

SCOPE OF WORK

Electrical System Upgrades

Woodbine Developmental Center
Woodbine, Cape May County, N.J.

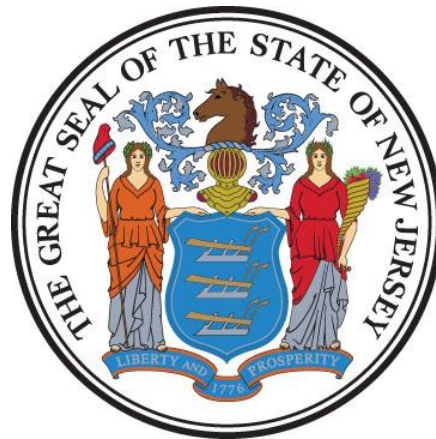
Project No. M1613-00

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: March 12, 2024

TABLE OF CONTENTS

SECTION	PAGE
I. OBJECTIVE	4
II. CONSULTANT QUALIFICATIONS	4
A. CONSULTANT & SUB-CONSULTANT PRE-QUALIFICATIONS.....	4
III. PROJECT BUDGET	4
A. CONSTRUCTION COST ESTIMATE (CCE)	4
B. CURRENT WORKING ESTIMATE (CWE)	5
C. CONSULTANT'S FEES	5
IV. PROJECT SCHEDULE	5
A. SCOPE OF WORK DESIGN & CONSTRUCTION SCHEDULE	5
B. CONSULTANT'S PROPOSED DESIGN & CONSTRUCTION SCHEDULE	6
V. PROJECT SITE LOCATION & TEAM MEMBERS.....	6
A. PROJECT SITE ADDRESS.....	6
B. PROJECT TEAM MEMBER DIRECTORY	7
1. DPMC Representative:	7
2. Department of Human Services:.....	7
VI. PROJECT DEFINITION	7
A. BACKGROUND	7
B. FUNCTIONAL DESCRIPTION OF THE SITE.....	8
1. Electrical System:	8
2. Administration Building:	8
3. Additional Projects:	9
VII. CONSULTANT DESIGN RESPONSIBILITIES.....	9
A. INVESTIGATION PHASE	9
B. GENERATOR REPLACEMENT	12
C. FEEDER REPLACEMENT ALLOWANCE	15
D. HAZARDOUS MATERIALS SURVEY AND REPORT	15
E. ADDITIONAL REQUIREMENTS:.....	16
F. DESIGN MEETINGS & PRESENTATIONS.....	17
G. EXISTING DOCUMENTATION	18
VIII. PERMITS & APPROVALS.....	19

A.	NJ UNIFORM CONSTRUCTION CODE PLAN REVIEW AND PERMIT	19
B.	OTHER REGULATORY AGENCY PERMITS, CERTIFICATES AND APPROVALS	22
IX.	ENERGY REBATE AND INCENTIVE PROGRAMS	22
X.	ALLOWANCES	23
A.	PLAN REVIEW AND PERMIT FEE ALLOWANCE	23
1.	Permits:	23
2.	Permit Costs:	23
3.	Applications:	23
4.	Consultant Fee:	23
B.	HAZARDOUS MATERIALS TESTING AND REPORT ALLOWANCE	24
C.	HAZARDOUS MATERIALS ABATEMENT DESIGN ALLOWANCE	24
D.	HAZARDOUS MATERIALS CONSTRUCTION ADMINISTRATION	24
	ALLOWANCE	24
E.	FEEDER REPLACEMENT ALLOWANCE	25
XI.	SOW SIGNATURE APPROVAL SHEET	26
XII.	CONTRACT DELIVERABLES	27
XIII.	EXHIBITS	27
A.	SAMPLE PROJECT SCHEDULE FORMAT	
B.	PROJECT SITE LOCATION MAP	
C.	SINGLE LINE DIAGRAM	
D.	PHOTOS	
E.	CAMPUS SITE PLAN ELECTRICAL/TELEPHONE	
F.	GENERAL SITE REGULATIONS	

I. OBJECTIVE

The objective of this project is to replace two generators, switchgear and an automatic transfer switch at the Woodbine Developmental Center. A further objective, budget permitting, is to replace underground electrical feeders. The design for feeder replacement may be done under an allowance.

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):

- **P002 Electrical Engineering**

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

- **P007 Structural Engineering**
- **P025 Estimating/Cost Analysis**
- **P037 Asbestos 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 \$6,497,108.

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 \$8,986,000.

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	365
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:

Woodbine Developmental Center
1175 DeHirsch Avenue
Woodbine, Cape May County, New Jersey 08270

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: Darren Comegys, Design Manager
Address: Division of Property Management & Construction
20 West State Street, 3rd Floor
Trenton, NJ 08608-1206
Phone No: (609) 690-3298
E-Mail: Darren.Comegys@treas.nj.gov

2. Department of Human Services:

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

VI. PROJECT DEFINITION

A. BACKGROUND

Woodbine Developmental Center (WDC) was founded in 1921 and is located on 250 acres of land in Cape May County. The WDC provides residential treatment and rehabilitation services to developmentally disabled men who reside in 18 residential buildings. The WDC is managed by the New Jersey Department of Human Services (DHS).

In addition to the residential cottages and the food services building, the Center contains forty additional buildings that include a medical building, administrative offices, school, recreational facilities, a powerhouse, maintenance facilities and various support facilities. The facility was constructed in 1930 and continues to utilize some of the original buildings. Additional buildings have been constructed and numerous renovations have occurred over the years to maintain compliance with codes and licensing requirements.

