Expression of Interest for

A/E Services - Modifications / Repairs of Six Dams

Solicitation Number: AEOI 0310 DNR1800000005

for the

Modifications / Repairs of Six Dams

Preston & Jackson Counties, WV

submitted to

West Virginia
Division of Natural Resources
Property and Procurement Office

December 2017 ©

CDI® L.R. Kimball

ARCHITECTURE + ENGINEERING • TRANSPORTATION • GEOSCIENCES • WATER • POWER

Contact:

L.R. Kimball

Cameron R. Mock, PE

Sr. Project Manager

615 West Highland Avenue
Ebensburg, PA 15931
Phone: 814.472.7700 ext. 601267
Fax: 814.472.7712
cameron.mock@cdicorp.com
www.lrkimball.com

L.R. Kimball

Richard E. Genday, PE

Vice President

500 Corporate Landing
2nd Floor
Charleston, WV 25311
Phone: 304.746.3549
Fax: 304.746.3601
rick.genday@cdicorp.com
www.lrkimball.com

CDI L.R. Kimball

615 West Highland Avenue
Ebensburg, PA 15931
814.472.7700
814.472.7712
www.lrkimball.com

December 12, 2017

West Virginia Division of Natural Resources
Property and Procurement Office
BID RESPONSE
324 4th Avenue
South Charleston, WV 25303

Attn: Ms. Angela W. Negley

Re: Expression of Interest for
WV Division of Natural Resources
Wildlife Resources Section
Modifications and Repairs of 6 Dams
Preston and Jackson Counties, West Virginia

Dear Ms. Negley:

CDI-Infrastructure, LLC dba L.R. Kimball is pleased to submit two (2) copies of our Expression of Interest in response to your request for professional engineering services for the evaluation and improvement of the six dams in Jackson and Preston Counties, West Virginia. This proposal addresses the engineering services identified in the request for expression of interest for Architect/Engineering services. L.R. Kimball has extensive experience inspecting, analyzing, designing, obtaining agency approval, preparing construction drawing & specifications, assisting with bidding, providing engineering services during construction, and providing full time construction inspection of similar dam projects. Included on our team is American Geotech Inc. to provide additional Geotechnical expertise for this project.

L.R. Kimball has an experienced project team with sufficient capacity to perform these services in a cost effective and timely manner. The proposal identifies the project team, presents key staff resumes, reviews the project goals and objectives, provides our general approach, presents our qualifications and experience, provides the communication plan, and addresses delivering projects on time and within budget. Two bound copies of our Expression of Interest and a digital copy are provided per your request.

We understand that firms will be short-listed and be interviewed for this project. We would welcome the opportunity to introduce our team, and present our experience and capabilities. We understand that a detailed scope and cost proposal will be developed upon selection to provide these services. The project is to be awarded on a fixed fee basis.

We look forward to working with the DNR on the evaluation and upgrade of the subject six dams. Please contact us at 814-472-7700 x 601267 if you have any questions or need additional information.

Sincerely,

Cameron R. Mock, PE
Sr. Project Manager
(814) 472-7700 ext 601267 / Cameron.Mock@cdicorp.com

CRM/reb

Enclosure

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ENGINEERING REPRESENTATIVES

L.R. Kimball has provided comprehensive engineering consulting services for Dam and Water Resources projects for over 50 years. Projects have included geotechnical investigations, dam embankment design and inspections, slope stability analyses, hydrologic/hydraulic analyses, master planning, facilities planning, water treatment/distribution design, construction management, operations services, capital budgets, financial assistance, grantsmanship, emergency action plan development, and environmental studies.

L.R. Kimball prides itself as being a firm that extensively communicates and cooperates with the client to meet their needs. We understand the benefit of having a close relationship with our clients in order to meet expectations and provide quality service. We feel this is even more important when dealing with a new client due to the need to get "up to speed" as quickly as possible. L.R. Kimball proposes a highly qualified project team with extensive experience in the evaluation, planning, study, design, construction, and operation of dams.

L.R. Kimball has a proven track record for accomplishing work within the required time constraints. This is evidenced by our high volume of repeat work from municipal authorities and Public Service Districts as well as from our many private clients.

L.R. Kimball's capability to meet a wide range of often-conflicting schedule demands is reflected in the fact that we successfully accomplish thousands of projects annually, almost all of which are multi-disciplinary.

Team Resources

The strength of any organization is directly proportional to its resources, and our resources consist of our staff and equipment. Our staff has the qualifications, certifications and experience necessary to accomplish the anticipated services within required time and budget constraints.

We employ a formal project management program, which includes the use of formal work plans, in-house contracts with supporting company elements, and project scheduling software. Client needs can be readily accomplished within the capabilities of our proposed project team.

L.R. Kimball's professional qualifications will ensure the Agency appropriate staffing for your projects, including the coordination of multiple disciplines.

Team Personnel and Responsibility

L.R. Kimball proposes a highly qualified staff with extensive experience in the evaluation, planning, study, design, construction, and operation of dams and water resources for similar projects. Key personnel will be assigned to project teams based on their demonstrated expertise, abilities, and availability.

Full consideration will be given to the type of services required, the DNR's needs, and each team member's familiarity with the specific aspects of the various projects.

Principal-in-Charge

The Principal-in-Charge is primarily responsible for assisting the Project Manager in allocating sufficient resources to meet project requirements and resolving technical problems and conflicts that cannot be resolved at the Project Manager level.

Mr. Richard E. Genday, PE, will serve as our Principal-in-Charge for this project. Mr. Genday serves as Vice President and Operations Manager for L.R. Kimball. He has over 35 years of experience with L.R. Kimball, including: civil and stormwater facilities planning and design; surveying; stormwater management; airport design; environmental; land development; comprehensive planning; and other related projects.

As the Operations Manager, Mr. Genday has complete authority to schedule or re-schedule the assignment of necessary personnel and resources to ensure that the Project Manager can complete the assigned work on time and in budget.

Quality Assurance/Quality Control

Mr. Gregory Schrock, PE will serve as the QA/QC director for this project. Mr. Schrock is a Senior Project Manager the Civil Division. He has extensive experience in the land development, grading, drainage, stormwater management, and erosion and sedimentation control engineering with over 23 years experience.

Project Manager/Primary Point of Contact

The Project Manager is responsible for the overall timely execution of the project and is the primary source of contact with the client, including attendance at all scheduled meetings. The Project Manager is also responsible for project planning and scheduling, resource allocation, management and coordination of subconsultants, cost and productivity tracking, man-hour tracking, project documentation, and the quality of service. The Project Manager is responsible for ensuring that all personnel assigned to a project are technically proficient, and informed of all client requirements.

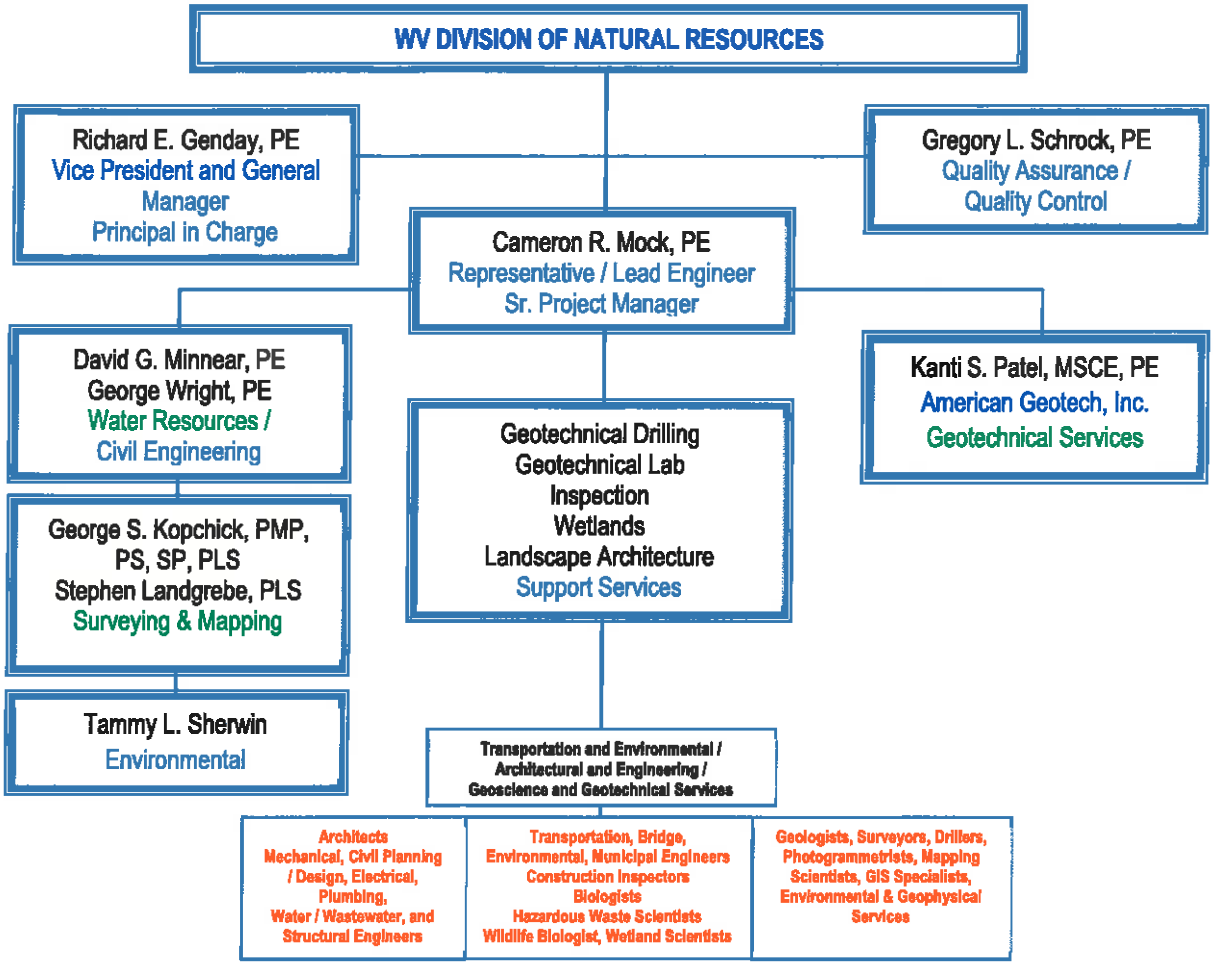
Single point of contact - Mr. Cameron R. Mock, PE, will serve as the Project Manager and primary point of contact for this project. Mr. Mock has over 40 years of experience in providing consulting engineering services to government and private clients. His expertise is in the areas of water resources, wastewater, site development, and storm water management. He will lead a team of qualified engineers to perform the investigations, evaluation, design, permitting, bidding, construction oversite, and construction inspection of the improvements to the six dams included in this project. His office is located at L.R. Kimball's Ebensburg Headquarters at 615 W. Highland Avenue, Ebensburg, PA 15931. His contact information is 814-472-7700 x 601267 (office), 814-421-1608 (cell), and cameron.mock@cdicorp.com (email). He has been responsible for the implementation and construction management for numerous projects at a variety of private and public facilities. He has served as project manager for numerous water, recreational and wastewater projects and has assisted with regulatory negotiations.

Lead Dam Safety Engineer

Mr. David G. Minnear, PE will serve as the Lead Dam Safety Engineer for your project. Mr. Minnear specializes in dams, water resources, and industrial land development projects with over 38 years of experience. He serves as the company's chief hydraulics engineer for projects involving dams, open channel flow, and area-wide stormwater management. Hydrologic/hydraulic engineering projects under his direction and supervision have included: the design and assessment of dozens of dams; inspection and preparation of assessment reports as to the status of water supply, recreational and hydroelectric generating dams; review and preparation of FEMA flood insurance studies; studies to modify pre-existing flood insurance studies to allow for development within areas previously designated as being within the floodway boundaries; and the development of area-wide model stormwater management criteria.

Staffing Plan

Organizational Chart



Resumes

Years of Experience: 36

Education:
BS, Environmental Engineering, The Pennsylvania State University, 1980

Registrations:
2010, , NCEES
2012, KY, Professional Engineer
1997, VA, Professional Engineer
1997, WV, Professional Engineer
1986, PA, Professional Engineer
2012, MI, Professional Engineer
2012, NY, Professional Engineer
2012, AL, Professional Engineer
2012, ME, Professional Engineer
2013, MS, Professional Engineer
1997, NC, Professional Engineer
2012, NH, Professional Engineer
2012, OH, Professional Engineer
2012, CT, Professional Engineer
1997, NJ, Professional Engineer
2012, DE, Professional Engineer
2012, MA, Professional Engineer
2013, IN, Professional Engineer
2014, WI, Professional Engineer
2012, TN, Professional Engineer
2012, FL, Professional Engineer
2013, RI, Professional Engineer

Affiliations:
National Society of Professional Engineers
Design Structure Quality Institute
American Association of Airport Executives (AAAE)
Aviation Council of Pennsylvania (ACP)
American Society of Highway Engineers

Richard E. Genday, PE

Principal-in-Charge

Mr. Genday is L.R. Kimball's Vice President. Mr. Genday has over 35 years of experience and is Principal-in-Charge for all of the firm's transportation related projects, including highway, bridge, airport and construction inspection contracts. Primary clients include The Pennsylvania Department of Transportation, Pennsylvania Turnpike Commission, Airport Authorities and various Federal, State and Municipal Governments. Services provided through the Transportation Division include: master planning, feasibility studies, NEPA documentation (CE, EA, EIS), preliminary engineering, final design, and construction inspection and contract administration. Primary responsibilities include staff management, development of the division's business and marketing plans, ensuring compliance with corporate QA/QC standards, and coordination of multi-disciplined projects involving other company service divisions. Projects coordinated by Mr. Genday have exceeded $200,000,000 in construction costs.

Mr. Genday has managed several airport development projects, as well as airport master planning, military base master planning and environmental clearance projects. Previously as an airport project engineer, he was directly responsible for the preparation, management and administration of 11 airport master plans and over 100 separate construction project contracts. Areas of specialization for master planning include noise analysis, aviation demand forecasting, and land use planning and environmental assessments in accordance with FAA Order 5050.4A. With respect to design, Mr. Genday is experienced in the evaluation and rehabilitation of bituminous and concrete pavement; new pavement designs, and the establishment of pavement management system through MicroPaver. Recent aviation projects for which Mr. Genday served as principal-in-charge include:

Yeager Airport, Runway 5-23 Rehabilitation and Safety Area Construction, Charleston, WV – This project involved the rehabilitation of the primary ILS R/W 5-23 and improving associated runway safety areas. The project consisted of a bituminous overlay while utilizing the crack and seat technique to prepare the underlying concrete.

