

### BERLIN MAYOR AND COUNCIL Meeting Agenda

#### Berlin Town Hall 10 William Street Monday, December 8, 2025

#### 5:30 PM CLOSED SESSION – Conference Room

STATUTORY AUTHORITY TO CLOSE SESSION, General Provisions Article, §3-305(b): (1) To discuss the appointment, employment, assignment, promotion, discipline, demotion, compensation, removal, resignation, or performance evaluation of appointees, employees, or officials over whom this public body has jurisdiction; or any other personnel matter that affects one or more specific individuals.

#### 6:00 PM CALL TO ORDER, REGULAR SESSION – Council Chambers

- 1. 6:05 PM APPROVAL OF MINUTES: (Strategic Plan: DS1)
  - a) Closed Session Minutes of 11.10.25
  - b) Regular Session Minutes of 11.24.25
- 2. 6:10 PM ITEM(S) FOR APPROVAL:

A public comment period will now be offered after discussion by the Mayor and Council for each Item For Approval. Any person who may wish to speak will be given two (2) minutes or such time as may be deemed appropriate by the Mayor.

- a) Motion 2025-68: Award of On-call General Engineering and Stormwater Engineering Contracts Town Administrator Mary Bohlen (<u>Strategic Plan</u>: DS3, AS3 & AS4)
- b) Motion 2025-69: Declaration of Surplus Property Chief of Police Arnold Downing, Electric Utility Director Tim Lawrence, & Director of Water Resources Jamey Latchum (Strategic Plan: DS2; DS3)
- **3. 6:30 PM REPORTS:** Town Administrator's Report, Departmental Reports (*Strategic Plan: DS1; DS4*)
- **4. 7:00 PM COMMENTS FROM THE PUBLIC** (<u>Strategic Plan</u>: DS4; DS5)

Anyone wishing to speak during COMMENTS FROM THE PUBLIC at the Regular Session may do so for up to five (5) minutes, or as determined by the Mayor. Please state your name, street, and the subject you wish to address.

- 5. 7:10 PM COMMENTS FROM THE COUNCIL
- 6. 7:45 PM COMMENTS FROM THE MAYOR'S OFFICE
- 7. 7:55 PM COMMENTS FROM THE PRESS
- 8. 8:00 PM ADJOURNMENT

To access the Meeting via Facebook, please click the blue Facebook icon at the top of any page on <a href="www.berlinmd.gov">www.berlinmd.gov</a>, or type @townofberlinmd in the Facebook search bar. QR code links to online packet and Strategic Plan. Anyone having questions about the meetings mentioned above or needing special accommodations should contact Town Administrator Mary Bohlen at (410) 641-2770. Written materials in alternate formats for persons with disabilities are made available upon request. TTY users dial 7-1-1 in the State of Maryland/outside Maryland dial 1-800-735-2258.



# CLOSED SESSION MAYOR AND COUNCIL OF BERLIN MARYLAND Monday, November 10, 2025

**Present:** Mayor Zack Tyndall, V-P Dean Burrell, Councilmembers Steve Green, Jay Knerr, Shaneka Nichols,

and Jack Orris

Staff Present: Town Administrator Mary Bohlen, Human Resources Director Kelsey Jensen, and Town

Attorney Dave Gaskill

Absent: none

Others present: Emily Morris, Legal Counsel, joined in progress

Authority to close session: Pursuant to Maryland General Provisions Article; Sec 3-305(b):

- (1) To discuss the appointment, employment, assignment, promotion, discipline, demotion, compensation, removal, resignation, or performance evaluation of appointees, employees, or officials over whom this public body has jurisdiction; or any other personnel matter that affects one or more specific individuals; and
- (7) To consult with counsel to obtain legal advice on a legal matter.

Beginning at approximately 5:00 PM, the motion and vote to go into Closed Session were held in the Council Chambers and streamed live via Facebook. Mayor Tyndall read the Closed Session Summary, which is attached and incorporated into these Minutes upon approval. With no questions or comments from the public and following a motion by Councilmember Orris and second by Councilmember Knerr, approval was unanimous to go into Closed Session.

The Facebook feed was ended and the group moved to the Conference Room.

#### REMAINDER OF MINUTES REDACTED FOR INCLUSION IN OPEN RECORD

Following a motion by Councilmember Orris, second by Councilmember Nichols, the Meeting adjourned at approximately 6:06 PM.

Respectfully Submitted,

#### MTB

Mary T. Bohlen Town Administrator

Attachment: Closed Session Summary of November 10, 2025



#### **Closed Session Summary**

To be included in the minutes in the next Open Meeting

#### 1. Statement of the time, place, and purpose of the closed session:

- a. Time of closed session: Monday, November 10, 2025, 5:00 PM.
- b. Place (location) of closed session: <u>Vote to Close: Mayor and Council Chambers.</u>
  <u>Meeting: 2<sup>nd</sup> Floor Conference Room</u>
- c. Purpose of the closed session: Regarding a personnel matter.
- d. Date and time that we will return to public meeting: Monday, November 10, 2025, 6:00 PM

#### 2. Record of the vote of each member as to closing the session:

- a. Motion to close meeting made by: Orris
- b. Second by: Knerr
- c. Members voting in favor: Burrell, Green, Nichols
- d. Members opposed: <u>none</u>e. Members abstaining: <u>none</u>f. Members absent: none

#### 3. Statutory authority to close session:

This meeting was closed under the following provisions of General Provisions Article § 3-305(b)

- a. (1) To discuss the appointment, employment, assignment, promotion, discipline, demotion, compensation, removal, resignation, or performance evaluation of appointees, employees, or officials over whom this public body has jurisdiction; or any other personnel matter that affects one or more specific individuals.
- b. (7) To consult with counsel to obtain legal advice on a legal matter.

#### Listing of each topic actually discussed, persons present, and each action taken in the session:

Topic description	Persons present for discussion	Action taken/each recorded vote
a) Personnel matter b) Legal Matter	M&C: Z. Tyndall, D. Burrell, S. Green, J. Knerr, J. Orris, S. Nichols Staff: M. Bohlen, K. Jensen, D. Gaskill, E. Morris (for part b.)	<ul><li>a) Motion and vote regarding terms for seperating employee.</li><li>b) Discussion of a recent incident involving Town utility system. No vote taken.</li></ul>

This statement was made by: Mayor Zack Tyndall, presiding officer

List members who have received open meetings training (at least one member must be in attendance during closed session): Mayor Zack Tyndall, Councilmember Jack Orris, Town Administrator Mary Bohlen, Human Resources Director Kelsey Jensen, Town Attorney David Gaskill, Special Projects Administrator Kate Daub.



#### BERLIN MAYOR AND COUNCIL

### Meeting Minutes Monday, November 24, 2025

#### 6:00 PM REGULAR SESSION – Berlin Town Hall Council Chambers

**Present:** Mayor Zackery Tyndall, Councilmembers Steve Green, Jay Knerr, Jack Orris, and Shaneka

Nichols.

**Absent: Vice President Dean Burrell** 

**Staff Present:** Town Administrator Mary Bohlen, Town Attorney David Gaskill, Acting Planning Director Ryan Hardesty, Director of Water Resources Jamey Latchum, Special Projects Administrator Kate Daub, and Administrative Assistant Laura Brown.

This meeting was also broadcast live via Facebook. After the moment of silence and the Pledge of Allegiance, Mayor Zackery Tyndall called the meeting to order at approximately 6:04 PM.

- 1. Approval of Minutes (Strategic Plan: DS1):
  - a. Regular Session of 11.10.25

On the motion of Councilmember Orris, second by Councilmember Knerr, the Regular Session of 11.10.25 minutes were approved by the following vote:

Name	Counted toward				
	Quorum				
	Aye	No	Abstain	Recused	Absent
Dean Burrell, VP					Χ
Steve Green	Х				
Jay Knerr	Х				
Shaneka Nichols	Х				
Jack Orris	Х				
Voting Tally	4				1

#### 2. Items for Approval:

a. Special One-Day Permit Application: Boggs Disharoon Post 123 Private Member Party on Sunday, January 18, 2026 – Event Organizer Billy Greenwood (<u>Strategic Plan</u>: DS1, AS1)

Event Organizer Billy Greenwood requested approval for American Legion Post 123 to open on Sunday, January 18, 2026, for a private event. He explained the Legion is normally closed on Sundays, but the event was for his wife, who has dementia, and would include people she recognizes. Mayor Tyndall offered condolences and encouraged Mr. Greenwood to take care of himself. Councilmember Nichols added that the Mayor and Council would be happy to help raise awareness or show support in any way needed.

On the motion of Councilmember Knerr, second by Councilmember Orris, Special One-Day Permit Application: Boggs Disharoon Post 123 Private Member Party on Sunday, January 18, 2026 was approved by the following vote:

Name	Count	Counted toward			
	Quori	Quorum			
	Aye	No	Abstain	Recused	Absent
Dean Burrell, VP					Х
Steve Green	Χ				
Jay Knerr	Χ				
Shaneka Nichols	Χ				
Jack Orris	Х				
Voting Tally	4				1

b. Request for Reduction in Stormwater Review Fees: Soltage Solar Project – Vista Design Steven Engel (<u>Strategic Plan</u>: DS4)

Town Administrator Mary Bohlen summarized Soltage Solar's request, submitted through Vista Design, to reduce the Stormwater Review Fee for the Route 818 project. She reported the calculated fee was \$19,577.60 and outlined the Mayor and Council's options: maintain the full fee, approve a reduction, charge EA Engineering's estimate plus 10% administrative, or set another amount. She then turned the presentation over to Vista Design representatives Steven Engle and Brian Zollinger.

Mr. Engle thanked the Mayor and Council and stated the request was based on Maryland Department of the Environment guidance, noting the project did not involve gravel wetlands or management drain systems and would consist mainly of grass with a pollinator seed mix. EA Engineering's Darl Kolar stated the project was straightforward and supported the request.

Councilmember Knerr asked about permit fees for similar projects charged by Worcester County, and Acting Planning Director Hardesty and Ms. Bohlen confirmed the most recent rate matched the Town's. Councilmember Green asked for confirmation that the request was due to the project's reduced scope and timeline compared to typical projects, and Mr. Engle stated this was correct. Councilmember Green expressed concern about precedent.

Ms. Bohlen recommended future Town Code or Fee Schedule revisions specific to solar projects. Mayor Tyndall asked if the requested fee was \$5,000, and Mr. Engle clarified that they were requesting \$5,500 based on 40 hours of work. Councilmember Orris opposed the reduction, noting that solar farms are commercial projects, Worcester County had historically not offered reductions, and the project would not directly benefit Town of Berlin utility customers. Mayor Tyndall reiterated that the discussion involved a review fee, not a stormwater utility fee.

Councilmember Nichols supported creating a separate fee category for solar projects and made a motion to approve the reduced rate of \$5,500 and create a stormwater review documentation process for solar projects. Councilmember Knerr felt the reduction was too

large and was concerned about precedent. Mayor Tyndall acknowledged both perspectives. Councilmember Green noted the fee should reflect actual time spent. Town Attorney Gaskill reminded the Council that review fees must correspond to administrative costs rather than serve as revenue.

Further discussion occurred regarding Maryland Department of the Environment standards, with Ms. Bohlen clarifying the guidance related to technical design, not fees. She also noted approval would apply only to this project. Mayor Tyndall confirmed with Mr. Engle that no building construction was planned nor would it take place at a later date. Councilmember Knerr referenced his experience on the Worcester County Planning Commission, where reductions were not permitted.

Councilmember Green seconded Councilmember Nichols' motion to reduce the fee to \$5,500 for this project only and to develop criteria for future solar projects in consultation with EA Engineering and Town staff.

On the motion of Councilmember Nichols, second by Councilmember Green, Request for Reduction in Stormwater Review Fees: Soltage Solar Project was adopted by the following vote:

Name	Count	Counted toward			
	Quorum				
	Aye	No	Abstain	Recused	Absent
Dean Burrell, VP					Χ
Steve Green	X				
Jay Knerr		Χ			
Shaneka Nichols	Х				
Jack Orris		Χ			
Voting Tally	2	2			1

Due to Vice President Burrell's absence and the tied vote, Mayor Zack Tyndall had the authority to cast a vote to break the tie. He voted in favor of reducing the rate from \$19,577.60 to \$5,500 for this singular case and developing criteria for solar projects with EA Engineering. Therefore, the motion passed.

c. Motion 2025-67: Approve Sludge Press Stator – Director of Water Resources Jamey Latchum (Strategic Plan: DS4)

Director of Water Resources Jamey Latchum reported that the sludge press stator had broken and was required for the Town to remain compliant in sludge handling. At Ms. Bohlen's request, Mr. Latchum explained that the stator functioned as a large screw within the press and was last replaced in 2017.

On the motion of Councilmember Orris, second by Councilmember Knerr, Motion 2025-67: Approve Sludge Press Stator was adopted by the following vote:

Name	Count	Counted toward			
	Quorum				
	Aye	No	Abstain	Recused	Absent
Dean Burrell, VP					Χ
Steve Green	Χ				
Jay Knerr	Χ				
Shaneka Nichols	Χ				
Jack Orris	Х				
Voting Tally	4				1

#### 3. Reports: Town Administrator's Report, Departmental Reports (Strategic Plan: DS3, DS4)

Town Administrator Mary Bohlen reminded the public that most Town offices would be closed on Thursday, November 27, and Friday, November 28 for the Thanksgiving holiday. She noted that Ice, Ice Berlin would take place on Friday, November 28. On behalf of Public Works Director Jimmy Charles, she announced upcoming yard-waste bulk pickups scheduled for Wednesday, December 3 and Wednesday, December 10. In response to a question from Councilmember Orris regarding the Town Hall renovation, Ms. Bohlen stated that bid documents would be released on December 8, with the advertisement running the following week.

4. Comments from the Public (Strategic Plan: DS4; DS5) - None.

#### 5. Comments from the Council

Councilmember Orris noted that budget season was approaching and offered to be one of the two Councilmembers in attendance at the Town staff budget meetings. Mayor Tyndall informed him that he could discuss this with the Mayor's Executive Assistant, Sara Gorfinkel. Councilmember Orris asked if outreach or education on unleashed dogs could be distributed by the Berlin Police Department, as he had received calls regarding the matter. Ms. Bohlen advised encouraging residents to call the police so the issue could be addressed in the moment.

Councilmember Orris circled back to the recently announced prohibition on placing chairs or other items on sidewalks along Main Street to reserve a spot for the upcoming Christmas Parade and stated that he had read the state sidewalk pedestrian guidelines and asked if the Mayor and Council wished to discuss them tonight. Mayor Tyndall expressed that the Town's stance has been to keep sidewalks clear and to be notified if something creates a barrier. Councilmember Knerr added that the policy clearly stated that it should be authorized by the Mayor and Council. Ms. Bohlen asked which policy he was referring to, and Councilmember Knerr referred to the information released by the Berlin Police Department, which indicated this action was based on policy. Ms. Bohlen clarified that this derived from the Town Code.

Councilmember Knerr asked for a compromise, to which Mayor Tyndall asked how one could compromise for people in wheelchairs who need to pass through. Councilmember Knerr clarified that he meant the time chairs were allowed to be put out, as he thought 5 PM was too late. Mayor

Tyndall stated that he enjoyed seeing chairs lining the streets and the excitement it brought, but the Town needed to accommodate accessibility, especially on busy shopping days. He also noted that chairs thrown into the streets made it difficult for vehicles to pass. Councilmember Knerr asked why no prior action had been taken, and Mayor Tyndall explained that the Town received calls and complaints last year.

Councilmember Orris stated that he had discussed with Economic and Community Development Director Ivy Wells the idea of closing the roads at 3 PM, as he believed more issues would arise from closing the roads at 5 PM while residents were placing chairs on Main Street. He noted that it had been challenging not having any discussion about this issue until a month before the parade. Mayor Tyndall emphasized the need to trust Town staff to make decisions, and Ms. Bohlen added that Main Street could not be closed any earlier than 5 PM due to vehicle access to the bank drive thru. Councilmember Green suggested that the Mayor and Council hear from Ms. Bohlen and Town staff after the parade regarding the pros and cons of the policy and how things went.

Councilmember Nichols highlighted that ADA considerations were important while also wanting people to enjoy the parade. She also stated that roads could not close any earlier than 4 PM due to Buckingham Elementary School and noted that Santa should be placed back at the end of the parade. Councilmember Orris clarified that his comments were not due to a lack of trust in Town staff but were simply a concern. He asked if the sidewalks by Taylor House Museum could be blocked off for ADA seating, and Mayor Tyndall responded that this likely would not be possible due to a lack of volunteers this year. Councilmember Orris wished everyone a Happy Thanksgiving and expressed his anticipation of attending Town events.

Councilmember Green commented on the outpouring of public comments for Chief of Police Arnold Downing's retirement announcement, noting that it was special in a small town when everyone knows the Chief and his commitment to the community. He wished Chief Downing well and congratulated him.

Councilmember Nichols expressed her gratitude to the two officers who saved a life and emphasized to Chief Downing that words could not fully convey his impact, hoping the remainder of his career was as remarkable as his tenure with the Town. Councilmember Knerr wished everyone a Happy Thanksgiving, highlighted the thoroughness of the engineering RFQ process he participated in, and congratulated Chief Downing, noting his service was marked by honor and integrity.

- 6. Comments from the Mayor's Office
- 7. Mayor Tyndall stated he could not ask for more from Chief of Police Downing, noting their 30+ year history and that his retirement was well deserved. He wished everyone a Happy Thanksgiving and reminded the public of the tree lighting on November 28th. Mayor Tyndall expressed his appreciation for the unity of the Mayor and Council participating together in Town events, including parades and the tree lighting. He thanked Town staff, Alan Parkinson, and Charles McWilliams for sourcing and picking up the Christmas tree, noting the challenge of finding an appropriately sized tree each year, and also thanked staff for decorating it. He concluded by noting Councilmember Green attended the County Commissioner meeting last week, where approval was granted to increase the room tax in Berlin.
- 8. Comments from the Press None.

#### 9. Adjournment:

On the motion of Councilmember Knerr, second by Councilmember Orris, the Mayor and Council meeting was adjourned at approximately 7:08 PM.

Name	Counted toward				
	Quorum				
	Aye	No	Abstain	Recused	Absent
Dean Burrell, VP					Χ
Steve Green	Χ				
Jay Knerr	Χ				
Shaneka Nichols	Χ				
Jack Orris	Х				
Voting Tally	4				1

Respectfully submitted,

Laura Brown

**Administrative Assistant** 



#### **MOTION OF THE MAYOR AND COUNCIL 2025-68**

A motion of the Mayor and Council of the Town of Berlin, in response to RFQ 2025-01 and 02, AWARDING ON-CALL CONTRACTS FOR ENGINEERING SERVICES AS FOLLOWS:

- RFQ 2025-01 General On-Call Engineering Services: Davis, Bowen, & Friedel, Inc.
- RFQ 2025-02 On-Call Stormwater Engineering Services: EA Engineering, Science, and Technology, Inc., PBC

	D thisday of			2025, by the	e Council of t	he Town of I
/laryland	, by the vote as indicate	ed below:				
	Name	Coun	ited toward			
		Quor	Quorum			
		Aye	No	Abstain	Recused	Absent
	Dean Burrell, VP					
	Steve Green					
	Jay Knerr					
	Shaneka Nichols					
	Jack Orris					
	Voting Tally					
			 Dear	Burrell, Sr.	Vice Presider	nt of the Cou
pproved	I thisday of		2025,	by the Mayo	or of the Tow	n of Berlin.
pproved	I thisday of				or of the Tow yor, Presiden	



### STAFF REPORT

TO: Mayor and Council

FROM: Mary Bohlen, Town Administrator

MEETING DATE: December 8, 2025

SUBJECT: Recommendation of Award RFQ 2025-01 General On-call Engineering Services

and RFQ 2025-02 On-Call Stormwater Engineering Services

#### **SUMMARY**

Requests for Qualifications (RFQ) are issued primarily to determine a firm's ability to perform the desired work, rather than to determine the price a firm will charge for said work, as would be part of the consideration in a Request for Proposals/Bids (RFP/B). Therefore, responses to an RFQ are not evaluated on pricing as a primary determinant.

On-Call Engineers function in lieu of in-house engineering staff and work with the Planning Department to review development/building submissions for adherence with Town Standards and Code, as well as legal requirements of other agencies with authority in these matters, such as the County, State, or Federal government. These firms also provide engineering functions on Town-owned projects and assist with the development or amendment of Town policies and Ordinances, as well as bidding services, construction management/administration, and other engineering-related functions.

Submissions in response to RFQ #2025-01 and 2025-02 were received on Friday, October 10, 2025. In total eight highly qualified firms submitted responses: three for General and five for Stormwater Engineering services with one firm submitting for both. A review committee consisting of Councilmembers Jay Knerr and Jack Orris, Town Administrator Mary Bohlen, Planning Director Ryan Hardesty, Water Resources Director Jamey Latchum, Public Works Director Jimmy Charles, and Special Projects Coordinator Kate Daub reviewed the submissions and selected three firms to interview; two of the firms were the incumbents.

#### **PROCESS**

The last RFQ for General On-Call Engineering services was conducted in 2018. It is unknown when a formal process for On-call Stormwater Engineering was undertaken.

The current RFQ's were drafted utilizing that earlier RFQ as a template, along with reviewing similar processes undertaken by other municipalities, and with input by staff and were reviewed by the committee prior to public release.

Proposals were evaluated based on several key criteria, including (but not limited to):

- 1. Responsiveness to the RFP
  - Did the proposal address all required components and provide complete responses to requested items?
- 2. Quality and Content of the Proposal
  - Editorial quality (grammar, spelling, organization, coherence)

- Demonstrated understanding of:
  - a. The project scope;
  - b. The Town of Berlin and its community context;
  - c. Similar projects in comparable communities;
  - d. Evidence of capacity, staffing, and resources to complete the project successfully.

After reviewing all submissions, the committee selected three firms to advance to interviews, including the two incumbents.

Interviews were conducted on Friday, November 21, 2025. A set of nine standard questions was included for the interview process, and each firm provided a presentation and additional information.

The review committee considered each firm carefully and weighed the impacts of continuing with the incumbent(s) or selecting a new firm. Consideration was given to the historic knowledge and records of the incumbents and the budgetary impact should a new firm be selected. If a new firm was selected there would be significant budgetary consideration in that the outgoing firm would continue in some capacity, by entering into individual contracts for ongoing projects, or by relying on their knowledge and records for an indeterminate amount of time going forward.

Following the interviews and discussion by the committee, it was decided to recommend continuation with the incumbents for both contracts.

The initial contract term would be for five years, unless a different requirement is imposed by an outside agency with sufficient authority, generally a funding agency.

#### **RECOMMENDATION**

As detailed above and presented in Motion 2025-68, the selection committee recommends awarding the On-Call Engineering Contracts as follows:

General On-Call Engineering Services: Davis, Bowen, & Friedel, Inc. (DBF)
On-Call Stormwater Engineering Services: EA Engineering, Science, and Technology, Inc. PBC (EA)

#### Attachments:

Bid Tally sheets

Online and Digital Packets only: DBF and EA Submissions

### RFQ 2025-01 On-Call Engineering Services

#### ALL BIDS ARE SUBJECT TO EVALUATION

Project Title: On-Call Engineering Services

Company	Total Cost of Proposal	Remarks
1. DBF	NIA	
2. CmB	NIA	
3. Pennoni	NIA	
4.		
5.		4
6.		
7.		
8.		
9.		

Bid Opening Info: Friday, 10/10/2025 @ 3	3 PM
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Location: Town Hall, 10 William Street, Berlin, MD, 21811

K Dowb

### RFQ 2025-02 On-Call Stormwater Engineering Services

#### ALL BIDS ARE SUBJECT TO EVALUATION

Project Title: On-Call Stormwater Engineering Services

Company	Total Cost of Proposal	Remarks
3. 1. EA	NIA	
c mB	NIA	
3. KCI	N IA	
4. RKaK	N/A	
5. Wallace Montgomery	N/A	
6.		
7.		
8.		
9.		

Bid Opening Info:	Friday, 10/10/2025	@ 3:15 PM
- · · · · · · · · · · · · · · · · · · ·	11100, 20, 2020	C 3.123 1 111

Location: Town Hall, 10 William Street, Berlin, MD, 21811

Town Staff Present: MBohlen

K Daub





### **TOWN OF BERLIN**

REQUEST FOR QUALIFICATIONS
GENERAL ON-CALL ENGINEERING SERVICES

TOWN OF BERLIN 10 WILLIAM STREET BERLIN, MD 21811

**SUBMITTED BY:** 

DAVIS, BOWEN & FRIEDEL, INC. OCTOBER 10, 2025



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#### ARCHITECTS • ENGINEERS • PLANNERS • SURVEYORS

Ring W. Lardner, P.E. W. Zachary Crouch, P.E.

Jason P. Loar, P.E. Jamie L. Sechler, P.E.

Michael E. Wheedleton, AIA, LEED GA

October 10, 2025

Town of Berlin 10 William Street Berlin, Maryland 21811

ATTN: Ms. Mary Bohlen,

Town Administrator

RE: RFQ # 2025-01 / Request for Qualifications - General On-Call Engineering Services

DBF # P0050A25.054

Dear Ms. Bohlen:

Davis, Bowen & Friedel, Inc. (DBF), is pleased to present this response to your request for qualifications for General On-Call Engineering Services.

DBF is well qualified and versed in providing on-call engineering services, as our submission shows, and we believe our experience working with other Towns will benefit the Town of Berlin. We believe our team offers the following benefits, such as Municipal Services Expertise, Local Expertise, and a specialized Client approach.

We believe our team offers the following benefits:

• Municipal Services Expertise – DBF has a specialized team dedicated to municipal planning and engineering services. Our team provides services crucial to the success of cities, towns, and municipalities. DBF has delivered engineering services to over 40 municipalities, offering cost-effective and efficient solutions to our clients. We recognize the importance of proper planning, design, operation, and maintenance, and improving complex infrastructure throughout our communities. Since our founding in 1983, public works projects have been a primary focus of our efforts at DBF. Our entire team is well-versed in providing the necessary services for public works projects. We are capable of planning and developing infrastructure in areas such as water, wastewater, roadways, stormwater management, water/wastewater operations, planning, and more.

Furthermore, DBF currently holds a multitude of on-call contracts with Maryland and Delaware clients, including, but not limited to, Wicomico County, Dorchester County, Talbot County, Sussex County, Somerset County Sanitary District, Denton, Sharptown, Delmar, Salisbury, Crisfield, Princess Anne, Pittsville, Bridgeville, Blades, Selbyville, and others. Our experience under these contracts includes capital improvement plans, planning services, funding acquisition, project management, development reviews, and designing infrastructure projects that meet the municipality's goals, budget constraints, and regulatory requirements.

- Local Expertise Headquartered in Salisbury, Maryland, DBF has a unique understanding of the goals of the Town of Berlin, with the ability to be on-site within minutes as projects require. Regional expertise is applied to all projects as we respond to the needs of our clients effectively, dependably, and on schedule. We look forward to the opportunity to assist the Town of Berlin with various projects, such as water, wastewater, stormwater, roadway, and any other project that benefits the Town and its residents.
- Specialized Team Approach All successful projects are achieved with a strong team. Our dedicated team of
  problem solvers is committed to constantly excelling in our efforts to maximize client satisfaction and success. Our
  highly experienced project team of professionals has collectively worked together on numerous projects across the
  Delmarva Peninsula and thus has a comprehensive understanding of municipal infrastructure and processes. Our



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firm operates in close collaboration with a network of highly regarded and specialized subconsultants that deliver comprehensive solutions to our clients. For the Town of Berlin, we have put together a team of subconsultants, including John D. Hynes and Associates to provide geotechnical engineering services, Keystone Engineering Group for mechanical/electrical and systems integration, and Barton & Loguidice for geosciences/hydrogeology. These consultants enhance our capabilities and meet a more diverse range of project needs. However, depending on the type of project and any funding requirements, other subconsultants may be involved for specific projects with the approval of the Town. This would include meeting all the necessary participation requirements for engineering services contracts as issued by the Maryland Department of the Environment (MDE), which includes Disadvantaged Business Enterprises (DBE/MBE/WBE) participation requirements whenever feasible.

DBF has been working with the Delmarva Peninsula, specializing in municipal infrastructure projects, since our inception, and includes forty-plus years of working relationship with the Town of Berlin. Our experience and knowledge of the municipal infrastructure and planning needs put us in a unique position to provide these services to the Town of Berlin. DBF fully understands the vital nature of being the "Town Engineer" and the responsibility this title holds. DBF has four decades of experience working with Towns, contracts, and residents to successfully plan and execute municipal infrastructure projects.

DBF will provide full-service professional engineering services during design and construction, including planning, survey, funding assistance, design, permitting, bidding, construction administration, construction inspection, water/wastewater operational consulting services, and any other service in which the Town may request. A copy of our current rate schedule is included in this submission.

On behalf of DBF, I appreciate the opportunity to provide professional engineering services to the Town of Berlin and look forward to further developing a long-lasting and mutually beneficial working relationship. Should you have any questions or comments, please call at your convenience.

Sincerely,

DAVIS, BOWEN & FRIEDEL, INC.

Jasøn P. Loar, PE

Principal | Senior Civil Engineer



### Firm Profile

Davis, Bowen & Friedel, Inc. (DBF) has been improving our communities, shaping the world around us, and creating value by design since **1983**. Our broad range of services in the Architecture, Engineering, Planning, and Surveying disciplines provides clients throughout the Delmarva Peninsula and Mid-Atlantic region with comprehensive industry expertise under one roof. The firm creates a specialized team approach for every project, meeting the needs of our clients with a staff of over 100 uniquely qualified professionals in our Salisbury and Easton, MD, and Milford, DE offices.

With a strong commitment to improving the quality of life in our communities, DBF's projects range in size and type from designing whole neighborhoods, providing on-call services for entire towns, and restoring ecosystems to sketching ideas for a new home, creating a state-of-the-art medical facility, or designing public safety and transportation-related structures and infrastructure.

"As stewards of progress, we at DBF believe that our role extends beyond planning and engineering; it is about crafting legacies that elevate communities."

- Ring W. Lardner, PE - President

DBF's dedication is evidenced by our long-standing clients—municipalities, businesses, and institutions—who have entrusted DBF for over four decades to provide high-quality design documents and a commitment to making our communities better places to live. This commitment begins with thoroughly understanding our client's needs, wishes, and concerns. From project inception through construction and operations, we are committed to providing quality professional consulting services.



#### ORGANIZATION'S NAME

Davis, Bowen & Friedel, Inc. (DBF)

#### OFFICE ADDRESS

601 East Main Street, Suite 100 Salisbury, Maryland 21804

#### PHONE NUMBER

(410) 543-9091

#### FIRM LEADERSHIP

Ring W. Lardner, PE President

Jason P. Loar, PE Principal

W. Zachary Crouch, PE Principal

Michael E. Wheedleton, AIA, LEED GA Principal

Jamie L. Sechler, PE Principal

#### **TOTAL FIRM PERSONNEL = 108**

Licensed Engineers = 12 Licensed Surveyors = 2 Licensed Planner = 1 Survey Technicians = 24 Licensed Architects = 5 Environmental Scientists = 2 GIS Specialists = 1 CAD Technicians = 32

Construction Inspectors = 7 Landscape Architects = 2

Administrative Staff = 20

#### **CONTACT NAME, TITLE & EMAIL**

Nicholas S. Bradley, EIT Project Manager | Civil Engineer nsb@dbfinc.com

# **Capacity Statement**

### **Ability, Capacity, & Skills to Provide Services**

With a current staff of over 100 employees, including over twenty registered professionals, our firm has the ability, skill and capacity to provide the services required within the scope of services. Throughout the firm's history, we have been committed to providing clients with services in a variety of disciplines. Whether short-term project-based or continuing planning services are required, every assignment is given the unique attention it deserves. We are committed to successful sustainable design solutions that are both economical and attractive.

The success of any project greatly depends on a systematic approach to project design and quality control. We carefully listen to our clients to ensure that their needs are met, and that the finished product meets the end user's requirements.

A principal of the firm is assigned as principal-in-charge. With a principal-in-charge, technical production is maintained at the highest level. All work is reviewed in detail by a registered professional and principal not previously involved in the project, for the expressed purpose of quality control. All team members involved in this submission understand the quality control protocols and can execute quality deliverables to ensure project success. DBF will provide quality control and assurance of each project by reviewing the work product to ensure that the project will meet the requirements established by related agencies.

Maintaining full communication with the client and user during all phases assures that the scope, budget, and schedule of the project are consistent with the needs of the owner and the user.

Further, DBF has the financial capacity to provide design and engineering services as proposed. With billings and receipts exceeding \$20M annually and working cash available averaging \$450,000 at any given time, the firm can easily provide the services without a financial burden. We also hold measures of protection against errors and omissions. In addition to the firm's very successful Quality Assurance/Quality Control (QA/QC) Procedure, DBF carries professional liability insurance for protection.

### **Ability to Supply Deliverables On-Time**

DBF has completed, and been involved in, thousands of public projects since the inception of the firm of both large and small scopes. We have an excellent track record of completing projects within the proposed schedule and budget. Although hurdles do occur during projects, we make it a point to understand each project's unique requirements, and make ourselves familiar with these early in the project in order to expedite the design, permitting, and approval phases while maintaining a high-quality and cost-effective product.

Additionally, our firm provides services on a multitude of state and federal on-call contracts, each bound by strict timelines for completion of phased deliverables. Failure to adequately meet such stringent requirements would have been cause for dismissal. We currently hold on-call contracts with several municipalities, as well as state and federal clients, including the Delaware Army National Guard, the Delaware Air Guard, the State of Delaware Department of Health & Social Services and the Dover Air Force Base

### Capacity Statement (cont.) -

### **Character, Integrity & Reputation**

DBF has developed an excellent reputation over the years for providing professional services. We assemble our collective talents and creativity to design and engineer spaces that are uniquely meaningful to the society they serve. client and community satisfaction at the core of our values, our multidisciplinary team of experts listen intently to our clients needs, and actively implement design solutions that uphold and reflect their interests. We leverage decades of industry knowledge and experience, ingenuity and innovation, and the latest technologies to deliver projects that bring value for all users.

As objective evidence of our firm's character, integrity, reputation, experience and efficiency, our firm has held it's position within the top design firms in the Mid-Atlantic region for more than ten years (as ranked by Engineering News Record magazine). Positioned at #79 in June of 2023, DBF was one of the Eastern Shore-based firms to be on the magazine's list of top design firms.

### **ENRMidAtlantic**



#### **Current & Future Workload**

Our firm prides itself on providing prompt work product within established project schedules. This is accomplished by consistently monitoring project teams' workload and associated project schedules to ensure schedules are maintained. We have reviewed our current and future workload, especially as it directly relates to individual project team members, and can confidently state that we are prepared and capable of providing the Town of Berlin with prompt response for all work requested.



### **In-House Services**

#### **MUNICIPAL ENGINEERING**

Water Supply & Treatment

Hydrogeologic Studies & Test Well Programs

Well & Treatment Design

Plant Start-up & Training Services

Operations & Maintenance Manual Preparation

Operator Training & Assistance

Water Distribution Systems

System Analysis

Computer Modeling

Fire Flow Studies

Rate Analysis

Water Main Design

Rehabilitation Design

#### **Wastewater Treatment Facilities**

Feasibility & User Rate Studies

**Pretreatment Coordination** 

**Public Hearings & Presentations** 

Permitting Assistance

Consent Order Negotiations

Treatment Plant Design

Operator Training & Assistance

#### **Elevated Tanks**

Inspection Coordination

Tank Rehabilitation & Painting Design

New Tank & Foundation Design

**Construction Administration** 

Coordination with Weld & Paint Inspectors

#### **Sewer Collection Systems**

System Evaluations

Infiltration/Inflow Studies

**User Rate Studies** 

Ordinance & Standard Preparation

New System Designs

Collection Replacement Design

Pump Station Rehabilitation

Regulatory Assistance

Transmission & Conveyance

Water, Sewer & Stormwater Modeling

Operator Training & Assistance RPR Inspection & Construction

Administration

#### **CIVIL/ON-CALL ENGINEERING**

Development & Stormwater Management

Plan Reviews

**Utility & Construction Standards** 

**Annexation Reviews** 

Studies and/or Designs

Development and/or Review of Public

Works & Developer Agreements

Improvements of Public Areas & Streets

**Town Hall Programming** 

Permitting Assistance

Code Review, Recommendations and/or

Revisions

**Zoning Code Plan Review Comments** 

**Planning Services** 

**Funding Assistance** 

#### **ARCHITECTURE**

Feasibility Studies

**Renovations & Additions** 

New Facility Design

**Construction Phase Services** 

Land Planning

**Programming** 

Sustainable Design

Design/Build

**Needs Analysis** 

#### **SURVEYING**

**Boundary Surveys** 

Topographic Surveys

**Bathymetric Surveys** 

ALTA/ACSM Land Title Surveys

**Elevation Certificates** 

FEMA Letter Map of Change

Construction Stakeout

Corridor/Route/Highway Surveys

Traffic Signalization Surveys

**Utility Surveys** 

**Aerial Mapping** 

Annexation

**Condemnation Surveys** 

**Archaeological Easements** 

**Wetland Mapping** 

UAV (Drone) Flights

#### STRUCTURAL ENGINEERING

**Building/Bridge Inspections** 

**Feasibility Studies** 

**Renovations & Evaluations** 

**Historical Restoration** 

**New Design** 

**Culvert Design** 

Fire Damage Evaluations

Snow & Wind Load Assessments

#### LANDSCAPE ARCHITECTURE

Land Planning & Site Development

Site Evaluation & Analysis

**Forest Conservation** 

Soil Erosion Control & BMP Development

**Bioretention Area Plantings** 

Habitat Restoration

Critical Area Compliance

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Stormwater Management

Feasibility Studies

Park Design

#### **COASTAL ENGINEERING**

Shoreline Assessments/Stabilization

Dredge Material Containment

**Ecosystem Restoration** 

Marinas/Harbors/Boat Ramp Design

Storm Damage Reduction

**Beach Nourishment** 

**Living Shorelines** 

Revetments

Groins/Jetties/Breakwaters

Bulkheads/Docks/Piers

Protection & Restoration of Habitats

### In-House Services (cont.) -

#### TRAFFIC ENGINEERING

Traffic Impact Studies (TIS) & Waivers
Traffic Operational Analysis (TOA)

Transportation Management Plans (TMP)

Traffic Signal Justification Studies (TSJS)

Traffic Signal Design

Site Access Design & Entrance Plan

Intersection & Roadway Design

Queuing Analysis

Site Campus Studies, Design & Redesign

**Speed Studies** 

All-Way Stop Warrant Analysis

Automatic Traffic Recorder (ATR) Traffic

**Data Collection** 

Manual Traffic Count Data Collection

**Trip Generation Studies** 

**Traffic Control Plans** 

Service Level Evaluation Reguests (SLER)

**Rezoning Applications** 

Right-of-Way Acquisitions

#### **PLANNING**

GIS Mapping
Master Planning

Land Design

Subdivision Planning

Site Development

**Developer Due Diligence** 

#### STORMWATER ENGINEERING

**Detention Pond Design** 

**Urban Retrofits** 

**Underground Storage System Design** 

Submerged Gravel Wetlands

**Drainage Deficiencies Evaluation** 

**Drainage Studies** 

**Watershed Analysis** 

Drainage Map Development

**Downstream Analysis** 

**Channel Modeling** 

#### **ENVIRONMENTAL CONSULTING**

**Wetland Delineation** 

**Habitat Analysis** 

Water Quality Surveys

Soil Mapping

Soil Feasibility Studies

Site Specific Investigations

Forest Conservation Plans & Delineation

Wildlife & Vegetation Surveys

**Habitat Restoration** 

Preliminary Environmental Site Analysis

### HYDROLOGY, HYDRAULICS & WATER QUALITY MODELING

**Ecosystems Investigations** 

**Hydraulic Modeling** 

Hydraulics, Coastal, Scour & Water Quality

Monitoring

#### **FINANCIAL SERVICES**

Grant/Loan Funding Application

Preparation

**Grant Management** 

**Financing Options Review** 

**Financial Data Compilation** 



# **Municipal Engineering Expertise**

DBF offers comprehensive professional services to municipalities, contributing to our communities' sustainable development and efficient functioning. Our team of experienced civil engineers collaborates closely with municipalities to address a diverse range of infrastructure needs, including road design and maintenance, water and wastewater utilities management, stormwater management, and public space development. Our team has worked on park projects, solar projects, cellular tower projects, building renovations, parking lots, and building projects for town halls, public works buildings, fire and police stations, schools, and other community buildings.

By leveraging innovative technologies and sustainable practices, we aim to enhance the overall quality of life for residents while ensuring the longevity and resilience of the municipality's infrastructure. We are committed to delivering tailored solutions that align with each municipality's unique requirements and vision, fostering a collaborative approach that promotes community well-being and environmental stewardship

Our municipal services range from planning stages through preliminary engineering, funding acquisitions, design, permitting, bidding, construction services, and ongoing operational assistance utilizing our licensed on-staff operator. Some of our municipal engineering services include:

- + Street and Road Design
- + Site and Grading Design
- + Utility Coordination and Design
- + Sidewalk and Curb Design
- + Quality Control and Assurance
- + Construction Administration & Inspection
- + State & Federal Funding Assistance
- + Infrastructure Assessment & Management
- + Permitting Assistance
- + Regulatory Assistance
- + Sewer Collection Systems & Transmission/Conveyance

- + Pump Station Design & Rehabilitation
- + Water Supply & Treatment
- + Water Storage & Distribution
- + Water & Wastewater Operations
- + Stormwater Collection Systems
- Plan Reviews; Land Use and Engineering
- + Planning & Conceptual Design
- + Wastewater Treatment Plant
  Design
- + Capital Improvements
  Planning
- + Tank Design & Rehabilitation
- + Environmental Evaluations

DBF performs these services following the latest appropriate and applicable specifications, procedures, and codes, which include, but are not limited to AASHTO, SHA Highway Drainage Manual, MUTCD, Water Resources Specifications; SHA policies and procedures, current MD SHA Standard Specifications for Construction and Materials; MD SHA Specifications for Consulting Engineers Services, EPA, USDA, and - Ten States Recommended Standards for Water Works, AWWA, MDE and County Requirements, Best Management Practices, and EPA, USDA, and Ten States Recommended Standards for Wastewater Facilities; City/Town standard details.

Over the course of our company's history, we have provided professional engineering services to numerous municipal and governmental clients, as well as to federal facilities such as Air Force Bases and NASA. With municipal-related work being one of Davis, Bowen & Friedel, Inc.'s areas of expertise, we are highly familiar with associated requirements, including funding from sources such as the United States Department of Agriculture-Rural Development (USDA-RD), the Maryland Department of the Environment (MDE), the Rural Maryland Council (RMC), the Maryland Department of Natural Resources (MD DNR), the Maryland Department of Housing and Community Development (DHCD), and the Environmental Protection Agency (EPA).

By being knowledgeable and providing financial management assistance to our clients, we have avoided some common funding requirement hurdles or mistakes that could jeopardize the funding. In addition, by providing construction management services, we are able to complete the necessary funding paperwork and backup documentation and assist in expediting the turnaround from the funding agency.

# **Maryland Municipality/County Experience** —

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- Indicates work completed/work in progress
- ☐ Indicates work completed for private client within jurisdiction
- \* Study only

### **On-Call Experience**

DBF has provided On-Call ("as-needed") municipal services since its inception over 40 years ago. During that time frame, we have performed many municipal projects of various aspects and scopes of work, including but not limited to engineering, architecture, landscape architecture, structural, marine, drainage/stormwater, road reconstruction projects, and water/wastewater services, including operational assistance. Services provided for each project varied, including preliminary evaluations, planning, design, permitting, cost estimating, funding assistance, bidding, construction contract management, and inspection services. Planning services include Zoning Code reviews, subdivision reviews, site plan reviews, building code reviews (IBC, ADA, MEP, etc.), Public Works Agreements, Water/Sewer Usage Calculations, Impact Studies, Infrastructure Evaluations, and various other planning and permitting assistance.

Our firm prides itself on offering comprehensive professional services to our clients in the most cost-effective manner. Each oncall client has special requirements, which we make a point to know and understand so that we can tailor our services to each client while maintaining high-quality, cost-effective services. We have provided On-Call services for Maryland and Delaware municipalities listed below over the course of the past 40 years.

BERLIN PRINCESS ANNE

BETTERTON SALISBURY
BRIDGEVILLE SELBYVILLE
CAMBRIDGE SHARPTOWN
CRISFIELD SNOW HILL

DELMAR SOMERSET COUNTY

EASTON ST. MICHAELS
FEDERALSBURG SUSSEX COUNTY
GOLDSBORO TALBOT COUNTY
TRABBE

HURLOCK TRAPPE

PITTSVILLE WICOMICO COUNTY

POTOMAC HEIGHT MUTUAL







# **Construction Administration Expertise**

In addition to being a full-service architecture, engineering, and surveying firm, DBF also has a contract administration and construction inspection group within the municipal department that specializes in project construction phase services. We currently employ multiple contract administrators and field inspectors. This team guides projects from the construction contract award to construction closeout to ensure proper construction. Our construction administration and inspection groups thoroughly track all aspects of the project, including costs and scheduling.

Contract administration services typically include answering contractor questions, conducting pre-construction meetings, periodic site visits, shop drawing reviews, conducting monthly progress meetings, preparing minutes, tracking schedules, reviewing contractor progress payments, and tracking project costs. Additionally, DBF can provide reviews & recommendations for merit change order requests, punch list inspection walk-throughs & follow-up inspections, record drawing preparations, warranty inspections, and operations assistance once the project is complete.

Resident inspection services can be performed on a part-time or full-time basis depending on project needs and the type of construction activity. Our inspections contain a project record which includes inspector daily field reports, meeting minutes, and all construction correspondence.



### **Surveying Expertise**



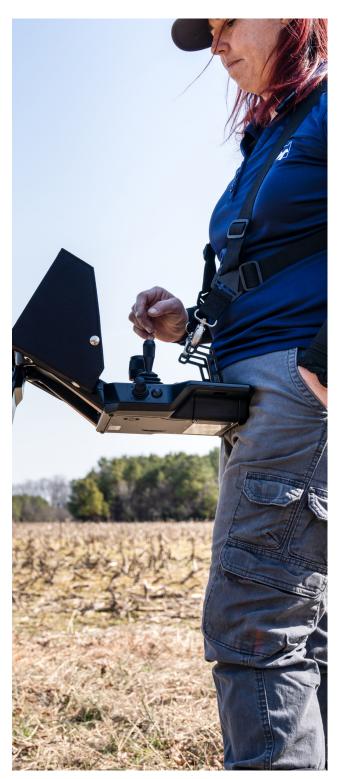
DBF's field experience includes boundary, topographic, roadway, utility locating, utility as-builts, lot as-builts and construction stake-out. Our office work includes deed and right-of-way research, field to finish and surface preparation, boundary plats, easement exhibits, and legal descriptions. This broad background enables our staff to plan and implement projects quickly, to identify the most cost effective solution, to anticipate potential problems, and then take steps to avoid problems before they become a reality. The proposed DBF key staff have extensive experience with providing survey components related to this scope of work.

Our team prides itself on the professional qualifications and experience of our staff. Personnel tasked for this project have decades of combined experience in the survey, planning and engineering design industry. Based on our performance, we have a distinguished reputation as survey and engineering professionals.

DBF uses the most current survey equipment and field procedures for obtaining field data for engineering and design. Our professionals work to stay ahead of growing survey and geospatial technologies and data techniques, such as global navigation satellite systems (GNSS), geographic information systems (GIS) mapping, high-definition laser scanning (HDLS), and drone technology, to provide our clients with precise information.



