The advantages of design-build construction include cost savings, fewer change orders and simplicity of management. To build the Sutton Bay Golf Club in Agar, S.D., the decision to use design-build came down to saving time.

"By the time we got all the pieces put together and looked at the schedule, we felt design-build was the only way to get the job done," says Bill Kubly, chief executive officer of golf course builder Landscapes Unlimited, Lincoln, Neb., and a part owner of Sutton Bay. What made this design-build project unusual was that it began with only a total budget in mind - $18 million.

"While influenced by Kubly’s involvement in the project, and Landscape Unlimited’s experience with the construction process, the decision to use design-build was based on time. Design-build probably saved us a year," says Mark Amundson, general manager of Sutton Bay. "If we had to figure out all the particulars beforehand, we would have had to wait another year to begin construction," Kubly agrees. "And that year represents a lot of money and lost opportunity."

Shaving 60 to 90 days off the construction period represents a savings of $1.1 million in carrying costs at 6 percent interest. Extending construction another two or three months also would have added to the grow-in costs.

"Our opening date was ... as fast as you can do it in South Dakota," adds superintendent Bryan Tipton. "Design-build is definitely a quicker process."

Resort opportunity
Sutton Bay originated when Matt Sutton envisioned turning his 4,300-acre horse, cattle and buffalo ranch into a premier golf, fishing and hunting resort. Amundson surveyed the extraordinary property, then called Graham Marsh, a PGA Tour player and an architect, also was one of the investment partners. So, the next steps were to engage an architect to design the clubhouse and lodging, bring in company experts to master plan the buildings, and hire a building contractor with the resources to handle such a large project.

"The property offered a panorama of massive dunes abutting Lake Oahe, a 200-mile-long reservoir formed by a dam on the Missouri River," Kubly says. "It was an extraordinary opportunity, but we knew the team had to be on the same page. The goal of using a turnkey design-build approach was to speed up the process. Missing a season meant losing opportunity."

In this case, a golden opportunity. With several investors from Sand Hills, the Sutton Bay Club put $18 million on the board to build an 18-hole championship golf course, a practice range, clubhouse, lodge and housing units for 75 guests.

Once it was determined Landscapes would be the general contractor, the normal first order of business, the choice of architect, was already decided since Marsh, a PGA Tour player and an architect, also was one of the investment partners. So, the next steps were to engage an architect to design the clubhouse and lodging, bring in company experts to master plan the buildings, and hire a building contractor with the resources to handle such a large project.

"The rest we did mostly in-house," Kubly says, "although we pieced out all the small aspects like the wells, and dropping pumps into Lake Oahe."

On site every day to oversee construction were Amundson, Tipton, and Rock Williams, Landscape Unlimited’s construction superintendent.

The design-build team spoke daily and met every week with Marsh and Kubly. Parameters for everything from root zone to the width of cart paths were set, Williams says, adding: "Adjustments were made, but most things were set in stone. That made life a little easier."

"This is a more simple process than design-bid-build," says Amundson. "There aren’t as many people involved, not as many layers. It’s a cleaner, simpler operation from
Sutton Bay’s 422-yard par-4 finishing hole challenges golfers with fairway rolls that can leave the ball on upslopes, downslopes, above or below their feet. A variety of pin placements add different challenges each day.
design case study
a management perspective. When you have a process like this, decisions can be made almost immediately.

"We built the project within three percent of what we put on paper the year before we started construction, and that included expanding the project to include a nine-hole executive course instead of the originally specified three-hole practice range. The overall project progressed right on time and we met all deadlines."

**Superintendent on site**

While Marsh roughly laid out the 18-hole course in October and November 2001, Tipton was hired in November and came on site for construction in April 2002.

"I worked with Marsh 150 days that summer," Tipton says. "He made sure we both approved every bunker. I wanted to ensure there were sufficient lips to keep water from flowing into them. Each bunker was custom-built."

Tipton also worked closely with Bill Roberts, Landscape's on-site design-build construction manager.

"This is such a huge property that we decided to build two maintenance buildings instead of one," he says. "We designed a second one to be closer to the course and also serve as the pump house. The building is nothing fancy, but it does include an extra 40-by-50-foot work area."

The main maintenance structure, a mile and a half from the 1st hole on the championship course, is 50-by-100 feet, with a 10-by-50-foot office space and a break room. An existing steel farm building near the course is used for fertilizer storage.

Tipton specified SR-1119 bentgrass on the greens and tees, and the blend of low-mow bluegrasses called SureShot.

"Marsh was very good about working with me on all maintenance issues," Tipton says. "We were able to see potential problems and take care of them during construction. Water flow was a concern in some places. Generally the holes were so natural that we could see where the water flowed naturally and shaped them with that in mind. But we're on such a big slope that in a few areas we had to make longer runs with outlet pipes."

Throughout construction, Tipton was most intimately involved in construction of the unique bunkers. Crews took native grass from areas that were going to be cleared for fairways and placed them around all the bunkers. The effect is bunkers abutting native areas that look like they were always there.

**Design-build flexibility**

"We started this project quickly," Kubly says, "and the design-build process allowed us to do that. Design-build is very flexible. On most design-build projects you do a lot of upfront preparations and make decisions on many specifics. But because you have a set cost, you can also accomplish a feat like Sutton Bay, where we took the challenge and drove the project as we went."

Amundson estimates the Sutton Bay partners saved at least 10 percent by building it using the design-build method.

"Because we have 25 to 40 projects under construction at any one time, we can negotiate lower prices on many materials," Kubly says. "Plus we value-engineer every phase of the job, and if you're an experienced design-build contractor, there are savings to gain in those arenas."

Landscapes was able to negotiate better fees from the clubhouse architect, then negotiated with the clubhouse contractor. "Instead of hard-bidding the job, we told them we needed 10-percent potential savings," Kubly says. "You make decisions like switching to asphalt shingles instead of a standing seam roof. You get all the options out on the table, and it's rare to have a contractor play a role in that."

Whether the developer needs to do the major pre-planning for design-build depends on the client, Kubly adds. "Many clients need to know the absolute cost. But for Sutton Bay we had a very good idea. We budgeted everything. We always had a few things in our hip pocket that we could make changes if necessary. For instance, the change to asphalt shingles saved more than $80,000."

Ongoing teamwork allowed the developers to add amenities. The most significant was building a nine-hole executive course rather than the three-hole practice loop in the original scope. A wine room was also added to the clubhouse, and eight acres of native grass was sodded around the clubhouse to give it a natural, more finished look.

"The addition of the sod amounted to a $40,000 to $50,000 change-order, but it looks so natural," Amundson says. "The entire project is stunning."

**At A Glance: Sutton Bay**

<table>
<thead>
<tr>
<th>Location: Agar, South Dakota</th>
<th>Tees: Blend of SR 1119 bentgrass and SureShot (low-mow bluegrass)</th>
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<tbody>
<tr>
<td>Course type: Resort</td>
<td>Slope: 147</td>
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<tr>
<td>Cost: $18 million</td>
<td>Rating: 74.9</td>
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<tr>
<td>Construction began: April 2002</td>
<td>General manager: Mark Amundson</td>
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<td>Course opened: June 2003</td>
<td>Superintendent: Bryan Tipton</td>
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<tr>
<td>Yardage from Skull Tees: 7,245</td>
<td>Designer: Graham Marsh, PGA Tour</td>
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<tr>
<td>Par: 72</td>
<td>Builder: Landscapes Unlimited</td>
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<tr>
<td>Number of bunkers: 72</td>
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