

Mr. Fuda has 40 years of civil engineering experience with an extensive and diverse background in both public sector and private sector projects. He has a keen understanding of planning, design and engineering and has been involved in varying roles over his career in large, multi-disciplinary projects. Prior to joining Alfred Benesch & Company, he was the Regional Manager of the Connecticut offices of large national multi-disciplinary firms. His relevant experience includes the following key projects:

### **East Hartford Flood Protection System Comprehensive Inspection, East Hartford, CT**

*Principal-in-Charge* for the preparation of a comprehensive inspection of approximately 20,000 feet of earthen dike, approximately 750 feet of concrete floodwall, and related ancillary features of the East Hartford Flood Protection System along the Connecticut and Hockanum Rivers.

### **East Hartford Protection System Improvements, East Hartford, CT**

*Principal-in-Charge.* Project encompassed design and construction administration of maintenance deficiency corrections to the East Hartford Flood Protection System along the Connecticut and Hockanum Rivers. Benesch also prepared a Maintenance Deficiency Correction Plan for the Town's Flood Protection System.

### **West Springfield Flood Protection System Improvements, West Springfield, MA**

*Principal-in-Charge* for design and construction administration of maintenance deficiency corrections to the West Springfield Flood Protection System along the Connecticut and Westfield Rivers, consisting of approximately 13,700 feet of earthen dike and approximately 2,300 feet of concrete floodwall and related ancillary features. Benesch also prepared a Maintenance Deficiency Correction Plan for the Town's Flood Protection System.

### **Springfield Flood Protection System Improvements, Springfield, MA**

*Principal-in-Charge.* Services included design and construction administration of maintenance deficiency corrections to the Springfield Flood Protection System along the Connecticut River. The project consisted of approximately 11,000 feet of concrete floodwall, approximately 4,000 feet of earthen dike and related ancillary features.

### **Reconstruction of Ninth District Road, Somers, CT**

*Principal-in-Charge.* This project incorporated the reconstruction of 1600 feet of Ninth District Road and 1850 feet of Route 190 in Somers, including a new culvert crossing of Gulf Stream. Hydrologic and Hydraulic analysis of the new culvert, along with the acquisition of Environmental Permits from the CT-DEEP, the US Army Corps of Engineers, and the Somers Wetland Commission were also performed.

### **Mountain Road Culverts, Somers, CT**

*Principal-in-Charge* for the design of six replacement culverts along Mountain Road, Root Road, and Battle Street. Benesch performed a hydraulic analysis of Gillette's brook and designed roadway profile improvements to accommodate the larger 3-sided box culverts. Guiderails were also added to improve safety.

### **Education**

MSCE-Northeastern University

BSCE-Northeastern University

**Years of Experience:** 40

### **Registrations and Certifications**

Professional Engineer - CT, MA, ME,

NH, NY, RI, VT

### Wernersville State Hospital - Mill Dam Breach Design, Berks County, PA

**Project Manager:** Managed and designed this project which involves dam breach design and permitting, stream investigation and stream restoration design, hydraulics & hydrology analysis, geotechnical engineering, and wetlands. Benesch will also provide contract and construction administration services.

### Schuylkill County Municipal Authority (SCMA) - Indian Run Dam, Kauffman Dam, Mount Laurel Dam, and Pine Run Dam, Schuylkill County, PA

**Project Manager:** Assisted in the development of an Alternative Analysis for four dams which included site visits; hydraulic analysis; and meetings with the client, Pennsylvania Department of Environmental Protection (PADEP), and sub-consultant. Completed funding applications for the projects to acquire an \$11 million grant from the Commonwealth Financing Authority and \$7 million low-interest loan from the Pennsylvania Infrastructure Investment Authority. Submitted requests for, and acquired, PADEP Letters of Authorization. Assisted in the design of the improvements including, new spillways, slope modifications, low level outlet works, and erosion and sedimentation control. Developed the plans and specifications and completed contract administration, including fielding questions from contractors, meeting the Disadvantage Business Enterprise requirements, bidding, and awarding the contracts. Supported the construction administration staff during the completion of the improvements. The Indian Run Dam rehabilitation project was the recipient of the **2013 ACEC Diamond Award**.

### Ashland Area Municipal Authority, Ashland Dam, Schuylkill County, PA

**Project Manager:** Performed annual dam inspections in accordance with the Manual for the Inspection, Maintenance and Operation of dams in Pennsylvania. Completed funding application for the rehabilitation project to acquire a low-interest loan from the Pennsylvania Infrastructure Investment Authority. Submitted a PADEP Dam Permit Modification request, including all necessary documentation, plans, and specifications. Designed and supported team in the project's development. Improvements included slope modifications, raising of the dam crest elevation utilizing a concrete wall, and erosion and sedimentation control.

