In Virginia, the passage of the Public-Private Transportation Act (PPTA) and Public-Private Education Facilities and Infrastructure Act (PPEA) has significantly altered how design and construction firms approach project delivery. Dewberry, a 50-year-old architectural and engineering design firm headquartered in Fairfax, Virginia, has been the lead designer on the first PPTA in Northern Virginia—Route 28 Corridor Improvements design-build contract—for just under four years. Dewberry’s architecture and building service professionals have also been actively pursuing PPEA proposals as they develop around the Commonwealth. For Dewberry’s Virginia offices, the PPTA and PPEA formats have changed how its designers propose and deliver services as well as how they build relationships with construction firms in the immediate community.

The Preferred Team
As with a design-bid-build or design-build team, the relationship between the designer and contractor can significantly impact the project’s success. Working under a PPTA or PPEA agreement brings that relationship into a more critical light: the existing trust and respect between the two professional entities is vital to meeting the expedited schedule and work processes. The partners also share considerable financial risk before and during the project. With design-build delivery, the designer may be required to complete considerable work upfront prior to winning the project. As the proposal progresses with the client, the designer must trust that its partner, the contractor, can provide a competitive and comprehensive proposal to win the work. Once accepted and awarded, the project’s success is again dependent on the team’s respect for each member’s professional capabilities.

In the ongoing Route 28 project, team members consistently point to the importance of the strong relationships between Dewberry, Clark/Shirley and the Virginia Department of Transportation (VDOT) as vital to the project’s success. The team meets weekly, with the construction team reviewing and approving designs early in the process. The agreement between VDOT and the design-build team includes a detailed schedule for submissions of plan packages with procedures established for expedited plan reviews and approvals. Upon plan approval from VDOT, the work proceeds without delay. The construction team would not be able to proceed so quickly with VDOT if not for its strong working relationship.

Proposed Services
Whether a solicited or unsolicited PPTA or PPEA proposal, design firms may carry more risk but have greater control over their success. In addition to assisting the client with its project goals—expedited schedule, challenging project specifications, signature design—the design and construction team removes some of the schedule and financial risk from the client. However, this responsibility for the project cost also gives the team the incentive to succeed, as well as more flexibility over the design and construction process, schedule, and budget. The team has a vital role in making the project successful for the client, providing opportunities to develop different, more cost-effective and often more creative solutions that add value to the project for the client.
Intrinsic to this process is the development of a detailed project scope that clearly establishes the project goals and the client’s expectations. The designer plays a significant role in carefully detailing each party’s responsibilities during the negotiation. If the contract is fixed fee, as on Route 28, finer points of the scope-of-work such as identifying the pavement design, interchange lighting requirements, preliminary bridge layouts, and sidewalk and trail requirements are finalized in a well-written contract prior to starting work.

The project scope may also include services traditionally held by the client. On the Route 28 Improvement project, Dewberry and Clark/Shirley assumed a role typical to VDOT, acquiring right-of-way. Dewberry and Clark/Shirley worked closely with VDOT using the agency’s process, but the design-build team assumed the responsibility for the right-of-way acquisition.

Prompt Delivery
PPTA and PPEA contracts are popular for good reasons, typically reducing risk and providing alternative funding for the owner, as well as expediting project delivery. However, as previously mentioned, the designer can also assume roles that the owner traditionally performs. In addition to expediting plans to meet often concurrent construction milestones, the designer can also be responsible for permitting, right-of-way acquisition, agency coordination, and utility relocation. The designer must be prepared to be flexible, prompt, and committed to meeting schedules and the various tasks.

In short, the PPTA and PPEA design-build delivery method has changed how projects progress: it allows disciplines to complete projects concurrently rather than in a linear fashion; the method gives the designer and constructor more flexibility to succeed; and it further emphasizes the importance of creating and maintaining teaming relationships between design and construction firms.

