# Dossier: PROTECTION ENGINEERING CONSULTANTS LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $139,999.62

**Award Date:** 2024-07-25

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

Protection Engineering Consultants, LLC (PEC) is a specialty engineering firm providing comprehensive services related to protective structures, hazard mitigation, and risk management, primarily for government and private sector clients. Their core mission is to enhance security and resilience against a wide range of threats, including blast, ballistics, forced entry, and natural hazards. They aim to solve the problem of vulnerability in infrastructure, facilities, and personnel by offering customized engineering solutions based on advanced analysis, design, and testing methodologies. Their unique value proposition lies in their deep technical expertise in protective design and their ability to integrate security considerations into all phases of a project, from initial concept to construction and operation. This includes sophisticated modeling and simulation capabilities, combined with practical engineering judgment.

**Technology Focus:**

* Blast and Ballistic Engineering: PEC specializes in analyzing and designing structures to withstand blast and ballistic threats, leveraging finite element analysis (FEA) software and computational fluid dynamics (CFD) to predict structural response under extreme loading conditions. They frequently employ high-fidelity simulations to optimize designs for cost-effectiveness while ensuring required performance criteria are met (e.g., DoD Unified Facilities Criteria).
* Forced Entry/Physical Security: PEC offers expertise in designing and evaluating physical security systems to deter and delay unauthorized access. This includes the selection and integration of barriers, doors, windows, and other security elements, as well as conducting vulnerability assessments and penetration testing to identify weaknesses in existing security measures. They possess expertise in relevant security standards, such as those published by the American Society for Testing and Materials (ASTM).

**Recent Developments & Traction:**

* PEC has been consistently awarded task orders under existing indefinite delivery/indefinite quantity (IDIQ) contracts with the Department of Defense (DoD) for blast and ballistic protection design services for various military facilities and infrastructure projects (evidence gleaned from DoD contract announcements).
* PEC presented on "Progressive Collapse Analysis of Reinforced Concrete Structures Considering Construction Loading and Damage" at a recent engineering conference. This indicates their ongoing research and development efforts in structural integrity and safety.
* PEC has been involved in multiple high-profile projects related to critical infrastructure protection, as showcased in project descriptions on their website, though specific details remain confidential.

**Leadership & Team:**

Information regarding specific key leaders (CEO, CTO, President) is not readily available through web searches, likely due to the company's privately held nature. However, the company's website highlights the expertise of its senior engineers, many of whom possess advanced degrees and extensive experience in structural engineering, security design, and risk assessment. Their qualifications suggest a team with significant experience in working with government agencies and commercial clients.

**Competitive Landscape:**

Primary competitors include:

* Weidlinger Associates (now part of Thornton Tomasetti): A larger engineering firm with a similar expertise in protective design and hazard mitigation.
* Karagozian & Case (K&C): Another specialized engineering firm focused on blast and ballistic protection.

PEC differentiates itself through its smaller size and potentially more specialized focus on specific niches within the protective engineering market, allowing them to be more agile and responsive to client needs. The absence of specific marketing materials detailing their differentiators beyond general capabilities suggests they rely heavily on reputation and existing relationships with clients.

**Sources:**

1. [https://www.protection-engineering.com/](https://www.protection-engineering.com/) - Company Website

2. [https://www.researchgate.net/institution/Protection-Engineering-Consultants](https://www.researchgate.net/institution/Protection-Engineering-Consultants) - ResearchGate Page (provides insights into publications and research activities)

3. [https://sam.gov/](https://sam.gov/) - SAM.gov (for government contracting information and vendor details)