## Surveying Expertise (cont.)-



As technology advances and evolves, DBF's capabilities have expanded to include Unmanned Aerial Vehicle (UAV) services. Using a high precision, professional grade drone to collect photogrammetric data, our UAV services offer ample and unique possibilities for our clients. UAV services provide for more efficient, safer and cost-effective drone-based aerial data collection, scanning areas of difficult to reach places in a fraction of the time. The equipment and technology we use, combined with our expertise, provide our clients with additional reliability, quality and accuracy of projects, specifically, less obstruction and intrusion to areas of land, better access to hard to reach structures or complex topography sites that are not safe for humans to perform investigations, and instant data processing with enhanced aerial shots for more precise assessments.

We also own and operate a BathyCat - a portable unmanned survey catamaran designed to complete bathymetric and hydrographic surveys with a single beam echo sounder while our crew is safely on the shore.





# **Structural Engineering Expertise**

As a sub-discipline of civil engineering, our structural engineers focus on the physical integrity of a structure by carrying out the design, analysis, and maintenance of load-bearing structures. Davis, Bowen & Friedel's structural engineers, working directly with other civil engineers, architects, landscape architects, and surveyors, all in-house, have proven to be an invaluable service when designing a multitude of different types of structures.

Our structural engineers provide our clients with structural design services that include, analyses, evaluations, inspections, and renovations for projects such as marinas and bulkheads; low-rise, multi-story commercial and residential buildings; educational facilities; water and wastewater treatment work; and industrial and manufacturing plants. DBF's structural engineers have proved to be invaluable when designing structures to withstand the rigors of a coastal environment.

#### **INSPECTION & EVALUATION**

We have extensive experience providing inspection, evaluation and analysis for municipal, recreational, commercial, residential, healthcare, and industrial clients in Delaware, Maryland and Virginia. Evaluations of existing structures are routinely provided prior to the development of a project.

#### STRUCTURAL DESIGN FOR RENOVATIONS

The extent and magnitude of structural repairs and reinforcement are determined once the building evaluation and analysis are completed. Construction drawings and specifications are developed for the proposed building renovation to satisfy the building code and other project requirements, taking into consideration existing building deficiencies and increased loading scenarios.

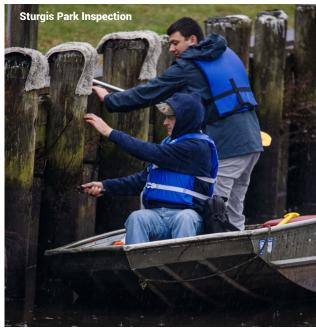
#### **BUILDING EVALUATIONS/FIRE DAMAGE**

We are also experienced in the evaluation and assessment of fire damaged buildings. Structural steel, concrete, masonry and timber are all subject to fire damage and must be thoroughly evaluated before reinstatement into a renovated building.

#### HISTORICAL RENOVATION/PRESERVATION

Every city and town in the region has an initiative to preserve, protect and revitalize its architectural heritage. Davis, Bowen & Friedel has the experience to develop innovative or alternative engineering solutions to help facilitate the preservation of significant architectural features of a building. Evaluations are also performed when needed to reinforce building elements for increased loading due to changes in occupancy.





#### **CAPABILITIES**

- Historical Renovations/Restorations
- Feasibility Studies
- Building & Bridge Inspection/Evaluation
- Structural Design
- Fire Damage Evaluations
- Structural Design & Evaluations for Coastal Projects

# **Environmental Expertise**

#### **WETLANDS**

Engineers play a vital role in the protection, restoration and sustainable management of wetlands. Balancing human needs with the preservation of valuable ecosystems contributes to the overall health of the environment. Our environmental scientists are experts in wetlands restoration, mitigation and delineation, environmental site analysis, erosion control to protect wetland banks and shorelines, soil mapping and soil feasibility studies, and monitoring water quality.



# Specialized Coastal Engineering Expertise —

With more than forty years of shoreline and waterway coastal engineering experience, we are well-versed in coastal planning, design, engineering and economic investigations for projects that include dredging, dredge material disposal, marinas bulkhead analyses and renovations, beach nourishment, harbor protection, boat ramps, floating piers, shoreline protection, and navigation. DBF has firsthand knowledge of coastal and ocean engineering projects along the Chesapeake Bay, Mid-Atlantic Coast, Delaware Bay, and New England regions. In these sectors, we have completed more than 500 projects encompassing all aspects of coastal planning, design, and engineering to include plan formulations, reconnaissance investigations, feasibility studies, report preparation, preliminary and final design, preparation of plans and specifications, bidding assistance, construction management, and postconstruction monitoring.

The key DBF personnel proposed for this project have a combined experience of more than fifty years in the planning and engineering design of coastal and marine projects in the region. Members of our staff are recognized experts in the field of coastal and marine engineering; particularly in the areas of boat ramp design, dredging, shoreline protection, habitat creation, harbor development, and navigation projects.

Through many successful projects performed over the years, we have developed a uniquely recognized experience and crafted an impeccable rapport with our public and private clients. We maintain continuous contact with the U.S. Army Corps of Engineers Coastal Engineering Research Center and the Maryland Department of Natural Resources in order to integrate the most current engineering techniques into our project investigations. This repeat business from our clients is a testimony to the high quality of our many capabilities.

### **Sub-Consultant Qualifications**

While DBF is a multi-discipline consulting firm, based on each unique project's scope the need for sub-consultants may be needed. Our firm operates in close collaboration with a network of highly regarded and specialized sub-consultants that deliver comprehensive solutions to our clients. Leveraging the expertise of these sub-consultants allows us to enhance our capabilities and offer a wide range of services that meet the diverse needs of our projects. Through this strategic partnership, we tap into their specific skills and seamlessly integrate their insights into our project teams. This collaborative approach ensures that our clients benefit from the collective expertise of our firm and our sub-consultants, resulting in efficient solutions.

DBF has a long working relationship with several consultants in various fields including, but not limited to, mechanical, electrical, plumbing, systems integration, and geotechnical engineering. Each consultant is selected based on their specific knowledge and what they can provide for each unique project. DBF has

worked on a multitude of municipal infrastructure projects with Keystone Engineering, a mechanical, electrical, plumbing and systems integration engineering consultant based in Lewes, Delaware. DBF has worked on over 1,000 projects with John D. Hynes and Associates, a geotechnical consultant based in Salisbury, Maryland. Barton and Loquidice, hydrogeological consultant located in Baltimore, Maryland which we have worked with on a number of projects. All consultants are available to provide professional services to the Town of Berlin for projects within this contract as needed.

Depending on the type of project, other subconsultants may be involved in specific projects with the approval of the Town. However, should funding requirements dictate the need to meet certain criteria, such as participation of Disadvantaged Business Enterprises (DBE/MBE/WBE), DBF will follow such requirements as not to jeopardize any Town funding.

#### Keystone Engineering Group Keystone



Keystone Engineering Group, Inc., is a professional engineering firm and systems integrator with locations in PA, NJ, and DE, specializing in mechanical, electrical, and plumbing design and design-build services. Their team is comprised of talented individuals who provide expertise in wastewater, water, electrical, instrumentation, HVAC, plumbing, fire protection, and automation/ SCADA projects. Keystone also specializes in systems integration services and construction management for clients, combining technical capabilities, creative design, and diverse portfolios to projects. They form partnerships with other engineering firms who are in need of their expertise.

#### John D. Hynes & Associates



John D. Hynes & Associates, Inc., founded in 1989 and based in Salisbury, Maryland, is a full-service consulting engineering firm serving public and private clients across Delmarva, Maryland, Virginia, Delaware, Pennsylvania, and the Baltimore-Washington region. The firm provides geotechnical engineering, environmental consulting, construction inspection, and materials testing for a wide range of projects—from residential and institutional developments to industrial expansions and shoreline improvements. Accredited by the American Association of State Highway and Transportation Officials, the company blends regional expertise with professional rigor to deliver sound, compliant, and context-sensitive engineering solutions.

#### **Barton & Loquidice**



Barton & Loquidice (B&L), founded in 1961, provides comprehensive planning, engineering, environmental, landscape architecture, and construction services to both public and private clients. Its practice-centered approach delivers customized, cost-effective, and sustainable solutions in areas such as water and wastewater systems, solid waste management, transportation, asset management, and climate resilience. Known for its "Experience to Listen. Power to Solve." ethos, the firm is recognized for award-winning projects and client-focused execution



## Sub-Consultant Profile: About Keystone Engineering Group

Keystone Engineering Group, Inc. was founded in 1997 and is a full-service engineering firm made up of Professional Engineers and Designers specializing in Electrical, Instrumentation and Mechanical Engineering, Control Systems Integration and SCADA/Automation Design-Build Projects for Industries, Government, Institutions and Municipalities. Headquartered in Frazer, Pennsylvania, Keystone supplies services for projects located primarily in Pennsylvania, New Jersey, New York, Maryland, and Delaware.

We pride ourselves in providing comprehensive services to our clients and being available after hours to make sure projects proceed smoothly. Our many years of experience allow us to coordinate all aspects of multidisciplinary projects. We are particularly strong in providing Mechanical, Electrical and Instrumentation services including Piping, HVAC, Power Distribution, Instrumentation, PLC and PC based controls and SCADA Systems. Keystone Engineering Group provides Engineering Design consulting well as Systems Integration contracting. Our experience as both a consultant and a contractor provides the insight to avoid the mistakes made by others that only see construction projects from the design or construction perspective.

#### **Engineering Design Consulting**

Engineering Design Consulting serves the facility owner by providing design packages for bidding to contractors. Services include complete detailed contract plans and specifications, bidding assistance and construction management services. Keystone Engineering Group is often hired by general engineering firms to provide expert design services for process and instrumentation engineering, power distribution and lighting design, digital and voice communication systems, control system architectures and instrumentation specifications.

#### Systems Integration Contracting

Systems Integration services provide facility owners and general contractors with direct on-site construction services including programmers, instrumentation technicians and electricians. System Integration includes control panel design and fabrication, programming of PLCs, RTUs and HMI packages, the setup and installation of radio and fiber optic communication hardware, and field troubleshooting of instrumentation and control systems.

Keystone Engineering Group is a fully insured, privately held corporation that is actively growing at a rate of 20% per year. Our track record of being repeatedly rehired by other consulting engineers, municipalities and industrial clients speaks volumes about the quality of our work and the results of our installations.

Keystone Corporate Headquarters 590 Lancaster Ave, Suite 200 Frazer, PA 19355

Keystone Branch Offices
Lewes, DE | Seaford, DE
Hamilton, NJ | Clarks Summit, PA

Phone Number (610) 407-4100

### Keystone provides the following services to their clients:

- Engineering Design Packages
  - Drawings on AutoCAD
  - Process and Instrumentation Diagrams
  - Electrical Single Lines
  - Control Schematics
  - Point to Point Wiring Diagrams
  - I/O Diagrams
  - Control System Architecture Schematics
  - Power and Lighting Plans
  - Specifications in the CSI Format
  - ISA Instrument Data Sheets
  - Functional Descriptions for Control Systems
- Construction Management Services
- Field Troubleshooting of Instrumentation and Control Systems PLC, RTU and HMI Programming
- Checkout and Startup Services
- As-built Drawings and Documentation

#### Experience includes:

- Wastewater Treatment Plants
- Water Treatment Plants
- Mechanical Systems
- Remediation Systems
- SCADA/Telemetry Systems
- Distributed Control Systems
- Power Distribution
- Variable Speed Drives



# Sub-Consultant Profile: About John D. Hynes & Associates, Inc.

John D. Hynes & Associates, Inc. is a consulting engineering firm established in 1989 and based in Salisbury, Maryland. We provide a full range of geotechnical, environmental, construction inspection, and material testing services to both the public and private sector. Our clients comprise a cross section of enterprises on the Delmarva Peninsula, throughout Maryland and Virginia, in the greater Baltimore and Washington areas, Delaware, and Pennsylvania.

John D. Hynes & Associates, Inc. maintains an extensive Quality Assurance/Quality Control Program. Our laboratory is managed by a registered Professional engineer, and is accredited by AASHTO. Both the Geotechnical and Environmental departments share the expertise of experienced hydro-geologist, geotechnical engineers and drilling crews.

John D. Hynes & Associates, Inc. currently maintain the following departments:

- Geotechnical Engineering and Consulting
- Environmental Engineering and Consulting
- Materials Testing and Construction Inspection Services
- Drilling Services

We currently staff 32 personnel. All our staff is provided with specialized training to maintain many certifications and licenses as further detailed below:

- · Licensed Professional Engineers
- · Licensed Professional Geologist
- Licensed Well Drillers
- Certified Underground Storage System Removers
- Certified Lead Based Paint Inspection Technicians
- Health and Safety Certifications for Hazardous Waste Site Activities
- First Aid and CPR Certifications through the American Red Cross
- Certified Nuclear Moisture-Density Gauge Operators
- Certified Engineering Technicians

#### **GEOTECHNICAL SERVICES**

John D. Hynes & Associates, Inc. provide geotechnical exploration and consulting services on a broad spectrum of projects, including but not limited to:

- Dredge-Basin and Lagoon Systems
- Residential Structures
- Beachfront Condominiums
- Complete Hospital Projects & Additions
- Schools and Institutional Projects
- Bridges
- Shopping Centers
- Expansions to Industrial Plants

- Water Towers
- Transmission Towers
- Underground Structures
- Airport and Marina Projects
- Shoreline Improvement System
- Utility-Line Systems
- Power Plant Systems
- Office Buildings



# **Sub-Consultant Profile: About Barton & Loguidice**

Barton & Loguidice, D.P.C. (B&L) has been engaged in the practice of professional engineering since 1961. B&L is a highly diversified planning, engineering, environmental science, and landscape architecture firm with a broad range of experience and expertise. The firm's Maryland offices are located in Annapolis and Baltimore, with out-of-state offices in Syracuse, Rochester, Albany, Buffalo, Somers, Binghamton, Plattsburgh, Watertown, and Utica, New York; Camp Hill, State College, and Pittsburgh, Pennsylvania; Hartford, Connecticut; and Portland, Maine.

B&L employs a staff of more than 400 engineers, planners, environmental scientists and specialists, hydrogeologists, architectural designers, landscape architects, transportation planners, designers and drafters, construction inspectors, and technicians. The firm operates within eight core practice areas as shown in the graphic below.

ASSET MANAGEMENT	SOLID WASTE
ENVIRONMENTAL	SUSTAINABLE PLANNING & DESIGN
FACILITIES	TRANSPORTATION
LAND SURVEYING	WATER RESOURCES

B&L's environmental practice area includes professional geologists and hydrogeologists, geographic information systems (GIS) professionals, Certified Professionals in Erosion and Sediment Control (CPESC), Certified Professionals in Stormwater Quality (CPSWQ), Certified Professionals in Municipal Stormwater Management (CPMSM), Leadership in Energy and Environmental Design (LEED®) accredited professionals, Certified Wildlife Biologists (CWB®), Certified Professional Wetland Scientists (PWS), professional engineers, registered landscape architects, environmental scientists, biologists, ecologists, planners, industrial hygienists, Maryland Department of the Environment (MDE) Responsible Personnel, and Maryland Department of Transportation State Highway Administration (MDOT-SHA) Erosion and Sediment Control (ESC) certified staff. These professionals collaborate closely with our clients and regulators to deliver impactful, innovative, and system-based solutions that restore ecosystems and promote community resiliency.

### Our environmental science and engineering services include:

- · Hydrogeological investigation;
- · GIS analysis and support services;
- Environmental compliance, permitting, audits, and reporting;
- · Stormwater pollution prevention plans (SWPPPs);
- · Air permitting, monitoring, and controls design;
- Environmental plan development (spill prevention, control, and countermeasures [SPCC] plans, preparedness, prevention, and contingency plans, etc.);
- · Stormwater management and retrofits;
- · Stormwater infrastructure asset management;
- · Pollutant loading reductions;
- National Discharge Elimination System (NPDES) permitting;
- · Feasibility and pilot studies;
- · Soil and groundwater remediation;
- · In-situ bioremediation;
- Alternative technologies evaluation, costing, and selection;
- Threatened and endangered species surveys and studies;
- Remedial site characterization and design;
- · Due diligence assessments;
- Phase I and II environmental assessments and investigations;
- Ecological studies;
- Wetland assessments, permitting, and mitigation;
- Stream restoration;
- MS4 permitting, regulations, data collection, management technologies, real-time data monitoring, and stormwater innovations;
- MS4 training;
- Lead-based paint, asbestos, and hazardous materials management; and
- OSHA compliance services.



#### **TOWN OF BERLIN | ON-CALL SERVICES**

Berlin, Maryland

Since 1984, our firm has provided more than 4,000 hours of professional on-call engineering services for the Town of Berlin. These services have included infrastructure planning, engineering and recommendations, water and sewer capacity management analysis, project design reviews and plan reviews for proposed developments, water system, sewer system, roadway and stormwater drainage design and permitting, developing Public Works Agreements, construction administration and field inspections, and representation at Town Meetings as needed.

Additionally, we completed the Town Construction Standards, which the Town adopted for use on all projects that include Town-dedicated infrastructure.

- North Main Street Water and Sewer System Extension
- Route 346 West Pump Station Evaluation
- · Branch Street Sidewalk Project
- Berlin Street Reconstruction (Graham, Grace, & Vine)
- Stephen Decatur Park Tennis Court Improvements
- Baker Street Roadway Improvements
- Gay Street Watermain Upgrades
- AGH Cancer Center On-Call Services
- · Berlin Library On-Call Services
- Berlin Main Place On-Call Services
- Berlin Police Department On-Call Services
- Berlin Tyson Plant On-Call Services
- Bikeable Berlin On-Call Services
- Briddletown Watermain Connection On-Call Services
- The Cottages C.A. Schuster On-Call Services
- Waystead Inn Grease Trap On-Call Services
- Berlin Activities Depot Plan Review On-Call Engineering
- · Ocean's East, Seahawk On-Call Services
- Franklin Avenue Tank AT& T Equipment Installation
- · Berlin Chemical Building
- · Victoria Estates On-call Engineering & Plan Review
- · Spray Fields Effluent Pump Evaluation
- Town Design & Construction Standards Update
- Zoning Map Update On-Call Services
- William Street Pump Station Evaluation On-Call Services
- Purnell Crossing On-Call Services
- John Derrickson Commercial Development On-Call Services
- · Gerardi Italian Rest Water Service
- · Lucky State Grease Trap Review
- Town Standards Update
- · Cannery Village Plan Review & Engineering
- Town On-Call Engineering Dollar General Project
- Royal Farms/ Arbys On-Call Services
- Decatur Street Realignment On-Call Services
- Pretreatment Program/BOD Inv On-Call

- · Powellton Avenue Well Building
- Broad Street Pump Station Evaluation
- Water & Sewer Rate Study
- Water & Wastewater Capacity Evaluations
- South Main Street
- · Water System Model
- · Berlin Falls Park Building Assessment
- · Wastewater Irrigation Start Up
- Burleigh Inn Tavern On-Call Services
- Six-Year Revision Comprehensive Plan
- Decatur Street Traffic Impact Analysis
- Existing Water Tank Inspection / Evaluation
- Flower Street Sidewalk Extension Project
- Industrial Park Pumping Station
- · N. Main Street Utilities Extension
- · Franklin Knoll Subdivision On-Call Services
- · Reconstruction of Town Hall Parking Lot
- Town Hall Renovations
- Town Roadway Evaluation
- Tyson Annexation
- Purnell Subdivision Construction Services
- · Walnut Hill Subdivision Review
- · West Street Relief Ditch Survey & Design
- Well Head Protection
- Decatur Farms Development On-Call
- Town Hall Historical On-Call Services
- Town Water System Evaluation
- Storm System Upgrades Assistance On-Call
- · Flower Street Utilities On-Call
- Berlin SonRise Church Property On-Call Engineering Review
   & Coordination
- · Harrison Avenue Survey On-Call Engineering
- Henry Park Bathroom Building-Site Plan On-call Engineering Review
- · Shoreline Auto On-Call Construction Phase Engineering



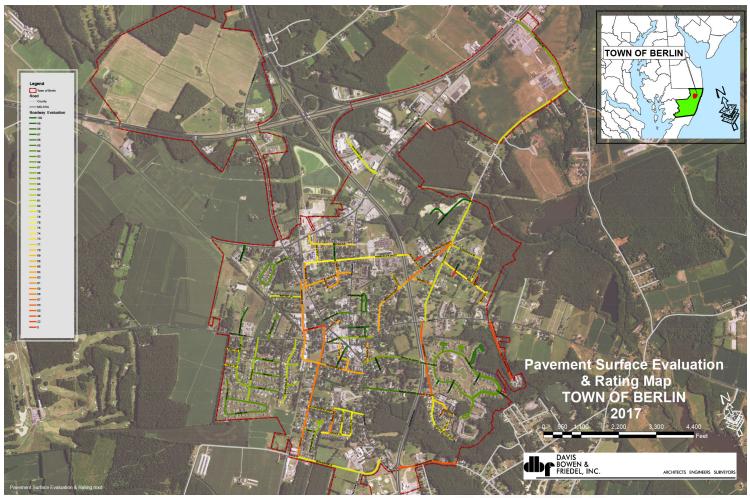
# **TOWN OF BERLIN | TOWN ROADWAY EVALUATION**

Berlin, Maryland



Davis, Bowen & Friedel, Inc. (DBF) compiled GIS maps and inspected the Town of Berlin's twenty miles of roadways. For the evaluation, our firm provided criteria based on Federal Highway Administration guidelines as well as curb and gutter, sidewalks, and general ADA compliance with regard to the roadways and sidewalks. DBF's inspectors were able to efficiently evaluate the roadways and provide photographs of each street.

Our team is currently concluding the reporting portion of this work, and we will have a final deliverable to the Town in the near future.





# SOMERSET COUNTY SANITARY DISTRICT | ON-CALL ENGINEERING SERVICES

Somerset County, Maryland

Davis, Bowen & Friedel, Inc. provides extensive water and sewer design services to the Sanitary District's day-to-day and long term engineering operations. Included are:

- Review of Construction Plans for planned developments
- Review of existing water and sewer infrastructure capacity including manifolded sewer forcemain modeling and water system modeling
- Preliminary Engineering Reports & Environmental Reports
- Cost estimating and economic analysis
- Development of construction drawings and specifications, and permit acquisition
- Water system design, including: wells, treatment, storage, distribution and fire protection
- Sewer system design including; collection, pump stations, and WWTP upgrades
- Recommendations on day-to-day operation and maintenance issues
- Bidding and construction administration services, including resident project inspection, coordination of testing, quality control, review and recommendation of contractor change orders and payment requests, conducting project meetings, and project closeouts
- On-call inspection and testing coordination





# **TOWN OF DELMAR | ON-CALL SERVICES**

Delmar, Maryland/Delaware

The Town of Delmar has been an on-call client for over 30 years. During that time, DBF has provided a broad range of services for the Town including development of plan reviews, water and wastewater capacity studies, planning services, annexation assistance, water supply, treatment, storage and distribution design services, wastewater collection, transmission and treatment design services, construction administration services, resident project inspection services, and on-going water/wastewater operations assistance.

An example of a development plan review service completed for the Town of Delmar would be the coordination DBF performed for several proposed subdivisions on the east side of the Town. DBF performed plan reviews for three subdivisions: Heron Ponds (301 Units), Stillwater (165 Units), and Kilteel Estates (86 Units). Although these subdivisions are in the same vicinity, Stillwater is in Sussex County, Delaware, while Heron Ponds and Kilteel Estates are in Wicomico County, Maryland. The developments were affected and required roadway improvements maintained by the Maryland State Highway Administration, the Delaware Department of Transportation, Wicomico County Roads, and the Town of Delmar.

In addition to performing plan reviews for all utility and roadway systems to be turned over to the Town upon completion, DBF assisted with developing the Public Works Agreements for each subdivision. We also negotiated with the developers to finance a new regional sewage pump station that would eventually serve all three subdivisions with a pro-rated cost-sharing agreement based on the number of EDUs served. We subsequently performed a capacity evaluation of the Town's existing sewage collection system to analyze the effects of the proposed regional pump station on the existing system. During the construction of the Heron Ponds Subdivision and Stillwater Subdivision, we also provided construction administration services, which included resident project inspection,

construction submittal review, and materials testing coordination for quality control to ensure adherence to the approved plans.

DBF is assisting the Town on several projects, including stormwater management systems, water distribution improvements, water treatment and supply, sewer transmission, pump station upgrades, street replacements, and pedestrian facility improvements. Just a few of the other services we have provided to the Town of Delmar include:

- Review of water issues
- Water/Street studies and designs
- Development of Public Works and/or Developer Agreements
- On-site inspection services for water and streets
- Stormwater Management Ordinance plan reviews
- Development/construction plan reviews
- Utility and Construction Standard preparation
- Annexation reviews
- Developer questions & requests for information
- Review agreements between the Town and third parties
- Cost estimating
- Surveying services related to Town boundaries, annexation, ROW, or easement issues
- Funding application assistance
- Developer questions and requests for information
- Review of drainage issues
- Improvements of public areas and streets
- Architectural and structural plan reviews for code compliance
- Structural evaluation and inspection of structures
- Zoning Code plan review comments
- Code review and recommendations/revisions
- Review of site grading for positive drainage
- Construction phase/RPR inspection services

"DBF has a team of experts that have been the absolute saving grace for the Town of Delmar. We have relied on their professional guidance and keen insight on major projects for over twenty plus years. DBF has a proven track record, on any size project, for producing phenomenal results." - Sara Bynum-King, Former Town Manager



# **TOWN OF EASTON | ON-CALL STORMWATER ENGINEERING SERVICES**

Easton, Maryland

As the consulting engineering firm for the Town of Easton, Maryland, stormwater management related assistance comprises a significant portion of the overall services we provide. Davis, Bowen & Friedel, Inc. (DBF), assisted with the planning and design of the public stormwater infrastructure, review of site and stormwater designs submitted by private developers for permit approval and development and updates of the stormwater management ordinance.

With the advent of the Stormwater Management Act of 2007, our firm provided its expertise in stormwater management by developing the Town's new stormwater ordinance. Utilizing the Maryland Department of the Environment's 2009 Model Stormwater Management Ordinance, DBF crafted the ordinance tailored to the Town's unique stormwater needs, local planning & zoning requirements and future growth potential, while meeting the state mandated requirements of providing Environmental Site Design (ESD) to the "maximum extent practicable" (MEP). We also developed a comprehensive plan review checklist including requirements for all three phases of plan development which include Concept, Site Development and Final Designs.

Prior and subsequent to the implementation of the new stormwater management regulations in May 2010, DBF has provided several SWM plan reviews.

Plan review services have included:

- Review of construction plans management plans
- Review of concept stormwater
- Review of SWM reports
- Review of design calculations, hydraulics, hydrology, etc.
- Review of SWM studies
- Review of SWM as-built plans
- Review of SWM construction estimates

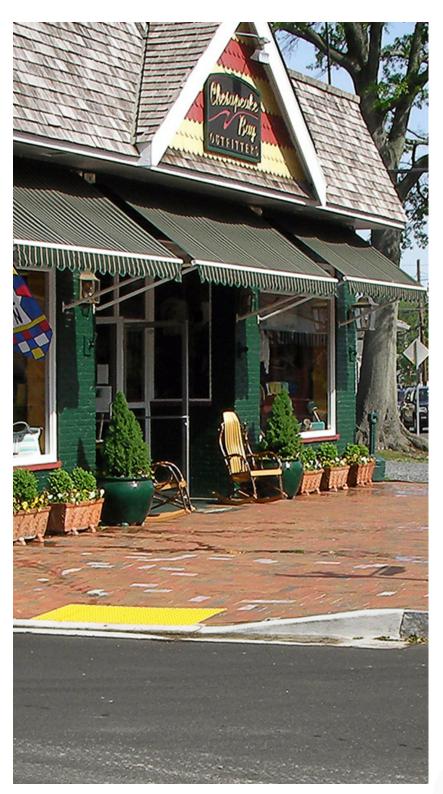






# TOWN OF ST. MICHAELS | ON-CALL STORMWATER ENGINEERING SERVICES

St. Michaels, Maryland



St. Michaels was ahead of the times with its stormwater management approach. The Town was using the "maximum extent practicable" standard for stormwater BMP's before the advent of the Stormwater Management Act of 2007. While not exactly equivalent to the new 2009 MD Model Stormwater Management Ordinance, St. Michael's pre-2007 regulations included similar principles of applying environmental site design prior to implementing structural practices. By applying these principles to its stormwater management design reviews for the Town, our firm already possessed the knowledge base necessary to easily transition into the new stormwater management regulations.

DBF was enlisted to re-write the Town's stormwater management ordinance after the new law was passed. Due to St. Michaels' existing advanced stormwater regulations, crafting the new ordinance was not as easy as simply replacing the old with the new MDE pre-written model ordinance. It was necessary to keep as much of the existing ordinance intact while including the essential components of the MDE requirements in order to ensure new stormwater laws were adhered to.

To date, there have been no plans submitted under the new stormwater regulations in St. Michaels. Our firm, however, has performed several SWM reviews under the previous ordinance which, as mentioned, is very similar to the new requirements.

Plan review services have included:

- Review of construction plans management plans
- Review of concept stormwater
- Review of SWM reports
- Review of design calculations, hydraulics, hydrology, etc.
- Review of SWM studies
- Review of SWM as-built plans
- Review of SWM construction estimates



# **OCEAN PINES ASSOCIATION | ON-CALL ROADWAY ASSESSMENTS**

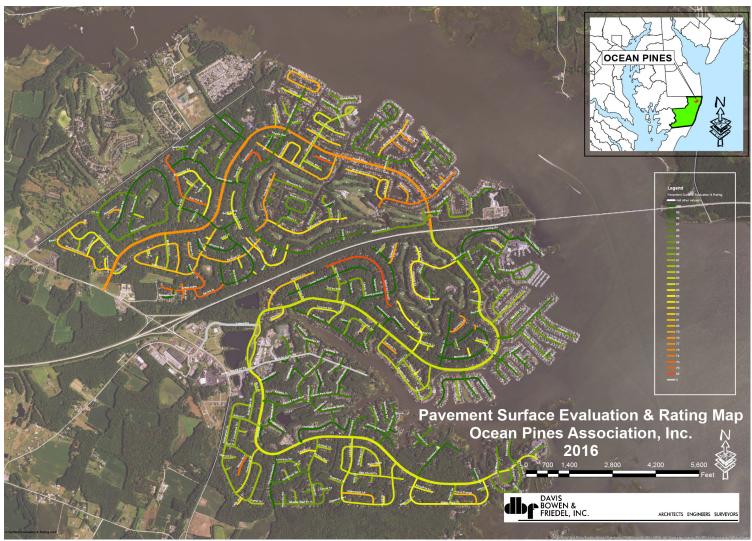
Ocean Pines, Maryland



Davis, Bowen & Friedel, Inc. (DBF) provided on-call roadway inspections, mapping, and reporting to the Ocean Pines Association, a resort community of approximately 12,000 year-round and 8,000 seasonal residents located in Worcester County, Maryland.

In an effort to fully evaluate the community's roadway conditions, DBF's project team compiled GIS mapping resources and reviewed existing roadway ratings which were provided by the Association. An ArcGIS-based map was generated and Google Earth KMZ files were then exported for use by the Association.

Following review of the data, DBF's inspector verified ratings for five miles of roadways within the residential community.





## SILVER LAKE PRODUCTION WELL

Dover, Delaware



Keystone provided MEP engineering services for the Silver Lake Production Well design-build project located in Dover, Delaware as a sub-consultant to Davis, Bowen & Friedel, Inc. Keystone provided detailed design services for the HVAC, power, lighting, controls, instrumentation, and SCADA portions of the project. We developed construction drawings utilizing AutoCAD and project manual specifications using the Master Spec format.

The design scope included a new masonry well house with two chemical rooms and an equipment room. The new well house is served by a new electric service, new electrical distribution system, new exterior diesel generator, LED lighting, mini-split heat pump to serve the equipment room, and electric unit heaters and supply fans to serve the two chemical rooms.

The water production process utilizes a new 60 hp well pump controlled by a VFD with a soft-start bypass for varied flow. The water treatment utilizes redundant chemical dosing pumps with flow pace control via a new flow meter. The production system is controlled by a local control panel with a programmable logic controller. The system is remotely monitored through the licensed radio system that communicates with the City's SCADA system.



### **WELL HOUSE #9 IMPROVEMENTS**

Dover, Delaware



Keystone provided mechanical and electrical engineering services for the Well #9 Improvements design-build project located in Dover, Delaware as a sub-consultant. Keystone provided detailed design services for the HVAC, power, lighting, controls, instrumentation, and SCADA portions of the project. We developed drawing using AutoCAD and specifications using the Master Spec format for public bidding.

The design scope included a new masonry well house with a pump room and a chemical room. The new well house is served by a new electric service, new electrical distribution system, LED lighting, min-split heat pump to serve the pump room, and electric unit heater and exhaust fan to serve the chemical room.

The water production process utilizes the existing 50 hp well pump motor controlled by a new VFD with soft-start bypass. The VFD allows the production process to vary the flow based on real-time demand. Chlorite injection is achieved through redundant chemical dosing pumps that is controlled by the local control panel. The system is remotely monitored through the licensed radio system that communicates with the City's SCADA system.



## **ARTESIAN WATER COMPANY**

Dagsboro, Delaware



Keystone provided electrical and controls design services for a new water treatment plant owned by Artesian Water Company, located in Dagsboro Delaware. The scope of the design services included a prepared electrical load list for sizing the new electrical service and generator, prepared the electrical service application and coordinated with the service utility for new service, power distribution design, lighting design, controls design, prepared electrical and controls drawings, and all drawings were signed and sealed by a Keystone DE Professional Engineer.

Keystone's mechanical design scope included load calculations for heating, ventilation, and cooling equipment sizing. The mechanical scope also included developing construction plans and details for the HVAC equipment to serve the new Water Treatment Plant. Keystone's engineering team provided construction phase services to review submittals, respond to RFI's, and perform site progress observations.



# MARYLAND DEPARTMENT OF THE ENVIRONMENT | UPDATED SOURCE WATER ASSESSMENT PLANS

Various Public Water Systems, Maryland



Members of our B&L team were retained by the Maryland Department of the Environment (MDE) to prepare an updated source water assessment plan (SWAP) for 15 public groundwater supply water systems statewide. These SWAPs covered the municipalities and their surrounding watersheds, including the Town Chestertown, and benefited thousands of citizens.

Our team delineated source water protection

areas, identified and mapped contamination hazards, and assessed the susceptibility of the subject community supply wells to contamination. We then formulated specific strategies to reduce the future risk of contamination, working closely with municipal, county, and state officials to develop and refine defensible and implementable recommendations.

An important element of the work entailed considering source water reliance and contingency planning for if wells need to be placed out of service because of contamination. As needed, we also assessed the probable sources of unusual groundwater contaminants, as potential alternatives to well replacement. We reviewed records, developed and implemented forensic sampling protocols, and undertook a comprehensive evaluation of water supply alternatives.

For some water systems, we identified instances of seemingly incompatible land uses proximal to one or more wells. We recommended changing or relocating operations to mitigate the future risk of contamination. Suggestions were offered on a hazard-specific basis. We also recommended improved wellhead protection, including hazard reduction measures, wellhead integrity maintenance, contingency planning, customized water quality sampling protocols, contaminant release response protocols, and public awareness in the form of focused outreach to the well owners.

Where appropriate, a key element of this work entailed suggested changes in ordinances governing land development in the Paleochannel in Eastern Maryland and other areas. The work was completed and submitted digitally in electronic format, using GIS technology. We also prepared and conducted various public workshops for community, environmentalists, and real estate stakeholders.

The project was solicited and awarded competitively, and completed accurately and efficiently in accordance with MDE guidelines and then-stated water system preferences.



# MOUNTAIRE FARMS | WATER SUPPLY AND INDUSTRIAL PROCESS WELLFIELD HYDROGEOLOGIC SUPPORT

Sussex County, Delaware



Beginning in 2018, Barton & Loguidice (B&L) has provided hydrogeologic and related regulatory compliance services to Mountaire Farms of Delaware, Inc. (Mountaire). Our ongoing support for Mountaire's Millsboro and Selbyville locations has included the following:

Millsboro – With work beginning in 2018, B&L designed and developed high-capacity, non-potable supply wells for the Mountaire Millsboro facility. Our hydrogeologic design maximized both individual and aggregate withdrawal capacity with both peaking capacity and operational redundancy. The positions and specific designs of the wells minimize interference both between the replacement wells and with neighboring supplies. Importantly, the wells will capture nitrates in groundwater beneath and near Mountaire wastewater spray fields, and will exert a degree of hydraulic control on the aquifer (as demonstrated via a WhAEM model). The plan for this work was agreed in advance by both Mountaire and the Delaware Department of Natural Resources and Environmental Control (DNREC).

Selbyville—In 2021, Mountaire engaged B&L to support a new, high-capacity industrial supply well to support existing chicken processing needs. We conceptualized, executed, and managed a hydrogeologic feasibility evaluation, which found that deeper aquifers were infeasible due to potential seawater intrusion. Focusing on the shallower aquifer also used by the Town of Selbyville, we used data from an existing WhAEM model to assess potential withdrawal capacity and water quality impacts on existing Town production wells. We then authored a DNREC-approved work plan for the design and testing of a test well, which returned favorable results. The next phase of work will include construction of the production well and hydrogeologic evaluations of withdrawal capacity, water quality, and potential impacts of the existing Town wells.



# CITY OF FRUITLAND | HYDROGEOLOGICAL AND REGULATORY CONSULTING SERVICES

Fruitland, Maryland



B&L (as Advanced Land and Water, before its 2019 acquisition) provided hydrogeologic, project management, and regulatory agency coordination services to support City of Fruitland plans to locate, drill, test, and permit a new municipal supply well. The City has a few existing wells, but were they plagued with chronic water quality problems and recurring reconditioning needs. A better primary supply was needed, and other consultants had opined that achieving this would be hydrogeologically impossible for various reasons.

In planning and positioning the new well, B&L needed not to replicate the operational challenges the City faces, yet still needed the new well to be close enough to the plant and storage tank whereby it could be connected economically. It also needed to be located on property the City owned or controlled, some of which appeared at risk of being contaminated from historic informal refuse disposal.

After designing a hydrogeologic work plan focused on proactive addressing of the contamination hazard, we applied detailed hydrogeologic mapping to identify a location and screen depth where a well of acceptable capacity and natural quality could be positioned and installed. We then proceeded to develop a drilling specification, assist the City in contractor selection, and coordinated and oversaw the installation and testing of a test well to confirm proof-of-concept and meet MDE permit application requirements.

During and after the fieldwork, we provided geological and geophysical data interpretations, collected and analyzed pumping test data, and prepared a professional report supportive of issuance of the key MDE permit (groundwater appropriation) needed. In so doing, we evaluated whether the long-term sustainable capacity of the aquifer was being exceeded to advance to the production well stage, and successfully responded to regulatory agency questions about potential long-term effects on nearby, shallow domestic wells.

As a consequence of this work, Fruitland now has a new primary supply well of greater capacity, natural quality and reliability than any that heretofore existed in the City.

# **Organizational Chart** -

#### MAIN POINT OF CONTACT

Nicholas S. Bradley, EIT Project Manager | Civil Engineer nsb@dbfinc.com | 410-543-9091



#### **PROJECT MANAGERS**

SUB-CONSULTANTS

Details on Following Page

#### Jason P. Loar, PE

Quality Assurance and Quality Control Principal | Senior Civil Engineer Nicholas S. Bradley, EIT

Civil Engineer

#### CIVIL ENGINEERING

Ring W. Lardner, PE

Principal | Senior Civil Engineer

Sharon K. Cruz, PE, AICP

Senior Civil Engineer / Planner

#### **ENVIRONMENTAL ENGINEERING**

Edward Launay, PWS

Senior Environmental Scientist

#### LANDSCAPE ARCHITECTURE

Timothy M. Metzner, PLA

Associate I Senior Landscape Architect

#### CONSTRUCTION INSPECTION

Joshua Mullenax

Resident Project Representative

#### SURVEYING

Eric Tolley, PLS

Associate | Senior Land Surveyor

Peter Bozick

Survey Manager

#### GIS MAPPING & ANALYSIS

Jacob Lapinsky
Civil Designer

#### TRANSPORTATION ENGINEERING

Dawn Riggi, PE Civil Engineer

#### ARCHITECTURE

Michael Wheedleton, AIA, NCARB Principal | Senior Architect

#### **WASTEWATER & WATER OPERATIONS**

John McGee

Contract Administrator & Water/Wastewater Operator

#### STRUCTURAL ENGINEERING

Christopher Daube, PE Associate | Senior Civil Engineer

#### COASTAL ENGINEERING

**Kenneth Eaton, LEED GA** Senior Coastal Manager

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# **Sub-Consultant Organizational Chart** -

#### MAIN POINT OF CONTACT

Nicholas S. Bradley, EIT Project Manager | Civil Engineer nsb@dbfinc.com | 410-543-9091



#### **PROJECT MANAGERS**

Jason P. Loar, PE

Quality Assurance and Quality Control Principal | Senior Civil Engineer Nicholas S. Bradley, EIT

Civil Engineer

# JOHN D. HYNES & ASSOCIATES GEOTECHNICAL ENGINEERING CONSULTANT

John D. Hynes, PE Senior Geotechnical Engineer

Richard D. Rhoads Environmental Project Manager

> Christian H. Matemu Staff Engineer

# KEYSTONE ENGINEERING GROUP MEP ENGINEERING CONSULTANT

James J. Panetti, PE Senior Electrical Engineer

> Curtis L. James, PE Electrical Engineer

William F. Bleiler, PE, LEED AP Mechanical Engineer

# BARTON & LOGUIDICE GEOSCIENCE CONSULTANT

David L. Pielmeier, PG Senior Project Manager | Professional Geologist

> Todd W. Dickinson, PG Senior Project Hydrogeologist





Bachelor of Science, Bio-Systems & Agricultural Bio-Environmental Engineering University of Kentucky, 1997

#### **REGISTRATIONS**

Professional Engineer: MD, DE, VA

#### **EXPERIENCE**

2010 - Present, Principal Davis, Bowen & Friedel, Inc.

2004 - 2010, Project Manager Davis. Bowen & Friedel, Inc.

1999 - 2004, Sr. Project Engineer Rothberg, Tamburini & Winsor, Inc.

1998 - 1999, Project Engineer QK4 (f.k.a. The Presnell Group)

#### **AFFILIATIONS**

ASCE (American Society of Civil Engineers), Member

WEF (Water Environment Federation), Member

AWWA (American Waterworks Association), Member

#### **AWARDS**

2012 - Civil Engineering News Rising Star Award

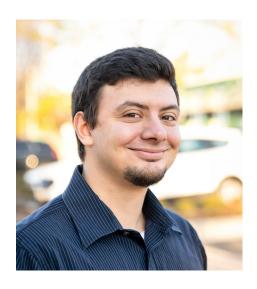
# **JASON P. LOAR, PE**

Quality Assurance/Quality Control | Principal | Senior Civil Engineer Department of Municipal Public Works

Mr. Loar has over twenty five years of experience in project planning, design, and contract administration. He is responsible for oversight of municipal engineering throughout the company as well as the day-to-day operations of the firm's Easton office. His background primarily consists of providing water, wastewater, renewable energy, and site engineering services to various clients in both Maryland, Delaware, and Virginia. These services have consisted of planning services, engineering studies, designs, treatment plant upgrades, permitting, contract/construction administration, funding assistance/oversight, project management, and plan reviews. He serves as on-call engineer to several municipalities, offering administrative, financial, design, and project construction phase services. He works regularly with multiple funding programs, is well versed on all requirements associated with each, and coordinates the processing and reimbursement from such funds for several clients. Mr. Loar takes a hands-on approach to all projects and ensures that the client, both field personnel and management, are kept up to date from the preliminary planning stages through construction and operations.

- On-Call Engineering Services
   Maryland: Berlin, Betterton, Sharptown, Delmar, St. Michaels, Crisfield,
   Trappe, Snow Hill, Hurlock, Pittsville, Somerset County Sanitary District,
   Easton, Talbot County
   Delaware: Delmar, Blades, Bridgeville, Rehoboth Beach
   Virginia: Onancock, Accomack County
- Wastewater Treatment Plant Upgrades Planning, Design, Funding, Construction, and Operational Services
   Maryland: Crisfield, Snow Hill, Federalsburg, Betterton, Vienna, Greensboro, Princess Anne, Somerset County Sanitary District, Fairmount Delaware: Bridgeville
- Delmar Water & Sewer Extension Evaluation Delmar, Maryland/Delaware
- Wastewater Treatment Plant Design Upgrade Delmar, Maryland
- Wastewater Pre-Treatment Program Delmar, Maryland
- Delmar Back-Up Well Delmar, Maryland





Bachelor of Science, Civil Engineering University of Delaware, 2021

#### **REGISTRATIONS**

Fundamentals of Engineering: MD

#### **EXPERIENCE**

2021 - Present, Municipal Engineer Davis, Bowen & Friedel, Inc.

# **NICHOLAS S. BRADLEY JR., EIT**

Project Manager | Civil Engineer Department of Municipal Public Works

Mr. Bradley is a graduate from the University of Delaware with Bachelor of Science in Civil Engineering. His current responsibilities include the design of various infrastructure projects under the supervision of DBF's municipal engineering team. Mr. Bradley has experience performing field investigations and on-site data collection, preparing site condition reports, and developing project bids and specifications. He is knowledgeable of grading design, roadway design, stormwater, water and wastewater management systems. Mr. Bradley has attended the EPA's Webinar for "Getting the Lead Out: Guidance for Developing Service Line Inventories and Finding Information on BIL.

- St. Martins by the Bay PER Worcester County, Maryland
- Town of Delmar On-Call Services Delmar, Maryland
- Town of Berlin On-Call Services Berlin, Maryland
- Delmar Sewer Replacement Delmar, Maryland
- Water System Operations & Maintenance Assistance Delmar, Maryland
- Water System & Sewer Improvements Projects Delmar, Maryland/Delaware
- Town of Pittsville Water & Wastewater Capacity Management Plan Pittsville, Maryland
- Westover Water Service Project Westover, Maryland
- GIS System Updates
   Delmar, Maryland/Delaware
- Water Treatment Plant Upgrade Pittsville, Maryland
- St. Martin's Water System PER Worcester County, Maryland
- McKeil Point BIP #1 On-Site Sewage System Removal Dorchester County, Maryland
- Wachapreague Sewer Feasibility Accomack County, Virginia





Bachelor of Engineering in Physics Salisbury University, 2022

#### **EXPERIENCE**

2022 - Present, Civil Designer Davis, Bowen & Friedel, Inc.

#### **JACOB LAPINSKY**

Civil Designer Geographic Information System (GIS)

Mr. Lapinsky is a municipal designer who is currently engaged in designing diverse infrastructure projects under the guidance of DBF's licensed municipal engineers. Mr. Lapinsky has gained hands-on experience in conducting field investigations, collecting on-site data, and compiling comprehensive site condition reports. He has actively contributed to the development of project bids and specifications. Mr. Lapinsky's expertise spans across various domains including grading design, roadway design, stormwater management, as well as water and wastewater management systems.

- Delmar Water and Sewer GIS Systems
   Delmar, Maryland/Delaware
- Miscellaneous Sewer System Improvements Delmar, Maryland
- Chestnut Street Water System Delmar, Maryland
- State Street Sewer Maintenance Repairs Delmar, Maryland/Delaware
- Sixth Street Storm Drain Improvements Delmar, Delaware
- Mystic Harbour Wastewater Treatment Plant/Pump Station Worcester County, Maryland





Bachelor of Applied Science, Engineering Technology University of Delaware, 2002

#### **REGISTRATIONS**

Professional Engineer: MD, DE

#### **EXPERIENCE**

2023 - Present, President Davis, Bowen & Friedel, Inc.

2014 - Present, Principal, Senior Civil Engineer

Davis, Bowen & Friedel, Inc.

2010 - 2014, Associate, Civil Engineer

Davis, Bowen & Friedel, Inc.

2003 - 2010, Civil Engineer

Davis, Bowen & Friedel, Inc.