PPTA Case Study:
Route 28 Improvements
During the past 20 years, the Route 28 corridor bordering Fairfax and Loudoun

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Designers’ Perspective

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the developer manager of this 11-story building with two levels of below grade parking. Clark Construction Group, LLC served as the general contractor on the 276,000-square-foot project. Located two blocks from the White House, 1601 K Street displays a style that is elegant and distinctive. Its façade features pre-cast concrete, detailed spandrel panels, curtain wall, stainless steel, granite and limestone. A stainless steel canopy denotes the building’s main entrance on 16th Street.

Boston Properties and KEG Associates 1, LLC recently awarded Clark Construction a contract to build 505 9th Street in northwest Washington— one of the last remaining undeveloped land parcels in the Penn Quarter neighborhood. Located at the corner of E Street, 505 9th Street is midway between the White House and the U.S. Capitol and just two blocks from Pennsylvania Avenue. The site is centrally located in the heart of the District’s downtown.

Carfax recently awarded a project management/construction management contract to Project Solutions Group. Carfax is relocating its headquarters from Fairfax, Va. to 50,000 square feet in Trinity Center Two, a new office building currently under construction in Centreville, Va. Construction will begin in late summer and be completed by November 2006. Clark Construction is serving as general contractor.

Counts has not only been transformed by new corporate and high-tech campuses, hotels, expansive residential communities, and landmarks such as the Steven F. Udvar-Hazy Center, but also a steady increase in traffic. VDOT estimates that approximately 100,000 vehicles a day travel along the state thoroughfare and predicts that the road may carry as many as 200,000 cars a day by 2025.

Soon after the General Assembly enacted the Public-Private Transportation Act, the Route 28 corridor was identified as an ideal candidate for this approach. A team composed of Shirley Contracting Company and Shirley’s parent company, The Clark Construction Company, along with Dewberry, submitted an unsolicited PPTA proposal to construct ten high-capacity, grade-separated interchanges and widen Route 28 to eight lanes. Under this design-build contract, the team would oversee the design and construction, as well as other services typically handled by VDOT, including right-of-way acquisition, utility relocations, and permitting.

VDOT signed the proposed agreement in September 2002, and the design-build initiative was officially launched. The agreement— the first project to move forward in Northern Virginia under the PPTA legislation— would provide a combined commitment of $200 million in improvements to the Route 28 corridor over four years.

Fast-Tracked Milestones
In just under three years, the design-build project has completed multiple major milestones:

- **Route 606 Interchange**
  A full cloverleaf interchange with a four-lane bridge carrying Route 606 over Route 28 opened in October 2004. Previously a signalized intersection, the new interchange has eased traffic flow considerably.

- **Route 625 Interchange**
  Opened in December 2004, it features a partial cloverleaf, including a four-lane bridge over Route 28 and a directional ramp from northbound Route 28 to westbound Route 625, the widening to six lanes of Route 625 west to the Loudoun County Parkway, and a bridge over the W&OD trail.

- **Westfields Boulevard Interchange**
  This full cloverleaf interchange with northbound and southbound collector-distributor lanes above Route 28 was completed in October 2005. All right-of-way and easements were proffered by the adjacent owners.

- **McLearen Road and Route 846 Interchanges and Additional Phases**
  Interchanges at McLearen Road and Route 846 are scheduled for completion in the fall of 2006. Future phases call for an additional four interchanges and widening the mainline Route 28 to eight lanes.

The project’s success in meeting the accelerated milestones can be attributed to multiple innovative measures to trim schedule and costs. The right-of-way process, for example, has involved acquiring more than 125 properties, with the design-build team overlapping this process with construction and utility relocation. Often complicated by the vast amount fiber optic cables along the corridor, the team considered viable alternatives and adjustments to meet adjacent landowners and VDOT’s needs; minimize impacts to properties; reduce overall project costs; and allow for utility easements without additional taking. In the case of utilities, comprehensive discussions were held with utility owners, developers, and adjacent landowners to develop the best overall utility relocation solution.

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