Tripp Davis and Associates has been retained by Shea Homes Trilogy to design a golf course as part of a master planned community south of the town of Maricopa, Arizona, a suburb of Phoenix. Shea Homes Trilogy is partnering with three additional builders including their "Family" division on the development of this 2,000 acre parcel.

We are currently working with land planners/landscape architects Greey/Pickett, and clubhouse architect H&S International on developing a master plan for the new Trilogy community. We look to begin design development this fall and construction documents early in 2006. Golf Course construction is slated to commence in the fall of 2006 with completion in the summer of 2007. Grand Opening of the Golf Course and Community is scheduled for late 2007 or early 2008.

We are fortunate to have this opportunity to design a golf course for Shea Homes. Shea Homes is one of the top home builders in the country and has done a tremendous job at marketing the Trilogy name and setting a very high standard by which all of their communities are measured. With Shea Homes' commitment to quality and our passion for golf course design we feel strongly that this new golf course community will be recognized both locally and nationally for its execution and experience.

We look forward to working with Alex Baird (Trilogy Project Manager) and the entire Shea Homes team to make this project one of the best golf course communities in Arizona and the United States.

Project Updates

We have completed grading and drainage plans for **The Tribute New Course** near Dallas and have been working with Project Engineering firm Kimley-Horne and Land Planning firm TBG Partners on final golf course/lot tie downs. Next step is Army Corp approvals with construction expected to start next summer.

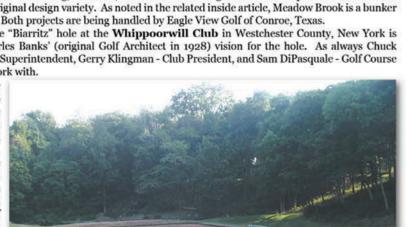
Working with Justin Leonard and Project Manager Jeff Martin, we have solidified a routing for the Orvis~Shorefox project in Granby, Colorado. We will be working with Oxbow Land Management and Western Ecological Resources to get Wetland Mitigation approvals over the winter, while we are working with Project Engineers Carroll & Lange to work through storm drainage and golf course/lot tie downs. Niebur Golf should start construction in late April of 2006.

Fall work at Engineers Country Club and the Meadow Brook Club, both on Long Island, is going very well, even though record rain slowed us down for a short time. The work at Engineers is a continuation of our restoration of the Herbert Strong design that hosted the 1920 U.S. Amateur, involving the reintroduction of Mr. Strong's large "ragged" bunkering, new tees, and minor work to greens where slopes have become too severe to maintain the original design variety. As noted in the related inside article, Meadow Brook is a bunker renovation/restoration. Both projects are being handled by Eagle View Golf of Conroe, Texas.

The restoration of the "Biarritz" hole at the Whippoorwill Club in Westchester County, New York is complete, fulfilling Charles Banks' (original Golf Architect in 1928) vision for the hole. As always Chuck Martineau - Golf Course Superintendent, Gerry Klingman - Club President, and Sam DiPasquale - Golf Course Builder, were great to work with.

Master Planning for the Northwood Club in Dallas, site of the 1952 U.S. Open has been completed and adopted by the Club Board. We expect to have construction work begin next year. Many thanks to Greens Chairman Frank Leftwich, Golf Course Superintendent Kevin Carpenter, and Head Golf Professional Bob Elliott for their input and support.

Restoration of the Biarritz green at Whippoorwill Club



Tripp's Year in Golf - 2005

After resting a wrist injury over the winter that cut his 2004 playing season short, Tripp once again played many amateur events around the country this year. His first event was the Jones Cup at Ocean Forest Golf Club on Sea Island in Georgia. The Jones Cup is a bi-annual event played in early February in the same year as the Walker Cup and brings together a select cast of players such as US Walker Cup Team hopefuls, the Great Britain and Ireland Walker Cup Team hopefuls, and a limited number of other top ranked mateurs. Tripp played well enough to tie for 15th in this elite field of 81 players, while being able to spend the week at the Lodge on Sea Island (with his own butler, nonetheless!).