2002 - 2003, Associate, Civil Engineer New Castle County

2001 - 2002, Civil Designer

River Basin Engineering

1992 - 2017, Lt. Colonel

Delaware Army National Guard

#### **PAST AFFILIATIONS**

Army Engineer Association

#### **AWARDS**

Sussex County Conservation District Design Team, 2023

# **RING W. LARDNER, PE**

Principal | Senior Civil Engineer Department of Municipal Public Works

Mr. Lardner has over twenty three years of experience in project planning, engineering, and project administration, specializing in municipal, residential, and commercial development. He has extensive experience in public infrastructure, subdivisions, condominiums, apartment complexes, and commercial planning and design. His areas of expertise include civil engineering, with a particular emphasis on road design, stormwater management, sediment and erosion control, potable water distribution, and sanitary sewer design (including gravity, pump station, and force main systems). Mr. Lardner has completed projects for both private and public clients and is highly knowledgeable about local, state, and federal permitting requirements.

Before joining Davis, Bowen & Friedel, Inc., Mr. Lardner was responsible for portions of New Castle County's National Pollutant Discharge Elimination System (NPDES) Permit.

Mr. Lardner retired from the Delaware Army National Guard in November 2017 as a Lieutenant Colonel. He held numerous positions, including Engineer Platoon Leader, Operations Officer, Detachment Commander, Engineer Officer in Facilities Management, and Operations Officer, culminating as the Brigade Executive Officer. In these positions, he has completed several horizontal and vertical construction projects.

- Sussex County On-Call Engineering Services Sussex County, Delaware
- Town of Georgetown On-Call Planning Services Georgetown, Delaware
- Town of Greenwood On-Call Planning Services Greenwood, Delaware
- DNREC Division of Water Statewide, Delaware
- Town of Ellendale On-Call Planning Services Sussex County, Delaware





Bachelor of Science in Civil Engineering University of Delaware, 1996

#### **REGISTRATIONS**

Professional Engineer: DE, MD Certified Planner

#### **EXPERIENCE**

2025 - Present, Associate Davis, Bowen & Friedel, Inc.

2023 - Present, Senior Civil Engineer Davis, Bowen & Friedel, Inc.

2021 - 2023, Senior Project Manager Duffield Associates, Inc./Verdantas, LLC

2010 - 2021, Senior Engineer/Project Manager

Pennoni Associates, Inc.

2002 - 2010, Senior Project Manager Design Consultants Group, LLC

1997 - 2002, Civil Engineer Scott Engineering, Inc.

#### **CERTIFICATIONS**

Class C On-site Wastewater Treatment/Disposal, DNREC (#4328)

Sediment/Stormwater Management Certified Construction Reviewer Certification, DE (#10/04/2023/26)

NASSCO PACP | LACP | MACP P0045475-122023

#### **PROFESSIONAL AFFILIATIONS**

National Onsite Wastewater Recycling Association

2021 - 2024, Board of Directors Delaware Onsite Wastewater Recycling Association

# SHARON K. CRUZ, PE, AICP

Associate | Senior Civil Engineer/Planner Department of Municipal Public Works

Ms. Cruz joined Davis, Bowen & Friedel in 2023, bringing over twenty seven years of experience in engineering, surveying, and land planning. Her vast experience includes stormwater management modeling, routing and watershed management and assessment, as well as sediment control, water, wastewater, transportation, and civil site design for municipal, residential, healthcare, and commercial applications in Delaware and Maryland. She is currently or has previously served in the capacity of Town Engineer and consultant for the Town of Clayton, Georgetown, Greenwood, Selbyville, Little Creek, Delaware City, Houston, Millsboro, and Milton, Delaware. Her responsibilities for general engineering services and consulting for the towns including engineering reviews of land development project submissions, construction inspections, technical specifications, code revisions, funding applications, and bid services as well as attendance at public meetings.

- Town of Georgetown On-Call Planning Services Georgetown, Delaware
- Town of Greenwood On-Call Planning Services Greenwood. Delaware
- Town of Ellendale On-Call Planning Services Ellendale, Delaware
- Town of Berlin On-Call Planning Services Berlin, Maryland
- Town of Clayton On-Call Planning Services Clayton, Delaware
- DNREC Division of Water Statewide, Delaware
- Town of Milton General Engineering Services Milton, Delaware
- Town of Milton Intersection Improvements Milton, Delaware





Bachelor of Science, Civil Engineering University of Delaware, 1994

Master of Science, Civil Engineering University of Delaware, 1998

#### **CERTIFICATIONS**

Professional Engineer: DE License# 11999

#### **EXPERIENCE**

2019 - Present, Senior Traffic Engineer Davis, Bowen & Friedel, Inc.

2016 – 2019, Project Manager Investors Realty

1999 – 2008, Traffic Engineer Davis, Bowen & Friedel, Inc.

1996 – 1999, Bridge Design Engineer Maryland State Highway Administration

#### **PROFESSIONAL AFFILIATIONS**

Institute of Transportation Engineers (ITE)

## **DAWN RIGGI, PE**

Senior Civil Engineer
Department of Traffic Engineering

Ms. Riggi has over twenty five years of civil engineering experience including transportation engineering and structural engineering. Her responsibilities are site access design, traffic impact studies (TIS), traffic operation analyses (TOA), Traffic Signal Justification Studies (TSJS), traffic signal design, speed studies, trip generation studies, traffic data collection, All-Way Stop Control (AWSC) studies, off-site intersection improvements design, rezoning/conditional use applications, and coordinating project meetings with DelDOT for entrance plan review and approval for residential and commercial projects.

- Lewes Industrial Park TIS, TSJS Lewes, Delaware
- Village Center Signal Design Sussex County, Delaware
- Sunshine Estates Residential TIS Harrington, Delaware
- Bridgeville Town Hall Entrance Consolidation Bridgeville, Delaware
- Dagsboro Town Hall and Police Department Entrance Consolidation Dagsboro, Delaware
- Cypress Grove Residential & Commercial TIS, Entrance Design Milton, Delaware
- Washington Street / Park Avenue AWSC Study Milford. Delaware
- RMG Commercial Traffic Evaluation Harrington, Delaware
- White's Farm TIS Millsboro, Delaware
- Freeman Hwy / Monroe Ave Signal Design Sussex County, Delaware
- Forest Landing TIS, Entrance Design, Speed Study Ellendale, Delaware





Bachelor's of Science Environmental Sciences, Resource Management & Planning Stockton State College, 1976

Bachelor of Arts, Wildlife Biology Stockton State College, 1977

#### **CERTIFICATIONS**

Certified Wetland Delineator, U.S. Army Corps of Engineers, Baltimore District (No. WDCP93MD05100368P)

Qualified Professional under Maryland Forest Conservation Act

#### **PROFESSIONAL AFFILIATIONS**

Society of Wetland Scientists, Professional Wetland Scientist No. 000875

Association of State Wetland Managers

# **EDWARD LAUNAY, PWS**

Senior Environmental Scientist Department of Environmental Engineering

Mr. Launay has over forty six years of experience in preparing environmental impact statements, environmental inventories, project feasibility studies, and land use permits, including coordinating with resource agencies and managing regulatory approval processes. He is trained and certified in the use of the Corps of Engineers' Wetland Evaluation Technique. Mr. Launay served as a principal environmental consultant on over 100 major public and private sector projects throughout New York, New Jersey, Delaware, Maryland, and Virginia, which required federal, state, and local environmental permits. He has extensive experience as an expert witness in the fields of environmental sciences, development, land use regulations, wetland ecology, and wetland restoration and creation

Mr. Launay has personally designed and/or supervised the development of nearly one hundred wetland restoration or mitigation projects located from New York to Virginia. Projects included tidal saltwater and freshwater marshes, lake and pond habitats, and stormwater management basins. He was recognized as a wetland restoration and creation expert with proven success by the New York, Philadelphia, Baltimore, and Norfolk Corps of Engineers districts. Associated areas of expertise include construction layout, cost estimates, and supervision of planting and earthwork contractors related to the implementation of wetland mitigation projects. He has evaluated and defined wetland boundaries on hundreds of major development projects for various clients, including land development companies, real estate investment companies, civil engineers, and both state and local government agencies.

- On-Call Coastal Engineering North South Ferry Wicomico River Crossing Salisbury, Maryland
- Somerset Primary Care Atlantic Group Crisfield, Maryland
- Talbot County Sheriff's Office Renovation Talbot County, Maryland
- Environmental Consulting Carl M Freeman Communities Ocean View, Delaware
- Slaughter Beach Sewer Extension Sussex County, Delaware
- North Ellendale Sewer Diversion Sussex County, Delaware
- Lochwood Subdivision Sewer Service Sussex County, Delaware
- NorthStar Wetland Delineation Project Sussex County, Delaware





Master of Architecture University of Maryland, 1991 Bachelor of Science, Architecture University of Maryland, 1989

#### **REGISTRATIONS**

Licensed Architect: MD, DE, PA Accredited LEED Professional - GA

#### **EXPERIENCE**

2008 - Present, Principal Davis, Bowen & Friedel, Inc.

2005 - 2008, Sr. Associate, Director of Architecture - Milford Davis, Bowen & Friedel, Inc.

2001 - 2005, Associate, Director of Architecture

Davis. Bowen & Friedel. Inc.

1998 - 2001, Project Architect Davis, Bowen & Friedel, Inc.

1996 - 1998, Designer Davis, Bowen & Friedel, Inc.

1992 - 1996, Designer Pamela Gardner, Architect

#### **PROFESSIONAL AFFILIATIONS**

American Institute of Architects - Delaware Chapter

Delaware Technical Community College Advisory Committee

Milford Museum - Commissioner

City of Milford - Board of Building Code Appeals

# **MICHAEL WHEEDLETON, AIA, NCARB**

Principal | Senior Architect Department of Architecture

Mr. Wheedleton has over thirty two years of experience with DBF and is the director of architecture for our Milford, Delaware, office. He has served as project architect for many federal, state and municipal jobs, including capital improvement and on-call contracts. These include work for the National Naval Medical Center, the University of Maryland Eastern Shore, Atlantic Sands Hotel, military projects at Dover Air Force Base and other USAF/USAFR bases throughout the country, numerous renovation projects for the State of Delaware's Department of Health and Social Services, the Division of Youth, and the National Guard. He has also served as the Principal-in-Charge and/or Project Architect for a variety of new building and renovation projects throughout Maryland, Delaware, Virginia and Pennsylvania.

- Zwaanendael Park Walkway and Restroom Upgrades Lewes, Delaware
- Children's Beach House Building Planning and Upgrades Lewes, Delaware
- Millsboro Police Department Millsboro, Delaware
- Talbot County Public Safety Complex Talbot County, Maryland
- Oak Orchard Boys & Girls Club Expansion Millsboro, Delaware
- Milton Volunteer Fire Department Expansion Milton, Delaware
- Town of Onancock Police Department Renovations Onancock, Virginia
- Ocean Bowl Skate Park Administrative Building Ocean City, Maryland
- Lewes City Hall & Police Station Improvements Lewes, Delaware
- DE Department of Health and Social Services Minor Capital Improvements Statewide, Delaware
- DE Army National Guard Minor Capital Improvements Statewide, Delaware





Bachelor of Science in Landscape Architecture West Virginia University, 2002

#### **REGISTRATIONS**

Registered Landscape Architect: MD, DE

Accredited - LEED AP ND

#### **EXPERIENCE**

2015 - Present, Associate, P.L.A. Davis, Bowen & Friedel, Inc.

2002 - 2014, Sr. Landscape Architect/ Project Manager Davis. Bowen & Friedel, Inc.

#### **PROFESSIONAL AFFILIATIONS**

2018 - 2025, Delaware Board of Landscape Architects, President

2015 - 2018, Delaware Board of Landscape Architects, Secretary

# TIMOTHY M. METZNER, PLA, LEED AP ND

Associate | Senior Landscape Architect Department of Land Development

Mr. Metzner has over twenty years of experience as a civil engineering designer and project manager. His design capabilities include educational, residential & commercial site designs, stormwater management, campus master planning, condominium design, institutional and government projects. Since starting DBF in August 2002, Mr. Metzner has been responsible for managing an extensive list of diverse projects which have ranged from feasibility studies through construction completion.

- Champions Club Greenway Project Kent County, Delaware
- Pirate's Wharf Park
   Wicomico County, Maryland
- Jones Farm Solar
   Queen Anne's County, Maryland
- Egypt Road Solar Cambridge, Maryland
- Shugart Valley Solar Charles County, Maryland
- PGC 18 Solar
   Prince George's County, Maryland
- PGC 21 Solar
   Princes George's County, Maryland





Master of Science in Mechanical Engineering West Virginia University, 2013 Bachelor of Science in Physics West Virginia Wesleyan College, 2009

#### **EXPERIENCE**

2021 - Present, Resident Project Representative Davis, Bowen & Friedel, Inc.

2015 - 2021, Construction Project Coordinator White Creek Homes, Inc.

2015 - 2020, Property Manager Emerald and Robins Nest

#### **JOSHUA MULLENAX**

Resident Project Representative

As a Resident Project Representative for Davis, Bowen & Friedel, Mr. Mullenax is responsible for ensuring construction work performed adheres to and complies with project plans and specifications. Mr. Mullenax conducts inspections relating to water, sewer, stormwater, roadway and general infrastructure. As on-site personnel, he monitors and documents construction operations and coordinates with field crews, serving as a key member of the DBF municipal engineering team.

- Town of Delmar General On-Call Water/Wastewater/Storm Drainage/ Roadway Paving/Pedestrian Facilities/Construction Administration & RPR Services
  - Delmar, Maryland/Delaware
- Pond's Edge On-Call Services Delmar, Maryland
- Sewer Improvements Project Delmar, Maryland
- Stillwater On-Call Services Delmar, Maryland
- Miscellaneous Street Paving Improvements Delmar, Maryland/Delaware
- Mystic Harbour Wastewater Treatment Plant/Pump Station Worcester County, Maryland
- Frontier Town Pump Station/Force Main Worcester County, Maryland
- City of Crisfield General On-Call Services/Water/Wastewater/Construction Administration and RPR Services
   Crisfield, Maryland
- Town of Berlin General On-Call/Water/Wastewater/Roadway Inspection and Construction Administration Services Berlin, Worcester County, Maryland
- Town of Selbyville General On-Call Water/Wastewater/Construction Administration & RPR Services Selbyville, Delaware





Master of Science, Civil Engineering University of Delaware, 2014 Bachelor of Science, Civil Engineering University of Delaware, 2013

#### **REGISTRATIONS**

Professional Engineer: DE

#### **EXPERIENCE**

2024 - Present, Associate Senior Civil Engineer

Davis, Bowen & Friedel, Inc.

2020 - Present, Senior Civil Engineer Davis, Bowen & Friedel, Inc.

2019 - 2020, Structural Engineer Becker Morgan Group, Inc.

2014 - 2019, Structural Designer Becker Morgan Group, Inc.

#### **AFFILIATIONS**

American Society of Civil Engineers

## **CHRISTOPHER M. DAUBE, PE**

Associate | Senior Civil Engineer Department of Structural Engineering

Mr. Daube has over eight years of experience in high-end residential and small commercial structural design involving reinforced concrete, steel masonry, wood, and pile foundation construction. His structural expertise includes structural design of renovations and additions to existing building/residences, investigating and strengthening existing structures, structural commercial design involving pre-cast concrete, reinforced concrete, post-tensioned concrete, steel, masonry and wood construction. Mr. Daube also has experience with water intrusion investigation of existing facades, preparing repair documents, plans & specifications, and performing field investigations/assistance through the duration of the repairs.

- Somerset County Animal Control Westover, Maryland
- St. Michaels Library Expansion St. Michaels, Maryland
- Worcester County Detention Center Renovations Worcester County, Maryland
- Salisbury Service Yard Design Salisbury, Maryland
- Salisbury Fleet Maintenance Building Salisbury, Maryland
- Oak Orchard Boys & Girls Club Millsboro, Delaware
- Mardela Middle & High School Renovation & Expansion Mardela Springs, Maryland
- Rehoboth Beach Volunteer Fire Dept. Station #1 Masonry Monitoring Rehoboth Beach, Delaware
- Millsboro Police Station Millsboro, Delaware
- Delaware Department of Health & Social Services MCI Statewide, Delaware
- John Dickinson Plantation Visitors Center Dover, Delaware





Cambridge-South Dorchester High School Cambridge, Maryland, 1981

#### **REGISTRATIONS**

Professional Land Surveyor: MD, VA

#### **EXPERIENCE**

2007 - Present, Associate, Senior Survey Manager Davis, Bowen & Friedel, Inc.

2002 - 2007, Survey Manager Andrews, Miller & Associates, Inc.

2001 - 2002, Foreman Benhoff Sons

1993 - 2001, Supervisor Peninsula Construction

1989 - 1993, Survey Technician Rauch, Walls & Lane, Inc.

1982 - 1989, Survey Technician McCrone, Inc.

#### **AFFILIATIONS**

Maryland Society of Surveyors

## **ERIC W. TOLLEY, PLS**

Associate | Senior Surveyor Department of Surveying

Mr. Tolley has been affiliated with Davis, Bowen & Friedel, Inc. (DBF) since 1997, and has served as a supervisor for all survey operations at the firm since 2002. He now supervises a team of survey field crews, CAD technicians and other support staff. Services provided under his supervision include control surveys, boundary surveys, topographic/bathymetric surveys, utility surveys, right-of-way surveys, condominium surveys, construction stake-out and mapping, as well as the preparation of easements, plats, legal descriptions and land acquisition documents for projects performed for federal, state, municipal, and private clients. Mr. Tolley has combined his experiential knowledge of the industry with today's automated field surveying, computing and drafting equipment and methods, including EDMs, data collectors, total stations, GPS, AutoCAD, and most recently UAVs.

- City of Crisfield | On-Call Services
   Crisfield, Maryland
- Town of Delmar | On-Call Services Delmar, Maryland/Delaware
- Town of Hurlock | On-Call Services Hurlock, Maryland
- City of Pittsville | On-Call Services
   Pittsville, Maryland
- Town of Berlin | On-Call Services Berlin, Maryland
- Sussex County | On-Call Services
   Sussex County, Delaware
- Stage Road Water and Sewer System Delmar, Maryland
- NW and NE Front Street Water Replacement Milford, Delaware
- MTBE Drinking Water Treatment Upgrades Selbyville, Delaware
- Gay Street Watermain Upgrade Berlin, Maryland





Bachelor of Arts Boston College, 1997

#### **EXPERIENCE**

2021 - Present, Survey Manager Davis, Bowen & Friedel, Inc.

2014 - 2020, CAD, Civil Designer Davis, Bowen & Friedel, Inc.

2013 - 2014, Civil Designer Atlantic Group & Associates, Inc.

2012 - 2012, CAD Tech Harold Scrimgeour

2009 - 2012, Project Manager True North Land Surveying

2003 - 2009, Civil Designer/CAD, Survey Party Chief Fuller Hall & Associates

#### PETER A. BOZICK

Survey Manager Department of Surveying

Mr. Bozick offers over twenty years of experience in the field of engineering and surveying with fourteen years utilizing AutoCAD, contributing to the design and implementation of a multitude of projects on the Eastern Shore. His services have contributed to a diverse range of projects that have included roadway improvements, municipal services, park improvements, residential communities, commercial additions, water/wastewater/sewer designs, planning, recreation sites, and educational facilities. Mr. Bozick is also currently responsible for overseeing DBF's UAV services department.

- Town of Delmar On-Call Services Delmar, Maryland
- Stillwater On-Call Services
   Delmar, Maryland
- Pennsylvania Avenue Streetscape Delmar, Maryland
- Town of Delmar Police Department Lot Consolidation Delmar, Maryland
- Delaware Avenue Sewer Replacement Delmar, Maryland
- State Street Park Restroom Improvements Delmar, Maryland
- I&I Evaluation
   Delmar, Maryland
- Fairmount WWTP Decomission & Transmission Somerset County, Maryland
- Blades Sanitary Sewer District Concord Road Expansion Blades, Delaware



Physics/Microelectronics Salisbury University

Environmental Engineering Technology, Water/Wastewater Concentration Delaware Technical Community College 2000

#### **REGISTRATIONS**

MD Wastewater Treatment Plant Operator, MDE Class 5A MD Water Treatment Plant Operator -MDE Class 4

#### **EXPERIENCE**

2005 - Present, Contract Administrator Davis, Bowen & Friedel, Inc.

2003 - 2005, Environmental Systems Assistant Regional Supervisor MD Environmental Service

2002 - 2003, Operations Manager Inter-coastal Trading 1999 - 2002, Environmental/Brine Supervisor

B&G Foods, Inc.

1998 - 1999, Wastewater Manager Perdue Farms

1996 - 1998, Facilities Manager

Rau Environmental

1993 - 1996, Asst. Dir. of Public Works City of Federalsburg, MD

## **JOHN C. MCGEE**

Contract Administrator/Wastewater Operator

Mr. McGee has nearly three decades of experience in municipal public works, wastewater and water treatment plant operations, inspection, and contract administration. He has operated several advanced wastewater plants including two SBRs, a Bardenpho, and an MLE plant along with other secondary and lagoon systems. As a former plant supervisor and operator, he brings practical experience and reliability review to our design team, and exceptional assistance in writing operations manuals. Mr. McGee was involved in contract administration and inspection services for wastewater treatment plant upgrade projects in Snow Hill, and he has provided inspection services at the Crisfield wastewater treatment plant during the excavation, pile driving, UV disinfection, and grit removal work. He further assisted the City of Crisfield as their licensed water and wastewater treatment plant operator until the City could hire a new Public Utilities Director. His broad wastewater experience and his hands-on operation experience enlarges the design team's understanding of practical matters important for an effective treatment plant design.

- Water/Wastewater Operations Crisfield, Maryland
- Water/Wastewater Operations Pittsville, Maryland
- Town of Berlin Wastewater Treatment Plant Upgrades Berlin, Maryland
- Betterton Wastewater Treatment Plant | New Facility Betterton, Maryland
- Delmar Wastewater Treatment Plant BNR/ENR Upgrade Delmar, Maryland
- Snow Hill Wastewater Treatment Plant BNR/ENR Upgrade Snow Hill, Maryland
- William Street Pump Station Rehabilitation Berlin, Maryland
- Frontier Town Pump Station Berlin, Maryland
- Bridgeville Wastewater Treatment Plant Conversion and Stream Improvements
   Bridgeville, Delaware





Associate of Applied Science in Architectural Engineering Technology Delaware Technical College, 1985

#### **EXPERIENCE**

2007 - Present, Senior Coastal Manager Davis, Bowen & Friedel, Inc. 1985 – 2007, Project Manager. Andrews, Miller & Associates, Inc.

#### **CERTIFICATIONS**

MOWPA Soil Evaluation for Onsite Sewage Disposal Systems, 2020 Certified Sand Mound Installer, 2019 MOWPA Inspection of Septic Systems for Property Transfer, 2019

# **KENNETH B. EATON, LEED GREEN ASSOCIATE**

Senior Coastal Manager
Department of Coastal Engineering

Mr. Eaton has over forty years experience and serves as the Senior Coastal Manager for various coastal, civil site, and utility engineering projects undertaken by Davis, Bowen and Friedel, Inc. His expertise includes evaluation of existing conditions, preparation of conceptual planning documents, feasibility studies, master development plans, design development, permitting assistance, construction cost estimates, detailed design plans, coordination of regulatory agencies, assistance during the bidding and construction administration for these projects. Mr. Eaton has enjoyed many years of successful collaboration with the regulatory agencies and public & private clients on both technical and non-technical aspects of civil site engineering and utilities improvement projects.

- Harriet Tubman Underground Railroad State Park Dorchester County, Maryland
- Tides at River Marsh Cambridge, Maryland
- Cambridge Municipal Yacht Basin Cambridge, Maryland
- Cambridge Marina Expansion Cambridge, Maryland
- Bay Bridge Marina Entrance Channel Dredging Stevensville, Maryland
- Fort Smallwood Park
   Anne Arundel County, Maryland
- Pirate's Wharf Wicomico County, Maryland
- Goldsboro Neck Road Talbot County, Maryland





Bachelor of Science Civil Engineering University of Maryland College Park, 1981

Bachelor of Science Math/Science Salisbury State College, 1983

#### **REGISTRATIONS**

Professional Engineer: 1987 District of Columbia, No. 8654 1988 Delaware, No. 7591 1988 Maryland, No. 16233 1988 Virginia, No. 18933 1989 Pennsylvania, No. PE-039649-R

# JOHN D. HYNES, PE President | Senior Geotechnical Engineer

Mr. Hynes is the operating principal for John D. Hynes & Associates, Inc. His responsibilities include administering the Company, supervising consulting services (geotechnical, hydrogeological, environmental, and materials), and managing marketing operations. As the Chief Engineer, he collaborates with project engineers and scientists to develop exploration and testing programs for each project and oversees data evaluation and design recommendations. Mr. Hynes has 44 years of experience with a diverse range of geotechnical engineering projects, including numerous wastewater treatment plant projects, water plant projects, municipal improvement projects, residential subdivisions, single-family homes, multi-family complexes, flexible and rigid pavement design projects, and various stormwater management and infiltration projects.

Mr. Hynes' project experience include: quality control management and testing and inspection services for cross-section of project types; geotechnical and structural engineering projects; complete building construction inspection services (during and post construction); shallow and deep groundwater studies; environmental assessments of facilities and properties; subsurface soils studies; and surface and groundwater studies; flexible and rigid pavement designs; and structural materials evaluations and failure investigations of structural materials. A few of Mr. Hynes' geotechnical engineering project examples are listed below.

Before the formation of Hynes & Associates, Mr. Hynes was employed by Froehling & Robertson, Inc. for five years. He held staff engineer, field and laboratory manager of materials services, and branch office manager positions with F&R. Mr. Hynes also served as an estimator, field engineer, and construction superintendent for Bescon Corporation for two years.

- Berlin Bikeway Path, Berlin, Maryland
   Subsurface exploration and geotechnical engineering services for the construction of an approximately 1.5-mile bike path along the railroad through the Town of Berlin.
- Berlin Fire Company Station No. 3, Berlin, Maryland
   Subsurface exploration and Geotechnica] Engineering services for the construction
   of a two-story fire station with garages, fire equipment/apparatus bays, and offices.
   The project, also, included stormwater management facilities, an at ground water
   storage tank, asphalt and concrete pavements, site utilities, landscaping, and other
   site improvements.
- Frontier Town Pump Station and Force Main, Berlin, Maryland Subsurface exploration and Geotechnical Engineering services for the construction of three new pump stations at the eastern side of Frontier Town and a new sewer force main approximately 2 miles long.
- Talbot County Sheriffs Office-Mary's Court, Easton, Maryland Subsurface exploration, geotechnical engineering, and materials testing and construction services for the construction of a Sallyport addition, a new Indoor Vehicle Storage Building, new parking lots and driveways.
- Talbot County Community Center Gymnasium Addition and Alterations, Easton, Maryland
   Subsurface exploration, geotechnical consulting, and materials testing and construction services for the construction of a 19,194 sf pre-engineered steel structure with masonry walls.



#### **RICHARD D. RHOADS**

Environmental Project Manager

#### **EDUCATION**

Bachelors of Science in Geology University of Delaware, 1988

#### **REGISTRATIONS**

Professional Geologist: 1998 Delaware No. S4 0001046 Licensed Environmental Health Specialist: 2015 Maryland No. 01931 Mr. Rhoads is the manager of environmental services for John D. Hynes & Associates, Inc. His responsibilities include supervising the Environmental Consulting Services division. He is responsible for overseeing all aspects of environmental projects, including direct field supervision, technical report preparation and review, remediation system design, and bid preparation and development.

Mr. Rhoads' project experience includes Phase I environmental site assessments (over 400), Phase II environmental site assessments, water quality monitoring, wastewater, groundwater, and contaminated soil treatment, stormwater management, aquifer studies, sewage system evaluation, and subsurface exploration studies.

Mr. Rhoads has 22 years of experience with Hynes & Associates. In addition to his work at Hynes & Associates, Mr. Rhoads spent over 4 years working for the Maryland Department of Health and Mental Hygiene at the Wicomico County Health Department as the Well Program Coordinator. He spent six years at Handex of Maryland as a Senior Hydrogeologist. Mr. Rhoads has extensive experience in the investigation (Phase I and Phase II), testing, design, and remediation of petroleum hydrocarbon-impacted sites, including service stations, airport fuel farms, and bulk distribution facilities. He also has experience in hydrogeologic investigations and evaluation, including water appropriation projects. Mr. Rhoads is experienced in the site evaluation and design of on-site wastewater treatment systems.

- Dollar General Hampstead, Hampstead, Maryland
   Subsurface exploration and geotechnical consulting services to evaluate proposed stormwater management structure locations.
- Wicomico County Sheriff's Office Headquarters, Salisbury, Maryland Subsurface exploration and geotechnical consulting services to evaluate proposed stormwater management structure locations.
- Montebello Elementary/Middle School Addition and Site Improvements, Baltimore, Maryland
   Subsurface exploration and geotechnical consulting services to evaluate proposed stormwater management structure locations.
- Beaglin Mini Storage, Salisbury, Maryland
   Subsurface exploration and geotechnical consulting services to evaluate proposed stormwater management structure locations.
- Friendship Exxon, Berlin, Maryland Subsurface exploration, geotechnical engineering recommendations, and materials testing and inspection services for the construction of a new reinforced concrete building at the water treatment facility.
- Hurlock Police Headquarters Building, Hurlock, Maryland Initial reconnaissance of site and review of available documentation to evaluate the site for potential environmental concerns prior to the development of the property (Phase I).



## **CHRISTIAN H. MATEMU**

Staff Engineer

Mr. Matemu is a staff engineer with John D. Hynes & Associates, Inc. His responsibilities include evaluating geotechnical project data, logging test borings, reviewing laboratory data, performing various geotechnical evaluations, and preparing geotechnical reports. He provides multiple project field services, including logging of test borings and test pit excavations, performs field infiltration tests, monitors pile load tests, performs foundation inspections, monitors pile installations, and evaluates soil sub-grade conditions.

Before his employment with Hynes & Associates, Mr. Matemu worked for multiple engineering consulting companies in Maryland, Florida, and Tanzania. Mr. Matemu assisted in performing engineering analysis, performing geotechnical lab tests, and preparing geotechnical engineering reports. He has observed and documented test borings, test pits, pit underpinning, and deep foundation installation, including drilled minipiles and minicaissons, rotary-driven, full-displacement pipe piles, driven pipe piles, drilled caissons, drilled secant piles, and drilled tiebacks and rock anchors.

#### REPRESENTATIVE PROJECTS

- Salisbury Zoo Andean Bear, Salisbury, Maryland Subsurface exploration, geotechnical engineering recommendations for the construction of an Andean Bear Holding Building, a Bear Viewing Building, 4 outbuildings, and retaining walls. We, also, provide evaluations for 5 stormwater pond locations, and driveway pavements.
- Sharptown VFD Building Addition, Sharptown, Maryland
   Subsurface exploration and geotechnical consulting recommendations services for the construction of an addition to the existing fire department building
- Love Creek Dockside Bar & Grill, Rehoboth Beach, Delaware Subsurface exploration and geotechnical consulting recommendations for the construction of a one-story new restaurant building, one-story retail building, paved parking, and driveway areas.
- Buckingham Elementary School, Berlin, Maryland Subsurface exploration and geotechnical consulting recommendations for the construction of the school building, parking lot, driveway, and stormwater management (SWM) facilities.
- Berlin Microtel, Berlin, Maryland
   Subsurface exploration and geotechnical consulting recommendations for the construction of a 4 story hotel building, associated paved parking and driveway areas, sidewalks, a swimming pool, and storm water management facilities.

#### **EDUCATION**

Doctor of Philosophy in Civil Engineering University of Florida, 2024

Master of Science in Civil Engineering University of No1ih Florida, 2018

Bachelor of Science in Civil Engineering University of Dar es Salaam, 2015

#### **REGISTRATIONS**

Engineer-In Training 2025 Maryland No. 64217





Bachelor of Science Electrical Engineering Technology Pennsylvania State University, 1991

M.S. Engineering Sciences Pennsylvania State University, 2000

#### **REGISTRATIONS**

Connecticut, Delaware, Maryland, New Jersey, New York, Pennsylvania, Rhode Island, Washington, DC, Virginia

#### **AFFILIATIONS**

Institute of Electrical and Electronics Engineers (IEEE)

National Fire Protection Association (NFPA)

National Society of Professional Engineers (NSPE)

Water Environment Federation (WEF)

## JAMES J. PANETTI, PE Principal | Senior Electrical Engineer

Mr. Panetti is the Vice President and a Founder of Keystone Engineering Group as well as being responsible for designing and implementing electrical and control system designs. He has over 25 years of experience in design of power distribution and instrumentation & control systems, including experience in medium voltage motor control systems and variable speed drives. James is also very knowledgeable in the areas of fiber optic communications, PLCs, radios and computer networks.

#### **REPRESENTATIVE PROJECTS**

emergency power.

• Chester Water Authority | WTP Wastewater Recovery and Filter Upgrade Improvements | Octoraro, PA Electrical and Control System Engineer for the replacement of 12 filter control panels, a backwash pump station and a decant pump station. The filter control system includes a PLC dedicated to each filter control panel communicating to the Plant's central SCADA system over a fiber optic network and incorporates an industrial thin client panel computer on each filter panel to operate the filters from the SCADA screens. The backwash pump station and decant pump station design includes the variable speed motor controls and power distribution

upgrade to serve the pumps. The power distribution upgrade consisted of a 4160V overhead power line feeding an indoor 500kVA dry type substation with an automatic transfer switch for

- Washington Suburban Sanitary Commission | Colesville Water Storage Tank |
  Beltsville, MD
  Responsible for the electrical power, lighting and instrumentation design of a 2.2MG Hydropiller
  elevated water storage tank, altitude valve and remote pressure reducing valve. Responsibilities
  include coordination and interface with two power companies, SCADA radio antenna design,
  coordination of FAA obstruction lighting, cathodic protection, preparation and submittal of
  comprehensive reports.
- Deer Meadows | Water Treatment Facility | Harrington DE
   Electrical engineer for the power system design of a water plant and associated booster pump,
   consisting of a 400A 480V service, 200kW diesel generator and automatic transfer switch, two
   7.5 hp submersible well pumps, two 40hp and two 7.5hp VFD driven duty pumps.
- Wilmington Airport | Water Treatment Facility | New Castle DE Electrical engineer for the power system design of a water plant and associated booster pump, consisting of a 600A 480V service, membrane treatment system, three 20 hp submersible well pumps, two 40hp and three 15 hp duty pumps.
- Ingram Village | Water Treatment Facility | Ellendale DE
  Engineer of Record for the greenfield water plant, consisting of a new structure and water
  storage tank 400A 480V service, 200kW diesel generator and automatic transfer switch, one
  7.5 hp submersible well pumps, two 60hp and two 20 hp VFD driven duty pumps, Lighting,
  HVAC for the structure, process and yard piping, and chemical feed systems.

City of Philadelphia Water Department | Sludge Cake Silo and Pump Project |

Philadelphia, PA
Electrical engineer responsible for power distribution, grounding, lightning protection, control wiring, lighting, fire alarms, PA system and closed-circuit TV design for the expansion to the city's existing biosolids processing facility. The project consists of three 300hp sludge cake pumps, four silos and truck loading area housed in a 75' tall, enclosed structure. Power distribution includes a new 13.2KV protective relay circuit breaker and underground feeder

cable feeding a 1500KVA transformer. Secondary distribution includes a 2000A switchboard, two motor control centers and a bank of switched capacitors for power factor correction.





Bachelor of Science Electrical Engineering University of Delaware, 2005

#### **REGISTRATIONS**

P.E. License; North Carolina, Delaware, Pennsylvania, Virginia, Maryland Master Electrician License; Delaware and Maryland

# **CURTIS L. JAMES, PE**

**Electrical Engineer** 

Mr. James provides electrical design and construction assistance services for industrial, municipal, and commercial clients. Having both Master Electrician and Professional Engineering licenses, Curtis provides a unique perspective toward design and construction. With 18 years of experience, Curtis has successfully delivered electrical designs with the expertise of Contract Administration to ensure the end-user is provided a final product that is compliant with the design intent.

#### REPRESENTATIVE PROJECTS

- City of Dover | Silver Lake Production Well | Dover, DE
   Project Manager/ lead electrical engineer that provided MEP engineering services for the Silver
   Lake Production Well design-build project located in Dover, DE. Detailed designed services
   were provided for HVAC, power, lighting, controls, instrumentations, and SCADA portions of the
   project. The design scope included a new masonry well house with two chemical rooms and
   an equipment room. The new well house was served by a new electric service, new electrical
   distribution system, new exterior diesel generator, LED lighting, mini-split heat pump to service
   the equipment room, and electric unit heater and supply fans to serve the two chemical
   rooms.
- Smith Island | Smith Island Clean Water Project Wastewater Treatment Plant and Pumping Stations | Smith Island, MD
   A wastewater project to serve the residents of Smith Island. Project manager / lead electrical engineer responsible for the electrical distribution system designs, on-site generator sizing, lighting design – lighting calculations and layout, controls and instrumentation interconnect, and heat tracing. Project encompassed surveying the existing WWTP and pumping stations for demolition, new design, and coordination with the serving utility.
- Millsboro | White Farm Elevated Storage Tank | Millsboro, DE
   Project manager/lead electrical engineer responsible for design of the electrical distribution
   system, instrumentation interconnects, heat tracing, aviation obstruction lighting, and fiber
   optic OSP cabling. Coordination with existing easements, road crossings, and power utility.
- Artesian Water Company | Various Water Plant Projects | Delaware Electrical Engineer for multiple projects including Bayview WTP Electrical Distribution Upgrade, Riverside WTP Design, Llangollen ASR Electrical Upgrades, and Wilmington Manor Gardens WTP
- Town of Millsboro | White Farm Water Main and Fiber Optic Interconnection | Millsboro, DE
  - Project manager/lead electrical engineer responsible for the fiber optic interconnect between White Farm Infiltration Control building, White Farm Elevated Storage Tank, and Plantation Lakes Elevated Water Tank. Developed design documents indicating fiber optic cabling, fiber optic link equipment, hand hole with pressurized fiber optic splice closure, and above grade enclosure. Project required existing utility coordination, fiber optic alignment using AutoCAD Civil 3D, easting, and northing coordinate callouts, as well as roadway crossing provisions.
- Town of Crisfield | Cove Street & Rubberset Street Pumping Stations | Crisfield, MD Project manager / lead electrical engineer responsible for direct correspondence and coordination with the prime consultant, on-site electrical evaluations, utility coordination, as well as developing the electrical drawings and specifications. The electrical and instrumentation design included an electrical distribution system, on-site generator, lighting design including lighting calculations and layouts, controls and instrumentation interconnects, and the electrical service.

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# Keystone

#### **EDUCATION**

Bachelor of Science Mechanical Engineering Wilkes, University, 2008

#### **REGISTRATIONS**

California, Connecticut, Delaware, New Jersey, New York, Pennsylvania, Texas, West Virginia

#### **AFFILIATIONS**

American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE)

US Green Building Council (USGBC)

Water Environment Federation (WEF)

# **WILLIAM F. BLEILER, PE, LEED AP**

Mechanical Engineer

Mr. Bleiler is an experienced mechanical engineer with 17 years of consulting engineering experience for various industrial and commercial markets. He has been intimately involved as an engineer for a variety of electrical, plumbing, fire alarm/protection, and HVAC projects in design of power distribution, lighting, instrumentation, control, ventilation, heating, rooftop, and energy recovery systems.

- South Middleton MUA | WWTP Upgrade | South Middleton, PA Project Manager responsible for the HVAC and Plumbing design of an existing Wastewater Treatment Plant upgrade. The WWTP upgrade consisted of designing a new Headworks, Filter & Chemical, and Digester & Sludge Buildings, and renovating the existing Garage, Maintenance, and Operations Buildings. The Operations Building HVAC system composed of one 4-ton and one 5-ton split system heat pumps with an electric backup coil to provide supplemental heat. The Digester & Sludge Building and Maintenance Building both used 1.5ton and 2-ton mini split heat pump systems for office areas. The Digester & Sludge Building electrical room utilized a 3-ton and 5-ton Liebert Data Mate cooling system to remove a large amount of heat generated by the Motor Control Center VFD's. It is important to keep electrical equipment inside its normal operating temperatures to prevent premature failure of equipment.
- St. Clair WWTP | HVAC Design | St. Clair, PA
   HVAC Engineer for the HVAC design, bidding assistance and construction assistance for
   Wastewater Treatment Plant upgrade including additions to the existing Control Building/
   Digesters with a Rotary Press and Dryer, new Secondary Clarifier mechanical equipment, a
   new Blower in the Blower/Sludge Pumping Station, new floats in the Blower/Sludge Pumping
   Station, a new Utility Water Strainer, and Pump System in the Blower/Sludge Pumping Station.
- Stony Brook RSA | Pennington WWTP Upgrades | Pennington, NJ
   Project Manager overseeing the design of the MEP improvements for the WWTP Upgrade
   project. The design involved upgrading the electrical service to 800Amps, 450 kW Indoor
   Diesel Standby Generator, new Mechanical Screen, (4) new Influent Pumps (3) new Primary
   Clarifiers, (2) new Secondary Settling Tanks, (8) new Orbal Aerators in existing tanks, (2) new
   Effluent Filter, (2) new UV Disinfection Units, new Sludge Pumping Station, new Sludge Storage
   Tank, new Gravity Thickener, new Chemical Injection Building, new Chemical Fill Panels,
   Upgrade existing Main PLC from GE90-30 to new Rx3i processor, Heating and Ventilation
   Improvements, and new Eyewash / Shower Stations.
- Passaic Valley Sewerage Commission | Tunnel Bulkhead Doors | Newark, NJ
  Project Engineer responsible for the Electrical, Controls, and HVAC design of the PVSC Tunnel
  Bulkhead Door project. The project consisted of installing bulkhead doors in PVSC's tunnel
  system to help quarantine flood events in the future. New ventilation fans were installed to
  replace existing failed fans during their last flood event, and to continue to provide adequate
  ventilation to all sections of the tunnel system while the bulkhead doors are closed. Project
  responsibilities included designing new ventilation





Bachelor of Science Department of Geography and Earth Science Shippensburg University, 2001 GIS Certificate Shippensburg University, 2001

#### **REGISTRATIONS**

Professional Geologist-Delaware, Pennsylvania, Virginia

Visual MODFLOW, 2008, ArcView v. 3.x, ArcGIS v. 8.x. 9.x and 10.x. ArcGIS Pro

Maryland Potable Water Sampler Certification (current)

MS4-SCP Certification (current)

#### YEARS OF EXPERIENCE

23

# **DAVID L. PIELMEIER, PG**

Senior Project Manager

Mr. Pielmeier is responsible for branch office operations and staff management, liaison and coordination with clients and regulatory officials, project conceptualization and management, hydrogeologic analyses, and technical report and cost proposal preparation and review. He designs, coordinates, and oversees drilling programs and pumping tests, soils, and related hydrogeologic evaluations. He applies scientific techniques to select high-yielding well sites, performs geologic logging, collects and evaluates hydrologic and geochemical data, deploys data-loggers, and conducts sampling activities.

- Source Water Assessment Plans; Maryland Department of the Environment Mr. Pielmeier managed projects for source water assessment programs (SWAPs) for Maryland municipal water systems, including the Town of Berlin, and hundreds of transient, non-community supplies judged susceptible to future source contamination. He served as liaison between state agencies and water systems; updated hydrogeologic wellhead protection delineations; established steering committees; and prepared implementable recommendations for ongoing management and protection of water sources. The project involved 15 public water systems and 266 TNC water systems.
- Professional Services Support: State of Delaware Water and Wastewater Database Development to Facilitate Mitigation Actions; Davis, Bowen & Friedel, Inc., Delaware Statewide
  - In collaboration with Davis, Bowen and Friedel, Mr. Pielmeier led a team of engineers, environmental scientists, hydrogeologists, and geospatial professionals in progressing an initiative to develop a statewide geospatial database of water and wastewater systems in the State of Delaware. The benefiting entity, the Delaware Department of Natural Resources and Environmental Control (DNREC) Division of Water (DOW), sought to develop this information for the purpose of proactively identifying communities at risk of catastrophic infrastructure failure due to potential anthropogenic and natural causes, and developing mitigation strategies to address identified threats. The work includes a community prioritization plan based on hazard and risk assessment information, including data related to sea level rise, historic chronic flooding, and aging infrastructure. QA/QC processes also were developed to ensure data integrity and integration.
- Hydrogeological Investigation and Groundwater Appropriation Permit Consulting, Fruitland Supply Well, Wicomico County, Maryland
   Mr. Pielmeier located, developed, and secured permits for a triple-digit capacity test well for the City of Fruitland, Maryland. He prepared confined aquifer test well specifications and helped the town develop the test well RFP. He designed and executed the requisite aquifer pumping test to evaluate long-term sustainable well yield, quantify hydraulic parameters, and assess impacts on neighboring supplies in the unconsolidated formations of the Atlantic Coastal Plain. He also designed and implemented plans for long-term groundwater monitoring and impact mitigation.
- Hydrogeologic Support for the Town of Pittsville, Maryland, Davis, Bowen & Friedel Mr. Pielmeier evaluated the water quality and hydrostratigraphy of the Northern Atlantic Coastal Plain aquifer system to provide a target aquifer recommendation for a new municipal supply well. The Town endeavored to construct a test well within an aquifer possessing superior water quality (i.e., lower iron concentrations and absent the threat of encountering brackish water). Mr. Pielmeier managed the completion of a feasibility evaluation where regional aquifer water availability was assessed. Careful literature review and assessment of available geophysical logs were employed in the completion of the feasibility evaluation.





#### **EDUCATION**

Bachelor of Science Environmental Science Plymouth State University, 2017 GIS Certificate Plymouth State University, 2017

#### **REGISTRATIONS**

Professional Geologist-Delaware, License No. S4-0011444

National Groundwater Association

Mid-Atlantic Professional Soil Scientist Association: Soil Classification Training, 2019

Water Sampler Certification: Maryland MRWA, 2020 and Delaware DHSS, 2018

#### YEARS OF EXPERIENCE

7

## **TODD W. WILKINSON, PG**

Senior Project Hydrogeologist

Mr. Dickinson possesses a strong background in geology and water chemistry and is highly skilled in the application of quantitative methods and numerical technology applied within those fields. He holds a geographic information systems (GIS) certificate and is proficient in the most recent versions of GIS software packages.

Mr. Dickinson possesses expertise in the use of field equipment for data collection, data post-processing and management, geostatistical and geochemical analyses, mapmaking, and report development. His work has included drilling oversight and geologic logging, pumping tests oversight and data analysis, project design and technical innovation, GIS mapping and analysis, water quality sampling, regulatory records review, compliance monitoring, remote sensor deployment and management, evaluating water quality compliance data for evidence of quantitative susceptibility, and data management.

