

New Artificial Turf for Anchorage Football Stadium

In the spring of 1999, the Municipality of Anchorage contracted with CRW Engineering

Group to design and provide construction administrative services to replace the deteriorated artificial turf at the Anchorage Football Stadium. The existing artificial turf consisted of a short-pile carpet installed over a thin pad and asphalt pavement. There were several problems that needed to be corrected:

- **Poor Drainage** – All drainage was across the field causing water to pond on the surface.

"It looks like grass. It feels like grass. It plays like grass."

- **Field Crown** – The center of the field was crowned with steep slopes toward the sidelines that adversely impact game play.

- **Surface** – The existing turf surface was extremely hard and abrasive, affecting player comfort and performance.

- **Maintenance** – The turf surface required relatively high maintenance including painting of the markings three to four times per year.

CRW investigated design solutions and alternative artificial turf systems to resolve these unique problems. The work was completed on an expedited schedule to minimize down time.

We ultimately selected an innovative and relatively new artificial turf system that is described by the selected manufacture (FieldTurf®) as follows: "It looks like grass. It feels like grass. It plays like grass." The new artificial infill-turf system features blades of soft blended polyethylene and polypropylene "grass" blades, about 1.8 inches tall. These blades are woven into a porous backing and surrounded by about 1.4 inches of artificial dirt, which is the artificial infill-turf system's most innovative feature. The artificial infill consists of pellets

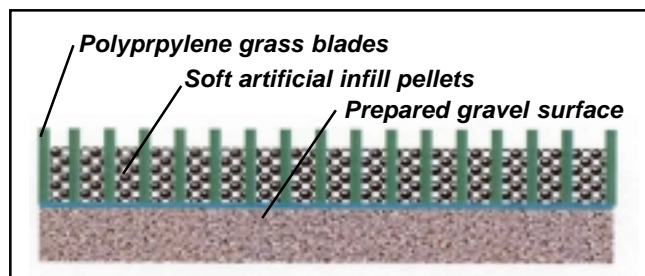


The new turf has many of the features of a real grass field.

of ground rubber and silica sand, which is remarkably successful in mimicking the best attributes of a good grass field – a combination of shock absorbency and footing give that makes it softer and less abrasive. Another advantage of the artificial infill-turf system is that it can be placed directly on a prepared gravel surface to allow vertical drainage. This solved the poor drainage concerns and allowed us to reduce the height of the field crown and field slopes by one-half.

The lines on the field for the artificial infill-turf system never need to be painted. The grass blades are permanently colored and are an integrated part of the field.

The field is getting rave reviews. Players and coaches alike appreciate the features of the new field.



Adopt-a-Trail Program

CRW Group cleans up Campbell Creek Trail segment

CRW Engineering Group adopted a 2-mile segment of Campbell Creek Trail in 1996. Our segment runs along Campbell Creek from Taku Campbell Park at 76th Avenue and King Street to Old Seward Highway.

The Adopt-a-Trail program, as well as Adopt-a-Park, Adopt-a-Garden, and other volunteer programs, is coordinated by Kathy Anderson, the Municipality of Anchorage Parks and Beautification Division's volunteer coordinator.

CRW picks up litter along the trail approximately every 3 weeks and reports any maintenance problems or hazards to the volunteer coordinator. Dave Yanoshek, the CRW coordinator for this activity, designed Campbell Creek Trail from C Street to Old Seward Highway. The center section of trail from 72nd Avenue to Lynwood Drive was constructed in 1984. The remaining sections of trail were constructed in 1994.

CRW recently designed the extension of Campbell Creek Trail from New Seward Highway to the



curved trail crossing bridge at Tudor Road and Bragaw Street. This section will be constructed within the next few years. A section near the Tudor dog track was constructed this past year, and another major extension will be added in 2002. Wilder Construction was the successful contractor on both projects.

Cleanup along Campbell Creek Trail is a great activity. Walking along the trail in beautiful Campbell Creek Greenbelt is very

enjoyable. We are glad to be giving something back to the community and really enjoy meeting people on the trail and appreciate the many "thank you's" they give us as we do our work. It's also valuable to see how the trail is holding up and to develop design ideas from the existing trail, which can be applied, to future designs.

If you are interested in volunteering for any of the programs at Parks and Beautification, please call Kathy Anderson at 343-4287.

