit Project Cost Analysis (DPMC-38)	CM	
CV3042	Review & Approve Design Development Submittal	CA	
CV3043	Review & Approve Design Development Submittal	PR	
CV3044	Review & Approve Design Development Submittal	CM	
CV3045	Consolidate & Return D.D. Submittal Comments	CM	
CV3050	Prepare Final Design Phase Submittal	AE	
CV2001	Distribute Final Design Submittal for Review	CM	
CV2002	Review & Approve Final Design Submittal	CA	
CV3053	Review & Approve Final Design Submittal	PR	
CV3054	Review Final Design Submittal for Constructability	OCS	

NOTE:
Refer to section "IV Project Schedule" of the
Scope of Work for contract phase durations.

DBCA - TEST

Bureau of Design & Construction Services

Sheet 1 of 3

EXHIBIT 'A'

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Activity ID	Description	Respn	Weeks
CV6014	Roughing Work Complete	CON	
CV6021	Interior Finishes Start	CON	
CV6022	Install Interior Finishes	CON	
CV6030	Contract Work to Substantial Completion	CON	
CV6031	Substantial Completion Declared	CM	
CV6075	Complete Deferred Punch List/Seasonal Activities	CON	
CV6079	Project Construction Complete	CM	
CV6080	Close Out Construction Contracts	CM	
CV6089	Construction Contracts Complete	CM	
CV6090	Close Out A/E Contract	CM	
CV6092	Project Completion Declared	CM	