#### **REPRESENTATIVE PROJECTS**

- Hydrogeologic Monitoring, Davis, Bowen & Friedel, Inc., Sussex County, Delaware Mr. Dickinson performs biannual reports analyzing geochemical and hydrogeologic data in support of groundwater withdrawals made by the City of Rehoboth Beach, Delaware. He processed and analyzed water level and water quality data from nine monitoring wells and four production wells. Mr. Dickinson used hydrographs, potentiometric surface maps, temporal chloride trends, bivariate analyses, and major ion analyses to determine that water use by the City was both sustainable and not causing saltwater intrusion from the nearby Atlantic Ocean. He successfully submitted five reports and coordinated with the client, regulating agencies, laboratories, and equipment manufacturers regarding a number of technical and regulatory matters. Additionally, his work supported negotiations with regulating agencies to reduce monitoring and reporting frequency.
- Hydrogeological and Regulatory Support Services for New Production Well, Town of Queenstown; Queen Anne's County, Maryland
   Mr. Dickinson designed and managed subcontracted hydrogeological evaluation in support of a deep, new municipal supply well being completed in the confined aquifers of the Atlantic Coastal Plain. Mr. Dickinson assisted the town engineer in planning, filing permit applications with MDE, reviewing drilling bids, and managing the fieldwork in drilling and testing two test wells. The resultant data will be used to support issuance of MDE groundwater appropriation permitting.
- Rapid Infiltration Basin Feasibility Study, RK&K, Central Calvert County, Maryland This project involved a detailed subsurface investigation to evaluate the feasibility of rapid infiltration basins (RIBs) for wastewater disposal at a site in Calvert County, Maryland. Mr. Dickinson provided oversight and geologic logging of multiple boreholes drilled with dual tube sampling, split spoon, and hollow stem auger technologies. He oversaw well construction and developed the wells. Mr. Dickinson performed deep infiltration tests and slug tests to characterize multiple aquifers. He analyzed the data collected and used Rockworks 17 and LiDAR data to create lithologic and stratigraphic models of the subsurface. Mr. Dickinson performed analytical models to predict the groundwater mound that would form as a result of wastewater loading to the proposed basins. He authored portions of a report and provided critical support for fieldwork planning and execution, meetings with regulating agencies, and development of project deliverables.

# **Understanding the Town of Berlin** -

Davis, Bowen & Friedel, Inc.'s (DBF) office has been working with the Town of Berlin for over forty (40) years. This includes a large range of projects from plan reviews and infrastructure inspection, water and wastewater designs, planning, and funding assistance. With this mutually beneficial relationship that has been formed over the years, we feel that we have a good understanding of the Town's needs and issues in which it is facing. Based on this understanding we feel we know how the Town wishes to approach these needs and issues in an efficient and cost effective manner while providing the necessary services to the Town's residents. Based on this understanding below is a summary of current projects of which we have been working with the Town on.

#### WATER SUPPLY, TREATMENT, AND DISTRIBUTION:

Davis, Bowen & Friedel Inc. has intimate knowledge of the Town's three (3) existing water supply wells, well buildings, elevated storage tanks, and their associated treatment processes. We have been involved in the design and recent construction projects for the Powellton Avenue Well Building, Franklin Avenue Well Building, and Branch Street Well Building. Additionally, we are assisting the Town with the ongoing Route 346 Water Supply Well project. We have assisted the Town in the development of the federally mandated Lead Service Line Inventory and helping the Town stay in compliance with the federal and state requirements. Currently we are working with the Town in the design and implementation of the Phase 1 Berlin Lead Service Line Replacement project. We understand that the Town's existing distribution system has several sections that are near the end of their expected life cycle and are expected to require replacement over the next 5 to 10 years of which we are ready to assist with whether be it be funding applications or preliminary engineering reports.

# WASTEWATER COLLECTION, TRANSMISSION, AND TREATMENT:

Davis, Bowen & Friedel Inc. has intimate knowledge of the Town's twelve (12) existing sanitary sewer pump stations located throughout the collection system, and have been involved in the design and recent construction projects for the William Street Pump Station project, Broad Street Pump Station project, and West Street Pump Station project. Working with Town personnel we have begun the planning process for the replacement of the Flower Street Pump Station project as well. We have provided on-call assistance

for the Town's wastewater treatment plant and spray sites in regards to general discussion on upgrades and review of the Town's current discharge permit. We understand that the Town's sanitary collection and transmission system has aging sections and have been assisting the Town in undertaking the replacement of these sections. Additionally, we understand that the Town's wastewater treatment plant is progressing to the later stages of its anticipated lifecycle and is likely to require revitalization/replacement projects in the near future of which were are prepared to assist with.

#### **ROADWAYS AND PUBLIC FACILITIES**

The Town of Berlin has a unique relationship with the Maryland State Highway Administration, in that several of the main roads in Town are owned and maintained by the State Highway Administration but have Town owned utilities crossings or utilities located within the roadway themselves. We have worked in conjunction with the State Highway Administration on numerous municipal projects for coordination and permitting and have a good working relationship with their personnel. We understand that that the Town of Berlin has numerous streets with varying street designs and that improving the public parking situation in Town is a primary focus of Town leadership.

#### **PEDESTRIAN FACILITIES**

The Town of Berlin offers superb pedestrian facilities and amenities to its residents and visitors. This has been achieved through continuous efforts made by the Town leadership and personnel. We are currently assisting the Town in the development of the Berlin Bikeways project, and the development of Town owned properties. We will continue

# **Understanding the Town of Berlin** (cont.)—

to keep pedestrian facilities included in project planning and design services.

#### **COMMERCIAL AND RESIDENTIAL DEVELOPMENT**

The Town of Berlin has been the focus of significant Commercial and Residential Development of which the interest level of developers is not anticipated to change in the near future. Both Commercial and Residential Development must be done in an organized and thoughtful manner to be beneficial to the Town and its existing residents. Existing water production and wastewater capacities must be carefully managed to ensure that any increases in demand are done so to the benefit of the Town. We have assisted the Town in this regard with recent development projects in which aspects of the Town's current infrastructure needed to be upgraded in order to adequately serve the new developments, of which was paid for by the developer and not the Town.

#### **MONTHLY TECHNICAL REVIEW MEETINGS**

Davis, Bowen & Friedel, Inc. has dedicated team members available to attend monthly technical review meetings, project review meetings, construction progress meetings, Mayor & Council Meetings, Planning Commission meetings, and other public meetings as requested by the Town. The monthly technical and project review meetings are very beneficial to keeping all parties informed and on the same page for the Town's numerous projects and ongoing efforts.

#### **FUNDING APPLICATION AND ADMINISTRATIVE SERVICES**

Davis, Bowen & Friedel, Inc. has assisted Municipalities with developing and submitting project funding applications to several funding sources including but not limited to the Maryland Department of the Environment (MDE), the Community Development Block Grant (CDBG), and the U.S. Department of Agriculture-Rural Development (USDA-RD). This effort is undertaken in hopes of securing grant funding or low-interest loans with principal forgiveness which ultimately reduce the cost of capital improvement projects that is borne by the Town and its residents. We will continue to work with Town personnel in identifying the projects that the Town wants

to pursue and develop application submissions for the annual funding application cycles.

#### **DESIGN AND PERMITTING SERVICES**

Davis, Bowen & Friedel, Inc. offers a valuable service in the design and permitting aspects of each project that we are a part of. Starting with initial planning efforts we will work with Town personnel in identifying the desired outcomes and potential obstacles for a given project and develop initial budgetary estimates and anticipated project schedules. In design services, we analyze multiple solutions to achieve the desired outcomes while minimizing cost and disruption of services to existing Town residents. Our team members have decades of experience in Architectural, Civil, Coastal, Landscape, and Structural design. Each project requires a set number of permits unique to the scope of the project, of which we identify early on and have significant experience in pursuing and obtaining permits from the several such as the Maryland State Highway Administration, the Maryland Department of the Environment, the Worcester County Soil Conservation District, the Town of Berlin Stormwater Review, the Community Development Block Grant, and other funding agencies.

#### **BIDDING AND CONSTRUCTION MANAGEMENT SERVICES**

Davis, Bowen & Friedel, Inc. has significant experience in the bidding process requirements of different funding agencies, as well as the specific processes developed by the Town of Berlin. We offer full bidding services, including the establishment of bidding dates, the development of meeting agendas and minutes, coordination of bidder questions, the development and distribution of addendum, the review and processing of received bids, the development of a bid tabulation and a letter of recommendation of award, and attendance of the appropriate Mayor & Council meetings to present the results of the bidding process. During the construction phase of a project, we offer full construction administration and inspection services. We will have a dedicated team member performing the construction administration services including coordination between the Contractor and the Town, coordinating submittal reviews,

# Understanding the Town of Berlin (cont.) -

requests for information, and change order documentation. We will coordinate monthly progress meetings, daily full-time and part-time inspection services provided by a Resident Project Representative. Inspection services will document the ongoings of the project through daily field reports and photographs. We will coordinate all project closeout and warranty documentation as required by each project.

#### **PLAN REVIEW SERVICES**

Davis, Bowen & Friedel Inc. team members have significant experience in the plan review services of which all plan reviews will be coordinated through our project manager of which will utilize the diverse and deep experiences of our team to provide comprehensive, thorough, and efficient plan review services

to encourage responsible development in the Town of Berlin. For each plan review, we will develop a comment list and associated letter of recommendation, following the processes and checklists set by the Town's Planning Department and Code.

#### **PUBLIC PARTICIPATION**

Davis, Bowen & Friedel Inc. offers its services in a professional manner and wants to assist the Town in being as transparent as possible to its residents. We will assist the Town in the development of public outreach documents and attend public meetings answering public questions and comments as requested by the Town.



# **Project Methodology & Approach**

Davis, Bowen & Friedel, Inc. (DBF), has provided "on-call" services to municipal clients from its inception, and we pride ourselves on offering comprehensive professional services to our clients in an effective manner. Each on-call client has their own special requirements, which we make it a point to intimately know each of those. By providing such services to a wide range of clients and knowing each client's needs, we are able to and have tailored our services to each client in order to maintain high quality and cost-effective services

As an on-call engineer, we are always looking out for the best interest of our client. This would not be limited to waiting for a phone call from the Town Manager with an issue that needs resolved, but includes being proactive on our client's behalf in regard to items such as upcoming regulations that our clients would need to prepared for or overhearing a resident's complaint at a Town meeting and being prepared to assist the Town with resolving the issue expeditiously. We try to be proactive as opposed to reactive on behalf of our clients.

As an on-call engineer, our services and thus related projects can vary widely. These could include plan reviews for a proposed development,



full-blown design, permitting, and construction services for a large infrastructure project, or operational assistance at the wastewater treatment plant. Understanding that each project has its own requirements, being Town Code/Ordinance, County or State requirements, or other governing jurisdiction, we make ourselves familiar with these so that when a project arises, we can be ready to assist our client.

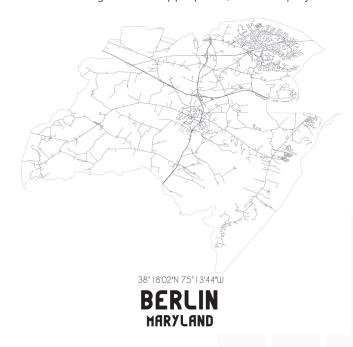
In general, our approach to providing on-call services to the Town of Berlin would be to first identify the project at which time we would schedule a meeting with the Town to further discuss. The meeting would involve an open discussion on the project including issues identified, possible causes, Town's view of expediency on solving the issue, available funding, and general expectations from the Town. This meeting will help both the Town and DBF to better understand the project and any domino effects or major hurdles related to the completion of the project.

After this meeting, with the Town's request, DBF will provide the Town with a proposal summarizing the project based on the initiation meeting along with a scope of work of services DBF would provide and associated costs. Depending on the size of the project, available funding, and with the Town's approval, this proposal could be completed hourly, i.e. time and materials, or as a lump sum fixed cost.

# **Project Methodology & Approach** (cont.)

While each project is different, they could include all or only some of the following approach.

- **PROJECT KICK-OFF** A kick-off meeting with the Town to further discuss how the project will proceed including permitting and budgets, as well as collect information as provided by the Town and perform a site visit, if necessary.
- **PROJECT INITIATION** DBF will hold an internal meeting with all team members to further discuss the project, assign responsibilities, establish deadlines, and ensure there is an open line of communication between team members.
- **DESIGN DEVELOPMENT** Prior to the first review submission to the Town, we will provide the Town with conceptual drawings of the proposed project as well as any initial product selection for review and comment.
- **PROJECT SUBMITTALS** Multiple submissions will be provided to the Town as the project progresses which would include detailed drawings and specifications that would be used for permitting and construction, cost estimates, and proposed construction schedule. The Town will have the opportunity to review and comment followed by a meeting with DBF to discuss comments and address them to the Town's satisfaction
- **BIDDING ASSISTANCE** DBF will provide the Town with bidding services which will follow the applicable funding requirements and include chairing the pre-bid meeting, prepare minutes, review questions by bidders, coordinate responses, and prepare and submit addenda as required. Upon receipt of bid packages from general contractors, we will review and provide a recommendation to the Town for award.
- **CONSTRUCTION CONTRACT MANAGEMENT & INSPECTION** Upon awarding the construction contract to a general contractor, we will provide the necessary construction contract management and construction inspection services as required for the project. These services would include, but are not limited to, all coordination between the general contractor and Town, review submittals, pay requisitions, and change orders, coordinate necessary quality control of the project, inspections services to ensure the project contract documents are being followed appropriate, and final project closeout with Town acceptance.



# **Client References**

Throughout the history of our firm, we have had the privilege of serving a diverse range of clients across both the public and private sectors. We have cultivated lasting professional relationships, evidenced by the number of repeat clients who continue to engage our services. For your consideration, the following individuals represent current clients and can provide references regarding the successful projects we have completed on behalf of their organizations.



## **City of Crisfield | On-Call Engineering Services**

Ms. Darlene Taylor | Mayor of Crisfield
Town Hall, 319 Main Street Crisfield, Maryland 21817
mayortaylor@crisfieldcityhall.com | (410) 968-1333



### **Town of Delmar | On-Call Engineering Services**

Mr. Jeffrey Fleetwood | Town Manager Town Hall, 100 South Pennsylvania Avenue, Delmar, MD 21875 jfleetwood@townofdelmar.us | (410) 896-2777



## **Town of Sharptown | On-Call Engineering Services**

Mr. Matthew Schneider | President of Commissioners Town Hall, 401 Main Street, Sharptown, MD 21861 sharptown@comcast.net | (410) 883-3767



### **Town of Georgetown | On-Call Engineering Services**

Mr. Gene Dvornick Jr. | Town Manager
Town Administrative Offices, 37 The Circle, Georgetown, DE 19947
gdvornick@georgetowndel.com | (302) 856-7391



## **Town of Selbyville | On-Call Engineering Services**

Ms. Stacy Long | Town Administrator Town Administrator, PO Box 106, Selbyville, DE 19975 townmanager@townofselbyville.org | (302) 436-8314

# DAVIS, BOWEN & FRIEDEL, INC. ("DBF") SCHEDULE OF RATES

SCHEDULE NO. 50A Effective September 1, 2025

CLASSIFICATION	HOURLY RATE
Principal	\$230.00
Senior Architect, Sr. Landscape Architect, Sr. Engineer, Sr. Surveyor, Sr. Planner	\$195.00
Architect, Landscape Architect, Engineer, Surveyor, Planner	\$155.00
Senior Manager: Architecture, Landscape Architecture, Engineering, Surveying	\$160.00
Manager: Architecture, Landscape Architecture, Engineering, Surveying	\$140.00
Senior Environmental Specialist	\$160.00
Environmental Specialist	\$130.00
Construction Administrator	\$145.00
Senior Designer	\$150.00
Designer	\$130.00
GIS Specialist	\$140.00
Computer Graphics Designer	\$115.00
CAD I	\$115.00
CAD II	\$100.00
1 Person Survey Crew	\$150.00
2 Person Survey Crew	\$190.00
3 Person Survey Crew & UAV Crew (Excluding Equipment Charge)	\$230.00
Resident Project Representative	\$110.00
Computer Administrator	\$110.00
Administrative Support	\$90.00
Travel	\$0.655/mile
Direct Expense	Cost + 10%
UAV Equipment Charge	\$100/mission
Prints (In-house Reproduction)	\$3.50/sheet
Overtime	(1.5xHourly Rate)
24x36 Mounted Prints \$90 (First Board)/ \$40 (Additional Boards from	n the Same Order)

# RFQ 2025-01 General On-Call Engineering Services

Firm Name: Davis, Bowen and Friedel, Inc.

#### **SIGNATURES**

I, the undersigned, am an authorized agent of the firm listed below and am authorized to submit the attached response to the RFQ as indicated above. I certify that all information included is true and correct to the best of my knowledge. I further acknowledge the conditions and requirements expressed in the RFQ and the agreement to adhere to same.

By checking this box, I hereby certify that the individual or organization represented in the submission of this response to Town of Berlin RFQ 2025-01 is not debarred by the federal government from contracting with a federal agency, nor with the State of Maryland, Worcester										
County, or the Town of Berlin.										
Signature:	Date: 10-10-2025									
Printed Name: Jason P. Loar, PE										
Firm Name: Davis, Bowen and Friedel, Inc.	Tax/EIN: 52-1456882									
DBA:										
(if different than Firm Name above)										
Address: 601 East Main Street	_									
City, State Zip: Salisbury, MD 21804										
Phone: 410-543-9091										
ipl@dbfinc.com										



Improving Our Communities.
Shaping The World Around Us.
Creating Value By Design.

# **TITLE PAGE**







# Town of Berlin On-Call Stormwater Engineering Services

RFQ 2025-02

# Prepared for:



# Submitted by:



EA Engineering, Science, and Technology, Inc., PBC

Primary Point of Contact: Darl Kolar, PE – Contract Manager

11200 Racetrack Road, Unit A101

Berlin, MD 21811

Telephone: 410-641-5341(O); 410-491-0429 (C)

dkolar@eaest.com www.eaest.com

October 10, 2025 12.08.25 Council Packet Page 83 of 168

# **Confidential/Proprietary Information Page**

#### EA's Confidential/Proprietary/Trade Secret Statement

EA maintains that certain categories of information contained in our Proposal are exempt from disclosure under the Maryland Public Information Act ("MPIA") – Maryland State Government Code §10-617(d)1 MPIA¹ and under MD Code, Commercial Law, §11-1201(e)².

Submittal sections that contain this information are indicated with a page footnote.

For the purposes of this submittal, the materials exempt from disclosure fall into the following basic categories and are explained further in the analysis that follows. EA considers the information in these categories to be included within the common definitions of trade secrets, and/or commercial information that is privileged, confidential, and otherwise proprietary to EA, the release of which is likely to cause EA substantial competitive harm.

- Commercial or financial information concerning the pricing or cost structure of our proposed services, such as hourly rates on an individual basis and/or on a composite basis: EA considers its pricing/costing structure, along with the method and presentation of its proposal information as trade secrets and are otherwise proprietary to EA. It is EA's practice to disclose such information only on an as needed basis, even in the context of working in teams with other contractors in pursuit of public contract assignments where in many circumstances such information is provided directly to the Governmental agency and not released to other contractors.
- 2. <u>The experience and qualifications of EA personnel</u>: EA's business is highly competitive. The experience and qualifications of personnel assigned to manage and provide technical expertise is deemed by EA to be extremely sensitive.
- 3. Descriptions of proprietary and/or trade secrets related to or from which EA's unique approach to performing the services is discussed: EA objects to the disclosure of any material that describes the manner in which EA intends to conduct its services, except to the extent those methods might parrot the required scope of work or a particular standard operating procedure or practice required in the contract scope of work.
- 4. <u>Detailed summaries of projects/past experience/work product</u>: EA contends that, where applicable, detailed summaries of projects, past experience, and work product, including the decision as to which projects to include, as well as the formatting and layout of the information provided (including information provided by or about EA's subcontractors and team partners), are considered proprietary to EA and/or EA trade secrets.
- 5. Submittal structure/layout: EA contends that disclosure of the submittal in its original format will result in the disclosure of the formatting and layout of the information, all to EA's competitive disadvantage on future procurements due to our unique interpretation of the client's submittal guidelines and requirements.

(a) Unless otherwise provided by law, a custodian shall deny inspection of a part of a public record, as provided in this section.

<sup>2</sup> MD Code, Commercial Law, §11-1201(e), defines "trade secret" as follows:

- (e) "Trade secret" means information, including a formula, pattern, compilation, program, device, method, technique, or process, that:
  - (1) Derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and
  - (2) Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.



<sup>1 §10-617</sup> 

<sup>(</sup>d) Commercial information - A custodian shall deny inspection of the part of a public record that contains any of the following information provided by or obtained from any person or governmental unit: (1) a trade secret; (2) confidential commercial information; (3) confidential financial information; or (4) confidential geological or geophysical information.

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Appendix A - Resumes



11200 Racetrack Road, Unit A101 Berlin, MD 21811 Telephone: 410-641-5341

www.eaest.com

October 10, 2025

Mary Bohlen, Town Administrator Town of Berlin 10 William St. Berlin, MD. 21811

RE: Request for Qualifications – No. 2025-02; Town of Berlin On-Call Stormwater Engineering Services

Dear Ms. Bohlen:

The Town of Berlin (the Town) is important to EA Engineering, Science, and Technology, Inc., PBC (EA). We value our 16-year partnership with the Town and appreciate the opportunity to submit this statement of qualifications for continued on-call stormwater management support. As a dedicated partner, we are extremely interested in the work-at-hand and have prepared this response to highlight our qualifications. To augment EA's experience, we have partnered with strong local firms such as Stable Ground In-Situ, LLC (SGI) and Russell T. Hammond Surveying, LLC (RTC). This will help us provide the highest quality services to a town we care very much about. EA offers the Town the following advantages:

Unmatched Understanding of the Town and its Goals: EA understands the Town of Berlin's transition of stormwater management responsibilities from Worcester County and recognizes the historical context surrounding this change. From concept and program development through adoption, EA has carefully supported the Town in stormwater management plan reviews, inspections, and code enforcement. Prior to 2010, EA assisted the Town of Berlin with several infrastructure projects, including water treatment facilities and utility construction inspection. Since 2010, EA has directed the Town's stormwater management review program with hundreds of plan reviews, inspections, and as-built documentation efforts. Between 2005 and 2007, the U.S. Army Corps of Engineers (USACE) completed a comprehensive stormwater assessment of the Town. After evaluating the report, EA recognized that the Town faced a costly and long-term effort to implement necessary stormwater improvements.

As a result, EA assisted the Town with establishing a stormwater utility fee, the first of its kind on Maryland's Eastern Shore. This initiative provided a dedicated funding source to start addressing the environmental impacts of stormwater. Revenue from the utility fee has played a critical role in successfully securing grant funding for the Town by demonstrating a strong commitment to stormwater management. EA has helped apply for countless grant applications, resulting in over \$2.7M in funding from state and federal agencies, enabling the Town to complete stormwater improvement projects with construction costs exceeding \$3.9 million, approximately 70% of which were funded through grants.

EA's role in this program includes providing ongoing support for stormwater management reviews, public outreach, grant applications and administration, and project development including design, permitting, and construction. We understand the importance of being available for regular and as-needed in-person meetings, site visits, public presentations, and occasional evening meetings with Town officials, developers, and residents.

**Trusted Relevant Experience.** EA is uniquely qualified and fully committed to this project. Our long-standing relationship with the Town, combined with deep expertise in stormwater engineering, site evaluations, feasibility studies, plan reviews, and permitting, enables us to deliver exceptional value and insight. Our team also has proven expertise in construction management and inspection services. We are a properly licensed firm in good standing, with three local Maryland offices, including Berlin, just 10 minutes from Town Hall.



11200 Racetrack Road, Unit A101 Berlin, MD 21811 Telephone: 410-641-5341

www.eaest.com

With more than 52 years of experience, EA has successfully delivered similar projects for municipal and private clients. We have a strong understanding of the Town's critical stormwater challenges, and our storied experience working with Town staff enables us to anticipate and respond to changing needs rapidly. Since 2010, EA has supported the Town with construction inspection and stormwater management services, contributing to more than a dozen projects. A summary of the most significant stormwater management improvement projects is provided on page 13.

EA maintains strong relationships with key stakeholders in Worcester County and the Town of Berlin, staying actively involved in community activities to provide ongoing support that benefits residents. Our team regularly attends Town of Berlin Council and Worcester County Commissioner meetings to stay informed about local needs and priorities. EA is a member of the Maryland Stormwater Association (MCBP) and attends quarterly meetings to stay informed on stormwater regulations across Maryland and the Chesapeake Bay watershed. EA has also been instrumental in building a partnership with the Maryland Coastal Bays Program (MCBP), leading to multiple successful grant awards for the Town. Notably, MCBP received a \$6M grant to support the Newport Bay Watershed, including several major projects benefiting the Town of Belin

In addition to our local experience, this submittal includes five recent program examples that demonstrate our expertise in stormwater management support.

Same Core Management Team Performing Work on the Current Contract: To continue delivering highquality contract services, EA offers the same dedicated team currently supporting the Town's stormwater management on-call contract: Contract Manager Darl Kolar, PE; Construction Project Manager Neil Hallowell, Jr.; and Engineering Project Manager Steven Lemasters, PE, LEED AP. This seamless transition equals zero learning curve for project efforts. We know the Town, the stakeholders, and the work required. Our selected partners have proven experience working alongside EA and the Town, further strengthening our team.

The breadth and depth of our expertise covers the full spectrum of specialized areas required to successfully support all tasks under this contract. Our multi-disciplined team of expert engineers, scientists, and environmental specialists enables us to provide environmentally sound, fiscally responsible, technically defensible, and operationally efficient solutions. Furthermore, EA has a proven history of managing on-call contracts, consistently demonstrating our ability to respond effectively to task order solicitations and lead large multi-firm teams. We have successfully managed teams of over 20 subconsultants and overseen more than \$155 million in on-call contracts across over 40 Maryland counties, municipalities, and government agencies. Our robust quality control program integrates our subconsultants into a cohesive framework, ensuring accountability and consistently high performance across all project phases.

EA has read and understands the RFQ, and we agree to the conditions, requirements, and terms stated.

EA appreciates our current working relationship with the Town of Berlin and looks forward to the opportunity to continue to serve on your behalf. If you require any additional information or have any questions, please feel free to contact our Contract Manager Darl Kolar, PE at 410-641-5341 or dkolar@eaest.com.

Sincerely,

EA Engineering, Science, and Technology, Inc., PBC

Mark Gutberlet, P.E., BCEE

Vice President and Facilities Compliance and Engineering Business Unit Director (Principal-in-Charge)

October 2025 Page-5

# 3. STATEMENT OF QUALIFICATIONS

### 3.1. TEAM OVERVIEW

# **EA Engineering, Science, and Technology, Inc.,** PBC (EA)

EA is excited to continue our relationship with the Town and manage the projects anticipated under this contract. We are a leading provider of environmental, compliance, natural resources, and infrastructure engineering and management solutions. Established in 1973, EA has grown to over 750 employees nationwide. We are a properly licensed firm in Maryland and in good standing, with 28 offices across the country, including three in Maryland: our Hunt Valley Corporate Office, Abingdon, and Berlin. As demonstrated in our qualifications, EA has more than 52 years of relevant experience, including numerous similar projects for municipal and private clients.

## **EA's Town and Maryland Long-Term Stormwater Management Experience**

Since 2010, EA has been assisting the Town with an allencompassing stormwater management program. As the current (and only) stormwater management contractor, EA has completed and is currently designing over a dozen stormwater improvement projects to address both localized flooding and improve water quality. Stormwater management is a critical aspect of site engineering and facility management, as well as addressing TMDL requirements (for Worcester County) in today's environmentally conscious climate. EA's expertly qualified team and unique blend of experienced scientists and engineers enable us to provide full stormwater management services ranging from site evaluation and stormwater modeling to facility design, permitting, construction management, and long-term monitorina.

In addition to supporting the Town, EA brings extensive stormwater management experience gained through more than 20 years of service to other municipalities and Maryland state agencies. Our clients have included Anne Arundel, Charles, Harford, Howard, Cecil, Carroll, Prince George's, Frederick, Baltimore, Wicomico, and Worcester counties; the cities of Havre de Grace, Salisbury, and Baltimore; as well as MDOT SHA, MDOT MPA, MDTA, WSSC Water, and the District of Columbia.

# **Continuity Of the Same Team Ensures No Learning Curve**

Services under this contract will be performed by the same core team of professionals on the current contract, led by Contract Manager Darl Kolar, PE, Construction Project Manager Neil Hallowell, Jr., and Engineering Project Manager Steven Lemasters, PE, LEED AP. Additionally, our chosen teaming partners have worked with EA and the Town, adding to overall team strength. This seamless continuity of the same team ensures no learning curve and staff ready to work from day 1. Additionally, EA has over 750 resources across Maryland and the Country to provide specialized expertise if needed.

## **Pine, Franklin and Nelson Street Stormwater Management Improvements**

As the Town of Berlin is aware, residents of Nelson Street have voiced concerns about flooding for decades. Through three project phases, multiple grants, and value engineering, EA supported the Town in completing the third phase in 2024. This milestone reflects a strong commitment to addressing long-standing community needs and securing the necessary funding to bring the project to completion.

### **Doing More with Less**

EA is committed to helping our clients address increasing economic and budget concerns. Our approach is based on sustainability and stewardship and encompasses the guiding principles of life-cycle management, which are proven to increase infrastructure management efficiencies and enhance the effectiveness of existing operation and maintenance of environmental programs. With our focus on sustainability. EA is collaborating closely with Maryland counties and municipalities to help them increase efficiency and savings.

# **Continuity Of Town-Experienced Subcontractors**

EA will continue to use the firms below to supplement our qualifications. We have worked with both firms on projects for the Town and with other clients throughout the region.

### **Stable Ground In-Situ, LLC (SGI)**



Stable Ground In-Situ, LLC (SGI) is a geotechnical firm focused on providing advanced, accurate, and timely in-situ soil testing

**Successful Grants Secured for Town Stormwater Management Initiatives** 

EA was successful in securing over \$2.7 Million in grants for the Town for stormwater management initiatives and the completion of stormwater management improvement projects. EA supported the Town's grant applications with multiple state and federal agencies including the following:

- Maryland Coastal Bays Program
- Maryland Department of Natural Resources
- Chesapeake Bay Trust Fund
- Maryland Department of Housing and Urban Development
- Federal Emergency Management Administration

EA tracks both the new and annual grant application process for the above agencies. EA's grant application support includes facilitating Town with letters of support, community engagement and support, project concept designs, non-profit agency teaming, and budget development. Following award, EA assists the Town with grant management, reporting, and grant close out.

services. Services include cone penetration testing (CPT), flat plate dilatometer testing (DMT), in-place California bearing ratio testing (CBR), pressure meter testing (PMT) and vane shear testing (VST). In addition to field services, SGI's experienced engineers provide data analysis and geotechnical engineering consulting.

SGI's services before construction optimize soil parameters, reduce foundation costs, or pave the way for a more economical design altogether. These same methodologies are used for verification during and after ground improvement operations.

For this contract, SGI will complete subsurface geotechnical soils investigation and provide geotechnical engineering. EA and SGI have a long, established working relationship including the Westminster and Abbey Submerged Gravel Wetlands Project in the Town of Berlin, as well as other projects within Worcester County such as the Snow Hill Homeowner Dropoff Area.



## Russell T. Hammond Surveying, LLC (RTH Surveying)

Since 2009, Russell T. Hammond Surveying LLC (RTH Surveying) has provided professional knowledge to ensure its clients receive only the best service. RTH Surveying values accuracy, dependability, and professionalism. They walk clients through each step of the process in plain language, keeping clients well informed of the status of the project. RTH Surveying understands it takes more than global positioning system (GPS) equipment to produce top-notch quality surveys; the firm is diligent in

researching property data, field recon, and precise in creating the surveys. RTH Surveying's mission is to provide land surveying services that are professional, cost effective, accurate, and honest.

For this contract, RTH Surveying will provide topographic and boundary survey services. EA and RTH have a long, established working relationship that includes several stormwater and wastewater projects for the Town of Berlin, Worcester County, Sussex County, Rehoboth Beach, and Ocean City.

# 3.2. EXPERIENCE WITH MUNICIPAL MULTIYEAR ON-CALL CONTRACTS

EA is proposing a team that highlights our strengths in:

- Stormwater management engineering
- Storm drainage and flood control services while providing related services of community outreach
- Civil engineering
- Structural engineering
- Environmental engineering
- Hydraulic and hydrology engineering
- Geotechnical engineering
- Surveying
- Utility locating services
- Erosion and sediment control
- Geographic information system (GIS) support
- Technology support services
- Construction management
- Administration

### **EA Specialty Services**

EA also provides a wide range of unique specialty services including:

- ✓ Treatment of Emerging Containments including PFAS
- ✓ Ecotoxicology Science and Laboratory
- ✓ Rare, Threatened, and Endangered Species
- ✓ Application and Website Development
- ✓ Geomorphology
- ✓ Wildlife Biology
- ✓ Water Resource Engineering
- ✓ Ecological Risk Assessment
- ✓ Aquatic Ecology
- ✓ Munitions Response
- ✓ Human Health Risk Assessment
- ✓ Community Outreach
- ✓ Coastal Resiliency
- ✓ Aerial Imagery and Data Collection

Inspection and resident project representative to aid clients in successfully implementing designed projects.

EA's resources and technical experience is highlighted in Section 6.3 – Methodology and Approach.

## **Success Managing Concurrent Task Orders**

EA is adept at responding to multiple task order solicitations and managing teams of subconsultants. We have managed over \$155 million in on-call contracts for over 40 Maryland counties, municipalities, and government agencies including teams of more than 20 subconsultants. EA has managed upwards of 15 tasks at a time for an individual on-call contract.

EA has also implemented a variety of management procedures on all our projects, which allow us to respond to multiple requests in short order and manage our resources effectively:

- Every Monday, our technical staff meets to discuss staff availability and deliverables for the week and to adjust staff assignments to meet client priorities.
- Every Thursday local departments meet briefly to discuss the progress made on deliverables and the anticipated priorities for the following week—proactively fine-tuning assignments to avoid conflicts at the Monday morning meeting.

# **SWM Reviews, Design, Construction** Inspection, and Grant Solicitation

EA has supported the Town's stormwater management program over the last 15 years often managing multiple simultaneous tasks. Overlapping task orders and projects include but not are limited to:

- **SWM Reviews**
- SWM Design and Permitting
- Construction Management and Inspection
- Grant application preparation and management
- Each week, senior project managers discuss key project topics.
- On a monthly to quarterly basis, EA's quality assurance/quality control leaders have in-depth discussions on our active projects.

It is this type of continual attention to existing work that allows us to respond to new requests, while meeting our past commitments.



## Responsiveness

EA's local office in Berlin, MD enables prompt response to site visits and timely support for residential inquiries. We have established strong working relationships with the Mayor and Council, Town administration, and all departments including public works, water resources, electrical, planning and zoning, and finance. Staff from these departments frequently reach out directly to various EA team members for both routine and complex questions. EA takes pride in being readily accessible and providing timely, effective responses. Given the nature of the services and the proximity of our offices and personnel, we are confident in our ability to respond quickly and efficiently to support the Town's needs.

### **Established Partner with the Town of Berlin**

With over 16 years of direct experience working with the Town, EA is a proven and trusted partner in its continued success. We are proud to serve as the Town's historically preferred stormwater on-call consultant, providing a comprehensive range of services including planning, hydrologic analysis of drainage areas, stormwater management (SWM) review and analysis, on-call SWM reviews, design and development of stormwater management projects, construction management and administration, public outreach, permitting, strategic planning for priority areas, and coordination and support for grant funding opportunities

EA meets monthly with Town administration, department heads, and private developers to discuss the overall stormwater program. These meetings typically cover the following key topics:

- · Review existing tasks and their current progress
- Discuss status of developer project reviews
- Identify potential new tasks
- Grant application and award status
- Establish necessary resources to make available to support the program
- Identify opportunities for knowledge and resource sharing
- Review Town code for potential updates

These meetings help EA provide a cohesive, efficient approach to supporting the Town.

EA is a first mover among major national environmental consultancies, as a 100% employee-owned public benefit corporation. A public benefit corporation, or "PBC," is a class of corporation designed to enable forprofit corporations to produce tangible public benefits while operating in a responsible and sustainable manner. PBCs are required to balance the interests of non-stockholder stakeholders (such as clients, local communities, and the public) with their own pecuniary interests, in such a manner that the public benefits identified in the entity's certificate of incorporation are promoted and achieved. The term *public benefit* generally refers to the positive impact (or reduction of a negative one) that is created because of the PBC carrying out its stated legal purpose, which may relate to a variety of societal, scientific, or other relevant benefits. PBC entities operate in a transparent manner and are required to report biennially to shareholders about their overall impact on shareholders and public interests.

# **Understanding the Nature of On-Call Contracts**

While the Town does have a list of potential capital improvement projects, EA understands the on-call nature of the contract is to support the Town in various unplanned projects. During previous contracts, EA has mobilized within hours after receiving a call from the Town to help with environmental needs. EA's Contract Manager Darl Kolar has been and will continue to be available to the Town when needed. With access to over 266 local professionals, Mr. Kolar has consistently identified the right experts to effectively address the Town's needs. EA's Berlin office provides the Town with immediate access to engineers, scientists, and construction managers/inspectors, ensuring rapid response and support. Examples of this responsiveness include:

- Accompanying Town staff in responding to homeowner questions and complaints
- Providing scheduled and unscheduled inspections of projects under construction

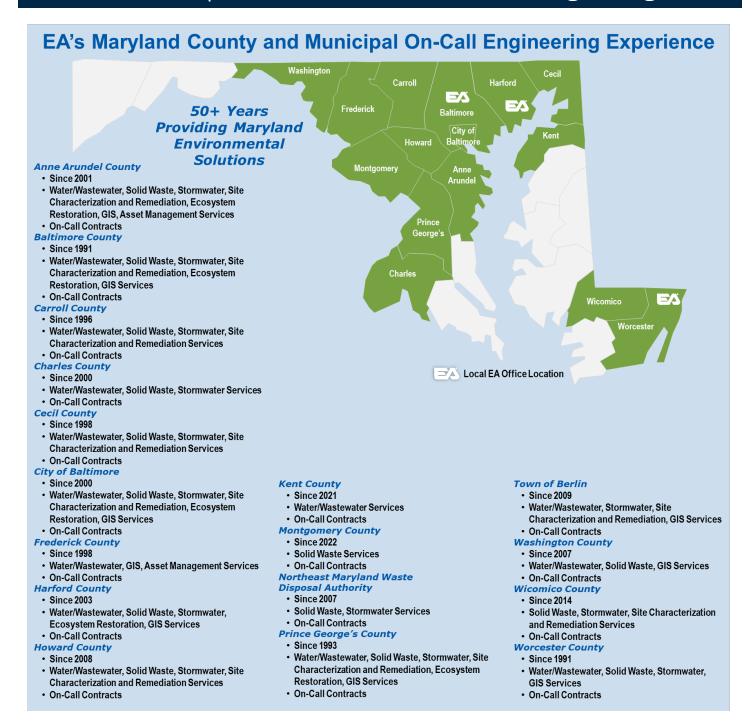
- Completing independent inspections of Townowned and privately-owned stormwater management facilities
- Assisting in determination of storm drainage and/or stormwater repairs or failures
- Performing budgetary cost estimating for future projects
- Reviewing grant opportunities for project feasibilities

EA's team provides a range of unique specialty services that are readily available to support the Town when unplanned projects arise. In addition to EA's stormwater management engineers and scientists, EA

### **Extension of Town Staff**

EA treats on-call contracts such as the current agreement with the Town of Berlin, as true on-call services. We pride ourselves in our ability to respond quickly to Town requests and resident concerns. EA considers our engineers and scientists a true extension of the Town staff and aims to provide seamless support. We recognize that not all issues require complex design solutions and consistently evaluate both short-term repair options and long-term stability for all stormwater improvements.

has a deep bench of in-house professionals including geologists, professional wetland scientists, certified arborists, and other experienced environmental scientists. Because stormwater projects often impact environmental features, having experts in-house helps avoid delays and reduces reliance on external consultants. For example, EA has conducted wetland delineations and rare, threatened, and endangered species evaluations for stormwater improvement projects within the Town. This unique capability, combined with EA's broad environmental expertise, including endangered species assessments, complex permitting, soil and groundwater characterization, and remediation, ensures our team can quickly and effectively guide solutions when unexpected challenges arise.



# 3.3 EXPERIENCE WITH SCOPE IN SIMILAR CONTRACT/PROJECT ROLES

Storm drainage and stormwater management are a critical aspect of site engineering and facility management in today's environmentally conscious climate. EA's unique blend of experienced scientists and engineers enables us to deliver comprehensive stormwater management services—from site evaluation and stormwater modeling to facility design, permitting, construction management, and long-term monitoring. Our integrated approach ensures that mandatory performance criteria are met, and the stormwater management facilities and storm drain structures are the most effective, cost-efficient, and maintenance-conscious options, while conforming to existing site restrictions and features. EA has built a strong record of successfully executing and managing water quality and quantity projects that meet both local stormwater management needs and permitdriven water quality improvement goals. Our team consistently delivers projects on schedule and within budget, helping clients achieve their objectives efficiently and effectively.



EA has an outstanding reputation for technical expertise in stormwater management design, responsive service, and judicious use of client resources based on our 52year history. Over the years, we have performed more than \$28M on stormwater management services.

Our project team is a well-rounded group of professionals with expertise in stormwater management, regulatory and environmental compliance, permit negotiation, consent order support, ecology, toxicology, and state and

## **Recognition for Providing Outstanding Stormwater Services**

In 2013, EA was recognized by former Maryland Governor Martin O'Malley for supporting the development of a new stormwater management utility for the Town. EA guided the town in a direction of improved awareness, responsiveness, and capability to for water and stormwater initiatives.

municipal planning. We understand the dynamics between public entities that collaborate on project teams and shared funding. EA has strong working relationships with local and state regulators, local soil conservation districts, Natural Resources Conservation Service professionals, and other project stakeholders essential to successful stormwater management projects.

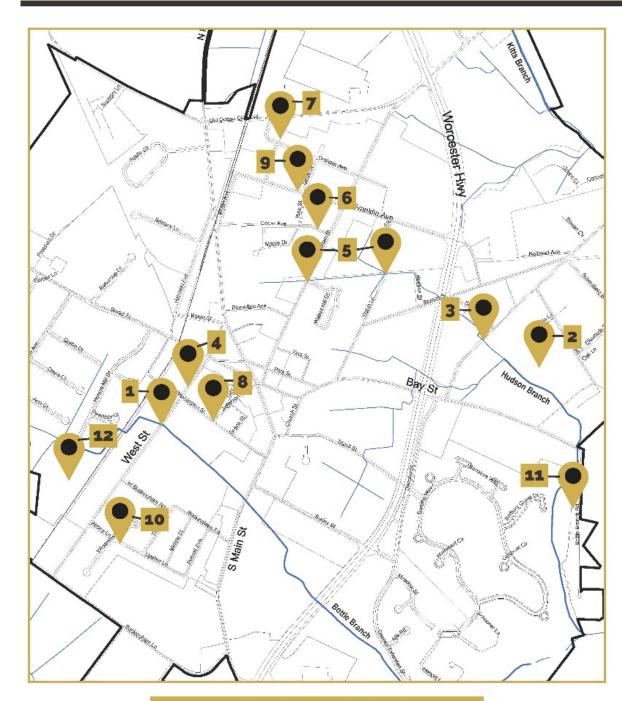
Below are some examples of the stormwater management design services EA regularly provides:

- Closed and open system drainage infrastructure
- Stormwater management best management practices (BMPs)
- Structural stormwater practice retrofits
- Stream restoration
- Hydrologic and hydraulic evaluations
- Outfall and channel evaluations
- Outfall stabilization
- Floodplain studies and modeling
- Flood control analyses
- Fish passages
- Ecological/habitat restoration

EA is proud to continue serving the Town of Berlin's as your trusted on-call stormwater management engineer. To date, we have established a stormwater management review program; reviewed all private and commercial development projects for stormwater management approval; and assisted with flooding evaluations, maintenance, and stormwater utility fees. EA has also provided design, permitting, and construction phase services for over 12 stormwater improvement projects. The following figure is a full-size drawing (24-inch x 36inch) that EA prepared as a public workshop in 2024. The workshop was heavily attended by Town administration, staff, Maryland DNR, MCBP, Assateague Coastal Trust, Town residents, and other stormwater non-profit organizations. The workshop was very well received and provided an opportunity for EA to assist the Town with demonstrating the successes of its stormwater management program.

### **Project Experience Relevant to Scope**

### **Town of Berlin Stormwater Management Projects**



Total Construction Cost: ~\$3.9M

# **Funding Partners**

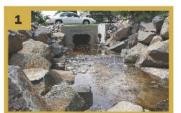












#### West Street Culvert Replacement

- Spring/Summer 2013
- Replace Existing 30-inch Corrugated Metal. Pipe Culvert beneath West Street (Bottle Branch Stream) with a 3-foot tall by 5-foot wide box culvert.
- Construction Cost \$134,000+/-



#### Flower Street Offline Wetland

- Summer/Fall 2016
- Construction of a 15+/ Acre offline wetland to accept flow from Hudson Branch
- Construction Cost \$399,000 +/-



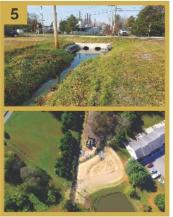
#### Flower Street Culvert Replacement

- Winter 2016/2017
- Replace Existing twin 24-inch by 38-inch Corrugaled Metal Pipe Culvert beneath Flower Street (Hudson Branch Stream) with a 2-ft 8-in by 14-ft box culvert.
- Construction Cost S330,000+/-



#### West Street Storm Drain Replacement

- Spring/Summer 2017
- Replace existing failing 18-inch terre cotta and corrugated metal pipe storm drainage pipes with 30-inch HDPE pipes.
- Construction Cost S426,000 +/-



#### William Street Culvert and Offline Wetlands

- Summer/Fall 2017
- Replace existing twin 24-inch corrugated metal pipe culvert beneath William Street (Hudson Branch tributary) with twin 24inch by 38-inch elliptical reinforced concrete pipe culverts Construction of 0.15 acres of offline welland to accept flow from Hudson Branch.
- Construction Cost: \$396 000 +/



#### Phase 1 Stormwater Upgrades: William St., Cedar Ave., Maple Dr.

- Spring/Summer 2018
- Replace existing storm drainage pipes, inlets, and manholes from upstream connection to the existing William Street Culvert (Hudson Branch) within William Street, Cedar Ave. and Maple Dr.
- Construction Cost: \$354,000+/-



#### Graham Avenue Submerged Gravel Wetlands

- Construction of a 0.3-acre submerged gravel wetland on vacant lands Owned by the Town that previously operated as an electrical substation and connect to existing storm drainage system within Nelson Street.
- Construction Cost: \$180 000+/-



#### Washington Street Outfall Replacement

- Fall/Winter 2022/2023
- Replace existing failing 15-inch terre colla and corrugated metal pipe storm drain pipes with 15-inch HDPE storm drain pipes.
- Construction Cost: \$120,000+/-



#### Phase 2 - Stormwater Upgrades: Pine St., Franklin Ave., Nelson St.

- Fall 2023 Summer 2024
- Replace existing storm drainage pipes, inlets, and manholes from end of Phase 1 work in intersection of Pine St., Maple, Dr. Cedar Ave. through Pine St., Franklin Ave., and Nelson Street.
- Construction Cost: \$1.5M



#### Westminster, Abbey, and Upshur Stormwater Management Upgrades Design

- Spring 2023 Spring 2024
- Retrofit Design of two legacy stormwater facilities into submerged gravel facilities for water quality improvement and reducing of tocatized nuisance flooding.



#### Hudson Branch Stream Restoration Design

- Design for the restoration of Hudson Branch from Assateague Road to the Wastewater Treatment Plant at the end of Bottle Branch Road.



#### Westside Offline Wetland Concept Design

- Summer 2024 Current
- Design of an offline wetland system (similar to Flower Street Offline Wetland) to accept flow from the headwaters of Bottle Branch Watershed.