Next up was the Azalea Amateur in March at one of Tripp's favorite courses, Country Club of Charleston (designed by Seth Raynor n 1926), in one of Tripp's favorite cities, Charleston, South Carolina. This year was more of a family vacation, as Jenny, Mary and Maggie made the trip as well. However, Mary came down with chicken pox, it rained most of the week, and Tripp did not play well. But, Maggie got to see "some really old stuff," so the week was not a total loss.

In late May, Tripp again played in the Inverness Mid Am at the Inverness Club in Ohio, the Donald Ross design that has played host ips. After a poor start, Tripp rallied to finish second to Mid Am legend Danny Green and enjoyed spending time with many old friends.

In June, Tripp again played in the Sunnehanna Amateur at the Sunnehanna Country Club (a Tillinghast design) near Pittsburgh and the Northeast Amateur at Wannamoisett Country Club (a Ross design) near Providence. A very balky putter kept Tripp from playing well at the Sunnehanna, but over the last few years he has developed many good friends there and staying with Ruth and Ton on was great as always. At the Northeast, one bad nine hole stretch, (a 40 on his second nine in the second round), kept Tripp from being near the lead, but his 280 total was more than respectable in a great

After a nearly twenty year absence, Tripp once again played in the Southern Amateur in nid July, being held this year at the Dunes Club in Myrtle Beach, oddly enough the site of the last Southern Amateur Tripp played. Tripp's dad, Bill, made the trip and was a big help carrying water and Gatorade around in the high heat and humidity. Once again, a 41 on his second nine in the second round kept Tripp from being near the lead, but he

Tripp's next event, and maybe the most exciting of the year, was the US Mid Am at the Honor's Course, in Chattanooga, Tennessee in early September. TDA Senior Golf Architect Gary Brawley made the trip and was Tripp's caddie for the week. After qualifying 21st with rounds of 72-74, Tripp made it to the Quarterfinals, coming from vell behind in two matches, losing to eventual champion Kevin Marsh in a hard fought 3 & 1 decision. It was a great experience especially for Gary, as he got to meet many of the players Tripp competes with and calls friends, as well as seeing a USGA event up close. The Quarterfinal finish exempts Tripp for next years event in Flagstaff, Arizona, for which Gary and Tripp have vowed to be in better shape.

Tripp makes his way out of the brush with a great recovery shot during the US Mid An



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with Tripp Davis and Associates

Fall 2005

The Planning & Design Process - TDA Style



by Tripp Davis and Gary Brawley

The game of golf was founded as the simple pleasure of using a stick to hit a ball into a hole. When someone started counting how many hits it took, the game took on a competitive nature that brought with it a sense of strategy. In our mind, golf is at its best when it is a simple pleasure that involves strategic thought.

As the game of golf and golf course architecture have evolved, a greater sense of art has been incorporated into the simple pleasures experienced in the naturalistic setting of a golf course and into how golf course architects challenge strategic thought. Further, the process of planning for golf course construction has become a scientific process involving many design disciplines and often times numerous regulatory bodies. What began as simply marking starting points with a post and finding the most interesting routes to rabbit holes, is now an often times complex series of site analysis, consideration of multiple routing options, coordination of grading and drainage with a myriad of consultants, and unique selection of construction methods that best fit the site, among other important details. Our job today, as golf course architects, is to marry the pleasurable artistic elements of the game of golf with the science necessary to bring the course to life and to make it sustainable. No matter if the site is perfect for golf, or if the site must be made to appear perfect, this marriage is only made to be efficient through a very in-depth and comprehensive planning and design process carried out by creative, knowledgeable and thorough professionals.

Our firm has been built first on bringing these creative, knowledgeable and thorough professionals together. Over time, we have developed our own planning and design processes that allow us to creatively bring the art of golf course architecture to the landscape canvas in an efficient and sustainable manner. This process begins with

Preliminary Planning, where the land planning objectives are met and the "Project Theme" is first identified. It continues with Design Development, where the strategic/visual character of the course is developed and engineering issues are raised, is completed with the development of Construction Documents where the final details are incorporated in the plans/specifications and the objectives for construction are clearly defined, and is monitored during the construction period to ensure that details represent and accentuate the design intent.

