



State of West Virginia  
 Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

**Solicitation**

|          |
|----------|
| NUMBER   |
| COR61694 |

|      |
|------|
| PAGE |
| 1    |

|   |
|---|
| ADDRESS CORRESPONDENCE TO ATTENTION OF: |
| TARA LYLE                               |
| 304-558-2544                            |

VENDOR

RFQ COPY  
 TYPE NAME/ADDRESS HERE

CMA Engineering  
 824 Cross Lanes Drive  
 Charleston, WV 25313

SHIP TO

DIVISION OF CORRECTIONS  
 1409 GREENBRIER ST  
 CHARLESTON, WV  
 25311 304-558-8045

|              |
|--------------|
| DATE PRINTED |
| 03/26/2014   |

BID OPENING DATE: 05/06/2014 BID OPENING TIME 1:30PM

| LINE  | QUANTITY | UOP | CAT NO. | ITEM NUMBER   | UNIT PRICE | AMOUNT |
|---|----------|-----|---------|---------------|------------|--------|
| *****<br>PLEASE NOTE: A MANDATORY PRE-BID MEETING HAS BEEN<br>SCHEDULED FOR 04/23/2014 AT 10:00 AM AT THE<br>HUTTONSVILLE CORRECTIONAL CENTER LOCATED AT ROUTE<br>219/250 SOUTH HUTTONSVILLE, WV 26273.<br>*****  |          |     |         |               |            |        |
| 0001  | 1        | EA  |         | 906-00-00-001 |            |        |
| ARCHITECT/ENGINEERING SERVICES, PROFESSIONAL  |          |     |         |               |            |        |
| EXPRESSION OF INTEREST (EOI)<br><br>THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY,<br>WV DIVISION OF CORRECTIONS, IS SOLICITING EXPRESSIONS<br>OF INTEREST TO PROVIDE ARCHITECTURAL AND ENGINEERING<br>SERVICES FOR THE HUTTONSVILLE CORRECTIONAL CENTER<br>LOCATED IN RANDOLPH COUNTY, WV, PER THE ATTACHED<br>SPECIFICATIONS.<br><br>ATTACHMENTS INCLUDE:<br><br>COR61694 EXPRESSION OF INTEREST<br>INSTRUCTIONS TO VENDORS SUBMITTING BIDS<br>GENERAL TERMS AND CONDITIONS<br>CERTIFICATION AND SIGNATURE PAGE<br>PURCHASING AFFIDAVIT |          |     |         |               |            |        |

06/17/14 03:55:50PM  
 West Virginia Purchasing Division

|                                       |                             |                                   |
|---------------------------------------|-----------------------------|-----------------------------------|
| SIGNATURE<br><i>Daniel Lee Ellars</i> | TELEPHONE<br>(304) 343-0316 | DATE<br>June 17, 2014             |
| TITLE<br>Principal                    | FEIN<br>55-0659239          | ADDRESS CHANGES TO BE NOTED ABOVE |

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

**CERTIFICATION AND SIGNATURE PAGE**

By signing below, I certify that I have reviewed this Solicitation in its entirety, understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

CMA Engineering  
(Company)

*Daniel Lee Ellars*  
(Authorized Signature)

Daniel L. Ellars, Principal  
(Representative Name, Title)

(304) 343-0316      (304) 343-5146  
(Phone Number)                      (Fax Number)

June 17, 2014  
(Date)

**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: COR61694**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

(Check the box next to each addendum received)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7  |
| <input checked="" type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8  |
| <input checked="" type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9  |
| <input checked="" type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

CMA Engineering

Company

*Daniel Lee Ellan*

Authorized Signature

June 17, 2014

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

June 18, 2014

Ms. Tara Lyle  
State of West Virginia  
Department of Administration  
Purchasing Division  
2019 Washington Street East  
Post Office Box 50130  
Charleston, WV 25305-0130

Subject: Electrical Engineering Services Submittal Regarding  
Solicitation for Expression of Interest #COR61694

Project: Provide Professional Engineering Services for the  
Emergency Power Systems and Electrical Issues at  
Huttonsville Correctional Center  
Huttonsville, WV

Dear Ms. Lyle,

CMA Engineering Inc. (CMA) is pleased to offer our expression of interest to provide electrical engineering services for the emergency power systems and electrical issues solutions at the Huttonsville Correctional Center.

Please find our submittal enclosed.

We appreciate the opportunity to serve the center to provide reliable alternative power systems.

Sincerely,  
CMA Engineering, Inc.



Daniel Lee Ellars, P.E.  
Principal  
DLE

## Table of Contents

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Clingenpeel/McBrayer & Associates, Inc.

824 Cross Lanes Drive Charleston WV, 25313

5 Riddle Court Morgantown, WV 26505

(304) 343-0316 phone (304) 343-5146 fax

(304) 598-2558 phone (304) 598-2472 fax

It is understood that the ideal goal of the project is to provide full (100%) back-up emergency power for twenty-one (21) individual power services out of a total of twenty-five (25) power services at the facility and to consolidate all of those services into one (1) primary-voltage service with on-site power generation at a substation in one location. It is also understood that the most critically needed single service is for the main building and the rest of the services as a group are secondary in priority, that the emergency power systems for these remaining services may be shed, as needed, should either operational or economic restraints require it.