### Mahanoy Township Authority, Lofty Dam, Schuylkill County, PA

**Project Manager:** Performed annual dam inspections in accordance with the Manual for the Inspection, Maintenance and Operation of dams in Pennsylvania. Developed an Alternative Analysis for a proposed improvements project at the dam, including various hydraulic improvements, to pass the 1/2 PMF storm. Completed funding applications for the Commonwealth Financing Authority and Pennsylvania Infrastructure Investment Authority. Assisted and managed the design of an estimated \$2.5 million improvement project to raise the dam elevation. The project included environmental clearances, hydraulic spillway review, structural design of parapet wall, PADEP permitting, wetlands and drainage system.

### Upper and Lower Owl Creek Dams, Tamaqua, Schuylkill County, PA

**Project Manager:** Performed annual dam inspections in accordance with the Manual for the Inspection, Maintenance and Operation of dams in Pennsylvania. Completed a document/file review and spillway analysis. Reviewed hydropower feasibility reports and developed funding/cost analysis. Assisted in the development of an Alternative Analysis for each dam which included site visits, hydraulic analysis, and meeting with client, PADEP, and sub-consultant. Completed funding applications for the projects to acquire a \$7 million grant from the Commonwealth Financing Authority. The projects also required Permit Modifications from PADEP. Assisted in the design of the improvements, which included, new spillways, Roller Compacted Concrete (RCC) installation slope modifications, low level outlet works and erosion and sedimentation control. Developed the PADEP Dam Permit Modification Request and the plans and specifications.

### Education

Bachelor of Science; Civil Engineering; Drexel University

**Years of Experience:** 16

### Registrations and Certifications

Profession Engineer: PA

LEED Accredited Professional

Guiding Principles Compliance Professional

Green Globes Professional

Mr. Newton has 20 years of civil engineering experience with a majority of his career spent working on site and roadway design and hydraulic analyses for municipalities, private entities, the Connecticut Department of Transportation (CTDOT), and the Massachusetts Department of Transportation (MassDOT). Mr. Newton is well versed in all aspects of site and roadway design, including site planning, drainage design, stormwater management, site utility design, sedimentation and erosion control plans, and local and state permitting.

Mr. Newton's experience also includes the preparation of planning documents, construction of maintenance deficiency corrections, comprehensive inspection and coordination with local, state, and federal agencies for several flood protection systems along the Connecticut, Hockanum and Westfield Rivers. Specific projects include:

### **East Hartford Flood Protection System Comprehensive Inspection, East Hartford, CT**

Prepared a comprehensive inspection of approximately 20,000 feet of earthen dike, approximately 750 feet of concrete floodwall, and related ancillary features of the East Hartford Flood Protection System along the Connecticut and Hockanum Rivers.

### **East Hartford Protection System Improvements, East Hartford, CT**

Provided design and construction administration of maintenance deficiency corrections to the East Hartford Flood Protection System along the Connecticut and Hockanum Rivers.

### **East Hartford Flood Protection System MDCP, East Hartford, CT**

Prepared a Maintenance Deficiency Correction Plan for the East Hartford Flood Protection System.

### **West Springfield Flood Protection System Improvements, West Springfield, MA**

Prepared design and provided construction administration of maintenance deficiency corrections to the West Springfield Flood Protection System along the Connecticut and Westfield Rivers, consisting of approximately 13,700 feet of earthen dike and approximately 2,300 feet of concrete floodwall and related ancillary features.

### **West Springfield Flood Protection System MDCP, West Springfield, MA**

Preparation of a Maintenance Deficiency Correction Plan for the West Springfield Flood Protection System.

### **Springfield Flood Protection System Improvements, Springfield, MA**

Prepared design and provided construction administration of maintenance deficiency corrections to the Springfield Flood Protection System along the Connecticut River. The project consisted of approximately 11,000 feet of concrete floodwall, approximately 4,000 feet of earthen dike, and related ancillary features.

Mr. Newton has also been involved with the analysis and design of retention basins for stormwater management and has prepared applications for projects to obtain CT-DEEP Inland Wetlands, Stream Channel Encroachment, Floodplain Management Certification and permits from CT-DEEP Inland Water Resources and Office of Long Island Sound Programs.

### **Education**

BSCE

Union College

**Years of Experience:** 20

### **Registrations and Certifications**

Professional Engineer Registration: CT, NY, MA

Mr. Koerner has 31 years of civil engineering experience with a majority of his career spent working on highway and roadway design projects. An approved, Connecticut Department of Transportation (CTDOT) hydraulics engineer, Mr. Koerner has performed numerous hydraulic studies for CTDOT bridge rehabilitation projects. These studies were completed to obtain CT-DEEP Flood Plain Management Certification using HEC computer models. In addition, he has performed hydraulic analyses to obtain flood insurance study map revision from FEMA. Jeff Koerner has also performed many scour analyses, designed scour counter measures for numerous CTDOT bridge rehabilitation studies, and prepared applications for CTDOT projects in order to obtain CT-DEEP Inland Wetlands, Stream Channel Encroachment, Floodplain Management Certification and permits from the CT-DEEP Office of Long Island Sound Programs as well as permits from the US Army Corps of Engineers.