John Murtha Johnstown-Cambria County Airport, Master Plan, Johnstown, PA – This project involved the completion of an Airport Master Plan and a 5-year Environmental Assessment for the John Murtha Johnstown-Cambria County Airport. Work tasks for the Master Plan included significant public participation, updating the mapping and aerial photography for the Airport, conducting a facility inventory of physical and environmental features, developing aircraft activity forecasts, completion of a demand/capacity analysis, an airside/landside development assessment to include design standard compliance, helicopter operations evaluation, a runway length analysis, preparation of modification to standards forms, and an airport access evaluation, completion of a land-use assessment and a terminal planning assessment to look at general aviation development, automobile parking, rental car operations, ARFF response and emergency planning, aircraft fueling, military operations, administration facilities, terminal access, and air cargo facilities.

Gregory L. Schrock, PE, CPESC, QPSWPPP

Quality Assurance / Quality Control

Years of Experience: 23

Education:
BS, Civil Engineering Technology, University of Pittsburgh at Johnstown, 1994

Registrations:
2006, NJ, Professional Engineer
2003, OH, Professional Engineer
1999, PA, Professional Engineer
2006, WV, Professional Engineer

Certifications:
Qualified Preparer of Stormwater Pollution Prevention Plans, No. 4251273, Expires 1/10/19
Certified Professional in Erosion and Sediment Control, No. 5567, Expires 11/27/17

Affiliations:
National Society of Professional Engineers
American Military Engineers

Mr. Schrock serves as a Project Manager for the Civil and Environmental Division. He participates in various aspects of site development and municipal design. On the municipal side, he is involved with the design and analysis of stormwater management facilities, sanitary sewer systems, water distribution systems, waterlines, pumping stations and water treatment systems. As a project engineer/manager, he is responsible for the design, project management, project meetings and coordination, project specifications, client interaction, and permit acquisition for various projects. He is also involved with the design of roadways, parking lots, site layout, and preparation of contract documents, and the development of earthwork takeoff calculations and cost estimates.

Mr. Schrock's stormwater management design experience includes hydrologic and hydraulic analysis, detention basin design, stormwater collection and conveyance system design, preparation of construction drawings, preparation of stormwater management reports including pre and post-development runoff computations, routing of storm flows through proposed detention basins, and basin design computations. He is also involved with the preparation of erosion and sedimentation control plans, including designing the construction documents, preparing applications, letters, erosion and sedimentation control reports, preparing construction sequences, and design computations for each erosion and sedimentation control device utilized.

Project Experience

- **Water System, St. Francis University, Loretto, PA.** Project Manager for the permitting and design of a new 187,000 GPD water treatment plant, water distribution system, and water storage tanks. Duties included the design of 500,000 gallon and 300,000 gallon water storage tanks, site layout for the tanks, water treatment plant, backwash holding tank, water distribution system, and sand mound. Designed the water distribution system using Hydronet for adequate fire protection flow and pressure throughout campus and the surrounding area. Designed treated water booster pumps, a backwash holding tank, greensand and activated carbon units, chlorine booster pumps, chlorinators, flow meters, and associated piping, plumbing, and telemetry for the water treatment plant. Worked on specification preparation, shop drawings, and some construction inspection.
- **Cherry Run Sewerage System, White Township Municipal Authority, Indiana, PA.** Civil Engineer for the design of a sewage pumping station for a 1.0 MGD average sewage flow. Duties included locating the pumping station site, grading plans, preparing erosion control plans, designed six pumps, a communitor, channels, two wet wells, a sluice gate, flow meters, the plumbing, and force main, layout for the floor plans and acquiring the permits. Performed a hydraulic/hydrologic analysis of the nearby stream (3 sq. mi. watershed) to determine the 100-year floodplain and the impact and required permitting needed for the pumping station construction.
- **Wal-Mart Supercenter, Wal-Mart Stores, Inc., Somerset, PA.** Project Manager for a 184,000 SF supercenter development. Duties included overseeing and preparing the due diligence design, permitting, coordinating site design, and overseeing portion of construction.
- **Richland Town Centre, Wal-Mart Stores, Inc., Johnstown, PA.** Project Manager for a 200,000 SF Wal-Mart supercenter and retail strip center development replacing an existing mall. Duties included site design, coordination, permitting, and overseeing portions of construction.
- **Various Development Projects, ECHO Real Estate Services Company, Various Sites, PA.** Project manager for various GetGo Convenience Store/Gas Station/Car Wash developments. Work involved site layouts, due diligence studies, permitting, site design, and coordination, shop drawing review, request for information, and completion inspections.

- **Lowe's Home Improvement Store, Jemsite Development, LLC, Lawrence Township, PA.** Project Manager. Responsible for the site design, grading, stormwater management, erosion and sedimentation control design, utility coordination, permitting and approvals for a approximately 94,000 sf Lowe's. Also oversaw the Phase I Environmental Assessment, geotechnical investigation study, boundary, topographical and utility survey, wetlands assessment, and traffic study.
- **Site Evaluation Studies, Concept Site Plans and Professional Engineering Services, Wal-Mart Stores, Inc., PA.** Project Manager and main point-of-contact for the Wal-Mart/Sam's Club developments. Responsible for the preparation of conceptual site plans for a number of Wal-Mart and Sam's Club locations. Also provided due diligence services for several sites.
- **Professional Engineering Services for Confidential Site Work at Various Sites, Carter & Burgess, Inc., PA and WV.** Project Manager of new distribution centers across Pennsylvania and West Virginia. Duties included preparing permitting reports, endangered species investigations, coordinating geotechnical investigations, surveying services, environmental investigations, and wetland investigations for various parcels up to 400 acres in size.
- **US Department of the Navy - Northern Division, Lakehurst, NJ.** Project Manager for site design of various projects which included a new hazmat building, a racquetball court building, several building additions and a new fire service to the hazmat building. Duties included attending meetings with the Navy, grading, utilities, erosion and sedimentation control plans, site layout and Navy specification editing.
- **Pleasant Valley Elementary School, Altoona Area School District, Altoona, PA.** Project Manager for the permitting and design of a new 62,000 SF elementary school on a 13.6-cre parcel of land. Duties included attending meetings, stormwater management, and design including basin and channel hydraulics and hydrology, grading, utilities, erosion and sedimentation control, site and parking lot layouts, playing field layouts, sewage planning and historical and archaeological investigation. Also designed the vertical and horizontal alignment for a new access road, a subdivision plan, and prepared plats for all right-of-ways.
- **Hillside Residence Hall, St. Francis College, Loretto, PA.** Project Manager for the coordination and design of a new three-story, 46,660 SF residence hall. Duties included site design, grading plans, utility plans, stormwater management, erosion and sedimentation control, and vertical and horizontal alignment of a new access road. Developed site related specifications and developed punch list items during construction.

Cameron R. Mock, PE

Senior Project Manager

Mr. Mock serves as a Senior Project Manager for the Civil and Environmental Division. He specializes in water resources, wastewater, land development, and recreation. Mr. Mock has served as a consulting engineer for 40 years performing a wide range of services related to dams, stormwater management, water systems, sewerage systems, municipal engineering, recreation facilities, engineering surveying, construction inspection and construction contract management, site development, hydrology, hydraulics, highway design, earth sciences, mine permitting, and erosion and sedimentation control, mine reclamation design, and mine waste disposal facilities design and permitting:

Dam Experience

- Performed dam safety inspections for earth fill dams.
- Experienced in the design of earth fill and mine waste dams.
- Project Engineer for hydrologic and hydraulic evaluations and geotechnical investigations for earth fill dams to improve safety of existing dams.
- Emergency spillway hydrologic and hydraulic design
- Reservoir safe yield analysis
- Dam breach analysis.

Dam Design & Evaluation Projects

- **National Dam Inspection Program, PA and FL,** Project Engineer for the field inspection and evaluation of more than 10 earth fill dams.
- **Emergency Action Plan Updates, Cambria Somerset Authority, Cambria and Somerset Counties, PA.** Project Manager for the preparation of updates to the Emergency Action Plans for the Quemahoning, Wilmore, and Hinckston Run Dam. Work included updating the contacts at the emergency and rapid response organizations. The inundation area was reviewed for any significant changes. A new breach analysis was performed for the Quemahoning Dam to address the recent modifications to the Dam and spillway.
- **Ebensburg Borough, PA - Lower Water Reservoir, Ebensburg, Cambria County, PA.** Project engineer for the evaluation and modification of the earth fill dam to correct a critical seepage condition and inadequate spillway. He was responsible for the geotechnical investigation including, drill inspection, development of the testing program, interpretation of data, stability analysis, embankment modification, seepage analysis, internal drains, filter design and instrumentation. The seepage condition and subsequent low stability safety factor was corrected by adding an internal drainage blanket and chimney drain on the existing downstream embankment slope. The embankment was buttressed with a compacted soil fill over the drains and filters that raised the top of dam to increase spillway capacity. Additional spillway capacity was also provided by an auxiliary earthen spillway.
- **North River Energy Corporation - North River Coal Slurry Dam - North River Mine, Berry, Alabama.** Project Engineer for the design of an expansion of the active earth fill slurry impoundment. Project involved raising the top of dam 60 feet by constructing the embankment addition with coarse coal refuse downstream of the existing dam. Work included geotechnical investigation, soils laboratory testing, embankment design, seepage analysis, internal drains, filters, decant system, stability analysis, hydrologic and hydraulic design of emergency spillway and instrumentation. The engineer's design report, construction drawings, and construction specifications were prepared and approved by MSHA. Provided consultation during construction of the dam expansion.
- **Custom Coals Corporation - Laurel Coal Refuse Disposal Facility, Shade Township, Somerset County, PA.** Mr. Mock served as the project manager/engineer for the modification of the existing slurry impoundment. A stability evaluation was conducted to determine if the existing configuration and phreatic level of the refuse pile would meet the appropriate DEP factor of safety. Stability analysis calculations performed on the pile utilized both the Sliding Block and Rotational Equilibrium Methods. Detailed staged operational plans and final design configuration were prepared for the

Role on Project

Primary Representative and Lead Water Engineer

Years of Experience: 40

Education:

BS, Civil Engineering Technology, University of Pittsburgh at Johnstown, 1977

Registrations:

1985, WV, Professional Engineer
1981, PA, Professional Engineer
2003 NC, Professional Engineer
2003, NJ, Professional Engineer
2003, OH, Professional Engineer
2003, VA, Professional Engineer
2004, MD, Professional Engineer

Affiliations:

American Society of Civil Engineers
American Society of Highway Engineers
American Water Works Association
PA Municipal Authorities Association
PA Rural Water Association

disposal facility based on plant reject production. The impoundment was to be constructed by the upstream method using the coarse coal refuse for the dam.

- **Island Creek Coal Company - Pond Fork Slurry Dam, Pond Fork Mine, Bob White, West Virginia.** Project Engineer for the design of an emergency spillway required due to insufficient impoundment storage. Work included hydrologic and hydraulic design of the emergency spillway. Hydraulic analysis included a HEC-2 evaluation of the emergency spillway. Construction drawings including plan, profile, typical sections and cross sections. The modification was approved by the MSHA.
- **J & L Steel Company - Nemacolin Slurry Impoundment, Nemacolin, PA**. Project Engineer for the expansion of the slurry impoundment. Work included stability analysis of the embankment modifications, hydrologic and hydraulic design of the emergency spillway and abandonment plan.
- **Sharples Coal Company - Sharples Slurry Impoundment, Sharples, West Virginia.** Project Engineer for the evaluation of an active slurry dam to permit raising the emergency spillway to provided additional slurry storage. Supervised the geotechnical investigation to document the phreatic surface within the embankment. Performed stability analysis to document that the slurry level could be raise and not affect the stability of the embankment. Performed hydrologic and hydraulic design of the emergency spillway overflow weir. Performed annual certification inspections of the facility for MSHA requirements.
- **Republic Steel Corporation - Compton Fork Dam, Republic Mine, Republic, Kentucky.** Project engineer for the raising of the emergency spillway to increase slurry storage capacity. Work included the hydrologic design and hydraulic design of the emergency spillway. To develop spillway capacity, the dam was raised by upstream construction means with coarse coal refuse. Construction plans, specifications and engineer's design report were prepared for approval of MSHA.
- **Pennsylvania Turnpike Commission - Storm Water Detention Basins, Beaver County, PA.** Project Manager/Engineer for the design of 15 stormwater detention basins proposed for two sections of the Beaver Valley Expressway. Hydraulic and routing computations were performed. Basin discharges were routed to downstream structures to ensure that no increase in runoff occurred from the roadway development.

Construction Management

Extensive experience as project manager/engineer bidding of construction contracts, pre-bid meetings, contract awards, pre-construction conferences, project meetings, budget control, schedule management, shop drawing review, construction drawing interpretation, field issue resolution, change order negotiation, construction inspection, supervision of inspectors, construction quantity measurement, contractor estimate review, dispute resolution, construction contract administration, project punch list, project close-out, as-built certification and as-built plans.

David G. Minnear, PE
Lead Dam Safety Engineer

Role on Project
Quality Assurance

Years of Experience: 38

Education:
BS, Civil Engineering,
The Pennsylvania State University,
1978

Registrations:
1985, WV, Professional Engineer
1983, PA, Professional Engineer
1997 MD, Professional Engineer
1997, OH, Professional Engineer
1997, VA, Professional Engineer
1998, NJ, Professional Engineer
2016, KY, Professional Engineer

Certifications:
OSHA 40 Hour Hazardous Waste Operations & Emergency Response Training
Senior Certified Recycling Professional

Affiliations:
Association of State Dam Safety Officials
National Society of Professional Engineers
Pennsylvania Society of Professional Engineers

Mr. Minnear serves as a Senior Technical Leader/Project Manager specializing in water resources and solid waste for the Civil and Environmental Division. He has worked on a wide variety of projects; including the design and inspection of dams, reclamation of abandoned mine lands and the development of regional stormwater management regulations. Mr. Minnear is responsible for providing technical support and quality assurance to the various on-going civil design projects and overseeing the staff of junior engineers, technicians and draftsmen. In addition, he is responsible for providing design direction and review of various civil projects, including fly ash and coal refuse disposal sites, municipal landfills, pipeline designs, mine reclamation, and hydraulic projects.

Mr. Minnear serves as the company's chief hydraulics engineer for projects involving dams, open channel flow, and area-wide stormwater management. Hydrologic/hydraulic engineering projects under his direction and supervision have included the design and assessment of dozens of dams; inspection and preparation of assessment reports as to the status of water supply, recreational and hydroelectric generating dams; review and preparation of FEMA flood insurance studies; studies to modify pre-existing flood insurance studies to allow for development within areas previously designated as being within the floodway boundaries; the assessment of flood protection levees, and the development of area-wide model stormwater management criteria.