Ideally, to provide this new emergency service, Mon Power (First Energy), the local power utility, will need to be involved to consolidate all twenty-one (21) individual low-voltage services involved into the one (1) primary-metered, medium-voltage service. Early coordination with the utility will be required to determine the optimal physical location of this primary-metered service and substation. The local utility's responsible account managers will also need to be involved to research and analyze the resulting new combined loads for the new service to determine the most beneficial utility rate structure available for the owner.

If either operational or economic constraints require it, the approach described above can be reduced in overall size to serve fewer existing services and/or broken up into multiple smaller versions of the same type. Two (2) or more smaller, primary-metered substations could be built, each with its own on-site power generation, to serve a select number of existing services. To reduce installation costs, the existing overhead service poles and cables and underground service cables and conduit may be retained by the owner as approved by the utility. For any of these approaches, since no new electrical loads are being added to the facility at this time, the utility will have to remove various transformers at the Owner's expense. As part of this project, the owner's contractor will then be responsible to provide and install new similar transformers in their place. In addition to the new substation(s) consisting of switchgear and on-site generation, the utility will have additional charges for the owner to build the required primary-metered service structure(s) with the necessary equipment. A thorough accounting and estimate of the additional long-term maintenance costs for the transformers, engine/generator set(s) and switchgear will be in order as new operating budget items for the owner. Maintenance agreements are recommended to provide proper service for the new equipment.

For the one or more substations to be built, each will have switchgear with its own overcurrent, ground-fault, and surge protection devices coordinated with a new lightning protection system for the entire facility or whatever structures are being served by these stations. At the one or more stations, if total load capacity allows, each may have a single diesel-fired engine/generator set or multiple sets, particularly if any redundancy is required in case of equipment failure. Multiple engine/generator sets will require paralleling switchgear. Load shedding equipment and programming can also be included, if required, to allow less critical loads to be shed due to future additional loads and/or equipment failure. The multiple substation approach inherently provides some of these features simply by breaking up and distributing the emergency power system into smaller units which is typically the preferred approach. Of course, if the combined existing and future anticipated loads will allow it, one substation with one large single engine/generator set can be provided. However, one large system also provides a single point of failure which can remove power from the entire facility at any given instant of operation.

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Regardless of the approaches described, both existing loads and future anticipated loads, like cooling, will need to be taken into account and both the normal and emergency power systems' capacities designed to serve them. An accurate estimate of any future loads will be required. Of course, both existing and future loads can be removed from the power distribution system by various methods, as required, if they are not to be operated while on emergency power. Shunt-trip circuit breakers and control systems can be installed to address each piece of equipment or circuit that is not to be operated while on generator. This can substantially reduce the size of on-site generation equipment required. Other measures, particularly with large equipment, can be instituted to provide stepped or staggered startups while on generator to lessen their impacts on the system, decreasing required capacity.

The approaches described above will intercept the existing incoming power service to provide full backup of the facility areas served. Therefore, the existing emergency power systems (engine/generator sets, transfer switches, and associated cabling, conduits, and devices) can be removed later as required and do not have to be removed as part of this project. Since all known instances of power system imbalance and the resulting equipment failure and damages have been encountered while on emergency power, these problems are solved simply by eliminating these existing systems entirely. The owner can even take extended time to demolish and remove the old emergency power systems and equipment as separate smaller projects on a piece-by-piece basis as future maintenance budgets allow.

Regarding the need for a complete, field-verified, working one-line diagram of the entire facility for this project, the approaches described above do not require this for design and implementation. This additional field work and the resulting diagram can be provided, if required. As part of this project, a detailed and complete diagram will be generated of the new power entrance service(s) and the associated switchgear and on-site generation equipment from the power utility's system to the various, existing service entrance switchgear for the individual services. The remaining existing distribution systems can be diagrammed as part of this project or left as a future project at the owner's discretion.

### *Experience*

**Daniel L. Ellars, P.E., LEED AP BD+C** has over seventeen years experience with American Electric Power (AEP) including: eight years as a marketing and customer services representative providing advice and coordination for new construction, additions, renovations and energy audits, seven years as a performance engineer at the coal-fired John E. Amos Power Plant providing testing, maintenance and troubleshooting of various small and large mechanical and electrical power production related systems, and over two years as business services staff engineer providing training and technical services to the various commercial and industrial account managers serving the needs of various large customers. Mr. Ellars also served as the project manager for AEP'S prime and emergency power systems program to provide on-site power generation solutions to small and large, commercial and industrial customers across AEP's seven-state territory.

### *Services*

**CMA Engineering** is a West Virginia based small business firm, providing services in the areas of HVAC, plumbing, fire protection and electrical engineering. Incorporated in 1986, our firm has always believed that a successful project requires a comprehensive approach. This includes all facets of project development, starting with master planning, working closely with the client, developing the completed construction documents, and working with contractors during the bidding and construction administration phases. However, our depth of expertise goes far beyond the traditional design/bid/build service. CMA Engineering is a proven leader in the design/build delivery method. From developing the performance design criteria for owners to designing the mechanical, electrical and plumbing systems for contractors, CMA has an impressive portfolio of design/build experience.

CMA Engineering maintains its reputation of design and service quality by keeping informed of the latest innovations and technical trends regarding energy-efficiency and sustainability in mechanical, electrical and plumbing design. CMA is the engineer on record for the design/build team for the new West Virginia Consolidated DEP Office Building, the first LEED certified building in the State. Our staff includes an accredited professional for the Leadership in Environmental and Energy Design (LEED) and we incorporate the most efficient and sustainable "green" designs in all of our projects.