CRW News



Beginning January 1, 2002, a new partnership was formed at CRW Engineering Group. Willem Van Hemert (bottom left) maintains majority ownership and will continue to manage the office. New members of the Limited Liability Company include Dave Yanoshek (center), Brian Looney (bottom right), Michael Rabe (top left), and Jeff Stanley (top right). This move will assure our clients continue to receive the highest technical support far into the future. Our office is located at:

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CRW Has a Top-Placing Anchorage Runner

EIT Craig Sheahan first-place winner from Anchorage in the Equinox Marathon

The Equinox Marathon was founded in 1963. The race held on September 22, 2001, was the 39th running of the race. The race goes uphill to Ester Dome from its starting point at the University of Alaska Fairbanks and then, after a turnaround point of approximately 3 miles at the top of Ester Dome, descends to the finish/start line. It is considered to be the third-toughest marathon in the U.S. due to its hills.

Craig Sheahan was third in his age group—20-29—and 10th overall with a time of 3:22:24, 23:19 behind the winner. Craig was the first-place finisher from Anchorage, finishing over 10 minutes in front of the next Anchorage finisher.

An engineer at CRW who has worked here since June 1999, Craig was born February 26, 1974, in Billings, Montana. He went to Spearfish (South Dakota) High School, where he graduated in 1992. Next, Craig attended the University of Nebraska, where he graduated from in 1996 with a BS in Biological Systems Engineering.

Craig also plays for CRW's beginner hockey team. Congratulations, Craig! We're all proud of you!



Photo shows Craig Sheahan during the Equinox Marathon, which is considered to be the third-toughest marathon in the U.S. due to its hills.



Melting the Ice

CRW's co-ed and beginner hockey teams heat things up

The CRW Engineering Group sponsors two ice hockey teams, co-ed and beginner. The teams play in the Anchorage Adult Hockey League. The Novice team (now called beginner) made their first-season debut in Spring 2000 with the co-ed team getting their start in Fall 2000. The team—made up of CRW employees, spouses, and friends—includes many that donned ice-skates and hockey gear for the first time. Everyone on the

team plays the same amount regardless of skill level. We enjoy the physical activity, interaction with coworkers, fun, and the excuse to celebrate when we win.

About CRW...

CRW Engineering Group is a 25-person engineering firm based in Anchorage, Alaska, USA. We specialize in all aspects of civil engineering including transportation, site development, environmental and recreational facilities throughout Alaska.

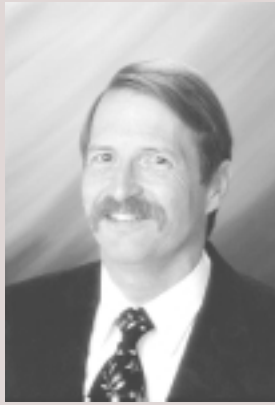
CRW Engineering Group has been providing civil engineering services in Alaska continuously for the past 20 years under our current organizational form.

Firm's Founding...

CRW was established in 1981 by the current owner, Willem Van Hemert, PE. The founding philosophy of the firm was to become a viable part of the engineering work force in Alaska by maintaining a high level of excellence in our work product and at the same time developing a satisfying work environment for its staff. The firm has grown from 3 people in 1981 to a current staff level of 25 including 11 registered engineers.

**Introducing CRW's own...
...Willy Van Hemert**

CRW was established in 1981 by the current owner, Willem Van Hemert, PE. Willy was born October 12, 1950, in Zaltbommel, Netherlands. He grew up in Michigan and graduated from Hackett High School in 1968. He attended the University of Michigan where he graduated with a BS in Civil Engineering in 1972. In 1990, Willy was voted Engineer of the Year by the Alaska Engineering Societies. Other honors include Individual of the Year from the American Public Works Association (1992) and the Chairman's Award from the National Society of Professional Engineers (1995). His 27 years of experience includes master planning, conceptual design, funding support, surveying, detailed design, and construction management.



Willy's wife—Rose, three children—Caroline, Ashley, and Hendrik, two dogs—Mitzi and Nellie, a parakeet and some fish round out his family.

Willy enjoys running and playing basketball and he "loves" his new cabin outside of Willow!

**CRW's
Capabilities:**

- ✓ **Water distribution, storage, and treatment**
- ✓ **Sewer collection systems**
- ✓ **Wastewater treatment facilities**
- ✓ **Septage treatment facilities**
- ✓ **Road and drainage improvements**
- ✓ **Multiuse trails and parks improvements**
- ✓ **Bulk fuel storage facilities**
- ✓ **Airport improvements and facility planning**
- ✓ **Senior housing**
- ✓ **Subdivision development**



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CRW's Goals:

To increase knowledge and capabilities to meet the challenges in our changing marketplace while maintaining a vibrant and positive working environment.