Mr. Minnear is very familiar with the use of the U.S. Army Corps of Engineers computer programs, as well as numerous other hydrologic models and methods. He currently serves as Senior Technical Leader for hydraulic design projects involving dams and/or other stormwater management, where he overseas a staff of junior engineers and technicians.

Project Experience of Mr. Minnear includes:

- **McClintic Dam No 23, WV DNR Wildlife Resources Development, Mason County, WV.** This 11-acre lake is located within the McClintic Wildlife Preserve and includes a perimeter wetland construction intended to mitigate additional wetlands damaged in another portion of the site during a Superfund Cleanup Project. Mr. Minnear was the principal designer involved in the hydrologic / hydraulic evaluations of the site, as well as the preparation of construction and permitting packages.
- **Annual Dam Inspections, Pittston Coal Group, KY, VA, and WV.** Insurance Certification Inspector for annual inspections of up to 15 coal slurry impoundments. Dams were in various levels of use, from initial development to nearing abandonment. Inspection reports were instrumental in the issuance of insurance to allow for continued site operations.
- ***Emergency Action Plans, Cambria Somerset Authority, Cambria and Somerset Counties, PA.*** Sr. Hydraulic Engineer for preparation of the Emergency Action Plans updates for the Quemahoning, Wilmore, and Hinckston Run Dams. Oversaw simulation of dam break analyses by computer modeling to determine downstream inundation limits and identified municipalities located downstream of the dams that would be potentially impacted by a catastrophic failure of the dam. These plans included the development of dam breach hydraulic models and flood inundation maps. Prior to computer modeling to simulate a dam failure, physically surveyed downstream obstructions to determine their effect on the flood wave resulting from the dam break. Based on the determination of the affected downstream municipalities, prepared a step by step procedure to be followed by emergency personnel in the event of such an emergency.
- **Dam Inspections, Pennsylvania Department of Environmental Protection and Federal Energy Regulatory Commission, PA, NY, NJ, and MD.** Principal Professional Engineer involved in the inspection of PADEP licensed water supply dams and the FERC licensed hydroelectric dams.
- **Whitetail Ski Resort, Whitetail Resort c/o Realty Skiing Development, Inc., Mercersburg, PA.** Principal Hydraulic Designer for the design and permitting of the 100-million gallon water supply reservoir at the resort, including the preparation of

construction drawings and specifications, as well as permit documents. Also involved in monitoring construction progress and certification of completeness during construction. After completion of construction, annual dam inspections were performed.

- **Upper and Little Schuylkill River, Schuylkill County Conservation District, Schuylkill County, PA.** Project Engineer for the development of the water quality assessment of two watersheds. Responsibilities included quality assurance for the database development, assistance with the identification of site priorities, and preparation of remediation recommendations for each prioritized site.
- **Shamokin Creek Watershed Assessment, Northumberland County Planning Commission, Northumberland County, PA.** Senior Technical Specialist for the assessment which resulted in the development of a Watershed Restoration Action Strategy guiding future remediation work by the Shamokin Creek Restoration Alliance and Northumberland County Conservation District. Duties included quality control, presentation at public meetings, and project coordination with county personnel.
- **Yellow Creek Watershed, Blacklick Creek Watershed Association, Indiana County, PA.** Principal Designer and Project Manager for multiple facilities consisting of separate treatment "modules". Two of these projects incorporated approximately 2.3 acres of mitigation wetlands as final treatment prior to discharge. The funding utilized for these projects was primarily the result of 319 Grants from the Commonwealth of Pennsylvania, along with additional funding from the Heinz Endowment.
- **Cambria Cogeneration Plant, Air Products & Chemicals, Inc., Ebensburg, PA.** Senior Design Engineer and Project Manager for the development of off-site facilities for the plant. This included the siting, design and construction monitoring of the raw water and wastewater pipelines to the plant, and the sewage and potable waterlines serving the plant. This also included coordination of pipeline locations within the easements and hydraulic design of the ductile iron raw water pipeline and the HDPE wastewater pipeline, as well as the sewage and potable lines.
- **Ottilio Landfill Remediation Services During Construction at the Ottilio Landfill, NJDEP, Newark, NJ.** Senior Engineer involved with the development of grading plans, hydrologic/hydraulic assessment and design for stormwater handling facilities, and general oversight for the construction drawings. Project involved the closure of an existing construction/demolition debris landfill with hazardous constituents.

George B. Wright, PE

Civil Engineer

Role on Project
Water Engineering

Years of Experience: 18

Education:
BS, GeoEnvironmental Engineering, Minor, Geosciences, The Pennsylvania State University, 1999

Registrations:
2007, PA, Professional Engineer

Certifications:
OSHA 40 Hour Hazardous Waste Operations & Emergency Response Training
Hazardous Materials 8 Hour General Site Worker Refresher Training

Affiliations:
Association of State Dam Safety Officials

Mr. Wright serves as a Civil Engineer for L.R. Kimball's Architecture and Engineering Division. He has experience with water resource management, including permitting, repair design, safety inspections, and Emergency Action Plan preparation for High Hazard dams, solid waste landfill design and permitting, site development, environmental design and remediation, and wastewater design.

Project Experience of Mr. Wright includes:

- **Outlet Pipe Rehabilitation, Breskin Dams, Westmoreland County, PA.** Project Engineer responsible for design, permitting, and construction oversight of outlet pipe slip-lining project.
- **Gallitzin WTP Clarifier & Filter Rehabilitation Evaluation – Gallitzin Water Authority, Gallitzin, PA.** Project Engineer for an evaluation of the water treatment plant ballasted clarifiers (2) and mixed media sand filters (2). The units are over 25 years old, the steel tanks have coating failures, clarifier media is worn and has mineral coating, and the filter media is original. The evaluation compared the cost to rehab the existing clarifier and filter units with valve/actuator replacement; rehab the existing clarifier and filter units, update the control system, add air scour to the filters, and replace valves/actuators; provide new replacement units.
- **Drought Contingency Plan, Cambria Somerset Authority (CSA), Cambria and Somerset Counties, PA.** Project Engineer responsible for preparing the Authority's drought contingency plan. The project involved gathering historical drought data, evaluating reservoir hydraulic and hydrologic characteristics, evaluating current water usage and estimating future usage, prioritizing water usage, and providing an overall plan to address possible drought conditions.
- **Emergency Action Plan, Ebensburg Borough, Cambria County, PA** Project Engineer responsible for preparation of the Emergency Action Plans updates for the Howell's Run Dam and Ebensburg Storage Dam. Based on the determination of the affected downstream municipalities, revised a step by step procedure to be followed by emergency personnel in the event of such an emergency.
- **Ebensburg Water Allocation Permit, The Ebensburg Municipal Authority, Ebensburg, PA.** Project Engineer for with preparation of the Water Allocation Permit Renewal Application. The project involved computing the Safe Yield of the Ebensburg Water Reservoirs, development of reservoir capacity curves, gathering of data, including water withdrawal reports and interconnection agreements, and preparing the applicable permits and forms.
- **Emergency Action Plan, Breskin Dams, Westmoreland County, PA.** Project Engineer responsible for preparation of Emergency Action Plans. The plans included the development of dam breach hydraulic models and flood inundation maps, using HEC-HMS and HEC-RAS computer modeling software to simulate a dam failure based on physically measured downstream obstructions to determine their effect on the flood wave resulting from the dam break. Based on the determination of the affected downstream municipalities, prepared a step by step procedure to be followed by emergency personnel in the event of such an emergency.
- **Emergency Action Plans, Southern Berks Land Company, Berks County, PA.** Project Engineer responsible for preparation of Emergency Action Plans. The plans included the development of dam breach hydraulic models and flood inundation maps, using HEC-HMS and HEC-RAS computer modeling software to simulate a dam failure based on physically measured downstream obstructions to determine their effect on the flood wave resulting from the dam break. Based on the determination of the affected downstream municipalities, prepared a step by step procedure to be followed by emergency personnel in the event of such an emergency.
- **Dam Safety Permit Amendment Application, Southern Berks Land Company, Berks County, PA.** Project Engineer responsible for design and permitting for modifications to the outlet structure and emergency spillway. The plan includes analysis of the outlet and spillway hydraulic capacity, new spillway design, and abandoning of the existing outlet structure.

- **Dam Safety Permit, Sunbury Generation LP, Snyder County, PA.** Project Engineer responsible for preparation of a Dam Safety Permit for an existing coal combustion waste basin. The project included analysis of the spillway capacity, dam breach analysis, preparation of permit drawings, and site grading.
- **Annual Dam Safety Permit Inspections, PA.** Project Engineer responsible for Annual Dam Safety Inspections of multiple high hazard category dams throughout PA.

Years of Experience: 21

Education:
BS, Biology, Indiana University of Pennsylvania, 1993

Affiliations:
Pennsylvania Association of Environmental Professionals (PAEP) - Board of Directors 06 & 07, Office of Secretary

Tammy L. Sherwin,
Environmental Studies

Ms. Sherwin is an environmental scientist responsible for developing NEPA documentation, including Categorical Exclusion Evaluations (CEE), Environmental Assessments (EA), Environmental Impact Statements (EIS), and Section 4(f) Evaluations. She is also responsible for the following types of studies needed to develop the NEPA documentation: wetland delineations, surface water studies, habitat assessments (terrestrial and aquatic), Section 7 consultation, farmland evaluations, floodplain identification, land use studies, and socioeconomic evaluations. Ms. Sherwin also prepares the applicable permit packages and coordinates agency meetings for each project.

Her public involvement experience includes the creation of project newsletter mailing lists, preparation of project newsletters, organization of public meeting agendas and places of meeting, creation of public meeting displays and surveys, presentation of project materials to the public, and preparation of public meeting response summaries. Ms. Sherwin has also coordinated with Community Advisory Committees (CAC) and conducted Consulting Parties Meetings.

Ms. Sherwin's project experience includes:.

- **PennDOT District 12-0, S.R. 0519, Washington County, Pennsylvania** - Responsible for preparation of a CEE and the necessary supporting studies (i.e. wetlands, streams, T&E, etc...) using the CE Expert System, as well as, a Section 404/Chapter 105 permit using the online JPA2 Expert System for the project.
- **PennDOT District 5-0, SR 0831 Section 07S – Schaefferstown Road Intersection, Berks County** – Responsible for the oversight of the environmental components of the project including: wetland and surface water identification and delineation studies, Phase I and II ESAs, threatened and endangered species coordination, NHPA Section 106 clearance, Section 4(f) evaluation, water permitting, mitigation and CEE preparation.
- **PennDOT District 9-0, US 219 Improvement Project Meyersdale to Somerset, Pennsylvania** – Conducted wetland functional assessments and assisted with the EIS re-evaluation including the cultural resource and Section 4(f) sections. Prepared the secondary and cumulative impacts assessment and compensatory mitigation plan.
- **PennDOT District 1-0, E01397 , Crawford, Mercer, Venango and Warren Counties, Pennsylvania** - Responsible for the coordination and preparation of six DEP general permit 11's for maintenance, testing, repair, rehabilitation, or replacement of water obstructions and encroachments for structure replacements across four counties. All permits were prepared utilizing the online JPA2 Expert System.
- **Greene Township, Kane Hill Road Bridge Replacement Project, Erie County** – Responsible for the oversight of the environmental components of the bridge rehabilitation project including: wetland and stream delineation, and CEE Level 1B preparation. Prepared DEP general permit 11 for the project.
- **PennDOT District 4-0, Sections 450 and 495, Pike County** – Responsible for the NEPA clearance (CEE) and the subsequent studies required (Wetlands, Streams, T&E, Section 4(f), etc...), as well as, the Section 404 / Chapter 105 permitting of waterway impacts.
- **PennDOT District 11-0, McLaughlin Run and Tank Farm Bridge Replacements, Allegheny and Beaver Counties** - Prepared DEP General Permit 11 for Maintenance, Testing, Repair, Rehabilitation, or Replacement of Water Obstructions and Encroachments using the online JPA2 Expert System and prepared CEE's for the McLaughlin Run and Tank Farm Bridge replacement projects.
- **PennDOT District 9-0, SR 4009 (Business Route 220) Bedford Springs Improvement Project, Bedford, Pennsylvania** – Prepared the Level 2 CE and

Individual Section 4(f) Evaluation for Transportation Projects that have Net Benefit for the roadway improvement project. This Section 4(f) evaluation was the first prepared for net benefit use in Pennsylvania.

- **Redevelopment Authority of Allegheny County, Carrie Furnace Access Road, Pittsburgh, Pennsylvania** – Responsible for the preparation of the Categorical Exclusion Evaluation for the access road project into the Carrie Furnace Site. This project utilized funds from the TIGER III Grant.
- **Allegheny Tunnel Transportation Improvement Project, Pennsylvania Turnpike Commission, Bedford and Somerset Counties, Pennsylvania** – Principal environmental scientist responsible for data collection, field investigations, public involvement coordination, agency meetings and report documentation. Examples of field investigations include wetland delineation, macroinvertebrate sampling, PAMHEP, and reptile and amphibian survey. Responsible for preparing the state equivalent to an EA. Public involvement responsibilities included creation and maintenance of mailing list, preparation of project newsletter, development of displays and project meeting surveys, presentations of project material, and preparation of summary of responses. She also maintained the CAC mailing list, prepared materials for the meetings and acted as the contact for CAC inquiries.
- **City of Erie, McBride Viaduct Feasibility Study, Erie, Pennsylvania** – Responsible for the oversight of the environmental components of the project including: field studies, Phase I ESA, threatened and endangered species coordination, NHPA Section 106 clearance, Section 4(f) evaluation and CEE preparation. Prepared the Environmental Justice Analysis report and CEE for the project.
- **PennDOT District 10-0, Brookville 2nd Street Bridge** – Responsible for the oversight of the environmental components of the bridge rehabilitation project including: wetland and stream delineation, Phase I ESA, and BRPA preparation

George S. Kopchik, PMP, PS, SP, PLS

Surveys & Mapping Manager

Role on Project: Manager, Geospatial Services

Years of Experience: 31

Education:
Associate, Computer Aided Drafting and Design, Pittsburgh Technical Institute, 1984

Registrations:
1999, NC, Professional Land Surveyor
2003, SC, Professional Land Surveyor
2010, VA, Surveyor Photogrammetrist

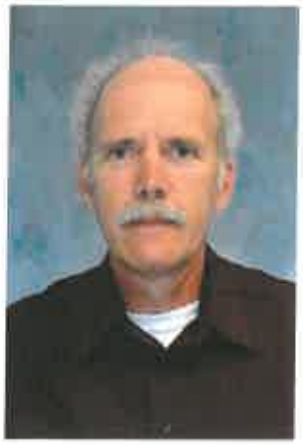
Certifications:
- Project Management Professional, #521453, 4/10/18

Mr. Kopchik's experience and education have provided him with the technical and management skills necessary for completing the most complex mapping projects. Over the past 29 years, Mr. Kopchik has had extensive experience in aerial photography, volume computations, digital orthophotos, GIS, and in producing topographic and planimetric maps. He is responsible for QA/QC activities including the checking and verification of planimetric and topographic maps, digital orthophotos, GIS projects, and stockpile inventories for numerous clients. Since joining L.R. Kimball, Mr. Kopchik has gained valuable knowledge in all phases of photogrammetry and GIS. He has been involved in planning, management, production, and delivery of many mapping projects undertaken by the firm. His knowledge, growth and diversity have allowed him to attain the position of a Senior Project Manager while also serving as the Manager of Geospatial Services. In summary, Mr. Kopchik has served in areas of mapping sciences such as project management, division operations, financial reports, budgets and estimates, technical and cost proposals, marketing, digital orthophotography, ArcInfo, KORK, Atlas, and Intergraph software, GIS applications, planning, and database design concepts, photogrammetry, surveying, data conversion, and stockpile inventories. Mr. Kopchik is also experienced in Microsoft Office.

