

**Summary of the CF Jordan Loss Control Program –
Winner of the 2007 Gary E. Bird Horizon Award**

The members of the Risk/Safety Management Department of CF Jordan LP are the recipients of the 2007 Gary E. Bird Horizon Award presented by IRMI. The team received the award for implementing a fully integrated risk/safety management process that improved the company's overall performance in the following areas: safety, quality assurance, and wellness. The impact of the process has produced an estimated direct cost savings for workers compensation over the period of 2002–2006 of more than \$2.5 million. Additionally, workers compensation claims severity for the organization is down 85 percent from 2004. More detailed information about CF Jordan's award winning program can be found in the following summary. To learn more about the Gary E. Bird Horizon Award and how to submit a nomination for 2008, click [here](#).

**Integrating Technology to Improve and Measure Risk
Management Initiatives and Track Leading Indicators to Prevent
Incidents, Improve Quality and Overall Employee Health**

Topic 1—Details of the risk management methodology utilized to identify and quantify the need for the technique or process

SAFETY

Five years ago, our organization made a corporate decision to improve its safety process. We have worked over the years to integrate safety as a core value in the way we manage our construction work in every division of our company. In doing so, the most important aspect of our safety process is that of management commitment. An unwavering commitment from our management group, coupled with a well-defined safety implementation plan has driven our success to date. The safety process implementation has resulted in a culture of discipline and accountability that continues to grow and led to the risk/safety management department implementing a process of continuous improvement. We are expanding our management systems approach into other areas including quality assurance to implement best practices in construction and reduce the potential exposure to construction defect claims, and wellness initiatives to protect our work force and provide guidance on breaking habitual habits of behavior that have an adverse affect on health.

As our risk/safety management department has evolved over the years there were many techniques used to identify and quantify the need for change. The first step in identifying areas that need improvement was to determine our insurance costs resulting from inefficiencies in the field that were directly resulting in claims costs. We evaluated our insurance claims history to determine our exposure and look for trends or windows of opportunities for improvement. The initial focus five years ago was to improve our safety culture and reduce our workers' compensation exposure. We spent a lot of time identifying areas where our injuries were occurring and looking back at the root causes

of our accidents. We then developed a new safety initiative which entirely changed the culture of our company. In order to ensure continuous improvement we partnered with a software company to automate our safety auditing system. The system called SafetyNet enables users to collect safety and risk observations on handheld mobile devices. SafetyNet simplifies the collection, analysis and dissemination of job site safety information, enabling the risk/safety management department to take action before at-risk behaviors or conditions become incidents. Initially the risk/safety management team began completing the audits and the reports were used to target training initiatives to prevent accidents in areas that were identified by the leading indicator reports. In 2005, our organization determined that the best way to increase accountability and communication with the field was to expand the SafetyNet system to include all superintendents thereby encouraging participation in every division at every jobsite. Our organization now has over thirty-six superintendents across all divisions using SafetyNet a minimum of twice a week. The superintendents are the key to the success of our safety process. The primary objective of SafetyNet is to enable superintendents to have a voice with respect to jobsite visibility as it relates specifically to subcontractor selection and the overall jobsite safety process. Reports are sent to the project management team once a week so if a subcontractor is under-performing on safety—management knows about it—and project managers are required to take action. The executive management team receives monthly reports that highlight user participation, subcontractor performance and an overall comparison of divisions based on leading indicators. The leading indicators enable the risk/safety management team to be aware of potential safety trends and implement training initiatives to prevent accidents. Furthermore, the subcontractor evaluation report is now used in the subcontractor selection process.

The quantification of the implementation of the safety process including the integration of technology to measure safety performance was based on a cost benefit analysis related to the cost of workers' compensation claims vs. the cost to administer the safety process. It was a relatively easy business decision due to the dramatic decrease in workers' compensation claims and cost from the onset of the program. Within the first six months of implementation of the safety process our claims frequency and severity reduced by over 70%.