B. FUNCTIONAL DESCRIPTION OF THE SITE

1. Electrical System:

The Woodbine Developmental Center (WDC) electrical system is backed up by two 750KVA generators sets that, when run in parallel, can back up the entire WDC campus. The generators, switchgear and automatic transfer switch are located within the powerhouse on campus. The generators are fueled from a 6000 gallon tank located outside the powerhouse. The staff is interested in replacing the generators with ones that are twice the size such that the facility is backed up completely with one generator while the other may be down for maintenance. At the very least, each new generator shall cover all of the loads required under NFPA 99, 100, and 110, along with NEC Articles 700-701. The Title V permit will require review and coordination with the DHS air permitting consultant on contract.

It is not certain as to whether the new generators will fit into the powerhouse. However, what may help is the removal of a 625 KVA Caterpillar generator and associated switchgear and equipment. The Caterpillar generator is no longer in use and has been abandoned in place.

One half of the campus electrical distribution system is set up at 12.47 KV/208V and the other half is set up at 2.4KV/240V, each with separate switchgear located outside the powerhouse. See **Exhibit 'C'** for a line diagram taken from a project to add a generator tap to the Administration Building (see below). As part of the project, the Consultant shall investigate the feasibility of upgrading the 2.4KV/240V switchgear, including an analysis of the switchgears and transformers associated with the two operating voltages.

The half of the campus electrical distribution system that is set up at 2.4KV/240V is at least 60 years old. This section has experienced numerous failures that required emergency replacement of certain sections. The rest of the campus distribution system that is set up at 12.47 KV/208V was installed when Cottages 15-19, the Hospital, and the Learning Center were constructed in 1979.

The facility desires to replace feeders, prioritizing those on the 2.4 KV side of the campus. However, it is not certain if funding will cover this part of the project. Feeders will be investigated as part of the base bid. The design to replace them will be done under an allowance.

2. Administration Building:

The electrical feeder to the Administration Building was damaged and had to be removed. Separately metered temporary power is in place but leaves the building without permanent generator backup power from the Powerhouse. A generator tap was designed under project M1437-07 in 2011 but was never built due to budget restraints. A new feeder is required that may be installed via the previously used, but now empty existing underground feeder conduit.

However, the conduit needs to be assessed as it may have collapsed in some areas and be too small for new feeders due to code requirements.

3. Additional Projects:

There are projects underway or under consideration that may impact the load on the electrical system.

Project M1545-00 seeks to construct a pumping station to connect the wastewater system to a pipe in Dehirsch Ave. The pipe is to be constructed by Woodbine Borough and will connect to the Cape May County Municipal Utilities Authority. However, the pipe construction will not be completed until 2027. Following the connection in 2027, the WDC wastewater treatment plant will be demolished.

There is an energy audit taking place at WDC that is expected to result in energy savings, especially with conversion to LED lighting. The audit may be completed during the design phase for this project. The audit report will be provided to the consultant if it becomes available.

Future campus electrification projects may be undertaken to further the goals established in the State's Energy Master Plan. Projects such as electric vehicle charging stations and a combined heat and power plant are being considered. As part of this project, the Department of Human Services would like to investigate requirements to convert the campus steam heating, hot water and cooling to electrical based systems. The investigation should guide and inform the sizing of the generators to compensate for additional loads that may require backup if some of these projects take place.

VII. CONSULTANT DESIGN RESPONSIBILITIES

A. INVESTIGATION PHASE

1. Generator Size & Capacity Investigation:

The Consultant shall meet and coordinate with NJDHS Staff to outline all functional requirements necessary for the design to replace the generator system. The Consultant shall document interviews with the Client Agency Staff to identify their requirements and needs.

The Consultant shall investigate the existing conditions of the site and confirm the generator classification, size, condition, ratings, generator exhaust breaching and arrangement of the existing electrical equipment and power distribution system.

Evaluate the existing emergency electrical distribution system and normal power interface. Check the adequacy of the existing equipment with proposed new equipment, as required by the facility and by the client agency. Make the necessary design changes to the electrical system to achieve the required connections for the capacity of the new generators.

Items to investigate shall include, but not be limited to, the electrical supply system, electrical system devices and operation, emergency standby control, transfer time requirements, paralleling gear requirements, wiring, building penetrations, and generator exhaust breaching, fuel tank and cost estimates.

This information shall also be used to identify the areas of the building and site that will be impacted by the installation of the new generator's construction work.

The facility would like to explore the feasibility of having two generators that individually support the needs of the campus and allow for one generator to be down for maintenance.

2. Electrical Switchgear Upgrade Investigation:

The Consultant shall conduct an investigation of the existing dual electrical switchgear system (12.47KV and 2.4 KV), including an analysis of the switchgears and transformers associated with the two operating voltages, and determine requirements to upgrade them to be compatible with the new generator backup system. Document the location of the electrical panels, zone detectors, sensors, wiring & raceways, and all equipment and systems.

3. Campus Electrical Distribution System Investigation:

The Consultant shall conduct an investigation of the campus electrical distribution system (12.47KV and 2.4 KV), to identify and determine requirements for feeder replacement. Part of the investigation shall include areas of concrete pad collapse where feeders enter into buildings.

Some feeders have been replaced under emergency projects for which there are no design documents. **Exhibit 'E'** shows a drawing of these replaced feeders highlighted in yellow. These feeders are from the older 2.4 KV side of the campus. The drawing is located in the maintenance plan room and will be made available to borrow and scan if needed.

Other items to consider in the investigation include keeping electrical trenches adequately protected from clients. Needed permits such as 5G3 construction or soil conservation permits shall be identified.