### *History*

CMA Engineering has provided engineering design services on numerous projects of varying size and complexity. Clients include architects, industrial companies, governmental agencies, contractors, engineers, developers and private organizations. With offices strategically located in Charleston and Morgantown, our professional staff can provide clients with exceptional hands-on services for planning, meetings, site visits and construction administration without effecting the project's budget.

### *Commitment*

We are committing senior design professionals in order to assure that you receive top priority. Present staffing allows CMA to complete work in a timely manner without limiting our ability to perform our ongoing work. The staff of CMA is large enough to handle any size project, yet small enough for direct input and supervision by key personnel.

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# CERTIFICATE OF *Authorization*

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

*The West Virginia State Board of Registration for Professional Engineers  
having verified the person in responsible charge is registered in  
West Virginia as a professional engineer for the noted firm, hereby certifies*

**CLINGENPEEL/MCBRAYER & ASSOCIATES, INC.  
C00125-00**

**Engineer in Responsible Charge: DANIEL ELLARS - WV PE 013745**

*has complied with section §30-13-17 of the West Virginia Code governing  
the issuance of a Certificate of Authorization. The Board hereby notifies you of its  
certification with issuance of this Certification of Authorization for the period of:*

**July 1, 2014 - June 30, 2015**

*providing for the practice of engineering services in the State of West Virginia.*

IF YOU ARE REQUIRED TO REGISTER WITH THE SECRETARY OF STATE'S OFFICE,  
PLEASE SUBMIT THIS CERTIFICATE WITH YOUR APPLICATION.



IN TESTIMONY WHEREOF, THE WEST VIRGINIA STATE BOARD OF  
REGISTRATION FOR PROFESSIONAL ENGINEERS HAS ISSUED THIS COA  
UNDER ITS SEAL, AND SIGNED BY THE PRESIDENT OF SAID BOARD.

A stylized, handwritten signature in black ink, consisting of several sweeping strokes.

BOARD PRESIDENT

|                                    |                                      |
|------------------------------------|--------------------------------------|
| WVNG Elkins Reserve Center         | Davis Memorial Hospital              |
| WVNG Moorefield Readiness Center   | Princeton Health Care Systems        |
| WVNG Dunbar Armory                 | WVDOH-District 9 Headquarters        |
| WVNG Welch Armory                  | WVDOH-District 1 Headquarters        |
| WVNG Bluefield Armory              | WVDOH-District 8 Equipment Shop      |
| WVNG Gassaway Armory               | WVDOH –District 10 Headquarters      |
| WVNG Lewisburg Readiness Center    | Sissonville Middle School            |
| WVNG Summersville Readiness Center | Pikeview Middle School               |
| WVNG Eleanor Readiness Center      | Pressley Ridge                       |
| WVNG Eleanor Maintenance Center    | Fairdale Elementary School           |
| Monongalia County Office Building  | Yeager Airport                       |
| Putnam County 911 Center           | Tri-State Gaming Center              |
| Wetzel County 911 Center           | Pruntytown Emergency Generator       |
| Raleigh County 911 Center          | Bridgeport Police/Fire Station       |
| Randolph County 911 Center         | White Sulfur Springs Fire House      |
| Lincoln County 911 Center          | Deep Creek Volunteer Fire Department |
| Romney WTP & Pump Station          | Pocahontas County PSD                |
| Huttonsville PSD WTP               | South Putnam PSD                     |
| Rowlesburg WTP                     | City of Weston PSD                   |
| Coalwood WTP Addition              | Preston County PSD                   |
| Jane Lew Treatment Building        | Weirton WWTP                         |
| Malden PSD Pump Station            | Boone-Raleigh WTP                    |
| Sun Valley PSD Sanitary Sewer      | Nitro Lift Station                   |

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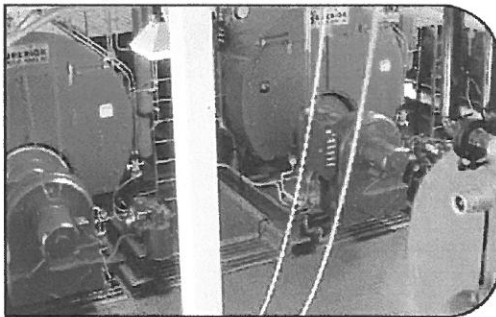
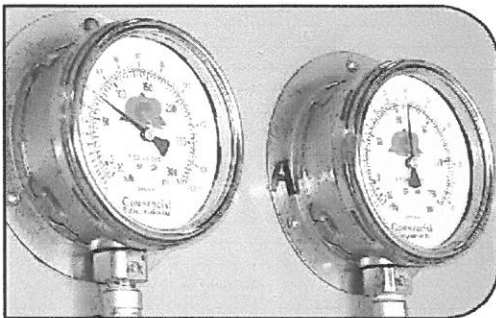
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(304) 598-2558 phone (304) 598-2472 fax

# M E C H A N I C A L

CMA Engineering experience includes:

- Constant Volume Air Handling Systems
- Variable Volume Air Handling Systems
- Demand Control Ventilation Systems
- Natorium Dehumidification Systems
- Building Energy and Management Control Systems
- Industrial Ventilation and Exhaust Systems
- Steam and Condensate Systems
- Cooling Plants and Distribution
- Heating Plants and Distribution
- Energy Recovery Systems
- Water Source Heat Pump Systems
- Low, Medium and High Pressure Air Distribution Systems
- Direct Digital, Pneumatic and Hybrid Control Systems
- Kitchen Ventilation and Exhaust Systems



*(top)* Ruby Memorial Hospital—Morgantown, WV  
HVAC Exhaust System

*(middle)* Memorial Ice Rink—South Charleston, WV  
Refrigerant Pressure Gages

*(bottom)* Alderson Federal Correctional Facility—Alderson, WV  
Steam Plant



Clingenpeel/McBrayer & Associates, Inc.

