



**2025 Fall Conference at Ashore Resort & Beach Club
Ocean City, Maryland**

Broadening the Scope of Engineering & Business Ethics

Charles M. O'Donnell, III, P.E. – George, Miles & Buhr, LLC

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BIOGRAPHY

- § Charlie joined GMB in June 1989. After serving the City of Lewes (DE) as their Engineer of Record, Charlie became President of GMB in January 2025
- § In his career, Charlie has been the Project Engineer, Manager, and/or Director on all variety of municipal studies, design, contract administration and inspection projects – projects ranging from wastewater treatment facility upgrades and expansions to pickleball courts! For the City of Lewes, he continues to be involved with the City's capital planning, climate resiliency, and municipal planning efforts.
- § Charlie earned his BSCE from the University of Delaware and MBA from Wilmington University. At one time, he was the Head Varsity Basketball Coach at Seaford (DE) High School and coached there for 15 years. He is currently on the Board of Directors for the Engineering Change Lab – USA, which serves to a catalyst for change within the engineering community, helping it reach its highest potential on behalf of society.
- § Charlie enjoys spending time with his wife, daughter, and son-in-law and friends.



ABSTRACT

Broadening the Scope of Engineering & Business Ethics

- § Engineering codes of ethics have traditionally been founded on the concept of our role as engineers in safeguarding public health, safety and welfare by meeting a set of standards relative to our engineering calculations. These codes are important, but they can also be limiting.
- § At GMB, we are working to encourage thinking beyond the code of ethics to a much broader view – known as “macro-ethics”, based on a comprehensive approach to who and what is impacted by our work. This involves “engaging others to define crucial choices that confront our technological society and projects, and how to confront them.”
- § This broader view is considered macro-ethics as opposed to the micro-ethics of codes.
- § 1.0 Professional Development Hour (PDH)

Broadening the Scope of Engineering & Business Ethics

County Engineers Association of Maryland
Fall Conference 2025

Charles M. O'Donnell, III, P.E.
George, Miles & Buhr, LLC
codonnell@gmbnet.com



Who Are the Stakeholders of Engineering & Businesses?

- Public Health, Safety & Welfare
- Earth
- People
- Communities
- Employees
- Clients
- Regulators



GMB
ARCHITECTS / ENGINEERS



TECHNOLOGICAL DETERMINISM

Technology shapes society



Buzzle.com

SOCIAL CONSTRUCTIONISM

Society shapes technology

GMB
ARCHITECTS / ENGINEERS



Key Takeaways for the Engineering Community



- Necessary Skills in Facilitating Systems Thinking
- Adopting a Holistic Viewpoint
- Develop Reflective Thinking Skills
- Be Aware of “Technology Goggles”
- Early Engagement to Collaboratively Identify Project and Problem Formulation
- Recognize Human Impacts – Multi-disciplinary Approaches
 - Poets, Artists, Social Scientists, Flora and Fauna Scientists, Policymakers, etc.
- More Public and Stakeholder Involvement
- Be at the Table for Proactive Defining of Community Futures
- Engineering Education must Address Need for Non-Technical Skills – “Whole New Engineer”



BUSINESS ETHICS - PROFESSIONAL AND COMMUNITY INVOLVEMENT



Advancement
of Your
Profession

Addressing an
Important
Community
Need

Learning

Relationship
Development
/ Leadership
Development

Discussion Question

Challenges of the Future & Macro-Ethics

- How does a broader approach to ethics change your view of engineering's role in helping society to address the challenges of the future?

QUESTIONS?

Contact:

Charles M. O'Donnell, III, P.E. (Charlie)

George, Miles & Buhr, LLC

Engineering Change Lab USA

Phone: 410-430-7056

E-mail: codonnell@gmbnet.com