4. Administration Building Investigation:

Investigate requirements to add a new electrical feeder to the Administration Building that will be backed up by the new generator sets and remove the existing separate power supply to the

building. The previously used existing conduit shall be investigated for size and collapse to determine if new conduit is required. A cost comparison shall be made between a tap installation versus feeder installation. A decision will be made on funding availability.

5. Automatic Transfer Switch Investigation:

The Consultant shall conduct an investigation of the existing ATS to determine if it will be compatible with the new generator backup system or will require an upgrade. Verify that the existing ATS system has adequate capacity for the new generator backup system components. Document the location of the ATS panels, mains detection, built in monitors, wiring & raceways, and all equipment and systems.

6. Title V Air Permit:

The Consultant shall investigate the requirements for DEP permit modification and present this information, along with any required DEP prior approvals or pre-construction permits, as part of their Investigation Phase report. The Consultant may require coordination with the agency air permitting Consultant.

7. Caterpillar Generator:

The Consultant shall investigate the requirements to remove the existing 625KVA Caterpillar generator and associated switchgear and equipment, including the fuel tank. The generator and associated equipment will not be replaced.

8. Future Project Impacts:

The Consultant shall consider impacts to the generator design from future projects, such as EV parking, public wastewater connection and wastewater plant demolition, LED lighting, and goals established by the State Energy Master Plan. These goals include electrification of buildings and reduction of the site's carbon footprint.

9. Investigation Report and Presentation:

Provide three (3) bound copies of the Investigation Report to the Project Manager. The document shall be presented in an 8 ½" x 11" bound booklet that contains a Table of Contents describing all of the information contained in the document and an Executive Summary with a list of recommendations.

An oral presentation shall be made to the Project Team describing the findings of the investigation conducted and the recommendations for upgrade or replacement. The Consultant may not proceed with the design phase of the project until the Project Team has reviewed the report and approved the recommendations made for this project.

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.

All cost data shall be in sufficient detail for each related division of the latest CSI format and shall be summarized on the DPMC 38 Cost Analysis form(s).

B. GENERATOR REPLACEMENT

1. General:

Guided by the results of the Investigation Phase, the Consultant shall provide Design; Construction Administration, Permitting and Bid/Award services to remove and replace the existing 750 KVA generators, located inside the Powerhouse at the Woodbine Developmental Center. New generators shall be sized such that one generator can carry the load for the entire campus, including the Administration Building. In addition, consideration shall be given to electrical loads as a result of future projects and goals established by the State Energy Master Plan. The Consultant is to ensure the location and installation are following all applicable codes, regulations and requirements.

The design requirements of this project shall include but not be limited to the following items identified below. These items are meant to be used as a design guide; however, it shall be the responsibility of the Consultant to determine the final design criteria to make a complete working installation based on their experience with projects similar in size and scope to this one, and the equipment manufacturer's requirements.

2. Location:

The new generators may be located in the same area of the Powerhouse, space permitting, or outside as necessary. Space created by the removal of the Caterpillar generator can be considered. The Consultant shall investigate suggested locations, provide recommendations, and identify requirements, such as structural calculations for new pads as necessary.

3. Equipment Removal:

The Consultant shall provide a demolition plan specifying the existing equipment to be removed and disposed of by the contractor. Provide a phasing plan for equipment removal and for the installation of the new generators.

4. Temporary Power:

The Consultant shall provide temporary power as needed to keep the site operational during the construction phases, if needed.

5. New Generators:

The Consultant shall determine the new generator classifications, power, capacity and size according to the full load requirements to back up the entire facility. The new generators shall be powered by diesel fuel. The Consultant shall verify there is ample fuel to run the new generators for 72 hours. Determine the need to add a new diesel fuel AST, if necessary. DHS requests the new generators design to be under full load to back up the whole facility in case of loss of electricity and power outage.

Investigate industry-recognized manufacturers of the replacement components to be specified in the design documents. Items to consider shall include, but not be limited to product reliability and performance, manufacturer's years of service, equipment costs, warranties, guarantees, delivery schedule, compatibility with the existing equipment and related components, physical size, etc. Note that the names of three "equal" manufacturers shall be identified and included in the design documents for reference.

The consultant shall evaluate the generator design criteria based on a thorough evaluation of requirements of NEC Articles 700, 701, and 702, as well as the Center for Medicaid and Medicare Services (CMS), NFPA 99 2012, including class and type, paying close attention to the 10 second switching requirement.

6. Drawings:

Provide a Single- Line Diagram to show new generator tie-in details that identifies the name, location, and rating of all switchgears, transformers and generator control panel components. Include all demand factors, switch and panel schedules, wiring identification codes, drawing legends, etc. on the documents.

Provide short circuit study and selective coordination study of over-current protection devices. Provide details on the drawings of any special assembly, electrical tie in requirements, or any other governing or limiting factor of the manufacturer's system component. The drawings shall be prepared with sufficient flexibility to accommodate variations among the equipment manufacturers approved by the Project Team.

7. Generator Pads:

The Consultant shall assess the existing concrete pad and determine to reuse the existing concrete pad with the new equipment or provide the design and specifications to construct a new

concrete pad for the new generator and fuel tank as necessary. Provide signed and sealed structural calculations, verifying that they will support the new equipment.

8. Control Equipment:

Provide the design and specification for a master control system, new breaker switchgear, and all further details regarding the sequence of operations.

9. Generator Annunciator Panel:

The Consultant shall include in their design local annunciator panels and wireless annunciator panels at approved occupied workstations within the facility.