# **Additional Projects**

	Scope													
Project/Client	Project(s) in MD	Small Scale Drainage Improvements and Retrofits	Fish Passage and Stream Enhancement	Hydraulic and Hydrologic	Contract Plans and Specifications	Surveying Services	Geotechnical Services	Permitting and MDE Compliance	Stormwater Management Reviews	Construction Phase and Contractor Coordination	Review of Planning Documents	Grant Research and Administration	Public and Government Meeting Participation	Right-of-Way and Easement Review and Acquisition
On-Call Stormwater Management (Current Contract Holder) Town of Berlin	•	•	•	•	•	•	•	•	٠	•	٠	•	•	•
On-Call Stormwater Management Baltimore City	•	•	•	•	٠	•	•	•	٠	•	•	٠	•	•
Stormwater Projects and Management and Watershed Analysis and TMDL Pollutant Load Modeling Prince George's County	•	•		•	•	•	•	•		•			•	•
Stormwater Support and Stormwater Best Management Practice Inspections, Tracking, and Database Harford County	*	•		•	•	•	•	•	•	•	•		*	
On-Call Engineering Services Worcester County	٠	•		•	•	•	•	٠		•	٠	•	•	
NPDES Municipal Stormwater Permit Consulting Services and Stormwater Management Plan Review Services Charles County	*	•		•	•	•	•	•	•	•	•		•	•
Illicit Discharge Detection Monitoring Cecil County						•		•	<b>*</b>		•		•	
McDonogh Road Water Quality Retrofit Design and Post- Construction Monitoring Baltimore County	•	•	•	•	•	•	•	•		•	•		•	
Plan Review and Engineering Planning Services Havre de Grace	•			•	•	•	•	•	<b>•</b>	•	٠			

# **Additional Projects - Continued**

	Scope													
Project/Client	Project(s) in MD	Small Scale Drainage Improvements and Retrofits	Fish Passage and Stream Enhancement	Hydraulic and Hydrologic	Contract Plans and Specifications	Surveying Services	Geotechnical Services	Permitting and MDE Compliance	Stormwater Management Reviews	Construction Phase and Contractor Coordination	Review of Planning Documents	Grant Research and Administration	Public and Government Meeting Participation	Right-of-Way and Easement Review and Acquisition
Supplementary Illicit Discharge Detection and Elimination Services MDOT SHA		0, 10				•		•	•		•		•	
Assessment of Controls Compliance Support Little Catoctin Creek Stream Restoration MDOT SHA	٠	•		٠		•	٠		٠		٠			
Stormwater Compliance Services WSSC	٠	•			•	•		•	٠		٠		•	
Permitting and Stormwater Compliance Services MDTA	٠					•		•	٠		•		٠	
Stormwater Management Services NMWDA	•	•		<b>*</b>	•	•	<b>•</b>	•		•	•		•	
Stormwater Management Services Howard County	٠	•		•	٠	•	٠	•		•	•		•	

## **Project Examples**

# **Stormwater Management On-Call Services**

# **Town of Berlin, Maryland**

As an integral part of the Town's on-call contract, EA Engineering, Science, and Technology, Inc., PBC (EA) has completed and is currently designing several stormwater improvement projects aimed at addressing localized flooding and enhancing water quality. Below are examples of design tasks EA has completed for the Town of Berlin.

### **Channel Improvements at West Street**

EA successfully permitted and designed channel improvements at West Street to address concerns with localized flooding, water quality, and stream bank stabilization. Frequent flooding at the West Street culvert crossing led to significant overtopping of West Street by stormwater runoff from adjacent branches. Nearby residents had more than two feet of standing water in their dwellings. Through thorough site evaluation and communication with the affected community, EA was able to address the concerns with a retrofit that resulted in improved water quality, reduced flooding, and a stabilized stream bank. EA used a variety of local stormwater practices, water calming techniques, native rocks, and local water-tolerant vegetation to bridge form and function, ultimately blending the retrofit into the surrounding community.

EA assisted with securing a majority of project funding via a grant from the Maryland Department of Natural Resources (DNR). EA worked closely with local organizations such as the Assateague Coastal Trust and the Maryland Coastal Bays Program (MCBP) to study and develop a solution that sufficiently addressed flooding and water quality concerns while maintaining visual appeal. EA's approach revitalized the local community and reassured them that their concerns were heard and addressed. After construction, many species of fish and aquatic life immediately took residence in the plunge pools. Construction challenges included the proximity of adjacent homes and sizing conflicts with the new culvert and existing utilities. EA worked closely with the Town and construction contractor to lower the existing utilities to allow the project to be completed within budget.

### **Relevant Highlights**

- Project in MD
- Small Scale Drainage Improvements and Retrofits
- Fish Passage and Stream Enhancement
- Hydraulic and Hydrologic
- **Contract Plans and Specifications**
- Surveying Services
- Geotechnical Services
- Permitting and MDE Compliance
- Stormwater Management Reviews
- Construction Phase and Contractor Coordination
- Review of Planning Documents
- Grant Research and Administration
- Public and Government Meeting Participation
- Right-of-Way and Easement Review and Acquisition

#### Location

Berlin, Maryland

#### **Period of Performance**

2009 – Ongoing

EA conducted a wetland delineation and coordinated an on-site jurisdictional determination with the Maryland Department of the Environment (MDE), which retained jurisdiction over the area. EA worked closely with MDE's Wetlands and Waterways Division to prepare wetland impact plates, develop the permit application, and perform hydraulic analyses related to the culvert replacement. Additionally, EA assisted the Town of Berlin in securing all necessary approvals from both the Worcester Soil Conservation District (SCD) and MDE.

The design included replacing the existing and significantly undersized culvert and a regenerative step-pool creating habitat for fish and aquatic life and plants to thrive. Sandstone boulders were used for bank stabilization, and the voids between the boulders were filled with local compost and sand media to promote the

growth of more than 300 native water-tolerant ferns and flowers. Cobblestone riffle grade controls provided flow disruption and settlement, while making the stream bed appear natural. EA replaced traditional curb inlets with curb breaks and cobble downchutes to further promote natural aesthetics. This also improved water quality and treatment of roadway runoff. The channel improvements at the West Street culvert crossing immediately alleviated flooding concerns and stabilized the branch banks. Community feedback included firsthand accounts of the retrofit's effectiveness in managing significant rainfall events. The Town of Berlin, along with residents and organizations, is enthusiastic about continuing similar retrofits to address other highpriority flooding areas along Bottle Branch.

### **Flower Street Offline Wetland Project**

EA successfully permitted, designed, and provided construction administrative services for an offline wetland creation and associated channel improvements adjacent to and within Hudson Branch. The project addressed localized flooding, water quality, and stream bank erosion.

Due to significantly undersized existing culverts, frequent flooding events at the Flower Street culvert and Hudson Branch crossing were occurring in a residential area. Residents experienced significant and reoccurring water damage, erosion, and general anxiety during relatively small rainfall events. Through a complete site evaluation and communication with the affected community, EA was able to address all concerns with a retrofit that resulted in improved water quality, reduced flooding, increased aquatic habitat, and stabilized stream banks.



EA assisted with securing much of the project funding via a grant from Maryland DNR. EA worked closely with local organizations such as the Assateague Coastal Trust and MCBP to study and develop a solution that sufficiently addressed flooding, improved aquatic habitat, and addressed water quality concerns, while also providing a visual appeal.

EA also helped the Town obtain an easement from Worcester County, Maryland for the right to construct the offline wetland on their own land. Upon development of the wetland footprint, EA coordinated with a Maryland-Licensed Professional Land Surveyor to develop an easement exhibit for recordation.

EA completed a wetland delineation and met on-site with MDE for the jurisdictional determination. MDE maintained jurisdiction, and EA coordinated with the MDE Wetland and Waterways Division to prepare and compute wetland impact plates, permit application, and hydraulics associated with the culvert replacement. EA assisted the Town of Berlin in obtaining all required approvals from Worcester SCD and MDE.



## Flower Street Culvert Replacement Project

EA designed and oversaw the construction of two side-by-side reinforced concrete box culverts, each measuring 2-feet, 8-inches in rise and 7-foot in span to replace the undersized and deteriorated culverts. The upgrade enabled full passage of the 10-year storm event. Using hydrologic engineering center river analysis system (HEC-RAS) modeling, EA analyzed the drainage area and demonstrated that proposed conditions would locally reduce flood stages during larger storm events, significantly decreasing upstream flooding. As part of the project, EA also designed and constructed an offline wetland area along Hudson Branch between Flower Street and Bay Street to enhance water quality, reduce nutrient loads, and provide stormwater attenuation during major storm events.



These improvements were complemented by channel enhancements along Hudson Branch in the same area. which eliminated the tailwater effect at the Flower Street culvert and lowered water surface elevations within

the branch.

EA's design incorporated properly sized culverts and an offline wetlands attenuation impoundment and incorporated stabilization and erosion controls to create more habitat for fish, aquatic life, and plants to thrive, while also addressing the flooding. Additionally, approximately 2,000 linear feet of Hudson Branch underwent essential maintenance including removing 10,000 cubic yards of sediment to generate additional storage and provide a more efficient conveyance system, reducing flood risk during peak rainfall. Sharp turns along Hudson Branch were softened, riprap armor was installed, and banks along the branch were further stabilized.



The channel improvements at Flower Street immediately demonstrated the ability to alleviate flooding and stabilization issues. Based on community feedback and the retrofit's proven performance during storm events, the Town of Berlin and local organizations were eager to pursue similar projects and address other high-priority flooding areas along Hudson Branch.

### **West Street Emergency Storm Drain Replacement**

The Town of Berlin was faced with significant road failure due to settlement and collapse of an existing storm pipe within West Street. EA designed and permitted the replacement of approximately 1,200 linear feet of failing 18inch terra cotta pipe with new 36-inch high-density polyethylene pipe within West Street to a point of outfall within Bottle Branch. The design included a hydraulic model utilizing HydroCAD for the assessment of the required size. Due to the limited proposed pipe cover, EA maximized the size using an elliptical pipe. EA obtained approval from the MDE Wetlands and Waterways Division for the minor impacts and discharge into Bottle Branch. EA provided the Town of Berlin with construction management, oversight, and inspection throughout the entire length of construction. During construction, EA coordinated the resolution of multiple utilities conflicts stemming from aged records and infrastructure. Construction phase services included submittal review, full-time construction inspection, daily reports, partial payment application review, change order requests, requests for information, and project closeout.



### William Street Culvert Replacement and Offline Wetland

Building on the success of the Flower Street Offline Wetland and Culvert Replacement projects, EA designed, permitted, supported grant procurement, and provided construction-phase services for culvert replacement, offline wetlands, culvert removal and convergence creation, and channel improvements at William Street and Hudson Branch. EA was tasked to permit and design a stormwater management retrofit project to address localized flooding, undersized conveyance piping, water quality, and projection of the Town's electrical utility.

This project is adjacent to the Town's Electrical Power Plant. Flooding events associated with a significantly undersized culvert system under William Street have historically resulted in significant financial impacts to the Town of Berlin by damaging



electrical generators within the power plant. As part of a concurrent project phase, undersized culverts at a tributary intersection were removed to create a more effective flow convergence. On each side of the convergence, EA designed an offline wetland for further water quantity and quality management. EA helped secure project funding through a Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant,

with additional support from the Maryland DNR and U.S. Environmental Protection Agency via a grant administered by MCBP. EA worked closely with MCBP to study and develop a solution that sufficiently addressed flooding, provided aquatic habitat, addressed water quality concerns, and provided visual appeal.

EA conducted a wetland delineation and met on-site with MDE for a jurisdictional determination. With MDE maintaining jurisdiction. EA coordinated with the Wetlands and Waterways Division to prepare wetland impact plates, submit the permit application, and address hydraulics related to the culvert replacement. EA assisted the Town of Berlin in obtaining all required approvals from Worcester SCD and MDE. Because Williams Street is a state road, EA coordinated with the Maryland Department of Transportation (MDOT) State Highway Administration's Highway Hydraulics Division and assisted the Town in securing the necessary approvals,

EA's design incorporated new properly sized culverts, an offline wetlands attenuation impoundment, and stabilization and erosion controls to create more habitat for fish, aquatic life, and plants to thrive while addressing flooding. The culvert design included two side-byside 30-inch equivalent elliptical reinforced concrete pipes to replace the undersized and deteriorated culverts. The construction allowed for the full passage of the 10-year storm event. HEC-RAS modeling was also conducted to study the drainage area and revealed that



flood stages were locally decreased in the proposed conditions for larger storm events and showed significantly decreased flooding within the upstream watershed. As part of the project, two offline wetland areas were constructed along Hudson Branch between William Street and Decatur Street to provide water quality and nutrient reduction. These offline wetlands also provided further storm attenuation during the larger storm events. The design was combined with channel improvements to Hudson Branch between William Street and Hudson Street to eliminate the tailwater effect on the Flower Street culvert and reduce water surface elevation within Hudson Branch. EA performed maintenance on approximately 1,400 linear feet of Hudson Branch, removing around 5,000 cubic yards of sediment from the stream bed to improve flow and reduce flood risk.

EA assisted the Town in securing an easement from the landowner to construct the proposed offline wetland on private property. Once the wetland footprint was developed, EA coordinated with

a Maryland-licensed professional land surveyor to prepare an easement exhibit for recordation.

# **Cedar Avenue, Maple Drive, and Pine Street Stormwater Management Upgrades**

EA designed, permitted, assisted with grant procurement, and provided construction phase services to upgrade and enhance the existing stormwater conveyance system within William Street, Cedar Avenue, Maple Drive, and the entrance into Pine Street. Design work included replacing the existing 19×30-inch elliptical corrugated metal trunkline with a 29×45-inch horizontal elliptical reinforced concrete pipe, relocating and realigning the sanitary sewer main, installing new sanitary sewer and water services, coordinating with MDOT SHA for work within Maryland

Route 377 (William Street), replacing stormwater inlets, and completing trench and pavement restoration. EA provided construction management, oversight, inspection, and grant administration throughout the project. This project was primarily funded by the Maryland DNR Chesapeake and Atlantic Coastal Bays Trust Fund, with

minimal Town funding. EA worked closely with the Town to manage reporting, tracking, invoicing, and final closeout documentation for each funding agency.

### **Graham Avenue Submerged Gravel Wetlands**

EA designed, permitted, helped secure grants, and provided construction-phase services for a 0.25-acre submerged gravel wetland on a vacant. Town-owned parcel formerly used as an electrical substation. The site is located in the headwaters of a high-priority, flood-prone area of the Town Design components included extending the existing storm drainage system along Nelson Street by approximately 200 linear feet to the wetland outfall structure, trench repair, and installation of new water services. EA conducted a value engineering evaluation with the selected contractor to align with the Town's financial obligations and available grant funding. EA provided construction management, inspection, and grant management services to the Town of Berlin



throughout the construction period. This project was unique in that the Town of Berlin's Department of Public Works constructed the submerged gravel wetland, while the Town contracted out the stormwater conveyance piping, new inlets, and restoration of the street, curb, and driveways along Nelson Avenue to the Graham Avenue intersection. The project was funded by multiple agencies, including the Chesapeake and Atlantic Coastal Bays Trust Fund, Maryland DNR (coordinated through MCBP), and the Town of Berlin. EA managed tracking, reporting, and closeout documentation for each funding agency.

### **Stormwater Financing Evaluation and Stormwater Utility**

EA was integral to the Town's success in establishing and implementing a stormwater management utility fee. The University of Maryland Environmental Finance Center (EFC) asked the Town to conduct a year-long evaluation and feasibility study on the financial impacts of necessary stormwater management improvements. EA worked closely with the Town and EFC to develop budgetary cost estimates for the proposed stormwater and flooding mitigation efforts. The team also participated in public outreach meetings (at least one in each voting district) led by EFC with support from the Town and EA, to inform residents about the urgency of these improvements. At the conclusion of the study, EFC prepared a detailed report recommending a financial plan to address the Town's decade-long flooding issues.

### Impervious Area Evaluation and Stormwater Utility Fee Establishment

To support the development of a stormwater utility fee, EA conducted an impervious area study of all nonresidential parcels in the Town, including commercial, government, and non-profit properties. Using aerial imagery and GIS, EA identified impervious surfaces and compiled parcel-level data (e.g., total area, impervious area, ownership). The Town used an average residential impervious area of 2,100 square feet as the equivalent residential unit (ERU) and assigned a \$25 ERU value for non-residential parcels. EA participated in public meetings, hearings, and the ordinance adoption process. The resulting fee structure includes a flat rate for single-family residences and a tiered rate for non-residential properties based on impervious area.

### **Funding Sources**

EA continually identifies funding opportunities and assists the Town with preparing applications and supporting documentation for various agencies. Below is a list of state and federal funding sources for which EA has either prepared grant applications, evaluated for consideration, or managed the grant process following award.

#### Chesapeake Bay Trust (CBT)

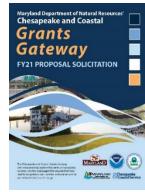
The CBT is a partnership with multiple municipalities including the City of Salisbury. The CBT offers several grant opportunities including their Outreach and Restoration Grant. This grant focuses on encouraging community outreach and engagement in activities that have a positive impact on natural resources. Activities that are generally funded include those that demonstrate restoration techniques and engage Maryland



citizens in activities that restore and protect the Chesapeake Bay and its tributaries. The Outreach and Restoration grant opportunity identifies three 'outcomes' or grant applications, which vary from public outreach, restoration, and implementation. EA assisted the Town of Berlin in preparing a successful grant application for the Graham Avenue Submerged Gravel Wetland project under Outcome 3 in the amount of \$75,000. EA manages the grant process by preparing progress reports, tracking, and closeout documentation. Additional CBT grant programs EA has evaluated or applied for on behalf of the Town include the Green Streets, Green Jobs, Green Towns (G3) Partnership and Watershed Assistance.

#### Maryland Department of Natural Resources (DNR)

Maryland DNR provides funding for water quality improvement projects through the Chesapeake and Coastal Grants Gateway program. This program was created to streamline the grant application process for municipalities. It provides a one-stop location for municipalities seeking technical and financial support for projects that create healthy and resilient ecosystems and communities. Grants are funded through a conglomerate of state and federal agencies including the Chesapeake and Atlantic Coastal Bays Trust Fund, the Coastal Resiliency Program, the Waterway Improvement Fund, the National Oceanic and Atmospheric Administration, and the Environmental Protection Agency. EA assisted the Town of Berlin in securing over \$1 million in funding from Maryland DNR and the Chesapeake Bay Trust Fund. The awarded funds



supported the design, permitting, and implementation of multiple water quality and flood mitigation projects. EA also helped administer the grant, including quarterly reporting and closeout documentation.

#### Federal Emergency Management Agency (FEMA)

FEMA administers three programs that fund eligible mitigation planning and projects that reduce disaster losses and protect life and property: the Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance, and Pre-Disaster Mitigation. The HMGP supports long-term hazard mitigation projects following a declared major disaster. After Hurricane Sandy, HMGP funds became available through the Maryland Emergency Management Agency (MEMA). EA managed the application process, resulting in a \$165,000 grant award to the Town for the William Street Culvert Replacement Project, which addressed recurring flooding affecting residents and the Berlin Electric Plant.

#### **Maryland Department of the Environment (MDE)**

MDE's Comprehensive Flood Management Grant Program supports local flood management planning. watershed studies, and capital projects for flood control. The program works closely with MEMA and FEMA. For FEMA/MEMA-approved projects, MDE shares the required 25% match with the municipality, reducing the Town's share to 12.5%. EA is currently assisting the Town of Berlin with applications for the Fiscal Year 2020 funding cycle.

#### U.S. Department of Housing and Urban Development Community Development Block Grant (CDBG)

CDBGs are typically tied to low-income housing areas and require a pre-application income survey of the service area for the proposed project. If the average income falls below the threshold, the project qualifies for funding. EA helped the Town apply for and secure a CDBG for the Flower Street Offline Wetland and Culvert Replacement Project. EA also supported the Town with the grant requirements including contractor solicitation and award, fair employment, wage rate interviews, quarterly reporting, and project closeout documentation.

#### **Stormwater Management Project Reviews**

EA helped the Town of Berlin establish an ordinance that transferred responsibility for reviewing, approving,

and maintaining inspections from Worcester County to the Town of Berlin. EA collaborated with the Town and MDE to prepare a stormwater management ordinance that outlined the requirements and regulations associated with stormwater projects. EA prepared public documents including a waiver request, fee schedule, concept, site development and final plan checklists, construction agreement, and inspection and maintenance agreement. EA reviews each project that meets the requirements for stormwater management review and provides a detailed checklist and supplemental explanation letter of necessary revisions prior to final approval. Additionally, EA manages the implementation of construction and inspection and maintenance agreements. Following construction, EA reviews as-built documents for final project approval and conducts routine inspections.

### **Public Involvement and Signage**

Many of the projects shared by EA and Town of Berlin have involved varying levels of public engagement, typically beginning with presentations to the Mayor and City Council outlining project needs, costs, and funding sources, whether Town, grant, partner, or a combination. Public meetings and workshops provide opportunities for residents to share input and local knowledge that helps inform project development. Since grant awards often require public engagement, EA supports these efforts by preparing presentations, project displays, and organizing volunteer cleanup and planting events. For example, EA has partnered with Maryland Coastal Bays on multiple occasions to plan, schedule, and present public workshops on both the overall stormwater program and individual projects.

Many grant-funded projects awarded to the Town with EA's support have included public outreach and education components. For the recent Westminster and Abbey Submerged Gravel Wetlands design project, EA, the Town, and the Maryland Coastal Bays Program coordinated a public meeting at Town Hall to gather community feedback.

Throughout this on-call contract, EA will support the Town by coordinating public meetings, developing project display boards, and attending events to present project details and answer technical questions from the public.

Upon project implementation, EA will assist the Town in developing educational resources as requested by the Town or grant agencies. For example, EA created educational signage for the Graham Avenue Submerged Gravel Wetland Project, designed in 2018 and constructed in 2019, which was included in a successful grant application.



# **Stormwater Projects and Management Prince George's County, Maryland**

### Office of Storm Drain Maintenance Operational Support

Since its inception, EA has supported the Office of Storm Drain Maintenance with various operational support needs.

EA has historically augmented the County's GIS capabilities with various on-call GIS services. In May 2024 EA started providing fulltime staff support to the office of Storm Drain Maintenance. Staff responsibilities include managing the public BMP inventory, including GIS data, inspection records, and the FY25 maintenance schedule, and ensuring BMP inspections and maintenance activities are completed on time. This involves coordinating closely with field staff, leading status meetings, tracking progress, and providing actionable feedback. Staff also frequently lead discussions to keep projects on track and meet objectives.

The team maintains web maps and applications used for inspection and maintenance tracking and serves as a liaison in workflows to determine

departmental ownership of public BMPs. Staff are responsible for monthly and annual MS4 permit compliance

and asset data.

### EA also acts as a co-manager and technical lead for the County storm drain inventory, collaborating with consultants to define data collection workflows and tools. The team provides direction, conducts testing, and offers feedback to guide system development.

reporting for DPWT and collaborates with the Department of Environment to reconcile public BMP inventories

Additional tasks include managing schema changes for both inventories; coordinating with consultants and County OIT to deploy GIS-feature services; and responding to GIS-related data requests tied to council inquiries, proposals, reports, or budget matters. This role also serves as a technical liaison in stakeholder meetings and inter-agency coordination efforts.

In December 2023, EA developed a plan to implement a work order management system for OSDM. This plan identified user permissions requirements, exciting assets, and required maintenance. The County has not implemented the work order management system to date but is now prepared to do so. Part of preparing the work order management system requires EA to provide the County with a geodatabase of the asset inventory for levees and pump stations.

Since 2021, EA has conducted triennial stormwater facility inspections for the Office of Storm Drain Maintenance, successfully completing over 800 inspections on schedule and within budget. In 2024, EA began using a collaborative setup between the County's and EA's ArcGIS Online organizations, enabling seamless data management, real-time progress tracking, and timely responses to EA's recommendations.

EA developed an asset management plan identifying the assets OSDM is responsible for maintaining. The infrastructure includes over 100,000 stormwater structures, 750 miles of pipes, 7.4 miles of levees, and 27 miles of channels. With coordination from OSDM leadership, the asset management plan defines assets, levels of service, and resources used by OSDM to maximize the value of stormwater infrastructure.

In 2023, EA staff conducted field reviews of contractor construction activities for OSDM. To support data management, EA created a SharePoint site, Microsoft Power Apps, and a Power BI report. The SharePoint site serves as a repository for photos and field data collected during inspections. The site includes several SharePoint lists to track projects, construction materials based on specifications, material quantities used at

#### Relevant Highlights

- Project in MD
- Small Scale Drainage Improvements and Retrofits
- ✓ Hydraulic and Hydrologic
- **Contract Plans and Specifications**
- Surveying Services
- **Geotechnical Services**
- Permitting and MDE Compliance
- Construction Phase and Contractor Coordination
- **Public and Government Meeting** Participation
- Right-of-Way and Easement Review and Acquisition

#### Location

Princ George's County, Maryland

#### **Period of Performance**

2021-Ongoing

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each site, and a daily log. Two power apps were created to enter data into SharePoint lists: one for recording material quantities used at each project and another for daily field observations. To support monthly reporting, two Power BI reports were developed: one summarizing daily field entries for a selected project, and another tracking material quantities used. A Microsoft form was also created to add new projects to the SharePoint list. Since launch, over 20 projects have been tracked. EA uses SharePoint to store the County's SWPPP and SPCC records. CEM is also providing dedicated engineering support to the Office of Storm Drain Maintenance to assist with the planning of the stormwater facilities maintenance and reconstruction needs.

#### **Storm Drain Inventory Data Collection**

EA serves as the project management team for the County and developed the requirements, data collection standards, operating procedures, and data collection protocols for the Storm Drain Inventory. EA staff coordinates with internal County offices, such as 311 and Office of Highway Maintenance, to inform them of where field teams are located and potential hazards identified. In Spring 2022, EA staff field verified storm drain structures near Bowie, Maryland, within the boundaries of Annapolis Road, John Hanson Highway, and Enterprise Road, EA staff verified 729 conveyances and 893 structures, including 416 inlets, 256 manhole structures, 41 end sections, 15 junction boxes, 14 pipe connections, and 6 head walls. On EA-collected structures, the EA team performed the following QA/QC checks in accordance with the Stormwater Drain Inventory Standard Operating Procedure: geometry QA tests, interactive and programmatic QA tests, structure/conveyance, and related tables QA tests. EA performed all work on the Azure database, which is managed by a separate consultant.

#### **Climate Resilience Asset of Waterway Crossing Stormwater Outlets**

The Office of Storm Drain Maintenance (OSDM) of Prince George's County DPW&T commissioned EA to complete the Swan Creek Climate Resilience Study. The study aims to support stormwater infrastructure and natural resource planning for waterway crossings and stormwater outlets within the watershed expected to be impacted by climate change through 2100. This report helped identify, prioritize, and plan, waterway crossing and stormwater outlet replacements or modifications in this area to enhance the resilience of these structures. Three waterway crossings and 48 stormwater outlets were assessed and rated through GIS processing and individual review, based on the "Resilience Assessment Framework for Enhancing Climate Resilience of Waterway Crossings Within Coastal and Near-Coastal Environments" methodology.



#### **Street Tree Inventory**

EA manages the database design for the collection of individual trees. Since 2019, EA has updated and maintained all the data in the Street Tree Inventory and authored the data management plan, which identifies update responsibilities and timelines. EA supports the County by incorporating new inventory data from various consultants into the database. Using this data, the County developed a Pruning Plan, which EA updates annually. EA also created a GIS-based Tree Assessment Risk Model that uses Street Tree Inventory attributes to prioritize high-risk tree removals and identify trees for County monitoring. The model ranks trees by condition (likelihood of failure) and location (consequence of failure), helping the County focus field efforts on high-risk trees in the right-of-way. It also provides a documented, repeatable process for determining which trees require field investigation for removal or monitoring.

EA used GIS tools to support the County's Ms4 permit goals by applying tree canopy as an impervious area treatment. This included identifying missing trees, estimating canopy area by species and diameter at breast height, and performing calculations based on the Chesapeake Bay Phase 6 Watershed Model for Load Reduction and Equivalent Impervious Acres. EA demonstrated that the tree canopy contributed an additional 172 acres previously unaccounted for, including over 90 acres above impervious surfaces—significantly impacting the County's MS4 goals.

To promote the County's tree management efforts, EA developed an Urban Forestry Program StoryMap in ArcGIS Online for internal meetings and public stakeholders.

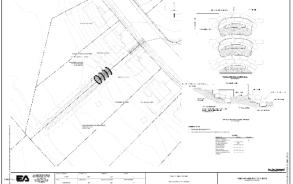
### **Stormwater Design Support**

EA conducted a feasibility assessment for potential infrastructure and water quality improvements at various locations for Prince George's County Department of Public Works and Transportation, Office of Engineering and Project Management, Engineering Services Division. The assessment supports the County in developing concept plans and preliminary cost estimates for storm drain infrastructure repairs, addressing citizen complaints, and identifying nearby opportunities for water quality and environmental site improvements.

#### Glenndale Heights

In response to citizen complaints in Glenndale Heights about standing stormwater, mosquito habitat, eroded outfalls, and inadequate stormwater conveyance, EA conducted a feasibility assessment for potential infrastructure and water quality improvements. Rather than focusing solely on the complaint areas, EA evaluated the entire Glenndale Heights Subdivision to support comprehensive solutions for the County. During the site assessment, EA identified approximately 10 locations for potential stormwater management practices, 1 outfall repair project, and 12 impervious area removals. EA reviewed the historical land-use using PGAtlas. reviewed the environmental features using Maryland's Environmental Resources and Land Information Network (MERLIN), and documented the existing condition. For the stormwater management practice and outfall repair locations, EA performed hydrologic, hydraulic, and stormwater management computation for the treatment area calculations to develop concept designs and size the practice within the physical site constraints. EA prepared a report that included historical land use, existing conditions, hydrologic and hydraulic computations, concept sketches, permitting needs, total maximum daily load/stormwater management credit analysis, and cost analysis for the County's review. EA calculated nutrient removal rates of 96.81 pounds of total nitrogen, 21.56 pounds of total phosphorous, 6.24 tons of total suspended solids, and 6.43 acres of impervious equivalent acres for all 23 sites.





#### **Cedar Ridge Drive**

The citizens along Cedar Ridge Drive in Oxon Hill expressed concern about the lack of stormwater conveyance along the roadway. Most of the road does not have a defined drainage conveyance system until near the cul-de-sac in which improvements constructed in June 2013 by the Department of Public Works and Transportation convey flow via an 18-inch high-density polyethylene storm drain to the site's outfall. EA recommended roadside drainage improvements along Cedar Ridge Drive, including defined concrete-lined swales, culverts, and concrete driveway aprons, particularly along the southern edge, to enhance stormwater conveyance. Additionally, EA proposed a four-step pool system to direct discharge toward the existing outfall on Carey Branch. The last pool includes a level spreader weir to maintain existing flow patterns and ensure stable discharge into Carey Branch. EA prepared a report which included historical land use, existing conditions, hydrologic and hydraulic computations, concept sketches, permitting needs, total maximum daily load/stormwater management credit analysis, and cost analysis for the County's review. The EA team also calculated nutrient removal rates of 17.5 pounds of total nitrogen, 4.3 pounds of total phosphorous, 1.3 tons of total suspended solids, and 1.70 acres of impervious equivalent acres.

#### **Norwood Lane Outfall**

A 24-inch storm drain concrete apron had dropped six feet due to soil erosion beneath it since installation. EA conducted a field assessment, performed hydrologic and hydraulic calculations, and developed multiple concept plans, including a step pool conveyance, pipe extension, and drop inlet, to safely transfer stormwater to the stream elevation below. Based on EA's plans, the County chose to install the drop inlet and selfperformed the work in Summer 2020.

#### 4408 Brinkley Road Concept Design

Citizens complained of an unnamed tributary to Henson Creek encroaching and eroding their property. EA developed a concept design addressing citizen complaints and provided it to the County for review. The concept design included reviewing historical land use with PGAtlas, reviewing environmental features with MERLIN, documenting the existing condition, and developing a potential solution to address the concern and provide SWM. EA recommended installing two SWM facilities to manage 1.5 acres of impervious area to the property and a possible stream re-alignment and stabilization that would result in 11 impervious acres of treatment. EA provided a potential cost of construction based on the County's indefinite quantity contract.

#### **Sunnyside Avenue Bridge Ecological Toxicity Support**

EA performed environmental sampling for DPW&T at the Sunnyside Avenue Bridge project in Beltsville, MD. DPW&T experienced high groundwater and saturated soils during jacking pit excavation for the proposed directional bore of casings for water and sewer utility crossings under Indian Creek as part of the Sunnyside Avenue Bridge project. The directional bore was planned to be 20 feet downstream from the bridge. DPW&T hired LJS Waterproofing to stabilize the soils using an expansive hydrophobic (water repelling) chemical grout (Soilgrout AV-275 and Soilcat AV-276) to



allow the completion of the directional boring. EA staff were on-site to document field-observed conditions and methods during injections and collect sediment and water samples after injections. EA's ecotoxicological laboratory performed ecotoxicological and chemical analysis findings for samples taken during injections. EA staff prepared and submitted a report of findings with photo log and laboratory results to the County.

### **Additional Stormwater Management Projects**

#### Sandy Hill Ponds Outfall Retrofits; Sandy Hill Creative Disposal Project

EA is conducting pre-design investigation, design, and permitting for pond outfall improvements at two sedimentation basins located at the former Sandy Hill Creative Disposal Project, a closed County landfill facility. Improvements to Pond No. 2 include restoring approximately 300 linear feet of severely eroded outfall channel and reconstructing the embankment and principal spillway to meet current regulatory standards and extend the facility's lifespan. Pond No. 3 shows signs of a compromised principal spillway, with the riser and barrel in disrepair due to corrosion of the corrugated metal structures. EA performed a confined space inspection of the large diameter barrels to determine the extent of disrepair. Improvements to Pond 3 include removing the existing principal spillways to construct new spillways that are compliant with current regulations. A subcontractor performed topographic surveys and geotechnical investigations, which EA managed at each Pond. EA provided natural resource support including a wetland delineation, forest stand delineation, and natural resource permitting. EA is providing full design and permitting services at both the County and State levels for improvements to Pond No. 2 and Pond No. 3.

#### **Cabin Branch Culvert Replacement**

EA designed a reinforced concrete box culvert to replace an undersized twin corrugated metal pipe culvert that served as a site access road crossing over Cabin Branch. The replacement culvert was designed to reduce roadway overtopping frequency and minimize potential damage during major storm events that exceed the culvert's capacity. EA used NRCS TR-55 to compute drainage area characteristics, then employed hydrologic

engineering center (HEC) hydrologic modeling system (HMS) to compute stream discharges. The existing culvert and proposed replacement options were modeled using Federal Highway Administration HY-8 culvert software. The proposed culvert replacement will reduce overtopping without detrimentally impacting a County bridge downstream.

#### **GIS Services**

#### **ArcMap to ArcGIS Pro Conversion**

Prince George's County DPW&T is responsible removing snowing from 2,000 miles of County-maintained roads. The County is divided into five snow districts with 75 snow routes. The County used ArcMap and had 75 different MXD files to create their snow maps prior to the 2018 – 2019 season. For the 2018–2019 season. EA created ArcGIS Pro Projects and refreshed the appearance of the Snow Map. ArcGIS Pro allowes saving multiple maps in the same project file, thereby reducing file management of 75 MXD to five ArcGIS pro



project files. The refreshed look includes consistent road labeling using Maplex for all the roads on the snow map and snow area outlines thinning and removing unnecessary data. EA uploaded the five ArcGIS pro projects and resources to the County SDE Server.

#### **Street Sweeping**

EA provided GIS support for Prince George's County's Residential Street Sweeper Program (RSSP). The RSSP aims to enhance street cleanliness and safety by implementing a systematic approach to sign management related to street sweeping activities. EA's main objectives were (1) identify and edit sign locations using ArcGIS Online, (2) identify sign points that were not in the regulatory signpost, and (3) ensure that the GIS data is updated with accurate attributes and photos in order for accurate placement of the sign.

EA used DPWT's ArcGIS Online environment to assess existing sign locations, remove planned street sweeping signs from regulatory signposts, identify new potential sign sites, and attach location-specific photos. This effort emphasized collaboration with DPWT to ensure regulatory compliance and effective sign installation.

#### Salt Management Plan

EA is developing a salt Mmanagement plan (SMP) to meet requirements under the MS4 Permit for Prince George's County. The MS4 Permit requires the County to submit and implement a plan to minimize the use of deicing and anti-icing materials, thereby reducing negative environmental impacts while maintaining safety and mobility. EA is developing a draft SMP to meet this requirement, with guidance from the Maryland Department of Transportation, State Highway Administration's Maryland Statewide Salt Management Plan. The SMP includes current and future methods that the County uses to track annual usage of salt and best practices to reduce annual usage. EA is working closely with County staff to incorporate existing standard operating procedures, goals, objectives, and details into the plan so that it will be easily implemented after its submission in the third year annual MS4 report and improved in future years.

#### Stormwater Pollution Prevention Plans (SWPPPs) and Spill Prevention, Control and Countermeasure (SPCC) Plans Support

EA updated SWPPPs and SPCC plans and provided additional SWPPP support for three Prince George's County facilities. The team conducted site visits, interviewed facility personnel, and reviewed documentation to ensure each SWPPP met the requirements of Maryland General Permit No. 20-SW-A for industrial stormwater discharges. Updates reflected current site conditions and incorporated new requirements, including climate change considerations, identification of potential PFAS sources, and action implementation measures (AIM).

EA continues to support the SWPPP program by conducting quarterly visual monitoring at multiple facilities and coordinating with contractors to complete quarterly routine visual facility inspections and annual comprehensive site compliance evaluations. SPCC Plans were developed alongside the SWPPPs for facilities storing over 1,320 gallons of oil in aboveground tanks, in compliance with 40 Code of Federal Regulations (40 CFR) 112 and Code of Maryland Regulations (COMAR) 26.10. As part of the development of the SPCC Plans, EA evaluated each facility's regulatory compliance, identified any non-compliance issues, and provided recommended actions with timelines. Each plan included clear, regulation-compliant site figures.

# **Stormwater Management Plan Review Services**

# **Charles County, Maryland**

EA is providing stormwater management plan review services for development projects across Charles County on behalf of the Department of Planning and Growth Management. EA continues to serve as a reliable extension of County staff by performing timely reviews in accordance with County schedules. EA also acts as a technical resource, leveraging its reviewers' direct knowledge of current and evolving Maryland and Charles County stormwater regulations.

Since 2011, EA has performed several thousand reviews for a variety of development projects including residential, commercial and industrial and institutional sites. Our reviewers verify the project's compliance with a number of regulatory guidance documents and requirements, including:

- Maryland Stormwater Design Manual
- Charles County Stormwater Management and Storm Drainage
- Charles County Plan Preparation Package for Development Services Permits.

# **Relevant Highlights**

- Project in MD
- Small Scale Drainage Improvements and Retrofits
- Hydraulic and Hydrologic
- Contract Plans and Specifications
- Surveying Services
- **Geotechnical Services**
- Permitting and MDE Compliance
- Stormwater Management Reviews
- Construction Phase and Contractor Coordination
- **Public and Government Meeting** Participation
- Right-of-Way and Easement Review and Acquisition

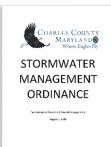
#### Location

Charles County, Maryland

#### **Period of Performance**

2014-Ongoing





EA is responsible for reviewing projects at concept, site stormwater and final design. The work consists of verifying the project meets the requirements of Charles County's stormwater management regulations, including environmental site design to the maximum extent practicable. EA is also responsible for reviewing and verifying all calculation inputs and outputs, confirming design information on the plans, verifying all standard notes and details are included. checking hydrologic/hydraulic calculations as needed, preparing written comments, answering telephone inquiries and attending meetings, calculating stormwater management review fees, determining stormwater management bond amounts and calculating stormwater management inspection fees.

EA consistently meets the review schedules set by the County for returning comments and/or confirming a project is ready for approval. Our team continues to expedite reviews at the County's request for high priority projects that require additional attention.

EA prepared a public-facing guidance document on Submerged Gravel Wetlands for the County, clarifying Maryland Department of the Environment (MDE) draft guidance and adding design requirements. EA has reviewed residential, commercial, and

I wanted to take a moment to express my personal gratitude, as well as the gratitude of my staff, for the diligent work EA Engineering has provided during these trying times. As my team has been constantly pivoting to adjust to the new mandates and guidelines that came our way through executive orders and state and local edicts, EA **Engineering has adjusted right** alongside us and have remained a stalwart partner through it all. The construction industry never took a break and neither did you and the dedicated staff of EA **Engineering. For that I am** grateful.

Deborah Carpenter, Director Charles County Dept. of Planning and Growth Mgmt. 15 April 2021

industrial projects that include the following stormwater practices:

- Submerged gravel wetlands
- **Swales**
- Micro-bio retentions
- Rain gardens
- Infiltration berms
- Nonstructural practices like roof top disconnects, sheet flow to conservation area, non-rooftop disconnects
- Chapter 3 structural practices

# **Stormwater Support Harford County, Maryland**

Since 2016, EA has supported Harford County's Department of Public Works Watershed Restoration Program under an open-end environmental monitoring contract.

#### **Stormwater Reviews**

Since 2022, EA has assisted Harford County with stormwater management reviews for all development projects disturbing more than 5,000 square feet. EA evaluates submissions for compliance with Harford County Stormwater requirements and the Maryland Stormwater Design Manual, generates comments, and provides marked plans for County issuance to permit applicants. EA also supports applicant inquiries and offers guidance on stormwater requirements for permit approval. To date, EA has reviewed over 100 stormwater plan submittals, providing support both remotely and on-site at the County.

#### **SOP Development for Alternative BMPs and Inspections**

Most stream restoration projects are required to have three of five-year monitoring plans and inspections as part of the authorization and associated permit conditions from the U.S. Army Corps of Engineers (USACE)/MDE. EA developed a stream restoration inspection protocol for the County to use on projects outside of the USACE monitoring requirement, entering the MDE triennial BMP inspection protocol. This stream restoration inspection protocol is based on the Chesapeake Bay Program's 2019 Recommended Methods to Verify Stream Restoration Practices Built for Pollutant Crediting in the Chesapeake Bay Watershed and modified for County efficiency as well as data and maintenance needs. EA developed a standard operating procedure to document the conditions and parameters of stream restoration projects and designate them as either functioning as designed or not functioning as designed. The inspection protocol relies on visual characterizations of 10 stream reach-scale morphological parameters, two riparian zone parameters, and two water quality parameters. The rating of five parameters is critical to determine if the stream is functioning as designed, with the remaining nine providing information on any potential future impairments or negative aspects of the design. The procedure includes guidance on time of year for inspections, field preparation, field inspection, and post-field data processing and summaries.

#### **MDE Triennial Inspections**

EA completed nine triennial inspections using the new protocol, including over 9,000 linear feet, in 2019 and is scheduled to complete triennial inspections again. To provide accurate and cost-effective data, stream restoration project as-built plans were uploaded into geographic information system (GIS) and georeferenced to allow for data points and image collection in the ArcGIS for Collector web application. The inspection team was able to match field conditions to the as-built design structures and record the function and condition. This also allows for repeatability in monitoring over time and a time lapse recording of photographs at each structure.

#### **USACE Pre- and Post-Restoration Monitoring**

To help the County meet USACE monitoring requirements, EA conducted pre- and post-restoration monitoring for two stream restoration projects and is scheduled to complete monitoring for a third in 2022 and 2023. Monitoring included site condition photographs, top-of-riffle documentation, and analysis of site functionality covering channel bed and instream structure stability, property/utility impacts, channel obstructions, and water quality. Reports were submitted to USACE. Monitoring completed in 2021 and 2022 covered 3,000 linear feet of stream restoration and 6,800 square feet of nontidal wetlands.

#### Restoration Project Asset Management Data Management

EA defined restoration project types, project-specific inspection and long-term maintenance requirements, and annual reporting format standards to develop a process and data structure for tracking monitoring, inspections,

#### Relevant Highlights

- Project in MD
- Hydraulic and Hydrologic
- Permitting and MDE Compliance
- Stormwater Management Reviews

#### Location

Harford County, Maryland

#### **Period of Performance**

2016 - Ongoing

and maintenance activities. This system streamlines MS4 annual report submissions for the County.

#### **IDDE Inspection Application**

Harford County is required by MDE to perform Illicit discharge detection and elimination (IDDE) inspections for compliance with the MS4 permit on an annual basis. IDDE inspections look for illicit discharges from nonstormwater sources during dry weather conditions and aim to find and eliminate the source. EA integrated the IDDE inspections with ArcGIS and developed efficient methods for data collection, tracking, and documenting in preparation for submitting the results in the annual report. EA provided documentation that provided a detailed overview of how the IDDE program was previously implemented and how it was incorporated into ArcGIS, the geodatabase design used, methods used for consistent data capture, instructions for field inspectors, real-time dashboards for tracking, and the implementation of automatic email notifications.

#### **Stormwater BMP Tracking**

EA developed a stormwater best management practice (BMP) geodatabase schema, populated the geodatabase with as-built information, developed an application to document BMP triennial inspection workflows, and streamlined the associated reporting to the Maryland Department of the Environment (MDE).

The data in the MDE municipal separate storm sewer system (MS4) geodatabase are used to assist MDE in calculating the total maximum daily load reductions to the Chesapeake Bay. The County wanted to implement a triennial inspection



application to record inspections for meeting the MS4 permit triennial inspection requirement and report the information in the MDE MS4 geodatabase. EA identified the requirements necessary for the triennial inspection application to successfully provide the BMP details for the County to perform its triennial inspections and MS4 reporting. EA developed a geodatabase schema to support MS4 reporting, enabling triennial inspectors to conduct inspections using ArcGIS Survey123. The Survey123 application, built within the County's ArcGIS Enterprise and Online environments, includes custom templates that match existing inspection formats. Inspectors access the app via an ArcGIS Web Map containing BMP feature services, property data, and County aerial imagery. The BMP feature service links inspections directly to BMP polygons, improving record tracking—especially on large sites with multiple BMPs. Inspectors now use tablets in the field to select BMPs and record inspections, which are instantly synchronized to the County's server for MS4 responsible party access. The familiar print template helped ease the transition to the new digital workflow.

EA's GIS professionals were on-site at the County office to populate both the BMP geodatabase and the MDE MS4 geodatabase using County-provided as-built PDFs. EA developed and executed a quality assurance/quality control plan for data entry, which included Python scripts and engineer logic review of the drainage area delineation, point of interest placement, and attribute accuracy. The engineering review ensured alignment with contour data, MDE MS4 guidance, and accurate drainage and impervious area values. For BMPs installed in 2018, EA populated 270 BMPs in the geodatabase ahead of the County's MS4 annual reporting deadline of December 31, 2018. EA is now working backward to include additional BMPs based on Fiscal Year of as-built acceptance.

# **Plan Review and Engineering Planning Services**

## City of Havre de Grace, Maryland

The City of Havre de Grace (the City) is located at the mouth of Chesapeake Bay and provides approximately 5,000 customers with potable water and sanitary sewer services. For more than 10 years, EA has provided master planning, engineering design, and construction

#### Relevant Highlights

- Project in MD
- Stormwater Management Reviews
- Review of Planning Documents

#### Location

Havre de Grace, Harford County, Maryland

#### **Period of Performance**

2024-Present

inspection services to the City on a range of projects that included hydraulic modeling, water usage and sewage flow projections, water and sewer infrastructure rehabilitation and replacement projects, and oversight of developer-installed public infrastructure.

Starting in 2024, EA expanded these services to include third-party review of developer-prepared stormwater management, storm drainage, potable water distribution, wastewater collection/conveyance, and sediment control plans to ensure compliance with applicable City. Harford County, and MDE regulations and guidelines. In this capacity, EA personnel function as an extension of City staff to perform detailed reviews of plans and calculations submitted for City approval and permitting and assists the City and property developers in resolving conflicts and concerns that may arise during design and construction.

#### **Development of Submittal and Review Procedures**

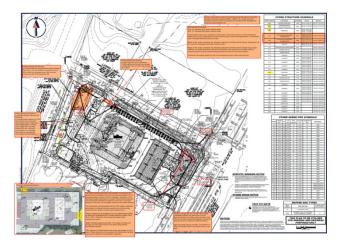
EA worked with the City to develop a procedure for the submittal and review of developer plans, including an application procedure and rate structure for application and review fees. EA met with City stakeholders to determine the current policies and procedures used for plan reviews and discussed needed updates or revisions to those policies. EA then documented the findings in an administrative manual applicable to all construction projects performed within the City limits. This policy lists applicable authorities and standards, procedures for plan submissions, reviews, start of construction, pre-construction meetings, inspections, and applicable fees.