Mr. Kopchik is experienced in managing the geospatial components of aviation related projects that require AGIS program specifications in accordance with Advisory Circulars 150/5300 -16A, -17C, and -18B.

Recent projects for which Mr. Kopchik has worked on include:

- **Cambria County Final Design, SR 0022, Section 005, PADEP.** PM for aerial photography, surveying and mapping activities in support of the engineering necessary for improvements to the existing 2-3 lane section to 4-5 lanes with realignment where necessary.
- **2014 - Washington County Airport Authority; Washington County, PA.** Project manager overseeing all surveying and mapping related efforts for the obstruction mapping and analysis project. Mr. Kopchik and his team were responsible for coordination and completion of the color aerial photography and ground surveys and also for completion of photogrammetric mapping, orthophotography, and OBS/AAA surveys in accordance with FAA Advisory Circulars 150/5300-16A, 17C, and 18B.
- **2013 – Somerset County Airport, Somerset, PA – AGIS Update Airport Master Plan.** Project manager overseeing all surveying and mapping related efforts necessary to provide the airport with an updated master plan. Mr. Kopchik and his team were responsible for coordination and completion of the color aerial photography and ground surveys and photogrammetric mapping in accordance with FAA Advisory Circulars 150/5300-16A, 17C, and 18B.
- **2013 – John Murtha-Johnstown Cambria County Airport, Johnstown, PA.** Taxiway B As-Built Survey - Project manager overseeing all surveying related efforts necessary to provide the airport with an as-built of the Taxiway B Lighting Improvements. Mr. Kopchik and his team were responsible for coordination and completion ground surveys and accordance with FAA Advisory Circular 150/5300 - 18B.
- **2005-2010.** Project Manager for 62 projects over a five period providing the PADEP with photo control, general surveying services, and photogrammetric planimetric/topographic mapping used for remediation engineering of AMD sites. Aerial photography used for mapping was acquired by the PADOT.



Stephen Landgrebe, PLS

Survey Party Chief

Role on Project: Survey Party Cheif

Years of Experience: 30

Education:
Associate, Surveying, Paul Smith's College of Arts and Sciences, 1987

Registrations:
2016, WV, Professional Land Surveyor
1995, NY, Professional Land Surveyor
2013, PA, Professional Land Surveyor
2009, TN, Professional Land Surveyor

Affiliations:
Former member of the New York Association of Professional Land Surveyors
Former member of the Town of Palmyra Planning Board

Certifications:
HAZWOPER (40 hour)

Mr. Landegrebe serves as a Senior Survey Party Chief with nearly 30 years of experience. He has been responsible for various aspects of survey field work, data reduction, and production of the required survey deliverables. His years of experience include horizontal and vertical control networks, geometry, boundary and ALTA/ACSM surveys, right of way surveys, erosion and sedimentation control relating to stakeout of silt fence, etc. along with utility surveying and construction inspection. Since joining L.R. Kimball, Mr. Landgrebe has gained valuable knowledge in various phases of surveying relating to architectural, civil design, photogrammetric mapping, stockpile volumes, and GIS projects.

Recent projects for which Mr. Landgrebe has worked on include:

- **Armstrong School District, New Junior-Senior High School, Armstrong County, PA.** Geotechnical Boring Stakeout, Survey Field Verification, and Subdivision Corner Monumentation.
- **Lehigh Northampton Airport Authority** - 2012 Queen City AGIS Mapping (ALP Update, Obstruction Mapping & Removal). Horizontal and vertical ground control network, runway centerline and profile surveys, planimetric detail surveying and field verification was completed in accordance with the current FAA AC150-5300 -18B Airport GIS specifications).
- **Peoples Natural Gas - Pipeline Replacement for Western PA.** Detail planimetric feature surveying was performed for the replacement of existing gas mains within various locations.
- **Wal-Mart - Kilbuck Wal-Mart Engineering Services, Allegheny County, PA.** Performed field survey monitoring of numerous monuments throughout the site and processed GPS data collected to be updated in the monitoring report spreadsheets.
- **Williamsport Regional Airport** - 2012 Conduct Environmental Assessment for Runway 9-27 Approach Improvements. Horizontal and Vertical Ground Control network, runway centerline and profile surveys, planimetric detail surveying and field verification was completed in accordance with the current FAA AC150-5300 -18B Airport GIS.
- **Sports and Exhibition Authority, City of Pittsburgh, PA.** Performed as-built survey of the proposed new road rights-of-way for Chuck Noll Way locating curbs, sidewalks and visible utilities to be included in production of survey plat and legal description

American Geotech, Inc.

Kanti S. Patel, PE

Education:

B.E. Civil Engineering, Gujarat University, 1977
Elective - Foundation Engineering
M.S. Civil Engineering, West Virginia University, 1979
Specialized in Geotechnical Engineering

Professional Registration:

Licensed Professional Engineer in the following states and commonwealths: West Virginia, Ohio and Kentucky

Years of Experience: 36

Professional Affiliations:

Contractors Association of West Virginia
American Society of Civil Engineers
Geo Institute of America
Deep Foundation Institute
Architects Institute of America of West Virginia

Professional Experience:

Mr. Patel started American Geotech, Inc. in 1993, and is responsible for the general operation and administration of the firm, serving as President. His technical responsibilities include serving as project engineer on a variety of geotechnical projects. He also oversees projects involving geotechnical drilling, field construction observation, field testing and laboratory testing. Prior to 1993, Mr. Patel was chief Geotechnical Engineer of Appalachian region for H.C. Nutting Company. Mr. Patel worked as a geotechnical engineer at H. C. Nutting Company for 13 years.

Mr. Patel has over 36 years of experience in the field of geotechnical engineering. He has been responsible for a wide variety of soils and foundation projects throughout West Virginia, Ohio, Virginia and Kentucky. His experience includes initiation, investigation, analysis, and design of classic geotechnical projects includes shopping center, commercial, industrial facilities, and landslide stabilization.

He has performed and supervised a large variety of engineering projects including: school buildings, hospitals, office buildings, chemical facilities, motels, shopping mall, roadways, air facilities and runways, and solid waste landfills. He has coordinated the drilling and soil laboratory analysis programs for large projects such as the Mt. Olive Prison site, Riverside High School, Embassy Suites Hotels, Holiday Inn Express, Southridge Shopping Center. He has thorough knowledge of the soil and subsurface conditions in West Virginia, Virginia, Pennsylvania, Ohio, Kentucky, and Maryland. He has performed over I 00 landslide studies and stabilization projects in West Virginia, Virginia, Ohio and Kentucky.

PROJECTS AND REFERENCES

Consulting Engineering Services, Cambria Somerset Authority

Contact: Mr. Earl Waddell, PE (814) 532-8851

Engineer of Record for Consulting Engineering Services

For the past 11 years, L.R. Kimball has provided annual general professional services as required for the Cambria Somerset Authority, for not only the 5 dams, but also the many miles of water supply pipelines owned and operated by the Authority. In addition, L.R. Kimball was involved in several special projects, including the preparation of NPDES permit applications and the design of conservation releases at the Wilmore, Quemahoning, Hinckston, South Fork, and Border Dams.

Emergency Action Plans

L.R. Kimball was retained by the Manufacturer's Water Company, and later by The Cambria Somerset Authority, to develop emergency action plans for the Hinckston, Quemahoning, and Wilmore Dams as required by the Pennsylvania Department of Environmental Protection (DEP) and the Pennsylvania Emergency Management Agency (PEMA).

Emergency Action Plans were required to be prepared by the dam's owner in order to pre-plan the coordination of necessary actions by the dam owner and the responsible local, state and federal emergency organizations for timely notification of a warning and evacuation in the event of an emergency at the dam. As the owner of the Hinckston, Quemahoning, and Wilmore Dams, Cambria Somerset Authority retained L.R. Kimball to simulate dam break analyses by computer modeling to determine downstream inundation limits and identify those municipalities located downstream of the dam that would be potentially impacted by a catastrophic failure of the dam. Prior to computer modeling to simulate a dam failure, L.R. Kimball personnel physically assessed downstream obstructions to determine their effect on the flood wave resulting from the dam break. Based on the determination of the affected downstream municipalities, L.R. Kimball project personnel prepared a step by step procedure to be followed by emergency personnel in such an event. Upon review and approval by the DEP and PEMA, all emergency response team leaders including DEP and PEMA were required to sign the plan indicating concurrence in the event of an emergency. Copies of the signed plans were distributed to emergency response agencies.

Emergency Action Plan Updates

L.R. Kimball prepared updates to the Emergency Action Plans for the Quemahoning, Wilmore, and Hinckston Run Dams. Work included updating the contacts at the emergency and rapid response organizations and review of the inundation area for any significant changes. A new breach analysis was performed for the Quemahoning Dam to address the recent modifications to the Dam and spillway. L.R. Kimball provided the preparation and assembly of the final documents.

L.R. Kimball personnel have provided the following services:

- Concrete rehabilitation inspection (for Quemahoning spillway)
- Stream bank erosion studies (for Que outlet channel and entrance road to Wilmore Dam)
- Material quantities and cost estimates (several projects)
- Field observations and site inspections (inspection of 3 dams plus site-specific inspections)
- Literature searches (for all 5 dams, each up to 100 years old)
- E&S control plans (for Wilmore Dam entrance road project & Wilmore conservation release)
- NPDES application (for conservation release in Minersville)
- Design of processes for discharge compliance (design of conservation releases for 5 locations)
- Studies and documentation to comply with Federal environmental and cultural resource issues (Wilmore Dam access road)
- Surface water sampling and analytical testing (Minersville conservation release)
- Hazardous, toxic & radioactive waste (HTRW) studies (Que and Hinckston intake lead paint investigations)
- Conducting studies and developing reports pertaining to flood control (EAP and breach analyses for 3 dams)
- Ecosystem restoration (access road to Wilmore Dam)
- Risk assessments

Annual Dam Inspections, Borough of Ebensburg, Ebensburg, PA

Contact: Mr. Daniel Penatzer, (814) 472-8780

L.R. Kimball prepared the 2005 Annual Dam Inspections and Reports for the Ebensburg Storage and Howell's Run Dams from 2005 to 2015. This involved the review of previous reports, detailed inspection of the dam embankment and appurtenances, and preparation of a report to the PADEP detailing current status. These inspections are intended to provide assessment of the current status of the structures with respect to slope stability, hydraulic performance, and recent maintenance.

Annual Dam Inspections, Claysville Donegal Joint Municipal Authority, PA

Contact: Peggy Hickman (724) 663-7770

L.R. Kimball provided annual Dam Safety Inspections for the School Street and the Jack Clutter Dams. Both of these structures required detailed inspection, followed by breach analyses conducted under a variety of potential failure modes (with and without breach, sunny day breach, and with and without downstream storage included in the model). Following completion of the breach analyses and coordination/acceptance by the PADEP, inundation maps were prepared for inclusion in the updated Emergency Action Plans.

Five-Year Safety Inspections, Central Hudson Gas & Electric Corporation, Sturgeon Pool Dam, Ulster County, NY

Contact: Mr. Mike Hogan (845) 883-3337

L.R. Kimball performed the Five-Year Safety Inspections for this 15 mw Hydroelectric Generating Facility Dam, which is classified as a High Hazard Potential Dam due to downstream concerns. The structure is a concrete gravity dam (maximum height of 108.5 feet) consisting of a central overflow (ogee) crest, a non-overflow bulkhead on the right abutment, and a penstock intake and high-level overflow on the left abutment. Although the structure does not fall under the licensing criteria established by the Federal Energy Regulatory Commission (FERC), the inspection and report were prepared similar to the provisions of 18 CFR Part 12 (Subpart D), so as to conform to the licensing standards. As a result of previous inspections, L.R. Kimball recommended that additional studies be completed to investigate and document the stability of the dam. Stability concerns at the structure included the stability of concrete ogee spillway and abutment contact slopes.

A subconsultant drilling company completed exploratory borings into bedrock at the project site to investigate and document the condition of the dam, foundation and interface between the dam and bedrock. Monitoring instrumentation included two vibrating wire piezometers which were installed into the bedrock to measure the pore pressures within the rock mass.

Data was collected and analyzed from the piezometers for a period of one year to determine uplift pressures for use in the stability analysis of the dam. Based on the results of the drilling testing and piezometers, the stability of the dam was analyzed using a FEM. The project involved drilling two borings through the concrete dam and into the underlying bedrock. The drill rig was set up in the lower gallery of the dam, which is 6 feet wide by 8 feet high. The rig was a small electric drill and was partially disassembled and taken into the gallery via an outside door on the spillway. The borings were drilled to an approximate depth of 40 feet, and vibrating wire piezometers were installed in the borings and connected to a remote sensing unit to determine pore pressures in the underlying bedrock. Rock core samples obtained during drilling were tested to determine engineering parameters of the concrete/rock interface. Data obtained from the lab testing and piezometers was used to model the dam for stability.