10. Equipment Installation Schedule:

Develop a proposed sequenced phased construction schedule that identifies how the new generators, components and other related items are to be installed. Minimize the required downtime and switchover periods. Temporary emergency backup power shall be provided if required. The final approved schedule shall be included in Division 1 of the specification for Contractor reference during bidding.

Determine all construction schedule coordination requirements with the local Electrical Utility Company and representatives of the WDC.

11. Equipment Tests:

The design documents shall include detailed test requirements of the new equipment and systems. The Contractor and a certified testing lab shall perform operational tests of the completed installation to certify their proper operation. All test results shall be bound in a booklet and three (3) copies presented to the Project Manager for record.

12. Spare Parts:

A critical spare parts list shall be prepared for all appropriate items and purchased as part of this project. The Consultant shall include provisions for the manufacture/vendor of the equipment to provide critical spare and maintenance parts as part of this project. All of the critical parts shall be reviewed and approved by the Client Agency.

13. Administration Building:

The Consultant shall include in their design a new feeder to the Admiration Building that allows for the building to be backed up by the generators. The design shall include removal of the existing separate power supply to the building.

C. FEEDER REPLACEMENT ALLOWANCE

The Consultant shall estimate the cost to provide Design; Construction Administration, Permitting and Bid/Award services to remove and replace campus feeders and enter that amount into their fee proposal line item entitled, “**Feeder Replacement Allowance**”. Costs estimates shall include at a minimum the design for ensuring that residents are protected from trenching, concrete pads repair or replacement where feeders enter into buildings, and permit requirements.

D. HAZARDOUS MATERIALS SURVEY AND REPORT

Consultant shall survey the building and, if deemed necessary, collect samples of materials that will be impacted by the construction/demolition activities and analyze them for the presence of hazardous materials including:

- a. Asbestos in accordance with N.J.A.C. 5:23-8, Asbestos Hazard Abatement Subcode.
- b. Lead in accordance with N.J.A.C. 5:17, Lead Hazard Evaluation and Abatement Code.
- c. 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.
- d. Other items as necessary.

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, destructive testing as necessary, tests and 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.B.

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, subcode 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.C.

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.D.

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

E. ADDITIONAL REQUIREMENTS:

The following miscellaneous general requirements shall apply to this project.

1. Contractor’s Use of the Premises:

The Consultant shall review the Woodbine Developmental Center site regulations as indicated in **Exhibit ‘F’** attached at the end of this scope. Any additional use requirements shall be reviewed and approved by the Using Agency.

2. Demolition Material:

Describe the approved storage methods of all demolition materials, location of dumpsters, protection of dumpsters, removal requirements and security issues in the design documents. If components of the existing systems are not to be reused, they shall be removed in their entirety and legally disposed. **No components shall be “abandoned in place”.**

3. Special Sequencing:

The contract documents must incorporate special sequencing of the work, if necessary, to be coordinated with the Client Agency in order to provide for any functional requirement of the facility. Items shall include, but not be limited to: safety/security requirements, patient, pedestrian and vehicle traffic flow, weather and/or seasonal concerns, and shut down of any physical plant functions or services.

3. Fire Protection:

Address the fire protection requirements during any demolition and installation of equipment and systems. 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 a fire watch program has been submitted by the Contractor and approved

by the Consultant and Project Team members. The Contractor shall coordinate fire watch activities with the client agency. Language shall be included in the design documents to require that contractors obtain hot work permits. There are two – a one-time hot work permit issued by DCA and a daily hot work permit issued by the facility based on the contractor’s scheduled hot work activities.

4. Working Hours:

Working hours shall be as determined by the facility staff. Consultant and Contractors are advised that due to the nature of this Facility, shift work and/or phased construction may be required. All costs related to site meetings, project inspections, regularly scheduled job meetings, etc., shall be included in the Consultant’s base bid.

5. Equipment Spare Parts List:

A spare parts list shall be prepared and items purchased, including a storage cabinet with keyed lock, as part of this project for all critical items necessary for the successful operation of the generator system.

6. Equipment Training:

The authorized service representative(s) shall train the facility personnel in the operation and maintenance of the new equipment and systems installed, including step-by-step troubleshooting with required test equipment. The representative shall be familiar with the installed items and have a minimum of 3 years of training experience.

Three (3) copies of the operation and maintenance manuals shall be prepared and presented to the Project Manager for reference.

7. Construction Work Area Requirements:

Indicate the location and dimensioned details for any temporary construction barriers for security and/or safety, plastic barriers for dust and dirt containment, and special covers for equipment protection during the removal and installation of the new equipment and system components. The design documents shall describe all salvage items that are to be retained by Client Agencies.

F. DESIGN MEETINGS & PRESENTATIONS

1. Design Meetings:

Conduct the appropriate number of review meetings with the Project Team members during each design phase of the project so they may determine if the project meets their requirements, question any aspect of the contract deliverables, and make changes where appropriate. The

Consultant shall describe the philosophy and process used in the development of the design criteria and the various alternatives considered to meet the project objectives. Selected studies, sketches, cost estimates, schedules, and other relevant information shall be presented to support the design solutions proposed. Special considerations shall also be addressed such as: Contractor site access limitations, utility shutdowns and switchover coordination, phased construction and schedule requirements, security restrictions, available swing space, material and equipment delivery dates, etc.

It shall also be the responsibility of the Consultant to arrange and require all critical Sub-Consultants to be in attendance at the design review meetings.

Record the minutes of each design meeting and distribute within three (3) calendar days to all attendees and those persons specified to be on the distribution list by the Project Manager.