#### **Stormwater Management Review**

In accordance with MDE Design Manual requirements and Chapter 169 Stormwater Management of the Havre de Grace Code, EA performs reviews of the phased stormwater management plans and reports (concept, site development and final stormwater management design plans), standard stormwater management plans for single lot residential construction, and post-construction as-built documents.

## Water, Sewer, and Storm Drainage Review

The City applies Harford County, Maryland, design and construction standards for all potable water, sanitary sewer, storm drainage, and roadway improvements within the City. EA reviews developer improvement plans for compliance using the City's Road and Storm Drain Plans Review Checklist.



Sample Bluebeam Revu plan markup of a developer stormwater management plan.

#### **Erosion and Sediment Control Review**

EA also provides review services for projects with disturbed areas less than 30,000 square feet (SF) in accordance with the Maryland Erosion and Sediment Control Manual and the Harford Soil Conservation

District requirements. Harford SCD review and approval is required for all projects with disturbed areas of 30,000 SF or greater.

EA uses Bluebeam Revu to perform plan reviews and help the City develop custom Bluebeam toolboxes for inserting standardized comments, required data tables, and design details. All deliverables include digitally marked-up plans, reports, and calculations in PDF format, along with a summary table referencing comment locations for easy tracking. EA reviews resubmittals to confirm prior comments are addressed and provides new comments as needed. Comments remain on a comprehensive tracking list until resolved, with final approval granted once all issues are satisfactorily addressed by EA and the City.

#### 4. PROJECT TEAM

## 4.1. KEY INDIVIDUALS, COMPANIES, AND TEAM ORGANIZATIONAL STRUCTURE

## Continuity of Key Staff

Supporting a contract like the Town's requires dedicated resources and a responsive team. To provide the Town with a full breadth of support, we have assembled a team with local resources, regulatory and stakeholder knowledge, and complementary experience and expertise to meet contract and TO objectives. Key personnel and subcontractors were selected based on their relevant skills and qualifications. The overall contract team and core management personnel for this effort are the same individuals currently working with the Town under the existing contract. They have completed, or are actively working on, more than a dozen projects. Retaining this management team eliminates any learning curve when starting a new contract. Darl Kolar, PE; Neil Hallowell; and Steven Lemasters, PE, LEED AP, are already familiar with the required scope of work, the Town, relevant regulators, and key stakeholders.

#### Darl Kolar, PE, MBA



Mr. Kolar has been working with the Town for over 16 years, performing stormwater management plan reviews as the contract manager for the current stormwater contract. Mr. Kolar is a registered Professional Engineer in Maryland with over 26 years of experience in civil and environmental engineering. He is highly qualified and committed to continuing his work with the Town in this role to the best of his ability. His expertise includes the design of landfill cells and closures, both passive and active landfill gas collection systems, site layout, erosion and sediment control, stormwater management design and plan review, hydrogeological investigations, groundwater and landfill gas monitoring, wastewater treatment, water supply, grant application support and preparation, and construction inspection and management.

Neil Hallowell



Mr. Hallowell has been working with the Town for over 15 years, performing stormwater management plan reviews as one of the assigned project managers for the current stormwater contract. Mr. Hallowell is an experienced and qualified professional, who looks forward to continuing his work with the Town in this role to the best of his ability. He brings 18 years of experience in engineering design and construction management, with a background that includes work for the Maryland State Highway Administration, Worcester County, Wicomico County, Sussex County, Town of Berlin, City of Salisbury, FEMA, Delaware DNREC, and the Air Force Center for Engineering and the Environment. His expertise spans municipal water and wastewater projects, stormwater management reviews, wetland creation, stream restoration, and private commercial and residential design and permitting. Mr. Hallowell has

a strong working knowledge of local permitting processes and is skilled in site layout, landfill and road design, sewer and water main layout, pump station and force main design, grading, stormwater management, wetland and stream restoration, erosion and sediment control, and compliance with local codes and ordinances.

#### Steven Lemasters, PE, LEED AP



Mr. Lemasters has worked with the Town for over nine years, primarily performing stormwater management plan reviews. He has served as the lead project engineer and engineer of record, acting as one of the assigned project managers under the current stormwater contract. Mr. Lemasters is an experienced and qualified professional who looks forward to continuing his work with the Town in this role to the best of his ability. He has 19 years of experience in civil engineering, with a focus on civil site design, particularly site layout, stormwater management, and erosion and sediment control. His background includes designing and managing commercial, residential, and industrial projects from initial concept through construction completion. This work has encompassed boundary and topographic surveys, site planning and layout,

grading, stormwater management, erosion and sediment control, cost estimating, permitting, and overall project coordination.

A statement of qualifications for each EA team member listed on the project organizational chart, including details on education, professional registrations, areas of expertise, and years of experience, are provided in the team resumes in Appendix A. Subcontractor statements are included below. All team members are more than qualified to perform the work requested.

#### **Continuity of Companies**

EA will serve as the prime contractor and manage projects awarded as individual task orders (TOs) from initiation through completion. Darl Kolar, the contract manager, will serve as the primary point of contact. EA will provide technical leadership for all scope areas. The SGI team will contribute to subsurface geotechnical soils investigation and engineering expertise, while RTH will provide topographic and boundary surveying. As noted in Section 3.1 Team Overview, EA has long-standing partnerships with both SGI and RTH, enabling seamless collaboration and full use of shared resources. Both firms have previously worked with EA and the Town, further strengthening the team.

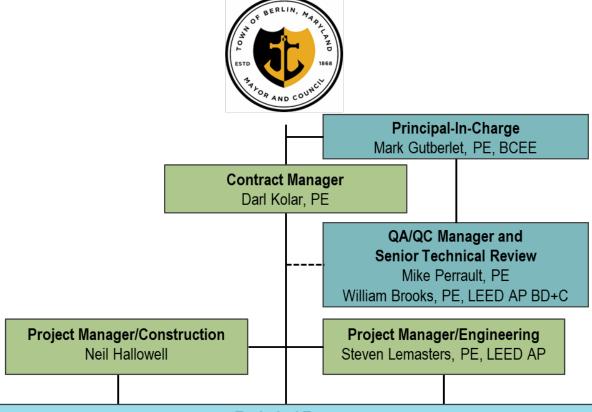
Mr. Ryan Ward (SGI) is a professional engineer licensed in Maryland with more than five years of experience in geotechnical engineering. He has supported the geotechnical investigations for several Town of Berlin stormwater management improvement projects including the Westminster Street and Abbey Lane Submerged Gravel Wetland. He has also contracted for the Henry's Mill Off-Line Wetland Concept Plan and site evaluation. EA has worked with Mr. Ward completing geotechnical investigations including infiltration tests, boring logs, cone penetration tests, groundwater elevation, and soil material tests for approximately eight projects for the Town of Berlin and Worcester County.

Mr. Hammond (RTH) is professional land surveyor licensed in the state of Maryland with more than 38 years of experience. He has had his PLS for 18 years and has been working at RTH for 16 years. Mr. Hammond has provided surveying services to support EA's design for several projects in the Town of Berlin. He has also provided surveying services and small-scale stormwater management designs for residents and commercial properties in the Town of Berlin. Mr. Hammond is well-versed in both the Town's stormwater management code and EA's topographic survey requirements for Town projects.

## **Continuity of Team Organizational Structure**

EA's project approach is based on the philosophy that our team is an accountable, functional, in-depth extension of Town staff and will remain a supporting partner throughout the contract duration. The entire team, and the contract manager in particular, will work closely with the Town to set goals, exchange information, identify potential problems, and develop responsive schedules., They will ensure resource availability and share ideas on innovative and cost-effective ways to execute the Town's mission. EA typically staffs a core team that will manage the project for its entire life cycle. Office and field labor are added or removed as required to maintain the approved supplemental agreement/extra work authorization schedule. Our staffing plan is designed to ensure that the personnel necessary for TO execution are available when and where they

are needed and that the staffing levels are appropriate for the requirements at hand.



#### **Technical Team**

Stormwater	<b>Management Plan</b>
Review	

Steven Lemasters, PE Grace Anthony Mike Perrault, PE

# **Stormwater Utility Development**

Steven Lemasters, PE Neil Hallowell

#### Surveying and Geotechnical Investigation

Ryan Ward – Geotechnical (SGI) Russell Hammond - Surveying (RTH)

#### Stormwater Management Plan / Environmental Permitting Design / ESD

Steven Lemasters, PE

Grace Anthony Mike Perrault, PE

#### Habitat Restoration/Fish Passage

Gregory Zuknick Richard P. Pfingsten

## **Funding and Grant** Administration

Darl Kolar, PE, BCEE Steven Lemasters, PE

Thomas King, PWS, QP William Broberg

#### Construction/ Maintenance Inspection

Grace Anthony Neil Hallowell Kenneth Adams

#### Modeling

Steven Lemasters, PE Nicholas Dunstan, EIT

#### Kev

Resumes with a statement of qualifications for each EA individual are provided in Appendix A of this submission. Additional staff resources for EA and EA's subconsultants will be available and can be provided upon request.

EA: EA Engineering, Science, and Technology, Inc., PBC SGI: Stable Ground In-Situ, LLC RTH: Russell T. Hammond Surveying, LLC

#### 4.2. ROLES AND RESPONSIBILITIES OF ALL PROPOSAL TEAM MEMBERS

## **Roles and Responsibilities**

Below, EA has defined roles and responsibilities of all staff members, including QA/QC and Senior Technical Review. EA's project team is committed to delivering quality service, with each employee receiving the training and orientation needed for their specific role. Resumes detailing team members' relevant experience are included in Appendix A.

Name and Title	Responsibilities	Authorities
Mark Gutberlet, PE, BCEE Principal-in-Charge	<ul> <li>Reports directly to the chief executive officer</li> <li>Reviews scoping documents, work plans, and project deliverables against the Town's needs</li> <li>Ensures consistency in deliverables and cost/performance reporting</li> <li>Plans for long-term resource allocation and acquisition</li> </ul>	<ul> <li>As an officer of EA, he has the authority to make commitments on behalf of EA</li> <li>Assists in developing and approves project-specific QA/QC Plans</li> <li>Monitors work, procedures, and documentation</li> <li>Initiates, recommends or provides solutions to quality problems</li> <li>Negotiates and approves fee proposals and contract changes</li> <li>Balances team resources</li> <li>Takes proactive correction to prevent performance, schedule, or budget issues</li> </ul>
Mike Perrault, PE William Brooks, PE, LEED AP BD+C QA/QC and Senior Technical Reviewer	<ul> <li>Reports directly to principal in charge and contract manager</li> <li>Monitors work, procedures, and documentation to ensure compliance with design objectives</li> <li>Provides specialized technical support</li> <li>Attends periodic progress meetings for specific tasks requiring significant technical oversight</li> <li>Oversees the development of project-specific and task-specific QA plans; conducts QC audits to monitor performance</li> <li>Initiates, recommends or provides solutions to quality problems</li> </ul>	<ul> <li>Conducts regular project reviews</li> <li>Approves technical content of deliverables</li> <li>Implements corrective action for off-track projects</li> <li>Verifies implementation of corrective action</li> </ul>

Name and Title	Responsibilities	Authorities
Darl Kolar, PE Contract Manager	<ul> <li>EA's primary point of contact with the Town</li> <li>Reviews scoping documents, work plans, and project deliverables</li> <li>Selects project manager to meet the Town's needs</li> <li>Assembles and schedules task resources</li> <li>Ensures that tasks are performed on schedule and within budget</li> <li>Maintains technical, quality, and health and safety standards</li> <li>Manages subconsultants' contract commitments</li> </ul>	<ul> <li>Approves deliverables</li> <li>Approves progress reports and invoices</li> <li>Balances team resources</li> <li>Recommends solutions to problems and has authority to implement corrective actions</li> <li>Assures that projects comply with budget, and schedule objectives</li> <li>Takes proactive correction to prevent performance, schedule, or budget issues</li> <li>Manages all project personnel and subconsultants</li> <li>Authority to make technical and managerial decisions regarding specific project issues</li> </ul>
Steven Lemasters, PE, LEED AP Neil Hallowell Project Managers	<ul> <li>Reports directly to contract manager</li> <li>Manages work within technical discipline/area of expertise</li> <li>Point of Contact for the Town project Managers on project-specific matters</li> <li>Provides day-to-day oversight</li> <li>Develops value-added task rder approach and cost proposal</li> <li>Ensures task order is performed on schedule, within budget, and with high quality services</li> <li>Communicates progress of task execution to the Town Project Managers</li> </ul>	<ul> <li>Authority to implement corrective actions</li> <li>Review and approve all field and analytical field procedures</li> <li>Review project at completion and closeout</li> </ul>
Technical Team	<ul> <li>Leads work within their area of expertise</li> <li>Directs, reviews, and assists in the preparation of technical project deliverables including work plans, sampling plans, reports, and technical memoranda.</li> <li>Ensures that technical project work is performed to the industry and EA standards and complies with the Maryland Stormwater Regulations and local Town and County regulations.</li> </ul>	<ul> <li>Delegates technical and field duties to other staff</li> <li>Leads and provides oversight of field teams</li> <li>Interprets technical project data and senior technical review (STR) input for field staff, EA PM, and the Town</li> <li>Trains junior staff to take on roles of increasing responsibility</li> </ul>

## **Ensuring Continuity of the Team/Staff Backup Support**

Maintaining continuity of personnel is a key staffing priority for EA. Once assigned to a project, professionals remain committed unless the Town agrees to a change. EA will continue using the current team to ensure consistency in project execution. Contract Manager Darl Kolar, PE, and Project Managers Neil Hallowell and Steve Lemasters, PE, serve as backups for one another. The EA Berlin office will remain the primary support for the Town, which has an established working relationship with Mr. Kolar, Mr. Lemasters, and Mr. Hallowell. EA recently added Grace Anthony and Kenneth Adams to further support the Town. Ms. Anthony enhances stormwater review, design, and permitting efforts alongside Mr. Lemasters, while Mr. Adams supports Mr. Hallowell in construction management and inspection. Additionally, EA's team of over 750 professionals offers extensive depth in stormwater expertise.

## 5. UNDERSTANDING THE TOWN OF BERLIN

EA has served the Town of Berlin and their stormwater management program for over 16 years. This tenure has positioned EA with a unique and in depth understanding of the Town of Berlin's history, stakeholder connections, budgetary process, challenges, successes, grant program, and long-term plans and initiatives.

#### **History**

To address aging stormwater infrastructure, the Town assumed full responsibility for its stormwater management program, including private development plan review, construction inspection, quality as-builts, and ongoing maintenance and inspection. In 2010, the Town contracted EA to help develop its stormwater management code and ordinance. Since then, EA has managed all stormwater reviews, inspections, and code updates. In 2012, EA supported the University of Maryland Environmental Finance Center in assessing the Town's stormwater needs and financial impact. Based on that assessment, EA helped the Town become one of the first Maryland communities to implement a stormwater utility fee.

## Monthly Program Meetings

Each month, the Town hosts a meeting to discuss development projects, code updates, annexation applications, and other general topics. Attendees include representatives from Town administration, public works, planning and zoning, water resources, electrical, police, and developers presenting concept plans. EA participates monthly, providing input on stormwater management. Projects under review are discussed, and EA, along with the Town's water/wastewater engineer, provides status updates or notes pending resubmissions. These meetings are highly productive, offering developers and engineers direct access to all relevant Town departments for coordinated feedback.

#### Town of Berlin Education and Outreach

An effective approach to public outreach and education on stormwater management for a small municipal town should focus on community engagement, accessibility, and practical solutions. EA has coordinated with the Town of Berlin on the goal of raising awareness about the impacts of stormwater runoff such as flooding, erosion, and water pollution. EA worked directly with Town staff to identify key audiences and stakeholders. including homeowners, local schools, business owners, and municipal staff. In addition, EA coordinated relationships with the Maryland Coastal Bays Programs and their specific goal of improving the water quality of the Maryland Coastal Bays.

EA prepared clear and visually engaging displays for public workshops and presentations. EA also assisted the Town with the preparation of brochures, social media content, infographics, and short papers to explain basic concepts such as how stormwater is managed, the importance of green infrastructure, and simple practices like cleaning storm drains, using rain barrels, and minimizing impervious surfaces. The Town hosted several public workshops offering handson learning opportunities building visibility.

Public meetings were accompanied with follow up surveys to assess community knowledge, address concerns, and gather input on planned infrastructure projects, ensuring transparency and trust. The Town's approach to outreach and education is an ongoing and evolving initiative.

#### Stakeholder Connections

A dedicated approach to develop and maintain relationships and connect with the stakeholders of the Town of Berlin is an important part of a success stormwater management program. Stakeholders include the Mayor and Council, Town administration, department heads and staff, non-profit organizations, HOAs, communities, and the public. Each group of stakeholders provides a unique perspective. EA routine attends the Mayor and Council meetings, workshops, and responds to site visit requests by homeowners impacted by stormwater management.

## **Budgetary Process**

As the Town is aware, the ultimate financial need for the needed stormwater improvement projects within the Town far exceeds the Town's financial position. Although the Town's dedicated funding stream of the stormwater utility provides the Town with the opportunity to complete small scale projects and leverage funds for grant applications. On an annual basis, EA connects with the Town's finance department to develop the budget for stormwater management projects.

## **Grant Program**

As stated above, an active involvement and participation in the available stormwater management grants is a critical component the Town has had tremendous success in grant awards. Over the last 15 years, EA has become well versed in the various funding agencies and multiple grant opportunities. Through completing many grant applications and both awards and falling short, EA has developed an in-depth understanding of a feasible project and quality grant application. Each year EA evaluates projects and assesses the grant RFPs.

## **Long Term Plans and Initiatives**

The USACE Baltimore District completed a comprehensive stormwater assessment (2007) of the Town of Berlin which provided an extensive list of low, medium, and high priority projects. This has historically provided a basis for planning for large-scale projects. For the over 12 projects that EA has completed for the Town, each project was evaluated for its overall impact on the Town. Each year, EA prepares and presents to the Mayor and Council an update on completed projects and plan for the next phase of projects. Most recently, EA assisted the Town with being awarded a grant from the Maryland DNR for Town side Stormwater Resilience and Flood Mitigation Plan. This plan is the next key step for the Town of Berlin's stormwater management planning process. EA is scheduled to complete the plan in early 2026 and will expand on the USACE stormwater assessment and incorporate knowledge on a grant feasible project to develop systematic approach for short- and long-term stormwater management improvement projects.

#### **Volunteering**

On an annual basis, typically on Earth Day, the Town of Berlin hosts a cleanup day. During this event, EA provides several volunteers to help clean up Hudson Branch through collecting trash, planting flowers, mulching, and pulling weeds. EA believes it is a meaningful way to give back to the community and protect the environment. These efforts help maintain the natural beauty of the area, improve local wildlife habitats, and create a cleaner, healthier space for everyone to enjoy. Working alongside the MCBP, Town staff and residents build strong community connections and foster a shared sense of pride and responsibility. Volunteering not only benefits the town but also brings personal fulfillment through teamwork and positive impact. In addition to the cleanup day, EA has volunteered with the Town on several planting events, ditch maintenance and sediment removal, and small-scale stormwater management improvements.

## **EA Volunteering for the Town of Berlin**

Captured in this photo is EA's Darl Kolar and Steven Lemasters joined by MCBP Steve Farr. They are proudly displaying several bicycles removed from the Hudson Branch during the annual Berlin Cleanup Day. Each year, EA teams up with the MCBP to do the dirty work and walk a mile stretch of Hudson Branch to remove accumulated trash, debris and sometimes mattresses and bicvcles.



## 6. METHODOLOGY AND APPROACH

This sections outlays EA's approach to contract management including contract and task order management, Quality Assurance and Quality Control, subcontractor management, approach to health and safety, and the methodology and approach to completing the comprehensive scope of services.

## 6.1. UNDERSTANDING OF THE RFO'S ENTIRE SCOPE OF WORK AND INTENT

The RFQ identifies a comprehensive list of Scope of Services. Section 6.3 below details EA's understanding and approach for each of the 15 Scope of Services items.

#### 6.2. APPROACH TO CONTRACT MANAGEMENT

EA's management systems integrate scheduling, cost accounting (including team members and other subcontractors), budget reporting, technical submittals, QC functions, and other required data. The methods used in completing and costing a TO will vary based upon the service provided. EA will layout the methods for each TO following the TO process. EA's methods for project execution have been developed from our extensive work with federal, state, municipal, industrial, and commercial clients. Described below are key aspects and general methods for completing a TO. Upon contract award, EA will prepare a Project Management Plan (PMP) as a living document that will serve as guidance for the daily execution of any awarded TOs and each project's goals, schedule, quality, and safety.

## **Contract Management**

EA's management approach is based on the philosophy that the proposed team is an accountable, functional, and in-depth extension of the Town, and will remain a supporting partner throughout the contract's duration. The entire EA Team will work closely with the Town to set goals, exchange information, identify potential problems, propose effective solutions, develop responsive schedules, assure resource availability, comply with the Town's requirements, work within budget, and share ideas on innovative and cost-effective means to support your program. EA's management philosophy and organizational framework have resulted in the successful management and execution of hundreds of multi-service on-call contracts. The three key elements of our management approach are:

- 1. A strong, well-resourced project team led by an experienced Contract Manager, who serves as the client's point of contact, and Project Managers and technical staff with clearly identified responsibilities and accountability.
- 2. A system of contract oversight and project tracking and control tools that provide real-time feedback.
- 3. An independent Senior Technical Review and project review oversight function ensuring that the project is on budget, on schedule, and the work is performed at the highest level of quality.

EA will abide by a strict cost control plan to provide the Town with the most cost-effective services possible. To do so, EA will diligently maintain the Project Schedule to prevent any undue costs. EA's Berlin office location of EA's proposed key personnel will also keep costs low, as travel time and any delays to starting work will be kept to a minimum. The key to successful cost control is early detection of cost or schedule variances—while corrective action is still possible—through diligent tracking of costs incurred, costs committed, and physical progress complete. Cost control functions are supported by EA's accounting and financial system, augmented by standard scheduling systems such as Microsoft Project.

As Contract Manager, Darl Kolar, PE, will coordinate with the Town in project scoping, prepare proposals, and ensure the most suitable allocation of internal and subconsultant resources to complete projects on schedule, in a cost-effective manner, and of high quality. During execution, our Contract Manager will be responsible for oversight, reporting of costs and performance, tracking schedules, quality control, monitoring, and rebalancing resources based on the needs of the project.

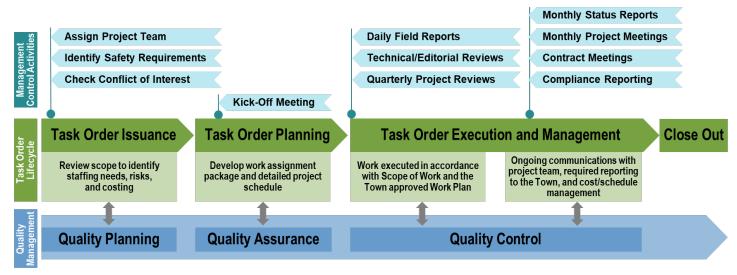
#### Task Order Management

A key factor in the selection of a contractor for the Town is the team's ability to manage the overall contract and individual TOs. We have structured our team as a program to reflect the fact that a variety of TOs may result from this contract. Our program structure further reflects an experienced program management team supported by administrative, financial, health and safety and quality professionals, as well as designated senior technical reviewers supported by a "pool" of technical resources from a wide range of environmental, engineering, planning and related disciplines.

EA will manage this contract and subsequent TOs from our local Berlin, Maryland office, located less than five miles from the Town. We have assigned a senior-level management team led by an experienced, local contract manager with Town of Berlin on-call contract experience to this program. EA's management flow recognizes the distinct roles played by the project management team during contracting and project execution. Darl Kolar, PE, BCEE, a MD-state registered professional engineer and board-certified environmental engineer, will serve as Contract Manager. He will be the single Town for this contract for technical and contractual matters. He will be accountable to the Town and ensure proper commitment of resources to all TOs issued under the awarded contract.

Mr. Kolar, PE, BCEE will receive TOs from the Town and has the authority and responsibility for assigning the Project Managers, assigning the allocation of work to team members, preparing and negotiating proposals, and assuring that the resources are available to execute the work. During execution, the Contract Manager will be responsible for oversight, reporting costs and performance, quality assurance, and resolving contractual issues. The workflow will incorporate multiple feedback points established during the project planning, assuring that ongoing process improvement is integral to quality performance.

EA will manage the projects awarded as individual TOs from award through completion and will provide technical leadership for all scope areas. The team is structured to provide the Town with a clear chain of command through a single POC (our Contract Manager), while providing access to EA and subconsultant management and technical staff and resources. A project organizational chart is provided on page 37 for a visual representation of team assignments; additionally, roles, responsibilities, and authorities are clarified on page 38.



EA's Work Assignment Management Control Process Integrates QA/QC Throughout

EA's proven Task Order Management Strategy will provide accountability and quality deliverables, and ensure judicious use of resources

## Subcontractor Management

EA will use a multi-faceted approach to selecting subcontractors that evaluates the needs of a project against the qualifications, expertise, cost and budget, responsiveness, and reputation of the subcontractor. EA has excellent working relationships with local suppliers that will help us serve the Town for services such as utility locates, surveying, and geotechnical investigations.

EA subcontractors share our focus on providing technical excellence, financial stability, competitive costs, and superior service in today's marketplace. We routinely work with a wide variety of subcontractors and suppliers to augment or complement our services. Subcontractors will be integrated into projects and will become part of the project delivery team beginning at the task order Request for Proposal (RFP) stage and continuing throughout the life of the task order. Our experience has shown that early involvement allows us to develop a holistic understanding of the overall project requirements and to develop the most appropriate technical approach and associated cost. It also enables us to obtain "buy-in" to the technical approach, cost, and schedule, resulting in a sense of ownership by all involved.

#### **Project Controls**

EA believes that frequent, open, and consistent communication with the Town is key. EA works closely with the Town to understand its goals and constraints, ensuring effective project execution and timely status updates. EA's management systems integrate scheduling, cost accounting (including subcontractors), budget reporting, technical submittals, quality control, and other essential data. Key project managers oversee cost, budget, and schedule management; identify and communicate cost impact risks; forecast costs and schedules; detect data gaps; implement corrective actions for deviations; ensure costs are allocable, allowable, and reasonable; track costs by task order; notify the client's Contract Manager of changes; propose alternative solutions; prepare cost documentation for invoicing; and address small business reporting requirements, if applicable.

#### **Quality Assurance Program**

An integral part of effective project control is getting the job done right the first time. Quality, as part of the process from start to finish, is the cost-effective way to achieve that goal on time. EA has an established Corporate QA/QC [program for project QA/QC that is incorporated into the contract management process and the project life cycle of all projects. The Corporate Quality Management Plan (CQMP) has been reviewed and approved by many of EA's government clients and is considered to exceed most program objectives.

Our primary means of building quality into every phase of each project is using assigned senior technical reviewers (STRs) and periodic QA/QC reviews. EA's corporate QA/QC Program is designed to ensure the validity, control, and proper tracking of project decisions and to properly document these actions.

#### Highlights of EA's Formal QA/QC Program

- The QA/QC manager, independent of program, has the freedom to monitor work, procedures, and documentation; to identify problems; and authority to develop corrective actions, verify their implementation, and stop work.
- Programs to orient and train personnel in implementation of the corporate and contract-specific QA/QC program.
- Development of project-specific quality assurance plans focusing on the unique needs of environmental projects. This includes a QC system for coordination of plans and minimization of errors and omissions in deliverable products.
- Identification of senior technical reviewers who meet qualifications requirements for the necessary training, experience, and skills to provide peer review for each technical service area.
- Periodic audits of each engineering or scientific program, technical service area, and/or regional operation to ensure compliance with QA/QC program requirements.
- Assigned QA/QC responsibilities for subconsultants.
- A system of checks and balances within the organization requiring appropriate authorized signature authority and adhering to a structured chain of command at all levels of management.
- A comprehensive contracts policy and procedures manual that establishes a controlled system for the handling, documentation, revision, review, and sign-off procedures for all contracts.

EA's CQMP provides the basis for the development of Project-Specific Quality Assurance Project Plans, which have been field-tested and incrementally improved for decades. Many lessons learned are captured in these documents.

The CQMP provides the framework to ensure:

- All quality standards incorporated into the Statement of Work are achieved in a cost-effective and timely manner.
- All design and operational activities are managed, controlled, and documented, including selfperformed and subcontracted work.
- All work activities comply with governing regulations and contract requirements.

EA's Corporate QA/QC Program integrates and assigns QA/QC roles and responsibilities at every level of the organizational structure. We are proud of our commitment to delivery of quality services, and we continuously upgrade our QA/QC Program and processes to meet changing government regulations and increasing client expectations. This attention to quality provides the highest value of service, minimizes overall project costs, and ensures that data and documentation are scientifically defensible and meet regulatory requirements, as well as our clients' expectations.

#### **Health and Safety Program**

EA's established Corporate Health and Safety (H&S) Program meets the requirements of the Occupational Safety and Health Administration (OSHA) standards 29 Code of Federal Regulations 1910.120 and 1926.65, and other applicable regulations and guidance. Our defined policies include H&S responsibilities by project functions, including EA's Director of H&S, Project-Specific H&S Officers, Project Managers, employees, and subcontractors: development of programmatic and site-specific Site Safety and Health Plans: hazard communication program; identification/evaluation of chemical, physical, explosive, and biological hazards; emergency response plan; medical surveillance; personal protective equipment; employee training; environmental monitoring; site control; confined-space entry; spill containment; and proper reporting.

## Management of Multiple Projects and Surges

EA has the capability and capacity to complete the work requested in this contract. We are highly experienced at successfully executing Program Type/IDIQ contracts. Our in-place management systems handle more than 400+ individual projects (i.e., sole source, TOs, Work Orders, and Blanket Purchase Agreement calls) nationwide on an annual basis. We have the flexibility and ability to add or remove staff depending on project needs, and corporate commitment to do so. Our proposed Contract Manager, Darl Kolar, PE, is empowered to commit resources to maintain and manage multiple teams concurrently in support of the Town's needs.

## 6.3. METHODOLOGY AND APPROACH TO COMPLETE THE SERVICES REQUESTED

EA provides the Town with a dedicated team to support its ongoing stormwater management needs. The scope items identified in the RFP are listed below, each followed by a detailed explanation of EA's unique understanding of the task and relevant experience applying this approach for the Town.

Planning and design of regional stormwater infrastructure projects, including small-scale drainage improvements, stormwater conveyance systems, culvert and pipe, assessments, water quality facilities, retrofitting of flow control structures, and fish passage/stream enhancement projects

With over 15 years of proven experience, EA has consistently delivered high-quality planning and design services for regional stormwater infrastructure projects within the Town. Our staff have specific experience with the Town in a wide range of solutions, including small-scale drainage improvements, comprehensive stormwater conveyance systems, and detailed culvert and pipe assessments. Small-scale stormwater

management features are a key approach for addressing stormwater management, flooding and water quality within the Town. Our team is skilled in designing effective water quality facilities that meet regulatory standards while enhancing environmental outcomes. We also have extensive experience retrofitting existing stormwater conveyance systems to improve system performance and resilience. In addition, as a collaborative effort with the local nonprofit Maryland Coastal Bays Program (MCBP), EA recognizes the importance of ecological restoration through fish passage and stream enhancement projects that promote habitat connectivity and stream health. Our commitment to innovation, sustainability, and community needs makes us a trusted partner for stormwater infrastructure improvements.

## **Evaluation and retrofit of existing** detention systems, vaults, and basin flow control structures, supported by hydraulic and hydrologic modeling to assess location, feasibility, and cost of new or enhanced facilities

EA has in-depth knowledge of the Town's stormwater infrastructure, including its age, condition, and needs. We've completed multiple evaluations and retrofit designs for detention systems and structures such as manholes, headwalls, footwalls, culverts, open and closed conveyance systems, and flow control structures. Using advanced hydraulic and hydrologic modeling, we assess the location, feasibility, and cost of proposed improvements or new facilities. Our team identifies performance issues, optimizes existing systems, and designs cost-effective solutions that meet regulatory and long-term community needs. We collaborate closely with Town staff and stakeholders to ensure each retrofit enhances system performance, supports stormwater management goals, and advances environmental

#### **Hudson Branch – Offline Wetland**

Early in the stormwater management program, the west part of the Town was determined to be the area in greatest need for addressing frequent flooding events. Due to existing relationships, EA was aware of a parcel of property along Hudson Branch was owned by Worcester County. EA approached the County to discuss an off-line wetland project. The County graciously gave the 5-acrea property to the Town. With the ownership of the property and grant funding in place for a stormwater management project, EA began evaluating the parcel for an off-line wetland project.

EA successfully permitted, designed, and provided construction administrative services for an offline wetland creation and associated channel improvements adjacent to and within Hudson Branch. The project addressed localized flooding, water quality, and stream bank erosion.

objectives. EA's proven expertise and history with the Town make us a trusted partner in modernizing stormwater infrastructure across the region.

## Preparation of construction-ready plans, technical specifications, cost estimates, and bid documents for regional stormwater projects, ensuring alignment with relevant professional engineering and environmental standards

Preparation of construction-ready plans, technical specifications, cost estimates, and bid documents for regional stormwater projects is a critical phase in project development that ensures successful implementation, regulatory compliance, and environmental stewardship. This process begins with thorough site assessments, hydrologic and hydraulic analyses, and the incorporation of best management practices (BMPs) to address water quality, flood control, and erosion concerns. Construction-ready plans must detail all structural and nonstructural elements, including grading, drainage systems, retention basins, green infrastructure, and outlet control structures, while complying with local, state, and federal engineering and environmental standards such as those established by the MDE, FEMA, DNR, etc. Technical specifications outline materials, workmanship, testing requirements, and performance standards, providing clarity for contractors and ensuring consistent quality. Accurate cost estimates are developed using recent unit pricing and historical data, capturing all project components—labor, materials, contingencies, and permitting fees—to support budgeting and funding applications. Bid documents, including instructions to bidders, contract conditions, and detailed scopes of work,

are structured to encourage competitive and fair bidding while minimizing the potential for change orders or disputes during construction. Throughout the preparation process, coordination with regulatory agencies, utility providers, and stakeholders is essential to address permitting requirements, utility conflicts, and community concerns. This comprehensive and standards-driven approach ensures that stormwater infrastructure is designed to be resilient, maintainable, and effective in managing runoff, protecting water resources, and mitigating flooding risks within the Town and the Maryland Coastal Bays.

## Surveying and geotechnical investigation services specific to regional stormwater infrastructure, including topographic mapping, infiltration feasibility, and subsurface evaluations

Surveying and geotechnical investigations are essential to planning and designing regional stormwater facilities. The process begins with detailed topographic surveys that capture existing site conditions, surface features, and elevation data to guide grading, drainage, and design alignments. High-resolution data enables precise stormwater flow modeling and helps identify optimal locations for infrastructure such as detention basins, swales, and infiltration systems. Our subcontractor, SGI, conducts infiltration tests—including percolation testing, groundwater elevation, and surface soil characterization—to evaluate suitability for stormwater recharge. Subsurface geotechnical evaluations include soil borings, standard penetration testing (SPT), and lab analysis to determine soil composition, strength, bearing capacity, and settlement potential critical for long-term performance and structural integrity. These investigations also identify constraints like shallow bedrock, contamination, or expansive soils. The resulting data supports sound engineering decisions, reduces construction risks, and ensures compliance with environmental and design standards, contributing to resilient and sustainable stormwater infrastructure.

# Permitting support at local, state, and federal levels, including compliance with Maryland Department of the Environment (MDE), National Pollutant Discharge Elimination System (NPDES), and Municipal Separate Storm **Sewer System (MS4) regulations**

Permitting support for regional stormwater projects involves navigating complex regulatory requirements at local, state, and federal levels to ensure full compliance. This includes coordination with the Town of Berlin, Worcester County, MDE, and the United States Army Corps of Engineers for stormwater management and erosion control approvals, as well as meeting National Pollutant Discharge Elimination System (NPDES) permit conditions. While the Town of Berlin does not directly have an MS4 permit and reporting requirements, the Town projects help support Worcester County's Municipal Separate Storm Sewer System (MS4) General Discharge Permit. Projects must also align with MS4 regulations, which mandate pollutant load reductions and water quality improvements. Comprehensive permitting support includes preparing permit applications, technical documentation, and stormwater pollution prevention plans (SWPPPs), facilitating agency reviews. and addressing comments to ensure timely permit acquisition and project implementation.

## Acquisition and/or confirmation of right-of-way and easements for stormwater system installation and upgrades

Acquisition and confirmation of right-of-way (ROW) and easements are essential steps in facilitating both construction access and installation and upgrade of stormwater systems. This process ensures legal access to public and private properties where stormwater infrastructure (pipes, culverts, swales, and detention facilities) will be constructed or maintained. EA has completed several desktop reviews for determination of existing easements, ROWs, and property boundaries for existing infrastructure ownership and planning for future projects. It involves reviewing existing property records, plats, and deeds to verify ownership and identify any existing easements. Where new access is required, coordination with property owners, legal teams, and local government agencies is conducted to negotiate and secure necessary rights through dedication, purchase, or agreement. EA relies on subcontracted accurate surveying services to avoid future conflicts, ensure compliance with legal requirements, and support long-term maintenance access.

## Construction-phase services, including construction management, site inspections, administration, and Resident Project Representative (RPR) support

Engineering support during construction is essential to ensuring the successful execution of stormwater infrastructure projects, providing oversight, quality assurance, and effective coordination among all project stakeholders. Construction management involves planning, coordinating, and overseeing construction activities to ensure that work progresses on schedule, within budget, and in compliance with approved plans and specifications. This includes tracking contractor performance, reviewing submittals, conflict resolution, and tracking progress through regular progress meetings. Site inspections are performed routinely to verify that construction methods and materials meet design and regulatory standards, with special attention given to critical elements such as storm drains, culverts, basins, and erosion control measures. Administrative services support the project by maintaining accurate documentation, processing change orders, reviewing partial pay applications, and facilitating communication between the owner, engineer, and contractor. Resident project representative (RPR) support provides dedicated, on-site observation to monitor daily activities, respond to field issues in real time, and ensure adherence to environmental and safety standards. Together, these services help mitigate risks, ensure compliance, and contribute to the successful and timely delivery of stormwater projects. Project close out and as-built documentation is also a critical component to assure a reliable record of installed infrastructure and stormwater management systems are available. EA has provided construction administration services and part-time and full-time RPR services for over 12 stormwater management improvement projects for the Town of Berlin.

## Review of stormwater components in development proposals to ensure compliance with municipal standards and protection of the Town's interests

Having developed the Town of Berlin's stormwater management review process, submittal requirements, Town's code and stormwater management ordinance. checklists, owner agreement and as-built forms, EA is the most knowledgeable on the Towns' stormwater management reviews. The Town's stormwater review process plays a vital role in managing growth while protecting local water resources and infrastructure. The primary submittal process includes a concept plan, followed by a site development plan and the third review is the final site plan. Each submittal undergoes a detailed review of their stormwater management components to ensure alignment with the Town's municipal standards, as well as applicable state and federal regulations. This includes evaluating proposed drainage systems, runoff calculations, water quality treatment measures, and

#### **Town Innovation – SWM Utility**

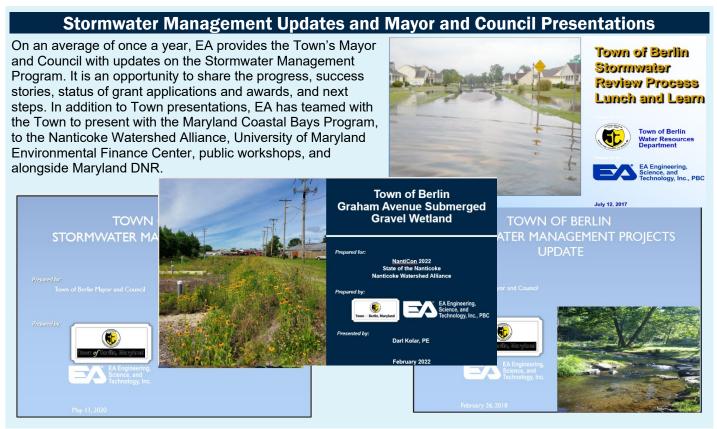
Recognizing the significant financial anticipated for the necessary improvements to the Town's aging and undersized stormwater management system, EA worked with the Town to develop a stormwater utility. The Town of Berlin was one the first municipality on the eastern shore and one of the first in Maryland. While not required to, EA worked with the Town to establish a vision of the dedicated funding source of a stormwater utility and its role as a source of leveraged funds for grant applications. This approach has and continues to be extremely successful based on the over \$2.7M in grant awards obtained by the Town.

stormwater BMPs for effectiveness and sustainability. The review also verifies compliance with MDE's guidelines, including environmental site design (ESD) to the maximum extent practicable. By thoroughly assessing grading plans, storm drain layouts, and infiltration practices, the Town ensures that new developments do not negatively impact public infrastructure or contribute to localized flooding, erosion, or pollution. This review process safeguards community interests, promotes resilient infrastructure, and supports Berlin's long-term goals for environmental stewardship and sustainable land use planning. EA has reviewed over 100 stormwater development review submittals.

## Preparation and evaluation of agreements related to stormwater and drainage infrastructure

Similar to the establishment of the stormwater management review checklists and forms, EA prepared the Towns two key agreements for stormwater projects including the Stormwater Management Construction

Agreement and the Inspection and Maintenance Agreement. Construction agreements and inspection and maintenance agreements are essential legal instruments that support the effective implementation and longterm functionality of stormwater and drainage infrastructure. These agreements clearly outline the responsibilities of developers, property owners, and the Town regarding the construction, inspection, and ongoing maintenance of stormwater management systems. Construction agreements ensure that infrastructure is built according to approved plans, standards, and timelines, with provisions for performance guarantees, inspections, and corrective actions if deficiencies arise. Inspection and maintenance agreements establish long-term obligations for the upkeep of stormwater facilities, such as ponds, infiltration systems, and conveyance structures, to ensure continued performance and compliance with Town, County and Maryland regulations. These documents also define access rights for Town inspections and specify reporting requirements, maintenance schedules, and enforcement mechanisms. Proper preparation and evaluation of these agreements protect the Town's infrastructure investments, reduce liability, and help prevent flooding, erosion, and water quality issues by ensuring responsible management of stormwater systems over time.



# Technical consultation and review of municipal planning documents and studies, such as comprehensive Plans, stormwater design standards, and watershed feasibility studies

Staying current with updates to planning documents is essential for supporting the Town's stormwater improvement projects and conducting informed development reviews. Over the years, EA has reviewed numerous planning documents on behalf of the Town of Berlin, including but not limited to:

- Environmental Finance Center Financing Feasibility Study for Stormwater Management, Berlin, Maryland
- Town of Berlin Design Guidelines and Standards for Commercial Uses
- Town of Berlin Design and Construction Standards for Water, Sewer, and Roadway Systems
- Town of Berlin Resiliency Element

- Town of Berlin Strategic Plan
- Town of Berlin Comprehensive Plan
- Worcester County Comprehensive Plan
- Worcester County Water Resources Element
- Worcester County Hazard Mitigation and Resilience Plan
- MDE Stormwater Management Design Manual
- Town of Berlin Code and Stormwater Management Ordinances
- Maryland Coastal Bays Watershed Implementation Plans

These reviews ensure that policies and design criteria reflect current best practices, regulatory requirements, and environmental conditions. By evaluating proposed land use plans, infrastructure needs, and watershed impacts, technical experts help identify opportunities for improved stormwater management, resilience, and sustainability. This process supports informed decision-making, promotes consistency across municipal documents, and strengthens the integration of stormwater considerations into broader planning efforts, ultimately protecting public infrastructure and natural resources.

## Familiarity with and application of relevant codes, design standards, and best practices in stormwater planning, design, and implementation.

Having authored the Town's stormwater management code and stormwater management ordinance, EA is best positioned for familiarity with the application and enforcement of the Town's requirements. This historical and working knowledge of the Towns' codes and ordinances is essential in effective stormwater planning, design, and implementation. EA works to assure the Town and private developer projects adhere to local. state, and federal regulations such as the Clean Water Act, MS4 requirements, and municipal stormwater ordinances. Applying standards like the EPA's BMP guidelines, ASCE manuals, and local design criteria ensures systems are safe, sustainable, and resilient. A thorough understanding of these frameworks promotes compliance, minimizes environmental impact, and supports long-term functionality of stormwater infrastructure in both urban and rural settings.

## Assembly of professional sub-consultants or contractors as required by the scope of work

Effective project delivery often requires the assembly of qualified professional subcontractors to meet the specific Town's needs. This involves identifying and engaging experts with the appropriate technical skills, certifications, and experience to support specialized tasks such as surveying, geotechnical analysis, environmental assessments, or utility coordination. EA maintains a diverse group of stormwater and coastal engineers, scientists, geologists, wetland specialists, and other environmental scientists in house. The two areas that EA subcontracts with are the specialty services of surveying and geotechnical investigations. EA's team of SGI and RTH Surveying have an established working history serving the Town of Berlin. This is established working relationships provide the Town with confidence in understanding the Town's stormwater management needs.

## Coordination with the contractor as required during construction activities to ensure adherence to the project contract documents,

Coordination with the contractor during construction is essential to ensure adherence to the project's contract documents, including plans, specifications, and schedules. For each stormwater management improvement project, EA has provided construction phase administration, inspection, and closeout/as-built services. This involves regular communication, site visits, and review of submittals and requests for information (RFIs) to verify that construction activities align with design intent and regulatory requirements. Prompt resolution of field issues and clarification of design details help avoid delays and cost overruns. Maintaining a collaborative relationship with the contractor supports quality control, safety, and compliance throughout the construction phase. Effective coordination and ability to be onsite quickly ultimately ensures the project is delivered according to scope, within budget, and on schedule.

EA's Berlin, Maryland office is a critical and cost-effective approach to support the Town during construction activity. Being within a short 10-minute drive to any of the completed stormwater management improvement projects, EA has been able to respond quickly and be onsite to resolved construction clarifications or conflicts. This results in minimizing delays to the construction schedule.

## Research and procurement of funding and grant administration assistance.

EA recognizes the importance of grant funding and annually researches and supports both new and annual grant applications.

Providing research and procurement of funding, along with grant administration assistance, is a vital service for stormwater management and water quality projects for the Town. This process involves identifying appropriate funding sources, such Maryland DNR, FEMA, CBT, EPA, MCBP and many others. Familiarity with these agencies and their application requirements enables the preparation of competitive grant proposals and ensures alignment with program goals. EA's familiarity with the grant agency includes established relationships with the agency personnel responsible for reviewing and recommending project awards. Through these established relationships, EA often discusses potential projects and invites the agency for a site visit to discuss the feasibility of grant funding. Specific grant support services include developing funding strategies, assisting with application writing, preparing budgets, and tracking compliance and reporting requirements post-award.

As stated in the cover letter, EA has supported the Town in applying for numerous grant applications resulting in over \$2.7M in funding from state and federal agencies. This provided the Town with the opportunity to complete many stormwater improvement projects totaling over \$3.9M in construction costs. This results in approximately 70% of construction costs obtained from grant funds.

## In person meetings and site visits, including occasional evening meetings with various elected and appointed bodies of the Town, developers, members of the public, including public meetings and presentations, and Town staff

Over the past 15 years supporting the Town's stormwater management program, EA has participated in numerous in-person meetings and site visits, both as attendees and presenters to the Town's Mayor and Council. EA typically provides annual updates to the Mayor and Council covering grant applications and awards, project design and permitting, construction progress, stormwater utility fee evaluations, and support for MCBP initiatives. EA maintains regular coordination with Town staff, developers, elected and appointed officials, and the public to ensure transparent communication and informed decision-making. Our consistent presence reflects our commitment to accessibility and responsiveness.