QUALITY

Because of the tremendous success realized in safety the risk/safety management team expanded our focus to include quality assurance. Significant changes in the insurance market related to construction defect claims created a burden on general contractors particularly performing work in the residential construction market. By becoming well versed in the trends in the insurance market including additional insured status under subcontractor policies and endorsements and exclusions affecting the ability to obtain completed operations coverage, the risk/safety management team performed a detailed analysis of our own construction defect litigation exposure. We looked at our cost of

rework and attorney fees for litigation related to construction work and our claims history. The analysis coupled with the current market trends moved us to reevaluate our quality assurance process and implement changes in that regard.

Our history and success with the software company hired to develop SafetyNet was expanded to include the quality process. Our goal was to determine the core items that need to be addressed that could potentially cause an issue and design a mechanism for reporting that requires the field personnel to inspect and document the issues. The system allows the risk/safety management department to identify trends and focus training efforts to eliminate or reduce exposure. We also utilize the system to measure subcontractor quality performance and determine future and ongoing relationships with various subcontractors.

WELLNESS

By evaluating or ever increasing cost of health insurance with ever diminishing benefits available to our employees the risk/safety management department assessed the following issues affecting the health and safety of our workforce.

- The construction industry has an aging workforce and the number of young people entering the industry is on the decline.
- Overall American worker fitness is on the decline while the physical demands of the job remain constant.
- Our organization's root cause of workers compensation loss specifically related to poor physical conditioning, inattention, lack of planning, or fatigue.
- Our organization's health insurance premium increase resulting from medical conditions related to controllable issues such as obesity that can lead to diabetes, heart disease and other potentially harmful health issues that potentially could be controlled through diet and exercise.

The risk/safety management team recognized the need to intervene in order to promote the health and wellness of all of our employees and empower them to take an active approach to their health and wellbeing which will ultimately reduce insurance costs, promote a safer work environment and improving employee morale and performance. We selected a wellness consultant whose program works with the science of the brain, muscle memory, body chemistry and the hormonal system to create openings that allow for shifts in habitual patterns. Individuals learn the tools necessary to shift habitual patterns—patterns that may have created negative effects in the body such as daily aches and pains, increases in blood pressure and weight and mood swings.

Once again in order to measure the performance our organization integrated the wellness initiative into the SafetyNet system in order to measure participation and identify future trends affecting the full integration of the wellness initiative. A cost benefit analysis showed that for less than a 2% investment related to our current health insurance claims we were likely to realize a minimum of a 15–25 % reduction in future claims.

Topic 2—Details of the design of the technique or process

Our organization's risk/safety management team designed an approach that takes the subjectivity out of the initiatives and replaces it with an objective way to measure our effort toward continuous improvement. We evaluated the areas that needed improvement and designed an evolutionary system to measure the success of our safety, quality and wellness initiatives.

SAFETY

The safety process involved designing a fully managed system with integration of all levels within the organization. Through the design of goal setting, performance measurement and accountability, an effective safety process was created that is one of the best in the industry. Over the past five years our organization has implemented an occupational health management system called the SHARP (Safety and Health Accident Reduction Plan) ([Appendix A](#)) to assure we manage safety with the same conviction and commitment as every other aspect of our business. The plan is created by our safety steering committee—comprised of representatives from executive management, risk/safety team, project managers, superintendents and foreman across all divisions—and approved and signed off by the entire executive management team. The risk/safety team then works throughout the year with our jobsite personnel to assign responsibility and implement all objectives including expectations and involvement, action planning, standards implementation, planning for safe conditions and performance tracking. Everyone within the organization has an assignment and is held accountable to achieve their safety goals.

The risk/safety management department's goal was to design a system of measurable accountability for our partnering subcontractors. Our organization contractually requires all subcontractors to have a documented and visible safety process. Each subcontractor must participate in a kick-off meeting where the safety manager reviews subcontractor requirement that include inspections, competent person designation, job hazard analysis, weekly safety training and a minimum of ten hour OSHA training to be completed by the person responsible for safety on the jobsite. Our organization has established preferred subcontractor relationships as a result of our stringent safety criteria and the results have paid off. We are able to measure the subcontractor's safety performance by utilizing the SafetyNet reports. The project management team receives

a monthly subcontractor scorecard. ([Appendix B](#)) This information is part of an evaluation process to determine awards of future work to the subcontractors. Poor performance will result in the recommendation of an improvement plan or ultimately the inability for subcontractors to perform future work with our organization.