Preliminary Planning

Preliminary Planning is the phase in which we work closely with the Owner and the Land Planner to establish the routing of the golf course and begin to establish how the project will be themed. With sites that possess very strong natural character, the routing of the golf course is the single most important part of the process. A good routing that uses the inherent What's Inside

Restoration Work **Greenwich Country Club** Greenwich, Connecticut Meadow Brook Club

TDA to work with Shea Homes in Arizona

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natural attributes of the land to accentuate the strategic/visual character of the site not only will allow the course to fit its surrounds seamlessly, it can save many thousands of dollars, if not millions for the project by not having to remake what is already there, and it can easily suggest the best theme for the project. It is worth noting that Preliminary Planning on a very good site should also embody much of what is done during Design Development (described below), and as such, should take more time.

With a site that is flat and/or featureless, our main objective is to accentuate what off-site views may exist, pay attention to existing topography that may allow sound storm water management to be efficiently achieved, and make sure the golf course has a sequence of holes that present variety in length, movement and orientation. While a flat, relatively featureless site makes it more of a challenge to create a course that appears natural, marry this to an understandable and saleable theme, and it will often make it easier to work with the Land Planners to maximize frontage, orientation, and exposure for the real estate component when such is involved.

The best golf courses and the best golf course architects of the past were the product of maintaining a focus on beauty in nature, both found and made, and a focus on creating strategic interest in the play of the game. The creativity necessary to build a golf course that embodies these two important elements, especially in today's engineering sensitive golf development environment, is not the result of quick epiphanies that come to the golf course architect all of the sudden when huddled over a drafting table. It is the product of spending a great deal of time on site to know what you are working with first hand, it is the product of brainstorming with a group of talented people to gain creative insight from multiple points of view, it is the product of working through concepts for what will be adjacent to the golf course, and it is the product of knowing and expecting that you won't, and should not find what you are looking for the first time around. These are the principals for our Design

Our Design Development process begins by creating "Design Development Base Sheets" for each hole, with the centerlines of the approved routing (or in the case of working with a very natural site, this will be the preliminary centerlines of a preliminary routing), and all necessary site information such as contours, signature trees, out boundaries or development lines, environmentally sensitive areas, etc. Tripp will then start "playing" with ideas for strategy, grades, drainage, tying in grades on the perimeter of the golf hole corridor, grassing and landscape, etc. His ideas are then "presented" to everyone else in the firm, where they will offer their own comments and suggestions, starting the process of these becoming "living documents" that will evolve as we work with the entire Project Team to involve the Owner, the Land Planner, the Project Engineer, and others that need to have input on both how the golf course plan will work and how the golf course will relate to its surroundings. Our Design Development drawings are how we communicate the details of the golf course and how it will relate to its surroundings with everyone involved with the project. It is done in freehand and the process is kept very creative. Once we have developed the strategic and visual intent we are looking for, and we have addressed the necessary coordination issues between the golf course, sensitive areas, and the surrounding development, the Tripp Davis and Associates Project Coordinator, often times Gary Brawley or Michael Rhoads, will prepare "pre-final" Design Development Sheets for each hole and these are distributed to everyone on the Project Team for final review and comment before we move on to the development of Construction Documents. In this way, we uniquely and creatively address most, if not all, of the important issues prior to starting the more rigid and time consuming process of developing Construction Documents.



Construction Documents

The development of detailed Construction Documents serves to accurately define the scope of work and definitively guide the construction effort. This is how cost and quality are controlled. Our objective is nothing short of producing the best set of Construction Documents in the golf development industry. Construction Documents begin with the development of preliminary Grading and Drainage Plans based on the Design Development drawings. Again, Tripp begins this process in freehand, which is then presented to the TDA Project Coordinator for review to ensure that none of the knowledge gained in the Design Development phase is bypassed. These freehand drawings are then scanned and digitized into AutoCAD, where all of the earthwork calculations can be accurately checked to make sure we are not only balancing the earthwork on the site, but in smaller areas that allow for the more efficient movement of earth. Typically, this will result in having to make minor alterations to low areas or lakes to produce more fill if needed, or in having to "beef" up fill areas, such as irregular mounds to "lose" excess fill. We then review the Grading and