These interactions often involve presenting project updates, addressing concerns, and gathering feedback to incorporate into planning and design efforts. Site visits allow for direct observation of field conditions, validation of design assumptions, and real-time problem-solving. Engaging with stakeholders in person builds trust, promotes collaboration, and ensures that projects align with the community's goals and regulatory requirements. Whether meeting with technical staff or speaking at public forums, this presence reinforces accountability and helps foster a shared understanding of project scope, timelines, and anticipated outcomes throughout the development process.

## 7. REFERENCES

It is the policy of EA to conduct its work on behalf of clients in accordance with applicable standards and procedures that ensure timely, accurate proposals; superior work products; and quality of performance. Our breadth of competencies, technical expertise, and relentless client focus make us a repeat and preferred provider to many of the largest and most successful organizations in the United States.

We partner with our clients to address complex environmental issues. Below you will find references from municipal clients for which EA was the leading agency in providing services consistent with those described in the RFQ.

Name of Contract	Client	Contact Information
Stormwater Management On-Call	Town of Berlin	Mary Bohlen – Town Administrator
Services		Town of Berlin
(Current Contract Holder)		10 Williams Street
		Berlin, Maryland 21811
		410-641-4314
		mbohlen@berlinmd.gov
Stormwater Projects and	Prince George's	Joanna Smith – Associate Director for the
Management and Watershed	County, Maryland	Office of Storm Drain Maintenance
Analysis and TMDL Pollutant		PG County
Load Modeling		9400 Peppercorn Place Suite 300
		Largo, MD 20774
		240-619-9715
		jmsmith@co.pg.md.us
Stormwater Support and	Harford County,	Bob Anderson – Senior Stormwater Engineer
Stormwater Best Management	Maryland; Harford	Harford County DPW
Practice Inspections, Tracking,	County Department of	220 South Main Street
and Database	Public Works Watershed Restoration	Bel Air, Maryland 21014 410-638-3509 x 1375 or 1363
	Program	reanderson@harfordcountymd.gov
On-Call Engineering Services	Worcester County,	Dallas Baker, PE –
	Maryland	Director of Public Works
		Worcester County
		6113 Timmons Road
		Snow Hill, MD 21863
		(410) 632-5623
		dbaker@co.worcester.md.us
NPDES Municipal Stormwater	Charles County	Andy Balchin – Chief of Infrastructure
Permit Consulting Services and	Maryland	Management
Stormwater Management Plan		Charles County
Review Services		200 Baltimore Street
		La Plata, MD 20646
		301-645-0692
Illigit Discharge Detection	Cooil County	BalchinA@charlescountymd.gov
Illicit Discharge Detection	Cecil County,	Marshall McSorley – EMS 4 Compliance
Monitoring	Maryland; Cecil County Department of Public	Supervisor Cocil County DPW
	Works	Cecil County DPW 200 Chesapeake Blvd. #2400
	VVOIKS	Elkton, MD 21921
		410-996-5265
		MMcsorley@cecilcountymd.gov
	l	www.gov

McDonogh Road Water Quality	Baltimore County,	Robert Ryan – Capital Waterway
Retrofit Design and Post-	Maryland; Baltimore	Improvement Program
Construction Monitoring	County, Dept. of	Supervisor
	Environmental	Baltimore County EPS
	Protection and	111 W. Chesapeake Avenue,
	Sustainability	Room 319
		Towson, Maryland 21204
		410-887-2904
		rryan@baltimorecountymd.gov
Plan Review and Engineering	City of Havre de Grace,	Ignacio Queirolo, Deputy Director of Public
Planning Services	Maryland	Works
		City of Havre de Grace, Maryland
		711 Pennington Ave
		Havre de Grace, MD 21078
		410-939-1800, x1128
		ignacioq@havredegracemd.com

#### 8. FIRM CAPACITY

The EA Team has the capacity to deliver all requested services using existing personnel and Maryland-based facilities, supported by our ongoing projects. We remain committed to executing all tasks to the highest quality standards and exceeding the Town's expectations.

With three Maryland offices and over 266 employees in the Mid-Atlantic region, EA has ample capacity and ready access to additional resources if needed. Known for integrating engineering, science, and technology to develop effective solutions, EA is highly qualified to deliver the services required to complete this project.

EA's project management approach is to develop a project team that is accountable, functional and a true

#### **Effective Planning to Ensure Capacity**

Our Project Manager will use our scheduling and budgeting tools to balance resources and identify needs (from utilization and commitment reports) and to schedule and track activities and resources. We will update schedules regularly to reflect actual progress.

By reviewing the critical path and allocated resources, the Project Manager determines with a 2-week lookahead forecast for when additional resources are required, enabling the team to keep tasks on schedule and proactively plan for the removal and reallocation of resources as work is completed.

extension of the Town's staff. Our team will remain a supporting partner throughout a project's duration. Efficiently using and balancing resources will be central to EA's management approach, allowing us to provide the Town with an outstanding level of cost efficiency and dependability as we have on previous projects. Both our Contract Manager, Mr. Kolar and our Principal-In-Charge Mark Gutberlet, PE, BCEE have the authority to commit resources required to meet the Town's needs on this contract. In selecting project teams, EA will evaluate expertise, historical and institutional knowledge associated with the proposed project, and other workload commitments.

The Town continues to receive full support from EA's Berlin office, ensuring same-day responsiveness across all aspects of stormwater management and drainage. The Berlin office team provides the flexibility to shift priorities guickly as needed. For example, in 2024, EA simultaneously managed a \$1.5M+ closed storm drainage improvement project, completed retrofit designs at Westminster and Abbey Lane, prepared stormwater grant applications, conducted onsite inspections, and fulfilled various responsibilities under the stormwater management on-call contract.

# 9. SCHEDULE OF RATES

#### **Town of Berlin**

#### **Billing Rate Schedule and Other Direct Cost Unit Rates**

Based on the response to questions with this RFQ, EA understands that the Town is willing to accept rate escalations during the 5-year contract. EA's rates are valid through February 2027.

LABOR CATEGORY	HOURLY RATE
Contract Manager	\$ 270.00
Senior Technical Reviewer	\$ 235.00
Senior Engineer	\$ 215.00
Project Manager	\$ 160.00
Project Engineer	\$ 135.00
Mid-Level Engineer	\$ 125.00
Staff Engineer	\$ 120.00
Senior Scientist	\$ 172.00
Project Scientist	\$ 143.00
Staff Scientist	\$ 85.00
Senior GIS	\$ 145.00
Project GIS	\$ 105.00
Staff GIS	\$ 87.00
Construction Manager	\$ 130.00
Construction Inspector	\$ 99.00
Technical Writer	\$ 180.00
Senior CADD Technician	\$ 156.00
Project CADD Technician	\$ 115.00
Administrative	\$ 80.00

Item Description	Unit	U	nit Cost
Vehicle Use and Transportation			
Cars, Station Wagons, and Mini Van	Day	\$	63.80
Cars, Station Wagons, and Mini Van Mileage	Mile	\$	0.19
Blazers, Pickups, and Explorers	Day	\$	69.30
Blazers, Pickups, and Explorers Mileage	Mile	\$	0.23
Personal Vehicle Mileage	Mile	\$	0.78
Document Reproduction			
Bond/Vellum Plots/Copies - B & W	Square Feet	\$	0.30
Bond/Vellum Plots/Copies - Color	Square Feet	\$	2.33
Mylar Plots/Copies - B&W	Square Feet	\$	2.33
Report Preparation	Inch	\$	17.05

# **10. SIGNATURE PAGE**

Please see EA's attached signature page behind this sheet. EA certifies that we have not been debarred by the federal government from contracting with a federal agency, nor with the State of Maryland, Worcester County, or the Town of Berlin.

## RFQ 2025-02 On-Call Stormwater Engineering Services

Firm Name: <u>EA Engineering</u>, Science, and Technology, Inc., PBC

#### **SIGNATURES**

I, the undersigned, am an authorized agent of the firm listed below and am authorized to submit the attached response to the RFQ as indicated above. I certify that all information included is true and correct to the best of my knowledge. I further acknowledge the conditions and requirements expressed in the RFQ and the agreement to adhere to same.

By checking this box, I hereby certify that the individual or organization represented in the submission of this response to Town of Berlin RFQ 2025-02 is not debarred by the federal government from contracting with a federal agency, nor with the State of Maryland, Worcester County, or the Town of Berlin.

7 // )	
Signature:	Date: October 10, 2025
Mark Gutberlet, P.E., BCEE; Vice Preside Printed Name: and Engineering Business Unit Director (I	
EA Engineering, Science, and Firm Name: Technology, Inc., PBC	Tax/EIN: 52-0991911
DBA: N/A	_
(if different than Firm Name above)	
Address: 225 Schilling Circle, Suite 400	_
City, State Zip: Hunt Valley, Maryland 21031	
Phone: 410-329-5135	
Fmail: mgutberlet@eaest.com	

# **APPENDIX A - RESUMES**

## MARK GUTBERLET, PE, BCEE

#### **Principal-In-Charge**

Mr. Gutberlet leads EA's Facilities Compliance and Engineering Business Unit and has been providing technical support to the town for 16 years. He is a civil engineer and serves as project manager and program manager on a variety of civil and environmental infrastructure projects including solid waste management, stormwater management, site design, ecosystem restoration, remediation, dredging, and coastal projects. He leads multi-disciplinary teams to accomplish technical and financial project and program goals, collaborating with clients, stakeholders, and regulators.

Stormwater Management On-Call Services; Town of Berlin, MD; Project Manager/Senior Technical Review: Provided oversight and led portions of the stormwater management on-call services for the Town of Berlin. The Town adopted stormwater management requirements from the Maryland Department of the Environment and shifted review responsibilities from Worcester County to EA. EA developed checklists for reviewing stormwater management plans, as well as waiver and review fees, maintenance agreements, and inspection protocols. EA now provides on-call support for stormwater and flooding concerns throughout Berlin.

Stormwater Management Plan Review Services; Charles County, Maryland: Senior Engineer: Senior engineer supporting stormwater management reviews for development projects in Charles County. Provided guidance and guality control to the project manager and team to ensure the work met contract requirements and industry standards. The project involved checking plans for compliance with stormwater regulations from the State of Maryland and Charles County.

**Charles County NPDES Municipal Stormwater Permit Consulting** Services; Charles County, MD; Project Director: Project director for NPDES Consulting Services under contract 20 – 21, supporting design work for multiple projects across Charles County, Maryland, EA provided design and permitting for drainage improvements in several neighborhoods to address stormwater deficiencies. Oversaw and worked with the project manager on contract compliance, invoicing, program tracking, and subcontractor management.

Stormwater Management Facility Inspections; Charles County, MD; Program Manager and Senior Technical Reviewer: Program manager and senior technical reviewer for stormwater facility inspections/reinspections and geodatabase updates covering 230 new and existing sites

#### **Relevant Highlights**

- Small Scale Drainage Improvements and Retrofits
- Fish Passage and Stream Enhancement
- ✓ Hydraulic and Hydrologic
- Contract Plans and Specifications
- ✓ Surveying Services
- ✓ Geotechnical Services
- ✓ Permitting and MDE Compliance
- ✓ Stormwater Management Reviews
- ✓ Construction Phase and Contractor Coordination
- ✓ Review of Planning Documents
- ✓ Grant Research and Administration
- ✓ Public and Government Meeting Participation
- ✓ Right-of-Way and Easement Review and Acquisition

#### **Years of Experience**

Total: 30

With EA: 30

#### **Education**

M.S./Civil Engineering (Geotechnical)/1994 B.S./Civil Engineering/1993

#### Registrations, Certifications, **Training**

- Registered Professional Engineer/Maryland (1998, No. 23402)
- Board Certified Environmental Engineer, Solid Waste Management (18-20018)
- Erosion and Sediment Control—MD (2016, RPC No. 5372)
- MDOT SHA Erosion and Sediment Control Certification/Yellow Card (No. 25139596)
- OSHA 40-Hr HAZWOPER and 8-Hr Refresher

in Charles County. Supported the project manager with proposal development, subcontractor management, tracking and managing minority business enterprise participation, and ensuring contract compliance. Reviewed client deliverables and provided expert feedback. The work helps Maryland Department of Transportation (MDOT) State Highway Administration (SHA) meet MS4 permit requirements under the National Pollutant Discharge Elimination System. The scope includes inspecting facilities and creating rating assessments based on MDOT SHA's latest procedures manual, which helps prioritize repairs and retrofits of SHA-owned stormwater infrastructure. Inspections were completed using a client-created GIS SQL database and field editing tools.

Total Maximum Daily Load Program Support; Baltimore County, MD; Project Manager: Project manager supporting MDOT SHA's Total Maximum Daily Load program, which is part of their MS4 requirements, Led a team of EA and subconsultant staff to plan new stormwater management best management practices (BMPs) aimed at reducing nutrients and sediment in runoff and improving water quality in local waterways and the Chesapeake Bay. Managed proposal development, subcontractors, invoicing, tracking, and minority business enterprise participation. Reviewed desktop evaluations, field investigations, and concept designs for potential BMP sites across Maryland, ensuring contract compliance. Assessed project needs and identified resources to support changing workloads.

Stormwater Management Facility Inspections, Anne Arundel County, Maryland; Maryland State Highway Administration; Program Manager and Senior Technical Reviewer: Program manager and senior technical reviewer for stormwater facility inspections/re-inspections and geodatabase updates covering 999 new and existing stormwater management facilities in Anne Arundel County, with proposals, subcontractor coordination, tracking minority business enterprise participation, and ensuring contract compliance. Reviewed client deliverables and provided senior-level technical input. The work supports the State Highway Administration's NPDES/MS4 permit requirements. Scope included conducting inspections and rating assessments using the latest SHA "NPDES Standard Procedures Manual" to help prioritize repairs and retrofits of SHA-owned stormwater facilities. Inspections were completed using the client's geographical information system SQL database and field editing tools.

Baltimore County Swale Evaluation, Maryland; Maryland State Highway Administration; Senior Technical Reviewer: Senior technical reviewer for a systematic review of existing grassed roadway swales in Baltimore County. The goal was to determine how much water quality treatment they already provide and what may be missing from the State Highway Administration's NPDES database. Met with project management staff to review overall progress, along with budget, schedule, and final deliverables. By identifying these swales and applying the Environmental Site Design criteria from Chapter 5 of the 2000 Maryland Stormwater Design Manual, EA provided evidence to the State Highway Administration that water quality treatment is already occurring along these highway corridors. This effort supports targeted reduction goals for total nitrogen, total phosphorus, and total suspended solids, and accounts for treated acres of legacy impervious area. The State Highway Administration aims to inventory grass channels using geographical information system analysis and field verification to add best new management practices to its NPDES database. EA used field computers and tablets under a defined protocol that included field verification and measurements.

Total Maximum Daily Load Program Support, Maryland; Maryland State Highway Administration; Project Manager—Project manager supporting the Total Maximum Daily Load Program. EA staff are assisting the SHA in identifying potential sites for new stormwater management practices to further reduce nutrients and sediment in stormwater runoff and improve water quality in local waterways and the Chesapeake Bay. Managed proposals, subcontractors, invoicing, tracking, and minority business enterprise participation, while ensuring contract compliance. Assessed project needs and identified resources to support changing workloads

St. Mary's County Water Quality and Nutrient Removal Project, St. Mary's County, Maryland; St. Mary's Department of Public Works; Senior Engineer: Senior engineer for retrofit designs at 15 stormwater management pond sites in St. Mary's County, focused on maximizing water quality treatment. Reviewed project documents and provided feedback to the team. Supported the Project Manager and Task Manager in addressing client comments. Pollutant load removal calculations followed Maryland Department of the Environment's 2014 guidance, Accounting for Stormwater Waste Load Allocations. The proposed designs help the County meet its Watershed Implementation Plan goals for reducing total nitrogen, total phosphorus, and total suspended solids. Each retrofit was designed to maximize nutrient removal while minimizing construction costs to align with the available \$3.9 million in grant funding.

## **DARL KOLAR, PE, BCEE**

#### **Contract Manager**

Mr. Kolar is the current and proposed contract manager on the Stormwater Management On-Call Services contract for the Town of Berlin. Mr. Kolar is a civil engineer with 27 years of experience in civil and environmental fields. His experience includes designing landfill cells. landfill closures, passive and active landfill gas collection systems, site layout, erosion and sediment control, stormwater management, stormwater plan reviews, hydrogeological investigations, groundwater and landfill gas monitoring, wastewater treatment, water supply, grant application support and preparation, and construction inspection and management.

Stormwater Design, Permitting, Grant Management and Construction Management and Inspection Services; Town of Berlin, Maryland; **Project Manager**: Stormwater management engineer for the Town of Berlin. Managed the grant application, award, design, permitting, construction management, and inspection for over 10 stormwater projects. Designs included culvert replacements, expanded conveyance systems, off-line wetlands, site grading, submerged gravel wetlands, paving and sidewalk restoration, and utility relocation. Completed work includes two off-line wetlands, two submerged gravel wetlands, three culvert replacements, and four stormwater piping and structure upgrades. Coordinated local permitting for stormwater management, erosion and sediment control, wetlands, and approvals from Maryland Department of the Environment (MDE) and the Maryland Department of Transportation State Highway Administration.

Stormwater Management On-Call Services; Town of Berlin, Maryland; **Contract/Project Manager:** Project manager, responsible for stormwater management on-call services. The Town adopted Maryland Department of the Environment (MDE) requirements and shifted stormwater management plan reviews from Worcester County to EA. EA created checklists for plan reviews, waiver and review fees, maintenance agreements, and inspection procedures. EA also provided on-call support

#### **Relevant Highlights**

- Small Scale Drainage Improvements and Retrofits
- ✓ Fish Passage and Stream Enhancement
- ✓ Hydraulic and Hydrologic
- ✓ Contract Plans and Specifications
- ✓ Surveying Services
- ✓ Geotechnical Services
- ✓ Permitting and MDE Compliance
- ✓ Stormwater Management Reviews
- ✓ Construction Phase and Contractor Coordination
- ✓ Review of Planning Documents
- Grant Research and Administration
- ✓ Public and Government Meeting Participation
- ✓ Right-of-Way and Easement Review and Acquisition

#### **Years of Experience**

Total: 27

With EA: 26

#### **Education**

MBA/Project Management Program/ 1999 - 2003

BS/Civil Engineering/1998

#### Registrations, Certifications, **Training**

- Professional Engineer/ Maryland/ 27732/2002
- Board Certified Environmental Engineer (BCEE)/ 2012

for flooding concerns throughout the Town of Berlin and helped establish a stormwater management utility. The team routinely met with Town staff including the mayor, council members, the Town administrator, and department heads to discuss stormwater initiatives. Acting as an extension of town staff, EA represented the town in media interviews and expanded its role to include grant writing. The team secured \$2.6 million in grant funding from the Maryland Department of Natural Resources, Department of Housing and Community Development, and FEMA for stormwater improvements. EA also coordinated biweekly progress meetings to update the Town on stormwater projects, reviews, construction, grant efforts, Council presentations, and other related activities.

Heron Park Stormwater Pollution Prevention Plan; Town of Berlin, Maryland; Project Manager:

Managed the update of the Stormwater Pollution Prevention Plan for Heron Park in Berlin. Helped with the first inspection of the site's stormwater system, identified drainage areas and possible pollution sources, and located all offsite stormwater outfalls. Reviewed the updated plan, including visuals showing the inspection results and recommended actions based on new regulations. Worked with the Owner and local agencies to deliver a complete final report to guide responses if pollution enters the stormwater system and flows to offsite outfalls.

Westminster-Abbey Lane Submerged Gravel Wetland; Town of Berlin, Maryland; Project Manager:

Served as the project manager for reviewing early (pre-design) topographic and soil studies to support the design and permitting of up to three stormwater gravel wetlands in the Burley Heights and Buckingham estates neighborhoods within the Town of Berlin. Led the design of the stormwater systems, including updates to drainage pipes, stormwater calculations and reports, and design drawings.

Stormwater Projects and Management; Prince George's County, Maryland; Prince Georges County Government; Project Manager: Pole Barn Permitting, Design, and Construction; Brown Station Road Sanitary Landfill (BSRSL), Princes Georges County—Oversaw the review of concept and fine grading design and permitting for a pole barn storage building and its stormwater facility. Made design changes to meet requirements from the Department of Permitting, Inspections and Enforcement (DPIE) for site development. Reviewed updates to stormwater analysis to ensure the site could manage a 100-year storm. Supported permitting efforts with other Prince George's County agencies, including the Planning Department, Site/Road Division, and Maryland National Capital Park and Planning Commission. Helped during the bidding and construction phases by reviewing bids, shop drawings, and coordinating permits. Prepared applications for DPIE Concept Plan, Fine Grading, and the County's Soil Conservation District. After design and permitting, managed construction and inspections, helped the contractor get a building permit, and oversaw third-party inspections and the TPIP. Construction was completed in 2024, and the grading permit was closed in 2025. Also designed stormwater calculations for replacing an outfall structure at the Barger Tract Pond, which serves as a sediment basin for a stockpile area used by BSRSL.

Stormwater Inspection Manual; Harford County, Maryland; Senior Technical Reviewer: EA is helping Harford County create its Triennial Stormwater Management Inspection Manual to support staff and consultants in completing required inspections that meet local, state, and federal regulations. EA worked with the County to review their scheduling, internal procedures, and inspection steps—including facility types, key features, and ranking systems. Reviewed a rough draft of the manual with the County to confirm the approach.

Residential Neighborhood Drainage Improvement Program; Charles County, Maryland; Program **Manager:** EA is designing several stormwater-retrofit projects to address flooding and drainage problems in residential areas across Charles County. The projects include comprehensive hydrologic and hydraulic modeling and grading, along with stormwater, storm drain, and utility design. EA is also helping coordinate with homeowners on construction easements and maintenance agreements. Team members attend regular progress meetings and support design reviews to ensure consistency across County projects. The recommended improvements include approximately four channel restorations (one with gabion step pools), two culvert replacements, one storm drain replacement, two inlet and manhole replacements, two driveway culvert upgrades, five open channel improvements, and one new storm drain system. All designs follow Maryland's erosion, sediment control, and stormwater management regulations.

Stormwater Management Support; Wicomico County, Maryland; Project Manager: Managed the review of construction documents for private land development projects to ensure they met MDE stormwater management guidelines and the County's Stormwater Management Ordinance. Also checked the plans for compliance with MDE erosion and sediment control standards. Provided the County with a comment letter and checklists outlining the required items needed for the projects to obtain construction approval.

On-Call Professional Services; City of Havre de Grace, Maryland; Senior Technical Reviewer: Provided support for engineering and construction inspection tasks for the City of Havre de Grace. Helped the County with wastewater system modeling, water main bid services, and general upgrades to water and wastewater systems. Also supported full-time inspection of City utilities installed by private developers.

# **MICHAEL PERRAULT, PE QA/QC Manager and Senior Technical Review**

Mr. Perrault is a civil engineer with 52 years of experience in land development engineering design and consulting services for various private, commercial, and municipal projects. Mr. Perrault is a senior technical reviewer for infrastructure (civil engineering) services at EA.

Stormwater Management On-Call Services - Stormwater Management Review; Town of Berlin, Maryland; Senior Engineer: Provided technical and regulatory review of stormwater management permit applications for the Town. Provided technical support to project staff.

Stormwater Management Repairs and Improvements, Department of Public Works and Transportation (DPW&T); Prince George's County, Maryland; Senior Engineer: Stormwater Design Support - Reviewed feasibility assessments for potential infrastructure and water quality improvements within the Glenndale Heights Subdivision and along Cedar Ridge Drive in Oxon Hill. The Department of Public Works and Transportation was looking to upgrade existing stormwater infrastructure to address resident concerns about drainage while also helping to meet their total maximum daily load requirements. With Glenndale Heights, EA identified approximately ten locations for potential stormwater management practices, one outfall repair project, and 12 impervious area removals. With Cedar Ridge, EA recommended a four-step pool system to convey discharge in a more stable manner to Carey Branch. Designs.

#### **Relevant Highlights**

- Small Scale Drainage Improvements and Retrofits
- Hydraulic and Hydrologic
- **Contract Plans and Specifications**
- Permitting and MDE Compliance
- Stormwater Management Reviews
- Review of Planning Documents
- **Public and Government Meeting** Participation

### **Years of Experience**

Total: 52

With EA: 6

#### **Education**

BS/Civil Engineering/1973 AS/1971

### Registrations, Certifications, **Training**

- Professional Engineer/ Maryland/ 45104/2014
- Professional Engineer/Massachusetts /29399/1978

computations, cost estimates, and nutrient load reductions were prepared for all sites and submitted to the County for their decision. Cabin Branch Culvert Design - Provided a technical engineering design review for an updated hydrologic and hydraulic analysis of a culvert replacement project. The culvert to be replaced had previously failed on a private road within a county site. The project involved reviewing updated calculations based on current land use using the best available County data, along with a summary of findings. Models using HEC-HMS, TR-55, and HEC-RAS were updated as part of the project.

Stormwater Management Plan Review Services; Charles County, Maryland; Senior Engineer: Provides technical and regulatory support for reviewing stormwater management permit applications at all stages concept plan (step 1), site plan (step 2), and development services plan (step 3), including formal revisions. Works with the project manager to ensure plans meet the requirements of the Charles County Stormwater Management Ordinance, Plan Preparation Package, County Green Notices, and the Maryland Stormwater Design Manual.

Stormwater Management Inspection, MDOT SHA; Multiple Counties, Maryland: EA supported the MDOT SHA Highway Hydraulics Division in meeting NPDES/MS4 and Phase I permit requirements by inspecting and re-inspecting stormwater facilities in seven Maryland counties. Inspections followed SHA's standard procedures to help prioritize repairs and retrofits. EA managed GIS and data tasks using ArcGIS Online. Collector, and Survey123. Staff used Collector to locate BMPs and map missing infrastructure, while Survey123 helped complete inspections with smart forms. EA also created tracking tools and daily reporting systems for real-time updates. After fieldwork, EA performed quality checks using engineering logic and SQL, submitted data in CSV format, addressed SHA feedback, and finalized the data. All inspections were completed before the MDE deadline, with budget left to start the next cycle.

Stormwater Management Reviewer; Harford County Department of Public Works; Senior Environmental Engineer: Provides on-call technical support and reviews stormwater management permit applications—including concept, site plan, final plan, revisions, standard plans, erosion and sediment

control/grading plans, blanket permits, and as-built plans—with County staff to ensure they meet Harford County requirements and the Maryland Stormwater Design Manual.

Supports the creation of permitting tools like the As-Built Plan Submittal Checklist and design forms such as the Stormwater Summary Form. Also helps the County prepare clarification documents and technical quidelines. On-site Remote staff augmentation: Also provides monthly two-day on-site support, including coordination with County staff, technical reviews, and help using Bluebeam REVU for electronic plan reviews. Bluebeam REVU: Assists with maintaining and creating custom Tool Chests in Bluebeam REVU.

Cityworks Implementation Phase 1-3, DPW; Harford County, Maryland; Senior Engineer/Stormwater **Specialist:** EA developed a geodatabase for stormwater best management practices (BMPs) and populated it with as-built data. Since the County doesn't require formal reporting of stormwater facility data, EA reviewed both as-built and approved plans, along with design calculations, to gather the data needed for the geodatabase. When data was missing, it was back calculated for inclusion. EA also created an app to support triennial BMP maintenance inspections and streamlined reporting to the Maryland Department of the Environment (MDE). To ensure data accuracy when transferring to the MS4 geodatabase, EA used Esri's Data Reviewer, spell check tools, and manual reviews. GIS staff entered data on-site using County documents, and QA/QC included Python scripts and engineering checks to confirm drainage areas and attributes. In 2018, EA entered 270 BMPs to meet reporting deadlines and continues to add historical data. The geodatabase is accessible daily through an Esri field app for inspections.

On-Site Support, DPW; Harford County, Maryland; Project Manager: EA's GIS team helped Harford County meet MDE's annual stormwater reporting requirements by remotely updating BMP geodatabases using as-built documents. Since the MDE geodatabase wasn't suitable for inspections, EA created a separate BMP database for daily inspection use and built GIS tools such as web apps, dashboards, and Survey123 forms on County servers to make data collection, inspections, and reporting easier. EA also set up a strong QA/QC process using Python and engineering checks to ensure data accuracy and supported the County's move from ArcMap to ArcGIS Pro. Additionally, EA developed an app for tracking illicit discharges with automated alerts and reports and documented a full MS4 Compliance Data Strategy to guide yearly reporting. EA also led bimonthly stormwater meetings, providing agendas, notes, and materials to help standardize practices and address emerging issues.

I-70 Welcome Center Truck Parking; MDOT SHA; Senior Engineer: Provided engineering design review for a project involving stormwater and drainage systems to support added truck parking at the I-70 eastbound and westbound welcome centers. The work included permitting and design coordination with SHA's Plan Review Division, along with cost estimates, technical specifications, and design documentation.

Parke Crescent Apartments; Engineering Support, City of Greenbelt, Maryland; The Donaldson Group, LLC; Senior Engineer: Supported the evaluation of a closed storm drainage system near Parke Crescent Apartments, following flooding in a low-lying area during moderate storms. Reviewed hydrologic and hydraulic evaluation to determine the causes of flooding. The final report concluded that the existing drainage system was significantly undersized.

Fort Smallwood Road Stormwater Management Design, Exelon, MDE; Pasadena, Mayland; Senior Engineer: Provides technical support and regulatory review of stormwater management permit applications including step 1 (concept plan), step 2 (site plan), and step 3 (development services plan), along with formal plan revisions—in conjunction with the project manager. Ensures compliance with the Charles County Stormwater Management Ordinance, Charles County Plan Preparation Package, and the Maryland Stormwater Design Manual.

# **WILLIAM BROOKS, PE, LEED AP BD+C QA/QC Manager and Senior Technical Reviewer**

Mr. Brooks has 18 years of civil engineering experience, specializing in stormwater management and erosion and sediment control design. He has proven expertise across the project lifecycle—from planning and design to drafting, permitting, cost estimating, and writing specifications. His work includes site planning; designing stormwater and drainage systems; developing erosion and sediment control plans; rehabilitating outfalls; and preparing utility, roadway, and detailed grading plans.

Stomrwater Management On-Call Services; Town of Berlin Four Stormwater Projects; Worcester County, Maryland; Berlin, Maryland; **Task Manager**: Served as task manager for stormwater retrofit and improvement projects at four locations in Berlin, Maryland. The goal was to reduce flooding during frequent rain events, in coordination with a study by USACE. The design included replacing two culverts on local roads, creating an offline wetland, upgrading a closed storm drain system, and replacing a failing storm drain network.

**Anchorage Canal Drainage Area Innovative Stormwater Retrofit** (Biochar) Town of South Bethany, Delaware Project Engineer/Task Manager: EA prepared construction documents as part of a design-build project with A-Del Construction to support the Town of South Bethany in improving stormwater quality and quantity flowing into Little Assawoman Bay. The goal was to meet TMDL requirements and restore the health of the watershed, which is affected by tidal events and rising sea levels. The design included an innovative use of biochar in the treatment media to help improve water quality.

**Charles County NPDES Municipal Stormwater Permit Consulting** Services; Charles County, MD; Project Manager: Project manager for NPDES consulting services under contract 20-21, providing support and design for multiple projects across Charles County, Maryland. EA has been handling design and permitting for various drainage improvement projects in neighborhoods throughout the county to fix stormwater and drainage issues. Tasks include site investigations, conveyance design, preparing design packages, construction support and review, responding to information requests, attending progress meetings, and conducting periodic site inspections.

### **Relevant Highlights**

- Small Scale Drainage Improvements and Retrofits
- Fish Passage and Stream Enhancement
- Hydraulic and Hydrologic
- **Contract Plans and Specifications**
- Surveying Services
- **Geotechnical Services**
- Permitting and MDE Compliance
- Stormwater Management Reviews
- Construction Phase and Contractor Coordination
- Review of Planning Documents
- Grant Research and Administration
- **Public and Government Meeting** Participation
- Right-of-Way and Easement **Review and Acquisition**

#### **Years of Experience**

Total: 18

With EA: 10

### **Education**

MS/Environmental Engineering and Science/2018

BS/Agricultural and Biological Engineering (Water Resources) with **Environmental Engineering** Minor/2007

### Registrations, Certifications, **Training**

- Professional Engineer/ Maryland/ 41404/2012
- US Green Building Council—LEED AP BD+C/2007
- OSHA HAZWOPER 40-Hr and 8-Hr Refresher

Stormwater Management Repairs and Improvements; Prince George's County, MD; Project Manager: Assisted Prince George's County with a feasibility study for possible infrastructure and water quality improvements at several locations. The Department of Public Works and Transportation aimed to upgrade

stormwater systems in the Glenndale Heights Subdivision and along Cedar Ridge Drive in Oxon Hill to address drainage concerns and meet total maximum daily load (TMDL) requirements. In Glenndale Heights, EA identified about ten potential stormwater management sites, one outfall repair, and twelve areas for removing impervious surfaces. For Cedar Ridge, EA proposed a four-step pool system to improve discharge flow to Carey Branch. EA prepared designs, calculations, cost estimates, and nutrient reduction data for all sites and submitted them to the County. EA also reviewed other locations across the County to help address resident concerns, including drainage issues on roads and home lots, regional ponds and outfalls, storm drain erosion, and potential BMPs to improve drainage and water quality.

Environmental Support for Confidential Client; Charles and Calvert Counties, MD; Project Engineer/Task Manager: Acted as task manager to help revise erosion and sediment control and stormwater management plans. Supported the design team with site updates, revised drawings, and updated calculations and reports. Provided on-site construction support to assist the contractor with challenging site conditions and ensure the design intent was met.

Water Quality and Nutrient Removal Project; St. Mary's County, MD; Project Engineer: Project engineer for the design of stormwater pond retrofits at 15 sites in St. Mary's County to maximize water quality treatment. Existing pollutant loads were calculated at each site using Chesapeake Bay Water Model rates, and proposed removal efficiencies were based on Chesapeake Bay Program guidance and MDE's Accounting for Stormwater Waste Load Allocations. The designs helped the County meet its Watershed Implementation Plan goals for reducing total nitrogen, total phosphorus, and total suspended solids. Each retrofit was designed to maximize nutrient removal while minimizing construction costs to stay within the \$3.9 million available in grant funding. Final designs included construction plans, notes, quantities, cost estimates, specifications, and any required wetlands permits.

Cabin Branch Culvert Design; Prince George's County, Maryland; Project Engineer: Provided engineering design support for a culvert replacement project involving updated hydrologic and hydraulic analysis. The existing culvert, located on a private interior road at a county site, had previously failed and was slated for replacement. The work involved reviewing the original analysis, updating calculations to reflect current land use using the best available County data, verifying the previous culvert sizing, and summarizing the findings. Updated models included HEC-HMS, TR-55, and HEC-RAS.

Project Management Services, DPW&T; Prince George's County, MD; Project Manager: EA provided technical engineering support to the Prince George's County Department of Public Works and Transportation by inspecting 43 stormwater management facilities, including ponds, bioretention areas, and infiltration trenches. The goal was to verify the operating status of each facility in accordance with Prince George's County inspection requirements. Before visiting each site, EA reviewed available records, including as-built drawings, to understand the original design and drainage areas. During inspections, any deficiencies were documented, along with maintenance recommendations to help county staff restore each facility to its original design requirements.

Neighborhood Drainage Improvements; Charles County, Maryland; Project Manager: Served as the project manager, leading drainage improvement projects across several neighborhoods in Charles County. The projects were identified by Charles County to address persistent flooding, erosion, and resident concerns about poor drainage. EA prepared detailed restoration designs, which included replacing culverts, storm drains, inlets, and manholes, as well as improving driveway culverts and open channels. Construction began in spring 2025. replacement.

Water Quality Mitigation Design; Baltimore County, MD; Project Manager: Assisted the Maryland Department of Transportation State Highway Administration (MDOT SHA) Highway Hydraulics Division with investigating and designing stormwater quality features to support the agency's water quality mitigation bank. Work included site investigations to identify potential design and environmental constraints for stormwater treatment options. As part of the engineering design support, EA prepared a preliminary investigation design submittal, which included a full design package, grading plan, stormwater management design, relevant details, a design report, cost estimate, and technical specifications.

On-Site Support: Harford County Department of Public Works; Project Engineer: EA's geographic information system (GIS) professionals work remotely to update the stormwater BMP geodatabases using as-built PDFs provided by the County. This work helps the County meet its annual reporting requirements to the Maryland Department of the Environment (MDE), which include documenting inspected stormwater practices, the number of maintenance and follow-up inspections, enforcement actions taken to ensure compliance, and the maintenance inspection schedule.

# **NEIL HALLOWELL, JR.**

# **Project Manager/Construction**

Mr. Hallowell has 18 years of experience in engineering design and construction management, with a strong focus on stormwater and municipal infrastructure projects. He currently serves as Project Manager for the Town of Berlin's Stormwater Management On-Call Services and is highly familiar with the Town's needs and processes. His experience spans multiple agencies such as the Town, Maryland State Highway Administration, Worcester and Wicomico Counties, Sussex County, City of Salisbury, Federal Emergency Management Agency, Delaware Department of Natural Resources and Environmental Control, and the Air Force Center for Engineering and the Environment. His project portfolio includes construction management, municipal water and wastewater systems, stormwater reviews, wetland creation, stream restoration, and private development permitting. Mr. Hallowell has handson knowledge of local permitting and design for site layouts, landfills, roads, sewers, water mains, pump stations, force mains, grading, stormwater systems, wetlands, stream restoration, and erosion and sediment control—all while ensuring compliance with local regulatory codes and ordinances.

William Street Culvert Replacement; Town of Berlin; Berlin, Maryland; Designer/Construction Manager: Provided drafting, design, and permitting support to replace an existing culvert under William Street and create a confluence with two offline wetlands downstream. Permitting included approvals from the local Soil Conservation District, Worcester County for stormwater management, the State Highway Administration, the Maryland Department of the Environment (wetlands and waterways permit), and the U.S. Army Corps of Engineers. EA completed a wetland delineation, submitted a jurisdictional determination application, and prepared wetland and buffer impact plates along with a wetland permit application to obtain a joint permit from the Maryland Department of the Environment and the U.S. Army Corps of Engineers. The design increased the system's conveyance capacity by replacing two 24-inch pipes with two 24-inch by 38-inch elliptical pipes. Downstream, the design removed two additional 24-inch pipes to create a confluence where another branch joined the system. To improve water quality, two offline wetlands—one on each side of the confluence—were constructed to intercept higher flows within Hudson Branch. EA also assisted the Town in securing funding from the Federal Emergency Management Agency (FEMA) Hazard Mitigation

#### **Relevant Highlights**

- Small Scale Drainage Improvements and Retrofits
- Contract Plans and Specifications
- Surveying Services
- **Geotechnical Services**
- Permitting and MDE Compliance
- Stormwater Management Reviews
- Construction Phase and Contractor Coordination
- **Review of Planning Documents**
- Grant Research and Administration
- **Public and Government Meeting Participation**
- Right-of-Way and Easement Review and Acquisition

#### **Years of Experience**

Total: 18

With EA: 21

#### **Education**

BS/ Interdisciplinary Studies, Engineering, Math, Physics, and Marketing/2004

### **Registrations, Certifications, Training**

- OSHA Scaffolding, Aerial Lifts;
- OSHA Fall Protection; 2008
- **OSHA Confined Space Operations**;
- OSHA 30-Hour Construction; 2013
- Anti-Terrorism Level I Training: 2014, 2015, 2016
- Maryland Department of the Environment Green Card; 2010
- Maryland Department of the Environment Green Card; 2016

Grant Program and the Maryland Department of Natural Resources Chesapeake and Atlantic Coastal Bays Trust Fund. The project was managed through construction, including inspection and administrative services through final acceptance. Responsibilities included drafting, design, specifications, permitting, construction management, and inspection for stormwater repairs and upgrades along Flower Street, William Street, West Street, and Nelson Street.

Heron Park, Stormwater Pollution Prevention Plan Update; Town of Berlin; Berlin, Maryland; Scientist: Performed an initial site inspection of the facility's stormwater infrastructure, identifying drainage areas, potential pollution sources that could enter the stormwater system, and all off-site stormwater outfalls. Developed a stormwater pollution prevention plan (SWPPP) that included figures summarizing the investigation findings and recommended actions in accordance with new regulations. Coordinated with the owner and local regulatory agencies to deliver a complete and thorough final report, designed to guide regulatory response and appropriate action in the event of a pollution intrusion into the stormwater system and its off-site outfall.

Westminster-Abbey Lane Submerged Gravel Wetland; Town of Berlin, Maryland; Designer: Coordinated pre-design topographic and geotechnical evaluations for the design and permitting of up to three submerged gravel stormwater wetlands within the residential neighborhoods of Burley Heights and Buckingham Estates in the Town of Berlin. Responsibilities included designing stormwater facilities, retrofitting storm drainage pipes, performing stormwater management computations and reporting, and developing detailed design drawings.

Cedar, Maple, and Pine; Storm Drain Replacement; Town of Berlin; Berlin, Maryland; Designer and **Construction Manager:** Provided drafting and design support for the repair and permitting of a failing storm drainpipe along Cedar Avenue, Maple Drive, and Pine Street. The project scope also included water and sewer utility design, pavement restoration, sidewalk improvements, and full street rehabilitation. Prepared and submitted permit applications to the local Soil Conservation District, Worcester County for stormwater management approval, and the State Highway Administration. Managed the project through construction, including inspection and administrative services through final acceptance. Responsibilities included drafting, design, specifications, permitting, construction management, and construction inspection.

Pine, Franklin Nelson Construction Management and Inspection; Town of Berlin, Maryland; Construction Manager: Project engineer supporting the construction of a closed storm drainage system along Pine Street, Franklin Avenue, and Nelson Street. Responsibilities include reviewing shop drawings, evaluating change order requests, and responding to requests for information throughout the construction phase.

Washington Street Outfall Replacement; Town of Berlin Stormwater Management Support; Berlin Maryland; Designer/Construction Manager: Led drafting, design, permitting, bidding, and construction management for the project. Work included removing and replacing an existing 15" storm drain, relocating the system, installing new precast structures, and coordinating survey and sidewalk improvements.

Nelson Avenue; Submerged Gravel Wetlands; Town of Berlin; Berlin, Maryland; CMCI: Provided construction oversite to install a stormwater pipe, water services, submerged gravel wetlands, erosion controls. and associated site upgrades.

West Street Emergency Storm Drain Replacement; Town of Berlin; Berlin, Maryland; Designer and **Construction Manager:** Provided drafting and design for the replacement and permitting of a failing storm drainpipe on West Street. The project also included water and sewer utility design, pavement restoration, sidewalk installation, and overall street rehabilitation. Prepared and submitted permit applications to the local Soil Conservation District and obtained stormwater management approvals from Worcester County and the State Highway Administration. Oversaw the project through construction, including inspection and administrative services, until final acceptance. Responsibilities encompassed drafting, design, specifications, permitting, construction management, and construction inspection.

Gasheys Creek Pump Station Design; City of Havre de Grace Department of Public Works, Havre de **Grace, Maryland; Designer:** The City of Havre de Grace hired EA to design a new sanitary pump station, after recognizing its increasing development and the need for access to the public sanitary sewer collection system. EA input and design review for the pump station project. The design scope included site civil work, surveying, geotechnical investigation, wet well design, submersible pumps, and control systems.

Bulle Rock Water Tower Rehabilitation and Upgrades; City of Havre De Grace, Maryland; Designer: The City of Havre De Grace contracted EA to design a new sanitary pump station. The City's existing water tower was degrading from prolonged use and exposure. EA provided senior engineering input and design review for the pump station project. The design scope included site civil work, surveying, geotechnical investigation, wet well design, submersible pumps, and control systems.

Argyle Farms, Pole Building; Newark, Maryland Scientist/Designer: Conducted an initial site inspection of the facility's stormwater infrastructure. Provided drafting and design support for the proposed water feature, including design and permitting. Coordinated with the Owner and local regulatory agencies to prepare permit applications and construction-level drawings for County Stormwater, Erosion and Sediment Control, and Notice of Intent (NOI) permitting.

Prince Georges County, Area B; Slope Drains; Brown Station Landfill, Upper Marlboro, Maryland Scientist/Designer: Conducted initial site inspection of the facility's stormwater and erosion control infrastructure. Provided drafting/design support for the design and permitting of gabion mattress slope drains.

# STEVEN LEMASTERS, PE, LEED AP **Project Manager/Senior Engineering Manager**

Mr. Lemasters has 19 years of experience in civil engineering with a focus on civil site design, specializing in site layout, stormwater management, and erosion and sediment control. He has designed and managed commercial, residential, and industrial projects from inception through construction completion, including boundary and topographic surveys, site planning, grading, stormwater management, erosion and sediment control, cost estimating, and permitting. Currently, he serves as Project Manager for the Stormwater Management On-Call Services Contract for the Town of Berlin and has acted as lead Project Engineer on seven stormwater/storm drain design projects, six of which have been constructed to date. In addition, he manages or performs stormwater management reviews on behalf of the Town. Mr. Lemasters has worked closely with the Town since 2017, is highly familiar with its processes, and remains committed to supporting its ongoing needs.

Stormwater Management On-Call Services; Town of Berlin, Maryland; **Design Engineer:** Oversaw the final stages of design and permitting for the West Street Emergency Storm Drain Replacement project, securing approvals through the Maryland State Highway Administration and Maryland Department of the Environment. The project involved replacing approximately 1,200 feet of existing 18-inch terra cotta pipe with new 36inch high-density polyethylene (HDPE) pipe. Coordinated with the contractor and Town representatives to verify the exact location of existing utilities using test pitting and ground-penetrating radar. Developed a revised design to resolve the maximum number of utility conflicts while minimizing additional costs to the Town. Also served as task manager and designer for a submerged gravel wetland facility on a vacant Town-owned

#### **Relevant Highlights**

- Small Scale Drainage Improvements and Retrofits
- Fish Passage and Stream Enhancement
- Hydraulic and Hydrologic
- **Contract Plans and Specifications**
- Surveying Services
- Geotechnical Services
- Permitting and MDE Compliance
- Stormwater Management Reviews
- Construction Phase and Contractor Coordination
- Review of Planning Documents
- Grant Research and Administration
- **Public and Government Meeting** Participation **Participation**
- Right-of-Way and Easement **Review and Acquisition**

### **Years of Experience**

Total: 19

With EA: 9

### **Education**

BS/Civil Engineering/2006

### **Registrations, Certifications, Training**

 Professional Engineer—Maryland (No. 55422); 2019

parcel, preparing design plans that included the wetland facility, an associated outfall structure, and downstream 14-inch x 23-inch elliptical reinforced concrete piping connecting to the existing storm drainage system.

Pine, Franklin Nelson Construction Management and Inspection; Town of Berlin, Maryland; Project Engineer/Construction Administrator: Served as project engineer providing construction support to install a closed storm drainage conveyance system along Pine Street, Franklin Avenue, and Nelson Street. Responsibilities included reviewing shop drawings, evaluating change order requests, and responding to requests for information (RFIs) throughout construction.

Hudson Branch Stream Restoration; Town of Berlin, Maryland; Project Engineer: Served as project engineer supporting pre-design activities for approximately 2,000 linear feet of stream restoration along Hudson Branch. Responsibilities included coordinating topographic survey and natural resource delineation, as well as assisting with a geomorphic assessment to inform design and permitting in Worcester County, Maryland. The assessment of the perennial stream included three cross-sections, representative longitudinal profiles, a bank erosion hazard index (BEHI) evaluation, and a near bank stress (NBS) analysis. The crosssections and profiles supported stream restoration sizing and design, while the BEHI and NBS assessments provided data for calculating pollutant removal credits.

Westminster-Abbey Lane Submerged Gravel Wetland; Town of Berlin, Maryland; Project Engineer: Acted as project engineer responsible for coordinating pre-design topographic and geotechnical evaluations for the design and permitting of up to three stormwater management submerged gravel wetlands within the residential neighborhoods of Burley Heights and Buckingham Estates. Responsibilities included designing the

stormwater facilities, retrofitting storm drainage pipes, performing stormwater management computations and reporting, and developing detailed design drawings.