QUALITY

The quality assurance plan was designed by our organization's residential quality focus group with guidance and direction from the quality/safety manager. Our organization is unique in that we do not hire internal quality managers at our specific jobsites. Instead we maintain the philosophy that the superintendent with support from management shall maintain the responsibility to build a quality job that is safe and on time. The system must be efficient and easy to use for the busy superintendent who has many jobsite responsibilities. In order to design the system the first step was to review the areas where we had the most exposure to potential loss. The quality focus group reviewed the main causes of potential loss which consisted of water intrusion, building envelope, balconies, roofs and plumbing issues. The group then went to work on creating a quality checklist that would verify correct installation of process that could potentially cause a loss. The quality list database was created and beta tested by the field. The first list was too detailed so the focus group circled back and came up with a more user friendly list. First and foremost the system must be easy to use and the data must be meaningful and measurable. By narrowing down the checklist to critical mandatory items we were able to create a workable solution. The system is now in place at five projects and an expansion to our commercial divisions is currently underway.

WELLNESS

Realizing the complexity of implementation of an effective wellness initiative, our organization partnered with an expert in the wellness industry to design a well suited plan that would meet the unique challenges of our construction industry. The wellness consultant selected takes a unique approach by addressing the underlying reasons that trigger behavior that results in overeating and other addictive patterns of behavior. Once again the goal was a simple system that required a minimal amount of time each day that would achieve measurable results. The system also provided the team leaders training to improve meetings so individuals hear and live the messages, increase worker productivity with simple, mind-shifting moments, and enhance and improve our successful safety process.

In order to measure performance our organization conducted a company wide employee survey that covered physical health, safety and level of wellness knowledge. In an effort to promote "buy in" at each level within the organization we appointed team leaders in each office and at every jobsite throughout the company. The wellness consultant developed an automated message delivery system that tracks employee

participation and provides feedback reports to the risk/safety management team. Finally, a module in the Safetynet system was also developed for field personnel to track participation in the program.

Topic 3—Details of the implementation of the technique or process

Our organization has achieved tremendous success in the implementation of the risk/safety management initiatives due to its approach. The risk/safety management department is constantly out in the field communicating directly with our workforce who provides feedback on what is working and what may need attention. The risk/safety management department then takes all of this feedback from the field and formulates it into a risk/safety management plan. The vice president of risk management then meets with the executive management team to discuss the issues brought forth and obtains approval to move forward with the initiatives. Management commitment is critical to the success of all of the risk/safety management initiatives and this approach works to create a process of continuous improvement.

SAFETY

The implementation of our risk/safety management process began with safety and has expanded to include other specific target areas that also needed improvement. Several key steps were identified during the implementation of the safety initiative. First and foremost, the risk/safety management team had to move everyone in the company toward action. By implementing the SHARP plan we were creating a cultural shift within the entire company. In order to be able to achieve the goals set forth in the SHARP plan several major changes needed to occur. The SHARP plan required time for all field personnel that they were not used to giving for attendance at safety training, participating at safety steering committee meetings and ultimately taking a proactive approach to safety at their jobsites. On the subcontracted jobs, it required estimating and project managers to consider awarding jobs to subcontractors with better safety processes. It required that our superintendents hold the subcontractors accountable in the field for their own safety processes. It required management to stand firm and support the risk/safety management team when tough calls had to be made in order to support our safety goal. It required the executive management team to spend money on safety initiatives and accept that it was investment in better performance in the future. This was not easy and it did not happen overnight. Our organization went through some difficult times that required many tough decisions. Some subcontractors did not measure up and were not interested in our new approach and at the end of the day they no longer do business with our organization. Some turnover took place with employees who did not support the process. It required, time, money and an unwavering commitment that ultimately has paid off in the long run. Another critical component to the successful implementation of the safety initiative was that the risk/safety department had to become part of the field personnel's team to get the

projects built with safety, quality and schedule in mind. It was the mission to implement a safety system focused on cooperation rather than competition. The risk/safety management team approach required selection of the right safety professionals with the same core values. The vice president of risk management felt very strongly that the safety managers were not the 'safety police' whose sole mission was to enforce OSHA compliance. Instead safety professionals who focused on a team approach to safety and who motivated the field to work hand in hand with the safety management team were selected to achieve the company goals.

