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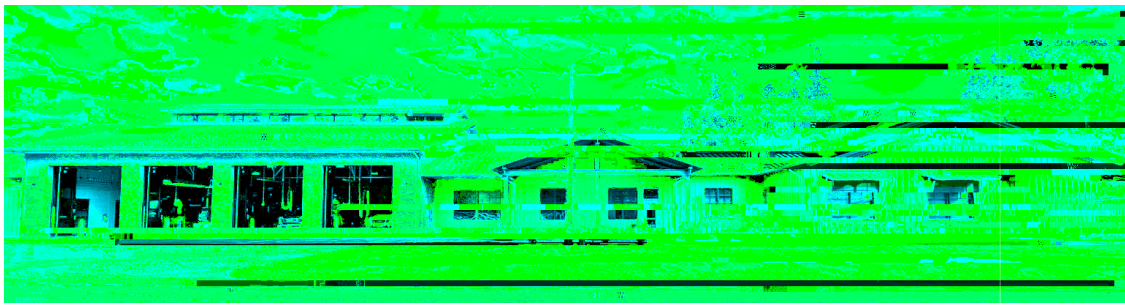

Since its construction in 1971, the North Mason Regional Fire Authority's (NMRFA) headquarters fre station has gone from providing emergency response services over an area of 36 square miles to 132 square miles, and the number of annual calls has grown tenfold. To better serve the expanding community and the Authority's operations for the next half century, the NMRFA undertook a progressive design-build (PDB) project to deliver a new headquarters fre station, supported by a $10 million bond measure.

The project team constructed the new Headquarters Fire Station 21 on 3.5 acres of land adjacent to the former fre station in Belfair, WA, on Old Belfair Highway. The new facility is approximately 21,000 SF and accommodates both daytime and overnight staff with a kitchen/dining area, ftness room, day room, sleeping quarters, administrative spaces, and indoor training facilities. An attached apparatus bay houses fre engines, command vehicles, and ambulances. In addition to the new building, the project also involved utility connections, landscaping, and other site improvements.

Through the efforts of the entire project team, the facility was delivered on time and within budget in early 2022. The project's success demonstrates the effectiveness and fexibility of PDB delivery on projects with tight schedule and budget constraints. The project also offers examples of how derive exceptional value from PDB delivery.

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While PDB offers many advantages, including thorough risk evaluation and distribution and reductions in overall project price and schedule, it is still l

The NMRFA's primary goal for their fre station project was delivering the work in the shortest timeframe possible to provide broader and more effcient emergency and life-safety services to the surrounding community with the least possible burden on the taxpayer. To reduce risk related to design and construction, save time, and save money, the NMRFA wanted to use PDB delivery. However, the NMRFA frst had to attain State of Washington Capital Projects Advisory Review Board Project Review Committee approval. Additionally, as this was the NMRFA's frst PDB project, the Authority was faced with novel procurement and pre-project planning challenges.

To help, the NMRFA hired Hill International, Inc. as owner's project manager. Hill provided project management and PDB

advisory services, helping attain State approval to use PDB and facilitating PDB procurement. Experienced management support at this early stage helped the NMRFA refne their decisions about delivery method and initiate a PDB project with more confdence. Since the Hill team was familiar with state approval procedures for alternative delivery methods, as well as with the local construction market and PDB procurement best practices, the NMRFA was able to save time and launch the project as effciently as possible.

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Design

After NMRFA fnalized procurement, the PDB team - including contractor TRICO Construction, designer Architects West, specialty architects Perlman Architects of Arizona, and other specialty consultants - began refning the scope and working out the design. The $10 million budget was identifed at the project's outset, and the design was developed using a Target Value Design process. Despite signifcant post-pandemic market volatility, the team was able to prioritize critical scope items and identify areas of fexibility to keep the design within the established budget.

One of the primary goals of the project was delivering a facility that enabled quicker response times to the Authority's 132 square mile service area in Mason County. Plus, the NMRFA required space to house enough personnel to match County growth over the next 50 years. The PDB team worked closely with the NMRFA during design to shave seconds off response times and build big while meeting NMRFA requirements and without breaking the budget.

Using their experience with similar rural fre stations and through collaboration with the rest of the PDB team, Architects West and Perlman Architects achieved a design that reduced the fre station's response time by leveraging the latest in fre station design, including quick-release apparatus bay doors for rapid egress of emergency vehicles and a foorplan that facilitates crew movement. The new station is also much larger than the former building, at approximately 21,000 SF. Its communal and administrative spaces are ample and comfortable, allowing for ease of circulation.

Construction

The integrated nature of PDB delivery allowed the whole team to collaborate and promote top-quality performance during construction. From the outset, TRICO and Hill worked closely with the design team to confrm constructability and organize effcient logistics. This helped ensure there were no snags during construction. Hill also worked with TRICO to prepare early construction packages ¾ ɜ op-qw

About the Article

Republished from Hill International, Inc., with more than 3,000 professionals in 100 offices worldwide, provides program management, project management, construction management, project management oversight, facilities management, and other consulting services to clients in a variety of market sectors. Engineering News-Record magazine recently ranked Hill as one of the largest construction management firms in the United States.

For more information about PDB and other alternative delivery methods, reach out to Hill First Vice President Rebecca Blankenship, DBIA, at beckyblankenship@hillintl.com.