Drainage Plans very closely with the Land Planner and the Project Engineer to ensure that we are still working within the guides of what was established during Design Development and to be certain that features such as detention basins are sized properly according to where they will exist on the golf course. It is about this time that we will walk the staked routing with preliminary Grading Plans in hand to make sure that the site features we wanted to keep, such as a signature tree or a unique landform, are not affected by earthwork. We will then prepare a Clearing Plan, noting those site features we want to remain untouched. AutoCAD then allows us to

make an accurate measurement of the area of trees and/or brush that must be cleared.

newsletter design by Hattie Pavlechko

With the Grading and Drainage Plan in a form that balances earthwork, works with the objectives of the Land Planner and Project Engineer, and does not adversely affect site features we want to keep, the Grading and Drainage Plans are further scrutinized so the specified slope gradients for features such as tees, bunker slopes, lake edges, putting green surfaces, and fall into drain basins, as well as the basin and outfall elevations of the drainage system, can be represented accurately.

With the Grading, Drainage and Clearing Plans complete, Tripp will then develop freehand drawings for grassing the course. How these lines are developed is a key element of how the golf course will stand out visually with the contrast of different grass types. The next step is to develop plans for landscape plantings such as trees, shrubs and non-turf ground cover, as applicable. This typically is the result of our coordinated involvement with the Project Landscape Architect. While the general landscape concepts are largely developed with the Project Landscape Architect during Design Development to ensure that the golf course landscape will blend with the landscape theme found in the entire development, this is the point we develop detailed planting schemes and provide the working drawings that will guide construction.

Integral to the development of Grassing and Landscape Plans is the development of Irrigation Plans. After the "pre-final" Grassing and Landscape Plans are put into AutoCAD, we meet with the Irrigation Consultant to review design intent. While the design intent of both the Grassing and Landscape Plan will generally guide the development of the Irrigation Plan, minor alterations that don't adversely impact design intent, can be made at this time to develop the most efficient layout of the irrigation system. The final results are Grassing, Landscape, and Irrigation Plans that work together and allow for accurate takeoffs to be developed prior to construction.

Also included as part of the Construction Documents are Construction Details and the Technical Specifications. We prepare Construction Details for those features that are specific to the site and/or must be completed with precision. Technical Specifications convey, in writing, what is expected to achieve the desired results. Because each project is unique, so too are our Construction Details and Technical Specifications. We spend time staying abreast with new construction products/methods and we do extensive research prior to including items in our details and specifications. As a result, we do not use a boiler plate set of details or specifications. Instead, we develop details and specifications that are specific to each project.

Ensuring Design Intent during Construction

While the planning process essentially concludes with the development of Construction Documents, the design process must be carried forward into construction to make certain that design intent is not only achieved, but is accentuated by the manipulation of minute details. While the development of highly detailed and comprehensive plans are critical to defining the scope of the work and efficiently guiding the construction effort, it is the minute details such as the exact finish grade of a green, the establishment of final sand lines, the fine tuning of a ridge in a fairway that is intended to have a vertical and horizontal impact on play, etc., that will make the golf course great. As part of our Technical Specifications, we require Golf Course Builders to allow us to review all features of the course before they are completed or taken to a point of return by Change Order only. It is further understood as a part of the Contract for Construction that we may make minor alterations during these review periods. It is only because of the details we achieve through Preliminary Planning, Design Development and Construction Documents that these alterations remain minor and do not result in Change Orders.

The Role of Computers in Golf Course Architecture

Everyday, computers change the way we live, think and work, but do they have a role in golf course architecture? In our opinion, computers used as a tool in the design process can greatly outweigh any negatives or misconceptions that some golf purists may have. We still draw every tee, green, bunker, and contour freehand initially, and we still spend a great deal of time on site during construction to make sure details meet and exceed the design intent, but the computer has allowed us to become more efficient during the design process and helped us to more accurately develop the scope of work for our projects.