L.R. Kimball was also involved in the preparation of responses to a comment letter issued in October of 2001 by the NYSDEC regarding a proposed plan to replace the existing pool-adjusting flashboards with an inflatable rubber dam. The comments required an evaluation of the probable impact of the inflatable rubber dam on the performance of the dam under regulatory hydrologic conditions. These conditions had previously been evaluated by CT Main in 1978, using the existing flashboard alignment and hydrologic data obtained from local stream and rainfall gages. The rainfall values were updated to reflect HMR51 values, and the analysis revealed that there would be minimal change in the hydrologic/hydraulic performance of the structure with the inflatable rubber dam. In addition, it was found that what changes were anticipated would be positive (i.e., the operators would have significantly more control over pre-storm conditions, and maintenance costs would be reduced).

Safety Inspection, Central Hudson Gas & Electric Corporation, High Falls Dam, Ulster County, NY

Contact: Mr. Mike Hogan (845) 883-3337

In 2010, Central Hudson Gas and Electric Corporation (CHG&E) retained L.R. Kimball to perform a safety inspection and report for the High Falls Hydroelectric Dam. The inspection and report were performed similar to the provision of 18 CFR Part 12 (Subpart D), applicable to the Federal Energy Regulatory Commission (FERC) license requirements, although the FERC does not license the High Falls Dam.

Staff members of L.R. Kimball conducted an inspection of the High Falls Dam to assess the condition of the dam with respect to overall safety. The Dam is located on Rondout Creek, near the village of High Falls, in Ulster County, NY, and is classified as an intermediate hazard potential dam, operated and utilized for hydropower generation. The power station can produce 3 megawatts through a single turbine.

The dam is located at the site of a natural waterfall. The first hydroelectric facility was constructed on this site in 1909 and 1910, generating approximately 1 megawatt through two generating units. A third generating unit was added in 1926, raising the capacity to approximately two megawatts. This facility was closed in 1972 due to unfavorable economic conditions, but reopened in 1983 when the price of electricity began to climb. However, the dam had not been inspected since reinstatement.

L.R. Kimball staff provided a post-inspection report that discussed the hydrologic/hydraulic capacity of the structure, stability of the structure under various flood conditions, current operating procedures and recommendations for future maintenance and operations changes

Due Diligence Evaluation, Central Hudson Gas & Electric Corporation, Bangor Hydro Dam Reviews, Bangor ME

Contact: Mr. Mike Hogan (845) 883-3337

L.R. Kimball performed a due diligence evaluation of a series of hydroelectric generating dams to be sold by the Bangor Hydro Electric Corporation in Bangor, Maine. Our engineers and geologists conducted a literature search of available information regarding the design and subsequent repairs, previous inspection reports, various permitting issues, and operations and maintenance of the dams and hydroelectric facilities. Following the literature search, each facility was visited to assess the existing condition of the structures relative to safety, integrity, and operations. L.R. Kimball also reviewed the status of the FERC license and potential for renewal for each of these low-head, run-of-river dams.

For most of the structures, a major issue was the necessity for installation of fish ladders to permit migration of salmon, eels, and shad to upstream areas owned by a local Indian reservation. This issue, along with the relatively low production capability and extreme age of the structures (many of which were constructed at the turn of the century for logging and paper-making purposes), made some of the structures unattractive for acquisition. However, several of the others were state-of-the-art dams with impressive production capability, and as the owner desired to sell the entire system as one package, a detailed evaluation of each structure was vital to Central Hudson. Following completion of the literature search and individual structure site visits, a detailed report was prepared discussing the advantages and disadvantages of each facility, and this report was utilized by Central Hudson to establish a bid price for the facilities.

Dam Safety Inspections, PPL Generation, LLC, Various Locations, PA

Contact: Mr. John Cincilla (610) 774-5896

L.R. Kimball performed dam safety inspections for PPL Generation, LLC for 11 dams at seven different facilities in their eastern Pennsylvania locations, extending as far south as Lancaster and north to Lackawanna Counties, and from Pike County in the east to Snyder County in the west. These inspections included communication with PPL staff regarding site maintenance and operation, detailed inspection of the dam embankment and hydraulic structures for potential problems, follow-up communication with PPL staff regarding issues that were noted during the inspections, and the preparation of summary reports with attached photographs documenting observations and recommendations.

Dam Safety Inspections, Grace Mill Tailings and Millwater Dams, New Morgan Borough, Berks County, PA

Contact: Mr. Rob Raquet (610) 913-7516

Since the early 1990's, L.R. Kimball has been involved with a variety of site owner/developers to complete a variety of projects required for continued permit compliance and operation of the two dams located on the Morgantown Properties site. These projects included quarterly and annual dam inspections for the Grace Mine Tailings Dam and Millwater Dam, updating the emergency action plans (EAP) and preparing breach analyses and inundation maps for both dams, and an analysis and conceptual design of the Gate Structure modifications for the Millwater Dam.

The Grace Mine Dam is a tailings impoundment developed throughout the 1960's – 70's by Bethlehem Mines Corp., for their onsite iron mine. The tailings operations were completed in the mid-1970's, and the lake has been the focus of multiple conceptual site development plans since then, including those for an industrial park, residential housing, a hotel/resort area, one or more golf courses, and a recreational/camping area. The current development plans have been tentatively placed on hold pending completion of environmental investigations of the tailings material and satisfaction of EPA and PADEP permit requirements.

Annual Dam Inspections, RNS Services, Inc., Freshwater Impoundment at Oneida Dilltown Facility, Dilltown, Indiana County, PA

Contact: Mr. Rusty Taylor (570) 638-0219

The Custom Coals Dilltown Facility had been closed for several years; however, they maintained a PADEP Dam Safety Permit for the operation of the Freshwater Impoundment, and MSHA permits for the operation of two small mining related ponds. The Freshwater Impoundment required an annual inspection, which L.R. Kimball had performed for many years. When purchased by RNS Services, L.R. Kimball approached MSHA and PADEP to discuss the two mine treatment ponds, with the object of declaring the ponds "abandoned without precluding the impoundment of water," so that the MSHA permits could be waived and no future inspections required. Letter reports were prepared to both the PADEP and MSHA.

The Emergency Action Plan for the Freshwater Impoundment was also prepared and submitted to DEP, along with an inundation map indicating those portions of the downstream areas that would be potentially impacted in the event of a failure of the dam.

Annual Dam Inspections, Gene Pluto, Breskin Dam, Ligonier Township, Westmoreland County, PA

Contact: Mr. Gene Pluto (412) 837-5899

L.R. Kimball has performed the annual dam inspections for the Breskin Dam in Ligonier Twp, Westmoreland County from 1994 through 2010. The 2011 annual dam inspection is scheduled for later this year. Inspection reports are submitted to the Pennsylvania Department of Environmental Protection to meet the regulatory requirements for a dam inspection prior to the end of each year.

L.R. Kimball also prepared the Emergency Action Plan and Inundation Map for the Breskin Dam in 1997, and in 2004 updated the maps to make them consistent with current EAP standards.

PROJECT GOALS AND OBJECTIVES

The request for Expression of Interest stated three defined goals/objectives for this project involving the inspection, evaluation, analysis, and design of improvements to the following dams:

- Rollins Lake #1 Dam - Jackson County
- Rollins Lake #2 Dam – Jackson County
- Turkey Run Dam – Jackson County
- Fairfax Pond Dam – Preston County
- Upper Deckers #3 Dam – Preston County
- Upper Decker #7 Dam – Preston County

Goal/Objective 1: Review all existing, available information related to each dam, review the condition of each dam via a visual inspection, obtain operational procedures for the dam and facilities from discussions with DNR operations staff, and communicate with the DNR representatives to develop a cost effective and timely plan of action to address the deficiencies of each dam that can be implemented with minimal impact to the ongoing operation of the facility. The plan may include phases based on a schedule to address funding as well as urgency of addressing deficiencies.

Goal/Objective 2: Provide the necessary professional engineering to: prepare permit applications (Certificate of Approval for Dams & Erosion and Sediment Control), design, construction drawings, construction specifications, bid packages, and construction cost estimates of proposed improvements to address each dam's deficiencies; prepare Maintenance Plans; prepare Monitoring and Emergency Action Plans; and provide other required services for the completion of the plan established under Goal/Objective 1.

Goal/Objective 3: Provide Construction support and Contract Administration Services with qualified staff to oversee construction to result in a successfully completed project that complies with the design and required functionality.

Approach

This section provides a general plan of approach for the subject project. Coordination with the DNR will be ongoing through the life of the project. Regular coordination meetings will address the progress, obtain input and obtain approvals for permit submissions, contracts, pay estimates, etc. throughout the project.

1. Kick-off Meeting

The project manager and key staff will meet with DNR staff to review the project scope, available funding, communication plan, and obtain available information related to each dam.

2. Field View

Key staff of the L.R. Kimball team will perform a field inspection of each dam to become familiar with the condition of the existing facility, topographic conditions, and downstream exposure, and to obtain record information to be used in the design of the proposed improvements. To assist with the field view, DNR operational staff should be present to assist with access and provide input regarding operations. Photographs will be taken to assist with the design of the proposed improvements.

3. Development of Plan of Action

Initially, L.R. Kimball will develop a tabulation of the deficiencies that need to be addressed for each dam. This will be based on the available information, including the operational needs and deficiencies identified during the field view. Additional studies and investigations necessary to further determine the condition of existing facilities will be outlined. These deficiencies and additional studies/investigations will be discussed with DNR personnel. Based upon the discussion, a draft action plan with budget estimates will be prepared for each dam and presented to DNR for review and discussion. Based on the comments, the action plan will be revised and submitted for approval to DNR. During this phase, the elements of the work plan will be established (activity, milestone, deliverables). The work plan will identify the duration of each activity and the sequence of activities that will take place to accomplish each of the project tasks.

4. Mapping and Surveying

Where required for the analysis and design of proposed improvement, L.R. Kimball will prepare either field surveyed or photogrammetric mapping. The mapping will be prepared in conformance with national mapping standards, and will identify the topography of the areas in question, as well as the location of other important features.

5. Engineering Design

A preliminary design will be prepared using the topographic mapping, consisting of the following steps:

- Contact local utilities/authorities to identify the locations of their existing facilities
- Obtain property mapping information to denote existing property lines from county records. No title search or plotting of deeds will be performed during the preliminary design.
- Prepare a preliminary layout of proposed modifications
- Develop a preliminary construction cost estimate based on the preliminary layout

The preliminary design will be submitted to DNR for review and comment.

Final design will be performed based upon the comments received on the preliminary design. The final design will consist of the following steps:

- Incorporate preliminary design comments
- Prepare construction drawings consisting of:
  - Title Sheet
  - General Notes and Legends
  - Plan Sheet(s)
  - Construction Details
  - Erosion and Sedimentation Control Details
- Prepare construction specifications
- Prepare construction bid package
- Update construction cost estimate
- Notify Utilities.

6. Permit Applications

It is anticipated that the following permits/approvals will be required for modification of the dams.

Certificate of Approval for the Dam in accordance with the Dam Safety Rule (47CSR34) requirements - L.R. Kimball will prepare the application forms for the certification. The application will be submitted to the WV Department of Environmental Protection – Dam Safety for their review and approval. The requested information and supporting engineering computations along with the construction drawings and specifications will be provided.

General WV/NPDES Water Pollution Control Permit for Stormwater Associated with Construction Activities – The design will include the preparation of a sedimentation control plan and construction stormwater pollution prevention plan to meet current requirements. The plans will consist of the narrative report and construction drawings with details and notes.

WV Division of Highways – Highways Encroachment Permit form will be prepared for any proposed construction within a state highway right-of-way in accordance with "Accommodation of Utilities on Highway Right of Way".

L.R. Kimball will prepare the applications and provide the necessary supporting documents for the permit application submissions. The permit fees will be the responsibility of the DNR.

Easement Plats

L.R. Kimball will prepare easement plats if required to perform the improvement construction for the dams.

Bidding and Engineering During Construction

1. Bidding and Negotiating Phase

L.R. Kimball will assist the DNR in performing the bidding of the dam repairs and improvements. Work. The work items required during this phase will include:

- Assist the DNR in advertising for and obtaining bids
- Attend and prepare minutes for Pre-Bid Conferences with prospective contractors
- Assist the DNR in receiving and processing requests for Bidding Documents
- Issue addenda, as appropriate, to interpret, clarify, or expand the bidding documents
- Attend the Bid Opening, prepare bid tabulation sheets, and assist the DNR with evaluating the bids, bonds, and insurance, for awarding the construction contracts
- Provide construction plans and specifications for bidding.

2. Contract Administration and Construction Inspection

L.R. Kimball will provide engineering services during construction, including full-time construction inspection, if desired. Construction Phase Services will include:

- Attend a Pre-Construction Meeting
- Attend and lead Progress Meetings with the contractor
- Review shop drawings
- Prepare change orders
- Review contractor progress payments
- Ensure that the project is being completed in general conformance with the intent of the contract documents
- Provide monthly project status reports
- L.R. Kimball will also conduct a final inspection and prepare a punch list of incomplete work, or work that is not in accordance with the Contract documents
- Prepare the Certificate of Completion
- Finalize the As-built Drawings
- Prepare minutes of meetings

The following matrix provides a summary of anticipated activities, evaluations, and improvements for each of the six dams based on a review of the dam inspection reports provided in Addendum #1.

STATE OF WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
Modifications/Repairs of Six Dams

	Rollins Lake #1 Dam	Rollins Lake #2 Dam	Turkey Run Dam	Fairfax Pond Dam	Upper Decker's #3 Dam	Upper Decker's #7 Dam
Height	9	7'	33'	13'	14'	15'
Class	2	2	1	Unknown	1	1
Required Actions						
Certificate for Approval for the Dam	X	X	X	X	X	X
Maintenance Plan	X	X	X	X	X	X
Hydraulic Analysis			X		X	X
Dam Break Analysis	X	X		X	X	X
Monitoring & Emergency Action Plan	X	X		X	X	X
Downstream Seepage Evaluation	X	X			X	X
Downstream Tailwater Evaluation			X	X	X	X
Addition of Auxiliary Spillway	X	X	X	X		
Scarp & Bulge Evaluation			X			
Stability Analysis			X		X	X
Maintain Vegetation	X	X	X	X	X	X
Embankment Maintenance	X	X	X	X	X	X
Embankment Crest Repair	X	X		X		
Primary Spillway Repairs			X	X		
Provide Trash Rack			X			
Inspection of Pipe Spillways	X			X	X	X
Inspection of Spillway Outlet Structure			X			
Erosion Repair at Spillway Outlet				X	X	

COMMUNICATION PLAN

L.R. Kimball's project management structure is based upon a model that utilizes a strong Project Manager as the initial point-of-contact for our clients. Your project will follow a Project Manager-led structure. Accordingly, Cameron R. Mock, PE, will serve as L.R. Kimball's Project/Program Manager for this project. He will report internally, directly to the Operations Manager and Principal-in-Charge for this project. Mr. Mock has managed a broad range of projects throughout his career that have varied greatly in size and scope and involved new construction as well as rehabilitation and additions to existing facilities. Mr. Mock's project design, production, and management experience includes a wide range of products and he has developed a strong reputation for delivering multiple projects on time and within budget.