Residential Neighborhood Drainage Improvement Program; Charles County, Maryland; Design Engineer: EA is responsible for designing multiple stormwater management retrofits to address flooding and drainage issues within residential communities throughout Charles County. The projects involve comprehensive hydrologic and hydraulic modeling, grading, and the design of stormwater, storm drain, and utility systems. EA also assists with homeowner coordination, including securing construction easements and stormwater maintenance agreements. Additional responsibilities include attending routine progress meetings and supporting design-phase reviews to ensure consistency across various Charles County projects.

Stormwater Pollution Prevention Plan for Landfill No. 2; Charles County, Maryland; Project Manager: Project manager responsible for coordinating and overseeing two stormwater pollution prevention plans (SWPPPs) for the Public Works Facility and Landfill No. 2. Duties included organizing fieldwork to review facility conditions, conducting an inventory of materials of concern onsite, preparing field mapping, and developing the SWPPPs.

Stormwater Inspection Manual; Harford County, Maryland; Project Engineer: EA assisted Harford County in developing its Triennial Stormwater Management Inspection Manual to support County personnel and consultants in performing mandated inspections for compliance with local, state, and federal regulations. Responsibilities included scheduling and leading discussions with County staff to review internal practices and procedures, and outlining facility types, functional features, inspection criteria, and ranking systems. Developed a draft version of the Inspection Manual for County review and confirmation of the proposed approach.

Stormwater Management Remediation Work Orders, Various Maryland Counties; Design Engineer: As part of the Maryland Department of Transportation (MDOT) State Highway Administration (SHA) Stormwater Management and Drainage Asset Program (established to comply with the National Pollutant Discharge Elimination System permit) MDOT SHA inspects and maintains stormwater management facilities statewide, including those within SHA rights-of-way. When inspections identify deficiencies, a detailed assessment is performed to develop remedial work orders for contractor repairs. Served as the design engineer for this project, responsible for conducting site investigations and preparing remedial work orders in accordance with MDOT SHA standards. Facility types included infiltration trenches, wet ponds, and dry swales in Harford. Carroll, Anne Arundel, and Talbot counties.

Pole Barn Permitting, Design, and Construction; Brown Station Landfill, Princes Georges County, Maryland; Design Engineer: Led the advancement of concept and fine grading site development design and permitting for a pole barn storage structure and associated stormwater management facility. Implemented design modifications to meet the Department of Permitting and Inspections requirements for site development projects. Updated hydrologic and hydraulic analyses to provide 100-year stormwater management compliance. Provided permitting support to satisfy additional Prince George's County requirements, including coordinating with the Planning Department, Site/Road Division, and Maryland-National Capital Park and Planning Commission. Also supported the bid phase and construction administration by reviewing bids, evaluating shop drawings, and coordinating construction permits.

Sandy Hill Ponds Outfall Retrofits, Sandy Hill Creative Disposal Project; Maryland Environmental Service; Design Engineer: EA performed pre-design investigations, design, and permitting for pond outfall improvements at two sedimentation basins within the former Sandy Hill Creative Disposal Project. Improvements addressed approximately 1,200 linear feet of outfall from Pond No. 2, which exhibited significant erosion and signs of a compromised outfall structure associated with Pond No. 3. A geomorphic assessment of the Pond No. 2 outfall was completed, and visual inspections were conducted on the existing corrugated metal barrel and riser structures at Pond No. 3. EA managed subcontracted topographic survey and geotechnical investigations and provided natural resource support, including wetland delineation, forest stand delineation, and natural resource permitting. Full design services will be delivered for both the Pond No. 2 outfall and the Pond No. 3 riser structure.

# **GRACE ANTHONY**

# **Construction/Maintenance Inspection**

Ms. Anthony is an environmental scientist with five years of experience. Her expertise includes environmental compliance and reporting; NPDES, SWPPP, SPCC, and MS4 permitting; erosion and sediment control inspections; regulatory communication; and client and stakeholder engagement. She is proficient in SWMM, HydroCAD, and Civil 3D.

#### **Employment Experience**

### Multiple Projects; G.M.B. Architects and Engineers; Salisbury, MD; **Environmental Scientist:**

- Designed and analyzed stormwater management systems, including detention/retention basins, green infrastructure, and conveyance networks for residential and commercial projects.
- Performed hydrologic and hydraulic modeling using tools such as SWMM and HydroCad to evaluate drainage system performance and flood risk.
- Wrote and maintained stormwater pollution prevention plans (SWPPPs) and spill prevention, control and countermeasures (SPCC) plans in compliance with NPDES and state permitting standards.
- Conducted site grading and drainage design to meet environmental compliance requirements for water quality and quantity.
- Developed construction plans, specifications, and cost estimates for stormwater infrastructure improvements.
- Collaborated with clients and project teams to ensure regulatory compliance and that project goals were met.

### **Relevant Highlights**

- Small Scale Drainage Improvements and Retrofits
- Fish Passage and Stream Enhancement
- Hydraulic and Hydrologic
- **Contract Plans and Specifications**
- Permitting and MDE Compliance
- Stormwater Management Reviews
- Construction Phase and Contractor Coordination
- **Public and Government Meeting** Participation

#### **Years of Experience**

Total: 5 With EA: <1

#### **Education**

BA/Environmental Studies/2020

### Registrations, Certifications, **Training**

- Certified Sediment and Erosion Control Inspector, Maryland
- Certified Construction Reviewer (CCR), Delaware

### Multiple Projects; CMS Environmental Solutions; Delmarva Peninsula, MD; Environmental Analyst:

- Conducted site inspections and compliance audits for erosion, sediment control, and stormwater BMPs on commercial and residential construction projects.
- Collaborated with federal, state, and local regulatory agencies to ensure environmental permitting compliance.
- Performed field investigations and authored technical reports documenting site conditions, violations, and corrective actions.
- Drafted and updated SWPPPs and SPCC plans to meet local, state, and federal regulatory requirements (Maryland 20-CP, MS4 Permits, Delaware CGP).
- Delivered contractor guidance on maintaining compliance with environmental standards and permit conditions.

#### **Project Experience**

#### Poplar Island Restoration Project, Tilghman Island, MD:

- Contributed to an on-going herpetological monitoring project.
- Surveyed the entire island to determine marshland, terrapin, serpent, and amphibian populations.
- Studied correlation between island expansion construction activity and species population growth.
- Created extensive reports to summarize data conclusions.
- Aided on tours of the island by giving presentations to students on species diversity.
- Gained experience in maintaining lab and field equipment.

# **GREGORY ZUKNICK, CERP Habitat Restoration/Fish Passage**

Mr. Zuknick is a restoration ecologist with 15 years of experience in the environmental field, specializing in watershed assessments, biological sampling, and stream restoration design and evaluation. He has led projects involving biological sampling, stream inspections and verifications, and sediment sampling. Mr. Zuknick has also served as the technical lead on initiatives focused on stream restoration design, watershed assessments, and stream prioritization.

### EA Project Experience

Hudson Branch Stream Restoration, Berlin, Maryland. Town of Berlin and Maryland Coastal Bays; Designer: This project design involved restoring approximately 2,100 linear feet of Hudson Branch. The conceptual design includes reconnecting the floodplain and implementing stream engineering to achieve four primary goals: improving water quality and long-term sustainability, providing upstream flood relief, protecting critical town infrastructure, and enhancing natural habitat.

Mill Creek and Meadow Run Stream and Wetland Mitigation and Monitoring Sites. Maryland Department of Transportation, State Highway Administration: Technical Lead: Served as technical lead for annual stream monitoring at two constructed stream and wetland mitigation sites located in southern and western Maryland. These sites are monitored by the Maryland Department of Transportation State Highway Administration in accordance with approved monitoring plans, ensuring compliance with the Maryland Department of the Environment's Performance Standards for Permittee-Responsible Stream and Nontidal Wetland Mitigation Sites. Monitoring activities included assessments of vegetation establishment and survivability, tracking of invasive species, evaluations of structural stability, habitat assessments, bank stability analysis, and stream geomorphic surveys using cross-section and longitudinal profile measurements.

Wetland Mitigation Site Monitoring and Vegetation Assessment, Carroll County, Maryland, South Branch of Gunpowder Falls, Big Pipe Creek Wetland, Piney Run and Bennett Creek Mitigation and Monitoring Sites. Maryland Department of Transportation, State

### **Relevant Highlights**

- Small Scale Drainage Improvements and Retrofits
- ✓ Fish Passage and Stream Enhancement
- ✓ Reviewed Hydraulic and Hydrologic Models
- ✓ Contract Plans and Specifications
- ✓ Reviewed Surveying Services
- ✓ Permitting and MDE Compliance
- ✓ Stormwater Management Reviews
- ✓ Construction Phase and Contractor Coordination
- ✓ Review of Planning Documents
- ✓ Public and Government Meeting **Participation**

### **Years of Experience**

Total: 15

With EA: 2

#### **Education**

MS/Environmental Science/2015 BS/Environmental Science/2009

### Registrations, Certifications, **Training**

- Certified Ecological Restoration Practitioner (CERP) 50782437/ 2017-2027
- **Erosion & Sediment Control** Certification/ Maryland/ RPC024743/ 2022
- MBSS Benthic Survey Certification/ 2013-2026
- MBSS Habitat Assessment Certification/ 2019-2024

Highway Administration; Technical Lead and Technical Staff: Served as the technical lead for annual stream monitoring at two constructed wetland and stream mitigation sites. Also served as technical staff for two additional constructed wetland mitigation sites across central Maryland. The Maryland Department of Transportation State Highway Administration is responsible for monitoring all four sites in accordance with approved monitoring plans, ensuring compliance with the Maryland Department of the Environment's Performance Standards for Permittee-Responsible Nontidal Wetland and Stream Mitigation Sites. Monitoring activities included installation and data collection from groundwater monitoring wells equipped with data loggers, assessment of hydric soil development using indicators of reduction in soils (IRIS) tubes and alphaalpha dipyridyl strips, evaluations of vegetation establishment and survivability, invasive species monitoring, structural stability assessments, bank stability evaluations, and stream geomorphic surveys.

Kingman Lake Environmental Assessment and Tidal Wetland Restoration Design, Washington, D.C., Department of Energy and the Environment; Designer: EA is performing environmental and natural resource assessments and completing the pre-National Environmental Policy Act compliance and 30% design stages for a project aimed at restoring 10 acres of tidal wetland habitat within Kingman Lake. The manmade lake is directly connected to the Anacostia River. As part of this effort, EA developed conceptual design

alternatives and contributed to the existing conditions report and proposed restoration actions...

#### Other Project Experience

University of Maryland Baltimore County Stormwater Institutional Management Plan and Open Space Framework, Baltimore County, Maryland: Field Assessment Lead: Served as an environmental scientist for a stormwater master planning and landscape framework initiative at the University of Maryland, Baltimore County. Collected field data on open space locations and usage, identified stormwater management needs, and documented key natural resources. The University aimed to improve integration between new buildings, adjacent open spaces, and stormwater management features through this planning effort. The result was a comprehensive master plan that supports campus-wide stormwater management by creating natural habitats, offering recreational and research opportunities, establishing dynamic and functional landscapes, and demonstrating leadership in sustainability. As part of the project, an institutional management plan (approved by the Maryland Department of the Environment) was developed to guide watershed-based stormwater improvements across the campus.

Glebe Branch Stream Restoration, Anne Arundel County, Maryland; Field Assessment Lead: Provided technical support for an 8,500-linear-foot stream restoration project in Edgewater, Maryland, for Anne Arundel County's Department of Public Works. Responsibilities included field data collection, BEHI calculations, and design support. The project aimed to enhance ecological function and meet MS4 permit requirements under the Chesapeake Bay TMDL. Design goals included stream valley restoration with floodplain and riparian wetland reconnection, denitrification during base flow, sediment and nutrient load reduction, ecological enhancement, and stabilization of storm drain outfalls. The design process involved environmental analysis, feasibility studies, field surveys, preliminary and final design, permitting, easement acquisition, and construction documentation. This project uniquely restored a stream network from headwaters to tidal interface, balancing ecological improvements with urban constraints such as roadway crossings and an in-line detention pond.

Biological Monitoring, Montgomery, Charles and Prince George's Counties, Maryland: Collected benthic macroinvertebrate and fish samples at 30 sites for a private client to assess biological conditions, following Maryland Biological Stream Survey protocols. The team was responsible for sample collection, calculating Index of Biological Integrity scores, preparing monitoring reports, and entering data. The baseline report supports future comparisons to evaluate the impact of watershed land use on biological communities.

Anne Arundel County Watershed Study, Anne Arundel County, Maryland: Served as field team leader for the collection of physical habitat condition data, infrastructure assessments, and Rosgen Level I stream classifications. Led the redevelopment of data collection forms for deployment on Trimble devices using ArcPad software, improving field efficiency and data accuracy. Also contributed to compiling and refining the county's stormwater best management practices (BMP) inventory list as part of a broader watershed planning effort.

Illicit Discharge Detection and Elimination for Anne Arundel County, Maryland: Led a field team in identifying illicit discharges from stormwater outfalls in Anne Arundel County. Used a handheld Trimble GPS unit to locate targeted outfalls and verify the presence of flow following dry weather conditions. When flow was observed, samples were tested for ammonia, pH, temperature, fluoride, chlorine, detergents, and phenols to determine whether the discharge was illicit.

Rock Creek Watershed Assessment, Montgomery County, Maryland; Technical Lead: A comprehensive geographic information systems and desktop analysis identified hundreds of potential locations for implementing stormwater best management practices, green streets, stream restoration, pervious area reforestation, and residential on-lot practices. Led and coordinated field assessments to evaluate the feasibility of these opportunities. Potential restoration projects were prioritized based on factors such as the biological condition of receiving waters, cost-effectiveness, and implementation feasibility. Concept designs were developed for the highest-priority projects to inform the County's capital improvement program. Estimated impervious area treated and pollutant load reductions from these projects will be used to track progress toward Municipal Separate Storm Sewer System (MS4) permit compliance and waste-load allocation goals.

# **RICHARD PFINGSTEN, SPWS Habitat Restoration/Fish Passage**

Mr. Pfingsten is a project manager and wildlife and fisheries biologist specializing in the science of ecological restoration. He has over 38 years of experience providing technical and managerial expertise to public and private sector clients on a wide range of natural and water resource assessment, planning, design and construction projects.

Mr. Pfingsten collaborates with other wildlife and fisheries biologists, stream ecologists, fluvial geomorphologists, hydrologists, watershed planners, water quality experts, and environmental and engineering professionals in conducting multidisciplinary studies. His areas of expertise include wetland assessments and monitoring, wetland mitigation/restoration design, stream assessment and restoration, environmental permitting and regulatory coordination, watershed planning, natural resource inventories, and National Environmental Policy Act (NEPA) compliance. He also has extensive experience in the design. construction management, hands-on construction, and monitoring of a variety of ecological restoration projects.

Civil Engineering, Environmental Engineering, and Construction Management Services; Prince George's County, Largo, Maryland; Contract and Project Manager/Senior Restoration Scientist: Oversaw multi-disciplined engineering and environmental services on-call contract supporting the County with its Municipal Separate Storm Sewer System (MS4) permit compliance and total maximum daily load (TMDL)/WIP II implementation programs. Task assignments under this contract involve: (1) comprehensive planning, civil and water resources engineering, and design for the Stormwater Capital Improvement Program; (2) environmental engineering and NPDES permit services and program support for water quality and compliance; and (3) construction support services for the implementation of Capital Improvement Program projects. Task assignments to date have included preparing design, assisting with permits/grants on a stream restoration project, providing programmatic support for the development of a Capital Improvement Program/MS4 Program Management Manual, preparing a trash TMDL implementation plan, and providing on-site staff augmentation to the County. Contract management responsibilities include client communication, schedule and

### **Relevant Highlights**

- Small Scale Drainage Improvements and Retrofits
- Fish Passage and Stream Enhancement
- ✓ Oversee Hydraulic and Hydrologic, Surveying, and Geotechnical Services
- ✓ Contract Plans and Specifications
- Permitting and MDE Compliance
- ✓ Construction Phase and Contractor Coordination
- ✓ Review of Planning Documents
- ✓ Public and Government Meeting Participation
- Right-of-Way and Easement Review

### **Years of Experience**

With EA: 10.5 Total: 41

#### **Education**

BS/ Wildlife and Fisheries Biology/ Management with Biology Minor/1984 AA/Wildlife and Fisheries Biology/1982

### Registrations, Certifications, **Training**

- Senior Professional Wetland Scientist (PWS) Certification -Society of Wetland Scientists (No. 1105); U.S.; since 1997; current through 2026
- Qualified Forest Professional under the Maryland Forest Conservation Act (COMAR 08.19.06.01) -Maryland Department of Natural Resources; Maryland; 1993

budget tracking, monthly invoicing and progress reporting, subcontractor coordination/management, DBE/MBE utilization tracking, coordination and oversight of project/task managers and other technical staff from multiple disciplines, senior-level environmental technical reviews; and QA/QC for all products produced.

McDonogh Road Water Quality Retrofit and Stream Restoration, Randallstown, MD; Baltimore County Department of Environmental Protection and Sustainability (EPS); Project Manager/Senior Ecological **Restoration Scientist:** Oversaw a multi-faceted project involving detailed studies and final design for a 5.3acre water quality retrofit and 2,000-linear-foot stream restoration in the Scotts Level Branch sub-watershed, a tributary of Gwynns Falls and ultimately the Chesapeake Bay. The project supported the County's efforts to reduce nitrogen, phosphorus, and sediment loads in accordance with TMDL requirements. Led the design team in developing an innovative approach that included stream channel uplift to reconnect the stream to its floodplain and the creation/enhancement of floodplain wetlands to improve water quality and ecological health. Responsibilities included daily oversight of the design team, client coordination, progress meetings, review of watershed and site-specific data, utility mapping, environmental constraints assessments, and senior technical review.

Provided support for detailed fluvial geomorphic assessments, BEHI/NBS evaluations, sediment load predictions, stormwater outfall assessments, land use and watershed analysis, soil boring and groundwater monitoring, and preparation of a simplified assessment report outlining findings and conceptual design options. Managed regulatory coordination and permit negotiations, including preparation of a public outreach presentation for a community meeting. Oversaw and contributed to the development of 30%, 50%, 90%, and final (100%) design plans, specifications, cost estimates, and bid documents. Responded to County and agency comments at each design phase and submitted erosion and sediment control (ESC) plans for approval by the local Soil Conservation District. Prepared draft and final design basis reports, hydrologic and hydraulic (H&H) analyses, nutrient and sediment load reduction evaluations, and Joint Permit Application (JPA) packages for temporary and permanent impacts to wetlands, streams, and floodplains. Secured all required approvals, including MDE Letter of Authorization, MDE Water Quality Certification, and USACE Nationwide Permit #27. Participated in the Pre-Bid Meeting as part of post-design services

InterCounty Connector Hollywood Branch (PB-12) Stream Restoration Design, Colesville, Maryland; Project Manager/Senior Ecological Restoration Scientist: Oversaw and contributed to the design of approximately 8,100 linear feet of floodplain and stream restoration/rehabilitation for Hollywood Branch and its unnamed tributary, which drain to Paint Branch—a Use III Natural Trout Stream. The project supported the Maryland State Highway Administration's Environmental Stewardship commitments outlined in the NEPA documentation for the InterCounty Connector highway project. Responsibilities included conducting preliminary field reconnaissance, coordinating channel survey and stakeout, and overseeing fluvial geomorphic assessments and hydrologic/hydraulic modeling. Led the field team in performing Bank Erosion Hazard Index (BEHI) and Near Bank Stress (NBS) assessments to estimate annual sediment loads to Paint Branch. Project elements focused on restoring fish passage through culverts, improving floodway conveyance, reducing sediment erosion, creating wild trout habitat and refuge areas, restoring floodplain capacity through sediment transport and depositional zones, and preserving existing canopy vegetation. Provided senior technical guidance and oversight for final design plans, specifications, cost estimates, design reports, Joint Permit Application (JPA) package, erosion and sediment control (E&SC) design, specialized stream construction details, and PS&E bid documents.

Environmental Assessment Open-End Contract, Harford County, Maryland; Harford County Department of Public Works - Water Resources Engineering; Project Manager and Senior Environmental Scientist: Managed multiple projects under two consecutive three-year, open-ended environmental assessment contracts that involved performing watershed-based studies for the County's NPDES MS4 Permit compliance program. Projects included stormwater sampling, inspection, and data analysis at an ambient monitoring station; biological, physical habitat, and chemical water quality data analysis; GIS-based stormwater mapping and retrofit inventory; development and ongoing monitoring to support an illicit discharge detection program; bacterial source tracking; and development of a baseline watershed management plan for a small urban watershed.

TMDL Stream Assessments, Carroll, Cecil and Harford Counties, Maryland; Maryland SHA; Project Manager/Senior Ecological Restoration Scientist: Oversaw and supported a project team in evaluating over 80 potential stream restoration sites across three Maryland counties. These sites had been previously identified by the Maryland State Highway Administration (SHA) during earlier mitigation site searches. The purpose of the study was to assess each site's suitability for stream restoration practices aimed at reducing sediment loads and helping SHA meet its assigned Total Maximum Daily Load (TMDL) requirements. Responsibilities included collecting and reviewing site data, conducting initial desktop assessments, preparing base maps, and helping develop a standardized field evaluation form to record site-specific observations. Led field calibration and data collection efforts to populate the forms and associated Geographic Information Systems (GIS) database. Participated in site ranking and prioritization and collaborated with SHA and other consultants during project team meetings. Worked with SHA to plan site visits to the highest-ranked locations in each county to further assess feasibility and develop conceptual stream restoration designs that support sediment load reduction goals under the TMDL program. Contributed to the preparation of both draft and final reports summarizing findings and site rankings.

# THOMAS KING, PWS, QP

# **Environmental Permitting**

Mr. King is a senior environmental scientist and project manager in EA's Water and Natural Resources Group, with over 20 years of experience. His core responsibilities include wetland delineation and assessment; wetland and stream mitigation and restoration; natural resource permitting and regulatory coordination; habitat and avian surveys; baseline terrestrial assessments; rare, threatened, and endangered (RTE) species surveys; forest stand delineations; and vegetation mapping. He is highly proficient in identifying tree, shrub, and herbaceous plant species.

Stormwater Management On-Call Services; Town of Berlin, MD; Senior Scientist: Project scientist for part of the on-call, stormwater management services for the Town of Berlin. EA is currently providing on-call stormwater support services for flooding concerns throughout the Town of Berlin.

Beaver Dam Creek #20 Watershed Restoration and Best Management Practice Design; Prince George's County, Maryland; Prince George's County, Maryland; Environmental Scientist: Conducted watershed reconnaissance in the Beaver Dam Creek watershed to evaluate structural and non-structural best management practices for improving stormwater quality and quantity control. The assessment included evaluating opportunities for wetland creation and stream restoration. A fluvial geomorphic survey was performed on approximately 700 linear feet of a first-order entrenched stream, along with wetland and forest stand delineations throughout the project area..

**Tucker Road Post Construction Stream Monitoring: Fort Washington,** 

Maryland; Prince George's County Department of the Environment; Project Manager: EA conducted post-construction monitoring of an unnamed tributary to Henson Creek during the final three years of a five-year monitoring period, in compliance with permitting requirements. Annual monitoring included visual inspections of the in-stream channel, downstream limits, and adjacent floodplain areas. Specific parameters assessed included changes in channel cross-section, pattern, profile, stability, streambed material composition, and vegetation—along with invasive species treatment. Maintenance recommendations were provided annually, and all maintenance activities were documented.

Charles County NPDES Municipal Stormwater Permit Consulting Services; Charles County, MD; Senior Scientist: Served as a scientist under Contract 20-21 for NPDES consulting services, supporting design and permitting for multiple stormwater improvement projects throughout Charles County, Maryland. EA provided design and permitting for drainage improvement projects in residential neighborhoods to address stormwater and drainage deficiencies. Responsibilities included field investigations, wetland delineations, specimen tree surveys, and coordination with the Maryland Department of the Environment (MDE) for permitting on several drainage conveyance projects.

Stormwater Support, DPW; Harford County, Maryland; Environmental Scientist: Developed a Stream Restoration Inspection Protocol for the County to support its triennial inspection requirements and reporting to the Maryland Department of the Environment (MDE). The protocol assists MDE in calculating Total Maximum Daily Load (TMDL) reductions to the Chesapeake Bay. Reviewed as-built drawings for stream restoration projects and prepared a technical memorandum outlining inspection parameters. Supported the development of an ESRI Survey123 web application to facilitate data collection and execution of the inspections.

Stillmeadow Stream Restoration Monitoring; Harford County, Department of Public Works; Harford County, Maryland; Senior Scientist: EA conducted pre- and post-construction monitoring along 1,586 linear feet of stream restoration in accordance with special conditions outlined in the U.S. Army Corps of Engineers (USACE) authorization. Pre-construction photo monitoring stations were strategically established and georeferenced to ensure accurate replication during post-construction monitoring. EA provided senior technical

#### **Relevant Highlights**

- Small Scale Drainage Improvements and Retrofits
- ✓ Fish Passage and Stream Enhancement
- ✓ Contract Plans and Specifications
- ✓ Permitting and MDE Compliance
- ✓ Construction Phase and Contractor Coordination
- ✓ Review of Planning Documents
- ✓ Public and Government Meeting Participation

### **Years of Experience**

Total: 20

With EA: 16

### Education

MS/Environmental Studies/2004 BS/Biology/2002

# Registrations, Certifications, Training

- Professional Wetland Scientist (PWS) (2013, No. 2411)
- Qualified Professional (QP) Forestry Certification, Maryland Department of Natural Resources (2014)

review of the annual monitoring report, ensuring quality and regulatory compliance prior to final submittal to the USACE.

Woodbridge Stream Repair Monitoring; Harford County, Department of Public Works; Harford County, Maryland; Project Manager and Scientist: Conducted three years of post-construction monitoring for a stream repair project in accordance with special conditions outlined in the U.S. Army Corps of Engineers (USACE) authorization. As-built photo monitoring stations were established and georeferenced to ensure consistent replication during subsequent monitoring events. Provided senior technical review of the annual monitoring reports prior to final submittal to USACE, ensuring regulatory compliance and data integrity.

Total Maximum Daily Load Outfalls Howard County Group 1; Maryland Department of Transportation State Highway Administration; Project Manager\Designated Specialist: Project manager for the design of two outfall retrofits and associated adjacent stream restoration. Goal is to improve water quality treatment based on the State's required sediment/nutrient reduction and impervious area goals. The design intends to improve the stability and function of the outfalls by providing adequate drainage and safe conveyance of storm flows, providing channel stabilization, and improving in-stream habitat. Also acted as the assigned designated specialist for one of the two restoration sites, overseeing constructions and quality reviews for contractors asbuilt plans.

ICC Hollywood Branch Stream Restoration; Montgomery County, Maryland; Maryland State Highway Administration; Project Engineer: Assisted with a complete fluvial geomorphic assessment and analysis of approximately 8,100 linear feet of Hollywood Branch, a second/third order tributary to Paint Branch. Responsibilities included restoring fish passage through culverts, improving floodway conveyance, reducing sediment erosion through reaches entrenched in modern (Legacy) sediments, creating wild trout habitat, restoring floodplain capacity through the creation of non-source sediment transport reaches and depositional areas, and preserving existing vegetation through Maryland National Capitol Park and Planning Property.

Carroll County Resource Recovery Park and Landfill Expansion, Carroll County, Maryland; Northeast Maryland Waste Disposal Authority; Senior Scientist: Served as senior scientist, responsible for leading forest stand delineation; wetland and stream delineations; and rare, threatened and endangered species surveys as a part of the comprehensive site evaluation. This work helped develop a facility master plan to guide the strategy, design, and construction of infrastructure improvements necessary to meet current and future customer needs. Additional responsibilities included the design and permitting of an expansion to the Northern Landfill, as well as the replacement and upgrade of supporting infrastructure to ensure operational efficiency and regulatory compliance.

St. Mary's County Water Quality and Nutrient Removal Project; St. Mary's County, MD; Senior Scientist: Performed wetland delineations to support the design of retrofits for existing stormwater management ponds at 15 sites throughout St. Mary's County, with the goal of maximizing water quality treatment. Each site underwent a detailed wetland assessment to determine the jurisdictional status of wetland areas within and adjacent to pond outfalls. Assessed permitting requirements for each location and coordinated on-site meetings with regulatory agencies as needed. Completed wetland permit applications for five sites based on delineation results and successfully obtained all five permits using 50% design plans. Provided ongoing technical support to the engineering team during final design development.

McDonogh Road Water Quality Retrofit Project; Baltimore County, MD; Project Manager/Senior Scientist: Assisted with the fluvial geomorphic assessment and analysis using WARSSS methodology, natural channel design, floodplain restoration, and stormwater/floodplain wetland design of approximately 1,500 linear feet of Scotts Level Branch and 600 linear feet of tributary stream. Project goals/design elements include design of a stable channel and confluence, restoration of historical floodplain functions, implementation of wetlands with hydrology based in stream channel, groundwater, sheet flow and stormwater interactions, restoration and enhancement of existing wetlands onsite, establishment of native vegetation and removal of invasive species and homogenous vegetation communities, development of micro-topography to foster diverse wetland and floodplain habitats. Served as lead environmental scientist and task manager. Assisted with the restoration design, which employs traditional natural channel restoration structures, riffle grade control, and open water confluence techniques/channel self determination to meet the project goals. Led the effort for the wetlands and waterways joint permit application preparation, agency coordination, and natural resource studies and inventories. Currently providing post-restoration monitoring of the stream restoration and wetland restoration projects to ensure the project site meets permit conditions and project objectives.

# **WILLIAM BROBERG**

# **Environmental Permitting**

Mr. Broberg is an environmental scientist with four years of experience in natural resource management and stormwater consulting. He has conducted and supported a wide range of field sampling and survey efforts, including wetland delineations, plant surveys, boat operations, electrofishing, water quality monitoring, bioassays, sediment sampling, benthic and epibenthic monitoring, and entrainment sampling.

In the stormwater sector, Mr. Broberg has performed sediment and erosion control inspections on Best Management Practices (BMPs) across 20 land development and homebuilding sites. He contributed to the design and implementation of Stormwater Pollution Prevention Plans (SWPPPs) and maintained effective communication with construction managers, site representatives, and regulatory inspectors from county, state, and federal agencies, including the U.S. Environmental Protection Agency, to ensure regulatory compliance.

Storm Drain Inventory; Prince George's County Government; Prince George's County, Maryland; Scientist: Assisted in the inventory and data collection of stormwater drain devices across Prince George's County. Used geographic information system (GIS) and global positioning system (GPS) technologies to accurately locate and document stormwater infrastructure at designated sites. This effort supported county-wide

#### **Relevant Highlights**

- ✓ Contract Plans and Specifications
- ✓ Permitting and MDE Compliance
- ✓ Stormwater Management Reviews
- ✓ Construction Phase and Contractor Coordination

### **Years of Experience**

Total: 4 With EA: 3

### **Education**

B.S./Environmental Science and Technology (concentration in Natural Resources Management)/2019

### Registrations, Certifications, **Training**

- MDE Erosion and Sediment Control Certified
- VA Responsible Land Disturber Certified
- Motorboat Operation Certification Course and Boat Safety Education
- Fall Protection Competent Person

stormwater management planning and compliance initiatives by providing spatially accurate data for analysis and future maintenance planning.

Wetland Mitigation Site Monitoring and Vegetation Assessment, Carroll County, Maryland, South Branch of Gunpowder Falls, Big Pipe Creek Wetland, Piney Run and Bennett Creek Mitigation and Monitoring Sites. Maryland Department of Transportation, State Highway Administration; Scientist: Responsible for assisting the annual wetland and stream monitoring at four constructed wetland and stream mitigation sites across central Maryland. Maryland Department of Transportation State Highway Administration is required to monitor the site in accordance with the four approved monitoring plans to ensure the four sites meet the Maryland Department of the Environment's Performance Standards Permittee-Responsible Nontidal Wetland and Stream Mitigation Sites, Monitoring across the four mitigation sites included the installation and monitoring of groundwater monitoring wells with data loggers, assessment of hydric soils development using Integrated Risk Information System tubes and alpha-alpha dipyridyl strips, vegetation establishment assessments and survivability counts, invasive species monitoring, and stream geomorphic surveys.

Assessment of Controls Compliance; Support Little Catoctin Creek Stream Restoration; Maryland State Highway Administration; Knoxville, Maryland; Scientist: EA is providing technical support to the Maryland Department of Transportation State Highway Administration (MDOT SHA) to comply with the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit in relation to the Little Catoctin Creek Stream Restoration project. Services include procurement, installation, and maintenance of continuous flow monitoring stations at two locations along Little Catoctin Creek, collection of discrete flow and water quality samples, laboratory analysis of collected samples, and data tracking and reporting in accordance with NPDES MS4 permit requirements. These efforts support MDOT SHA's commitment to improving water quality and meeting regulatory obligations through effective monitoring and restoration practices.

Fort Smallwood (Wagner), Baltimore, Maryland; Talen Energy Corporation; Scientist: Supported the bimonthly collection of larval fish samples at a wastewater treatment facility. Assisted in the processing and shipping of larval fish samples. Provided fish collection permitting support for 2021 sampling year.

# **KENNETH ADAMS**

# **Construction/Maintenance Inspection**

Mr. Adams is a seasoned construction inspector with 38 years of progressive experience spanning general labor, dispatch, customer service, inspection, and project management roles. His background includes both new construction and rehabilitation projects, with core expertise in pipeline construction and rehabilitation, water distribution systems, sewer collection, paving and landscaping restoration, and underground utilities.

Mr. Adams brings a comprehensive skill set that includes budget management, plan and blueprint review, construction materials and methods, detailed reporting and documentation, adherence to environmental and safety regulations, soil compaction and testing, and effective dispute resolution. He is also highly skilled in data and process analysis, team leadership, and staff training and development, making him an asset to multidisciplinary construction and infrastructure teams.

### **Relevant Highlights**

- Small Scale Drainage Improvements and Retrofits
- Contract Plans and Specifications
- Surveying Services
- ✓ Geotechnical Services
- Permitting and MDE Compliance
- Construction Phase and Contractor Coordination
- Review of Planning Documents
- Right-of-Way and Easement Review

### **Years of Experience**

Total: 36

With EA: <1

#### **Education**

**HS** Diploma

#### **Employment Experience**

Torre Engineering – Consultant for Delaware Department of Transportation; Utility Inspector: Mr. Adams inspected utility permits in the field for Sussex County, Delaware.

Washington Suburban Sanitary Commission; Laurel, MD; Technical Contracts Supervisor: Oversaw a team of eight construction inspectors, two contract managers, and a large meter vault program; administered >\$12 million in water and sewer service contracts across two counties

### Summary of Experience and Project Tasks

#### **Operations Leadership:**

- Conducted regular reviews of operations and identified areas for improvement.
- Aligned improvement plans with overall goals and strategic direction.
- Maintained database systems and updated tracking spreadsheets for process monitoring and reporting, including forecast analysis to support key decision-making.

### **Compliance and Quality Control:**

- Dispersed funds to contractors upon verification of quality and completed work.
- Updated standard specifications and worked side-by-side with multiple state and local agencies.
- Implemented and enforced safety regulations.

#### Customer/Vendor/Staff Relations:

- Ensured delivery of effective troubleshooting and a superior customer experience.
- Established strong supply chain relationships to deliver timely and cost-effective services/materials.
- Evaluated staff performance and coached staff on organizational mission and goals.

# **NICHOLAS DUNSTAN, EIT**

# **Modeling**

Mr. Dunstan is a graduate of Oregon State University with degrees in Ecological Engineering and Sustainability. He has over four years of experience in civil and environmental design engineering, with a focus on water resources and ecological systems. His expertise includes hydraulic and hydrologic modeling, using engineering software to develop accurate representations of natural systems, and conducting ecological research in coastal wetlands to quantify stored soil carbon and assess the impacts of coastal land conversion. Mr. Dunstan supports projects through all phases of design development, including engineering drawings, cost estimation, permitting procedures, specification writing, and technical report preparation. He also provides oversight and contractor document review. His field experience spans coastal and riverine assessments, environmental investigations, drone reconnaissance, and sampling of soil, sediment, groundwater, and surface water.

Capwell Pond Dam Removal Feasibility Study, West Greenwich, Rhode Island; RI Trout Unlimited; Engineer: Created an alternatives analysis for dam removal options aimed at increasing fish passage and promoting overall watershed health. The analysis included hydraulic and hydrologic site calculations, hydraulic modeling, and detailed site descriptions. Prepared a feasibility study for the selected alternative, incorporating preliminary engineering design drawings, construction sequencing, cost estimates, and refined hydraulic modeling to support project planning and implementation.

reflect site-specific changes and regulatory updates.

### **Relevant Highlights**

- Small Scale Drainage Improvements and Retrofits
- ✓ Fish Passage and Stream Enhancement
- ✓ Hydraulic and Hydrologic
- ✓ Contract Plans and Specifications
- ✓ Permitting and MDE Compliance
- ✓ Review of Planning Documents
- Grant Research and Administration
- ✓ Public and Government Meeting **Participation**

#### **Years of Experience**

Total: 4

With EA: 4

#### **Education**

BS/Ecological Engineering/2019 BS/Sustainability/2019

### **Registrations, Certifications, Training**

- NCEES Engineer-in-Training (EIT)— OR: 2020
- Federal Aviation Administration Part 107 Remote Pilot; 2023

Air Force Reserve Command Updates to Stormwater Documents, Nationwide; WSP USA Environmental; Engineer: Performed multi-year site investigations and updates to stormwater management program documents to support regulatory compliance. Assisted the client with hydrologic calculations for stormwater design and reviewed upcoming tracking requirements to ensure alignment with evolving regulations. Developed the Municipal Separate Storm Sewer System (MS4) discharge identification plan and a nitrogen source report for facility compliance with state and federal MS4 permit requirements. Provided ongoing support by responding to client inquiries related to stormwater management. Conducted annual stormwater pollution prevention plan (SWPPP) updates for multiple facilities in Massachusetts, Indiana, and New York. This included site visits, inspections of best management practices (BMPs), and report revisions to

Old Upper Mountain Road State Superfund Remedial Design, Lockport, New York; New York State Department of Environmental Conservation; Engineer: Supported the design of a stream restoration project within a historically used landfill area. Design included removing contaminated sediment, improving stormwater management, restoring wetlands, and installing a protective cap to prevent groundwater contamination. Project contributions included cost estimating, stormwater design, contract drawings and technical specifications, and analysis of green remediation metrics to evaluate contractor methods for sustainability tracking.

Site Assessment and Development of Stormwater Pollution Prevention Plan Report, Blairstown, New Jersey; LS Power Equity Advisors; Engineer: Performed initial site assessment of stormwater pollution control measures and developed a stormwater pollution prevention plan (SWPPP) compliance report to meet state and federal regulations..

Stormwater Design and Report Development, East Providence, Rhode Island; Igus; Engineer: Supported design of a stormwater conveyance structure through a structurally unstable landfill. Supported development of design drawings and permitting documentation, as well as stormwater management reports.



### **MOTION OF THE MAYOR AND COUNCIL 2025-69**

A Motion of the Mayor and Council of the Town of Berlin TO DECLARE THE FOLLOWING ITEMS AS SURPLUS PROPERTY AND AUTHORIZE THEIR DISPOSAL through sale or other means.

Department	Item Description	Make/Model	VIN Number	Mileage	Comments
Police	Patrol Vehicle	Ford Explorer 2016	1FM5K8AR7GGC14542	142,100	Replaced
Electric	High Ranger TL 38 P Bucket Truck	2007 F550	1FDAF56R18EA28566	59,396	Maintenance issues and high repair costs
Water Resources	Jet-Vac Truck	2009 International VacCon	1HTWDAAR39J175984	15,233	Purchased a new vehicle
Water Resources	Gas Meter	M Tech Gas Meter	Serial # 0Z5080667RN	N/A	Purchased new meters
Water Resources	Gas Meter	MSA Gas Meter	Serial # 475397	N/A	Purchased new meters

APPROVED THISDAY OF	, 2025, BY THE COUNCIL OF THE TOWN OF
BERLIN, MARYLAND, BY AFFIRMATIVE VOTE	OF TO OPPOSED WITH ABSTAINING
AND ABSENT.	
	Dean Burrell, Sr. Vice President of the Council
APPROVED THISDAY OF	, 2025, by the Mayor of the Town of Berlin.
	Zack Tyndall, Mayor, President of the Council
ATTEST:	
Mary Bohlen, Town Administrator	



### December 8, 2025 Weekly Report

### **Departments This Week:**

#### **Town Administration**

- SAVE-THE-DATE
  - Wednesdays, December 3 & 10: Yard Waste Collection dates. For details: https://berlinmd.gov/trash-recycling-and-special-collection/
  - Monday, December 8: 5:30 PM Closed Session; 6:00 PM Regular Session (no 2nd Meeting in December)
  - o Thursday, December 18, 5:00 PM at Inn at Berlin: Menorah Lighting
  - Friday, December 19: Most Town offices close at 11:30 AM so that our staff can attend the Town Holiday Party
  - Wednesday & Thursday, December 24 & 25: Most Town offices closed for the Christmas Holiday
  - Wednesday & Thursday, December 31 & January 1: Most Town offices closed for the New Year Holiday
- Current RFP/RFQs:
  - Recommendation for award for the On-call Stormwater and General Engineering contracts will be on the agenda for Monday, December 8th.
  - The bidding process for Town Hall Renovations starts Monday, December 8th with a recommendation for award planned for February 9th.
- Ongoing for Town Hall Renovations:
  - o Tim and TechMD are working with Comcast regarding phones.
  - o Staff continues to work on records and is planning to move to the Visitor Center.

#### **Economic and Community Development**

- Ice Ice Berlin and the Tree Lighting were great successes, and the follow-up from the weekend shows our businesses reported strong sales, and the restaurants stayed busy. A lot goes into making this event happen, and it takes coordination across multiple departments and staff members.
- We had steady lines for carriage rides and Santa on Saturday. Free carriage rides will continue for the next three weekends, with no rides on Saturday, December 13.
- Santa has already received dozens of wish lists from kids. Every child who drops a letter in the
  mailbox gets one back from Santa, along with a coupon for a free treat from one of our
  participating businesses.
- The 'Elf Erased My Picture' Storybook Walk is now live and begins at the Welcome Center at 14
   S. Main Street.
- We're now in final prep for the Christmas Parade and putting finishing touches on New Year's Eve plans.
- Working on data for the parking committee, annual reports for DHCD & Main Street America, design work for 2026 advertisements and rack cards and updating Berlinmainstreet.com
- Looking forward to automating our business license process with Tyler in 2026. The system we have now is antiquated.
- I will also be attending the quarterly Maryland Main Street meeting next week.

#### Electric

- Meter & Demand Reads
- Installed Menorah at the Inn
- Stage-Electrical Prep Work
- Tree Lighting Event
- Meter Re-Reads
- Installed Banners
- Visitor Center-Prep work for Town Hall Renovation Move
- Power Plant-Engine Maintenance

#### **Finance Director**

#### Continues to work on:

- Finalizing the FY 2025 Audit.
- FY 2025 end-of-year performance. Preparation of financial highlights.
- FY 2025 capital projects for fixed assets.
- ChargePoint station contract review and billing reconciliations.
- Tyler's new server migration and discussion on the possibility On on-cloud hosting.
- New credit card processing discussions.
- Grants, water loans, public works bond, electric AMI meters bond.
- Opioid settlements, outstanding plan, and questions. Program implementation with Hope 4 Recovery.
- Bank accounts review, collateral coverage, positive pay implementation.
- CDA Bond paperwork, year-end information for USDA office.
- Delinquent accounts review.
- Public Service Commissioner's reports and submissions, PCA calculations Michelle.
- DBF invoices review and processing.
- EA invoices review and processing.
- Credit card payments and processing- Shirley.
- Bank reconciliations Melissa.
- Journal entries and invoices Linda.
- Electric rate study paperwork and necessary reports for evaluation.
- Working with Booth and Assoc-in process.
- Water and electric meter readings- Michelle.
- Smart metering project planning and Tyler integration.
- Check processing and credit card payments, review registers, checks, and the Town's card payments Shirley.
- Department meetings scheduled, projects, and planning.
- Employees' training.
- MD GFOA Conference is upcoming in October.
- Implementation of new Tyler modules for code enforcement, assets, and project accounting.

#### **Human Resources Department**

- Processed payroll and all related reports on 12/01/2025.
- Still working with the SHRM Handbook builder tool, once I finish "building" the handbook and have it reviewed by their legal team, I will be presenting it to the Mayor and Council.
- Interviewed for Chief Plant Operator on 12/02/2025.
- Working with Sara G, Finance, and Public Works to track Hope 4 Recovery information.

- Assisted with the completion of an employee's retirement paperwork.
- Worked with ADP to correct some back-end coding issues we had happening.
- FYI, due to the New Years Holiday, payroll typically processed on Monday, December 29th must be processed on Friday, December 26th
- Save the Date:
  - Civility in the Workplace and Harassment Training for December 16th please notify Laura Brown of which session you plan to attend, A.M. or P.M.
  - o Town Holiday gathering on December 19th more information to follow.
- Open positions:
  - Chief Plant Operator Wastewater
  - o Police Communications Officer (part-time) Police
  - Two Police Officers Police

#### **Planning Department**

- Preparing for the next Historic District meeting 12/3/25 1 case.
- Preparing for the upcoming Planning Commission meeting 12/16/25 1 case.
- Conducted on-call engineer interviews.
- Attended the Technical Review meeting.
- Ongoing review of development projects.
- In-person meetings with developers.
- Received permits for: Roof − 2, Renovation − 2, Sign − 1.
- Released permits for: Roof − 1, Renovation − 1, Demolition − 1, Alteration − 1.
- Received applications for: Business License 2.
- Received 1 PIA request.
- Issued door tags/corrective action letters for: Trash receptacle at curb after collection time 6,
   Unpermitted burning 1, Junk 1, Parking in the front yard 1, Interior furniture on front porch 2, Inoperable vehicle 1, removed advertising signs 2.
- Finalized map for town leases at railroad crossings.
- Research data for election districts for mapping.
- Research data for enterprise zone, arts & entertainment for mapping.
- Digitized easements in Henry's Mill area.

### **Police Department**

- 11/19, Sgt Bragg and S.O. Engelbrecht completed the Officer Safety and Tactical Awareness course present by The Local Government Insurance Trust (LGIT) in Easton, MD.
- 11/24, Chief Downing and Lt Fisher attended the retirement celebration for Captain Brian Craven of the Pocomoke City Police (30 years of service).
- 11/28, Lt Fisher, Sgt Bragg, S.O. Engelbrecht, and Ptl Rickards provided safety and security at Ice, Ice Berlin and the Christmas Tree Lighting celebration.
- 12/1, Sgt Bragg and Ptl Ebke assisted the Pocomoke City Police Department with the Town's Christmas Parade.
- Collisions 4.
- Arrest − 1.

#### **Public Works**

- PW assisted with the Ice Ice/Tree Lighting event on Black Friday. We helped set up the stage, helped with setup and removal of ice sculptures, and assisted in parking over 100 cars in the West St. parking lot.
- We will assist with the Christmas parade this week as well, providing traffic control, crowd control, and cleanup efforts across town.
- The first day of yard waste collection takes place this week, with Tues/Weds pickup on 12/3 and Thurs collection on 12/10.
- Trash and recycling collection continue as normal.
- Weekly street sweeping around town continues as well.

#### **Water Resources**

- Storm Drain repairs Westminster & Abbey.
- Ocean Breeze replaced the fans on HVAC units at the WWTP.
- Fixed control screen for sludge press / drying beds.
- Sewer line blockage repair- Flower St.
- WR Vehicles serviced for preparation of inclement weather months.
- Parade preparation picking up light towers.
- Interview(s) for the Chief Plant Operator position.



# Check Run Report will be posted when available.