Possibly the single most important use of computers in golf course architecture is the simple and efficient communication between the myriad of consultants that are necessary and important to the modern golf development process. While golf course architects somewhat lagged behind in the use of computers, Land Planners, Civil Engineers, and Hydrologists not only made early use of computers, they have developed most of the land based programs we use today. By having the same capability within our firm, the communication level is heightened, made even more efficient by today's file transfer capabilities, and we can more easily do our job.

In addition to the coordination capabilities computers offer, our use of AutoCAD gives us the ability to more accurately measure quantities such as square feet of seed being planted, the tons of mix to be used in greens, and cubic yards of earth that will be moved. Without the use of computers, earthwork takeoffs for example, would typically have taken 3-5 days, but with today's technology these takeoffs can be completed in a matter of minutes and with much greater accuracy. By having all of the plans in digital form, we can also make adjustments without having to redraw all that is impacted by the adjustment, which maintains greater accuracy in the plans, and it will not take a great deal of time to recalculate quantities. The result of more accurate quantity takeoffs is a more accurate analysis of cost and eventually greater cost control.

While we rely a great deal on computers in our office today to be more efficient, they are still too rigid, especially in Tripp's mind, to allow us to be as creative as we want to be at certain points. Tripp still draws most everything by hand so that we maintain a free form, creative approach to design. Tripp does not even know how to get into AutoCAD, which is something we like.

Restoration/Renovation Work

Greenwich Country Club

Quite rich in history, Greenwich Country Club in Greenwich, Connecticut has seen many changes over its years. First named the Fairfield County Golf Club, this club was established in 1892 by members with a passion for the game and an inspiring vision. The club evolved from nine to eighteen holes in 1908 and eventually took on its current name in 1909. In 1911, golf architect Seth Raynor designed eight new holes, influencing the existing holes that remained. In following years, A.W. Tillinghast and Donald Ross among others,



made alterations to the course. With the entire club currently being looked at, relative to the quality of facilities and continuity in style, TDA has been hired to evaluate the same for the golf course and prepare a Master Plan that evolves from this tion. Our initial discussion with the greens con mittee, offered that they want the present a classic style and playing interest symbolic of the era the club was founded. Seth Raynor had the greatest influence on the character of the course, so we evaluated the course relative to his well known style and strategy, looking to see what still exists that Raynor influenced and what has been significantly or negatively altered. Using this opportunity to take a very in depth look at Greenwich Country Club, we realized that the site is outstanding and a great deal of the Raynor influence still exists. Currently we are finalizing the details of a Master Plan for consideration by the Club Board.

Meadow Brook Club

The Meadow Brook Hunt Club was established on Long Island in New York in 1881 as a retreat from Manhattan. Golf came to the club in 1893, and the first USGA Women's Amateur Championship was held at Meadow Brook in November 1895. Development of the Long Island Expressway in the early 1950's forced the club to move to its current location, the former Middleton S. Burrell property in Jericho. Renown golf architect Dick Wilson designed the new course and it has since been regarded as one of the best courses on Long Island, hosting the Champions Tour Long Island Classic for a short time.

Dick Wilson originally designed the course to have grass faced, flat bottom bunkers to mimic the links course, assumably driven by his background as a site superintendent during William Flynn's reconstruction of Shinnecock Hills where links style bunkering was a strong character trait. Although the Meadow Brook Club is one of the best conditioned courses in the country, through Superintendent John Carlone's efforts, the bunker style has been altered over time from the original design intent of Dick Wilson mainly because the sandy soil was

coming up into the bunkers and has over time greatly reduced bunker sand quality.

Tripp Davis and Associates was hired to restore the original bunker style while also implementing modern construction methods such as using liners and a mixture of a local sand and a manufactured angular sand to improve the bunker quality. We are using Zoysia grass on south facing slopes to keep turf quality high so the same problems don't arise again.

We have enjoyed working with the Greens Committee of Meadow Brook Club, driven by Mr. Tom Lister, and look forward to improving one of the great clubs in the United States.