L.R. Kimball's project management will include strong and continuous communication with your staff as well as copious record keeping for the project. This project will be assigned an internal project number for clarity of record keeping and tracking through our project management procedures, which focus on three key areas: Schedule Control, Cost Control, and Quality Control. L.R. Kimball's experience and our procedures pertaining to these three key components of project management are described in detail on the following pages.

The communications plan will be reviewed at the initial kick-off meeting. The DNR's primary contact will be identified, as well as other DNR team members and L.R. Kimball team members involved in the project. All communications will be provided electronically to include the entire team. Tools such as email, NewForma, skype meetings, and conference calls will be used to assist with the distribution and communications for the project. When appropriate and/or requested, hard copies will be provided. L.R. Kimball will prepare and distribute meeting notes to document discussions and decisions made.

Monthly written progress reports will be provided to DNR that will summarize what was completed, planned actions for the next month and a review of the schedule. Any issues or concerns will be identified. The report will be provided monthly to the project team based on the date selected by the client for reporting.

DELIVERING PROJECTS ON TIME AND WITHIN BUDGET

Schedule Control

The project schedule will begin with the preparation of a Project Scope and Schedule Description. The challenge in controlling any project's schedule is the early clarification and identification of program, scope, and approach at the outset of the project, with coordination of all parties involved. The project schedule is viewed by L.R. Kimball as critical to the development of any project and will be discussed immediately with your staff. Specific discussion regarding the project timetable will occur at the Kick-Off Meeting.

As the project develops, it will then be our responsibility to help coordinate all communications with you and all members of the project team, to ensure that the schedule is completely understood in terms of its impact on all approval processes and construction start. L.R. Kimball has developed a day-by-day scheduling process in which each approval meeting, deadline, milestone, design meeting, and other appropriate scheduling component is identified.

L.R. Kimball will arrive at the "kick-off" meeting with all of this information preliminarily identified and documented. As part of the kick-off meeting we will work to solidify these requirements and dates. In addition, to facilitate communications, L.R. Kimball will provide a fully developed project team listing to include all participants. This helps in the communications process immediately.

Throughout the duration of the project, this schedule will be reviewed, refined, and discussed among all project team members on a regular basis. The need to expedite client plan reviews for project permitting and funding processes will allow the design of the project to move quickly to the bidding phase, or alternatively to another construction delivery methodology. Planning for a well-integrated construction delivery phase through coordination with the DNR will help to accomplish the construction phase in an accelerated timetable and identify long lead items and possible pre-purchase of equipment or materials.

L.R. Kimball's Project Manager and other team members will monitor the construction schedule to ensure that shop drawings and other contractor submittals are submitted and processed in a timely manner. In the event of delay, L.R. Kimball will act as a facilitator. Document clarification is a routine part of construction phase activities, and L.R. Kimball uses a computerized log to track the dates the clarification is requested, issued, received, and sent back to the Contractor. This log describes the clarification and establishes a due date for the response. It generates a "tickler file" to keep the status current for the Project Manager.

Cost Control

L.R. Kimball's procedures for cost control ensure that sufficient opportunity is provided to accommodate changes in scope prior to the final design/construction documents phase, to avoid cost overruns. Construction cost estimates will be provided throughout the project, and by continually addressing the cost implications throughout the early phases of design, the team is able to identify cost issues before unrealistic expectations are created. These estimates will be prepared at increasing levels of detail as the project documentation is developed.

L.R. Kimball's approach to developing preliminary project costs is based on the use of historic data developed by L.R. Kimball professionals involved in the design of similar recent and relevant facilities. Additionally, Dodge Construction reports, trade journals, construction managers, and our independent estimators are consulted to achieve realistic preliminary project costs. The keys to successful estimating are the early identification of all components that carry a project cost, the establishment of an adequate project contingency, and confirmation of the workload in the marketplace with the local construction industry.

In order to maintain the project budget, it is critical to evaluate the budget at each phase of the project. In the budget development process, we will work closely with your representatives to understand the cost ramifications of various design decisions.

Additionally, we at L.R. Kimball understand the need to select systems that are economical from the day they are purchased throughout the life of the facility. Every major system is evaluated in terms of initial purchase, availability, operating/life cycle costs, and maintenance and replacement costs. Availability of long lead items is also taken into consideration, especially as it relates to project schedule and construction phasing.

As a result of L.R. Kimball's procedures for cost control previously mentioned, we can restate that on major design projects, these procedures will ensure that sufficient opportunity is provided to accommodate changes in scope prior to the final design/construction documents phase in order to avoid excessive cost overruns. Our experience on a multitude of projects varying widely in size, scope, and complexity will enable us to provide accurate, detailed cost estimates at various phases for the project.

During the design and construction documents phases, the quality of the overall construction documents also has an effect on any project's cost control during the construction administration process. Our in-house quality control and cross-discipline review processes will be key components in the control of these costs by L.R. Kimball. Based on this cost control process, our team has a long track record of creating highly efficient and cost-conscious projects within our clients' pre-established budgets.

Quality Control

L.R. Kimball maintains an in-house team of experienced architects, engineers, project managers, and construction-related staff who are responsible for rigorous quality assurance and quality control (QA/QC) of construction documents on all design projects. These reviewers are typically not part of the regular project team that they are assigned to review, but they are familiar with the type of project, thereby facilitating reviews through a "fresh set of eyes".

Our QA/QC (Quality Assurance/Quality Control) team follows an established policy for drawing review and coordination. These reviews are in addition to the continual reviews undertaken by the Project Manager and Senior Technical Leaders within each discipline. These formalized QA/QC reviews take place at the 30%, 60%, and 90% stages of the production of construction documents. Our Project Manager works closely with the QA/QC team during this review process for each project.

L.R. Kimball's QA/QC reviews also include coordination of the construction drawings with the documents produced by all disciplines involved in the design. In this regard, we utilize an interdisciplinary coordination process and construction document review system specifically designed to address points of interface, enabling both production personnel and our QA/QC team to locate discrepancies between disciplines.

Following the above procedures has improved the consistency of our work product and has helped to control costs and minimize change orders during construction. We do not currently track the percentage of change orders vs. estimated construction costs, since we find that the majority of construction change orders are from client requests to add or change items based on having available funds to work with.

The following is a list of 3 water and 1 wastewater projects of varying size indicate the percentages of changes that were incurred during construction due to change orders.

Project Name	Contract Value	Final Value	% Change
Ebensburg Water Treatment Plant Upgrade	$2,242,217.00	$2,251,338.52	+ 0.4%
Ebensburg Waterlines and Valve Replacements	$1,675,187.00	$1,668,870.92	- 0.4%
Ebensburg SCADA Control System	$ 176,790.00	$ 176,790.00	0.0%
Mylo Sanitary Sewer Replacement Project	$ 902,464.92	$ 912,778.94	+1.1%

L.R. KIMBALL'S NEAREST OFFICE

The location of CDI L.R. Kimball's nearest office to WV DNR is:

500 Corporate Landing
2nd Floor
Charleston, WV 25311

From this office, CDI L.R. Kimball can provide the following staff:

- Civil Engineers
- Structural Engineers
- Mechanical Engineers

The identified project team is located at:

615 West Highland Avenue
Ebensburg, PA 15931

In addition, L.R. Kimball assures the DNR that, to the fullest extent possible, we will attempt to retain the original personnel assigned to the project throughout its completion. Should unforeseen circumstances arise where a change would be necessary, an equally qualified professional will be made available. In addition, any change in personnel will be discussed with and agreed to by the DNR prior to any changes being implemented.

APPENDICE 1. L.R. KIMBALL OVERVIEW

Company Overview

Firm History

CDI Corporation, a parent company to L.R. Kimball, has delivered engineering and technology solutions and recruitment and staffing services for almost 70 years. Our solutions and technical and professional staffing services allow our clients to improve productivity, performance and profitability and maximize growth potential. We offer a full range of engineering design and project management services across a variety of industries, including energy, chemicals, aerospace, & industrial equipment, infrastructure, and government and defense. To support our engineering and IT solutions businesses and to provide ad hoc talent acquisition services to our clients, CDI provides best in class talent sourcing and recruiting services supported by a set of skill-focused teams who are experienced in each of our core industries. CDI leverages these recruiting teams, in combination with highly experienced account managers and a world class back office to staff and manage complex projects, deliver large scale contingent staffing programs and MSPs, and provide direct hire and pay rolling services to our client base.

L.R. Kimball – A CDI Company

CDI continues to rank among the leading design firms. Engineering News Record (ENR) is the publication of record of record for over 70,000 engineering and construction industry professionals throughout North America. ENR published its Top 500 Engineering Design Firm rankings for 2016, and once again CDI was ranked among the leading design firms in North America. Our rankings include:

- Top 20 Design Firms for Manufacturing Sector: #7
- Top 100 Pure Designers: #13
- Top 20 Design Firms for Industrial Process/Petroleum Sector: #14
- Top 50 Design Firms in International Markets: #20
- Top 500 Design Firms: #26

What We Do

L.R. Kimball is headquartered in Ebensburg, Pennsylvania with offices in four states including Charleston, West Virginia. We offer expertise in engineering and architecture to local, regional, state and federal government agencies, as well as school districts, universities, and private businesses. We have extensive experience in these fields:

- Water Resources
- Water
- Wastewater
- Transportation
- Public Safety
- Networks
- Geospatial Services
- Facilities Engineering
- Environmental Services
- Education
- Data Systems
- Civil Engineering
- Aviation
- Architecture

Our clients benefit from a wide range of qualified professionals and effective quality control that result in timely, cost-efficient projects. With our integrated services, L.R. Kimball has the ability to fulfill nearly every aspect of most projects. The strength and diversity of our expertise enables us to look at every project holistically, ensuring that each aspect of the project's design and engineering integrates with the others, as well as with the neighboring environment and facilities.

About CDI Corporation

CDI Corp. seeks to create extraordinary outcomes with our clients by delivering solutions based on highly skilled and professional talent. Our business is comprised of four segments: Enterprise Talent, Specialty Talent & Technology Solutions, **Engineering Solutions** and MRI. Our client offerings include an array of engineering design project solutions, information technology project solutions and managed services, specialty technology staff augmentation, and program and managed staffing services. Our clients are corporations in multiple industries, including energy, chemicals, infrastructure, aerospace, industrial equipment, technology, as well as municipal and state governments, and the U.S. Department of Defense. We have offices and delivery centers in the United States, Canada and the United Kingdom. In addition, we also provide recruiting and staffing services through our global MRINetwork® of franchisees. Learn more at www.cdicorp.com

Water Engineering

L.R. Kimball has successfully produced or assisted in the evaluation, design, financing, construction, and implementation of hundreds of water facilities projects for over 50 years. L.R. Kimball is capable of completing all elements of a planning and water system improvement project. We have developed work plans involving the application of unique planning and design strategies in response to issues, stringent compliance orders, statutory or regulatory requirements, and financial and institutional issues related to the owner's needs. L.R. Kimball is experienced in working with (and within) multi-jurisdictional authorities and has achieved great success in meeting state and local permitting and other regulatory requirements. We are pro-active with regulatory and financial agencies and maintain routine contact with agency personnel. This approach ensures that project issues and constraints are understood by all parties, facilitates the permit and funding approval process, and minimizes potential delays in project implementation. L.R. Kimball has assembled an experienced project team of dedicated professionals who have established working relationships with federal, state, county, and local agencies.

WATER SERVICES

- Dam designs and inspection
- Hydrologic and hydrogeologic modeling
- Emergency Action Plans
- Water reservoir safe yield evaluations
- Water Allocation Permit Applications
- Water facility and corrective action planning
- Surface and groundwater source investigations
- Wellfield designs
- Water storage and distribution designs
- Water System Modeling
- Water treatment facility designs
- Project financing, administration, and implementation plans
- Underground utilities
- Wellhead protection studies
- Public outreach
- Public Water Supply Permit Applications

L.R. Kimball's Primary Services

Civil and Environmental. Since the 1950's, we have built an outstanding reputation in civil and environmental consulting services. The wide spectrum of our clients includes industry, institutions, commercial facilities, utilities, private developers, and military and governmental agencies. Starting with the client, our project team conducts assessments and planning, siting, testing, permitting, design and construction monitoring, with the goal of creating innovative solutions to complex, critical issues.

Our clients can expect full civil and environmental support for their projects. Our services also include full engineering support for facility and site designs, site assessments, hazardous materials management, geotechnical investigations and analysis, employee health and safety management and environmental permitting. These projects run the gamut of multimillion-dollar commercial, resort and hotel developments; industrial park and office complex developments; subdivisions; water and wastewater facilities; military facilities; solid and hazardous waste disposal operations; industrial facilities; utilities; and manufacturing facilities. We also assist the client with planning, financing options, grant assistance, cost of service studies, construction monitoring, and operations consulting.

Transportation. Highways, bridges, airports – the infrastructure that supports the movement of people and goods throughout the country. The design, construction, and maintenance of that infrastructure is critical to the economy and to the health and safety of the population. Structural integrity, safety, environmental impact, and design criteria of air and ground transportation facilities require a seasoned, knowledgeable staff who are well-versed in all aspects of integrated planning and context sensitive design. L.R. Kimball's Transportation Division can provide that team.

Using the latest technology, we offer a full complement of planning, project administration, design, environmental permitting, construction inspection, and environmental studies for large and small projects. We take pride in our track record of maintaining successful, long-term relationships with our clients, including state departments of transportation, turnpike commissions, airport authorities, counties, municipalities, and developers.

Mapping Sciences. We offer full-service mapping sciences, including: surveying, aerial photography, analytical aerotriangulation, photogrammetry, planimetric and topographic mapping, digital orthophoto production, cadastral mapping, E9-1-1 addressing, environmental mapping and GIS. Our self-contained mapping operation is supported by an array of technical personnel. Throughout the years, L.R. Kimball has evolved to meet the ever-changing needs of our clients, from traditional land surveys to the most advanced digital mapping, remote sensing and GIS applications. With over 50 mapping experts, we have the capacity, expertise and equipment resources to undertake projects of varying sizes and technical complexity.

Architecture and Engineering Building Systems. Our services include innovative design for new buildings as well as renovation and adaptive reuse of existing buildings. A L.R. Kimball project is designed not only with aesthetics in mind, but also to meet the specific environmental needs of the people who work, learn, or live in that space. We consider the responsible stewardship of natural resources and energy sources in our projects to be a top priority. We have established a reputation as leaders in high-performance sustainable green building design.