2. Design Presentations:

The minimum number of design presentations required for each phase of this project is identified below for reference:

Investigation Phase: One (1) oral presentation at phase completion.

Design Development Phase:

One (1) working meeting halfway through phase at Woodbine Developmental Center.

One (1) oral presentation in Trenton (20 West State Street, 3rd Floor Conference Room) at phase completion.

Final Design Phase:

One (1) working meeting halfway through phase at Woodbine Developmental Center.

One (1) oral presentation in Trenton (20 West State Street, 3rd Floor Conference Room) at phase completion.

G. 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.

- Life Safety Drawings, Various Cottages, 1/26/2022, Lamme & Giorgio
- DPMC Project M1437-07: WBN Admin. Bldg. Generator Tap, 12/20/2011
- Powerhouse Drawings, Various Dates

- Utility Bills
- DPMC Project M1361-00: Cogeneration Study, July 16, 2008, Miller-Remick Corporation
- DPMC Project M1514-00: Powerhouse Stack Replacement, July 2020, Mott Macdonald
- Woodbine Electrical Single Line Diagram, 3/20/2009, Miller-Remick Corporation

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 X.A.

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>

PROJECT NAME: Electrical System Upgrades
PROJECT LOCATION: Woodbine Developmental Center
PROJECT NO: M1613-00
DATE: March 12, 2024

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 REBATE AND INCENTIVE PROGRAMS

The Consultant shall review any and all programs on the State and Federal level to determine if any proposed upgrades to the mechanical and/or electrical equipment and systems for this project qualify for approved rebates and incentives.

The Consultant shall review the programs available on the "New Jersey's Clean Energy Program" website at: <http://www.njcleanenergy.com> as well as federal websites and New Jersey electric and gas utility websites to determine if and how they can be applied to this project.

The Consultant shall identify all applicable rebates and incentives in their technical proposal and throughout the design phase.

The Consultant shall be responsible to complete the appropriate registration forms and applications, provide any applicable worksheets, manufacturer's specification sheets, calculations, attend meetings, and participate in all activities with designated representatives of the programs and utility companies to obtain the entitled financial incentives and rebates 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 DCA plan review fee) and include that amount in its fee proposal line item entitled **“Plan Review and Permit Fee Allowance”**. A breakdown of each permit and application fee shall be attached to the fee proposal for reference.

NOTE: The NJ Uniform Construction Code permit and DCA Plan Review fee 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. 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.

C. 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.

D. 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.

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

E. FEEDER REPLACEMENT ALLOWANCE

The Consultant shall estimate the cost to provide Design; Construction Administration, Permitting and Bid/Award services to remove and replace campus feeders and enter that amount into their fee proposal line item entitled, **“Feeder Replacement Allowance”**. Costs estimates shall include at a minimum the design for ensuring that residents are protected from trenching, concrete pads repair or replacement where feeders enter into buildings, and permit requirements.

Any funds remaining in the Feeder Replacement Allowance will be returned to the State at the close of the project.

PROJECT NAME: Electrical System Upgrades
PROJECT LOCATION: Woodbine Developmental Center
PROJECT NO: M1613-00
DATE: March 12, 2024

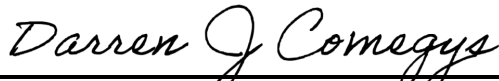
XI. SOW SIGNATURE APPROVAL SHEET

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:  3/12/2024
JAMES WRIGHT, MANAGER DATE
DPMC PROJECT PLANNING & INITIATION

SOW APPROVED BY:  3/12/24
CHRISTIAN CASTEEL, DIRECTOR DATE
DEPARTMENT OF HUMAN SERVICES

SOW APPROVED BY:  3/13/24
DARREN COMEGYS, PROJECT MANAGER DATE
DPMC PROJECT MANAGEMENT GROUP

SOW APPROVED BY:  3/14/24
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. SINGLE LINE DIAGRAM
- D. PHOTOS
- E. CAMPUS SITE PLAN ELECTRICAL/TELEPHONE
- F. GENERAL SITE REGULATIONS

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						

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						

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 Construction Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
18.2.	Pre-Construction Meeting						
18.3.	Submittal Log						
18.4.	Construction Schedule						
18.5.	Project Progress Meetings						
18.7.	Contractor’s Invoicing and Payment Process						
18.8.	Contractor Submittals						
18.10.	Testing						
18.11.	Shop Drawings (6 Sets)						
18.12.	As-Built & Record Set Drawings (6 Sets)						
18.13.	Change Orders						
18.14.	Construction Photographs						
18.15.	Field Observations						
18.17.	Construction Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements						

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	
CV3052	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'

© Primavera Systems, Inc.

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.

© Primavera Systems, Inc.