DBCA - TEST

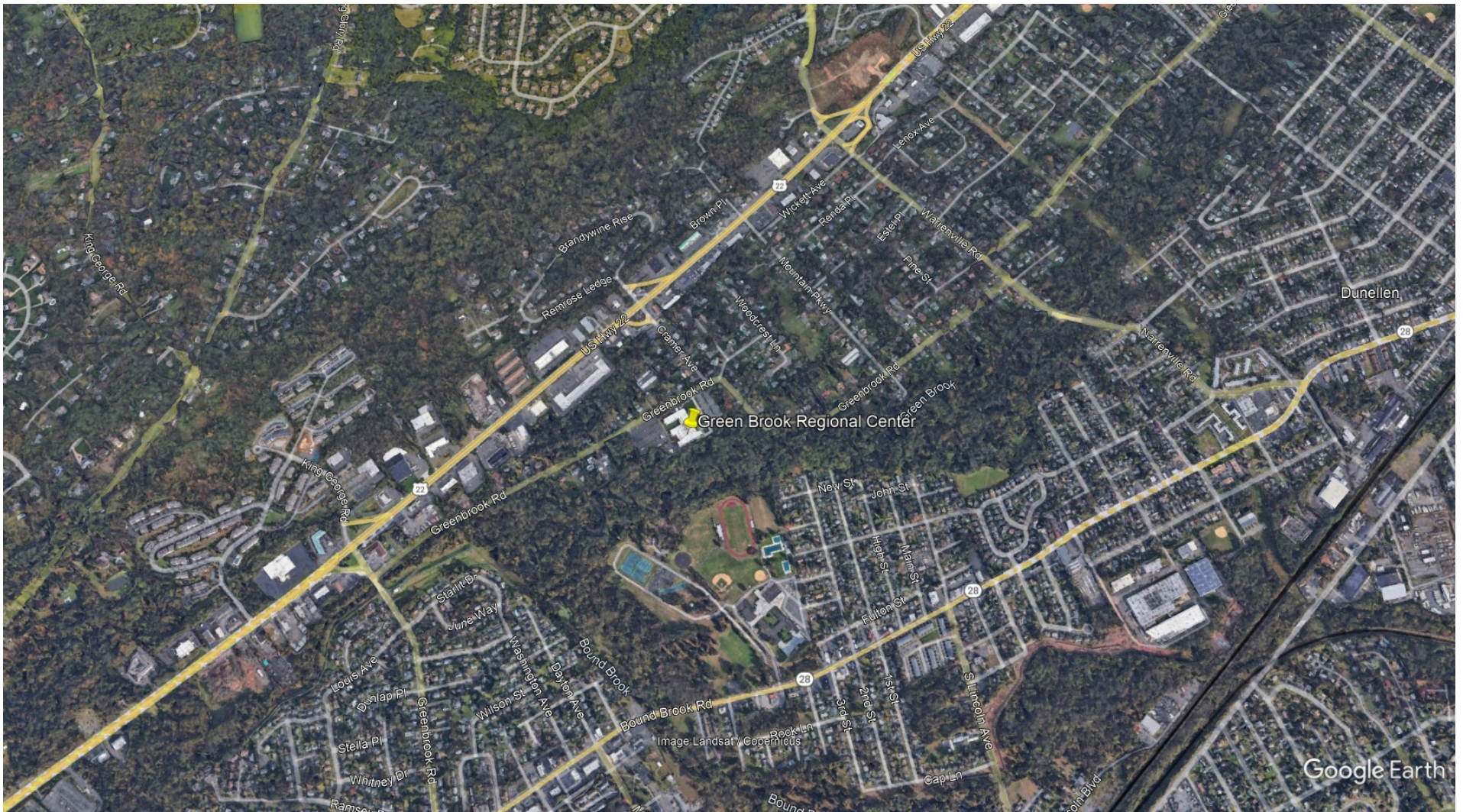
Sheet 3 of 3

Bureau of Design & Construction Services

EXHIBIT 'A'

NOTE:
Refer to section "IV Project Schedule" of the
Scope of Work for contract phase durations.

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Project Site Location Map
Green Brook Regional Center
EXHIBIT 'B'



Chiller #2 to be replaced. Note louver doors that may need to be removed.

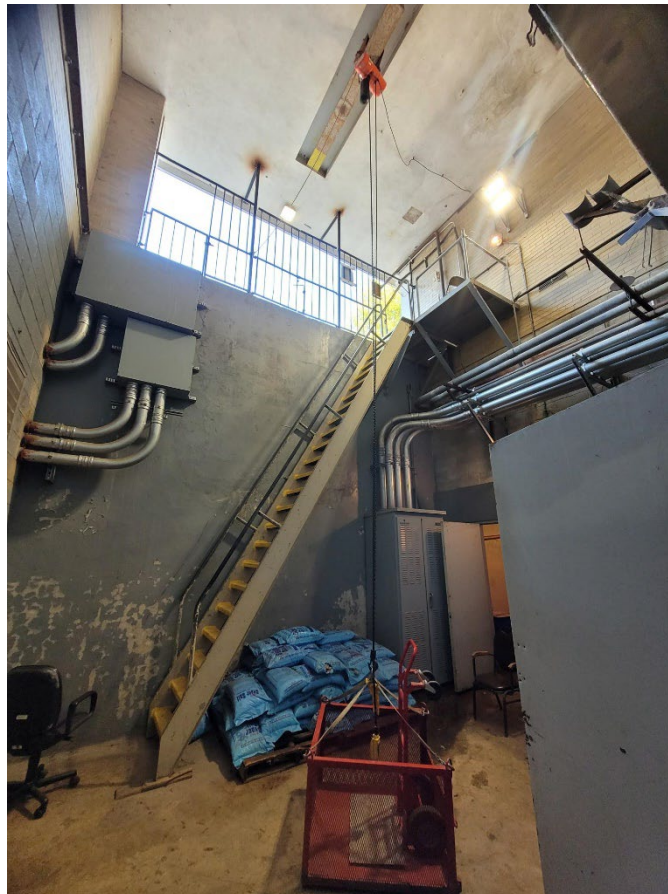


Pumps for chiller #2.

EXHIBIT 'C'



Louvers that may require removal to facilitate new chiller installation.



Railing at top may require removal to facilitate new chiller installation.

EXHIBIT 'C'



Cooling tower to be replaced.



Chiller #1 to be evaluated and possibly replaced.

EXHIBIT 'C'