#### Education

BSCE

University of Connecticut

Years of Experience: 31

#### Registrations and Certifications

Professional Engineer Registration: CT, MA

#### Lantern Hill Dam and Bridge Reconstruction – Ledyard & North Stonington, CT.

*Project Manager and Hydraulics Engineer:* This project involved the rehabilitation of an existing earthen dam, replacement of the dam outlet structure and the replacement of a bridge over Lantern Hill Brook. Additional services included the Hydrologic and Hydraulic Analysis of the dam and bridge, as well as the coordination and acquisition of Environmental Permits from the CT DEEP - Dam Safety and Inland Wetlands and Watercourses Units, the US Army Corps of Engineers and local wetland Commissions.

**Reconstruction of Ninth District Road- Somers, CT:** This project incorporated the reconstruction of 1600 feet of Ninth District Road and 1850 feet of Route 190 in Somers, including a new culvert crossing of Gulf Stream. Hydrologic and Hydraulic analysis of the new culvert, along with the acquisition of Environmental Permits from the CT-DEEP, the US Army Corps of Engineers and the Somers Wetland Commission were also performed.

#### CTDOT On-Call Engineering Services, Statewide, CT

*Project Manager* for the following assignments:

- Review CT-DEEP Stormwater Discharge Registration for 49 projects – Statewide Route 146 Drainage Improvements – Guilford
- Guiderrail Safety Improvements – Districts 2 and 3
- Merritt Parkway Median Barrier Improvements
- Replacement of Route 1 Bridge – Old Lyme
- Hydraulic and Scour Analysis for Replacement of Route 219 Bridge – New Hartford
- Intersection Improvements Route 175 and 173 - Newington
- Intersection Improvements, Route 5/702/Toelles Road – Wallingford
- Route 31 Access Management Study – Coventry
- Intersection Improvements and Ramp Modifications I-84/Route 195 - Tolland
- Contract Processing for 11 State Construction Projects – Statewide

**Schuylkill County Municipal Authority (SCMA) – Pine Run Dam, Indian Run Dam, Mount Laurel Dam, Kauffman Dam, Schuylkill County, PA**

**Resident Project Representative:** Lead Field Inspector on these four dam rehabilitation projects. All four dams were placed on the High Hazard Dam list by the Pennsylvania Department of Environmental Protection (PADEP). The scope of work addressed hazard issues by stabilizing or flattening downstream slopes, installing seepage collection and monitoring systems, expanding spillway capacity, replacing or adding upstream closures and/or adding auxiliary spillway structures. Inspection areas included, but was not limited to: installation of Erosion and Sedimentation Controls; spillway demolition; slope removal and replacement; installation of seepage collection piping; chimney and blanket drain installation; piezometer and inclinometer installation and monitoring; valve installation or replacement, both concrete labyrinth and concrete drop box spillway construction; Articulating Concrete Block (ACB) auxiliary spillway installation; valve house renovations; access road installation; RIP-RAP installation, and top soil placement and spreading of seeding and soil supplements. In addition to the daily inspection of these areas, duties included reporting of operations, coordination of events between PADEP, contractor, and sub-contractors and onsite inspection and approval of materials. Benesch's services resulted in the dams being removed from the high hazard list. The Indian Run Project was recognized as the **2013 ACEC Diamond Award Winner**.

**Education**

Bachelor of Science; Political Science; Wilkes University

**Years of Experience:** 14

**Registrations and Certifications**

ACI Concrete Field Testing Technician- Grade I

Troxler Nuclear Density Gauge

NICET

**Upper and Lower Owl Creek Dams, Tamaqua, Schuylkill County, PA**

**Resident Project Representative:** Field Inspector on these two dam rehabilitation projects. Both dams were placed on the High Hazard Dam List by the PADEP. High hazard issues were mitigated by stabilizing or flattening downstream slopes, installation of seepage collection and monitoring systems, expanding spillway capacity, and replacing or adding upstream closures and/or adding auxiliary spillway structures. Inspection on these projects included the following areas: installation of Erosion and Sedimentation Controls, spillway demolition, slope removal and replacement, Roller Compacted Concrete (RCC) slope installation, installation of seepage collection piping, chimney and blanket drain installation, piezometer and inclinometer installation and monitoring, valve installation or replacement, concrete spillway construction, access road installation, RIP-RAP installation, top soil placement and spreading of seeding and soil supplements. In addition to the daily inspection of these areas, duties included, reporting of operations, coordination of events between PADEP, contractor, and sub-contractors and onsite inspection and approval of materials. Benesch's services resulted in the dams being removed from the High Hazard List.

**Annual Dam Inspections, Schuylkill County, PA**

**Inspector:** Performs annual dam inspections in accordance with the Pennsylvania Dam Safety Encroachments Act. These annual inspections include: inspections of the embankment, structures, outlets works, spillway and discharge channel, as well as tabulating checklists, analyzing monitoring data and preparing the annual report.