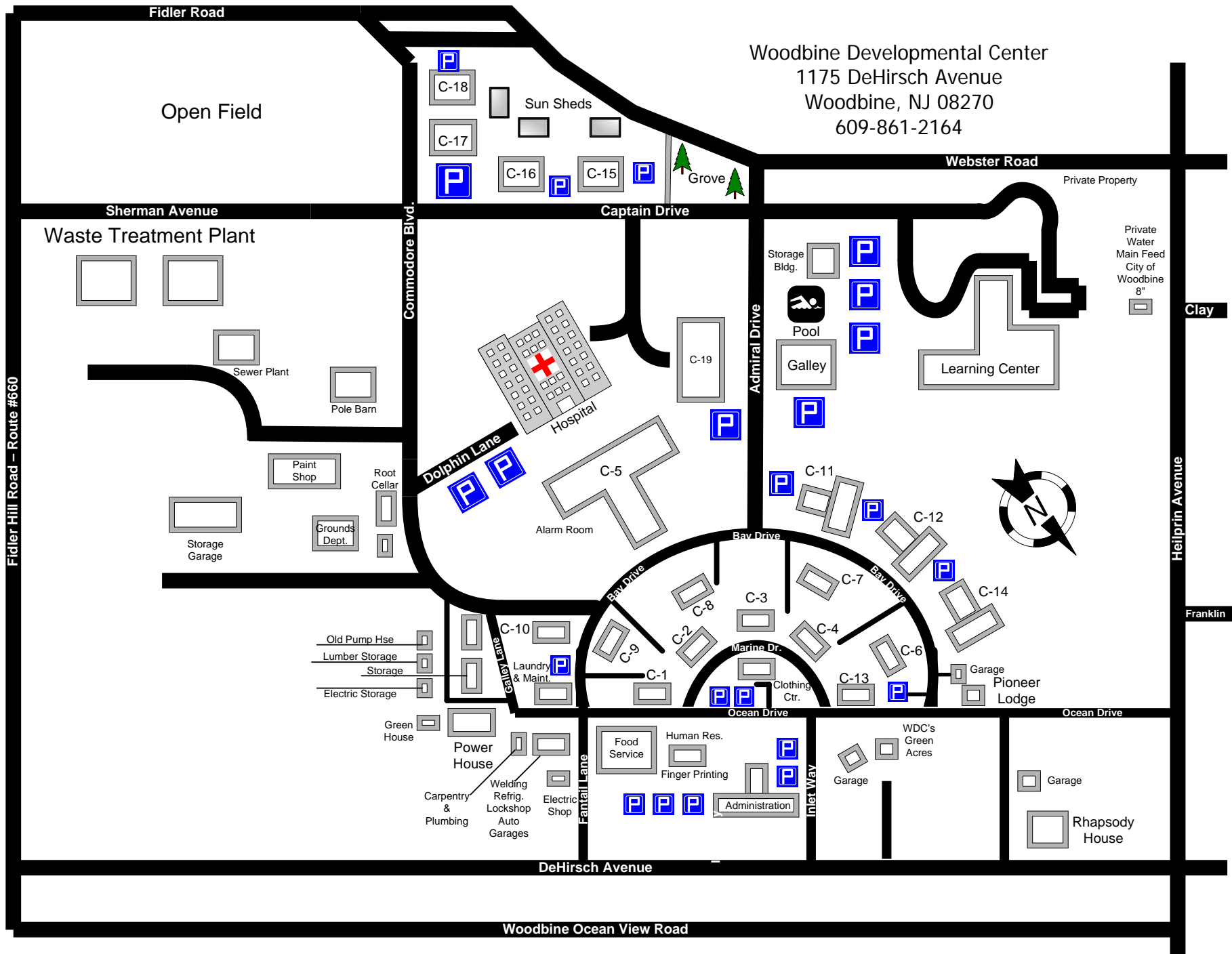
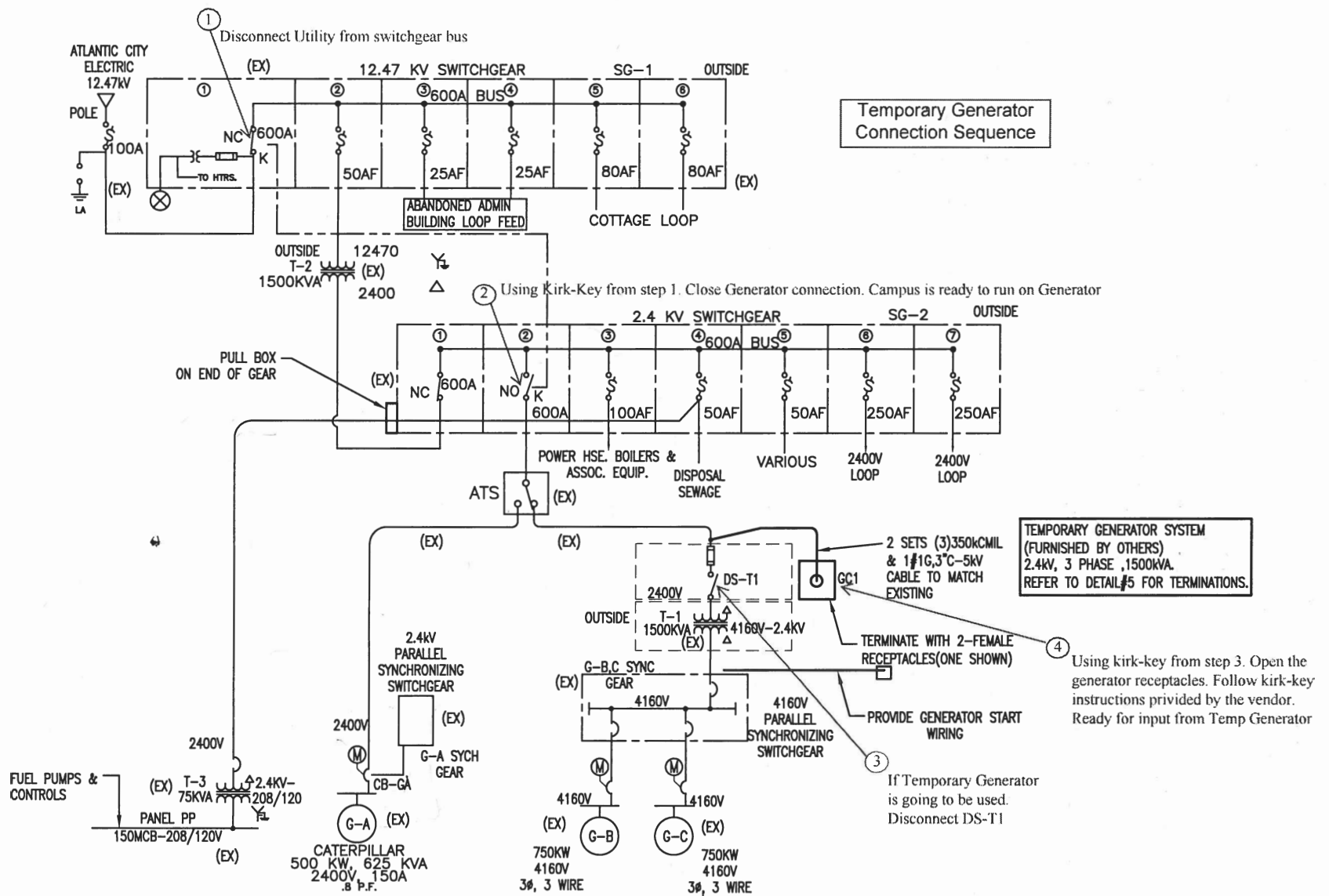