Another critical component of the success of the safety initiative is our organization's belief in the value of OSHA partnership opportunities. Our organization has partnered with OSHA for more than five years in our core business locations. By sharing skills, expertise and limited resources, the OSHA partnerships allow our organization's safety process to remain on the cutting edge of safety in the construction industry. The OSHA partnerships are vital to the success of the safety process because it allows our organization to benchmark our safety process with others in the partnership and look for areas that need improvement. Over the years we have found that our experience in partnering with OSHA has:

- maximized worker morale
- continues to help save lives and avoid injuries
- reduces insurance and litigation cost
- offers pride and recognition as a leader in worker safety and health
- builds a cooperative relationship with OSHA

Finally, the implementation of the SafetyNet system to include superintendents on the jobsites performing a minimum of two comprehensive audits per week was one of the biggest challenges facing the risk/safety department. The risk/safety team determined that the best way to obtain accurate data that would track leading indicators was to have participation at the jobsite level by the people who were truly accountable for safety. The implementation occurred step by step working our way across our divisions. We started the project in our home office where many superintendents who had absolutely no computer knowledge whatsoever. We expanded the training across the organization into each division within a two month time frame. We provided two phases of training. The first training was conducted in a group setting with support from the SafetyNet consultant. The second level of training was hands on field support training conducted by our safety managers. The field training allowed the safety managers to perform mirrored inspections with the superintendents in order to compare the data results and develop the superintendents' safety auditing skills. Within two months we completed training across the company and had between thirty and forty superintendents completing inspections each month. The superintendents have embraced the system and we currently average 11,000 safety observations collected each month. This information is critical to the risk/safety management team because we are able to use the data to target our leading indicators and identify potential

hazardous trends company wide that may need attention prior to an injury. The superintendents use the information in the report for weekly subcontractor meetings to discuss safety performance on the jobs. We also use the reports to select quarterly subcontractor safety awards for each project. They subcontractor is rewarded with a certificate and a free lunch for the entire crew based on their safety performance.

QUALITY

While the initial phase of implementation of the safety process was challenging and required persistence, our success in safety paved the way for the natural progression to formalize and improve our quality process. As safety drives potential workers' compensation claims, quality drives general liability completed operations exposures. The implementation of the quality Initiative was a much smoother transition due to the ground work already completed by safety. The field personnel were familiar with how the system worked which allowed us to create a quality focus group who worked with the risk/safety management department and the software consultant to create the QualityNet checklists. We called on the consultant to assist us with the initial training process where all of the residential vice presidents, project managers, superintendents and project engineers were brought into one location for an extensive training session. The consultant and the safety/quality manager developed the user guide ([Appendix C](#)) which served as the outline for the initial training session. Using the same approach that worked well with the SafetyNet launch, the quality/safety manager visited the user's onsite for one-on-one follow up training. In order to ensure accountability and provide an opportunity for the new users to exchange best practices and comment on areas that needed improvement, we established a weekly check in call for all users. On the administrative side, we set up automated reports that were emailed to the users, project managers and division vice president each week so that they could also track user participation and overall quality of the data being submitted. The field personnel determined that the structure for the initial checklist was too detailed so we went back to the drawing board and tapped into the quality focus group again to create a more user friendly checklist. The new checklist is easier to manage and more streamlined which allows for a more efficient way of identifying potential leading indicators. The safety/quality manager is now working with our commercial divisions to develop checklists and we anticipate expanding the system to commercial projects within the next few months.

WELLNESS

The implementation of the "Five Minutes to Power" wellness and health plan has been a great experience for our organization. The first step was to obtain management commitment to the process. While very few construction companies have implemented a wellness initiative it was important for the risk/safety management team to convince executive management of the necessity and potential cost savings provided by the program. The next step was to motivate personnel to participate. The risk/safety

department identified team leaders across the organization to lead the program. We requested volunteers, recruited our field superintendents and worked with our safety steering committee and field safety committee to identify volunteers. We then scheduled five comprehensive training sessions in order to accommodate the approximately one hundred fifty team leaders. The wellness consultant led the "Five Minutes to Power" team leader training program which consisted of eight hours of training covering important topics such as the mechanics and science of a habit, how to break habitual patterns, how to motivate and reach people and how to lead the program. Once the training was completed the team leaders went back to their jobsites armed with the tools necessary to get the program started in their geographical location. The program applies to everyone in the company including office personnel and requires a commitment of five – ten minutes per day. Each morning the team leader receives an email or phone call that provides the exercises and message for the day's lesson. ([Appendix D](#)) The initial feedback is very encouraging. Some of our team leaders have reported success with weight loss, smoking cessation and overall improvement of health. The incident rate for accidents resulting from inattention/mind of task is diminishing. Many of our superintendents are using the "Five Minutes to Power" as part of the tool box meetings with their subcontractors which further enhances jobsite performance. Overall the program has facilitated a team approach and allowed the opportunity for our employees to work together on a common cause each and every day.

Topic 4—Details of the results of the technique or process

SAFETY

Five years ago, our organization made a corporate decision to improve its safety process. We have worked over the years to integrate safety as a core value in the way we manage our construction work in every division of our company. We maintain a steadfast commitment to fostering a total safety culture and the journey has realized more than we ever expected. Our organization has assembled the best qualified, certified, risk management and safety professionals with an accumulation of over fifty years of experience to guide and direct the safety process. Our safety/risk management staff is bilingual which allows for an effective exchange of communication with the field personnel. We take tremendous pride in our accomplishments and realize that we are a better, stronger, more productive company because of our strong commitment to safety.

Using the traditional safety measurement techniques, our organization has achieved one of the lowest EMR's (Experience Modifier Rate) of .44 for 2006 in the construction industry. Our TIR (Total Incident Rate) is approximately 60 % lower than the national average and our (TRIR) Total Lost Time Incident Rate is 78% lower than the national average for similar construction companies across the United States. We are

consistently between 50% and 80% lower than the national average. ([Appendix E](#)). Furthermore, we have worked for the past four years without a receiving any OSHA citations.

When measuring our insurance loss ratio and performance related to workers' compensation, our organization has saved over \$2.5 million in direct cost savings from 2002 – 2006. In regard to workers compensation coverage, our organization in comparison to the construction industry has overall better performance. In 2006 our average net incurred per workers compensation claims was \$8000 lower, medical cost \$4000 lower, lost time expense \$5000 lower, and duration of open claims 220 days lower than the construction industry according to our insurance carrier. ([Appendix F](#)) This is directly related to our commitment to safety performance which reduces our exposure to accidents and our proactive approach to case management which includes a strong emphasis on transitional duty and return to work initiatives.

Our organization prides itself on using a proactive approach to measuring safety performance. Rather than focusing only on industry statistics, the risk/safety management team focuses its attention on leading indicators and other performance measurements to ensure that we are meeting high level safety performance. The following items summarize our internal measurements of safety success.

Training

- For the past five years, our organization has achieved 100% success in the implementation and completion of the SHARP Plan ([Appendix A](#)) and we have established and maintained participation in OSHA partnerships across our core business areas. We currently have approximately twenty five projects participating in OSHA partnerships company wide.
- Our organization requires that all foremen, superintendents, project managers and project engineers complete the OSHA 30 hour class. *Estimate—3000 hours in 2006–2007.*
- Other training initiatives vary from year to year based on leading indicators that point to new training requirements. In 2007 we have trained our employees in fall protection, asbestos awareness, fleet safety, competent person excavation, first aid/CPR and storm water pollution prevention plans. *Estimate—2400 hours.*
- Every new hire must complete a comprehensive new employee orientation program. *Estimate—600 hours.*
- Quality focus group and training initiatives – *Estimated 100 hours.*
- The “Five Minutes to Power” training session trained team leaders in the wellness initiative. *Estimate—1200 hours.*
- AGC Safety Stand Down ([Appendix G](#)) company wide participation and training. *Estimated 300 hours for our organization personnel and approximately 4000 hours of subcontractor training.*

Incentive Program

- In 2007 our organization sponsored approximately fifty job site luncheons for our employees and subcontractors to award them for their safety performance.
- We have awarded over sixty individual employees and subcontractors for individual safety performance.

Leading Indicators

- Utilizing the SafetyNet system our organization is able to measure high areas of safety performance as well as areas that need improvement. Every month the vice president of risk management evaluates the reports to determine if the SHARP plan is addressing our current needs and if there are subcontractors that need further attention or an improvement plan. All of the training initiatives listed on the SHARP plan for 2007 and mentioned above were implemented as a result of our potential exposure identified by our SafetyNet leading indicators. ([Appendix H](#))
- The vice president of risk management compares the claims history with the SafetyNet leading indicators to further determine areas that may need attention. This information is presented to the executive management team and the safety steering committee in order to determine areas of the safety process that may need improvement.

QUALITY

Our quality process has reduced our exposure to potential construction defect claims in the residential division over the last two years. Review of our general liability loss history indicates an 85% reduction in claims over incurred for the last three years. ([Appendix I](#))

Leading Indicators

Through the introduction of QualityNet our organization is able to track potential leading indicators that would potentially lead to future construction defect issues in the following areas pre-construction, pre-pour, pre-roof, pre-wrap, pre-side and stucco, pre-drywall, pre-roof, and pre-building final. The superintendents record compliance within each of these areas as well as noncompliant issues. Once the issues are addressed the noncompliant issues are marked as closed. This process allows the project management team to track the progress of the job by building to ensure that the critical areas of construction that could potentially result in latent defect issues are documented and addressed. ([Appendix J](#)) It also allows the risk/safety management team to look for areas where we consistently need

improvement and implement training initiatives in that regard. The quality process allows the superintendents to track subcontractor quality performance. The risk/safety management team evaluates the issues with subcontractors on certain jobsites or overall performance on each job. All of this information is incorporated into the subcontractor prequalification process.

The implementation of the Quality Process has prepared our organization to consider innovative risk financing techniques such as Subguard and contractor controlled insurance plans which were previously not an option due to the potential long term risk exposures.

WELLNESS

Our organization has implemented four ways to track the performance of our wellness program. First, we track participation in the program by using a report that tracks the automated response to the daily message indicator. We also track superintendent field participation with the SafetyNet program. ([Appendix K](#)) Secondly we track the impact of the initiative with the workers' compensation incident rate and causes of accidents to determine if there is a reduction in the accidents resulting from lack of training, inattention, poor physical condition, or fatigue. Third, we will track the survey results in 2008 in comparison to 2007 to determine if employees overall knowledge and participation in health initiatives has increased. ([Appendix L](#)) Fourth we will be tracking our health insurance claims costs over the next three years to see if there is a reduction in claims related to health concerns resulting from stress and/or obesity that triggers other conditions such as diabetes and heart disease. While the program is very new we have already received positive feedback from our employees. The following quotes sum it up best when measuring that we are on the right track and will continue to work to improve the overall health and well being of our workforce.

"Our team stated they will relax by walking away from an issue for a few minutes and relaxing their minds. Then they will return with an open mind so that they can solve the problem." Project Superintendent, Thursday, June 28, 2007

"I find the breathing techniques very important. Our group gives the presentation in the morning and our afternoon session is 'Imprinting' the message. This is also the session we include the different stretch exercises previously introduced." Administrative Assistant, Friday, July 6, 2007

"Yes. We talked about how there are not stupid questions and everyone needing to commit to answering questions from others without belittling or harsh judgment." Project Manager, Monday, June 25, 2007

"Great session this morning; we received positive remarks. In fact, a handful of employees asked if we could stretch this afternoon! Of course, we said yes and actually very grateful as we want to practice these sessions twice a day. Thank you for a great program, hopefully there will be more training sessions for the team leaders. Educate, educate, educate and then Educate." Administrative Assistant, June 11, 2007