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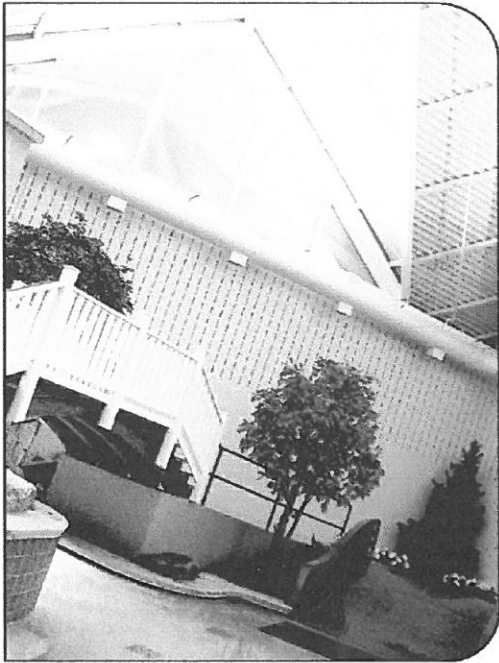
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(304) 598-2472 fax

[www.cma.wv.com](http://www.cma.wv.com)

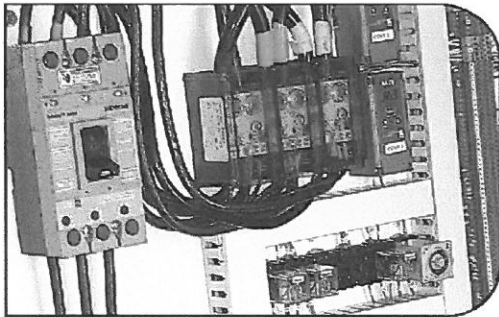
# ELECTRICAL

CMA Engineering experience includes:

- Underground Ducts and Utility Structures
- Intrusion Detection
- Closed Circuit Television
- Cable and Master Antenna Television
- Medium Voltage Distribution and Substations
- Secondary Voltage Distribution
- Engine Generators and Battery Inverters
- Transient Voltage Suppression
- Interior Lighting
- Exterior Lighting
- Sports Lighting
- Theatrical Lighting
- Lighting Control
- Uninterruptible Power Supply Systems
- Lightning Protection
- Intercommunications Systems
- Nurse Call
- Voice and Data Systems
- Fire Detection Systems



(above) Split Rock Pools—Snowshoe, WV  
Indirect Lighting System



(below) Memorial Ice Rink—South Charleston, WV  
Chiller Power and Control Panel



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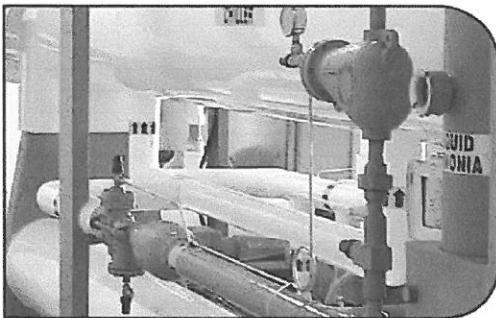
5 Riddle Court  
Morgantown, West Virginia 26505  
(304) 598-2558 tel  
(304) 598-2472 fax

[www.cma.wv.com](http://www.cma.wv.com)

## PLUMBING & PIPING

CMA Engineering experience includes:

Sanitary Sewer Systems  
Storm Sewer Systems  
Natural Gas Distribution  
LP Gas Distribution  
Fuel-Oil Distribution  
Compressed Air Systems  
Vacuum Systems  
Chemical Waste Systems  
Process Water Systems  
Deionized Water Systems  
Domestic Water Systems  
Helium Distribution Systems  
Domestic Water Pumping Systems  
Sewage Pumping Systems  
Water Heating  
Automatic Fire Sprinkler Systems  
Standpipe Systems  
Fire Pumps, Storage Tanks, Service Mains  
Medical Gas Systems



(top) Split Rock Pools—Snowshoe, WV  
Piping & Pump Room

(middle) Memorial Ice Rink—South Charleston, WV  
Piping & Chilling

(bottom) Alderson Federal Correctional Facility—Alderson, WV  
Steam Piping



Clingenpeel/McBrayer & Associates, Inc.

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[www.cma.wv.com](http://www.cma.wv.com)

Mylan Pharmaceuticals  
P.O. Box 4310  
Morgantown, WV 26505  
Contact: Mr. J. J. Dotson  
(304) 599-2595

Davis Memorial Hospital  
P.O. Box 1484  
Elkins, WV 26241  
Contact: Steve Johnson  
(304) 637-3129

Concord University  
P.O. Box 1000  
Athens, WV 24712  
Contact: Mr. John Ferguson  
(304) 384-5233

Kanawha County Schools  
3300 Pennsylvania Avenue  
Charleston, WV 25302  
Contact: Mr. Charles Wilson  
(304) 348-6148

Yeager Airport  
100 Airport Road  
Charleston, WV 25311  
Contact: Mr. Rick Atkinson  
(304) 344-8033

State of West Virginia  
1900 Kanawha Blvd, East  
Bldg. 1, Room MB-60  
Charleston, WV 25305  
Contact: Mr. Robert Kilpatrick  
(304) 558-0250

West Virginia University  
P.O. Box 0877  
Morgantown, WV 26505  
Contact: Mr. John Thompson  
(304) 293-3625

Harrison County Schools  
P.O. Box 1370  
Clarksburg, WV 26302  
Contact: Mr. Neil Quinn

Clingenpeel/McBrayer & Associates, Inc.

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## Daniel L. Ellars, P. E., LEED AP BD+C

Principal  
Electrical Engineer  
(304) 343-0316  
dellars@cmawv.com

### Education

West Virginia University Institute of Technology  
Montgomery, WV  
Bachelor of Science in Electrical Engineering

West Virginia State University  
Institute, WV  
Bachelor of Science in Business Administration

### Registrations/Professional Affiliations

Registered Professional Engineer in WV, PA  
Leadership in Energy & Environmental Design-  
Accredited Professional-Building Design and  
Construction  
U..S. Green Building Council  
Member of ASHRAE  
National Fire Protection Association  
Institute of Electrical & Electronics Engineers  
WV Chapter of A.I.A.

### Experience

Daniel Ellars, senior electrical engineer for CMA Engineering, brings 25 years of electrical design and project management experience to our clients.

### Project Experience

#### Recreational Facilities

Summit Bechtel National Scout Reserve  
Canaan Valley Ski Resort

#### Emergency Power Systems Design

WVNG-Dunbar Armory  
WVNG-Welch Armory  
WVNG-Bluefield Armory  
Davis Memorial Hospital Addition  
Monongalia County Law Enforcement Facility  
Putnam County 911 Center  
Clarksburg Data Center  
Roane General Hospital  
Huttonsville WTP  
Rowlesburg WTP

#### Military Experience

New Moorefield Readiness Center  
New Elkins Readiness Center  
St. Albans Armory-Addition and Renovations  
Gassaway Armory-Addition and Renovations

#### WV Department of Transportation

New District 1 Administration Building  
New District 8 Equipment Shop  
Multi-District Utility Service Study

Clingenpeel/McBrayer & Associates, Inc.

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# Your ACTIVE PE renewal fee has been received...

Your ACTIVE PE renewal fee has been received. Your pocket card indicating you are entitled to practice engineering in West Virginia until June 30, 2015 may be detached and used until that date unless invalidated as a result of Board audit of your renewal form or formal disciplinary action.

## IMPORTANT REMINDERS:

1. Please include your WV ACTIVE PE license number on any correspondence to this office.
2. Please sign the back of this pocket card and carry the registration with you.
3. You are required to immediately notify the Board, in writing, of the following: loss or theft of license or seal, any name change, any address change, or any employment change.

**West Virginia State Board of Registration  
for Professional Engineers**  
300 Capitol Street, Suite 910  
Charleston, West Virginia 25301  
304-558-3554 Phone  
800-324-6170 Toll Free

## THIS IS YOUR RENEWAL PAYMENT RECEIPT

(in addition to your secondary records of either a canceled check or credit card statement, as well as a confirmation email and printed confirmation page if renewing via our website)

PLEASE SAVE THIS FOR YOUR RECORDS



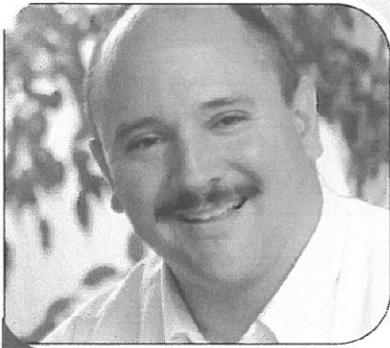
**West Virginia State Board of Registration  
for Professional Engineers**

**DANIEL L ELLARS  
WV PE # 13745**

This is to certify that the above named PROFESSIONAL ENGINEER has met the requirements of the law, is duly registered and is entitled to practice engineering in the State of West Virginia.

**EXPIRES June 30, 2015**





## Timothy L. Cox, P. E., CBCP

President  
Mechanical Engineer  
(304) 598-2558  
tcox@cmawv.com

### Education

University of Colorado  
Boulder, Colorado  
Bachelor of Science in Mechanical Engineering

### Registrations/Professional Affiliations

Registered Professional Engineer in WV, VA, MD, KY  
Association of Energy Engineers-CBCP  
CPD (Certified in Plumbing Engineering)  
Member of ASHRAE  
American Society of Plumbing Engineers  
National Association of Fire Protection Engineers  
WV Society of Healthcare Engineers  
WV Chapter of A.I.A.

### Experience

Timothy Cox, President and Senior Mechanical Engineer of CMA Engineering, brings 30 years of mechanical and plumbing design experience to our clients. Timothy is a Certified Building Commissioning Professional through Association of Energy Engineers.

### Project Experience

#### Design/Build-Criteria Development

Morgantown Events Center  
West Virginia University Intermodal Parking  
Marshall University Parking Facility  
Yeager Airport Facility

#### Educational Facilities K-12

New Rainelle Elementary School  
New Lewisburg Elementary School  
Salem Middle School Classroom Addition  
South Harrison High School HVAC Replacement  
South Harrison Middle School HVAC Upgrades  
Nutter Fort Elementary Addition

#### West Virginia University-Open End Contract since 1999

Coliseum Life Safety Renovations  
New Soccer Stadium  
New Wrestling Training Facility  
Engineering Science Building Addition & Renovations

#### Military Experience

New Moorefield Readiness Center  
New Elkins Readiness Center

#### Mylan Pharmaceuticals, Morgantown, WV

Various projects including HVAC plumbing, fire sprinkler and controls for new North Plant expansion, office building, fluid bed addition, parking garage and weighing and packaging

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Confirmation Number: 20140616357905  
TIMOTHY COX  
License Number: [REDACTED]  
Amount: \$40.00

Send a confirmation to my email:



for Professional Engineers

TIMOTHY L COX  
WV PE [REDACTED]

This is to certify that the above named PROFESSIONAL ENGINEER has met the requirements of the law, is duly registered and is entitled to practice engineering in the State of West Virginia.

EXPIRES June 30, 2014



## Matthew C. Corathers, P.E.

Mechanical Engineer  
(304) 598-2558  
mcorathers@cmawv.com

### Education

West Virginia University  
Morgantown, WV  
Bachelor of Science in Mechanical Engineering

### Registrations/Professional Affiliations

Registered Professional Engineer in WV  
Member of ASHRAE  
WV Society of Healthcare Engineers

### Experience

Matthew Corathers, mechanical engineer, joined CMA's professional staff in 2008.

### Project Experience

#### West Virginia University

New two-story Child Care Facility  
Engineering Science Building- Laboratory Renovations

#### Hospital Experience

Davis Memorial Hospital-New Addition  
Monongalia General Hospital-Renovations to IT Workroom Cooling  
United Hospital Center-New MRI facility  
VA Hospital, Clarksburg, WV-Renovations to Dental Lab  
Mercer County Nursing Home-Addition

#### Court Houses

Randolph County Courthouse-Mechanical design for completion of two-story addition and modifications of the existing second floor to be used by the Family Court  
Monongalia County Family Court-Renovations

#### Educational Facilities

Harrison County Schools-Fire Alarm replacement at Robert C. Byrd High School, Nutter Fort Elementary and Lost Creek Elementary  
University High School-HVAC Upgrades for use as a middle school  
New Rainelle Elementary School-HVAC Design  
Aurora Elementary School Addition-Mechanical Design

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# West Virginia State Board of Registration for Professional Engineers

## *Thank You*

Thank you for your payment [Save Confirmation](#)

Confirmation Number: 20140616357899

MATTHEW CORATHERS

License Number: [REDACTED]

Amount: \$40.00

Send a confirmation to my email:

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West Virginia State Board of Registration for Professional Engineers  
300 Capitol Street - Suite 910, Charleston, West Virginia 25301  
(304) 558-3554 | [info@wvpebd.org](mailto:info@wvpebd.org)

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## Larry A. Weese

Plumbing Designer  
(304) 343-0316  
lweese@cmawv.com

### Education

West Virginia University  
Morgantown, WV  
Master of Science, Bachelor of Science-  
Division of Forestry

### Professional Development

Various seminars and technical sessions

### Experience

Larry Weese brings 20 years of mechanical and plumbing design and project management experience to our clients.

### Project Experience

#### Educational Facilities K-12

New Sissonville Middle School  
New Lewisburg Elementary School  
New Talcott Elementary School  
New Fairdale Elementary School  
Nitro High School Toilet Renovations  
Nitro High School HVAC Upgrades  
Shady Springs High School HVAC Upgrades  
Shady Springs High School Addition  
Liberty High School HVAC Upgrades

#### WV Department of Highways

New District 1 Administration Building  
New District 8 Equipment Shop

#### Emergency Response Facilities

Randolph County 911-New Facility  
Mason County 911-New Facility  
Raleigh County 911-New Facility  
Orchard Manor Fire Station-New Facility

#### Industrial Experience

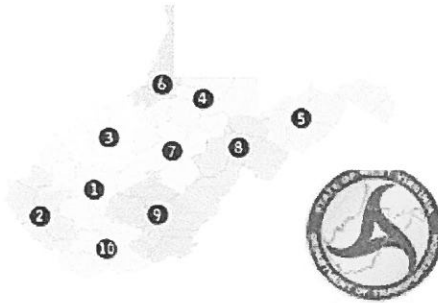
Standard Laboratories-Laboratory Addition  
Dow Process Control-New Facility  
Diamond Electric-Expansion

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## West Virginia Department of Highways



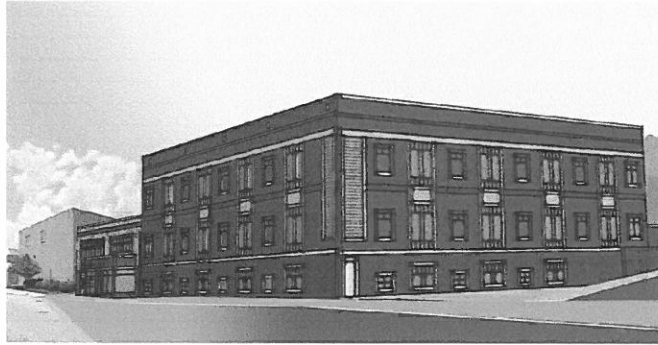
CMA Engineering provided research and design services for a technical study to determine all utility-related loads for four (4) separate building designs for each of the ten (10) WVDOH District Headquarters Offices around the State. Designs were evaluated for both gas-heated and all electric buildings with the resulting utility loads and data tabulated for each building design. This information can be used for utility service applications for any location in the State. In each case, an on-site, standby emergency power system was designed to provide full, 100% back-up of all power requirements.

Owner Contact: Brian Cooper  
WV Department of Highways  
(304) 637-0220  
brian.k.cooper@wv.gov

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## Davis Memorial Hospital Addition



CMA provided mechanical, electrical, plumbing, and fire protection engineering services for the new 45,000sf Outpatient Clinical and Physicians Office Building and the new 24,000sf section which houses the new registration area and connects the new medical center with the hospital. Electrical design included an on-site, standby emergency power system. The system was designed with flexibility to serve additional future loads such as an additional chiller coupled with an additional future engine/generator set.

Note: By using local West Virginia architects, engineers and contractors and with Steve Johnson acting as construction manager, the construction cost for these new additions was \$135.00 per square foot.

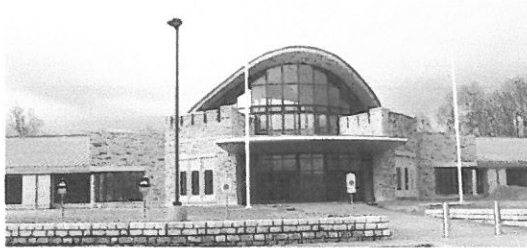
Owner Contact: Steve Johnson  
Davis Memorial Hospital  
(304) 637-3129

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## Elkins Armed Forces Reserve Center



CMA Engineering provided design and contract administration services for a new 54,500sf all-electric armory facility including an on-site, standby emergency power system designed to provide about 40% of the overall power requirements of the facility in addition to an electrically driven fire pump. Plans were provided to allow an additional engine/generator set to be installed to more than double the system's capacity in the future. Designs included a portable on-site, standby emergency power system for the facility's lift station, and coordination of the campus' complete underground medium-voltage power and telecommunications systems.

Owner Contact: Major Rocky Hodges  
WV Army National Guard  
(304) 561-6353  
Rocky.Hodges@us.army.mil

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## Moorefield Readiness Center



CMA Engineering provided design and contract administration services for a new 57,100sf armory facility including an on-site, standby emergency power system designed to provide 100% of the overall power requirements of the facility in addition to an electrically-driven fire pump. The building consists of an armory combined with a 911 center. Designs included a coordination of the campus' complete underground medium-voltage power and telecommunications systems and separation of the armory's and 911 center's telecommunication networks.

Owner Contact: Major Rocky Hodges  
WV Army National Guard  
(304) 561-6353  
Rocky.Hodges@us.army.mil

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## Summit Bechtel National Scout Reserve



CMA Engineering provided the electrical designs and specifications for the recently completed Summit Bechtel National Scout Reserve (SBNSR) at Mount Hope, WV. SBNSR is to serve as the new permanent home and headquarters for the Boy Scouts of America (BSA) for their quadrennial National and World Jamborees and for their annual High Adventures and other various activities and events. CMA was instrumental in the early design phases of the project to ascertain the specific needs of the BSA for the facility, to identify required power loads, and to prioritize these loads in order of their necessity. Working closely with the BSA, with a host of their national and international consultants, and with American Electric Power (AEP), CMA compiled load data and made calculations of various power scenarios for the campus. A maximum of 7 MegaWatts was allowed for the facility and the designs were completed based on value. As a result, over 20 miles of single-phase and three-phase medium-voltage cables and the associated conduits were installed underground along the roadways for the new campus comprising six different campsites and a core area spread over more than 1,000 acres. When completed, the core area is to include an amphitheater, bus terminals, visitor's center, zip-line stations, and a museum and headquarters office building for the BSA. Three separate medium-voltage circuits were provided to the west end of the site by AEP and a switching station was set up at the east end to serve the dozens of loop-fed, pad-mounted transformers which were distributed around the site at key locations to minimize voltage drop and to provide a high level of power reliability. All power and telecommunications cabling and conduits are underground. Six cellular towers on the site work in conjunction with 125 individual wireless stations at the campsites to provide wireless capabilities to all of the occupants. CMA also provided lighting and power design for the 375 bath houses on site and coordinated the interconnections between them and the campus infrastructure. The BSA christened the site in the summer of 2013 with its first National Scout Jamboree.

Owner Contact: Ken Davis  
(817) 694-3042  
ken@kdatexas.com

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## Canaan Valley Ski Resort



Unit A



Ski Rescue Patrol



Unit B

CMA Engineering provided the electrical designs and specifications for the recently completed renovations and upgrades for the winter ski facilities at Canaan Valley Resort and Conference Center. The improvements included interior remodeling of three of the existing buildings for skier services and support adjacent to two of the three main lift stations, plus a new skier warming and rest station for the relocated tube run park. Interior remodeling work included lighting, HVAC and plumbing fixture replacements. Exterior work included renovations of an outdoor plaza for skiers with pole lights and a fire pit. Two new skier conveyors were added at the site, one for a new beginners slope area and one for the new tube run park. Exterior, weatherproof, pad-mounted 480-volt, three-phase switchgear was installed at the base of the two main lifts to serve the new conveyor, site lighting and new snow making equipment for the ski slopes and at a water booster pumping station at the mid-point elevation. Similar switchgear and a transformer were installed to serve the new buildings at the tube run park, site lighting, conveyor and snowmaking equipment for the tube run slopes. New exterior lighting fixtures and hinged poles were installed adjacent to the new conveyors to provide night use of the facilities. Two existing 208-volt, three-phase power services were upgraded for the improvements. Power services for the existing buildings were upgraded to provide both ground-fault and surge protection. CMA worked closely with Monongahela Power, the local power utility, on the power services and improvements and coordinated with another electrical design consultant at the site to provide new fiber-optic telecommunications services between the ski area facilities and the Park's main lodge while other renovations were in progress at the lodge.

Owner Contact: Bradley S. Leslie, P.E.  
WV Division of Natural Resources  
(304) 558-2764 Ext. 51823

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## West Virginia National Guard Emergency Power Projects



### Welch Armory

CMA Engineering provided electrical design services for the replacement of the existing 400-amp, 120/208-volt, 3-phase, 4-wire service with 1000 amp, relocated metering equipment to the exterior of the building, and the addition of an emergency standby engine/generator set and manual transfer switch for emergency power. Electrical construction budget \$53,000.



### Dunbar Armory

CMA Engineering provided electrical engineering design services for the replacement of existing 600 AMP electric service and entrance located in Unit Supply Room with new 1000Amp panel and entrance to be located in Boiler Room, new 200 kw emergency generator and emergency distribution panel, new duplex receptacles with isolated ground for voice and data systems and relocated existing phone and fire alarm panels from Unit Supply Room to Boiler Room. Electrical construction budget \$120,000, does not include generator.



### Bluefield Armory

CMA Engineering provided electrical design services for the upgrade of the present electrical power service (800-amp, 120/208-volt, 3-phase, 4-wire) to 1200-amp and the addition of a 150kw diesel-fired emergency standby engine/generator set with a 600-amp, 3-pole manual transfer switch. Electrical construction cost \$160,000, includes generator.

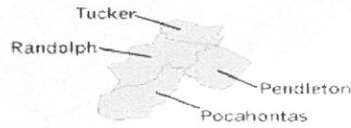
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### WVDOH District 8 Equipment Shop, Elkins

CMA provided design and construction administration services for all mechanical, electrical and plumbing systems, including an on-site, standby emergency power system to provide full, 100% back-up of all power requirements, for new 20,500sf facility. Project is currently in the bidding phase.



### New Putnam County 911 Center

CMA provided design services for the HVAC, plumbing, fire alarm, fire sprinkler, electrical and communications systems for the new single story 911 Facility(11,700sf) and new two story maintenance garage(5,000sf) with six maintenance bays on lower level and storage area (1,500sf) on second level. Design included an on-site, standby emergency power system.



### New Raleigh County 911 Center

CMA Engineering provided design and construction administration services for all mechanical, electrical and plumbing systems, including an on-site, standby emergency power system.



### Monongalia County Building

CMA Engineering provided mechanical, electrical and plumbing design services for the new three-story, 30,000sf facility and 4,000sf, insulated metal shell, mechanical penthouse. Design included an on-site, standby emergency power system for the law enforcement facility.

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**Huttonsville Water Treatment Plant**

CMA provided design and contract administration services for HVAC and electrical systems, including an on-site, standby emergency power system for a new water treatment plant that will serve the Huttonsville Correctional Center. This installation should be completed in late 2014 and should relieve some of the existing electrical loads required for pumping water at the Center.

**Romney Water Treatment Plant**

CMA provided design and contract administration services for electrical service upgrades and relocations including an on-site, standby emergency power system and consolidation of services to serve a remote raw collection pumping station. Over a half-mile of underground cables and conduit were designed to provide emergency power to the pump station to increase reliability during flood conditions

**Rowlesburg Water Treatment Plant**

CMA provided design and contract administration services for an on-site, standby emergency power system and upgrades related to enclosure of an existing sedimentation basin.

**Coalwood Water Treatment Plant**

CMA provided MEP design and construction administration services for the addition of 660sf treatment area and 1,010 sf of conference area which included a catering kitchen and restroom area. Electrical design included an emergency, standby engine/generator set, manual transfer switch, switchgear and electrical service entrance for the existing facility plus the additions.

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RFQ No. COR61694STATE OF WEST VIRGINIA  
Purchasing Division**PURCHASING AFFIDAVIT**

**MANDATE:** Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

**EXCEPTION:** The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

**DEFINITIONS:**

**"Debt"** means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

**"Employer default"** means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

**"Related party"** means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

**WITNESS THE FOLLOWING SIGNATURE:**Vendor's Name: CMA EngineeringAuthorized Signature: Daniel Lee Ellars Date: June 17, 2014State of WVCounty of Kanawha, to-wit:Taken, subscribed, and sworn to before me this 17 day of June, 2014My Commission expires September 16, 2020.**AFFIX SEAL HERE**

NOTARY PUBLIC

Cindy L. Looney  
Purchasing Affidavit (Revised 07/01/2012)