EXHIBIT 'B'



2 SINGLE LINE DIAGRAM
SCALE: NO SCALE

EXHIBIT 'C'



Main utility entrance from pole on left. 12.47KV and 2.4KV switchgear in green cabinets.



One of two 750KVA generators to be replaced. Other is similar and to the left.

EXHIBIT 'D'

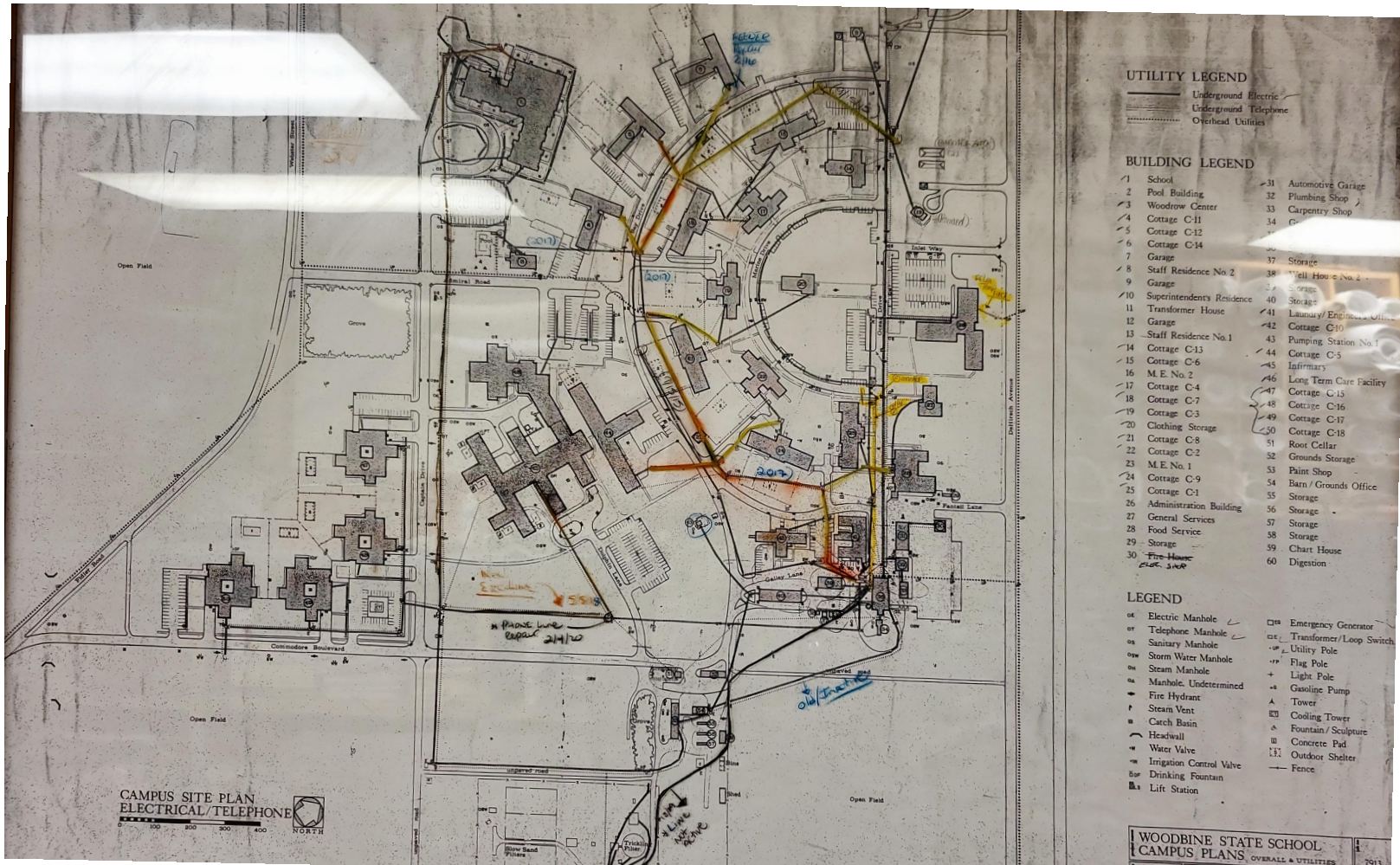


Caterpillar generator to be removed and not replaced.



Smaller tank is fuel tank for generators. To be evaluated.

EXHIBIT 'D'



UTILITY LEGEND

- Underground Electric
- Underground Telephone
- Overhead Utilities

BUILDING LEGEND

- | | |
|-------------------------------|----------------------------|
| 1 School | 31 Automotive Garage |
| 2 Pool Building | 32 Plumbing Shop |
| 3 Woodrow Center | 33 Carpentry Shop |
| 4 Cottage C-11 | 34 |
| 5 Cottage C-12 | |
| 6 Cottage C-14 | |
| 7 Garage | |
| 8 Staff Residence No. 2 | 37 Storage |
| 9 Garage | 38 Well House No. 2 |
| 10 Superintendent's Residence | 39 Storage |
| 11 Transformer House | 41 Laundry/Engine Utility |
| 12 Garage | 42 Cottage C-10 |
| 13 Staff Residence No. 1 | 43 Pumping Station No. 1 |
| 14 Cottage C-13 | 44 Cottage C-5 |
| 15 Cottage C-6 | 45 Infirmary |
| 16 M. E. No. 2 | 46 Long Term Care Facility |
| 17 Cottage C-4 | 47 Cottage C-15 |
| 18 Cottage C-7 | 48 Cottage C-16 |
| 19 Cottage C-3 | 49 Cottage C-17 |
| 20 Clothing Storage | 50 Cottage C-18 |
| 21 Cottage C-8 | 51 Root Cellar |
| 22 Cottage C-2 | 52 Grounds Storage |
| 23 M. E. No. 1 | 53 Paint Shop |
| 24 Cottage C-9 | 54 Barn / Grounds Office |
| 25 Cottage C-1 | 55 Storage |
| 26 Administration Building | 56 Storage |
| 27 General Services | 57 Storage |
| 28 Food Service | 58 Storage |
| 29 Storage | 59 Chart House |
| 30 Fire House | 60 Digestion |

LEGEND

- ⊙ Electric Manhole
- ⊙ Telephone Manhole
- ⊙ Sanitary Manhole
- ⊙ Storm Water Manhole
- ⊙ Steam Manhole
- ⊙ Manhole, Undetermined
- ⊙ Fire Hydrant
- ⊙ Steam Vent
- ⊙ Catch Basin
- ⊙ Headwall
- ⊙ Water Valve
- ⊙ Irrigation Control Valve
- ⊙ Drinking Fountain
- ⊙ Lift Station
- ⊙ Emergency Generator
- ⊙ Transformer / Loop Switch
- ⊙ Utility Pole
- ⊙ Flag Pole
- ⊙ Light Pole
- ⊙ Gasoline Pump
- ⊙ Tower
- ⊙ Cooling Tower
- ⊙ Fountain / Sculpture
- ⊙ Concrete Pad
- ⊙ Outdoor Shelter
- Fence

CAMPUS SITE PLAN
ELECTRICAL/TELEPHONE

WOODBINE STATE SCHOOL
CAMPUS PLANS, OVERALL & UTILITIES 1913

EXHIBIT 'E'

Woodbine Developmental Center – Engineering Department

A. GENERAL SITE REGULATIONS

UNLESS OTHERWISE SPECIFIED IN THE SOW, THE FOLLOWING REPRESENTS THE GUIDELINES FOR WORK PERFORMED AT WOODBINE DEVELOPMENTAL CENTER.

1. Contractors and their Employees are authorized to be on grounds only during the performance of work related to the project.
2. The speed limit is 15 mph on grounds. Yield to all pedestrian traffic. Resident population is severely handicapped, some are blind, some are deaf; many do not possess good pedestrian skills.
3. Do not give anything to a resident. This includes food, money and cigarettes.
4. It is not permitted to photograph any resident.
5. Smoking is permitted in designated areas only. Matches and cigarette butts pose a life threatening danger to some of our residents and must be disposed in an appropriate receptacle.
6. Contractor will be responsible to police the construction area keeping it free of debris and litter.
7. Vehicles and operating equipment is to be off and secure whenever not in use. All tools and equipment are to be secured at the end of the work day. If kept on site, they must be stored within a fenced work staging area. WDC will not assume responsibility for any missing articles.
8. To minimize the disruption to unexcavated areas and enhance the protection of fragile underground utilities, ground mats are to be used if heavy equipment (cranes, tractor trailers, dumpsters) is expected to travel over or operate from unpaved areas.
9. Active construction, staging and equipment storage areas are to be fenced and secured (6 foot chain link preferred) at all times to prevent residents and employees from wandering inside.
10. Possession and/or consumption of alcoholic beverages or drugs are prohibited, by law, anywhere on State property.
11. Please Note: As available, prints of the site's utilities may have been provided by the facility. Understand that the prints are general and that we have encountered situations where they are not accurate. Contractor should determine the actual location of any utility within the construction zone.

B. HOURS OF WORK

1. Work will occur Monday through Friday only. Any work on Saturday, Sunday, or state Holiday must be approved by the project coordinator and the WDC Engineering Office. A two day (48 hour) notice is required.
2. Project work will not begin before 7:30am.
3. WDC Engineering Office is to be notified whenever project work is to occur beyond 4:30pm. A two day (48 hour) notice is required. Approval for ongoing work which is required to be completed that day should be sought by project manager/site foreman as soon as he becomes aware of the need. Facility will work with project manager to accommodate unanticipated needs.
4. No work will occur past dusk without 48 hours notice and approval of the WDC Engineering Office.
5. The facility requires a minimum of 48 hours notice for any contractor operation such as large material deliveries, power tie-ins, etc, that will impact or potentially disrupt facility operations.