A successful architectural project requires an integrated approach from all of our divisions. Every project is assigned to a design team under the direction of a talented project manager, who coordinates the work of all involved.

CE Services

L.R. Kimball provides a wide range of civil and environmental services to industry, institutions, commercial facilities, and utilities, as well as local, state, and federal government. We work with many of our clients on acquiring project financing, grant applications, administration and implementation plans to assist them in reaching their goals. Our approach to civil and environmental projects is to provide cost-effective, value-conscious solutions while reducing the project risk for our clients. These solutions have often demonstrated significant "bottom line" improvements. The following pages illustrate our primary service areas.

Civil and Environnemental Services

- Land Development and Site Design
- Demolition Consulting
- Geotechnical Engineering
- Drilling
- Stockpile Inventories
- Hazardous Waste Management
- Environmental Site Assessment and Permitting
- Solid Waste Management
- Electric Utility
- Hazardous Materials Assessment and Air Quality
- Industrial Hygiene and Safety Consulting
- Environmental Management Systems
- Air Quality Compliance and Permitting
- Water and Wastewater Engineering
- Water Resource Management
- Stormwater Management

Land Development and Site Design

L.R. Kimball knows what it takes to get the job done right the first time. From providing land planning, civil and environmental services for small community parks to big box retail, commercial, and industrial facilities, L.R. Kimball knows what is important to you.

L.R. Kimball has completed numerous land development projects including retail, residential, commercial, office, educational, recreational, and brownfields. A wide variety of comprehensive and master plans have been developed for local and county governments; state agencies; regional authorities; and residential, commercial, and industrial developers.

L.R. Kimball's expertise in the acquisition of regulatory approvals for land development projects is unsurpassed. From municipal zoning approvals to state transportation and environmental permits, L.R. Kimball has successfully secured permits for small- and large-scale land development projects.

> *"Kimball can be proud of the quality of work the staff is producing and be assured that it is noticed and appreciated. I have no reservations in recommending Kimball to any client requiring similar work."*
> -Jeffrey J. Raymond, President

Services

- Pre-development feasibility
- Plan processing and regulatory approvals
- Stormwater management
- Land planning and landscape architecture
- Survey and mapping
- Site and civil engineering
- Environmental site assessments
- Brownfields evaluations
- Utility transmission line design and coordination
- Pavement designs
- Right-of-way acquisitions
- Subdivision and land development compliance
- Erosion and sediment control plans preparation
- NPDES permitting
- Comprehensive and master planning
- Geotechnical evaluations
- Wetland investigations
- Photo enhancements and renderings
- Project siting studies
- 3-D visualization services
- Zoning approvals

Demolition Consulting

Whether our clients choose implosion or conventional means, L.R. Kimball's professional staff of engineers and technicians can provide complete demolition services. These range from pre-condition surveys and assessments through demolition, to site development work for new facilities. L.R. Kimball will assure the client that all necessary coordination with governmental regulatory, environmental, public safety and health agencies takes place in a timely and cost-effective manner.

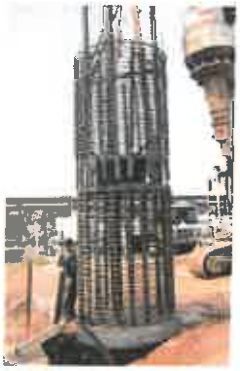
L.R. Kimball offers a talented multi-disciplinary team under the direction of an experienced project manager. This approach allows you to access all of the necessary demolition services through a single point of contact, insuring excellent quality control and facilitating all necessary communication and coordination. Our professional staff is ready to support our client with the talent and experience required for a successful project.

Services

- Structural, mechanical, electrical, and plumbing engineering
- Environmental engineering
  - Environmental inspection
  - Abatement design
  - Abatement oversight
- Pre-condition surveys
- Surveying
- AutoCAD
- Detailed bid document preparation
- Cost estimating
- Bidding and construction phase services
- Inspection services
- Civil and site planning and design
- Drilling
- Geotechnical laboratory testing
- Geotechnical investigations

"Kimball has offered novel ways to make the project more cost-efficient."
Pittsburgh Steelers Sports, Inc.

Geotechnical



Geotechnical engineering is vital to the success of any construction project. Early inclusion of geotechnical engineering professionals into the planning stages of a project is critical in identifying and minimizing potential problems. Geotechnical engineering adds value to projects and saves money.

Our in-house geotechnical laboratory has been accredited by the American Association of State Highway and Transportation Officials (AASHTO) Accreditation Program (AAP) in the fields of soils and Portland cement concrete testing. This accreditation includes the participation in semi-annual reference sample analysis and bi-annual inspections by AASHTO's Materials Reference Laboratory and Cement and Concrete Reference Laboratory. Our laboratory has also been validated by the Army Corp of Engineers to perform concrete and soils testing for their projects.

Services

- Slope stability analysis and design
- Transportation project investigation and design
- Dam design, inspection, and analysis
- Soils, concrete, and aggregate laboratory testing
- Geophysical surveys
- Permitting studies
- Site selection feasibility studies
- Landslides and other soil and rock instability assessments
- Landfill investigation, design, and closure
- Foundation investigation
- Geosynthetic QA/QC
- Material stockpile density determinations (Nuclear Methods)
- Groundwater studies
- Construction inspection and management
- Mine and quarry investigations
- Hazardous mine entry investigations
- Geologic hazards analyses
- Subsidence investigations
- Mine subsidence studies
- Mine and refuse fires assessments
- Ground improvement engineering
- Earth retention systems
- Project reviews

"The geotechnical engineering services...have been professional and responsive. With Kimball input, we have developed a drilled shaft foundation solution that will save costs for our customer, the Pennsylvania Turnpike Commission."
William J. Rohleder, Jr.
Figg Bridge Engineers, Inc.

Drilling

L.R. Kimball has been providing comprehensive drilling services for over 30 years. We have experienced crews that provide services on a full-time, year-round basis with modern drilling equipment. We maintain four drill rigs, including an all-terrain rig for use on engineering and environmental projects.

Our drillers have an average of over 10 years of experience, qualifying us to perform drilling services in very diverse subsurface conditions and terrain. Crews are experienced using 4.25, 6.25, and 8.25 inch I.D. hollow-stem augers; HQ, NX, and NQ2" rock and concrete coring; continuous split-spoon sampling using 2-inch and 3-inch spoons; CME continuous sampling; thin-wall tube sampling; and geotechnical in-situ testing. Drilling and sampling operations are conducted in accordance with ASTM standards. Our drillers are OSHA HAZWOPER trained.

Services

- Geotechnical borings
- NQ2" and HQ wire line rock and concrete coring
- Angle and horizontal borings
- Monitoring wells
- Unconsolidated material coring
- Slope indicator installation and instrumentation
- Down hole nuclear density testing
- Concrete coring and analysis
- 40-Hour OSHA trained and medically qualified crews
- Standard split-spoon and undisturbed sample collection
- Underground storage tank investigations, inspection, and analyses

"L. Robert Kimball is very customer service oriented and performs a valuable professional service. The department thanks you for current service and is looking forward to this continued service in the future."
David J. Whitlatch, PE
PennDOT

Stockpile Inventories

An accurate and reliable physical inventory is vital in an increasingly competitive and deregulated environment. Fuel is a large cost associated with any utility, and correct and timely physical inventories are paramount. L.R. Kimball has been supplying inventory services to its clients since it was founded in 1953.

L.R. Kimball provides more in-house stockpile inventory services than any other engineering firm. L.R. Kimball's professional staff of engineers, geologists, photogrammetrists, and technicians is experienced and ready to support clients with the analysis, testing, drilling, density testing, aerial photography, volume computations, tonnage reports, and tonnage reconciliations for physical inventories. The trust we have developed with our clients has been our hallmark. We provide our clients with a straight story that adheres to our commitments.

Services

- Drilling and sampling
- Stockpile base location
- Continuous Auger Sampling Tube (CAST) investigation methods
- Nuclear density testing
- Shelby tube density investigation methods
- On-site and laboratory density investigation methods
- Aerial photography
- Volume determinations
- Surveying (base locations, ground control, volume computations)
- Mobile mapping
- Coal quality survey and inventories
- Technical reviews and reconciliation
- Pre-bid and testing specifications preparation

"Kimball's report has lots of data that we didn't necessarily ask for, but it is very useful to us…They even customized the report…at a lower price than other firms."
Hans Hasnay
Southern Energy New York

Environmental Site Assessments and Permitting

A landowner can be held liable for cleaning up a property, regardless of prior contamination or contamination by others. An environmental site assessment (ESA) provides the appropriate inquiry into the property and identifies possible liabilities associated with RCRA, TSCA, the Clean Air Act, the Clean Water Act, and other laws. L.R. Kimball's staff of environmental scientists provides an integrated approach to ESAs in three phases.

Phase I - Identify readily detectable and significant environmental risks

Phase II - Evaluate potential or actual contamination found

Phase III - Identify specific remediation and clean-up measures

Site assessments can be completed according to ASTM guidelines, or tailored to meet our client's specific needs. With the increasingly complex nature of the local, state, and federal environmental regulatory context, knowledge of permitting for any type of development project is imperative. The advent of new legislation has provided future owners of former industrial properties opportunities for the release of liability from existing environmental conditions and return of the property to active use. Several heavy industrial areas in the east are impacted by these new regulations, and act as a stimulus to local economies by providing a new place of employment and tax revenue for local communities. L.R. Kimball acquires permits for all development activities by processing them through local municipal boards, planning commissions, boards of supervisors, borough councils, and other government agencies.

Services

- NPDES erosion and sedimentation control permits
- Erosion control approvals from local SCS conservation districts
- Stream encroachment permit preparation
- Wetland encroachment permit preparation
- Wetland delineations
- Wetland findings report preparation
- Wetland mitigation designs
- Dam permit preparation
- Sanitary sewerage planning module preparation
- Rezoning, subdivision, land development submissions
- State, county and local highway occupancy permits for roadway revisions, driveways and utility crossings

Solid Waste Management

L.R. Kimball maintains a staff of civil and geotechnical engineers, geologists, hydrogeologists, and construction QA technicians with many years of experience in the design and assessment of residual, municipal, and hazardous waste collection and disposal systems. Our design and assessment staff is familiar with all aspects of waste management, from waste minimization studies to capping of abandoned landfills. Field QA personnel are not only familiar with a variety of construction techniques, but most are certified nuclear gauge operators and ACI field testing technicians. Many hold current OSHA HAZWOPER training certificates. Key personnel have received formal training, and have experience in the placement and testing of geomembranes and geotextile materials.

Our experience with landfill construction and certification has proven to be of immeasurable importance in the assessment of abandoned landfills, as well as the design and permitting of new or expanded facilities.

Services

- Waste collection studies and analyses
- Waste inventories and characterization
- Waste minimization studies
- Beneficial use studies
- Regulatory compliance plans
- Siting, permitting, and design of landfills
- Site assessments and environmental impact studies
- Repermitting and facility uupgrades
- Design of leachate collection and treatment systems
- Environmental monitoring plans
- Transfer station designs
- Landfill closure designs
- Refuse disposal designs
- Drilling and sampling
- Installation of monitoring wells
- Groundwater monitoring plans
- Geology and hydrogeology
- Soil sampling and testing
- Air emission control plans
- Geotechnical engineering
- Hazardous waste remediation
- Wetlands investigation permitting and mitigation
- Geosynthetic liner component designs and analyses
- Construction quality assurance and certification
- Annual waste disposal reports
- Quarterly and annual groundwater monitoring

"We have experienced, first-hand, your firm's dedication to engineering excellence and commend your affirmative commitment to Total Quality Management."
R. Craig Shuman, Jr.
Manager, Solid Waste Division
A. Morton Thomas and Associates, Inc.

Electric Utility

L.R. Kimball has been supplying consulting services associated with power plant fuel supplies, residual waste disposal, construction quality assurance, and miscellaneous mapping, engineering, and environmental issues to the electric utility industry for nearly 50 years.

L.R. Kimball offers a complete professional staff of civil engineers, geologists, hydrologists, geotechnical engineers, hydrogeologists, air quality specialists, construction quality assurance technicians, biologists, surveyors, photogrammetrists, and environmental health and safety scientists.

We provide siting, permitting, geotechnical, and land development services necessary for the development of new or expanded generating stations. L.R. Kimball supplies surveying, aerial photography, and solid waste services for existing facilities; and permitting, construction, and demolition QA/QC services associated with plant closure. We have staff ready to address needs throughout the life of any power generating station.

Services

- AMD remediations
- Aerial photography/mapping
- Air quality
- Annual solid waste volume reports
- Coal and coal refuse quality (BTU, ash content, etc.) investigation
- Coal stockpile design services and alternative renderings
- Coal stockpile inventories
- Construction PE certifications for liner installations
- Construction QA/QC
- Dam inspections for hydro, water supply, and E&S control dams
- E&S control dam designs and planning
- Environmental health and safety auditing, training, and consulting
- Environmental site assessments
- Geotechnical investigations
- GPR investigations
- Groundwater monitoring well installations and monitoring
- Hydrogeologic investigations
- Industrial raw water and wastewater pipeline designs and routing
- Land development designs and permitting
- Lead and asbestos inventories
- Liquid fuels inventories
- Potable water and wastewater handling designs and permitting
- Generating station and associated development siting studies
- Right-of-way acquisitions
- Risk management planning
- Solid waste management permitting and designs
- By-product material testing and permitting (for beneficial use)
- Storage tank removal QA
- Stormwater management facilities designs
- Structure demolition QA
- Transportation designs
- Wetland delineations, mitigation permitting designs, and monitoring

"Their competencies were evident during the entire project. My feedback from my generating station was always positive in regards to how these gentlemen handled themselves."
Mario Janaitis
Public Service Electric & Gas Company

Water and Wastewater Engineering

L.R. Kimball has successfully produced and/or assisted in the evaluation, design, financing, construction and implementation of hundreds of water and wasterwater facilities projects for the past 50 years. L.R. Kimball is capable of completing all elements of the planning project. We have developed work plans involving the application of unique planning and design strategies developed in response to stringent compliance orders, statutory or regulatory requirements, and financial and institutional issues related to authority needs. L.R. Kimball is experienced in working with (and within) multi-jurisdictional authorities and has achieved great success in meeting state and/or local permitting and other regulatory requirements. We are pro-active with regulatory and financial agencies and maintain routine contact with agency personnel. This approach ensures that project issues and constraints are understood by all parties, facilitates the permit and funding approval process, and minimizes potential delays in project implementation. L.R. Kimball has assembled an experienced project team of dedicated professionals who have established working relationships with federal, state, county, and local agencies.

Water Services

- Water facility and corrective action planning
- Surface and groundwater source investigations
- Hydrologic and hydrogeologic modeling
- Wellfield designs
- Dam designs and inspection
- Water storage and distribution designs
- Water treatment facility designs
- Project financing, administration, and implementation plans
- Underground utilities
- Wellhead protection studies

Wastewater Services

- Wastewater collections
- Treatment plant designs
- Industrial pre-treatment
- Sludge disposal planning and permitting
- Corrective Action Plans
- Combined Sewer Overflow (CSO) studies and permitting
- Flow monitoring studies
- Smoke and dye testing
- Project financing, administration, and implementation plans
- Video inspection of sewer lines
- Construction inspection
- Surveying and mapping
- Funding assistance/grantsmanship
- Geographic Information Systems (GIS)
  - Data management services
- Operations and maintenance programs
- Permitting
- Subsurface geotechnical investigations and designs

"We wish to extend our sincere compliments regarding the manner in which you handled our wastewater treatment plant upgrade project. Your input beyond the treatment project on various problems of the system has been proven to be productive."
Sandra L. Teeter, General Manager
North & South Shenango Joint Municipal Authority

Water Resource Management

L.R. Kimball has been supplying consulting services associated with water control, supply, treatment and protection to homeowners; industry; watershed organizations; and local, state, and federal government agencies since 1953. L.R. Kimball's professional staff of civil engineers, geologists, hydrologists, geotechnical engineers and hydrogeologists are experienced in the preparation of water resources projects for private development, industrial site expansion, and government-funded restoration and reclamation. We can provide professional services necessary for the development of these projects, from environmental site assessments and geotechnical investigations, through the preparation of necessary permits, to final construction quality assurance. We have also participated in water resources public meetings to address local concerns, and have prepared educational materials for presentation of stormwater management and water allocation issues to municipal leaders.

Services

- High- and low-hazard dam safety inspections and assessments
- Coal mine tailings dam insurance certifications
- Emergency action plan preparation for permitted dams
- Dam break analyses and inundation mapping
- Federal Energy Regulatory Commission dam inspections and report preparation
- Water supply dam designs and mass balance analyses
- Erosion and sedimentation control dam designs
- Stormwater control impoundment and infiltration basin designs
- NPDES permit application preparation
- Miscellaneous permit application preparations for stream crossings
- Construction quality assurance for water resources projects
- Flood control structure designs and assessments
- FEMA flood insurance studies and existing study modification
- Regional stormwater management studies and ordinance preparation
- Abandoned mine drainage remediation assessment and designs
- Wetland assessments, delineation, and mitigation site designs

"I just wanted to thank you and commend you on the exceptional work that you have performed. Thank you for providing us with an invaluable tool for watershed conservation, protection, and remediation; but also setting a standard for all future assessments."
Ryan D. Koch, Watershed Specialist
Schuylkill Conservation District

Stormwater Management

Since 1953, L.R. Kimball has provided comprehensive environmental and engineering services related to stormwater management for various commercial, industrial, municipal, government and private clients. We utilize evolving stormwater management practices based on the philosophy of maintaining, as nearly as possible, natural runoff flow characteristics. Our stormwater management practices include structural (detention ponds, pipes, etc.) and/or non-structural (land use planning to effectively preserve existing drainage patterns, vegetation, pervious areas, etc.) methodologies in which we provide the basic elements of a stormwater management program. The effectiveness of a stormwater management program is a result of good planning and engineering design, based on current concepts and practices.

L.R. Kimball's stormwater management experience is two-fold. We have experience in providing comprehensive watershed stormwater management plans utilizing state-of-the-art GIS based modeling technology. These plans support the development of which results in municipal land development and stormwater ordinances for regulatory based clients. We also have experience in providing services to numerous private sector landowners and developers to comply with federal, state, watershed-specific, county, and municipal stormwater management requirements and ordinances. This experience provides us with a clear understanding of currently accepted stormwater management methods and techniques, agency expectations and review processes, and the implementation of practical, yet economical, best management practices for our clients.

Services

- Comprehensive stormwater management master planning
- Municipal stormwater management ordinance development
- Stormwater management ordinance compliance
- Regulatory stormwater permit compliance
- Phase II NPDES assessment and permitting
- Regulatory erosion and sedimentation control compliance
- Emergency action plans
- Annual dam inspections
- Flood assessment and control
- Geographic Information System (GIS) development
- Floodway and floodplain assessments
- Construction monitoring and documentation
- Stormwater and drainage assessment, analysis, evaluation and designs
- Stormwater quality control
- Stormwater monitoring, sampling and analyses
- Existing facility and site expansion, improvement or rehabilitation

"...I wish to extend our sincere compliments regarding the manner in which you handled our project. You can be proud of the quality of work your staff is producing and be assured that it is noticed and appreciated."
Tyrone Petrich, President
Enon Valley Borough Council

Certificate of Authorization – CDI-Infrastructure, LLC dba L.R. Kimball

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

CDI-INFRASTRUCTURE, LLC DBA L. R. KIMBALL
C03828-00

Engineer in Responsible Charge: RICHARD E GENDAY - WV PE 013348

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:

January 1, 2016 - December 31, 2017

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.

BOARD PRESIDENT

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

CDI-INFRASTRUCTURE, LLC DBA L. R. KIMBALL
C03828-00

Engineer in Responsible Charge: RICHARD E GENDAY - WV PE 013348

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:

January 1, 2018 - December 31, 2019

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.

BOARD PRESIDENT

APPENDICE 2. SUBCONSULTANT OVERVIEW

Company Profile - American Geotech, Inc.

American Geotech, Inc. (AGI), a certified DBE corporation, which was established in June 1993 in State of West Virginia in specialty field of geotechnical engineering, construction monitoring and material testing. American Geotech, Inc. is also licensed to practice as geotechnical engineering and material testing firm by West Virginia State Board of Registration for Professional Engineers (Certificate is attached).

Engineer in responsible charge for American Geotech, Inc. is Kanti S. Patel WV PE-9628. Mr. Patel has master degree from West Virginia University in 1978 in field of geotechnical engineering, construction monitoring and material testing and he has over 3 8 years of experience in West Virginia providing quality assurance testing, quality control testing, material testing, field observations and special inspection services.

American Geotech, Inc. provides construction monitoring and material testing which includes quality assurance testing, quality control testing, material testing, field observations and special inspections. American Geotech, Inc. personnel have extensive experience, knowledge and understanding of roadway cut & fill slope and design for foundation to bridges.

Office Location

601 Ohio Avenue Charleston, West Virginia 25302
Phone: (304)340-4277 Fax: (304)340-4278

Services Offered:

American Geotech, Inc. (AGI) is a consulting engineering firm specializing in the practice of geotechnical, environmental and testing engineering practicing over 21 years. The ownership of AGI represents over 60 years of combined engineering experience including completion of geotechnical, testing, environmental and asbestos testing projects in West Virginia, Virginia, Ohio, Kentucky, Maryland, and Pennsylvania. American Geotech, Inc. staff includes fourteen (14) full time personnel and four (4) part time personnel. In our professional staff there are three geotechnical engineers, two geologist, one environmental scientist, eight soil technician, and one secretary.

With its office centrally located in Charleston, West Virginia, AGI can effectively assist owners, architects, planners, design engineers, and contractors in all phases of project design, development, and property utilization throughout the Mid-Atlantic region of the United States. Utilizing proven technology and experience, AGI can work closely with its clients to initiate and complete a variety of engineering projects in a professional and effective manner.

AGI has established a full service for soils testing laboratory in its Charleston office. The laboratory is fully equipped for the performance of soils testing services in accordance with standards published by American Standard Testing Materials (ASTM) and American Association of State Highway and Transportation Officials (AASHTO).

Geotechnical Engineering Services

Standard geotechnical engineering services which AGI can contribute to a project includes:

- Site exploration and recommendation for Site Development
- Analysis and design recommendations for both shallow and deep foundation systems
- Exploration, analysis, and design recommendations for highway and airport construction
- Slope stability analysis including retaining system design
- Geotechnical analysis and design of Earthen Dams and solid waste landfills
- Exploration and analysis of utility line installation and construction

Testing Engineering Services

Standard soils testing services which AGI can contribute to a project include:

- Classification testing of Soils and Rock
- Strength testing of soils including Unconfined Compression, Triaxial and Direct Shear Testing
- Compressibility and consolidation Testing of Soils
- Standard and Modified Proctor Tests for Moisture-Density relationships.

Environmental Engineering Services

Standard environmental services which AGI can contribute to a project include:

- Performance of site assessments for property sales or transfers including Phase 1, 2, and 3 investigations

- Assessment and removal of Underground Storage Tanks (UST)
- Performance of Hydrogeological studies for monitoring well installation, development, sampling, and evaluation
- Design, installation, and maintenance of soil and groundwater systems
- Compliance sampling and monitoring
- Remedial investigations and feasibility studies

Asbestos sampling, Testing and Planning

Standard asbestos services which AGI can contribute to a project include:

- Asbestos sampling for certified personnel
- Asbestos testing and planning for removal

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways
1900 Kanawha Boulevard East • Building Five • Room 303
Charleston, West Virginia 25305-0430 • (304) 558-3931

Jim Justice
Governor

Thomas J. Smith, P. E.
Secretary of Transportation/
Commissioner of Highways

March 28, 2017

Mr. Kanti Patel
American Geotech
601 Ohio Avenue
Charleston, West Virginia 25302

Dear Mr. Patel:

Annual Update - DBE Certification

We are pleased to inform you that the documents your firm submitted have been reviewed and approved. Your firm will continue to be listed in the West Virginia Department of Transportation, Division of Highways Contractor's Proposals as a DBE firm certified under the provisions of 49 CFR Part 26.

Please be reminded that as a DBE you must inform this office, within thirty days and in writing, of any change in circumstances affecting your ability to meet size, disadvantaged status, ownership, or control requirements or any material change in the information provided in your application form. Failure to do so may result in removal of your DBE certification in accordance with 49 CFR Part 26, §26.83(j) of the Federal Regulation.

Should you have questions or require additional information, please do not hesitate to contact this office.

Sincerely,

Drema L. Smith, Director
EEO Division

DLS:Sf

E.E.O./AFFIRMATIVE ACTION EMPLOYER

Certificate of Authorization – American Geotech, Inc.

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

AMERICAN GEOTECH, INC.
C00791-00

Engineer in Responsible Charge: KANTILAL S PATEL - WV PE 009628
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:

January 1, 2015 - December 31, 2017

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.

BOARD PRESIDENT

APPENDICE 3. EOI FORMS

A. Designated Contact Form

B. Addendum Acknowledgement Form

C. Purchasing Affidavit

State of West Virginia
Expression of Interest
Architect/Engr

Procurement Folder : 393240

Document Description : Addendum No.1 A/E Services-Modifications/Repairs of Six Dams

Procurement Type : Agency Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version	Phase
2017-12-05	2017-12-13 13:30:00	AEOI 0310 DNR1800000005	2	Final

SUBMIT RESPONSES TO:	VENDOR
BID RESPONSE DIVISION OF NATURAL RESOURCES PROPERTY & PROCUREMENT OFFICE 324 4TH AVE SOUTH CHARLESTON WV 25303-1228 US	**Vendor Name, Address and Telephone** CDI-Infrastructure, LLC dba L.R. Kimball 615 West Highland Avenue Ebensburg, PA 15931 814-472-7700 ext 601270

FOR INFORMATION CONTACT THE BUYER
Angela W Negley
(304) 558-3397
angela.w.negley@wv.gov

Signature X **FEIN #** **DATE**

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION

Addendum No.01 is issued to publish and distribute the attached information to the Vendor Community.

****

...pression of Interest
A&E Services for Modifications/Repairs of Six(6) Dams

The West Virginia Division of Natural Resources (WVDNR) is soliciting AEOI responses from qualified firms to provide architectural / engineering services contract for modifications/repairs to Upper Deckers Creek Dams #3 and #7, Fairfax Pond Dam, Rollins Lake Dam s #1 and #2, and Turkey Run Dam, per the attached bid requirements, specifications and terms & conditions.

INVOICE TO	SHIP TO
DIVISION OF NATURAL RESOURCES PARKS & RECREATION-PEM SECTION 324 4TH AVE SOUTH CHARLESTON WV25305 US	STATE OF WEST VIRGINIA JOBSITE - SEE SPECIFICATIONS No City WV 99999 US

Line	Commodity Line Description	Qty	Unit Issue
1	Civil engineering		

Commodity Code	Manufacturer	Model #	Specification
81101500			

...xtended Description
A/E design services and contract administration for modification and repairs to six dams.

SCHEDULE OF EVENTS

Line	Event	Event Date
1	Technical Question Deadline 9am	2017-11-29

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Richard E. Genday, PE, Vice President
(Name, Title)
Richard E. Genday, PE, Vice President
(Printed Name and Title)
615 West Highland Avenue Ebensburg, PA 15931
(Address)
(814) 472-7700 ext 601270 / F: (814) 472-7712
(Phone Number) / (Fax Number)
Rick.Genday@CDICorp.com
(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

CDI-Infrastructure, LLC dba L.R. Kimball
(Company)


(Authorized Signature) (Representative Name, Title)

Richard E. Genday, PE, Vice President
(Printed Name and Title of Authorized Representative)

12-7-17
(Date)

(814) 472-7700 ext 601270 / F: (814) 472-7712
(Phone Number) (Fax Number)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

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)

- [x] Addendum No. 1
- [ ] Addendum No. 2
- [ ] Addendum No. 3
- [ ] Addendum No. 4
- [ ] Addendum No. 5
- [ ] Addendum No. 6
- [ ] Addendum No. 7
- [ ] Addendum No. 8
- [ ] Addendum No. 9
- [ ] 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 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.

CDI-Infrastructure, LLC dba L.R. Kimball
Company

Authorized Signature Richard E. Genday, PE, Vice President

12-7-17
Date

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

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL OTHER CONTRACTS: 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 exceed 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: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, 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: CDI-Infrastructure, LLC dba L.R. Kimball

Authorized Signature: _____ Date: 12-7-17

Richard E. Gerday, PE, Vice President

State of Commonwealth of Pennsylvania

County of Cambria, to-wit:

Taken, subscribed, and sworn to before me this 7th day of December, 2017.

My Commission expires August 17, 2020

AFFIX SEAL HERE

NOTARY PUBLIC _____

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Rosemarie E. Brennen, Notary Public
Ebensburg Boro, Cambria County
My Commission Expires Aug. 17, 2020
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES